

## **Appendix A**

### **Water quality data for WY 1998-2000**



Data remark codes used during wateryears 1998-2000:

Remark Code	Definition
J	Estimated value; compound was positively identified, but numerical result is an estimate.
U or K	Compound was analyzed for but not detected at or above the report value. The number reported is reporting limit.
S	High background of non-coliform growth: motile, spreading colony which may overlap and mask <i>E. coli</i> colonies.
X	High background of non-coliform growth: non-motile, discrete colonies that may overlap and mask <i>E. coli</i> colonies.



## ADM001, Admiralty Inlet - Bush Pt.

Lat (decimal): 48.030

Long (decimal): -122.617

*October 1997 - September 1998*

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3_NO2-N DISS (mg/L)	NH4_NH3-N DISS (mg/L)	ORTHO PO4-P DISS (mg/L)
10/27/1997	1230	10.0	11.68	29.05	22.03			6.9	77		74.7	3.70	0.50	0.262		0.070
10/27/1997	1230	30.0	11.54	29.21	22.18			6.5	72		75.2			0.338		0.086
10/27/1997	1230	0.5	11.82	28.67	21.71		1	6.1	68	9.4	72.0	4.10	0.38	0.308	0.015	0.086
12/29/1997	1130	1.5	9.62	29.18	22.47		1 U	7.8	83	9.4	77.4					
12/29/1997	1130	10.0	9.54	29.31	22.58			7.7	81		77.0					
12/29/1997	1130	30.0	9.42	29.53	22.78			7.7	82		75.0					
2/24/1998	1211	0.5	8.93	28.96	22.41		1 U	7.7	81	9.0	75.4	0.64	0.30	0.535	0.010 U	0.107
2/24/1998	1211	10.0	8.92	29.01	22.45			7.7	81		75.4					
2/24/1998	1211	30.0	8.93	29.02	22.45			7.7	80		75.6					
3/17/1998	1145	0.5	9.35	28.07	21.65		1 U	9.3	98	10.6	75.0	2.60	0.34	0.326	0.010 U	0.078
3/17/1998	1145	10.0	9.32	28.61	22.07			9.0	95		77.1	1.90	0.58	0.306	0.010 U	0.073
3/17/1998	1145	30.0	9.36	29.08	22.43			8.9	94		76.9			0.288	0.010 U	0.070
4/13/1998	1230	30.0	9.63	28.99	22.32			9.3	99		76.3			0.223	0.012	0.124
4/13/1998	1230	0.5	9.66	28.92	22.26		1 U	9.4	100	9.1	76.0	4.60	0.98	0.232	0.010 U	0.123
4/13/1998	1230	10.0	9.62	28.97	22.31			9.3	99		76.3	3.20	0.89	0.225	0.010 U	0.119
5/19/1998	1116	10.0	10.68	28.80	22.01			9.4	102		75.2	4.50	0.85	0.174	0.015	0.091
5/19/1998	1116	22.0	10.56	28.90	22.10			9.3	101		76.0			0.183	0.018	0.107
5/19/1998	1116	0.5	10.83	28.68	21.89		1 U	9.5	103	7.9	74.9	9.00	0.63	0.196	0.018	0.102
6/30/1998	1419	0.5	13.47	27.88	20.80	8.0		9.5	109	6.5	65.1	6.80	0.66	0.097	0.010 U	0.119
6/30/1998	1419	10.0	12.11	29.11	22.00	7.9		8.2	92		75.4	1.70	0.78	0.196	0.013	0.142
6/30/1998	1419	30.0	11.30	29.83	22.70	7.8		7.3	81		78.3			0.216	0.010 U	0.142
7/27/1998	1141	0.5	12.87	29.50	22.16	7.9	1 U	8.5	97	6.9	68.5	8.00	2.10	0.165	0.010 U	0.120
7/27/1998	1141	10.0	12.72	29.63	22.29	7.8		8.4	96		70.1	5.90	1.70	0.158	0.010 U	0.123
7/27/1998	1141	30.0	12.55	29.72	22.39	7.8		8.1	92		71.9			0.164	0.010 U	0.109
8/24/1998	1413	0.5	13.26	29.97	22.45	7.8	1 U	6.9	80	7.5	74.2	2.40	1.00	0.195	0.010 U	0.184
8/24/1998	1413	10.0	13.32	29.83	22.33	7.8		7.1	82		74.5	2.60	1.10	0.135	0.010 U	0.123
8/24/1998	1413	30.0	13.02	30.03	22.54	7.8		7.0	81		74.9			0.182	0.010 U	0.156
9/22/1998	1209	30.0	12.64	30.50	22.98	8.0		6.2	71		78.3			0.246	0.010 U	0.249
9/22/1998	1209	0.5	12.93	30.36	22.81	8.0	1 U	6.4	74	9.2	78.1	2.30	0.80	0.217	0.010 U	0.202
9/22/1998	1209	10.0	12.85	30.38	22.85	8.0		6.3	73		78.2	2.20	1.40	0.222	0.010 U	0.233

ADM001, Admiralty Inlet - Bush Pt.

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October 1998 - January 1999

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3_NO2-N DISS (mg/L)	NH4_NH3-N DISS (mg/L)	ORTHO PO4-P DISS (mg/L)
10/19/1998	1143	0.5	11.80	30.63	23.23	7.6	1 U	5.7	64	9.0	79.7	1.30	0.26	0.230	0.010 U	0.073 J
10/19/1998	1143	10.0	11.79	30.62	23.22	7.6		6.3	71		79.9	1.10	0.36	0.170	0.010 U	0.072 J
10/19/1998	1143	30.0	11.86	30.57	23.17	7.6		6.3	71		79.8			0.203	0.010 U	0.074 J
1/5/1999	1051	0.5	8.63	28.81	22.33	7.7	1 U	7.7	80	6.0	72.2					
1/5/1999	1051	10.0	8.60	29.01	22.49	7.7		7.7	80		71.2					
1/5/1999	1051	30.0	8.60	29.07	22.53	7.7		7.7	80		70.8					

## ADM001, Admiralty Inlet - Bush Pt.

Lat (decimal): 48.030

Long (decimal): -122.617

## February 1999 - December 1999

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3 DISS (uM)	NH4 DISS (uM)	ORTHO PO4 DISS (uM)	Si(OH)4 DISS (uM)
3/18/1999	1115	0.5	8.13	28.35	22.04	7.6	1 U	9.5	97	8.7	80.2	1.10	0.34	24.94	0.34	2.09	58.78
3/18/1999	1115	10.0	8.10	28.54	22.20	7.6		9.4	96		79.0	0.90	0.40	24.62	0.32	2.07	56.98
3/18/1999	1115	30.0	8.10	28.65	22.28	7.6		9.4	96		78.3			24.49	0.32	2.06	56.49
4/13/1999	1110	0.5	8.59	27.93	21.64	7.5	1 U	10.6	109	8.5	78.0	5.10	0.49	17.56	0.45	1.57	42.54
4/13/1999	1110	10.0	8.50	28.13	21.81	7.5		10.4	107		78.6	4.20	1.30	18.65	0.62	1.66	43.43
4/13/1999	1110	30.0	8.48	28.25	21.91	7.6		10.3	106		78.7			19.36	0.80	1.72	43.91
5/11/1999	1052	0.5	9.89	27.01	20.74	7.8	1 U	10.9	115	7.7	75.7	4.60	1.20	12.95	1.05	1.36	35.31
5/11/1999	1052	10.0	9.26	28.64	22.10	7.8		9.6	101		78.4	6.40	1.40	12.95	1.07	1.38	34.49
5/11/1999	1052	25.0	9.09	29.01	22.42	7.7		9.2	96		79.5			12.95	1.48	1.54	36.94
6/7/1999	1119	0.5	10.93	27.24	20.75	7.9	1 U	6.6	72	9.6	77.2	4.10	0.32	9.08	2.39	1.14	31.66
6/7/1999	1119	10.0	10.58	27.48	21.00	7.8		6.0	65		80.3	1.90	1.00	12.50	2.75	1.43	35.13
6/7/1999	1119	30.0	9.85	27.56	21.17	7.8		5.8	62		80.7			12.52	2.61	1.44	35.10
7/8/1999	1121	0.5	11.03	28.76	21.92	6.9	1 U	8.0	87	8.0	76.7	7.07	0.61	14.51	1.72	1.53	37.73
7/8/1999	1121	10.0	10.41	29.42	22.53	6.9		7.1	77		78.8	16.70	3.23	15.83	1.81	1.60	38.46
7/8/1999	1121	30.0	10.07	29.87	22.94	6.8		6.6	71		79.4			18.09	2.14	1.79	41.15
8/9/1999	1140	0.5	11.44	29.48	22.40	7.3	1 U	7.2	80	9.2	76.0	3.11	2.39	14.94	1.73	1.73	34.00
8/9/1999	1140	10.0	11.47	29.45	22.38	7.3		7.2	79		76.0	2.08	2.80	15.44	1.72	1.75	35.63
8/9/1999	1140	30.0	11.12	29.78	22.69	7.3		6.8	75		75.7			15.51	1.72	1.75	35.30
9/13/1999	1203	0.5	11.83	29.76	22.55	7.3	1 U	7.2	81		69.4						
9/13/1999	1203	10.0	11.61	29.91	22.71	7.3		6.8	76		70.6						
9/13/1999	1203	30.0	11.59	29.92	22.72	7.3		6.8	76		70.2						
10/18/1999	1109	1.0	11.05	29.74	22.67		1 U	7.3	80	9.0	77.6	1.39	0.29	18.22	0.88	1.96	44.75
10/18/1999	1109	10.0	11.04	29.75	22.68			7.2	79		77.4	1.36	0.20	18.44	0.93	2.00	44.25
10/18/1999	1109	30.0	10.80	30.04	22.95			6.8	75		78.1			23.63	1.08	2.21	48.88
11/23/1999	1246	0.5	9.52	29.95	23.09			7.0	75	7.0	74.1						
11/23/1999	1246	10.0	9.50	29.97	23.11			7.0	74		74.1						
11/23/1999	1246	30.0	9.49	30.00	23.13			6.9	74		73.9			25.82	0.00	2.25	57.16

## ADM001, Admiralty Inlet - Bush Pt.

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## January 2000 - December 2000

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3 DISS (uM)	NH4 DISS (uM)	ORTHO PO4 DISS (uM)	Si(OH)4 DISS (uM)
1/19/2000	1114	0.5	8.14	29.13	22.64		1 U	8.2	84	7.5	75.6						
1/19/2000	1114	10.0	8.14	29.15	22.66			8.2	84		75.4						
1/19/2000	1114	30.0	8.14	29.15	22.66			8.2	84		75.2			28.02	0.00	2.37	64.78
2/9/2000	1148	0.5	8.16	29.22	22.72			8.6	89	7.5	73.8	0.66	0.37	28.48	0.00	2.33	67.24
2/9/2000	1148	10.0	8.14	29.25	22.74			8.6	88		73.8	0.65	0.38	28.63	0.00	2.33	67.09
2/9/2000	1148	30.0	8.12	29.27	22.76			8.5	87		73.7			28.73	0.00	2.33	65.97
3/21/2000	1141	0.5	8.18	28.86	22.43	7.8	1 U	8.9	92	8.0	78.0	4.49	0.90	22.87	0.58	1.94	51.23
3/21/2000	1141	10.0	8.17	29.02	22.56	7.8		8.8	91		77.5	4.49	1.05	22.81	0.61	1.97	50.48
3/21/2000	1141	30.0	8.16	29.12	22.64	7.8		8.7	89		77.5			22.86	0.61	1.87	50.55
4/11/2000	1125	0.5	8.83	29.38	22.74	7.9	1 U	8.8	92	7.0	75.4	9.80	0.83	17.14	0.91	1.57	41.58
4/11/2000	1125	10.0	8.70	29.39	22.78	7.9		9.1	95		75.6	8.16	1.27	18.28	1.06	1.64	41.57
4/11/2000	1125	30.0	8.65	29.44	22.82	7.9		8.9	92		75.8			20.64	1.09	1.79	42.47
5/2/2000	1146	0.5	9.42	28.74	22.16	7.8	1 U	9.0	95	8.0	80.8						
5/2/2000	1146	10.0	9.31	29.02	22.39	7.8		8.8	93		80.4						
5/2/2000	1146	30.0	9.19	29.49	22.78	7.9		8.4	89		79.5						
6/13/2000	1148	0.5	10.44	29.27	22.41	7.9	1 U	8.3	90	10.0	77.2			15.91	2.01	1.68	33.68
6/13/2000	1148	10.0	10.43	29.30	22.44	7.9		8.3	90		77.3	2.44	1.35	16.35	1.98	1.67	33.84
6/13/2000	1148	26.0	10.45	29.26	22.41	7.9		8.3	90		77.2			16.79	1.98	1.72	35.02
7/19/2000	1212	0.5	12.05	29.42	22.25	7.6	1 U	7.9	89	7.0	67.2	6.39	1.39	13.79	0.65	1.50	28.51
7/19/2000	1212	10.0	11.68	29.63	22.48	7.6		7.6	85		70.0	6.67	1.27	14.71	0.75	1.57	29.62
7/19/2000	1212	30.0	11.29	29.93	22.78	7.5		7.2	80		72.6			16.56	1.02	1.69	32.50
8/15/2000	1052	0.5	13.10	28.92	21.67	7.9	1 U	7.8	90	5.3	67.7	9.66	1.27	13.34	0.43	1.82	32.69
8/15/2000	1052	10.0	12.63	29.35	22.09	7.8		7.4	84		70.8	5.17	1.27	17.70	0.87	1.72	36.89
8/15/2000	1052	30.0	11.88	30.05	22.77	7.7		6.4	72		76.6			18.93	1.04	1.82	38.58
9/13/2000	1134	0.5	12.75	29.41	22.12	8.0	1 U	7.4	85	8.0	73.9	6.94	1.59	9.99	0.47	1.30	28.24
9/13/2000	1134	10.0	12.11	30.09	22.76	7.9		6.5	73		77.0	4.63	1.21	16.88	0.96	1.83	37.99
9/13/2000	1134	30.0	11.73	30.43	23.09	7.8		6.0	68		77.8			19.90	1.28	2.05	41.89
10/4/2000	1134	0.5	11.16	30.73	23.42	7.9	1 U	5.7	64	9.0	79.3	1.06	0.48	20.46	1.36	2.15	46.09
10/4/2000	1134	10.0	10.95	30.89	23.59	7.9		5.6	62		78.9	0.77	0.44	20.76	1.36	2.16	47.77
10/4/2000	1134	30.0	10.98	30.87	23.57	7.9		5.6	62		79.1			21.42	1.34	2.13	46.96
11/14/2000	1134	0.5	10.40	30.48	23.36	8.0	1 U	5.9	64	10.5	79.7	1.34	0.59	23.95	0.24	2.36	52.60
11/14/2000	1134	10.0	10.23	30.59	23.47	8.0		5.8	63		79.2	0.99	0.85	24.57	0.25	2.39	53.60
11/14/2000	1134	30.0	10.07	30.68	23.57	8.0		5.7	62		78.8			24.67	0.25	2.39	54.04
12/11/2000	1145	0.5	9.05	30.80	23.82	7.9	1 U	6.1	64	8.5	76.7	0.48	0.47	26.47	0.13	2.42	56.99
12/11/2000	1145	10.0	9.19	30.71	23.73	7.9		6.1	65		77.0	0.63	0.59	26.47	0.12	2.43	57.10
12/11/2000	1145	30.0	9.19	30.71	23.73	7.9		6.2	66		77.0						



## October 1997 - September 1998

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3_NO2-N DISS (mg/L)	NH4_NH3-N DISS (mg/L)	ORTHO PO4-P DISS (mg/L)
10/27/1997	1125	10.0	10.69	30.30	23.17			6.3	69		74.7	1.20	0.21	0.288	0.017	0.064
10/27/1997	1125	30.0	10.06	31.36	24.10			5.4	58		74.8			0.318	0.021	0.076
10/27/1997	1125	0.5	10.79	30.21	23.08		1 U	5.5	61	9.9	74.8	1.30	0.21	0.282	0.012	0.069
11/26/1997	1031	0.5	9.79	30.26	23.28			6.9	74	9.7	75.7	0.57	0.23	0.370	0.010 U	0.141
11/26/1997	1031	10.0	9.76	30.41	23.41			6.7	72		75.3	0.46	0.29	0.380	0.010 U	0.144
11/26/1997	1031	30.0	9.56	30.92	23.83			6.5	70		76.8			0.281	0.010 U	0.126
12/29/1997	1028	0.5	9.21	30.06	23.22		1 U	7.1	75	7.2	71.6					
12/29/1997	1028	10.0	9.21	30.07	23.23			7.2	76		71.7					
12/29/1997	1028	30.0	9.24	30.28	23.39			7.4	78		72.4					
2/24/1998	1133	0.5	9.16	29.88	23.08		1 U				74.6	0.71	0.32	0.441	0.010 U	0.096
2/24/1998	1133	10.0	9.28	30.23	23.35						73.7					
2/24/1998	1133	30.0	9.40	30.46	23.50						73.6					
3/17/1998	1024	30.0	9.67	30.59	23.56			8.6	93		74.5			0.213	0.010 U	0.059
3/17/1998	1024	10.0	9.49	30.04	23.17			8.9	95		74.8	0.62	0.43	0.326	0.010 U	0.082
3/17/1998	1024	0.5	9.54	29.68	22.87		1 U	9.0	96	9.5	75.8	0.67	0.29	0.242	0.010 U	0.066
4/13/1998	1044	0.5	9.36	30.51	23.55		1 U	8.3	88	9.0	77.4	1.00	0.61	0.208	0.010 U	0.106
4/13/1998	1044	10.0	9.35	30.51	23.56			8.4	89		77.5	1.00	0.67	0.152	0.011	0.077
4/13/1998	1044	30.0	9.32	30.61	23.63			8.3	89		76.6			0.248	0.010 U	0.119
7/27/1998	1029	0.5	10.92	30.78	23.51	7.6	1 U	6.3	69	10.7	39.3	3.20	0.87	0.176	0.010 U	0.083
7/27/1998	1029	10.0	10.78	30.91	23.63	7.6		6.2	69		41.6	1.90	1.10	0.184	0.010 U	0.089
7/27/1998	1029	30.0	10.61	31.13	23.83	7.6		6.0	66		44.3			0.216	0.010 U	0.094
8/24/1998	1301	0.5	11.39	31.09	23.67	7.7	1 U	5.9	66	8.7	75.4	1.50	1.30	0.244	0.010 U	0.173
8/24/1998	1301	10.0	11.32	31.09	23.68	7.7		5.8	65		75.2	1.90	1.60	0.246	0.010 U	0.179
8/24/1998	1301	30.0	10.96	31.35	23.94	7.7		5.6	62		75.0			0.215	0.010 U	0.155
9/22/1998	1044	30.0	10.37	31.90	24.47	7.7		4.9	54		78.2			0.295	0.010 U	0.210
9/22/1998	1044	0.5	11.31	31.26	23.81	7.6	1 U	5.6	62	10.1	78.8	1.40	0.36	0.284	0.010 U	0.243
9/22/1998	1044	10.0	10.93	31.52	24.08	7.6		5.3	59		78.2	1.60	0.69	0.250	0.010 U	0.196

ADM002, Admiralty Inlet (north) - Quimper Pn.

Lat (decimal): 48.188

Long (decimal): -122.842

October 1998 - January 1999

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3_NO2-N DISS (mg/L)	NH4_NH3-N DISS (mg/L)	ORTHO PO4-P DISS (mg/L)
10/19/1998	1105	0.5	10.64	31.39	24.02	7.3	1 U	5.4	60	10.3	79.2	0.73	0.46	0.265	0.010	0.069 J
10/19/1998	1105	10.0	10.61	31.40	24.04	7.4		6.0	66		79.0	0.69	0.48	0.211	0.018	0.070 J
10/19/1998	1105	30.0	10.50	31.50	24.14	7.4		5.8	64		79.1			0.200	0.010 U	0.070 J
1/5/1999	1022	0.5	8.36	29.88	23.21	7.6	1 U	7.9	82	6.2	70.6					
1/5/1999	1022	10.0	8.38	29.97	23.27	7.6		7.8	81		68.9					
1/5/1999	1022	30.0	8.33	30.23	23.48	7.6		7.6	79		69.1					

## ADM002, Admiralty Inlet (north) - Quimper Pn.

Lat (decimal): 48.188

Long (decimal): -122.842

## February 1999 - December 1999

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3 DISS (uM)	NH4 DISS (uM)	ORTHO PO4 DISS (uM)	Si(OH)4 DISS (uM)
3/18/1999	1032	0.5	8.01	29.67	23.09	7.4	1 U	9.7	100	6.1	75.0	0.95	0.56	22.62	0.36	1.91	49.77
3/18/1999	1032	10.0	8.02	29.68	23.09	7.5		9.7	99		74.9	0.70	0.50	22.14	0.28	1.90	49.46
3/18/1999	1032	30.0	8.02	29.70	23.11	7.5		9.6	99		74.7			22.01	0.30	1.88	48.50
5/11/1999	1011	0.5	8.87	30.43	23.56	7.5	1 U	8.4	88	9.1	79.4	3.70	0.80	16.81	1.13	1.64	36.96
5/11/1999	1011	10.0	8.63	30.63	23.76	7.5		7.7	81		79.2	2.70	1.00	18.14	1.24	1.75	38.32
5/11/1999	1011	30.0	8.42	31.02	24.09	7.5		7.1	75		78.8			20.13	1.19	1.85	39.68
6/7/1999	1023	0.5	9.63	29.80	22.95	7.4	1 U	9.0	96	7.8	76.1	4.70	0.63	16.81	1.01	1.64	37.32
6/7/1999	1023	10.0	9.43	30.08	23.21	7.4		8.4	89		77.1	2.10	1.40	17.30	1.39	1.67	39.32
6/7/1999	1023	30.0	8.86	30.93	23.96	7.5		7.1	75		77.6			19.45	1.29	1.77	41.78
7/8/1999	1035	0.5	10.14	29.93	22.97	6.9	1 U	7.0	75	9.0	62.3	5.19	0.52	19.29	1.49	1.82	41.17
7/8/1999	1035	10.0	9.26	31.03	23.97	6.8		5.6	60		75.8	7.43	0.74	19.61	1.44	1.83	41.62
7/8/1999	1035	30.0	8.76	31.63	24.52	6.7		5.0	53		76.8			23.97	1.17	2.10	48.51
8/9/1999	1045	0.5	10.30	30.76	23.60	7.2	1 U	6.3	68	10.0	71.8	4.06	2.17	18.98	1.54	1.90	42.05
8/9/1999	1045	10.0	10.23	30.75	23.60	7.2		6.2	68		71.4	3.11	3.22	20.64	1.35	2.00	43.81
8/9/1999	1045	30.0	9.98	30.93	23.78	7.2		5.9	64		71.0			22.47	1.18	2.10	45.15
9/13/1999	1114	0.5	10.65	30.63	23.44	7.0	1 U	5.8	64	10.1	64.7	3.02	0.82	21.49	0.90	2.00	45.11
9/13/1999	1114	10.0	10.57	30.65	23.47	7.1		5.7	62		65.2	3.11	1.25	21.87	0.81	2.02	45.07
9/13/1999	1114	30.0	10.36	30.82	23.63	7.1		5.3	58		67.5			21.94	0.83	2.03	45.54
10/18/1999	1025	0.5	10.63	30.31	23.19		1 U	7.1	78	10.0	79.1	1.16	0.39	23.78	1.03	2.23	50.13
10/18/1999	1025	10.0	9.67	31.33	24.14			5.6	61		80.0	1.08	0.66	25.58	0.77	2.28	50.57
10/18/1999	1025	30.0	8.82	32.21	24.96			4.6	49		80.1			25.81	0.73	2.29	51.49

## ADM002, Admiralty Inlet (north) - Quimper Pn.

Lat (decimal): 48.188

Long (decimal): -122.842

## January 2000 - December 2000

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3 DISS (uM)	NH4 DISS (uM)	ORTHO PO4 DISS (uM)	Si(OH)4 DISS (uM)
1/19/2000	1043	0.5	7.75	30.15	23.50		1 U	8.1	83	7.0	73.5						
1/19/2000	1043	10.0	7.76	30.21	23.55			8.0	82		73.2						
1/19/2000	1043	30.0	7.74	30.44	23.73			7.9	81		74.7						
2/9/2000	1055	0.5	7.86	29.96	23.34			8.4	87	6.5	72.5	0.50	0.35	27.48	0.00	2.24	62.42
2/9/2000	1055	10.0	7.79	30.26	23.58			8.3	85		72.0	0.46	0.36	27.63	0.00	2.24	61.30
2/9/2000	1055	30.0	7.76	30.45	23.73			8.0	83		71.3			27.54	0.00	2.24	60.37
3/21/2000	1055	0.5	8.08	30.29	23.56	7.6	1 U	7.8	81	7.0	75.6	0.88	1.01	22.16	0.46	1.99	48.74
3/21/2000	1055	10.0	8.07	30.30	23.57	7.7		7.7	80		75.6	1.00	1.01	23.37	0.46	1.99	48.63
3/21/2000	1055	30.0	8.07	30.30	23.57	7.8		8.0	83		75.1			23.42	0.47	1.78	48.52
4/11/2000	1045	0.5	8.56	30.20	23.43	7.8	1 U	8.1	84	8.0	76.6	1.35	0.37	20.55	0.92	1.80	43.53
4/11/2000	1045	10.0	8.45	30.41	23.61	7.8		8.0	83		76.5	2.83	0.86	21.25	0.92	1.84	43.61
4/11/2000	1045	30.0	8.23	31.16	24.23	7.8		7.2	75		78.1			22.68	0.87	1.91	44.32
5/2/2000	1051	0.5	9.01	30.68	23.74	7.7	1 U	7.9	83	10.0	75.7	1.31	0.99	19.36	1.78	1.83	41.19
5/2/2000	1051	10.0	8.90	30.83	23.87	7.8		7.7	81		75.7	1.48	1.35	19.42	1.89	1.84	42.64
5/2/2000	1051	30.0	8.85	30.91	23.94	7.8		7.5	80		75.4			19.43	1.73	1.82	40.17
6/13/2000	1102	0.5	9.61	30.78	23.72	7.7	1 U	6.8	73	8.4	73.9	2.53	0.97	20.42	1.31	1.89	39.54
6/13/2000	1102	10.0	9.38	31.05	23.97	7.7		6.6	71		73.3	2.00	1.40	21.44	1.23	1.93	39.79
6/13/2000	1102	30.0	8.98	31.51	24.39	7.7		6.0	63		72.9			22.83	1.20	2.01	41.49
7/19/2000	1125	0.5	10.27	30.93	23.73	7.4	1 U	6.3	69	7.0	69.2	3.18	2.28	21.40	1.17	1.95	40.78
7/19/2000	1125	10.0	10.26	30.93	23.74	7.4		6.2	68		69.3	2.92	2.40	21.45	1.16	1.96	39.64
7/19/2000	1125	30.0	10.12	31.05	23.85	7.4		6.0	66		68.4			21.89	1.15	1.97	39.82
9/13/2000	1046	0.5	10.64	31.30	23.96	7.8	1 U	5.5	61	8.7	75.6	2.61	1.27	22.76	1.20	2.17	44.25
9/13/2000	1046	10.0	10.62	31.31	23.97	7.8		5.4	60		75.5	2.09	0.83	22.69	1.18	2.17	44.37
9/13/2000	1046	30.0	10.62	31.31	23.97	7.8		5.5	60		75.8			23.08	1.17	2.17	44.35
10/4/2000	1048	0.5	10.13	31.55	24.24	7.9	1 U	5.3	58	11.0	80.2	1.62	0.50	22.21	1.22	2.16	46.32
10/4/2000	1048	10.0	10.01	31.63	24.32	7.9		5.2	56		80.1	1.15	0.44	22.81	1.18	2.17	47.74
10/4/2000	1048	30.0	9.57	31.96	24.65	7.8		4.7	51		80.3			25.07	0.97	2.26	48.08
11/14/2000	1049	0.5	9.20	31.04	23.98	7.9	1 U	5.5	59	8.0	75.4	0.62	0.36	25.98	0.30	2.36	55.19
11/14/2000	1049	10.0	9.27	31.20	24.10	7.9		5.5	58		75.5	0.57	0.46	26.06	0.27	2.39	62.92
11/14/2000	1049	30.0	9.17	31.52	24.37	7.9		5.1	54		75.9			26.61	0.20	2.41	55.03
12/11/2000	1109	0.5	8.69	31.00	24.04	7.9	1 U	6.2	65	7.0	75.0	0.56	0.42	26.46	0.13	2.40	57.27
12/11/2000	1109	10.0	8.63	31.23	24.22	7.9		6.0	63		72.5	0.40	0.67	26.98	0.12	2.33	57.08
12/11/2000	1109	30.0	8.58	31.29	24.28	7.9		6.0	63		72.2						

## ADM003, Admiralty Inlet (south)

Lat (decimal): 47.879

Long (decimal): -122.482

*October 1997 - September 1998*

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3_NO2-N DISS (mg/L)	NH4_NH3-N DISS (mg/L)	ORTHO PO4-P DISS (mg/L)
2/24/1998	1244	10.0	8.87	28.46	22.02			7.5	79		75.4					
2/24/1998	1244	30.0	8.94	28.77	22.25			7.3	77		75.9					
2/24/1998	1244	0.5	8.83	26.92	20.82		1 U	7.9	81	6.7	72.6					
3/17/1998	1232	0.5	9.46	26.70	20.56		1 U	9.6	100	11.4	77.5	3.10	0.53	0.284	0.010 U	0.073
3/17/1998	1232	10.0	9.17	27.88	21.52			9.0	94		76.8	2.30	0.46	0.291	0.010 U	0.070
3/17/1998	1232	30.0	9.08	28.75	22.21			8.5	89		78.0			0.413	0.010 U	0.092
4/13/1998	1326	0.5	9.90	28.30	21.74		1 U	11.0	117	5.7	67.7	10.10	0.20	0.132	0.010 U	0.083
4/13/1998	1326	10.0	9.47	28.76	22.17			8.8	93		79.6					
4/13/1998	1326	30.0	9.41	28.91	22.29			8.5	89		80.3					
6/30/1998	1513	30.0	11.68	29.23	22.17	7.8		7.8	87		80.5			0.214	0.017	0.145
6/30/1998	1513	10.0	11.89	29.14	22.06	7.9		8.2	91		81.4	2.30	0.93	0.158	0.010 U	0.127
6/30/1998	1513	0.5	13.27	28.20	21.08	8.1		8.8	101	5.5	70.5	11.50	1.00	0.031	0.010 U	0.111
7/27/1998	1225	0.5	15.58	28.11	20.55	8.2	1 U	12.2	147	3.3	49.3	10.00	0.82	0.029	0.010 U	0.077
7/27/1998	1225	10.0	13.45	29.40	21.97	8.0		9.4	109		73.2	8.80	1.80	0.092	0.010 U	0.111
7/27/1998	1225	30.0	12.42	29.75	22.44	7.8		7.6	86		76.9			0.133	0.010 U	0.114
8/24/1998	1501	0.5	12.99	29.93	22.47	7.8	1 U	6.4	73	11.3	79.7	10.00	0.58	0.032	0.010 U	0.130
8/24/1998	1501	10.0	12.67	30.16	22.71	7.8		6.2	72		78.0	0.44	0.65	0.206	0.010 U	0.206
8/24/1998	1501	26.5	12.58	30.27	22.81	7.8		6.4	73		77.8			0.191	0.010 U	0.165
9/22/1998	1248	30.0	12.98	30.36	22.81	8.1		5.8	67		79.7			0.257	0.010 U	0.243
9/22/1998	1248	0.5	13.86	29.43	21.91	8.2	1 U	8.0	94	6.3	67.9	8.30	1.70	0.104	0.010 U	0.159
9/22/1998	1248	10.0	13.57	30.12	22.51	8.2		6.4	74		78.5	2.20	0.60	0.232	0.010 U	0.239

## ADM003, Admiralty Inlet (south)

Lat (decimal): 47.879

Long (decimal): -122.482

*October 1998 - January 1999*

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3_NO2-N DISS (mg/L)	NH4_NH3-N DISS (mg/L)	ORTHO PO4-P DISS (mg/L)
1/5/1999	1137	0.5	8.65	27.77	21.51	7.7	1 U	7.8	81	6.7	73.5					
1/5/1999	1137	10.0	8.87	28.59	22.12	7.7		7.6	79		73.9					
1/5/1999	1137	30.0	9.02	28.98	22.41	7.7		7.4	78		73.5					

## ADM003, Admiralty Inlet (south)

Lat (decimal): 47.879

Long (decimal): -122.482

## February 1999 - December 1999

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3 DISS (uM)	NH4 DISS (uM)	ORTHO PO4 DISS (uM)	Si(OH)4 DISS (uM)
3/18/1999	1153	0.5	8.10	27.02	21.00	7.6	1 U	9.6	98	7.4	79.0	1.70	0.47	26.35	0.38	2.05	67.41
3/18/1999	1153	10.0	8.12	28.29	21.99	7.6		9.2	95		81.2	0.94	0.42	25.98	0.28	2.15	61.53
3/18/1999	1153	30.0	8.12	28.41	22.09	7.6		9.2	94		81.1			25.64	0.26	2.14	58.53
4/13/1999	1151	0.5	8.64	26.60	20.60	7.8	1 U	11.1	113	7.6	73.5	7.20	1.10	12.38	0.34	1.20	34.39
4/13/1999	1151	10.0	8.38	28.32	21.98	7.7		9.4	97		82.8	2.30	0.74	22.00	0.64	1.90	49.72
4/13/1999	1151	30.0	8.30	28.63	22.24	7.6		9.0	92		83.0			25.60	0.57	2.10	53.96
5/11/1999	1127	0.5	10.37	24.84	18.98	8.0	1 U	11.4	120	6.0	76.8	5.40	0.20	0.70	0.24	0.54	41.30
5/11/1999	1127	10.0	9.35	28.45	21.94	7.9		11.1	117		66.5	9.20	1.60	7.09	0.53	1.08	29.30
5/11/1999	1127	30.0	8.95	28.94	22.38	7.7		9.0	94		82.0			13.85	2.46	1.72	36.93
6/7/1999	1207	0.5	11.21	27.76	21.11	7.9	1 U	10.3	112	11.2	81.3	3.30	0.34	9.14	3.04	1.22	31.43
6/7/1999	1207	10.0	10.49	28.50	21.80	7.8		9.9	107		81.5	2.00	0.54	10.79	3.21	1.36	33.54
6/7/1999	1207	30.0	10.27	28.59	21.91	7.8		9.4	101		80.9			12.52	3.12	1.47	35.31
7/8/1999	1201	0.5	13.20	25.83	19.27	7.4	1 U	9.5	107	5.7	66.0	15.56	0.62	0.29	0.14	0.66	32.26
7/8/1999	1201	10.0	11.53	28.01	21.25	7.1		8.3	92		75.3	8.77	0.88	13.39	1.98	1.49	36.81
7/8/1999	1201	30.0	10.39	29.30	22.44	6.9		7.1	77		78.9			15.69	2.33	1.66	39.77
8/9/1999	1223	0.5	14.26	27.37	20.25	7.8	1 U	9.5	110	7.7	68.0	10.05	1.66	2.83	0.40	0.84	14.81
8/9/1999	1223	10.0	12.25	29.12	21.98	7.6		7.6	86		79.8	8.87	3.16	8.27	0.78	1.28	22.55
8/9/1999	1223	30.0	11.39	29.40	22.35	7.3		6.9	77		79.8			8.53	0.82	1.30	23.21
9/13/1999	1237	0.5	13.58	28.26	21.07	7.8	1 U	12.5	144	2.4	38.3	53.46	4.33	0.42	0.04	0.45	14.98
9/13/1999	1237	10.0	12.81	29.05	21.83	7.7		9.0	103		58.8						
9/13/1999	1237	30.0	11.85	29.72	22.52	7.5		6.5	73		75.3						
10/18/1999	1154	0.5	11.53	28.68	21.77		1 U	8.5	94	6.5	74.7	12.72	1.92	10.67	0.47	1.48	35.02
10/18/1999	1154	10.0	11.42	29.40	22.35			7.4	82		78.5	10.65	2.37	11.97	0.65	1.59	38.22
10/18/1999	1154	30.0	11.12	30.22	23.04			6.1	68		79.7			20.20	1.54	2.16	47.79

## ADM003, Admiralty Inlet (south)

Lat (decimal): 47.879

Long (decimal): -122.482

## January 2000 - December 2000

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3 DISS (uM)	NH4 DISS (uM)	ORTHO PO4 DISS (uM)	Si(OH)4 DISS (uM)
1/19/2000	1200	0.5	7.84	26.39	20.54		1 U	8.3	83	7.0	72.6						
1/19/2000	1200	10.0	8.41	28.51	22.12			8.1	84		74.9						
1/19/2000	1200	30.0	8.40	29.10	22.59			8.0	82		75.9						
2/9/2000	1241	0.5	8.29	29.02	22.55			8.7	89	8.5	74.9	0.48	0.27	29.27	0.00	2.39	68.95
2/9/2000	1241	10.0	8.18	29.13	22.65			8.6	88		74.8	0.59	0.31	29.29	0.00	2.38	68.60
2/9/2000	1241	30.0	8.14	29.20	22.71			8.4	87		74.8			27.50	0.00	2.36	66.71
3/21/2000	1215	0.5	8.20	28.54	22.18	7.8	1 U	9.2	94	8.0	80.1	16.16	1.15	15.67	0.41	1.45	43.07
3/21/2000	1215	10.0	8.11	29.08	22.62	7.7		8.4	87		81.5	4.01	0.59	23.92	0.61	2.02	54.62
3/21/2000	1215	30.0	8.11	29.17	22.68	7.8		8.2	84		81.3			25.17	0.79	2.18	55.88
4/11/2000	1206	0.5	10.25	25.40	19.43	8.6	1 U	14.5	152	2.7	42.6	32.75	0.94	0.30	0.11	0.04	11.63
4/11/2000	1206	10.0	8.94	28.83	22.30	8.0		10.5	110		66.1	39.12	2.51	6.30	0.45	0.94	28.57
4/11/2000	1206	30.0	8.53	29.35	22.77	7.9		8.4	88		80.7						
5/2/2000	1219	0.5	10.12	27.96	21.44	7.9	1 U	9.6	102	10.5	81.8	1.02	0.29	13.40	2.41	1.47	40.34
5/2/2000	1219	10.0	9.35	28.89	22.29	7.9		9.4	100		80.6	2.35	1.05	16.51	2.18	1.69	43.26
5/2/2000	1219	30.0	8.77	29.50	22.85	7.8		8.1	85		81.6			21.12	2.48	2.01	47.00
6/13/2000	1222	0.5	11.62	25.84	19.55	8.2	1 U	10.0	109	2.9	58.3			1.83	0.28	0.56	12.52
6/13/2000	1222	10.0	10.37	29.33	22.47	7.9		8.2	89		80.1						
6/13/2000	1222	30.0	10.37	29.42	22.54	7.9		8.0	86		79.2						
7/19/2000	1252	0.5	12.42	29.27	22.07	7.6	1 U	8.5	96	6.5	78.1	9.66	1.41	3.49	0.32	0.78	16.16
7/19/2000	1252	10.0	11.48	29.47	22.39	7.5		7.0	78		79.4	0.91	1.77	18.82	0.44	1.89	36.10
7/19/2000	1252	30.0	11.42	29.59	22.50	7.5		7.0	78		78.4			17.98	0.98	1.83	34.04
8/15/2000	1140	0.5	14.47	28.51	21.08	8.2	1 U	11.2	132	4.0	48.8	19.99	2.93	0.43	0.10	0.38	15.01
8/15/2000	1140	10.0	13.08	29.57	22.17	7.9		8.1	93		74.8	13.61	2.76	9.14	0.38	1.19	29.50
8/15/2000	1140	30.0	11.98	29.91	22.64	7.6		5.9	67		80.1						
9/13/2000	1214	0.5	13.50	28.50	21.27	8.1	1 U	8.4	97	7.8	72.9	4.63	0.91	8.26	0.53	1.18	45.34
9/13/2000	1214	10.0	13.03	29.80	22.36	8.0		7.5	86		78.6	5.31	1.88	14.12	0.83	1.69	36.96
9/13/2000	1214	30.0	12.11	30.26	22.89	7.8		5.9	67		80.5			18.91	1.95	2.09	42.03
10/4/2000	1224	0.5	12.22	28.16	21.25	8.0	3	6.9	77	5.8	75.6	1.03	0.32	15.45	1.83	1.79	46.76
10/4/2000	1224	10.0	12.14	29.66	22.42	8.0		6.3	71		79.9	0.71	0.32	17.91	1.71	1.97	45.95
10/4/2000	1224	30.0	11.88	30.42	23.05	7.9		5.8	65		81.1			19.98	1.52	2.20	46.68
11/14/2000	1214	0.5	10.45	30.48	23.35	8.0	1 U	5.8	64	12.0	80.2	0.71	0.55	24.33	0.14	2.42	54.17
11/14/2000	1214	10.0	10.41	30.50	23.38	8.0		5.8	64		80.2	0.74	0.94	24.38	0.16	2.42	53.19
11/14/2000	1214	30.0	10.36	30.53	23.40	8.0		5.8	63		79.9						
12/11/2000	1227	0.5	9.43	30.27	23.35	8.0		6.5	69	11.0	79.1	2.13	0.25	25.25	0.19	2.47	59.40
12/11/2000	1227	10.0	9.51	30.40	23.44	8.0		6.3	67		78.8	0.85	0.34	26.00	0.09	2.48	59.11
12/11/2000	1227	30.0	9.49	30.46	23.49	8.0		6.3	68		78.5						

## BLL009, Bellingham Bay - Pt. Frances

Lat (decimal): 48.687

Long (decimal): -122.598

October 1997 - September 1998

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3_NO2-N DISS (mg/L)	NH4_NH3-N DISS (mg/L)	ORTHO PO4-P DISS (mg/L)
10/13/1997	1220	10.0	11.05	29.06	22.14			7.7	84		67.4	0.39	0.17	0.320	0.043	0.096
10/13/1997	1220	0.5	11.21	28.89	21.99		1 U	7.8	85	6.1	66.4	0.62	0.20	0.306	0.043	0.098
11/11/1997	1028	1.0	9.20	25.20	19.41		7	8.6	101	2.7	61.5	1.00	0.32	0.189	0.012	0.046
11/11/1997	1028	10.0	10.27	28.18	21.59			7.4	79		66.3	0.84	0.46	0.254	0.012	0.074
12/10/1997	1146	0.5	8.86	29.04	22.47		1 U	9.3	97	5.1	66.9	0.74	0.32	0.359	0.010 U	0.099
12/10/1997	1146	10.0	8.76	29.10	22.54			7.8	81		65.0	0.49	0.26	0.367	0.010 U	0.097
1/7/1998	1148	0.5	7.12	25.56	19.97		17	7.6	75	3.1	49.3			0.401	0.010 U	0.913
1/7/1998	1148	10.0	8.19	29.08	22.60			7.6	78		63.0			0.380	0.010 U	0.096
2/19/1998	1140	0.5	8.28	28.62	22.23		1 U	7.7	79	4.9	66.1	0.65	0.29	0.375	0.010 U	0.100
2/19/1998	1140	10.0	8.38	29.22	22.69			7.2	74		65.9	0.50	0.32	0.374	0.010 U	0.098
3/5/1998	1222	10.0	8.57	29.20	22.64			8.8	92		69.1	0.49	0.28	0.256	0.010 U	0.058
3/5/1998	1222	0.5	7.93	25.63	19.93			10.0	100	3.9	61.4	0.74	0.24	0.341	0.010 U	0.065
4/6/1998	1142	10.0	9.51	28.99	22.34			10.0	106		65.2	20.10	2.30	0.157	0.010 U	0.307
4/6/1998	1142	0.5	10.18	27.75	21.27		1 U	13.6	145	3.1	43.4	15.50	3.50	0.045	0.010 U	0.247
5/7/1998	1529	0.5	12.82	28.32	21.27			13.6	154	2.5	48.5	10.80	0.88	0.032	0.010 U	0.068
5/7/1998	1529	7.0	10.46	29.48	22.57			9.9	108		59.1	10.00	1.20	0.175	0.011	0.113
6/8/1998	1307	0.5	15.15	26.27	19.23		1 U	7.2	85	5.5	67.6	2.20	0.47	0.012	0.010 U	0.115
6/8/1998	1307	10.0	11.38	28.70	21.81			7.7	85		66.8	1.60	2.20	0.014	0.013	0.140
7/21/1998	1141	0.5	18.23	23.62	16.52	8.4	1 U	11.1	136	2.6	39.4	17.80	1.00	0.010	0.010 U	0.090
7/21/1998	1141	8.0	12.00	29.48	22.30	7.8		6.9	78		65.8	1.40	0.70	0.257	0.010 U	0.138
8/10/1998	1244	0.5	16.57	27.20	19.64	8.3	1 U	9.1	111	3.2	49.2	7.70	7.00	0.064	0.010 U	0.125
8/10/1998	1244	10.0	12.92	29.22	21.93	7.9		7.1	81		66.0	3.80	3.60	0.160	0.010 U	0.153
9/1/1998	1222	10.0	12.65	29.59	22.27	8.1		5.4	61		59.2	5.80	2.20	0.022	0.010 U	0.199
9/1/1998	1222	0.5	16.54	27.83	20.12	8.4	1 U	12.8	156	5.6	60.4	6.50	0.92	0.020	0.010 U	0.129



BLL009, Bellingham Bay - Pt. Frances

Lat (decimal): 48.687

Long (decimal): -122.598

October 1998 - January 1999

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3_NO2-N DISS (mg/L)	NH4_NH3-N DISS (mg/L)	ORTHO PO4-P DISS (mg/L)
10/26/1998	1201	0.5	10.64	30.12	23.04	7.6	1 U	6.4	70	10.1	79.7			0.315	0.010 U	0.071
10/26/1998	1201	10.0	10.45	30.19	23.12	7.6		6.0	65		77.0			0.330	0.010 U	0.070
12/22/1998	1218	0.5	7.64	28.96	22.58	7.5	1	8.5	86	3.6	62.0					
12/22/1998	1218	10.0	8.26	29.60	23.00	7.6		8.2	85		60.5					
1/25/1999	1154	0.5	7.23	28.49	22.27	7.6	1 U	9.5	96	5.2	66.3					
1/25/1999	1154	10.0	7.85	29.62	23.07	7.6		8.8	90		70.4					

BLL009, Bellingham Bay - Pt. Frances

Lat (decimal): 48.687

Long (decimal): -122.598

February 1999 - December 1999

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3 DISS (uM)	NH4 DISS (uM)	ORTHO PO4 DISS (uM)	Si(OH)4 DISS (uM)
3/11/1999	1230	0.5	7.30	28.21	22.03	7.6		9.7	98	3.8	66.5			30.16	0.86	1.90	81.80
3/11/1999	1230	6.0	7.50	29.11	22.72	7.6		9.3	94		67.9						
4/12/1999	1235	0.5	8.58	27.91	21.63	7.8	1 U	11.6	119	6.4	74.9	6.80	1.10	11.23	0.35	0.96	25.52
4/12/1999	1235	10.0	8.12	29.09	22.62	7.7		9.6	99		75.2	4.50	1.10	20.20	0.63	1.70	38.50
5/13/1999	1154	0.5	11.16	26.97	20.50	8.1	1 U	13.0	141	3.7	52.0	9.50	1.20	0.04	0.07	0.08	3.40
5/13/1999	1154	5.0	9.78	28.68	22.06	8.1		9.7	103		52.3	28.00	2.20	4.80	2.20	0.89	5.39
6/14/1999	1147	0.5	14.84	22.45	16.35	8.1	2	10.6	121	1.3	36.7	5.90	0.47	1.97	0.00	0.25	34.63
6/14/1999	1147	4.0	10.33	29.25	22.41	7.9		9.0	97		62.2	2.40	1.90	14.73	1.96	1.62	33.20
7/12/1999	1110	0.5	14.15	26.18	19.35	7.5	1 U	9.2	106	5.6	71.3	2.38	0.51	6.89	0.29	1.07	38.04
7/12/1999	1110	10.0	11.24	28.29	21.52	7.2		7.0	76		61.7	1.44	1.21	15.90	1.74	1.83	45.75
8/30/1999	1118	0.5	14.23	27.31	20.21	7.6	1 U	8.5	99	7.1	73.6	3.02	0.72	2.69	1.77	0.86	21.11
8/30/1999	1118	6.0	12.95	28.17	21.12	7.6		7.4	84		71.1	3.40	0.75	5.55	1.80	1.08	25.51
9/28/1999	1220	0.5	12.62	26.99	20.27	7.5	1 U	7.6	86	5.7	68.1	1.83	0.40	7.31	1.60	1.22	40.04
9/28/1999	1220	6.5	11.42	28.96	22.01	7.4		6.0	66		70.5	1.61	0.50	15.84	2.55	1.94	45.36
10/19/1999	1126	0.5	11.07	29.04	22.13		1 U	10.7	117	5.4	70.3	19.81	0.68	8.54	0.34	1.43	38.16
10/19/1999	1126	5.0	10.42	29.82	22.85			5.5	60		67.1	3.21	1.67	18.50	3.15	2.12	48.32

## BLL009, Bellingham Bay - Pt. Frances

Lat (decimal): 48.687

Long (decimal): -122.598

## January 2000 - December 2000

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3 DISS (uM)	NH4 DISS (uM)	ORTHO PO4 DISS (uM)	Si(OH)4 DISS (uM)
1/24/2000	1225	0.5	6.74	28.63	22.44		2	8.1	81	4.5	66.6	0.49	0.26	30.51	0.92	2.35	68.03
1/24/2000	1225	5.0	7.34	28.94	22.61			8.1	81		63.7	0.35	0.37	28.69	0.43	2.40	61.68
2/15/2000	1155	0.5	7.44	29.71	23.20		1 U	8.1	82	6.0	63.0	0.39	0.44	27.40	0.26	2.31	60.32
2/15/2000	1155	6.0	7.52	29.78	23.25			7.9	80		57.6	0.32	0.44	27.42	0.47	2.33	61.05
3/13/2000	1323	0.5	7.93	28.45	22.14	7.8	1 U	9.8	100	5.0	72.1	2.61	0.55	28.73	0.55	1.47	73.65
3/13/2000	1323	10.0	7.72	29.67	23.13	7.8		8.4	86		70.2	1.70	0.60	25.15	0.22	2.03	54.31
4/17/2000	1305	0.5	9.13	28.29	21.85	8.0	10	8.9	94	0.8	68.9	8.16	0.00	10.36	0.72	0.42	45.58
4/17/2000	1305	8.0	8.76	29.68	22.99	7.9		8.0	84		73.3	5.58	0.56	18.09	1.89	1.65	33.06
5/8/2000	1252	0.5	9.84	28.62	22.00	8.0	5	9.4	101	5.2	71.4	3.48	1.07	3.84	1.00	0.61	23.88
5/8/2000	1252	5.5	9.24	29.91	23.10	7.8		8.3	89		69.4	2.31	0.76	17.24	1.53	1.77	38.04
6/6/2000	1334	0.5	12.17	25.74	19.38	8.1	1	8.8	97	3.0	62.6	3.18	0.61	4.96	1.16	0.62	35.82
6/6/2000	1334	4.0	11.06	28.58	21.77	7.9		8.3	90		70.7	1.96	0.82	12.91	2.49	1.52	34.27
7/17/2000	1305	0.5	15.47	26.41	19.26	7.8	1 U	10.0	118	2.8	59.5	3.83	0.48	3.46	0.70	0.73	36.67
7/17/2000	1305	4.5	14.86	28.02	20.63	8.0		10.4	123		72.2	2.53	1.55	1.50	1.13	0.74	10.23
8/14/2000	1253	0.5	15.83	26.66	19.38	8.2	1 U	10.4	124	5.5	68.8	4.22	0.57	0.04	0.09	0.17	7.72
8/14/2000	1253	3.5	14.50	27.54	20.33	8.1		9.1	106		68.2	4.35	0.73	0.67	0.68	0.58	6.72
9/12/2000	1335	0.5	13.95	27.90	20.71	8.5	1	10.7	124	4.0	66.8	5.58	1.01	0.48	0.04	0.59	26.87
9/12/2000	1335	8.5	11.77	29.58	22.43	8.0		6.5	73		62.6	11.16	2.16	11.23	2.78	1.83	36.82
10/3/2000	1309	0.5	12.91	27.56	20.66	8.1	4	7.9	89	1.7	62.7	4.02	0.88	13.24	2.83	1.61	58.87
10/3/2000	1309	8.0	10.71	30.25	23.13	7.9		5.7	63		26.2	1.47	0.58	19.03	1.99	2.03	45.71
11/15/2000	1318	0.5	8.55	29.05	22.53	8.0	2	7.1	74	7.0	72.3	0.50	0.20	23.06	3.00	2.25	62.95
11/15/2000	1318	5.5	9.14	30.19	23.33	8.0		6.0	63		65.9	0.68	0.64	24.53	0.68	2.34	54.08
12/12/2000	1228	0.5	7.37	29.86	23.33	8.0		7.4	75	5.0	67.0	0.79	0.43	27.67	0.80	2.41	62.15
12/12/2000	1228	6.5	7.93	30.14	23.47	8.0		7.0	72		66.4	1.09	0.52	27.32	0.47	2.42	57.16

BLL011, Bellingham Bay - off Nooksack

Lat (decimal): 48.733

Long (decimal): -122.583

January 2000 - December 2000

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3 DISS (uM)	NH4 DISS (uM)	ORTHO PO4 DISS (uM)	Si(OH)4 DISS (uM)
1/24/2000	1201	0.5					6					0.37	0.28	35.39	1.20	1.79	89.60
1/24/2000	1201	10.0															
3/13/2000	1259	1.0	7.90	28.38	22.09	7.8	1 U	9.7	99	3.6	64.9	1.65	0.98	38.15	1.41	0.78	46.24
3/13/2000	1259	5.0	7.77	29.14	22.71	7.8		8.9	91		37.9	5.99	1.35	26.28	0.72	2.09	55.28
4/17/2000	1244	0.5	10.79	25.13	19.14	8.2	7	10.5	112	1.2	61.0	3.79	0.33	8.00	1.56	0.32	42.79
4/17/2000	1244	10.0	8.29	29.85	23.19	7.6		5.6	58		23.1	1.31	0.37	20.54	5.99	2.31	46.81
5/8/2000	1229	0.5	10.74	28.39	21.68	8.1	10	10.3	112	4.8	73.5	1.04	1.16	6.01	1.78	0.53	39.16
5/8/2000	1229	10.0	8.92	30.11	23.30	7.6		6.2	65		39.1	1.65	2.22	16.55	10.20	2.47	55.23
6/6/2000	1308	1.0	12.92	27.01	20.23	7.9	36	9.0	101	1.0	67.6	1.52	0.49	9.32	1.16	0.34	63.69
6/6/2000	1308	4.5	11.64	28.34	21.49	7.9		6.4	71		4.0	1.31	4.44	10.11	4.83	1.63	36.25
7/17/2000	1242	0.5	15.72	26.76	19.48	8.0	1	11.1	133	5.5	65.9	2.26	0.18	1.01	0.25	0.17	22.81
7/17/2000	1242	10.0	12.21	29.37	22.18	7.7		7.9	89		72.9	1.04	0.73				
8/14/2000	1230	0.5	16.86	22.78	16.19	8.3	1	10.4	124	3.6	56.4	4.35	1.18	0.00	0.14	0.05	27.80
8/14/2000	1230	10.0	12.18	28.81	21.76	7.6		3.5	40		55.5	6.12	1.21	13.92	5.22	2.28	45.07
9/12/2000	1312	0.5	13.72	27.97	20.82	8.4	46	10.6	122	1.0	65.1	2.87	1.20	3.14	0.41	0.44	51.54
9/12/2000	1312	10.0	11.12	29.85	22.75	7.8		4.6	51		75.3	10.20	1.47	17.55	3.41	2.06	43.45
10/3/2000	1249	0.5	12.85	28.28	21.22	8.0	5	7.5	85	1.5	60.7	4.04	1.04	14.13	1.78	1.04	65.01
10/3/2000	1249	5.5	11.37	29.89	22.74	7.9		5.6	63		24.8	1.50	1.72	16.64	5.25	2.46	56.03
11/15/2000	1258	0.5	8.79	28.93	22.40	8.1	17	7.6	80	9.0	78.5	0.75	0.24	22.54	2.66	2.11	61.63
11/15/2000	1258	10.0	9.70	29.84	22.97	8.0		6.0	65		77.4	0.67	0.34	23.05	2.61	2.46	55.82
12/12/2000	1213	0.5	5.68	29.55	23.29	7.9	3	8.9	87	5.0	64.8						
12/12/2000	1213	5.0	6.11	29.87	23.49	8.0		8.8	87		58.0						

BUD002, Budd Inlet - S. End Oly Port

Lat (decimal): 47.052

Long (decimal): -122.905

October 1998 - January 1999

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3_NO2-N DISS (mg/L)	NH4_NH3-N DISS (mg/L)	ORTHO PO4-P DISS (mg/L)
10/28/1998	1611	0.5	13.66	29.19	21.77	7.7		5.9	69	5.2	66.9	8.80	1.30	0.221	0.070	0.069
10/28/1998	1611	9.5	13.20	29.71	22.26	7.7		6.1	70		58.9	6.50	1.60	0.206	0.040	0.070
11/30/1998	1442	0.5	9.80	22.37	17.14	7.6	42	7.0	72	2.0	48.8					
11/30/1998	1442	10.0	11.23	28.93	22.02	7.5		5.3	58		53.9					
1/19/1999	1509	0.5	8.45	17.91	13.83	7.4	84	9.7	93	0.5	2.4					
1/19/1999	1509	10.0	9.17	27.75	21.42	7.5		7.7	81		56.9					

BUD002, Budd Inlet - S. End Oly Port

Lat (decimal): 47.052

Long (decimal): -122.905

February 1999 - December 1999

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3 DISS (uM)	NH4 DISS (uM)	ORTHO PO4 DISS (uM)	Si(OH)4 DISS (uM)
2/20/1999	1513	0.5	7.99	20.09	15.59	7.4		9.5	92	1.5	25.8			35.12	1.40	1.27	163.32
2/20/1999	1513	8.5	8.40	26.65	20.67	7.5		7.9	81		57.5						
3/15/1999	1624	0.5	8.49	24.66	19.10	7.5		9.7	98	2.9	62.6			27.43	1.87	2.15	100.25
3/15/1999	1624	10.0	8.26	26.43	20.52	7.5		8.1	82		55.5			26.16	1.83	2.25	83.57
4/20/1999	1609	0.5	10.39	23.59	18.00	7.8	7	13.1	137	1.9	33.8	20.00	5.30	11.44	2.19	0.93	82.66
4/20/1999	1609	8.5	9.16	26.99	20.83	7.8		10.9	113		32.8	59.20	7.10	10.42	2.92	1.23	30.80
5/21/1999	1625	0.5	11.63	25.87	19.57	7.8		12.5	137	2.2	31.7	14.00	6.10	7.00	3.97	1.36	76.78
5/21/1999	1625	8.0	10.35	27.75	21.24	7.8		9.3	100		46.9	28.00	2.90	4.52	4.10	1.59	23.42
6/15/1999	1652	0.5	13.91	26.52	19.66	7.7	15	7.6	87	3.5	60.2	5.70	1.90	12.70	10.25	2.77	202.33
6/15/1999	1652	10.0	12.21	27.40	20.65	7.9		7.9	88			15.00	0.63	0.27	1.16	2.32	38.19
7/21/1999	1620	0.5	14.56	28.19	20.82	7.4	4	10.2	120	6.0	69.0	6.45	1.63	5.36	8.48	3.34	90.53
7/21/1999	1620	9.5	13.53	28.45	21.23	7.4		6.4	74		69.4	2.16	0.83	3.27	9.64	3.03	51.65
8/16/1999	1612	0.5	15.19	28.32	20.79	7.2	7	5.5	65	3.7	62.9	7.36	0.53	3.92	3.48	1.71	113.31
8/16/1999	1612	8.0	14.24	28.70	21.27	7.2		4.6	54		58.7	2.93	0.60	0.00	2.76	2.00	66.10
9/29/1999	1700	1.0					1			3.8		5.47	0.44	8.14	6.40	1.58	184.20
9/29/1999	1700	10.0										7.64	1.28	0.29	1.97	1.76	78.64
10/25/1999	1604	0.5	13.14	27.18	20.31		21	5.7	64	3.6	60.6	20.11	2.01	9.23	10.76	2.46	69.32
10/25/1999	1604	10.0	12.90	29.23	21.95			5.4	62		57.9	22.77	2.28	12.03	10.22	2.21	121.33
12/21/1999	1319	0.5	9.44	24.72	19.02		12	8.4	87	2.0	64.1						
12/21/1999	1319	10.0	9.65	27.57	21.21			6.8	71		62.8						

## BUD005, Budd Inlet - Olympia Shoal

Lat (decimal): 47.092

Long (decimal): -122.917

October 1997 - September 1998

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3_NO2-N DISS (mg/L)	NH4_NH3-N DISS (mg/L)	ORTHO PO4-P DISS (mg/L)
11/24/1997	1603	10.0	11.64	28.34	21.49			6.3	69		65.0					
11/24/1997	1603	0.5	10.89	27.28	20.77		47	6.0	65	5.5	61.7					
12/30/1997	1524	0.5	9.62	26.98	20.75			7.9	83	5.8	69.6			0.413	0.010 U	0.101
12/30/1997	1524	10.0	9.69	28.16	21.66			7.0	74		65.0			0.227	0.010 U	0.070
2/17/1998	1541	0.5	9.19	23.09	17.79			8.0	82	5.9	66.8	1.50	0.67	0.434	0.010 U	0.095
2/17/1998	1541	10.0	8.85	27.38	21.18			7.0	73		61.6	0.99	0.12	0.307	0.010 U	0.082
3/31/1998	1522	1.0	10.12	26.56	20.35		5	9.4	100	7.8	70.5	2.00	0.68			
3/31/1998	1522	9.5	9.53	27.43	21.12			8.4	89		60.1	5.10	1.70			
4/20/1998	1625	10.0	9.99	27.64	21.22			7.9	83		34.7	61.60	2.40	0.225	0.080	0.127
4/20/1998	1625	1.5	13.43	26.21	19.52		1 U	17.2	195	1.9	31.8	11.80	3.40	0.047	0.010 U	0.081
5/12/1998	1614	10.0	11.35	28.05	21.31			9.5	104		58.8	19.60	5.70	0.061	0.042	0.083
5/12/1998	1614	0.5	12.60	26.99	20.28		1	11.6	130	8.4	76.6	1.90	0.54	0.047	0.010 U	0.121
6/2/1998	1731	0.5	15.94	27.18	19.76		1 U	10.9	131	3.3	73.4	3.50	0.11	0.028	0.010 U	0.069
6/2/1998	1731	10.0	11.97	28.25	21.36			10.3	115		62.1	7.10	1.50	0.033	0.010 U	0.084
7/6/1998	1640	0.5	16.22	28.32	20.57	8.5	1 U	16.5	200	4.7	64.1	2.80	0.29	0.041	0.010 U	0.126
7/6/1998	1640	10.0	13.43	28.70	21.44	7.9		7.1	82		61.8	2.50	0.61	0.074	0.035	0.144
8/3/1998	1613	0.5	21.11	27.22	18.55	8.6		16.3	217	3.0	66.7	4.70	1.20	0.031	0.010 U	0.119
8/3/1998	1613	10.0	14.91	28.94	21.33	7.7		5.2	62		67.8	2.30	1.70	0.017	0.010 U	0.112
9/14/1998	1759	10.0	15.51	29.41	21.56	8.5		6.1	74		65.0	2.90	0.71	0.059	0.044	0.202
9/14/1998	1759	0.5	18.98	28.19	19.83	8.9	1 U	15.9	205	2.5	51.7	3.50	0.85	0.030	0.010 U	0.180

BUD005, Budd Inlet - Olympia Shoal

Lat (decimal): 47.092

Long (decimal): -122.917

October 1998 - January 1999

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3_NO2-N DISS (mg/L)	NH4_NH3-N DISS (mg/L)	ORTHO PO4-P DISS (mg/L)
10/28/1998	1537	0.5	13.31	29.66	22.20	7.8	1 U	7.4	86	4.8	65.7	14.40	0.81	0.189	0.015	0.070
10/28/1998	1537	10.0	13.29	29.77	22.29	7.7		6.1	70		55.9	6.90	2.20	0.205	0.028	0.071
11/30/1998	1421	0.5	10.28	27.25	20.86	7.7	4	7.2	77	5.4	70.7					
11/30/1998	1421	10.0	11.24	29.11	22.15	7.6		5.7	63		67.0					
1/19/1999	1439	0.5	8.88	26.64	20.60	7.6	41	8.8	90	1.3	63.9					
1/19/1999	1439	10.0	9.16	27.77	21.44	7.5		7.8	82		56.8					

BUD005, Budd Inlet - Olympia Shoal

Lat (decimal): 47.092

Long (decimal): -122.917

February 1999 - December 1999

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3 DISS (uM)	NH4 DISS (uM)	ORTHO PO4 DISS (uM)	Si(OH)4 DISS (uM)
2/20/1999	1449	0.5	8.01	22.98	17.85	7.6		9.7	96	3.8	62.4			32.29	1.89	2.04	95.10
2/20/1999	1449	7.5	8.38	26.63	20.66	7.6		8.2	84		57.9						
3/15/1999	1533	0.5	8.69	24.58	19.02	7.6		9.9	100	3.7	69.3			27.37	0.76	1.89	107.73
3/15/1999	1533	10.0	8.24	26.71	20.74	7.5		8.3	84		54.2			28.05	1.50	2.31	83.04
4/20/1999	1526	0.5	10.00	26.85	20.59	8.1	1 U	14.5	153	2.9	54.6	48.20	4.80	4.88	0.50	0.75	17.55
4/20/1999	1526	5.5	9.45	27.02	20.81	8.1		12.3	129		14.0	42.70	5.00	3.18	0.45	0.59	25.12
5/21/1999	1542	0.5	12.08	27.36	20.65	8.0		14.6	163	3.9	63.0	8.20	0.46	3.13	0.61	0.76	55.67
5/21/1999	1542	8.5	10.16	27.87	21.37	8.0		9.5	101		49.2	13.00	2.60	7.44	4.22	1.39	27.98
6/15/1999	1608	0.5	17.58	25.95	18.45	8.2	1 U	13.6	168	5.0	53.2	12.00	0.13	0.00	0.00	1.39	59.87
6/15/1999	1608	9.5	11.89	28.13	21.28	7.9		10.0	111		62.7	13.00	1.00	0.28	1.19	3.37	35.39
7/21/1999	1546	0.5	15.45	28.41	20.80	7.9	1 U	14.1	169	5.0	73.8	5.19	1.11	0.48	0.33	1.70	53.03
7/21/1999	1546	10.0	13.28	28.54	21.34	7.5		8.1	93		75.9	3.76	1.16	3.92	3.26	1.76	41.94
8/16/1999	1541	0.5	15.38	28.59	20.96	7.9	1 U	10.7	129	2.5	35.7			0.00	0.16	1.76	75.32
8/16/1999	1541	8.5	14.00	28.75	21.37	7.4		6.4	74		49.8	6.79	1.20	0.25	1.06	1.75	52.94
9/29/1999	1618	1.0					1 U			1.4		59.00	0.83	0.18	2.84	1.89	88.67
9/29/1999	1618	10.0										13.01	0.65	0.15	1.23	1.73	68.13
10/25/1999	1528	0.5	12.92	29.12	21.86		1 U	7.0	80	5.6	65.3	20.70	2.72	8.12	2.67	1.87	64.26
10/25/1999	1528	8.0	12.77	29.30	22.02			7.3	83		49.7	29.50	2.95	9.93	7.05	2.22	65.10
11/22/1999	1442	0.5	10.81	28.33	21.62		3	6.8	73	4.8	68.3	3.11	1.14	18.93	5.65	2.47	74.36
11/22/1999	1442	10.0	10.97	29.04	22.14			6.2	68		63.1	2.83	1.32	19.64	4.76	2.46	69.10
12/21/1999	1437	0.5	8.77	23.90	18.48		10	9.5	96	2.5	62.0	0.78	0.25	27.14	3.18	2.20	86.04
12/21/1999	1437	10.0	9.58	27.57	21.22			7.8	82		68.5	0.48	0.25	26.63	1.20	2.53	82.45

## BUD005, Budd Inlet - Olympia Shoal

Lat (decimal): 47.092

Long (decimal): -122.917

## January 2000 - December 2000

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3 DISS (uM)	NH4 DISS (uM)	ORTHO PO4 DISS (uM)	Si(OH)4 DISS (uM)
1/26/2000	1518	1.0	8.15	27.10	21.05		2	7.9	80	5.5	69.5	2.18	0.46	28.52	0.82	2.54	83.68
1/26/2000	1518	8.0	8.36	27.47	21.32			7.9	81		30.3	1.13	0.54	28.84	1.07	2.61	83.64
2/16/2000	1448	0.5	8.22	26.57	20.63		1 U	9.0	91	7.5	74.0	1.15	0.29	28.52	1.21	2.47	90.85
2/16/2000	1448	10.0	8.28	27.61	21.44			8.4	85		56.3	0.91	0.50	28.55	0.68	2.50	81.71
3/23/2000	1600	0.5	8.80	27.25	21.09	7.8	1 U	9.6	99	7.0	78.7	3.27	0.57	20.49	1.26	1.81	65.79
3/23/2000	1600	9.0	8.45	27.70	21.49	7.7		8.8	90		64.1	7.48	1.50	22.03	1.56	1.96	63.77
4/18/2000	1629	0.5	11.73	27.16	20.56	8.4	5	13.0	144	3.2	52.7	11.84	0.14	1.17	0.24	0.22	46.72
4/18/2000	1629	9.5	9.48	28.07	21.63	7.9		9.7	102		55.7	27.22	1.79	10.67	7.14	1.79	44.48
5/16/2000	1642	0.5	13.05	27.68	20.72	8.3	1 U	13.7	155	3.5	54.0	5.58	0.56	0.00	0.05	0.21	14.59
5/16/2000	1642	10.0	10.35	28.36	21.71	8.0		9.2	99		44.6	33.17	3.78	4.96	3.60	1.37	26.49
6/21/2000	1646	0.5	14.93	28.11	20.68	8.4	1 U	14.1	167	5.0	61.8	5.03	0.35	0.34	0.61	1.05	27.23
6/21/2000	1646	8.0	12.28	28.55	21.54	7.9		7.4	83		41.8	46.23	6.04	3.29	10.87	3.63	30.10
7/26/2000	1603	0.5	16.74	28.61	20.67	8.3		15.0	185	4.0	67.3	4.63	0.61	0.00	0.11	1.27	50.75
7/26/2000	1603	10.0	14.15	28.89	21.44	7.6		6.6	77		65.8	29.34	1.53	0.00	0.41	2.25	52.25
8/28/2000	1525	0.5	16.13	28.77	20.93	8.4	1 U	11.0	134	2.6	39.9	6.53	0.65	0.03	0.17	1.72	86.64
8/28/2000	1525	10.0	14.66	29.02	21.44	7.9		6.8	81		61.2	3.35	0.86	3.37	3.09	2.09	71.35
9/25/2000	1709	0.5	15.40	29.35	21.54	8.6		12.2	147	2.8	49.4	17.44	2.21	0.24	0.25	1.37	59.06
9/25/2000	1709	10.0	14.36	29.56	21.92	8.1		6.5	77		66.1	7.89	3.18	6.65	5.63	2.28	64.40
12/5/2000	1543	0.5	9.40	29.31	22.60	8.1	2	8.0	84	9.0	75.7	7.20	1.35	24.29	2.17	2.78	84.93
12/5/2000	1543	9.0	10.05	29.73	22.83	8.0		6.3	68		74.0	3.38	0.49	23.14	1.53	2.72	73.96



## CMB003, Commencement Bay - Browns Point

Lat (decimal): 47.290

Long (decimal): -122.448

October 1997 - September 1998

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3_NO2-N DISS (mg/L)	NH4_NH3-N DISS (mg/L)	ORTHO PO4-P DISS (mg/L)
12/30/1997	1008	10.0	10.02	29.11	22.35			7.1	77		75.0			0.360	0.010 U	0.097
12/30/1997	1008	30.0	10.05	29.24	22.45			7.0	75		75.8			0.384	0.032	0.099
12/30/1997	1008	0.5	9.12	24.74	19.07		9	8.0	82	5.5	56.3			0.367	0.010 U	0.087
1/28/1998	1422	0.5	8.86	24.25	18.73		8	8.0	81	7.2	66.4					
1/28/1998	1422	10.0	9.11	28.65	22.13			7.3	77		73.7					
1/28/1998	1422	30.0	9.10	28.74	22.21			7.4	77		73.2					
2/17/1998	1446	0.5	8.68	21.78	16.83					5.5	64.7	0.52	0.32	0.377	0.024	0.089
2/17/1998	1446	10.0	8.94	28.64	22.15						76.5	0.39	0.17	0.395	0.010 U	0.102
2/17/1998	1446	30.0	8.96	28.76	22.24						76.8			0.403	0.010 U	0.103
3/31/1998	1433	1.0	9.20	18.68	14.35		26	9.7	96	7.7	52.8	2.00	0.54	0.401	0.030	0.080
3/31/1998	1433	10.0	9.25	28.49	21.99			8.7	91		80.7	1.90	0.51			
3/31/1998	1433	30.0	9.23	28.64	22.11			8.5	90		81.0					
4/20/1998	1541	30.0	9.61	28.70	22.10			8.8	93		78.3					
4/20/1998	1541	1.0	11.07	26.29	20.00		1 U	12.0	130	3.5	53.7	11.60	3.00	0.080	0.010 U	0.079
4/20/1998	1541	10.0	9.75	28.53	21.95			9.6	102		72.0	10.50	3.20	0.186	0.010 U	0.088
5/12/1998	1522	10.0	10.42	28.67	21.95			9.5	103		83.0	1.40	0.74	0.224	0.016	0.123
5/12/1998	1522	30.0	10.22	28.85	22.12			9.3	101		84.9			0.213	0.015	0.111
5/12/1998	1522	0.5	11.42	22.04	16.65		2	10.0	106	5.8	65.0	1.10	1.00	0.152	0.020	0.057
6/2/1998	958	0.5	12.19	18.12	13.49		16	10.7	112	4.0	61.4	5.70	0.95	0.130	0.010 U	0.068
6/2/1998	958	10.0	10.70	28.89	22.07			9.1	99		80.9	7.40	0.84	0.189	0.012	0.114
6/2/1998	958	30.0	10.67	29.02	22.18			8.7	95		82.5			0.206	0.014	0.120
7/6/1998	1549	0.5	12.59	28.14	21.16	7.9	4	8.6	97	10.4	76.8	1.70	0.70	0.111	0.011	0.088
7/6/1998	1549	10.0	12.02	28.97	21.90	7.9		8.1	91		80.2	1.90	0.46	0.287	0.019	0.186
7/6/1998	1549	30.0	11.46	29.23	22.21	7.8		7.4	82		82.2			0.242	0.010 U	0.136
8/3/1998	1518	0.5	14.14	28.47	21.12	8.1	1 U	9.5	111	4.3	57.6	9.20	2.50	0.066	0.010 U	0.134
8/3/1998	1518	10.0	12.87	29.36	22.05	7.8		7.8	89		75.3	0.86	0.43	0.151	0.010 U	0.174
8/3/1998	1518	30.0	12.04	29.56	22.36	7.7		6.4	72		63.8			0.173	0.010 U	0.121
9/14/1998	1600	30.0	13.23	30.05	22.52	8.0		5.9	69		83.7			0.225	0.010 U	0.187
9/14/1998	1600	0.5	14.26	29.30	21.74	8.1	1 U	6.9	81	6.9	76.0	1.80	0.76	0.215	0.029	0.168
9/14/1998	1600	10.0	13.50	29.95	22.38	8.1		6.3	73		83.6	1.40	0.50	0.202	0.010 U	0.182

## CMB003, Commencement Bay - Browns Point

Lat (decimal): 47.290

Long (decimal): -122.448

*October 1998 - January 1999*

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3_NO2-N DISS (mg/L)	NH4_NH3-N DISS (mg/L)	ORTHO PO4-P DISS (mg/L)
10/28/1998	1042	0.5	12.33	29.15	21.99	7.7	6	6.6	75	6.9	75.4	0.74	0.34	0.305	0.043	0.073
10/28/1998	1042	10.0	12.50	30.23	22.80	7.7		6.5	74		83.8	1.20	0.25	0.294	0.010 U	0.068
10/28/1998	1042	30.0	12.42	30.46	22.99	7.7		5.7	65		83.2			0.302	0.010 U	0.065
11/30/1998	1127	0.5	10.84	29.45	22.49	7.6	3	6.4	70	9.5	76.9					
11/30/1998	1127	10.0	11.18	30.13	22.95	7.6		6.0	66		79.1					
11/30/1998	1127	30.0	11.17	30.26	23.05	7.6		6.0	67		81.7					
1/19/1999	1044	0.5	9.59	28.28	21.78	7.3	190 J	8.0	85	2.1	69.0					
1/19/1999	1044	10.0	9.62	29.00	22.33	7.4		8.0	85		74.9					
1/19/1999	1044	30.0	9.86	29.45	22.64	7.4		7.6	81		71.6					

## CMB003, Commencement Bay - Browns Point

Lat (decimal): 47.290

Long (decimal): -122.448

February 1999 - December 1999

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3 DISS (uM)	NH4 DISS (uM)	ORTHO PO4 DISS (uM)	Si(OH)4 DISS (uM)
2/20/1999	1132	0.5	8.48	26.57	20.60	7.5		8.8	90	4.3	76.3			29.47	3.38	1.79	100.10
2/20/1999	1132	10.0	8.53	28.45	22.06	7.6		8.5	88		79.3						
2/20/1999	1132	30.0	8.61	28.64	22.20	7.6		8.4	87		78.7						
3/15/1999	1358	0.5	8.19	22.98	17.83	7.4		9.7	96	3.2	65.4			30.84	3.00	1.51	104.04
3/15/1999	1358	10.0	8.24	28.13	21.85	7.5		8.9	91		79.3			27.08	0.38	2.27	70.60
3/15/1999	1358	30.0	8.25	28.37	22.04	7.5		8.7	90		78.8			27.15	0.43	2.30	69.01
4/20/1999	1340	0.5	9.11	22.99	17.72	7.6	3	10.9	110	6.3	61.1	5.20	1.90	19.31	1.77	1.35	103.49
4/20/1999	1340	8.0	8.83	28.05	21.71	7.5		10.1	104		78.2	6.80	1.40	22.03	1.10	1.85	58.67
4/20/1999	1340	30.0	8.52	28.51	22.11	7.5		9.2	95		83.1			23.95	0.62	2.02	60.52
5/21/1999	1355	0.5	10.05	26.32	20.17	7.8		11.3	120	4.4	66.9	9.90	0.54	11.74	2.10	0.98	69.10
5/21/1999	1355	10.0	9.20	28.77	22.21	7.7		9.8	103		81.0	7.80	1.40	13.20	2.70	1.43	29.17
5/21/1999	1355	30.0	9.08	28.89	22.33	7.7		9.4	98		83.2			14.52	2.96	1.61	33.49
6/15/1999	1248	0.5	13.53	20.36	14.99	7.9	8	11.2	123	1.2	31.3	2.90	0.87	9.02	1.75	0.92	97.33
6/15/1999	1248	10.0	10.76	28.67	21.89	7.8		10.0	109		76.0	7.60	1.70	10.58	2.07	1.30	34.06
6/15/1999	1248	30.0	10.45	28.79	22.04	7.8		9.8	106		71.7						
7/21/1999	1403	0.5	11.99	28.01	21.17	7.6	8	11.1	124	1.4	58.4	4.48	0.74	4.96	1.14	0.65	74.18
7/21/1999	1403	10.0	11.37	28.92	21.98	7.5		8.3	92		69.4	10.47	1.05	12.61	3.72	1.55	27.48
7/21/1999	1403	30.0	11.01	29.13	22.21	7.3		7.7	85		81.6			15.30	0.98	1.74	33.76
8/16/1999	1112	0.5	12.34	28.51	21.50	7.3	11	7.2	81	4.2	73.1	50.70	4.06	15.61	2.39	1.53	87.84
8/16/1999	1112	10.0	11.74	29.19	22.13	7.3		6.6	74		79.9	0.89	0.21	18.85	1.48	1.94	38.74
8/16/1999	1112	30.0	11.56	29.31	22.25	7.3		6.4	71		82.0			19.88	0.28	1.94	38.89
9/29/1999	1439	1.0					1 U			7.2		3.68	0.37	17.07	3.17	2.05	68.96
9/29/1999	1439	10.0										4.81	0.59	17.82	1.45	2.02	58.67
9/29/1999	1439	30.0												19.19	1.44	2.10	46.32
10/25/1999	1100	0.5	11.80	28.65	21.70		16	7.4	82	4.3	70.4	17.45	0.77	16.27	0.88	1.83	55.98
10/25/1999	1100	10.0	11.69	29.93	22.71			6.6	74		81.0	8.49	0.85	19.00	1.28	2.13	46.61
10/25/1999	1100	30.0	11.55	30.04	22.82			6.5	72		81.6			20.22	1.38	2.22	47.17
11/22/1999	1323	0.5	10.46	28.36	21.70		31	6.6	71	4.7	74.4						
11/22/1999	1323	10.0	10.71	29.69	22.69			6.0	66		74.0						
11/22/1999	1323	30.0	10.62	30.06	23.00			6.0	66		79.3						
12/21/1999	1102	0.5	9.13	24.90	19.21		20	8.3	85	1.5	54.3	0.26	0.12	26.94	1.31	1.49	104.52
12/21/1999	1102	10.0	9.84	29.08	22.36			7.2	77		73.7	0.18	0.03	27.37	0.31	2.46	69.51
12/21/1999	1102	30.0	9.91	29.38	22.58			7.1	76		75.1			27.47	0.01	2.48	66.94

## CMB003, Commencement Bay - Browns Point

Lat (decimal): 47.290

Long (decimal): -122.448

## January 2000 - December 2000

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3 DISS (uM)	NH4 DISS (uM)	ORTHO PO4 DISS (uM)	Si(OH)4 DISS (uM)
1/26/2000	1033	1.0	8.80	26.74	20.69		54	7.9	81	6.0	72.3	0.35	0.16	29.42	3.43	2.19	120.20
1/26/2000	1033	10.0	8.79	28.92	22.39			7.6	79		73.5	0.32	0.14	29.02	0.00	2.51	68.47
1/26/2000	1033	30.0	8.81	29.05	22.49			7.7	80		73.3			29.12	0.00	2.52	67.47
2/16/2000	1047	0.5	7.95	27.92	21.73		1 U	8.9	91	6.0	74.3	0.68	0.32	27.46	2.12	1.44	156.82
2/16/2000	1047	10.0	8.25	28.70	22.30			8.5	87		76.3	0.69	0.18	28.67	0.23	2.40	69.98
2/16/2000	1047	30.0	8.32	28.93	22.47			8.2	85		73.0			29.20	0.00	2.42	67.65
3/23/2000	1043	0.5	8.20	26.12	20.29	7.6	130	8.7	88	4.0	75.9	0.95	0.89	26.82	3.31	1.82	88.99
3/23/2000	1043	10.0	8.20	28.74	22.33	7.7		8.3	86		81.9	1.07	0.25	27.16	0.81	2.22	61.80
3/23/2000	1043	30.0	8.11	29.00	22.55	7.7		8.1	83		82.4			27.33	0.57	2.24	59.96
4/18/2000	1008	0.5	9.55	22.16	17.01	7.7	45	8.7	88	5.0	64.7	3.57	0.55	20.58	1.82	1.88	101.67
4/18/2000	1008	10.0	8.65	28.86	22.37	7.8		8.7	90		80.4	4.22	0.57	21.85	1.60	2.09	54.77
4/18/2000	1008	30.0	8.54	29.03	22.51	7.8		8.6	89		81.7			22.91	1.09	2.00	54.18
5/16/2000	1024	0.5	11.19	25.37	19.26	7.9	3	11.0	119	5.5	57.0	3.44	0.77	12.37	1.71	0.76	142.17
5/16/2000	1024	10.0	9.58	29.06	22.39	7.9		9.5	101		74.2	14.88	2.42	13.39	2.09	1.40	37.18
5/16/2000	1024	30.0	9.33	29.21	22.54	7.9		8.9	94		77.1			16.26	3.02	1.74	41.46
6/21/2000	1033	0.5	12.50	24.69	18.51	8.4	13	10.3	113	2.0	47.9	14.46	0.98	3.38	0.36	0.33	88.88
6/21/2000	1033	10.0	10.69	29.03	22.18	7.9		8.3	91		75.2	6.53	1.70	15.10	1.56	1.62	32.98
6/21/2000	1033	30.0	10.36	29.20	22.37	7.9		7.5	81		79.8			18.38	1.30	1.84	38.00
7/25/2000	1018	0.5	14.12	27.90	20.68	7.8	8	9.8	114	1.5	56.4	20.84	2.08	4.76	0.08	0.74	43.92
7/25/2000	1018	10.0	12.38	29.31	22.11	7.7		7.7	87		78.0	6.26	1.37	14.22	0.25	1.48	37.85
7/25/2000	1018	30.0	11.65	29.41	22.31	7.6		6.9	77		79.1			20.88	0.06	1.93	40.30
8/21/2000	1106	0.5	13.41	28.35	21.17	7.9	1 U	7.5	86	8.5	76.2	4.08	0.56	17.17	1.33	1.76	52.37
8/21/2000	1106	10.0	12.68	29.40	22.12	7.8		7.4	84		79.7	5.99	0.15	19.01	1.46	1.96	42.57
8/21/2000	1106	30.0	12.09	29.77	22.52	7.7		6.0	67		82.8			21.62	0.04	2.07	43.88
9/14/2000	1059	0.5	13.06	28.09	21.04	7.8	13	6.6	76	0.8	51.6	1.18	0.50	18.75	3.37	1.84	109.35
9/14/2000	1059	10.0	12.44	29.95	22.59	7.9		6.0	69		80.6	1.52	0.30	19.29	4.23	2.40	52.14
9/14/2000	1059	30.0	12.26	30.10	22.74	7.9		5.9	67		81.5			19.27	1.76	2.20	49.20
10/10/2000	1059	0.5	12.52	29.05	21.88	7.9		6.5	74	5.0	69.9	1.08	0.35	19.36	3.82	2.26	64.50
10/10/2000	1059	10.0	12.32	30.14	22.76	7.9		6.0	68		74.7	0.41	0.18	20.41	2.79	2.37	49.02
10/10/2000	1059	30.0	12.15	30.34	22.94	7.9		5.6	63		78.3			20.55	1.21	2.26	47.92
11/9/2000	1114	0.5	11.34	29.88	22.73	7.9		5.5	61	3.5	72.6	2.10	0.50	26.04	2.25	2.45	68.80
11/9/2000	1114	10.0	11.39	30.34	23.08	7.9		5.4	60		74.7	0.57	0.29	25.81	1.69	2.58	56.65
11/9/2000	1114	30.0	11.30	30.50	23.22	7.9		5.3	59		79.1			25.80	0.14	2.51	55.11
12/19/2000	1057	0.5	9.49	30.15	23.25	7.9	22	6.6	70	8.5	77.2						
12/19/2000	1057	10.0	9.55	30.49	23.50	8.0		6.7	72		79.9						
12/19/2000	1057	30.0	9.58	30.52	23.53	8.0		6.5	70		79.5						

## CMB006, Commencement Bay - Mouth of City WW

Lat (decimal): 47.262

Long (decimal): -122.437

*October 1998 - January 1999*

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3_NO2-N DISS (mg/L)	NH4_NH3-N DISS (mg/L)	ORTHO PO4-P DISS (mg/L)
11/30/1998	1201	0.5	9.86	23.88	18.31	7.5	60	6.5	68	2.4	17.3					
11/30/1998	1201	10.0	11.21	30.20	23.00	7.5		5.8	64		75.5					
1/19/1999	1115	0.5	9.73	28.80	22.16	7.5	53	7.9	84	6.6	71.6					
1/19/1999	1115	10.0	9.73	29.19	22.46	7.5		7.7	82		69.8					

## CMB006, Commencement Bay - Mouth of City WW

Lat (decimal): 47.262

Long (decimal): -122.437

*February 1999 - December 1999*

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3 DISS (uM)	NH4 DISS (uM)	ORTHO PO4 DISS (uM)	Si(OH)4 DISS (uM)
4/20/1999	1411	0.5	9.15	27.90	21.54	7.6	1 U	9.6	100	5.8	75.5						
4/20/1999	1411	8.0	8.50	28.46	22.07	7.6		8.8	91		67.8						
6/15/1999	1325	1.0	11.94	26.69	20.16	7.8	8	10.2	113	3.0	62.8						
6/15/1999	1325	10.0	10.86	28.27	21.57	7.8		10.0	108		67.2						
7/21/1999	1435	0.5	12.57	27.82	20.92	7.8	27	11.7	131	4.0	47.8						
7/21/1999	1435	10.0	11.44	28.90	21.95	7.4		8.6	95		64.5						
9/29/1999		0.5					1 U			6.5							
9/29/1999		10.0															
10/25/1999	1134	0.5	11.92	28.28	21.39		19	6.6	74	6.4	69.0						
10/25/1999	1134	10.0	11.54	30.04	22.82			6.5	72		78.7						
12/21/1999	1140	0.5	8.09	18.08	14.01		57	9.6	92	1.5	36.5						
12/21/1999	1140	10.0	9.89	29.22	22.46			7.0	74		61.2						

## CRR001, Carr Inlet - Off Green Point

Lat (decimal): 47.277

Long (decimal): -122.708

*October 1998 - January 1999*

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3_NO2-N DISS (mg/L)	NH4_NH3-N DISS (mg/L)	ORTHO PO4-P DISS (mg/L)
10/28/1998	1144	0.5	13.11	30.09	22.57	7.8	1 U	7.1	82	7.7	78.3	13.00	1.20	0.203	0.010 U	0.062
10/28/1998	1144	10.0	13.04	30.12	22.61	7.7		6.2	71		81.9	3.10	1.20	0.253	0.010 U	0.069
10/28/1998	1144	30.0	12.93	30.14	22.64	7.7		6.3	72		81.2			0.269	0.010 U	0.071
11/30/1998	1223	0.5	10.75	29.59	22.61	7.7	1 U	7.1	77	9.2	78.7					
11/30/1998	1223	10.0	10.87	29.63	22.62	7.7		6.9	76		78.9					
11/30/1998	1223	30.0	11.22	29.84	22.72	7.7		6.3	70		79.6					
1/19/1999	1200	0.5	9.13	28.37	21.92	7.6	1	8.9	93	9.2	76.6					
1/19/1999	1200	10.0	9.15	28.40	21.93	7.6		8.8	92		76.3					
1/19/1999	1200	30.0	9.25	28.47	21.97	7.6		8.6	91		76.4					

## CRR001, Carr Inlet - Off Green Point

Lat (decimal): 47.277

Long (decimal): -122.708

February 1999 - December 1999

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3 DISS (uM)	NH4 DISS (uM)	ORTHO PO4 DISS (uM)	Si(OH)4 DISS (uM)
2/20/1999	1227	0.5	8.19	27.74	21.55	7.7		9.2	94	8.1	77.9			27.92	0.28	2.41	73.71
2/20/1999	1227	10.0	8.36	27.88	21.64	7.7		8.9	92		78.1						
2/20/1999	1227	30.0	8.50	28.04	21.75	7.6		8.6	88		77.8						
3/15/1999	1454	0.5	8.31	26.53	20.59	7.7		10.4	105	8.3	79.9			25.06	0.37	2.10	76.35
3/15/1999	1454	10.0	8.18	27.20	21.13	7.6		9.7	98		80.4			26.78	0.44	2.24	77.27
3/15/1999	1454	30.0	8.17	27.54	21.40	7.6		9.1	93		81.6			27.73	0.20	2.33	74.28
4/20/1999	1433	0.5	8.91	27.80	21.50	7.8	1 U	11.4	119	4.5	75.0	18.10	2.20	16.15	0.35	1.40	34.09
4/20/1999	1433	10.0	8.84	27.91	21.59	7.8		10.7	111		77.8	19.70	2.50	16.54	0.39	1.42	41.28
4/20/1999	1433	30.0	8.57	28.02	21.72	7.7		9.2	95		78.7			24.41	0.80	1.92	53.79
5/21/1999	1454	0.5	10.92	28.08	21.41	8.0		12.4	135	3.7	51.1	13.00	0.05	0.52	0.06	0.32	12.78
5/21/1999	1454	10.0	9.27	28.35	21.88	7.8		9.1	95		81.6	0.90	0.81	15.02	3.88	1.71	37.56
5/21/1999	1454	30.0	9.27	28.49	21.98	7.8		9.1	96		80.0			15.31	4.58	1.76	38.73
6/15/1999	1204	0.5	13.76	28.32	21.08	8.2	1 U	14.6	169	3.0	45.6	11.00	0.99	0.14	0.09	0.41	20.90
6/15/1999	1204	10.0	10.95	28.55	21.77	7.9		10.3	112		78.9	1.80	1.60	9.46	3.55	1.43	32.23
6/15/1999	1204	30.0	10.54	28.63	21.90	7.8		9.7	105		77.7			11.53	4.93	1.64	36.12
7/21/1999	1459	0.5	14.41	28.67	21.22	7.9	1 U	12.5	147	5.0	61.0	16.13	1.92	0.19	0.15	0.51	16.89
7/21/1999	1459	10.0	12.19	28.88	21.81	7.5		8.9	100		78.9	7.34	1.03	9.27	1.61	1.41	31.07
7/21/1999	1459	30.0	11.75	28.91	21.91	7.4		8.3	93		83.0			11.62	3.05	1.68	34.44
8/16/1999	1158	0.5	14.27	28.83	21.37	7.9	1 U	9.7	114	4.3	61.6	11.24	0.47	0.30	0.08	0.58	13.34
8/16/1999	1158	10.0	12.50	28.98	21.83	7.5		7.1	81		81.8	2.45	1.18	12.29	3.15	1.82	37.12
8/16/1999	1158	30.0	12.17	29.04	21.94	7.4		6.5	73		80.8			15.39	3.09	2.02	42.18
9/29/1999	1536	1.0					1 U			7.0		4.91	0.00	0.21	0.11	0.94	31.33
9/29/1999	1536	10.0										1.19	0.42	16.16	4.42	2.38	69.16
9/29/1999	1536	30.0												16.05	3.65	2.19	55.38
10/25/1999	1203	0.5	12.23	29.65	22.39		1 U	7.9	90	10.0	76.8	16.26	0.98	13.68	1.35	1.93	43.91
10/25/1999	1203	10.0	12.23	29.65	22.40			7.6	86		77.3	15.97	0.62	13.88	1.63	2.00	43.99
10/25/1999	1203	30.0	12.11	29.75	22.49			5.6	63		71.4			17.57	4.66	2.51	56.80
11/22/1999	1206	0.5	10.73	29.37	22.44		1 U	7.3	80	8.5	79.8	1.77	0.42	20.92	1.62	2.27	60.75
11/22/1999	1206	10.0	10.99	29.64	22.61			6.4	71		79.4	1.61	0.44	21.37	1.44	2.32	60.10
11/22/1999	1206	30.0	11.02	29.70	22.65			6.2	68		77.5						
12/21/1999	1206	0.5	9.51	28.53	21.98		1	8.2	87	7.5	75.6	0.70	0.11	26.75	0.01	2.49	72.45
12/21/1999	1206	10.0	9.64	28.70	22.10			7.9	84		76.9	0.48	0.09	26.99	0.00	2.50	71.34
12/21/1999	1206	30.0	9.70	28.82	22.18			7.8	83		77.7			26.93	0.00	2.51	70.51

## CRR001, Carr Inlet - Off Green Point

Lat (decimal): 47.277

Long (decimal): -122.708

*January 2000 - December 2000*

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3 DISS (uM)	NH4 DISS (uM)	ORTHO PO4 DISS (uM)	Si(OH)4 DISS (uM)
7/25/2000	1635	0.5	15.75	29.04	21.22	8.0		10.0	121		72.0						
7/25/2000	1635	10.0	12.96	29.20	21.92	7.8		8.2	94		76.9	8.30	0.83	10.20	1.57	1.53	34.45
7/25/2000	1635	30.0	12.02	29.15	22.05	7.6		6.9	77		79.3						
8/21/2000	1653	0.5	16.65	29.01	21.00	8.5		14.0	172	4.5	46.6						
8/21/2000	1653	10.0	14.32	29.19	21.64	8.0		7.9	93		77.6						
8/21/2000	1653	30.0	13.44	29.41	21.98	7.8		6.7	78		77.1						
9/14/2000	1009	0.5	13.44	29.65	22.17	7.9		6.7	77	14.1	80.2						
9/14/2000	1009	10.0	13.25	29.67	22.22	7.9		6.3	72		82.2						
9/14/2000	1009	30.0	12.85	29.81	22.41	7.9		5.7	65		79.8						
10/10/2000	1630	0.5	13.32	29.79	22.30	8.5		11.6	135		61.5						
10/10/2000	1630	10.0	13.13	29.93	22.44	8.3		8.8	101		65.5						
10/10/2000	1630	30.0	12.79	30.02	22.58	8.0		6.0	69		81.2						
11/9/2000	1022	0.5	11.50	30.00	22.80	8.1		7.4	82	8.0	73.4						
11/9/2000	1022	10.0	11.61	30.05	22.82	8.1		6.7	75		77.0						
11/9/2000	1022	30.0	11.85	30.19	22.88	7.9		5.6	63		80.5						
12/19/2000	1010	0.5	9.38	30.23	23.32	7.9		7.0	75		76.4						
12/19/2000	1010	10.0	9.39	30.23	23.32	7.9		7.1	75		76.2						
12/19/2000	1010	30.0	9.41	30.23	23.32	8.0		7.1	75		76.8						



## CSE001, Case Inlet - S. Heron Island

Lat (decimal): 47.265

Long (decimal): -122.843

*October 1998 - January 1999*

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3_NO2-N DISS (mg/L)	NH4_NH3-N DISS (mg/L)	ORTHO PO4-P DISS (mg/L)
10/28/1998	1301	0.5	13.25	29.82	22.33	7.7	1 U	6.9	80	8.1	76.5	3.30	1.00	0.226	0.010 U	0.072
10/28/1998	1301	10.0	13.19	29.88	22.39	7.7		6.4	74		77.4	3.20	1.10	0.225	0.010 U	0.065
10/28/1998	1301	30.0	13.16	29.97	22.47	7.7		6.0	70		78.1			0.241	0.010 U	0.070
11/30/1998	1250	0.5	10.35	27.77	21.26	7.7	1 U	7.6	81	8.1	77.9					
11/30/1998	1250	10.0	10.77	28.63	21.86	7.7		7.2	78		78.9					
11/30/1998	1250	30.0	11.36	29.82	22.68	7.7		6.1	67		75.4					
1/19/1999	1248	0.5	8.82	27.39	21.19	7.6	1 U	8.9	92	8.0	75.0					
1/19/1999	1248	10.0	8.82	27.48	21.27	7.6		8.9	92		75.4					
1/19/1999	1248	30.0	9.43	28.39	21.88	7.5		7.9	83		67.9					

## CSE001, Case Inlet - S. Heron Island

Lat (decimal): 47.265

Long (decimal): -122.843

February 1999 - December 1999

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3 DISS (uM)	NH4 DISS (uM)	ORTHO PO4 DISS (uM)	Si(OH)4 DISS (uM)
2/20/1999	1002	0.5	8.06	26.44	20.56	7.5		9.7	97	6.5	77.5			27.77	0.38	2.40	79.47
2/20/1999	1002	10.0	8.34	27.14	21.06	7.5		9.1	93		75.1						
2/20/1999	1002	30.0	8.52	27.76	21.53	7.5		8.8	90		71.7						
3/15/1999	1153	0.5	8.18	24.19	18.78	7.7		10.9	109	7.6	78.4			22.45	0.34	1.81	80.97
3/15/1999	1153	10.0	8.23	27.21	21.13	7.6		9.0	91		77.7			27.71	0.20	2.31	76.30
3/15/1999	1153	30.0	8.26	27.54	21.38	7.5		8.6	88		68.9			28.45	0.20	2.40	75.73
4/20/1999	1149	0.5	10.93	22.83	17.33	8.2	1 U	11.1	116	4.6	55.5	40.40	0.55	6.60	0.00	0.90	27.47
4/20/1999	1149	10.0	10.71	24.27	18.49	8.1		11.2	119		53.0	37.30	2.20	7.06	0.00	0.90	25.17
4/20/1999	1149	15.0	10.63	24.60	18.75	8.1		11.8	125		44.9			16.94	1.86	1.68	42.00
5/21/1999	1204	0.5	11.14	27.66	21.05	8.0		13.4	146	3.4	53.8	19.00	0.93	0.00	0.14	0.38	8.72
5/21/1999	1204	10.0	9.93	28.09	21.57	7.9		10.2	108		73.0	6.90	1.20	9.56	3.12	1.33	25.68
5/21/1999	1204	30.0	9.55	28.37	21.85	7.8		9.5	101		74.2			11.41	3.49	1.48	31.11
6/15/1999	1103	0.5	14.33	27.95	20.68	8.1	1 U	12.8	149	5.5	63.1	13.00	0.30	0.49	0.17	0.77	18.15
6/15/1999	1103	10.0	11.70	28.27	21.42	7.9		11.4	127		76.2	6.80	0.98	6.51	3.38	1.35	28.81
6/15/1999	1103	30.0	10.89	28.43	21.68	7.8		10.0	109		73.4			8.39	5.00	1.54	32.82
7/21/1999	1226	0.5	15.04	28.40	20.88	7.6	1 U	9.5	113	12.0	81.4	3.04	0.80	4.37	1.25	1.48	36.70
7/21/1999	1226	10.0	12.86	28.61	21.48	7.5		8.9	102		79.2	15.00	1.81	6.08	1.92	1.61	37.88
7/21/1999	1226	30.0	12.11	28.80	21.76	7.4		8.2	91		78.0			10.27	4.02	1.81	38.70
8/16/1999	1239	0.5	14.52	28.70	21.22	7.8	1	9.0	106	7.0	72.5	46.09	1.57	1.46	0.23	1.52	45.32
8/16/1999	1239	10.0	13.65	28.80	21.47	7.6		7.4	86		78.3	8.02	1.84	6.71	2.94	1.78	45.46
8/16/1999	1239	30.0	12.89	28.97	21.75	7.5		6.9	79		76.1			12.03	3.51	1.96	44.15
9/29/1999	1249	0.5	13.81	29.18	21.73	7.6	1 U	7.6	88	8.4	69.0	1.11	0.08	5.13	1.44	1.80	59.42
9/29/1999	1249	10.0	13.49	29.25	21.85	7.5		7.2	83		73.8	8.40	0.63	8.57	3.34	1.98	59.03
9/29/1999	1249	30.0	13.15	29.35	21.99	7.5		6.9	79		73.7			11.19	3.44	2.04	55.08
10/25/1999	1303	0.5	12.51	29.45	22.19		1 U	7.6	86	9.4	75.5	10.94	1.74	13.05	3.11	2.16	57.30
10/25/1999	1303	10.0	12.45	29.50	22.24			6.7	76		77.0	21.59	3.46	13.81	4.03	2.27	57.84
10/25/1999	1303	30.0	12.34	29.56	22.30			6.5	74		70.1			14.61	4.67	2.31	57.91
11/22/1999	1111	0.5	10.67	28.80	22.00		2	7.6	83		76.3	1.28	0.22	16.53	5.26	2.41	66.34
11/22/1999	1111	10.0	10.85	28.92	22.07			7.2	79		76.2	4.06	0.72				
11/22/1999	1111	30.0	11.11	29.51	22.49			6.2	69		66.5						
12/21/1999	1304	0.5	9.21	26.36	20.33		1	8.6	89	6.5	72.7						
12/21/1999	1304	10.0	9.77	28.41	21.85			7.5	80		74.9						
12/21/1999	1304	30.0	9.95	28.97	22.26			6.9	74		64.8						

## CSE002, Case Inlet - Off Rocky Point

Lat (decimal): 47.353

Long (decimal): -122.813

*October 1998 - January 1999*

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3_NO2-N DISS (mg/L)	NH4_NH3-N DISS (mg/L)	ORTHO PO4-P DISS (mg/L)
10/28/1998	1225	0.5	13.38	29.57	22.12	7.8	1 U	7.7	90	5.4	68.3	9.40	1.90	0.170	0.010 U	0.066
10/28/1998	1225	10.0	13.49	29.75	22.24	7.7		5.5	64		71.5	7.30	1.50	0.211	0.010 U	0.074
11/30/1998	1028	0.5	10.22	26.14	20.01	7.4	2	7.9	83	7.0	72.8					
11/30/1998	1028	9.0	11.04	28.69	21.86	7.5		7.2	78		74.6					
1/19/1999	1231	0.5	8.24	25.72	19.97	7.6	20	9.7	97	7.0	73.3					
1/19/1999	1231	10.0	8.57	26.93	20.87	7.6		9.0	93		76.7					

CSE002, Case Inlet - Off Rocky Point

Lat (decimal): 47.353

Long (decimal): -122.813

February 1999 - December 1999

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3 DISS (uM)	NH4 DISS (uM)	ORTHO PO4 DISS (uM)	Si(OH)4 DISS (uM)
2/20/1999	1036	0.5	7.71	25.11	19.56	7.6		9.7	96	7.7	81.0			26.35	0.74	2.27	83.91
2/20/1999	1036	10.0	8.36	26.86	20.84	7.6		8.5	86		75.4						
3/15/1999	1232	0.5	8.46	24.10	18.67	7.7		11.0	111	7.2	79.6			19.43	0.87	1.61	87.72
3/15/1999	1232	5.0	8.36	25.22	19.56	7.7		10.2	103		77.6			23.12	0.74	1.95	76.91
4/20/1999	1220	0.5	10.58	26.49	20.22	8.3	1 U	15.4	164	4.7	63.5	12.30	2.40	0.83	0.12	0.17	7.60
4/20/1999	1220	10.0	9.48	27.13	20.89	8.2		12.8	134		61.6	37.70	2.50	2.91	0.49	0.57	15.80
5/21/1999	1240	0.5	12.22	27.28	20.56	8.0		13.1	146	3.9	52.2	6.20	0.45	0.00	0.00	0.48	11.41
5/21/1999	1240	9.0	9.64	27.91	21.48	7.9		7.5	79		52.4	14.00	2.50	7.62	4.88	1.55	26.94
6/15/1999	1139	0.5	16.51	27.31	19.73	8.0	1 U	10.9	132	7.5	75.4	2.70	0.36	0.40	0.21	1.14	33.72
6/15/1999	1139	10.0	11.62	28.16	21.35	8.0		9.8	109		67.8	10.00	0.38	0.41	0.66	1.28	27.21
7/21/1999	1300	0.5	16.91	27.93	20.11	7.7	1	9.7	120	8.5	72.9	4.57	1.64	0.74	0.26	1.36	44.38
7/21/1999	1300	10.0	13.26	28.47	21.29	7.6		7.0	80		74.6	19.53	2.26	3.56	0.66	1.80	43.46
8/16/1999	1312	0.5	17.01	28.24	20.33	8.1	1 U	10.7	132	3.0	62.3	19.22	0.00	0.17	0.05	1.09	61.19
8/16/1999	1312	10.0	13.97	28.67	21.30	7.5		5.0	58		74.4	2.93	1.02	3.92	7.09	2.22	57.14
9/29/1999	1319	0.5	14.20	29.00	21.51	7.5	1 U	7.9	92	8.3	74.1	4.81	0.17	4.46	4.08	1.94	63.88
9/29/1999	1319	10.0	13.50	29.21	21.82	7.5		6.0	69		77.5	8.78	0.77	7.58	7.18	2.23	64.01
10/25/1999	1238	0.5	12.45	28.92	21.79		1	7.2	81	7.0	70.3	13.31	1.98	10.22	3.08	2.16	66.87
10/25/1999	1238	10.0	12.64	29.41	22.13			6.3	72		73.9	8.21	1.24	12.17	6.88	2.42	
11/22/1999	1141	0.5	10.42	28.06	21.47		1	8.1	88	7.0	75.4	4.44	1.90	15.64	6.00	2.35	71.75
11/22/1999	1141	8.5	10.80	28.45	21.72			7.7	83		76.2	3.59	1.50	15.98	5.74	2.39	71.28
12/21/1999	1246	0.5	9.30	26.63	20.53		2	8.4	87	8.0	76.2						
12/21/1999	1246	10.0	9.68	28.14	21.65			7.7	81		77.1						

## DIS001, Discovery Bay - Near Mill Point

Lat (decimal): 48.018

Long (decimal): -122.847

January 2000 - December 2000

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3 DISS (uM)	NH4 DISS (uM)	ORTHO PO4 DISS (uM)	Si(OH)4 DISS (uM)
1/24/2000	1419	0.5	7.15	30.14	23.58		1 U	8.2	83	9.5	76.8						
1/24/2000	1419	10.0	7.48	30.51	23.82			8.2	84		75.2						
1/24/2000	1419	30.0	7.48	30.61	23.90			8.4	86		77.1						
2/15/2000	1408	0.5	7.52	30.82	24.06		1 U	9.4	96	13.5	77.7						
2/15/2000	1408	10.0	7.36	30.82	24.08			9.3	95		77.5						
2/15/2000	1408	30.0	7.59	30.93	24.13			8.3	85		76.3						
3/13/2000	1523	0.5	8.16	30.61	23.81	7.9	1 U	9.1	95	11.3	81.3						
3/13/2000	1523	10.0	8.05	30.64	23.84	7.9		8.7	90		81.3						
3/13/2000	1523	30.0	7.91	30.85	24.03	7.8		7.8	80		69.0						
4/17/2000	1443	0.5	10.82	30.50	23.31	8.4	1 U	11.7	129	6.3	68.6	7.62	0.01	0.02	0.00	0.06	6.55
4/17/2000	1443	10.0	8.39	31.08	24.14	7.8		8.0	84		74.1	56.51	1.41	0.00	0.31	0.33	8.14
4/17/2000	1443	28.5	8.28	31.33	24.35	7.8		6.9	72		83.3			20.80	2.20	2.01	48.44
5/8/2000	1517	0.5	10.45	30.21	23.14	8.1	1 U	6.9	75	8.1	75.3	7.75	1.22	7.86	1.54	1.11	29.36
5/8/2000	1517	10.0	10.20	30.23	23.20	8.0		8.8	95		79.5	2.18	0.79	12.24	1.82	1.34	28.17
5/8/2000	1517	30.0	10.01	30.40	23.36	8.0		8.5	92		77.6			11.62	2.75	1.38	29.07
6/6/2000	1510	0.5	13.58	30.49	22.79	8.2	1 U	11.4	134	2.5	30.7	38.53	9.50	0.35	0.04	0.12	2.47
6/6/2000	1510	10.0	9.94	30.97	23.82	7.9		7.5	81		81.6	2.44	1.06	18.65	2.00	1.76	36.31
6/6/2000	1510	30.0	9.27	31.34	24.21	7.7		5.9	63		65.8			22.18	2.53	2.06	44.62
7/17/2000	1438	0.5	17.22	30.75	22.21	8.1	1 U	11.8	149	6.5	64.6	2.92	0.05	0.20	0.10	0.16	2.40
7/17/2000	1438	10.0	10.85	31.11	23.77	7.7		7.7	85		71.6	13.18	1.79	12.78	2.30	1.63	27.20
7/17/2000	1438	25.5	9.34	31.82	24.57	7.4		4.7	51		30.9						
8/14/2000	1451	0.5	16.13	31.06	22.69	8.3	1 U	11.6	144	5.5	66.9	6.26	1.07	0.20	0.10	0.39	29.84
8/14/2000	1451	10.0	12.31	31.02	23.44	7.8		7.4	84		81.0	2.87	0.34	13.89	2.82	1.69	39.01
8/14/2000	1451	30.0	10.51	31.53	24.16	7.6		4.7	52		75.1			20.45	4.30	2.36	46.90
9/12/2000	1523	0.5	12.98	31.52	23.70	8.2	1 U	10.2	118	7.0	76.2	10.88	1.09	4.29	0.38	1.10	33.45
9/12/2000	1523	10.0	10.80	31.67	24.22	7.9		5.6	63		81.8	9.52	0.50	17.30	1.41	1.87	39.38
9/12/2000	1523	30.0	9.58	32.19	24.82	7.7		4.1	44		79.5			23.38	3.52	2.55	54.91
10/3/2000	1439	0.5	11.50	31.71	24.13	8.3	1 U	8.9	101	7.5	71.1	8.34	1.34	9.96	0.24	1.40	36.81
10/3/2000	1439	10.0	10.68	31.89	24.41	8.1		6.4	71		76.4	2.78	0.62	21.39	2.88	2.34	49.17
10/3/2000	1439	30.0	9.65	32.20	24.82	7.9		4.0	43		82.7			21.45	5.17	2.84	58.60
11/15/2000	1440	0.5	8.87	31.60	24.48	8.1	1 U	7.2	77	14.5	81.8	2.43	0.15	23.83	0.87	2.30	51.53
11/15/2000	1440	10.0	8.76	31.62	24.51	8.1		7.5	79		82.9	3.25	0.25	23.54	1.01	2.29	51.50
11/15/2000	1440	30.0	9.26	31.89	24.64	8.0		5.3	57		77.3						
12/12/2000	1349	0.5	7.98	31.62	24.63	8.1	1 U	7.2	75	13.5	80.0						
12/12/2000	1349	10.0	7.95	31.62	24.63	8.1		7.1	74		80.7						
12/12/2000	1349	30.0	7.93	31.62	24.63	8.1		7.0	73		80.7						

## DNA001, Dana Passage - S. of Brisco Point

Lat (decimal): 47.162

Long (decimal): -122.870

*October 1997 - September 1998*

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3_NO2-N DISS (mg/L)	NH4_NH3-N DISS (mg/L)	ORTHO PO4-P DISS (mg/L)
11/26/1997	1518	10.0	11.43	28.39	21.56			6.8	75		73.0	0.65	0.26	0.336	0.010 U	0.115
11/26/1997	1518	30.0	11.51	28.64	21.74			6.6	73		73.2			0.341	0.010 U	0.116
11/26/1997	1518	0.5	11.39	28.22	21.44			6.9	76	6.8	72.4	0.84	0.28	0.340	0.010 U	0.118
12/29/1997	1503	1.0	9.81	28.29	21.75		1 U	7.2	76	6.6	71.6					
12/29/1997	1503	10.0	9.85	28.37	21.81			7.1	76		72.0					
12/29/1997	1503	30.0	9.95	28.50	21.89			9.4	101		79.9					
1/26/1998	1541	10.0	8.71	27.37	21.19			9.8	101		69.9	0.19	0.15	0.436	0.010 U	0.102
1/26/1998	1541	30.0	8.97	28.28	21.86			9.6	101		67.9			0.431	0.010 U	0.105
1/26/1998	1541	0.5	8.49	25.01	19.38		2	10.0	101	4.5	63.5	0.42	0.15	0.443	0.010 U	0.092
2/24/1998	1652	10.0														
2/24/1998	1652	30.0														
2/24/1998	1652	0.5					2			5.5						
3/17/1998	1657	0.5	9.35	27.32	21.06		1 U	8.7	91	8.4	72.2	1.70	0.17	0.393	0.010 U	0.090
3/17/1998	1657	10.0	9.15	27.73	21.41			8.7	91		75.1	3.00	0.45	0.394	0.010 U	0.088
3/17/1998	1657	28.5	9.09	27.76	21.45			8.6	89		73.9			0.411	0.010 U	0.092
4/13/1998	1759	30.0														
4/13/1998	1759	10.0														
4/13/1998	1759	0.5					1 U			9.2		1.00	0.28	0.298	0.020	0.127
5/19/1998	1603	0.5	13.20	27.81	20.79		1 U	13.9	158	4.3	56.4	16.60	1.10	0.027	0.010 U	0.049
5/19/1998	1603	10.0	11.92	28.04	21.21			11.3	126		70.2	11.10	2.10	0.055	0.010 U	0.072
5/19/1998	1603	30.0	11.40	28.21	21.43			10.7	118		70.8			0.047	0.010 U	0.074
6/30/1998	1932	30.0	12.30	28.88	21.78	7.9		7.8	88		76.5					
6/30/1998	1932	0.5	14.43	28.49	21.08	8.1		9.5	112	8.2	75.3	6.70	0.82	0.078	0.012	0.133
6/30/1998	1932	10.0	13.27	28.70	21.46	8.0		8.7	100		78.7					
7/27/1998	1700	28.5	14.05	29.03	21.57	7.9		8.4	99		73.6			0.102	0.010 U	0.192
7/27/1998	1700	0.5	15.81	28.91	21.11	8.2	1 U	11.6	141	7.7	65.2	7.50	1.30	0.027	0.010 U	0.183
7/27/1998	1700	10.0	14.78	28.95	21.36	8.0		9.6	114		75.1	7.00	1.30	0.071	0.010 U	0.188
8/24/1998	1005	0.5	15.42	29.22	21.43	7.9	1 U	8.1	97	5.8	68.5	8.20	0.77	0.081	0.010 U	0.208
8/24/1998	1005	10.0	15.14	29.29	21.55	8.0		7.9	95		71.2	5.50	1.60	0.060	0.010 U	0.156
8/24/1998	1005	30.0	14.97	29.32	21.60	7.9		7.7	91		79.9			0.067	0.010 U	0.154
9/22/1998	1658	30.0	14.64	29.68	21.95	8.2		6.6	78		82.4			0.140	0.030	0.244
9/22/1998	1658	0.5	15.53	29.53	21.64	8.3	1 U	7.6	92	5.8	63.7	7.60	0.05 U	0.076	0.021	0.234
9/22/1998	1658	10.0	14.93	29.62	21.84	8.3		6.7	80		74.5	5.00	0.33	0.129	0.026	0.237

## DNA001, Dana Passage - S. of Brisco Point

Lat (decimal): 47.162

Long (decimal): -122.870

*October 1998 - January 1999*

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3_NO2-N DISS (mg/L)	NH4_NH3-N DISS (mg/L)	ORTHO PO4-P DISS (mg/L)
10/19/1998	1515	0.5	13.73	29.72	22.17	7.7	1 U	7.0	82	8.3	73.4	4.00	0.73	0.093	0.022	0.073 J
10/19/1998	1515	10.0	13.67	29.74	22.19	7.7		7.0	82		74.9	3.60	0.82	0.121	0.100	0.075 J
10/19/1998	1515	30.0	13.55	29.78	22.25	7.7		6.6	76		75.9			0.169	0.082	0.078 J
12/4/1998	1504	0.5	10.59	28.58	21.85	7.7		6.8	74	4.8	71.7			0.360	0.013	0.205
12/4/1998	1504	10.0	10.68	28.76	21.98	7.7		6.7	73		71.5			0.353	0.010 U	0.213
12/4/1998	1504	30.0	10.94	29.30	22.35	7.6		6.3	69		71.1			0.372	0.010 U	0.247

## DNA001, Dana Passage - S. of Brisco Point

Lat (decimal): 47.162

Long (decimal): -122.870

## February 1999 - December 1999

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3 DISS (uM)	NH4 DISS (uM)	ORTHO PO4 DISS (uM)	Si(OH)4 DISS (uM)
3/18/1999	1610	0.5	8.45	26.14	20.27	7.7	1 U	10.3	105	5.8	73.0	4.40	0.45				
3/18/1999	1610	10.0	8.25	26.87	20.86	7.6		9.2	93		71.6	3.60	0.59				
3/18/1999	1610	29.5	8.27	26.85	20.85	7.6		9.2	94		72.6			26.27	0.21	2.22	73.09
4/13/1999	1626	0.5	8.96	27.19	21.02	7.8	1 U	11.2	116	5.8	73.6	9.40	0.73	15.51	0.55	1.46	43.04
4/13/1999	1626	10.0	8.55	27.46	21.29	7.7		10.0	103		76.2	8.20	2.00	19.01	0.91	1.73	47.73
4/13/1999	1626	30.0	8.41	27.70	21.49	7.7		9.3	95		75.9			18.76	0.92	1.71	47.39
6/7/1999	1719	0.5	12.27	27.94	21.06	8.0	1 U	12.0	135	7.0	68.9	10.00	0.55	3.49	1.52	1.09	24.93
6/7/1999	1719	10.0	11.57	28.11	21.32	8.0		11.0	121		75.0	8.80	1.30	4.76	2.41	1.17	26.78
6/7/1999	1719	30.0	11.39	28.11	21.35	7.9		10.9	120		75.8						
7/8/1999	1647	0.5	12.54	28.48	21.43	7.3	1 U	8.6	97	10.7	80.0	9.62	0.96	9.03	3.37	1.59	39.95
7/8/1999	1647	10.0	12.52	28.49	21.44	7.3		8.5	96		79.8	8.77	0.88	8.90	3.53	1.60	37.16
7/8/1999	1647	30.0	12.25	28.54	21.54	7.2		8.5	96		80.0			9.03	3.59	1.63	38.43
8/9/1999	1752	0.5	14.60	28.84	21.31	7.6	1 U	8.4	99	4.3	74.1	6.61	1.08	6.00	1.85	1.63	44.36
8/9/1999	1752	10.0	14.21	28.90	21.43	7.6		8.1	95		74.9	9.17	2.22	5.95	1.66	1.65	44.34
8/9/1999	1752	30.0	13.03	28.87	21.64	7.5		7.6	87		74.2			5.68	1.56	1.66	43.62
9/13/1999	1722	0.5	14.46	29.04	21.49	7.5	1 U	8.1	95	6.1	69.6	8.40	1.36	6.73	1.92	1.72	59.08
9/13/1999	1722	10.0	13.96	29.10	21.64	7.5		7.5	88		70.7	22.18	1.24	6.34	1.00	1.54	51.01
9/13/1999	1722	27.5	13.55	29.18	21.78	7.4		7.1	82		68.5			6.34	1.12	1.56	50.28
10/18/1999	1645	0.5	12.83	29.29	22.01		1 U	7.4	85	7.0	75.3						
10/18/1999	1645	10.0	12.85	29.29	22.00			7.4	84		75.4						
10/18/1999	1645	30.0	12.66	29.41	22.13			7.0	80		75.6						



## DNA001, Dana Passage - S. of Brisco Point

Lat (decimal): 47.162

Long (decimal): -122.870

## January 2000 - December 2000

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3 DISS (uM)	NH4 DISS (uM)	ORTHO PO4 DISS (uM)	Si(OH)4 DISS (uM)
1/19/2000	1545	0.5	8.08	27.04	21.02		1	5.8	58	7.0	71.0						
1/19/2000	1545	10.0	8.28	27.71	21.52			8.2	84		70.5						
1/19/2000	1545	30.0	8.57	28.05	21.75			8.1	83		70.0						
3/21/2000	1711	0.5	8.41	27.90	21.64	7.8	1 U	9.3	95	8.5	77.8	5.44	0.69	20.73	0.81	1.88	55.19
3/21/2000	1711	10.0	8.38	27.93	21.68	7.8		9.1	94		77.3	4.63	0.76	22.85	0.94	2.01	59.19
3/21/2000	1711	30.0	8.26	28.16	21.87	7.8		8.7	89		76.4						
4/11/2000	1632	0.5	9.44	27.94	21.53	8.0	1 U	10.6	112	6.3	73.9	9.93	2.64	13.02	1.21	1.35	40.30
4/11/2000	1632	10.0	9.42	27.96	21.55	8.0		10.8	114		74.3	9.39	2.14	13.18	1.22	1.39	40.29
4/11/2000	1632	26.5	9.32	28.03	21.62	8.0		10.6	111		74.4			13.57	1.26	1.41	40.74
5/2/2000	1642	0.5	9.98	28.39	21.80	8.1	1 U	10.8	115	5.0	68.2	15.31	1.06	7.85	1.10	1.05	32.68
5/2/2000	1642	10.0	9.53	28.56	22.01	8.0		9.8	104		70.2	14.03	0.94	11.15	1.84	1.34	38.15
5/2/2000	1642	30.0	9.52	28.57	22.01	8.0		9.7	102		70.1			15.01	2.97	1.70	44.62
6/13/2000	1655	0.5	11.84	28.69	21.72	7.9	1 U	9.2	103	8.4	78.7	4.63	0.46	8.67	2.82	1.52	27.58
6/13/2000	1655	10.0	11.44	28.75	21.84	7.9		9.0	100		77.8	4.49	0.90	9.95	3.12	1.58	29.22
6/13/2000	1655	30.0	11.21	28.82	21.93	7.9		8.8	97		77.8			11.97	3.73	1.69	31.89
7/19/2000	1751	0.5	14.24	28.88	21.41	7.7	1 U	9.4	111	8.5	75.2	2.79	1.48	7.15	2.21	1.65	36.57
7/19/2000	1751	10.0	13.66	28.92	21.56	7.7		9.1	105		75.2	4.22	3.12	8.18	2.42	1.66	36.12
7/19/2000	1751	30.0	13.06	29.00	21.74	7.6		8.3	95		71.2			9.98	3.26	1.77	36.94
8/15/2000	1623	0.5	15.01	29.04	21.38	8.1	1	9.5	114	7.5	71.9	14.03	0.94	2.96	0.28	1.68	53.11
8/15/2000	1623	10.0	13.89	29.28	21.80	7.8		7.5	87		72.6	10.07	0.26	6.63	0.69	1.80	52.74
8/15/2000	1623	23.5	13.46	29.34	21.92	7.8		6.7	78		55.6			8.86	1.27	1.87	50.29
9/13/2000	1658	0.5	14.24	29.51	21.90	8.1	1	7.5	88	5.6	68.0	9.39	1.24	6.57	1.01	1.76	71.48
9/13/2000	1658	10.0	13.91	29.55	21.99	8.0		6.9	81		69.7	8.03	1.10	10.57	2.23	2.00	65.66
9/13/2000	1658	26.0	13.53	29.63	22.13	7.9		6.4	75		69.9			12.10	3.12	2.12	55.43
10/4/2000	1654	0.5	13.78	29.73	22.16	8.1	1 U	7.2	84	6.3	73.1	9.17	1.19	11.33	2.01	2.04	52.22
10/4/2000	1654	10.0	13.78	29.73	22.17	8.1		7.1	83		73.2	9.45	1.39	11.33	2.02	2.09	52.57
10/4/2000	1654	30.0	13.68	29.76	22.21	8.1		6.9	81		73.2						
11/14/2000	1625	0.5	11.23	29.86	22.74	8.0	1 U	6.2	69	6.5	73.0	1.56	0.46	21.44	1.39	2.64	62.98
11/14/2000	1625	10.0	11.29	29.92	22.78	8.0		6.0	66		65.6	1.81	0.52	21.27	1.40	2.65	62.67
11/14/2000	1625	30.0	11.31	29.95	22.79	8.0		5.9	66		62.5						
12/11/2000	1459	0.5	9.58	29.88	23.02	8.0	1 U	6.3	68	6.5	74.1						
12/11/2000	1459	10.0	9.58	29.88	23.02	8.0		6.5	69		74.1						
12/11/2000	1459	30.0	9.69	29.94	23.05	8.0		6.4	69		71.9						

## DRA002, Drayton Harbor - Inner Harbor

Lat (decimal): 48.983

Long (decimal): -123.762

## January 2000 - December 2000

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3 DISS (uM)	NH4 DISS (uM)	ORTHO PO4 DISS (uM)	Si(OH)4 DISS (uM)
1/24/2000	1126	1.0	6.10	28.45	22.37		30	8.4	82	3.0	57.9	0.63	0.67	31.28	1.45	2.26	73.10
1/24/2000	1126	8.0	6.80	29.59	23.18			8.5	85		58.4	0.68	0.64	28.06	0.74	2.31	63.61
2/15/2000	1121	0.5	6.62	28.98	22.73		4	9.2	91	4.0	58.8						
2/15/2000	1121	5.0	7.08	29.37	22.98			8.6	86		59.2						
3/13/2000	1224	1.0	7.86	29.38	22.88	7.8	1	9.3	95	4.5	66.4	1.22	0.70	23.99	0.83	2.05	53.52
3/13/2000	1224	10.0	7.76	29.49	22.98	7.8		8.9	91		68.5	1.65	0.79	22.80	1.53	2.01	54.70
4/17/2000	1128	1.0	11.30	28.83	21.92	8.2	1 U	10.9	120	3.5	54.2	4.22	0.57	1.07	1.40	0.47	11.06
4/17/2000	1128	3.0	10.73	29.07	22.21	8.3		11.6	126		37.9	27.22	1.32	0.69	0.22	0.28	9.86
5/8/2000	1158	1.0	11.59	29.01	22.02	8.1	1	9.8	109	3.9	56.0	2.39	1.10	2.83	1.52	0.86	24.98
5/8/2000	1158	7.5	10.86	29.33	22.39	8.1		9.3	102		45.9	17.44	2.68	6.24	1.19	0.99	23.79
6/6/2000	1234	1.0	12.61	28.01	21.06	8.0	1 U	9.2	104	2.5	47.2	12.11	2.71	2.92	1.73	1.03	31.05
6/6/2000	1234	10.0	11.50	28.61	21.72	8.0		9.0	100		32.1	31.47	3.61	3.93	1.07	0.84	26.49
7/17/2000	1121	1.0	18.60	27.51	19.40	7.9	1 U	7.7	97	2.5	54.0	2.44	1.11	0.53	0.48	1.41	30.09
7/17/2000	1121	7.5	16.39	27.89	20.20	7.8		7.8	95		33.7	4.76	1.82	2.27	1.78	1.49	29.24
8/14/2000	1156	1.0	18.33	22.74	15.83	8.3	1 U	9.6	117	2.7	48.3	5.17	0.37	0.01	0.09	0.24	11.27
8/14/2000	1156	6.5	17.82	24.03	16.93	8.1		7.4	91		20.5	15.31	3.40	2.21	1.27	1.23	27.86
9/12/2000	1233	1.0	14.46	26.54	19.57	8.1	2	7.4	86		49.9	4.76	1.22	1.27	1.89	1.16	32.70
9/12/2000	1233	4.0	13.94	26.88	19.93	8.1		6.9	79		35.9	13.61	3.23	2.57	4.28	1.55	36.85
10/3/2000	1222	1.0	12.69	29.08	21.87	8.2	2	9.1	103	3.0	55.3	20.12	2.42	1.99	1.02	1.09	29.53
10/3/2000	1222	3.5	12.64	29.10	21.89	8.3		9.3	105		55.9	19.24	2.80	2.23	1.21	1.13	29.53
11/15/2000	1225	0.5	8.34	28.90	22.44	8.0	1 U	6.8	70	4.0	63.5	0.99	0.83	20.45	3.94	2.32	61.42
11/15/2000	1225	9.5	8.88	29.27	22.66	8.0		6.1	64		61.3	1.01	1.50	21.83	3.25	2.50	61.57
12/12/2000	1139	0.5	6.06	29.58	23.26	8.0	9	8.3	82	3.5	65.9	1.20	0.93	26.03	1.90	2.38	62.93
12/12/2000	1139	10.0	5.93	29.56	23.26	8.0		8.4	83		64.1	1.11	0.97	25.98	1.89	2.38	63.04

## DUN001, Dungeness Bay

Lat (decimal): 48.173

Long (decimal): -123.113

## January 2000 - December 2000

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3 DISS (uM)	NH4 DISS (uM)	ORTHO PO4 DISS (uM)	Si(OH)4 DISS (uM)
1/24/2000	1455	0.5	7.61	30.84	24.06		1 U	7.1	73	6.5	70.6						
1/24/2000	1455	10.0	7.61	30.95	24.15			7.6	78		69.7						
2/15/2000	1457	0.5	7.33	30.04	23.47		1	9.1	92	8.0	72.5	1.00	0.50	22.40	0.54	1.91	52.14
2/15/2000	1457	10.0	7.68	30.98	24.16			8.2	84		70.8	0.72	0.41	24.54	0.10	2.05	50.18
3/13/2000	1605	0.5	8.14	30.63	23.83	7.9	1 U	8.2	85	7.9	72.1						
3/13/2000	1605	10.0	8.02	31.15	24.24	7.8		7.6	79		76.7						
4/17/2000	1541	0.5	8.52	31.33	24.32	7.8	1 U	6.9	72	11.5	81.6	0.71	0.25	20.62	0.99	1.96	43.98
4/17/2000	1541	10.0	8.40	31.37	24.36	7.8		7.0	73		80.8	0.89	0.45	21.54	0.86	1.97	44.70
5/8/2000	1619	0.5	9.98	29.98	23.04	8.1	1 U	8.8	95	6.9	74.8	3.35	0.86	7.18	1.00	1.08	27.92
5/8/2000	1619	10.0	9.47	30.47	23.50	8.0		8.0	85		76.1	1.57	0.68	14.43	1.24	1.44	30.19
6/6/2000	1613	0.5	9.60	31.15	24.02	7.8	1 U	7.0	75	8.0	74.8	9.80	0.00	20.92	0.93	1.90	39.97
6/6/2000	1613	10.0	9.36	31.33	24.19	7.8		6.7	72		73.8	3.09	0.79	21.66	0.90	1.94	40.85
7/17/2000	1530	0.5	11.89	31.14	23.61	7.7	1 U	8.8	100	4.5	60.6	11.43	1.59				
7/17/2000	1530	10.0	9.50	31.92	24.63	7.4		6.0	65		71.7	10.61	1.81				
8/14/2000	1547	0.5	11.57	30.95	23.52	7.9		9.0	101	3.9	59.8	10.34	0.73	10.36	0.92	1.33	31.06
8/14/2000	1547	10.0	11.01	31.09	23.73	7.7		7.4	83		62.3	16.59	0.72	17.55	0.63	1.61	35.69
9/12/2000	1633	0.5	10.46	31.62	24.24	7.8	1 U	5.6	62	11.5	80.4	3.22	0.37	22.70	0.78	2.11	44.51
9/12/2000	1633	10.0	10.21	31.79	24.41	7.8		5.6	62		80.0	3.13	0.46	26.33	0.60	2.61	91.32
10/3/2000	1535	0.5	9.93	32.06	24.67	7.9	1 U	5.7	63	9.5	77.9	1.58	0.40	24.23	0.94	2.20	47.66
10/3/2000	1535	10.0	9.46	32.15	24.82	7.9		5.3	57		79.3	1.35	0.51	24.48	0.82	2.20	47.74
11/15/2000	1526	0.5	8.59	31.94	24.79	8.0	1 U	5.6	59	10.0	76.3			26.20	0.50	2.39	52.98
11/15/2000	1526	10.0	8.62	32.18	24.97	8.0		4.8	51		75.8	0.48	0.55	27.14	0.28	2.42	52.67

## EAG001, Eagle Harbor - Inner

Lat (decimal): 47.622

Long (decimal): -122.522

October 1997 - September 1998

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3_NO2-N DISS (mg/L)	NH4_NH3-N DISS (mg/L)	ORTHO PO4-P DISS (mg/L)
11/24/1997	1308	10.0	11.17	29.24	22.27			6.8	75		72.3	0.51	0.40	0.336	0.010 U	0.110
11/24/1997	1308	0.5	10.89	28.91	22.05		5	7.0	77	6.2	69.8	0.77	0.65	0.340	0.010 U	0.110
12/30/1997	1152	0.5	9.56	29.08	22.40		3	7.1	76	6.2	70.6			0.356	0.010 U	0.098
12/30/1997	1152	10.0	9.69	29.18	22.46			7.4	79		71.3			0.373	0.010 U	0.099
1/28/1998	1319	1.0	9.20	28.59	22.07		1 U	7.4	77	7.5	72.2					
1/28/1998	1319	10.0	9.10	28.84	22.28			7.3	77		72.3					
2/17/1998	1329	0.5	8.99	28.65	22.16		15	7.2	76	7.0	72.0	0.68	0.49	0.396	0.010 U	0.100
2/17/1998	1329	10.0	8.91	28.73	22.22			7.0	73		72.4	0.49	0.27	0.394	0.010 U	0.101
3/31/1998	1252	10.0	9.37	28.36	21.87			9.1	95		76.3	1.90	0.50	0.368	0.010 U	0.087
3/31/1998	1252	1.0	9.59	28.06	21.60		3	9.6	102	7.1	76.3	2.10	0.52	0.333	0.010 U	0.082
4/20/1998	1401	10.0	10.66	28.66	21.90			10.7	116		59.5	18.80	3.30	0.121	0.010 U	0.082
4/20/1998	1401	1.0	11.24	28.61	21.77		1 U	11.2	123	4.3	67.2	8.70	1.50	0.077	0.010 U	0.068
5/12/1998	1343	0.5	11.57	28.24	21.43		4	10.2	112	7.7	73.8	1.90	1.10	0.097	0.028	0.097
5/12/1998	1343	9.0	11.33	28.39	21.58			10.0	110		73.8	1.70	0.77	0.122	0.024	0.105
6/2/1998	1328	0.5	12.42	28.73	21.65		1	11.0	124	4.4	60.1	10.00	1.50	0.065	0.010 U	0.096
6/2/1998	1328	10.0	12.23	28.81	21.74			10.7	120		60.8	8.90	0.72	0.085	0.012	0.098
7/6/1998	1419	0.5	14.60	28.79	21.28	8.2	1 U	10.1	119	5.5	68.2	7.40	1.40	0.080	0.014	0.172
7/6/1998	1419	10.0	13.09	29.08	21.80	8.0		8.4	97		71.2	6.20	1.70	0.141	0.019	0.136
8/3/1998	1345	0.5	15.55	29.38	21.53	8.3	1 U	12.9	156	5.1	62.3	4.00	1.40	0.023	0.010 U	0.171
8/3/1998	1345	10.0	14.28	29.46	21.85	8.0		9.1	108		71.8			0.026	0.010 U	0.174
9/14/1998	1420	10.0	13.91	30.08	22.41	8.1		6.3	74		63.2	11.10	0.26	0.152	0.010 U	0.195
9/14/1998	1420	0.5	14.77	30.01	22.18	8.1	1 U	9.0	108	4.4	66.5	9.60	0.81	0.111	0.010 U	0.188

## EAP001, East Passage - SW of Three Tree Point

Lat (decimal): 47.417

Long (decimal): -122.380

October 1997 - September 1998

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3_NO2-N DISS (mg/L)	NH4_NH3-N DISS (mg/L)	ORTHO PO4-P DISS (mg/L)
12/29/1997	1320	10.0	9.83	29.04	22.33			7.7	82		78.7					
12/29/1997	1320	30.0	9.88	29.11	22.38			7.4	79		78.8					
12/29/1997	1320	0.5	9.84	29.04	22.33		1 U	7.7	82	8.2	78.5					
1/26/1998	1319	0.5	9.03	28.25	21.83		1 U	9.6	101	9.7	74.4	0.41	0.12	0.390	0.010 U	0.096
1/26/1998	1319	10.0	8.99	28.28	21.86			9.6	101		75.1	0.37	0.12	0.390	0.010 U	0.099
1/26/1998	1319	30.0	9.22	29.01	22.40			9.5	101		77.2			0.419	0.010 U	0.099
2/24/1998	1454	0.5					1 U			9.0						
2/24/1998	1454	10.0														
2/24/1998	1454	30.0														
3/17/1998	1501	0.5	10.10	28.32	21.73		1 U	8.9	95	12.2	78.9	0.96	0.15	0.254	0.010 U	0.063
3/17/1998	1501	10.0	9.27	28.44	21.95			8.9	94		78.4	1.10	0.23	0.284	0.010 U	0.068
3/17/1998	1501	30.0	9.14	28.55	22.05			8.5	89		78.6			0.442	0.010 U	0.097
4/13/1998	1546	30.0	9.49	28.71	22.12			8.8	93		79.3					
4/13/1998	1546	0.5	10.24	28.16	21.58		1 U	11.0	117	8.0	71.8	8.50	0.75	0.197	0.010 U	0.114
4/13/1998	1546	10.0	9.58	28.53	21.97			9.3	99		79.4					
5/19/1998	1357	10.0	11.22	28.60	21.76			10.5	116		81.0	2.10	0.43	0.111	0.010 U	0.062
5/19/1998	1357	30.0	10.69	28.79	22.00			9.9	108		82.9			0.114	0.016	0.074
5/19/1998	1357	0.5	11.27	28.60	21.75		1 U	10.5	116	8.3	81.1	3.40	0.67	0.099	0.012	0.063
6/30/1998	1745	0.5	14.57	28.52	21.07	8.4		14.3	168	4.6	62.3	17.20	6.10	0.022	0.010 U	0.115
6/30/1998	1745	10.0	12.32	29.10	21.95	8.0		9.6	108		76.7					
6/30/1998	1745	30.0	11.60	29.24	22.19	7.9		7.8	87		79.6					
7/27/1998	1446	0.5	14.88	29.42	21.70	8.1	1 U	10.6	127	5.9	68.1	17.60	1.70	0.010	0.010 U	0.176
7/27/1998	1446	10.0	12.83	29.44	22.12	7.9		8.2	94		77.2	10.40	0.17	0.096	0.010 U	0.190
7/27/1998	1446	30.0	12.61	29.46	22.18	7.8		7.7	87		78.6			0.054	0.010 U	0.185
8/24/1998	1733	0.5	13.75	29.72	22.16	7.9	1 U	7.1	82	8.0	79.4	3.50	1.00	0.151	0.010 U	0.180
8/24/1998	1733	10.0	13.49	29.75	22.24	7.8		6.7	78		81.3	1.00	0.54	0.166	0.010 U	0.168
8/24/1998	1733	30.0	13.20	29.80	22.33	7.8		6.3	73		79.7			0.214	0.010 U	0.197
9/22/1998	1506	30.0	13.32	30.17	22.59	8.1		5.8	68		82.5			0.164	0.010 U	0.208
9/22/1998	1506	0.5	14.28	30.07	22.32	8.1	1 U	7.7	91	10.6	74.2	4.40	0.65	0.178	0.010 U	0.240
9/22/1998	1506	10.0	13.62	30.11	22.49	8.1		6.6	77		79.6	1.20	0.40	0.194	0.010 U	0.226

## EAP001, East Passage - SW of Three Tree Point

Lat (decimal): 47.417

Long (decimal): -122.380

*October 1998 - January 1999*

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3_NO2-N DISS (mg/L)	NH4_NH3-N DISS (mg/L)	ORTHO PO4-P DISS (mg/L)
12/4/1998	1248	0.5	10.49	29.78	22.80	7.7		7.0	76	13.8	81.5			0.383	0.010 U	0.235
12/4/1998	1248	10.0	10.57	29.83	22.83	7.7		6.8	74		81.8			0.353	0.010 U	0.227
12/4/1998	1248	30.0	10.76	29.95	22.88	7.7		6.6	72		81.4			0.352	0.010 U	0.225
1/5/1999	1354	0.5	9.49	28.45	21.92	7.7	2	7.6	80	6.0	73.7					
1/5/1999	1354	10.0	9.68	28.67	22.07	7.7		7.2	77		74.2					
1/5/1999	1354	30.0	9.83	28.89	22.22	7.7		7.1	76		74.5					

## EAP001, East Passage - SW of Three Tree Point

Lat (decimal): 47.417

Long (decimal): -122.380

*February 1999 - December 1999*

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3 DISS (uM)	NH4 DISS (uM)	ORTHO PO4 DISS (uM)	Si(OH)4 DISS (uM)
3/18/1999	1407	0.5	8.43	27.81	21.58	7.6	1 U	10.2	104	7.9	78.5	3.40	0.73	25.77	0.20	2.11	64.89
3/18/1999	1407	10.0	8.29	27.93	21.69	7.6		9.8	100		79.3	2.20	0.75	25.85	0.18	2.12	63.93
3/18/1999	1407	30.0	8.17	28.44	22.10	7.6		8.8	90		80.0			27.14	0.16	2.27	63.72
4/13/1999	1423	0.5	9.47	27.91	21.50	7.6	1 U	10.2	108	10.5	79.8	1.80	0.52	22.74	0.11	1.86	58.25
4/13/1999	1423	10.0	8.70	28.16	21.81	7.6		10.0	103		82.4	1.80	0.84	23.33	0.25	1.95	55.48
4/13/1999	1423	30.0	8.25	28.57	22.19	7.6		8.9	91		84.2			26.10	0.07	2.15	57.69
6/7/1999	1446	0.5	11.26	27.94	21.24	7.8	1 U	10.2	112	11.2	80.4	0.58	0.19	10.07	4.22	1.40	34.86
6/7/1999	1446	10.0	10.61	28.53	21.81	7.8		10.0	108		82.9	0.60	0.31	10.57	4.31	1.47	32.88
6/7/1999	1446	30.0	9.80	28.93	22.25	7.8		9.5	101		83.2			13.07	4.39	1.64	36.17
7/8/1999	1421	0.5	13.49	27.96	20.85	7.3	1 U	9.7	112	13.0	81.7	6.81	0.00	9.11	1.94	1.26	34.15
7/8/1999	1421	10.0	11.07	28.97	22.07	7.1		8.1	89		84.2	5.91	0.00	12.12	2.57	1.47	35.99
7/8/1999	1421	30.0	10.50	29.21	22.36	7.1		7.4	81		84.4			15.99	3.49	1.58	41.25
8/9/1999	1530	0.5	13.10	29.23	21.91	7.5	1 U	8.3	95	11.0	80.9	6.23	0.31	8.24	2.17	1.68	44.86
8/9/1999	1530	10.0	12.44	29.08	21.92	7.5		7.5	85		81.4	7.74	0.15	12.96	0.76	1.59	35.47
8/9/1999	1530	30.0	12.15	29.11	21.99	7.4		7.5	84		82.4			6.12	1.61	1.59	45.68
9/13/1999	1522	0.5	12.44	29.61	22.32	7.3	1 U	6.7	76	12.0	79.9	3.87	0.49	18.64	0.72	2.01	46.43
9/13/1999	1522	10.0	12.28	29.60	22.35	7.3		6.6	74		80.0	3.40	0.75	18.53	0.72	2.00	45.18
9/13/1999	1522	30.0	12.27	29.61	22.36	7.3		6.5	74		80.6			18.55	0.72	1.99	45.05

## EAP001, East Passage - SW of Three Tree Point

Lat (decimal): 47.417

Long (decimal): -122.380

January 2000 - December 2000

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3 DISS (uM)	NH4 DISS (uM)	ORTHO PO4 DISS (uM)	Si(OH)4 DISS (uM)
1/19/2000	1407	0.5	8.75	28.96	22.43		1 U	8.1	84	7.5	77.9						
1/19/2000	1407	10.0	8.79	29.00	22.45			8.0	84		77.3						
1/19/2000	1407	30.0	8.91	29.06	22.48			7.7	81		76.2						
2/9/2000	1452	0.5	8.48	28.61	22.20			9.0	93	10.0	76.5	1.28	0.24	28.69	0.02	2.44	69.88
2/9/2000	1452	10.0	8.42	28.80	22.35			8.7	90		75.8	0.56	0.18	28.80	0.00	2.44	69.21
2/9/2000	1452	30.0	8.42	28.86	22.40			8.5	88		75.3			28.70	0.00	2.44	69.46
3/21/2000	1459	0.5	8.33	28.69	22.28	7.7	1 U	9.1	94	14.0	84.2	1.01	0.18	25.86	0.40	2.15	59.71
3/21/2000	1459	10.0	8.17	28.80	22.38	7.7		8.8	91		84.1	1.15	0.42	26.44	0.37	2.20	59.88
3/21/2000	1459	30.0	8.11	28.96	22.52	7.8		8.4	87		83.9			26.89	0.31	2.21	59.58
4/11/2000	1421	0.5	9.48	28.73	22.14	8.0	1 U	11.0	117	6.0	69.1	20.84	0.68	12.71	0.40	1.32	44.53
4/11/2000	1421	10.0	8.68	28.93	22.41	7.8		9.4	97		79.6	14.03	0.94	18.65	0.38	1.66	47.83
4/11/2000	1421	30.0	8.55	28.99	22.48	7.8		8.7	91		81.7			23.46	0.80	1.96	52.13
5/2/2000	1440	0.5	10.73	28.56	21.81	8.3	1 U	14.8	160	4.3	60.9	16.16	1.15	0.37	0.22	0.40	21.51
5/2/2000	1440	10.0	9.62	28.93	22.27	8.1		11.2	119		72.7	9.93	1.74	15.00	1.29	1.53	40.87
5/2/2000	1440	30.0	8.78	29.38	22.76	7.9		8.7	91		81.5			19.68	2.13	1.89	46.62
6/13/2000	1459	0.5	11.25	28.59	21.74	8.0	1 U	10.1	111	9.0	74.1	8.57	0.56	10.25	0.80	1.23	29.99
6/13/2000	1459	10.0	10.93	28.95	22.08	8.0		9.3	102		80.5	3.35	1.10	12.99	1.75	1.50	30.75
6/13/2000	1459	30.0	10.13	29.36	22.53	7.9		8.0	86		83.9			17.10	1.90	1.79	36.14
7/19/2000	1527	0.5	13.76	29.21	21.76	7.7	1 U	10.1	117	6.5	65.3	13.61	1.83	3.73	0.11	0.84	38.74
7/19/2000	1527	10.0	12.64	29.24	22.00	7.7		8.6	98		74.4	6.67	0.82	9.66	0.22	1.30	30.34
7/19/2000	1527	30.0	11.76	29.36	22.26	7.5		7.3	81		79.7			18.07	0.39	1.85	37.88
8/15/2000	1413	0.5	14.74	29.44	21.75	8.1	1 U	11.6	138	7.0	76.3	9.52	0.20	5.12	0.15	0.96	18.98
8/15/2000	1413	10.0	13.28	29.56	22.13	7.9		8.3	96		78.1	13.18	1.32	12.77	0.24	1.45	31.27
8/15/2000	1413	30.0	12.13	29.78	22.51	7.7		6.0	68		82.0			20.33	0.14	2.01	41.60
9/13/2000	1503	0.5	13.23	29.84	22.35	8.1		8.3	96	9.4	73.9	14.46	1.91	11.83	0.22	1.57	76.42
9/13/2000	1503	10.0	12.75	29.96	22.54	8.0		6.8	78		80.2	8.30	0.98	16.13	0.70	1.87	42.41
9/13/2000	1503	30.0	12.24	30.14	22.77	7.9		5.8	66		82.4			20.26	1.72	2.20	44.25
10/4/2000	1440	0.5	12.74	30.06	22.62	8.1	1	7.2	83	14.5	82.9	2.89	0.37	16.66	1.38	2.03	45.53
10/4/2000	1440	10.0	12.55	30.14	22.72	8.1		6.7	76		83.3	2.15	0.32	16.48	1.37	2.03	44.89
10/4/2000	1440	30.0	12.31	30.30	22.89	8.0		5.9	67		82.7						
11/14/2000	1446	0.5	10.99	30.46	23.25	8.0	1 U	5.6	62	9.5	80.1	0.61	0.25	24.59	0.02	2.51	54.49
11/14/2000	1446	10.0	10.99	30.47	23.25	8.0		5.6	61		80.4	0.44	0.26	24.55	0.02	2.53	55.58
11/14/2000	1446	30.0	11.00	30.53	23.29	8.0		5.3	59		80.6						
12/11/2000	1359	0.5	9.80	30.48	23.46	8.0	1 U	6.1	66	10.0	79.3						
12/11/2000	1359	10.0	9.80	30.49	23.46	8.0		6.2	67		79.3						
12/11/2000	1359	30.0	9.86	30.53	23.48	8.0		6.0	64		78.7						

ELB015, Elliott Bay - E. of Duwamish Head

Lat (decimal): 47.597

Long (decimal): -122.368

October 1997 - September 1998

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3_NO2-N DISS (mg/L)	NH4_NH3-N DISS (mg/L)	ORTHO PO4-P DISS (mg/L)
10/27/1997	1427	10.0	12.33	29.37	22.16			6.4	72		79.7	0.48	0.17	0.352	0.010 U	0.092
10/27/1997	1427	30.0	12.35	29.48	22.24			6.1	69		79.8			0.359	0.010 U	0.093
10/27/1997	1427	0.5	12.41	27.80	20.93		3	6.7	75	14.5	75.9	0.63	0.16	0.350	0.010 U	0.091
12/29/1997	1226	0.5	9.84	27.39	21.03		6	7.6	80	9.2	73.4					
12/29/1997	1226	10.0	10.01	29.10	22.35			7.2	78		78.3					
12/29/1997	1226	30.0	10.00	29.15	22.38			7.2	77		78.4					
1/26/1998	1219	10.0	9.05	28.52	22.04			9.6	101		76.6	0.30	0.14	0.449	0.010 U	0.096
1/26/1998	1219	30.0	9.17	28.85	22.28			9.6	101		77.5			0.377	0.010 U	0.097
1/26/1998	1219	0.5	8.81	24.92	19.27		210 J	9.9	101		61.5	0.28	0.21	0.486	0.015	0.092
2/24/1998	1415	10.0	8.89	28.58	22.12			7.0	73		75.4					
2/24/1998	1415	30.0	8.92	28.73	22.22			5.0	52		75.9					
2/24/1998	1415	0.5	8.98				1 U			8.2	70.4					
3/17/1998	1405	0.5	9.52	25.66	19.74		4	8.7	90	9.4	70.3	1.10	0.28	0.440	0.010 U	0.094
3/17/1998	1405	10.0	9.08	28.58	22.09			8.4	88		77.6	1.20	0.36	0.333	0.010 U	0.077
3/17/1998	1405	30.0	9.04	28.61	22.12			8.3	87		77.2			0.441	0.010 U	0.096
4/13/1998	1443	30.0	9.48	28.67	22.09			8.8	93		79.8					
4/13/1998	1443	10.0	9.69	28.41	21.86			9.8	104		74.3					
4/13/1998	1443	0.5	10.29	26.95	20.63		1 U	10.3	110	6.2	69.3	3.30	0.49	0.240	0.010 U	0.106
5/19/1998	1213	0.5	11.51	27.36	20.75		1 U	10.1	110	7.3	80.6	1.70	0.23	0.195	0.024	0.111
5/19/1998	1213	10.0	10.64	28.84	22.04			9.9	108		83.3	1.60	0.60	0.135	0.018	0.089
5/19/1998	1213	30.0	10.31	28.96	22.19			9.3	101		84.1			0.113	0.014	0.061
6/30/1998	1712	30.0	11.83	29.16	22.08	7.9		8.0	89		80.2					
6/30/1998	1712	0.5	14.39	27.83	20.58	8.0		10.1	119	5.5	70.3	9.00	0.87	0.114	0.010 U	0.111
6/30/1998	1712	10.0	12.38	29.03	21.89	7.9		9.1	103		78.5					
7/27/1998	1339	30.0	12.51	29.47	22.21	7.8		7.6	87		80.6			0.115	0.010 U	0.195
7/27/1998	1339	0.5	15.01	27.88	20.49	8.0	1 U	8.8	105	5.9	64.8	6.80	1.10	0.110	0.010 U	0.102
7/27/1998	1339	10.0	12.52	29.42	22.17	7.8		7.7	87		80.9	5.00	1.10	0.125	0.010 U	0.191
8/24/1998	1627	0.5	14.22	29.17	21.64	7.8	1 U	7.1	84	10.0	76.9	3.10	1.10	0.218	0.010 U	0.170
8/24/1998	1627	10.0	13.22	29.67	22.22	7.8		6.5	76		80.5	1.00	0.55	0.200	0.010 U	0.171
8/24/1998	1627	30.0	12.97	29.77	22.35	7.8		6.3	72		83.1			0.189	0.010 U	0.178
9/22/1998	1409	30.0	13.29	30.18	22.60	8.0		5.7	66		81.9			0.189	0.010 U	0.193
9/22/1998	1409	0.5	13.80	29.77	22.19	8.0	4	6.4	75	11.7	76.8	0.91	0.25	0.250	0.010 U	0.240
9/22/1998	1409	10.0	13.37	30.15	22.57	8.0		5.9	68		81.4	2.20	0.46	0.228	0.010 U	0.243



ELB015, Elliott Bay - E. of Duwamish Head

Lat (decimal): 47.597

Long (decimal): -122.368

October 1998 - January 1999

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3_NO2-N DISS (mg/L)	NH4_NH3-N DISS (mg/L)	ORTHO PO4-P DISS (mg/L)
10/19/1998	1243	0.5	12.80	29.72	22.34	7.7	1	6.3	72	8.0	80.0	0.67	0.23	0.182	0.010	0.070 J
10/19/1998	1243	10.0	12.74	30.36	22.85	7.7		6.1	70		83.3	0.29	0.55	0.154	0.010 U	0.075 J
10/19/1998	1243	30.0	12.55	30.46	22.96	7.7		5.7	65		82.6			0.247	0.013	0.072 J
1/5/1999	1246	0.5	9.18	25.33	19.53	7.6	15	7.9	81	2.5	44.3					
1/5/1999	1246	10.0	9.77	28.77	22.13	7.7		7.1	76		73.1					
1/5/1999	1246	30.0	9.88	28.97	22.27	7.7		7.0	75		73.8					

ELB015, Elliott Bay - E. of Duwamish Head

Lat (decimal): 47.597

Long (decimal): -122.368

February 1999 - December 1999

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3 DISS (uM)	NH4 DISS (uM)	ORTHO PO4 DISS (uM)	Si(OH)4 DISS (uM)
3/18/1999	1301	0.5	8.29	26.48	20.55	7.5	1	9.4	95	4.5	73.4	0.70	0.48	31.63	1.87	1.69	114.25
3/18/1999	1301	10.0	8.23	28.20	21.90	7.5		9.1	93		81.1	0.84	0.42	27.26	0.17	2.26	64.31
3/18/1999	1301	30.0	8.19	28.36	22.04	7.6		8.9	91		81.4			27.36	0.16	2.30	63.26
4/13/1999	1332	0.5	8.81	26.88	20.80	7.6	1	10.6	110	6.3	73.4	3.30	0.77	22.16	0.50	1.69	67.22
4/13/1999	1332	10.0	8.41	28.24	21.92	7.6		9.6	99		80.9	3.90	0.95	20.93	0.25	1.88	53.61
4/13/1999	1332	30.0	8.25	28.39	22.05	7.6		9.0	92		82.1			23.96	0.11	2.15	58.74
6/7/1999	1344	0.5	11.28	26.91	20.44	7.8	5	10.3	112	11.0	77.9	0.50	0.15	10.60	4.09	1.28	61.39
6/7/1999	1344	10.0	11.00	28.29	21.56	7.8		10.2	112		82.6	0.87	0.22	12.93	4.61	1.64	36.44
6/7/1999	1344	30.0	9.56	28.93	22.29	7.8		9.5	101		83.9			10.00	4.15	1.39	33.16
7/8/1999	1324	0.5	13.36	26.99	20.13	7.2	2	8.8	100	9.2	80.4	2.08	0.12	10.88	2.88	1.34	52.10
7/8/1999	1324	10.0	11.97	28.68	21.69	7.2		8.9	99		80.6	9.06	0.59	11.18	2.10	1.41	36.67
7/8/1999	1324	30.0	10.64	29.00	22.16	7.1		7.6	83		83.2			13.58	3.91	1.69	40.64
8/9/1999	1448	0.5	13.38	28.06	20.95	7.4	2	7.4	85		78.4	1.30	0.37	15.30	1.82	1.70	51.14
8/9/1999	1448	10.0	12.52	29.04	21.87	7.4		7.4	84		81.0	1.50	0.45	14.53	1.19	1.71	40.24
8/9/1999	1448	30.0	12.00	29.12	22.02	7.4		7.1	80		82.4			14.53	1.18	1.68	39.86
9/13/1999	1431	0.5	13.32	28.34	21.18	7.3	2	6.6	76	7.8	74.4	1.66	0.35	18.40	1.36	1.88	67.61
9/13/1999	1431	10.0	12.24	29.59	22.34	7.3		6.4	72		79.6	9.76	1.95	18.42	1.22	1.91	63.22
9/13/1999	1431	30.0	12.10	29.63	22.40	7.3		6.1	69		80.9			18.50	1.22	1.91	62.47
10/18/1999	1351	0.5	11.92	28.23	21.35		1 U	7.1	79	11.0	79.8	1.11	0.97	20.46	2.47	2.02	69.96
10/18/1999	1351	10.0	11.77	29.97	22.72			6.1	69		81.4	1.77	0.33	18.73	1.28	2.13	48.79
10/18/1999	1351	14.5	11.71	30.00	22.76			6.1	68		81.5			19.32	1.36	2.16	49.70
11/23/1999	1239	0.5	10.61	29.26	22.38			6.8	74	10.0	80.7	0.40	0.21	28.11	0.56	2.24	76.32
11/23/1999	1239	10.0	10.62	29.77	22.77			6.6	72		81.6	0.30	0.10	24.64	0.00	2.33	58.19
11/23/1999	1239	30.0	10.68	29.91	22.87			6.3	68		80.9			25.37	0.00	2.34	57.35

## ELB015, Elliott Bay - E. of Duwamish Head

Lat (decimal): 47.597

Long (decimal): -122.368

## January 2000 - December 2000

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3 DISS (uM)	NH4 DISS (uM)	ORTHO PO4 DISS (uM)	Si(OH)4 DISS (uM)
1/19/2000	1254	0.5	8.83	28.01	21.68		1	7.8	81	6.5	74.0	0.21	0.10	31.25	0.48	2.24	99.02
1/19/2000	1254	10.0	9.03	29.00	22.42			7.5	79		75.8						
1/19/2000	1254	30.0	8.99	29.06	22.47			7.4	78		76.1			28.69	0.00	2.52	69.77
2/9/2000	1406	0.5	8.50	28.56	22.15			8.6	89	8.0	72.5	0.43	0.23	29.36	0.29	2.24	85.87
2/9/2000	1406	10.0	8.43	28.81	22.36			8.5	88		74.2	0.58	0.20	28.75	0.00	2.44	70.58
2/9/2000	1406	30.0	8.39	28.86	22.40			8.5	88		74.1			28.75	0.00	2.45	70.18
3/21/2000	1328	0.5	8.31	28.68	22.28	7.6	1 U	8.1	83	14.5	85.1	0.40	0.23	27.91	0.82	2.01	83.55
3/21/2000	1328	10.0	8.11	28.96	22.52	7.7		8.0	82		83.9	0.56	0.25	27.36	0.25	2.26	61.39
3/21/2000	1328	30.0	8.09	29.02	22.57	7.7		8.0	82		83.4			27.29	0.30	2.22	60.27
4/11/2000	1323	0.5	9.03	27.75	21.45	7.8	1 U	8.7	90	9.3	78.2	1.92	0.34	21.74	0.86	1.67	72.84
4/11/2000	1323	10.0	8.59	28.95	22.44	7.8		8.5	88		81.2	3.09	0.69	22.80	0.85	1.94	52.49
4/11/2000	1323	30.0	8.45	29.04	22.53	7.8		8.1	84		81.3						
5/2/2000	1342	0.5	9.54	27.85	21.44	7.9	2	9.2	97	10.0	81.1	0.55	0.31	16.10	2.69	1.46	79.69
5/2/2000	1342	10.0	9.23	28.99	22.38	7.9		9.5	100		80.5	5.85	1.33	15.49	1.78	1.62	43.20
5/2/2000	1342	30.0	8.95	29.22	22.60	7.9		8.8	92		81.2			18.24	1.90	1.78	44.75
6/13/2000	1328	0.5	11.14	27.96	21.28	7.9	73	8.9	98	9.3	79.3	1.31	0.37	14.42	2.57	1.43	49.86
6/13/2000	1328	10.0	11.05	28.86	21.99	8.0		8.9	98		81.3			12.83	1.75	1.47	30.92
6/13/2000	1328	30.0	10.47	29.16	22.32	7.9		8.4	91		82.9			14.82	1.96	1.58	33.22
7/19/2000	1401	0.5	13.11	28.89	21.65	7.6	1 U	8.7	99	8.0	68.4	2.92	1.15	14.13	0.87	1.42	67.70
7/19/2000	1401	10.0	12.08	29.22	22.09	7.6		7.4	83		79.7	2.66	1.32	15.26	0.31	1.66	35.27
7/19/2000	1401	30.0	11.78	29.33	22.23	7.5		7.2	81		79.4			17.82	0.33	1.86	36.74
8/15/2000	1256	0.5	13.34	28.82	21.54	7.8	8	8.6	98	5.0	64.0	12.76	1.28	10.98	0.33	1.21	46.36
8/15/2000	1256	10.0	12.54	29.56	22.27	7.7		6.7	76		78.7	18.29	2.30	11.60	0.14	1.31	39.24
8/15/2000	1256	30.0	12.21	29.70	22.44	7.6		6.0	68		81.9			20.30	0.11	1.97	44.11
9/13/2000	1331	0.5	12.86	29.64	22.27	7.9	2	6.2	71	10.1	79.0	1.35	0.28	19.00	1.57	2.06	53.90
9/13/2000	1331	10.0	12.42	30.09	22.71	7.9		6.0	68		81.7	2.53	0.73	18.99	0.98	2.12	44.73
9/13/2000	1331	30.0	12.20	30.16	22.80	7.8		5.6	64		82.0			20.20	1.62	2.20	45.01
10/4/2000	1337	0.5	12.77	29.11	21.88	8.0	1	6.2	71	11.5	80.1	1.25	0.21	19.56	1.74	2.20	58.07
10/4/2000	1337	10.0	12.39	30.29	22.86	8.0		5.9	67		81.7	1.63	0.34	19.35	1.15	2.22	47.32
10/4/2000	1337	30.0	12.21	30.34	22.94	8.0		5.7	64		81.9			20.11	1.20	2.29	48.13
11/14/2000	1322	0.5	11.10	30.23	23.05	8.0	1	5.7	63	10.5	80.6	0.51	0.12	24.61	0.23	2.49	58.40
11/14/2000	1322	10.0	11.08	30.46	23.23	8.0		5.6	62		82.0	0.52	0.18	24.60	0.01	2.53	54.69
11/14/2000	1322	30.0	11.04	30.48	23.25	8.0		5.5	61		80.1			24.57	0.00	2.50	54.85
12/11/2000	1334	0.5	9.34	29.66	22.89	8.0	5	6.5	69	9.5	77.9						
12/11/2000	1334	10.0	9.98	30.41	23.37	8.0		6.1	66		79.5						
12/11/2000	1334	30.0	10.01	30.48	23.42	8.0		5.9	64		78.8						

ELD001, Eld Inlet - Flapjack Point

Lat (decimal): 47.107

Long (decimal): -122.948

October 1998 - January 1999

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3_NO2-N DISS (mg/L)	NH4_NH3-N DISS (mg/L)	ORTHO PO4-P DISS (mg/L)
10/28/1998	1500	0.5	13.24	29.55	22.13	7.8	1	7.5	86	5.6	70.3	9.10	1.50	0.170	0.020	0.067
10/28/1998	1500	10.0	13.26	29.57	22.14	7.8		7.3	84		69.0	9.20	1.30	0.173	0.019	0.070
11/30/1998	1351	0.5	9.72	26.67	20.50	7.7	1	7.5	79	6.3	71.3					
11/30/1998	1351	10.0	11.01	28.46	21.69	7.6		6.3	69		73.1					
1/19/1999	1412	0.5	8.70	26.15	20.24	7.5	12	8.6	88	4.0	63.2					
1/19/1999	1412	10.0	8.96	27.29	21.10	7.5		8.2	85		59.3					

ELD001, Eld Inlet - Flapjack Point

Lat (decimal): 47.107

Long (decimal): -122.948

February 1999 - December 1999

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3 DISS (uM)	NH4 DISS (uM)	ORTHO PO4 DISS (uM)	Si(OH)4 DISS (uM)
2/20/1999	1420	0.5	7.84	24.47	19.03	7.6		9.5	94	4.7	66.8			27.26	1.66	2.13	81.38
2/20/1999	1420	10.0	8.21	26.17	20.32	7.6		8.7	88		65.9						
3/15/1999	1005	0.5	8.53	24.80	19.21	7.5		9.8	99	4.9	71.3			24.53	1.25	1.92	94.53
3/15/1999	1005	10.0	8.24	26.05	20.22	7.5		8.9	90		64.4						
4/20/1999	941	0.5	9.86	26.64	20.46	7.9	1 U	13.8	145	3.6	60.1	29.00	0.05	1.94	0.27	0.42	11.78
4/20/1999	941	10.0	9.52	27.03	20.81	7.8		12.1	127		61.2	23.30	2.20	8.78	1.35	1.06	25.72
5/21/1999	1020	0.5	11.66	27.33	20.70	7.9		12.2	134	4.1	60.9	11.00	0.90	0.05	0.14	0.60	18.46
5/21/1999	1020	10.0	10.55	27.72	21.19	7.9		10.6	114		67.5	9.00	1.00	5.50	1.42	1.02	21.54
6/15/1999	1522	0.5	15.11	27.67	20.31	8.0	1 U	11.6	138	3.7	62.8	4.10	1.20	0.01	1.76	1.34	39.38
6/15/1999	1522	10.0	12.74	28.04	21.06	8.0		11.8	134		59.1	7.20	0.56	0.00	1.34	1.31	32.27
7/21/1999	1044	0.5	15.34	28.39	20.81	7.7	1 U	11.8	142	6.5	73.3	1.91	0.31	0.77	2.65	1.60	38.18
7/21/1999	1044	10.0	13.65	28.47	21.22	7.5		9.2	106		70.4	12.17	1.84	3.90	2.44	1.60	39.46
8/16/1999	1456	0.5	15.52	28.47	20.83	8.0	1 U	10.4	125	0.5	18.4			0.00	0.11	1.27	66.53
8/16/1999	1456	10.0	14.48	28.67	21.20	7.6		7.7	91		50.5	17.74	1.12	0.15	0.28	1.53	53.71
9/29/1999	1007	0.5	14.40	28.96	21.44	7.8	1 U	12.0	142	4.1	63.7	20.70	0.00	0.02	0.17	1.46	77.82
9/29/1999	1007	10.0	13.93	29.08	21.64	7.8		9.5	110		57.1	33.19	1.29	1.02	0.36	1.57	69.70
10/25/1999	1451	0.5	12.71	29.04	21.84		1 U	8.4	95	4.6	64.1	28.58	2.86	7.89	3.01	1.78	68.00
10/25/1999	1451	9.5	12.71	29.13	21.90			7.7	87		60.7	23.66	2.37	8.29	3.85	1.87	67.48
11/22/1999	1425	0.5	10.46	27.84	21.29		4	7.1	77	4.4	64.6						
11/22/1999	1425	10.0	10.93	28.78	21.95			6.4	70		65.3						
12/21/1999	1408	0.5	9.23	26.37	20.34		1 U	8.4	87	4.5	67.1						
12/21/1999	1408	10.0	9.46	26.93	20.74			7.8	81		48.8						

ELD002, Eld Inlet - S. Flapjack Point

Lat (decimal): 47.097

Long (decimal): -122.975

October 1998 - January 1999

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3_NO2-N DISS (mg/L)	NH4_NH3-N DISS (mg/L)	ORTHO PO4-P DISS (mg/L)
10/28/1998	1518	0.5	13.24	29.54	22.12	7.8		7.4	85	5.5	69.6	13.60	1.10	0.165	0.029	0.071
10/28/1998	1518	9.5	13.24	29.62	22.19	7.7		6.9	80		66.3	7.10	1.40	0.187	0.026	0.070
11/30/1998	1406	0.5	10.15	26.86	20.58	7.6	3	7.2	76	5.3	69.6					
11/30/1998	1406	9.5	11.12	28.78	21.92	7.6		5.9	64		59.2					
12/31/1998	1034	0.5	8.73	26.18	20.26	7.6		8.2	84	3.5	62.6					
12/31/1998	1034	8.5	8.76	27.58	21.35	7.6		7.1	73		25.9					
1/19/1999	1424	0.5	8.52	24.52	18.99	7.6	7	9.2	93	2.8	56.5					
1/19/1999	1424	6.5	8.93	27.20	21.02	7.5		8.0	83		60.3					

ELD002, Eld Inlet - S. Flapjack Point

Lat (decimal): 47.097

Long (decimal): -122.975

February 1999 - December 1999

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3 DISS (uM)	NH4 DISS (uM)	ORTHO PO4 DISS (uM)	Si(OH)4 DISS (uM)
2/20/1999	1434	0.5	8.17	24.76	19.22	7.6		9.4	94	4.2	64.8			27.49	1.56	2.19	89.79
2/20/1999	1434	6.0	8.24	26.20	20.35	7.6		8.6	87		64.9						
3/15/1999	944	0.5	8.63	24.48	18.95	7.4		10.2	103	5.1	70.8			25.05	1.17	1.93	94.24
3/15/1999	944	7.0	8.26	26.06	20.23	7.4		8.9	90		56.1						
4/20/1999	1014	0.5	9.85	26.68	20.48	8.0	1 U	13.8	145	3.5	60.2	24.70	1.40	2.00	0.27	0.46	14.25
4/20/1999	1014	9.0	9.58	26.99	20.77	8.0		12.0	125		47.6	25.30	2.70	8.52	1.28	1.02	27.67
5/21/1999	958	0.5	11.50	27.21	20.63	7.6		12.1	133	4.0	62.1	16.00	2.20	0.23	0.36	0.70	19.92
5/21/1999	958	7.0	10.63	27.66	21.13	7.6		10.3	111		53.6	9.00	1.30	4.80	2.64	1.11	22.36
6/15/1999	1543	0.5	15.47	27.56	20.15	8.0	4	11.5	137	2.5	46.7	8.50	1.90	0.00	2.02	1.42	44.16
6/15/1999	1543	7.0	12.76	28.04	21.05	8.0		11.9	134		57.3	21.00	2.20	0.36	2.96	1.47	26.80
7/21/1999	1026	0.5	15.75	28.22	20.60	7.6	3	10.9	132	7.0	72.0	4.93	0.99	3.77	3.09	1.79	39.50
7/21/1999	1026	6.0	13.78	28.46	21.18	7.5		9.3	108		74.8	18.68	1.87	1.14	3.40	1.71	40.23
8/16/1999	1520	0.5	15.41	28.57	20.94	7.8	1 U	7.5	90	4.0	53.9	2.30	0.60	0.14	0.44	1.61	71.45
8/16/1999	1520	4.5	14.68	28.64	21.15	7.5		6.9	81		56.9	5.85	2.35	0.05	0.79	1.55	59.22
9/29/1999	1030	0.5	14.24	28.97	21.48	7.8	1 U	9.8	115	2.1	31.7	26.91	0.41	0.39	0.48	1.49	81.50
9/29/1999	1030	8.5	13.92	29.08	21.63	7.7		8.2	95		38.3	46.09	3.60	0.09	2.13	1.64	70.30
10/25/1999	1508	0.5	12.74	29.00	21.80		1	7.1	81	4.1	61.8	39.64	3.96	7.53	3.68	1.83	70.99
10/25/1999	1508	6.5	12.75	29.15	21.91			7.1	80		60.0	18.04	2.45	8.64	5.34	1.95	68.13
12/21/1999	1419	0.5	9.16	26.05	20.10		1 U	8.4	87	4.5	64.2						
12/21/1999	1419	9.5	9.56	27.29	21.01			7.4	78		56.7						

## GOR001, Gordon Point

Lat (decimal): 47.183

Long (decimal): -122.633

October 1997 - September 1998

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3_NO2-N DISS (mg/L)	NH4_NH3-N DISS (mg/L)	ORTHO PO4-P DISS (mg/L)
10/27/1997	1017	10.0	12.54	29.03	21.86			6.6	75		74.7	1.00	0.26	0.330	0.012	0.095
10/27/1997	1017	24.0	12.55	29.19	21.98			6.3	71		74.0			0.332	0.011	0.095
10/27/1997	1017	0.5	12.26	27.56	20.77		2	7.1	80	6.3	65.0	2.50	0.63	0.288	0.014	0.080
11/26/1997	1358	0.5	10.97	26.69	20.32			8.0	87	5.6	64.2	1.00	0.17	0.436	0.010 U	0.175
11/26/1997	1358	10.0	11.54	28.70	21.79			6.8	76		75.9	0.46	0.18	0.390	0.010 U	0.165
11/26/1997	1358	30.0	11.66	28.94	21.95			6.4	71		77.2			0.346	0.010 U	0.112
12/29/1997	1402	30.0	10.00	28.76	22.09			7.0	75		73.9					
12/29/1997	1402	0.5	9.90	27.85	21.39		3	5.5	58	6.1	71.8					
12/29/1997	1402	10.0	9.98	28.68	22.03			6.5	70		73.8					
1/26/1998	1411	30.0	8.96	28.25	21.84			9.6	101		73.9			0.409	0.010 U	0.100
1/26/1998	1411	0.5	8.73	25.79	19.95		1	9.9	101	4.8	63.6	0.33	0.17	0.398	0.010 U	0.092
1/26/1998	1411	10.0	8.86	27.73	21.45			9.7	101		71.0	0.19	0.16	0.432	0.010 U	0.100
2/24/1998	1546	2.0	9.07	27.16	20.98		1	7.5	78	7.5	72.7					
2/24/1998	1546	10.0	8.79	27.84	21.55			7.3	76		74.5					
2/24/1998	1546	30.0	8.82	28.10	21.74			7.4	77		75.8					
3/17/1998	1548	10.0	9.11	27.89	21.54			8.4	88		75.2	0.76	0.17	0.434	0.010 U	0.099
3/17/1998	1548	0.5	9.37	27.79	21.43		1 U	8.5	90	7.9	75.0	1.00	0.17	0.277	0.010 U	0.065
3/17/1998	1548	30.0	9.07	28.10	21.71			8.5	89		75.4			0.358	0.010 U	0.085
4/13/1998	1639	10.0														
4/13/1998	1639	30.0														
4/13/1998	1639	0.5					1 U			9.1		0.85	0.33	0.230	0.011	0.104
5/19/1998	1447	0.5	12.10	28.11	21.22		1 U	11.0	122	9.1	77.8	4.80	0.21	0.091	0.013	0.082
5/19/1998	1447	10.0	10.86	28.49	21.73			10.2	111		77.5	9.20	0.22	0.114	0.017	0.093
5/19/1998	1447	30.0	10.83	28.60	21.82			10.0	109		76.7			0.099	0.017	0.074
6/30/1998	1827	30.0	12.33	28.96	21.85	7.9		8.2	92		82.3					
6/30/1998	1827	0.5	12.99	28.76	21.56	8.0		8.9	102	13.5	81.6	2.70	0.15	0.136	0.012	0.142
6/30/1998	1827	10.0	12.50	28.92	21.78	7.9		8.4	95		81.3					
7/27/1998	1546	30.0	13.38	29.19	21.82	7.8		8.1	94		78.4			0.110	0.010 U	0.191
7/27/1998	1546	0.5	14.31	28.94	21.45	7.9	1 U	9.5	112	9.8	75.8	8.70	0.39	0.084	0.010 U	0.190
7/27/1998	1546	10.0	13.74	29.07	21.67	7.9		8.7	101		76.8					
8/24/1998	1113	0.5	14.29	29.41	21.82	7.9	1 U	7.3	86	11.5	78.3	2.60	0.38	0.110	0.010 U	0.148
8/24/1998	1113	10.0	13.97	29.49	21.94	7.8		6.9	81		81.4					
8/24/1998	1113	30.0	13.95	29.51	21.96	7.8		6.9	81		81.4			0.100	0.010 U	0.108
9/22/1998	1552	30.0	14.15	29.81	22.15	8.1		6.3	74		78.3			0.104	0.016	0.236
9/22/1998	1552	0.5	14.87	29.32	21.63	8.1	1 U	6.7	80	7.8	73.5	3.70	0.28	0.114	0.010 U	0.233
9/22/1998	1552	10.0	14.32	29.67	22.00	8.1		6.6	78		76.0	4.00	0.48	0.082	0.023	0.206



GOR001, Gordon Point

Lat (decimal): 47.183

Long (decimal): -122.633

October 1998 - January 1999

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3_NO2-N DISS (mg/L)	NH4_NH3-N DISS (mg/L)	ORTHO PO4-P DISS (mg/L)
10/19/1998	1355	0.5	13.21	29.99	22.47	7.7	1 U	6.4	74	9.8	78.7	0.61	0.20	0.175	0.013	0.076 J
10/19/1998	1355	10.0	13.16	30.02	22.50	7.7		6.2	71		78.7	1.20	0.29	0.224	0.045	0.069 J
10/19/1998	1355	30.0	13.12	30.08	22.56	7.7		6.2	72		80.2			0.132	0.010 U	0.073 J
12/4/1998	1339	0.5	10.61	28.11	21.48	7.6		6.8	73	2.8	54.3			0.332	0.010 U	0.212
12/4/1998	1339	10.0	10.93	29.57	22.56	7.6		6.2	69		72.5			0.400	0.010 U	0.221
12/4/1998	1339	30.0	11.01	29.82	22.74	7.6		6.2	68		74.0			0.384	0.010 U	0.272

## GOR001, Gordon Point

Lat (decimal): 47.183

Long (decimal): -122.633

## February 1999 - December 1999

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3 DISS (uM)	NH4 DISS (uM)	ORTHO PO4 DISS (uM)	Si(OH)4 DISS (uM)
3/18/1999	1449	0.5	8.64	25.70	19.90	7.6	1 U	9.3	94	6.2	73.4	1.20	0.66	27.64	0.36	2.09	86.39
3/18/1999	1449	10.0	8.23	27.21	21.14	7.6		9.2	93		74.3	1.40	0.54	27.38	0.21	2.25	72.18
3/18/1999	1449	30.0	8.22	27.50	21.36	7.6		9.0	92		75.2			27.84	0.19	2.28	70.20
4/13/1999	1508	0.5	8.67	27.50	21.30	7.7	1 U	10.8	112	7.5	75.2	5.40	0.36	17.56	0.36	1.57	48.02
4/13/1999	1508	10.0	8.50	27.57	21.38	7.7		10.3	106		76.7	10.00	0.57	19.32	0.42	1.70	47.88
4/13/1999	1508	30.0	8.55	27.68	21.45	7.7		10.2	105		76.6			19.58	0.44	1.70	46.84
6/7/1999	1539	0.5	11.00	28.34	21.60	7.8	1 U	10.5	115	10.9	80.7	1.80	0.29	9.39	3.19	1.39	31.66
6/7/1999	1539	10.0	10.58	28.20	21.56	7.8		7.6	82		81.6	2.40	1.30	9.57	3.40	1.42	31.43
6/7/1999	1539	30.0	10.55	27.98	21.39	7.8		6.6	71		80.6			9.25	3.30	1.39	31.43
7/8/1999	1510	0.5	12.37	28.38	21.39	7.2	1 U	8.7	98	14.5	82.1	1.72	0.11	10.79	3.21	1.55	40.56
7/8/1999	1510	10.0	11.74	28.67	21.73	7.2		8.4	94		83.5	5.46	0.25	11.04	3.36	1.58	39.62
7/8/1999	1510	30.0	11.41	28.80	21.88	7.1		8.0	88		82.1			12.17	3.57	1.62	39.97
8/9/1999	1620	0.5	12.34	29.17	22.00	7.4	2	6.9	78	8.8	77.5	6.98	0.59	11.88	1.84	1.73	42.85
8/9/1999	1620	10.0	12.27	29.07	21.94	7.4		6.7	75		77.4	4.44	0.75	12.04	1.88	1.73	43.00
8/9/1999	1620	30.0	12.24	29.08	21.96	7.4		7.2	81		77.4			12.10	1.86	1.75	42.37
9/13/1999	1607	0.5	13.50	29.06	21.70	7.4	1 U	7.1	82	7.6	74.0	2.36	0.33	12.80	2.05	1.87	52.94
9/13/1999	1607	10.0	13.31	29.27	21.90	7.4		7.5	87		73.1	11.24	1.12	12.50	1.49	1.80	47.42
9/13/1999	1607	30.0	13.10	29.34	21.99	7.4		6.9	79		75.9			12.56	1.48	1.78	47.50
10/18/1999	1529	0.5	12.61	29.39	22.13		1 U	7.3	83	9.5	78.5						
10/18/1999	1529	10.0	12.40	29.55	22.29			7.0	79		80.4						
10/18/1999	1529	30.0	12.25	29.65	22.39			6.8	77		81.4						

## GOR001, Gordon Point

Lat (decimal): 47.183

Long (decimal): -122.633

## January 2000 - December 2000

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPPL a (ug/L)	PHEOPIG (ug/L)	NO3 DISS (uM)	NH4 DISS (uM)	ORTHO PO4 DISS (uM)	Si(OH)4 DISS (uM)
1/19/2000	1445	0.5	8.38	27.44	21.29		3	7.8	80	6.5	71.8						
1/19/2000	1445	10.0	8.83	28.43	22.00			7.8	81		73.2						
1/19/2000	1445	30.0	8.84	28.56	22.10			7.8	81		73.6						
3/21/2000	1547	1.0	8.38	28.15	21.85	7.6	1 U	8.8	91	10.0	79.4	1.14	0.24	24.89	0.80	2.14	63.94
3/21/2000	1547	10.0	8.25	28.33	22.01	7.7		8.7	89		80.0	2.00	0.44	25.12	0.74	2.09	61.54
3/21/2000	1547	30.0	8.27	28.45	22.10	7.7		8.5	87		81.2			25.73	0.70	2.18	61.52
4/11/2000	1513	1.0	9.03	28.42	21.96	7.9	1 U	9.7	102	9.5	78.0	4.63	1.51	18.08	0.76	1.66	50.46
4/11/2000	1513	10.0	8.86	28.56	22.10	7.9		9.2	96		80.4	7.48	0.90				
4/11/2000	1513	30.0	8.71	28.66	22.20	7.9		8.9	92		81.8			21.58	0.98	1.90	53.11
5/2/2000	1528	1.0	10.02	28.28	21.71	8.0	1 U	10.8	115	6.5	71.5	9.93	0.84	11.06	1.02	1.23	42.77
5/2/2000	1528	10.0	9.68	28.46	21.90	8.0		10.6	113		71.5	4.76	0.33	11.83	1.14	1.29	41.85
5/2/2000	1528	30.0	9.52	28.72	22.13	8.0		10.3	109		74.5			13.88	1.76	1.48	42.12
6/13/2000	1547	1.0	11.51	28.63	21.74	8.0	1 U	9.1	101	10.9	80.1	3.22	0.37	10.15	2.46	1.56	32.88
6/13/2000	1547	10.0	11.10	28.86	21.98	7.9		8.9	98		79.8	3.09	0.64	11.41	2.64	1.59	31.34
6/13/2000	1547	30.0	10.84	28.93	22.08	7.9		8.7	95		80.0			12.78	2.56	1.61	31.77
7/19/2000	1620	1.0	12.98	28.99	21.75	7.7	1 U	9.0	103	9.5	73.6	3.54	3.50	10.56	1.22	1.56	40.00
7/19/2000	1620	10.0	12.90	29.05	21.81	7.7		8.8	101		73.6	6.80	5.02	10.38	1.35	1.58	35.82
7/19/2000	1620	30.0	12.48	29.16	21.97	7.6		8.3	94		77.6			11.25	1.49	1.65	35.43
8/15/2000	1506	1.0	13.89	29.10	21.65	7.8	1 U	7.5	88	10.0	75.9	3.87	0.24	12.43	0.72	1.88	49.87
8/15/2000	1506	10.0	13.52	29.29	21.87	7.8		7.5	86		76.4	6.94	0.54	12.89	0.67	1.91	49.87
8/15/2000	1506	30.0	13.33	29.38	21.98	7.8		7.2	84		78.3			14.17	0.92	1.94	49.41
9/13/2000	1549	1.0	13.69	29.51	22.01	8.0	1	7.1	83	6.1	71.4	5.03	0.80	13.38	1.66	2.01	62.78
9/13/2000	1549	10.0	13.50	29.57	22.09	8.0		6.9	80		71.9	5.58	1.01	13.88	2.02	2.05	55.06
9/13/2000	1549	30.0	13.20	29.70	22.26	7.9		6.3	73		76.1			14.82	2.49	2.12	51.20
10/4/2000	1526	1.0	13.33	29.79	22.30	8.1	1 U	6.8	79	7.5	76.1	4.73	0.49	14.90	1.46	2.13	50.95
10/4/2000	1526	10.0	13.02	29.94	22.47	8.1		6.4	74		78.3	4.95	0.68	15.47	1.53	2.13	50.94
10/4/2000	1526	30.0	12.81	30.03	22.58	8.0		6.1	70		78.0						
11/14/2000	1524	0.5	11.23	30.19	22.99	8.0	1 U	5.9	66	9.5	77.4	0.92	0.35	23.11	0.41	2.55	57.24
11/14/2000	1524	10.0	11.23	30.19	22.99	8.0		5.9	66		77.5	0.95	0.47	23.31	0.39	2.53	58.14
11/14/2000	1524	30.0	11.22	30.21	23.01	8.0		5.8	64		77.5						

## GRG002, Georgia Strait - N. of Patos Island

Lat (decimal): 48.808

Long (decimal): -122.953

October 1997 - September 1998

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3_NO2-N DISS (mg/L)	NH4_NH3-N DISS (mg/L)	ORTHO PO4-P DISS (mg/L)
10/13/1997	1124	10.0	10.53	28.26	21.61			6.4	70		73.8	0.25	0.12	0.267	0.010 U	0.077
10/13/1997	1124	30.0	10.57	29.23	22.36			5.9	64		74.7			0.203	0.010 U	0.061
10/13/1997	1124	1.0	10.75	25.50	19.43		1	7.3	101	8.6	67.5	0.50	0.21	0.312	0.010 U	0.079
12/10/1997	1052	1.0	8.98	27.79	21.48		1 U	7.6	79	10.2	74.3	0.38	0.19	0.243	0.010 U	0.067
12/10/1997	1052	10.0	9.31	28.90	22.30			6.6	70		73.0	0.31	0.15	0.305	0.010 U	0.079
12/10/1997	1052	30.0	9.31	29.08	22.44			6.3	66		72.5			0.242	0.010 U	0.070
1/7/1998	1047	0.5	8.53	28.85	22.37		2	7.7	80	9.3	77.9			0.360	0.010 U	0.093
1/7/1998	1047	10.0	8.61	29.02	22.50			7.6	79		77.5			0.404	0.010 U	0.095
1/7/1998	1047	30.0	8.69	29.21	22.63			7.5	78		77.0			0.352	0.010 U	0.091
2/19/1998	1044	0.5	8.38	29.09	22.58		1 U			9.4	76.9	0.39	0.15	0.358	0.010 U	0.098
2/19/1998	1044	10.0	8.41	29.20	22.67						76.6	0.29	0.17	0.342	0.010 U	0.099
2/19/1998	1044	30.0	8.58	29.55	22.92						75.5			0.354	0.010 U	0.099
3/5/1998	1100	30.0	8.51	28.84	22.37						75.0			0.327	0.010 U	0.068
3/5/1998	1100	0.5	7.70	25.41	19.80					6.9	72.5	1.50	0.24	0.308	0.010 U	0.065
3/5/1998	1100	10.0	8.49	28.72	22.28						74.1	0.76	0.38	0.411	0.010 U	0.088
4/6/1998	1051	10.0	9.24	28.18	21.75			9.2	96		81.1	0.76	0.35	0.213	0.010 U	0.221
4/6/1998	1051	30.0	9.13	28.69	22.16			8.3	87		82.5			0.210	0.010 U	0.259
4/6/1998	1051	0.5	9.33	27.05	20.86		1 U	9.7	101	14.1	67.8	0.54	0.20	0.196	0.018	0.290
5/7/1998	1438	0.5	9.51	29.08	22.41			8.5	90	13.2	82.0	1.80	0.82	0.296	0.010 U	0.129
5/7/1998	1438	10.0	9.40	29.20	22.52			8.3	88		82.3	1.20	0.56	0.303	0.010 U	0.143
5/7/1998	1438	30.0	9.29	29.27	22.59			8.3	87		83.0			0.208	0.010 U	0.099
6/8/1998	1205	0.5	16.20	20.78	14.81		1 U	11.2	130	4.8	68.6	1.90	0.30	0.010	0.010 U	0.078
6/8/1998	1205	10.0	10.42	28.87	22.10			8.2	88		76.6	4.50	1.90	0.244	0.010 U	0.159
6/8/1998	1205	30.0	10.09	29.20	22.42			7.4	79		78.4			0.264	0.010 U	0.149
8/10/1998	1153	0.5	12.44	29.02	21.87	7.8	1 U	6.7	76	11.5	78.4	6.60	3.90	0.177	0.010 U	0.144
8/10/1998	1153	10.0	11.65	29.56	22.43	7.7		6.1	69		80.8	5.10	2.00	0.175	0.010 U	0.150
8/10/1998	1153	30.0	11.28	29.90	22.76	7.7		5.9	65		80.4			0.242	0.010 U	0.150
9/1/1998	1052	30.0	10.89	28.93	22.07	7.9		5.5	60		81.5			0.169	0.010 U	0.178
9/1/1998	1052	0.5	19.54	23.02	15.76	8.3	1 U	8.7	109	9.0	80.2	0.89	0.40	0.010	0.010 U	0.111
9/1/1998	1052	10.0	14.16	27.80	20.60	8.2		7.6	89		78.4	1.70	0.78	0.026	0.010 U	0.162

## GRG002, Georgia Strait - N. of Patos Island

Lat (decimal): 48.808

Long (decimal): -122.953

*October 1998 - January 1999*

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3_NO2-N DISS (mg/L)	NH4_NH3-N DISS (mg/L)	ORTHO PO4-P DISS (mg/L)
10/26/1998	1106	0.5	11.02	28.28	21.54	7.5	1 U	7.4	81	11.8	80.9			0.253	0.010 U	0.057
10/26/1998	1106	10.0	10.52	29.35	22.46	7.5		6.5	71		80.3			0.258	0.010 U	0.057
10/26/1998	1106	30.0	10.27	29.98	22.99	7.5		5.7	61		82.1			0.322	0.010 U	0.069
1/25/1999	1058	0.5	7.64	27.68	21.58	7.5	1 U	9.6	96	8.7	78.9					
1/25/1999	1058	10.0	8.03	28.85	22.45	7.5		8.8	90		77.7					
1/25/1999	1058	30.0	8.10	29.19	22.70	7.5		8.6	89		77.1					

## GRG002, Georgia Strait - N. of Patos Island

Lat (decimal): 48.808

Long (decimal): -122.953

*February 1999 - December 1999*

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3 DISS (uM)	NH4 DISS (uM)	ORTHO PO4 DISS (uM)	Si(OH)4 DISS (uM)
3/11/1999	1141	0.5	7.75	29.00	22.60	7.5		9.1	92	9.4	80.0			25.74	0.25	2.17	60.49
3/11/1999	1141	10.0	7.79	29.37	22.88	7.5		8.6	88		80.5						
3/11/1999	1141	30.0	7.86	29.59	23.04	7.5		8.4	86		80.1						
4/12/1999	1140	0.5	8.28	28.07	21.80	7.9	1 U	12.0	123	6.4	72.0	20.00	2.10	5.92	0.17	0.74	13.46
4/12/1999	1140	10.0	8.04	28.67	22.30	7.8		9.9	101		81.7	4.10	1.20	21.89	0.53	1.96	44.06
4/12/1999	1140	30.0	8.12	29.05	22.59	7.7		9.9	102		79.8			24.02	0.38	2.09	48.31
5/13/1999	1102	0.5	10.27	23.50	17.95	7.9	1 U	11.8	123	2.8	47.4	19.00	3.00	0.48	0.08	0.12	14.02
5/13/1999	1102	10.0	8.56	29.06	22.54	7.7		8.3	86		82.4	3.30	1.60	17.05	1.63	1.72	32.98
5/13/1999	1102	30.0	8.47	29.39	22.81	7.6		8.0	83		82.7			21.10	1.79	2.09	39.68
6/14/1999	1048	0.5	10.86	27.04	20.61	7.7	1 U	8.6	93	5.0	60.3	9.30	0.20	11.35	0.04	1.23	30.49
6/14/1999	1048	10.0	9.96	28.82	22.13	7.7		9.4	100		66.2	10.70	1.20	14.70	0.49	1.55	29.83
6/14/1999	1048	30.0	9.67	29.54	22.74	7.6		8.5	91		67.1			18.24	1.21	1.79	35.63
9/28/1999	1127	0.5	11.52	27.63	20.95	7.3	1 U	6.9	76	10.8	75.7	1.61	0.44	18.16	0.36	1.67	40.51
9/28/1999	1127	10.0	11.06	28.46	21.68	7.3		6.1	67		77.8	1.64	0.47	20.45	0.33	1.86	41.98
9/28/1999	1127	30.0	10.63	29.11	22.26	7.2		5.6	61		76.6			22.32	0.35	1.95	43.94

## GRG002, Georgia Strait - N. of Patos Island

Lat (decimal): 48.808

Long (decimal): -122.953

## January 2000 - December 2000

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3 DISS (uM)	NH4 DISS (uM)	ORTHO PO4 DISS (uM)	Si(OH)4 DISS (uM)
3/13/2000	1137	1.0	7.76	29.53	23.02	7.6	1 U	8.1	83	9.9	79.4	1.57	0.64	25.44	0.19	2.01	51.11
3/13/2000	1137	10.0	7.75	29.52	23.01	7.7		8.0	82		79.6	1.04	0.64	25.22	0.17	2.15	51.27
3/13/2000	1137	30.0	7.75	29.54	23.02	7.7		8.1	83		79.7			25.52	0.18	2.17	51.62
4/17/2000	1155	1.0	8.93	29.32	22.68	7.8	1 U	8.0	84	13.0	82.4	0.79	0.22	17.43	1.44	1.76	37.43
4/17/2000	1155	10.0	8.85	29.49	22.83	7.8		8.0	84		82.7	0.58	0.50	19.35	1.39	1.86	39.53
4/17/2000	1155	30.0	8.67	29.69	23.02	7.8		7.7	81		83.0			20.81	1.33	1.94	41.07
5/8/2000	1109	1.0	9.17	28.64	22.11	7.7	1 U	8.0	84	3.5	77.9	1.57	0.54	18.41	0.93	1.72	46.07
5/8/2000	1109	10.0	8.92	29.60	22.91	7.7		7.5	79		77.2	1.39	0.57	21.86	0.78	2.02	45.15
5/8/2000	1109	30.0	8.74	29.99	23.24	7.7		7.1	75		79.4			23.96	0.74	2.14	46.60
6/6/2000	1143	1.0	10.21	28.69	22.00	7.9	1 U	8.9	96	6.0	70.7	11.16	1.12	9.00	0.24	0.96	27.08
6/6/2000	1143	10.0	9.76	29.38	22.61	7.8		7.9	84		72.9	6.12	1.21	18.67	0.58	1.67	37.25
6/6/2000	1143	30.0	9.57	29.70	22.88	7.8		7.4	79		73.6			20.11	0.81	1.77	38.03
7/17/2000	1153	1.0	16.67	21.75	15.45	7.9	1 U	9.1	107	3.0	76.6	1.44	0.43	3.72	0.55	0.43	47.05
7/17/2000	1153	10.0	10.86	28.43	21.69	7.4		6.7	73		78.4	2.00	0.77	10.86	0.28	1.21	30.30
7/17/2000	1153	30.0	10.85	28.62	21.84	7.5		6.5	71		78.2			16.03	0.25	1.54	37.81
8/14/2000	1112	1.0	15.79	23.37	16.86	8.1	1 U	8.8	103	7.3	61.8	7.35	0.44	0.17	0.14	0.02	19.50
8/14/2000	1112	10.0	12.37	28.12	21.18	7.7		6.7	76		76.8	4.49	1.50	15.69	0.44	1.51	36.89
8/14/2000	1112	30.0	11.55	28.91	21.94	7.6		6.1	68		79.6						
9/12/2000	1131	1.0	11.54	28.56	21.68	8.0	1 U	6.7	74	8.5	76.8	2.09	0.45	5.28	0.11	0.97	30.48
9/12/2000	1131	10.0	10.82	29.37	22.43	7.8		5.5	60		80.5	2.83	1.05	20.44	0.21	2.00	47.29
9/12/2000	1131	30.0	10.57	29.78	22.79	7.8		5.2	57		81.1			22.80	0.60	2.12	50.04
10/3/2000	1127	1.0	10.65	29.56	22.60	7.9	1	5.8	63	9.0	77.3	3.07	0.88	17.96	0.64	1.71	42.43
10/3/2000	1127	10.0	10.57	29.72	22.74	7.9		5.8	63		77.7	2.32	1.07	20.34	0.77	1.89	43.32
10/3/2000	1127	30.0	10.52	29.82	22.82	7.9		5.7	62		77.7			20.73	0.80	1.90	44.03
11/15/2000	1136	0.5	9.64	29.51	22.73	8.0	1 U	5.6	60	12.0	81.5	0.50	0.42	25.13	0.01	2.35	51.48
11/15/2000	1136	10.0	9.41	29.98	23.13	7.9		5.6	59		77.7	0.52	0.40	25.13	0.01	2.34	51.92
11/15/2000	1136	30.0	9.28	30.20	23.32	7.9		5.6	59		74.5			25.13	0.02	2.32	51.98

## GYS004, Grays Harbor - Chehalis R.

Lat (decimal): 46.978

Long (decimal): -123.783

*October 1997 - September 1998*

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3_NO2-N DISS (mg/L)	NH4_NH3-N DISS (mg/L)	ORTHO PO4-P DISS (mg/L)
10/23/1997	1014	10.0	13.10	20.37	15.07			8.2	89		24.5					
10/23/1997	1014	0.5	10.94	5.67	4.03		3	10.0	95	2.3	51.6			0.334	0.020	0.028
11/25/1997	1035	0.5	8.73	0.05	-0.15			11.1	96	0.6	2.7			0.550	0.010 U	0.010
11/25/1997	1035	9.5	10.81	22.28	16.92			8.8	92		31.5			0.165	0.010 U	0.067
12/22/1997	1030	0.5	6.27	1.84	1.40		85	14.1	116	1.0	2.8					
12/22/1997	1030	5.5	6.56	3.44	2.65			11.2	94		14.5					
1/30/1998	1015	0.5	8.12	0.03	-0.13			11.8	101	0.8	11.4			0.579	0.010 U	0.010 U
1/30/1998	1015	10.0	8.12	0.03	-0.13			11.8	101		10.9			0.571	0.010 U	0.010 U
2/26/1998	1000	8.0	6.91	0.24	0.10			10.5	87		17.4			0.514	0.010 U	0.010 U
2/26/1998	1000	0.5	6.92	0.20	0.07		11	10.6	88	1.0	19.3			0.423	0.010 U	0.010 U
3/24/1998	1012	10.0	11.36	18.45	13.87			9.1	94		20.1			0.217	0.021	0.038
3/24/1998	1012	0.5	10.21	1.22	0.64		25	9.4	85	1.7	38.2			0.435	0.010 U	0.010 U
4/15/1998	1050	0.5	10.10	0.05	-0.27		8	11.2	100	2.5	53.2			0.392	0.010 U	0.010 U
4/15/1998	1050	8.5	10.08	0.05	-0.27			11.1	100		51.7			0.400	0.010 U	0.010 U
7/7/1998	1147	0.5	16.55	14.81	10.17	7.4	16	7.0	79	1.4	28.2			0.262	0.033	0.092
7/7/1998	1147	10.0	16.36	17.40	12.19	7.5		7.4	85		11.1			0.141	0.027	0.069
8/17/1998	1035	0.5	19.83	17.67	11.64	7.4	8	6.5	80	1.4	26.0			0.142	0.028	0.077
8/17/1998	1035	10.0	18.86	24.15	16.78	7.5		6.3	78		7.8			0.111	0.038	0.124
9/8/1998	1037	8.0	19.30	11.27	6.91	7.1		6.8	80		1.0			0.074	0.014	0.046
9/8/1998	1037	0.5	19.34	10.40	6.24	7.1	91	6.9	81	1.3	22.5			0.142	0.018	0.074

## GYS004, Grays Harbor - Chehalis R.

Lat (decimal): 46.978

Long (decimal): -123.783

*October 1998 - January 1999*

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3_NO2-N DISS (mg/L)	NH4_NH3-N DISS (mg/L)	ORTHO PO4-P DISS (mg/L)
10/5/1998	1021	0.5	15.59	14.77	10.33	6.9	12	7.5	83	1.0	13.3			0.178	0.069	0.106
10/5/1998	1021	6.0	15.51	16.18	11.42	7.0		7.3	81		2.4			0.153	0.074	0.116
11/9/1998	1033	0.5	9.52	3.96	2.85	7.0	27	9.6	87	1.4	23.8			0.341	0.010 U	0.018
11/9/1998	1033	8.5	10.40	14.26	10.76	6.8		8.6	85		25.4			0.340	0.010 U	0.020
12/14/1998	1029	0.5	8.00	0.02	-0.13	7.1	79	10.2	87	0.2	0.0			0.507	0.018	0.010 U
12/14/1998	1029	10.0	8.00	0.02	-0.13	6.8		10.2	87		0.0			0.564	0.017	0.010 U

## GYS004, Grays Harbor - Chehalis R.

Lat (decimal): 46.978

Long (decimal): -123.783

*February 1999 - December 1999*

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3 DISS (uM)	NH4 DISS (uM)	ORTHO PO4 DISS (uM)	Si(OH)4 DISS (uM)
3/9/1999	1049	0.5	6.78	0.71	0.48	6.7	8	10.7	89	0.9	14.3			38.60	0.83	0.21	99.87
3/9/1999	1049	9.5	7.26	9.98	7.75	6.4		11.0	98		23.9			37.51	0.89	0.20	86.82
4/5/1999	1036	0.5	7.41	0.06	-0.07	6.9	4	12.1	101	1.4	28.4			32.54	1.15	0.16	165.12
4/5/1999	1036	8.0	7.59	3.83	2.90	6.1		11.9	102		22.0			30.53	1.26	0.16	155.97
5/10/1999	1059	0.5	10.74	2.31	1.44	7.2	6	11.0	102	2.4	51.7			18.89	1.41	0.16	171.83
5/10/1999	1059	5.0	11.13	13.73	10.25	6.8		9.2	92		34.0			7.32	3.34	0.60	83.37
6/1/1999	1013	0.5	15.27	0.22	-0.77	7.0	19	10.6	107	1.7	33.2			15.57	0.75	0.11	111.02
6/1/1999	1013	8.0	15.19	1.27	0.05	6.8		10.4	106		0.6			15.30	0.83	0.12	130.36
7/6/1999	1042	0.5	16.07	6.98	4.28	6.8	2	8.4	89	2.3	47.1			15.48	2.23	0.38	302.97
7/6/1999	1042	8.0	15.67	17.12	12.11	6.8		7.5	84		29.6			10.66	3.11	0.57	209.75
8/2/1999	1027	0.5	18.28	6.90	3.80	7.0	8	7.8	87	1.3	28.1			13.51	2.61	0.38	162.70
8/2/1999	1027	8.5	17.32	15.03	10.18	7.0		7.2	83		16.7						
9/7/1999	1022	0.5	17.01	15.91	10.92	6.9	20	7.3	84	1.5	24.7			13.05	3.72	0.71	67.37
9/7/1999	1022	6.5	16.87	18.54	12.95	6.9		7.2	83		4.8			11.86	4.73	1.00	126.35
10/11/1999	1035	0.5	12.72	4.13	2.61	6.4	32	9.0	87	1.1	13.7			18.22	3.58	0.30	184.58
10/11/1999	1035	8.5	12.87	15.59	11.43	6.3		8.1	85					14.15	5.33	0.79	137.56
11/2/1999	1029	0.5	9.12	5.87	4.38		20	9.5	86	0.8	8.2			13.48	5.01	1.02	84.12
11/2/1999	1029	9.0	10.39	23.71	18.10			8.5	89		21.6			23.06	2.36	0.30	149.29
12/10/1999	1011	0.5	7.20	0.03	-0.08			11.7	97	0.7	9.9			33.00	0.97	0.21	33.33
12/10/1999	1011	9.5	7.19	0.03	-0.08			11.6	96		9.3			33.00	0.97	0.21	33.33



## GYS004, Grays Harbor - Chehalis R.

Lat (decimal): 46.978

Long (decimal): -123.783

## January 2000 - December 2000

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3 DISS (uM)	NH4 DISS (uM)	ORTHO PO4 DISS (uM)	Si(OH)4 DISS (uM)
1/5/2000	1449	0.5	6.45	0.71	0.50		110	12.0	99	0.5	0.4			34.53	1.74	0.18	162.45
1/5/2000	1449	10.0	6.62	3.20	2.46			11.7	99		0.6			30.67	2.46	0.30	153.32
3/7/2000	1104	0.5	6.86	0.21	0.08	6.8	9	11.9	98	1.1	23.2			34.04	1.00	0.27	115.54
3/7/2000	1104	2.0	6.85	0.25	0.11	6.9		11.8	98		22.7			35.29	1.14	0.30	149.35
4/10/2000	1036	0.5	10.97	4.37	3.02	7.0	1	9.6	90	1.1	27.4			24.84	1.66	0.33	133.40
4/10/2000	1036	7.5	10.93	12.01	8.94	7.2		9.0	89		18.4			23.83	1.78	0.37	123.54
5/22/2000	1016	0.5	14.10	0.32	-0.52	7.0	7	9.5	93	0.6	6.8			17.42	1.08	0.18	222.01
5/22/2000	1016	1.5	14.12	0.39	-0.47	7.1		9.5	93		6.2			17.49	1.25	0.20	228.90
6/26/2000	1011	0.5	16.01	9.72	6.39	7.6	4	8.7	94	2.3	47.8			13.94	0.82	0.25	151.95
6/26/2000	1011	10.0	13.04	25.88	19.33	7.8		6.8	76		21.3			10.59	0.93	0.78	70.77
7/26/2000	1032	0.5	17.58	15.90	10.79	7.3	8	6.7	78	1.6	39.0			6.97	1.28	0.25	99.69
7/26/2000	1032	9.5	16.59	23.46	16.77	7.4		6.4	76		12.4			7.18	3.85	0.69	75.65
8/28/2000	1029	0.5	18.48	11.81	7.49	7.2	41	6.6	76	0.8	7.8			13.66	3.48	0.54	173.95
8/28/2000	1029	8.0	18.33	13.89	9.10	7.3		6.3	74		0.0			11.86	3.90	0.70	148.88
9/25/2000	1045	0.5	15.60	20.04	14.36	7.7	15	6.5	74	1.4	12.5			24.30	5.38	0.97	65.63
9/25/2000	1045	9.0	15.47	21.47	15.48	7.8		6.3	72		0.0			10.94	5.61	1.10	86.02
11/13/2000	1025	0.5	8.35	9.69	7.43	7.6	14 J	9.6	88	1.0	19.6			19.30	2.50	0.50	180.14
11/13/2000	1025	9.0	8.75	17.92	13.81	8.0		9.0	88		0.2			15.34	3.27	0.83	108.14
12/5/2000	1110	0.5	7.10	6.94	5.38	7.7	1 J	10.6	92	1.4	32.0			26.52	1.74	0.39	113.38
12/5/2000	1110	9.0	8.97	24.87	19.20	8.3		8.9	91		2.2			10.26	2.94	0.86	19.65

## GYS008, Grays Harbor - Mid-S. Channel

Lat (decimal): 46.938

Long (decimal): -123.912

October 1997 - September 1998

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3_NO2-N DISS (mg/L)	NH4_NH3-N DISS (mg/L)	ORTHO PO4-P DISS (mg/L)
10/23/1997	1039	5.5	13.16	21.26	15.75			8.5	93		32.2	1.30	0.92	0.128	0.023	0.057
10/23/1997	1039	0.5	12.45	17.16	12.70		5 J	9.0	95	1.2	9.8	3.40	1.00	0.194	0.022	0.055
11/25/1997	1117	1.0	9.17	8.54	6.46			10.4	96	1.0	20.9	0.36	0.54	0.417	0.010 U	0.037
11/25/1997	1117	2.5	9.92	16.32	12.42			9.7	96		38.5					
12/22/1997	1101	0.5	7.30	10.83	8.41		110	10.0	90	1.1	14.2					
12/22/1997	1101	5.0	8.71	18.70	14.42			10.0	98		13.5					
1/30/1998	1046	0.5	8.92	9.37	7.13			10.9	101	0.8	6.5	0.33	0.66	0.410	0.010 U	0.030
1/30/1998	1046	5.5	9.00	10.70	8.16			10.8	101		0.0			0.390	0.010 U	0.033
2/26/1998	1040	6.0	8.63	15.72	12.11			9.1	87		3.4	2.30	2.30	0.350	0.010 U	0.049
2/26/1998	1040	0.5	8.65	14.57	11.21		9	9.2	87	0.9	11.0	1.90	1.20	0.388	0.010 U	0.050
3/24/1998	1053	6.0	11.56	20.17	15.17			9.1	95		38.6			0.155	0.011	0.040
3/24/1998	1053	0.5	11.59	13.36	9.92		5	9.7	97	1.6	32.5			0.295	0.012	0.022
4/15/1998	1128	0.5	11.06	11.42	8.47		2	9.7	95	1.0	11.9	1.40	1.80	0.194	0.010 U	0.140
4/15/1998	1128	4.0	10.92	11.48	8.54			9.7	95		2.4					
7/7/1998	1217	0.5	16.73	23.56	16.81	7.8	1	7.9	95	1.1	14.2	8.70	1.80	0.065	0.010 U	0.091
7/7/1998	1217	4.5	16.60	23.83	17.05	7.8		8.0	95		19.2	5.90	2.30	0.077	0.010 U	0.098
8/17/1998	1106	0.5	18.46	27.32	19.30	7.7	2	6.7	85	1.1	19.1	4.90	2.60	0.094	0.010 U	0.136
8/17/1998	1106	4.5	17.85	28.31	20.19	7.7		6.7	84		28.7	3.40	2.70	0.085	0.012	0.138
9/8/1998	1118	10.0										6.50	9.00	0.118	0.012	0.119
9/8/1998	1118	0.5					3			0.2		6.70	6.60	0.133	0.017	0.143

GYS008, Grays Harbor - Mid-S. Channel

Lat (decimal): 46.938

Long (decimal): -123.912

October 1998 - January 1999

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3_NO2-N DISS (mg/L)	NH4_NH3-N DISS (mg/L)	ORTHO PO4-P DISS (mg/L)
10/5/1998	1046	0.5	14.17	27.53	20.39	7.4	3	7.2	83	0.9	7.6	3.60	3.50	0.117	0.076	0.207
10/5/1998	1046	4.0	14.18	27.51	20.37	7.4		7.3	84		2.6	4.40	4.30	0.116	0.066	0.190
11/9/1998	1113	0.5	9.98	18.30	13.95	7.6	4	8.3	84	1.4	20.9					
11/9/1998	1113	2.0	10.28	19.39	14.76	7.6		8.2	83		9.1					
12/14/1998	1059	0.5	8.25	2.83	2.07	6.8	75	10.4	91	0.3	0.3					
12/14/1998	1059	4.5	8.74	7.28	5.51	6.8		10.1	91		7.5					

GYS008, Grays Harbor - Mid-S. Channel

Lat (decimal): 46.938

Long (decimal): -123.912

February 1999 - December 1999

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3 DISS (uM)	NH4 DISS (uM)	ORTHO PO4 DISS (uM)	Si(OH)4 DISS (uM)
3/9/1999	1117	0.5	6.95	6.29	4.87	6.8	0 N	10.0	86	0.9	11.2	0.27	0.73	32.84	1.07	0.36	110.08
3/9/1999	1117	3.0	7.75	19.25	14.97	6.5		10.0	96		26.3						
4/5/1999	1112	0.5	7.93	9.45	7.28	6.8	3 J	11.5	103	1.2	20.5	2.30	0.91	25.13	1.38	0.42	141.63
4/5/1999	1112	3.0	8.05	13.73	10.62	6.8		11.0	103		12.0						
5/10/1999	1134	0.5	11.86	10.35	7.54	7.3	6	9.8	98	1.5	34.1	2.20	1.00	2.38	0.70	0.31	71.74
5/10/1999	1134	3.5	11.84	17.32	12.92	7.6		9.2	96		36.8	4.70	0.89	9.75	1.40	0.80	127.46
6/1/1999	1044	0.5	13.37	16.13	11.77	7.2	3	9.4	100	0.9	11.2	5.00	3.40	8.44	0.61	0.56	63.07
6/1/1999	1044	2.5	13.36	16.10	11.75	7.3		9.3	99		9.3	5.70	3.00	8.23	0.85	0.57	69.19
7/6/1999	1114	0.5	16.52	16.45	11.43	6.8	29	7.8	89	1.5	25.5	6.04	2.37	7.49	0.93	0.65	109.67
7/6/1999	1114	2.0	16.25	17.33	12.16	6.8		7.8	89		8.3	6.23	2.39	7.61	1.07	0.69	110.68
8/2/1999	1058	0.5	16.35	22.41	16.01	7.1	2	7.1	84	1.5	26.7	2.45	1.59	9.25	3.65	0.96	101.96
8/2/1999	1058	1.5	16.24	22.59	16.18	7.1		7.1	83		26.0			8.93	3.65	1.02	94.16
9/7/1999	1047	0.5	15.63	26.60	19.38	7.3	2	7.5	90	0.9	7.0	6.98	3.50	8.91	2.08	1.11	75.40
9/7/1999	1047	3.5	15.57	26.91	19.63	7.3		7.5	89		2.9	6.80	6.54	9.36	2.08	1.14	72.08
10/11/1999	1130	0.5	12.26	23.61	17.72	7.2	2	8.2	89	0.8	8.3	5.38	7.49	31.04	4.89	1.19	95.34
10/11/1999	1130	2.5	12.26	23.60	17.71	7.2		8.2	89		5.5	5.91	10.02	11.70	4.89	1.20	95.13
11/2/1999	1103	0.5	9.71	18.16	13.88		10	8.8	88	1.1	32.8	2.26	2.61	18.20	3.88	0.92	113.25
11/2/1999	1103	3.0	9.94	21.62	16.54			8.6	88		23.0	3.30	2.30	7.28	4.03	0.94	89.23
12/10/1999	1040	0.5								0.8		0.58	0.91	26.08	1.43	0.39	104.63
12/10/1999	1040	10.0										0.55	1.06	26.08	1.43	0.39	104.63



GYS009, Grays Harbor - Moon Island Reach

Lat (decimal): 46.965

Long (decimal): -123.948

October 1997 - September 1998

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3_NO2-N DISS (mg/L)	NH4_NH3-N DISS (mg/L)	ORTHO PO4-P DISS (mg/L)
10/23/1997	1114	0.5	11.97	13.98	10.33			9.4	96	2.5	53.2					
11/25/1997	1142	1.0	9.24	8.59	6.48			10.5	97	1.0	23.6					
12/22/1997	1116	1.0	7.33	11.04	8.57			11.0	99	1.4	31.2					
1/30/1998	1119	0.5	8.88	8.44	6.40			11.0	101	0.9	18.3					
2/26/1998	1115	0.5	8.39	11.57	8.89			9.7	90	1.3	25.9					
3/24/1998	1124	0.5	11.20	12.55	9.33			9.9	98	1.7	37.6					
4/15/1998	1158	0.5	11.23	9.95	7.31			9.9	97	1.5	36.0					
5/28/1998	1122	0.5	14.15	13.68	9.75			8.7	93	1.4	16.6					
7/7/1998	1248	0.5	16.03	25.70	18.60	7.9		7.9	95	2.2	41.3					
8/17/1998	1140	0.5	17.33	29.30	21.07	7.7		7.1	89	2.4	47.8					
9/8/1998	1153	0.5	15.66	29.54	21.62	7.8		6.2	75	0.9	2.8					

GYS009, Grays Harbor - Moon Island Reach

Lat (decimal): 46.965

Long (decimal): -123.948

October 1998 - January 1999

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3_NO2-N DISS (mg/L)	NH4_NH3-N DISS (mg/L)	ORTHO PO4-P DISS (mg/L)
10/5/1998	1111	0.5	13.78	29.08	21.66	7.7		7.4	86	1.1	15.4					
11/9/1998	1126	0.5	10.56	19.95	15.15	7.7		8.2	84	1.6	34.0					
12/14/1998	1110	0.5	7.77	0.72	0.43	7.0		10.4	88	0.4	0.0					
1/11/1999	1050	0.5	7.24	9.85	7.65	7.4		11.7	104	2.2	50.0					

## GYS009, Grays Harbor - Moon Island Reach

Lat (decimal): 46.965

Long (decimal): -123.948

*February 1999 - December 1999*

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3 DISS (uM)	NH4 DISS (uM)	ORTHO PO4 DISS (uM)	Si(OH)4 DISS (uM)
3/9/1999	1137	0.5	7.06	7.62	5.91	7.1		11.3	99	1.0	23.9						
4/5/1999	1131	0.5	7.97	10.58	8.16	7.1		11.2	102	1.4	22.9						
5/10/1999	1200	0.5	11.40	14.29	10.65	7.6		9.8	99	2.3	48.8						
6/1/1999	1107	0.5	13.70	15.40	11.15	7.4		9.0	96	1.8	29.2						
7/6/1999	1133	0.5	17.08	18.96	13.23	6.9		7.9	92	1.5	27.0						
8/2/1999	1116	0.5	16.29	22.58	16.16	7.1		7.0	83	1.3	24.8						
9/7/1999	1109	0.5	14.82	29.06	21.43	7.4		7.6	90	1.6	25.1						
10/11/1999	1108	0.5	12.08	23.84	17.93	7.1		8.4	91	1.7	27.5						
11/2/1999	1134	0.5	9.63	20.09	15.39			8.9	90	1.7	40.7						
12/10/1999	1104	0.5	7.73	8.14	6.27			10.9	97	1.0	22.5						

## GYS009, Grays Harbor - Moon Island Reach

Lat (decimal): 46.965

Long (decimal): -123.948

*January 2000 - December 2000*

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3 DISS (uM)	NH4 DISS (uM)	ORTHO PO4 DISS (uM)	Si(OH)4 DISS (uM)
1/5/2000	1415	0.5	6.82	7.62	5.93			11.5	100	0.7	10.8						
2/2/2000	1041	0.5	6.59	14.72	11.52			11.3	102	1.4	34.6						
4/10/2000	1137	0.5	11.08	16.40	12.33	7.7		8.4	85	1.3	25.1						
5/22/2000	1112	0.5	14.20	11.49	8.06	7.5		8.5	89	1.7	29.2						
6/26/2000	1051	0.5	15.84	20.57	14.71	8.3		9.3	107	2.3	52.9						
7/26/2000	1118	0.5	16.57	26.93	19.43	7.7		7.6	92	2.6	46.4						
8/28/2000	1115	0.5	15.66	28.85	21.09	7.8		6.4	78	1.0	11.6						
9/25/2000	1151	0.5	13.51	28.82	21.51	8.0		6.8	79	2.0	36.6						
11/13/2000	1117	0.5	8.55	26.83	20.79	8.2		8.7	89	1.0	16.1						
12/5/2000	1148	0.5	8.35	21.78	16.87	8.3		9.4	92	2.5	57.0						

## GYS015, Grays Harbor - N. Whitcomb Flats

Lat (decimal): 46.923

Long (decimal): -124.075

*October 1997 - September 1998*

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3_NO2-N DISS (mg/L)	NH4_NH3-N DISS (mg/L)	ORTHO PO4-P DISS (mg/L)
12/22/1997	1148	1.0	7.71	14.67	11.39			10.9	101	1.5	31.7					
3/24/1998	1155	0.5	11.67	22.94	17.30			9.5	101	2.4	50.7					
4/15/1998	1233	0.5	11.73	21.90	16.49			9.2	98	2.5	52.3					
5/28/1998	1209	0.5	13.73	24.38	18.05			9.0	101	1.7	31.1					
7/7/1998	1323	0.5	11.90	31.31	23.74	7.9		6.8	77	3.3	55.1					
8/17/1998	1155	0.5	12.69	32.51	24.53	7.9		8.3	96	2.8	49.7					
9/8/1998	1229	0.5	12.77	32.51	24.51	8.0		7.7	90	2.4	9.2					

## GYS015, Grays Harbor - N. Whitcomb Flats

Lat (decimal): 46.923

Long (decimal): -124.075

*October 1998 - January 1999*

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3_NO2-N DISS (mg/L)	NH4_NH3-N DISS (mg/L)	ORTHO PO4-P DISS (mg/L)
10/5/1998	1127	0.5	13.18	30.43	22.82	8.0		9.1	105	3.8	62.7					
11/9/1998	1140	0.5	11.18	26.97	20.50	7.9		8.5	92	3.4	58.6					
12/14/1998	1139	0.5	8.63	9.34	7.13	7.7		10.2	93	0.8	9.3					
1/11/1999	1119	0.5	7.96	19.75	15.33	7.8		10.9	105	2.2	45.4					

## GYS015, Grays Harbor - N. Whitcomb Flats

Lat (decimal): 46.923

Long (decimal): -124.075

*February 1999 - December 1999*

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3 DISS (uM)	NH4 DISS (uM)	ORTHO PO4 DISS (uM)	Si(OH)4 DISS (uM)
5/10/1999	1242	0.5	11.50	18.84	14.15	7.9		9.8	102	2.8	52.2						
6/1/1999	1150	0.5	11.88	27.05	20.44	7.6		8.7	96	2.0	41.5						
7/6/1999	1153	0.5	16.36	24.24	17.41	7.1		8.3	99	1.6	38.3						
8/2/1999	1154	0.5	14.63	29.05	21.47	7.3		7.3	86	2.3	42.3						
9/7/1999	1149	0.5	10.59	32.52	24.92	7.5		7.6	84	3.7	52.6						
10/11/1999	1156	0.5	11.31	30.02	22.85	7.6		8.5	94	3.0	54.6						
11/2/1999	1153	0.5	9.71	22.17	17.00			8.9	91	1.7	46.8						
12/10/1999	1120	0.5	9.40	23.55	18.11			10.1	103	1.3	32.0						

## GYS015, Grays Harbor - N. Whitcomb Flats

Lat (decimal): 46.923

Long (decimal): -124.075

*January 2000 - December 2000*

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3 DISS (uM)	NH4 DISS (uM)	ORTHO PO4 DISS (uM)	Si(OH)4 DISS (uM)
1/5/2000	1357	0.5	8.22	22.68	17.59			10.5	104	1.8	43.8						
4/10/2000	1219	0.5	11.08	22.64	17.16	7.8		8.2	86	2.1	37.6						
5/22/2000	1124	0.5	14.10	18.95	13.80	7.8		8.3	92	1.8	33.7						
6/26/2000	1124	0.5	14.45	26.61	19.62	8.2		9.2	106	3.5	55.4						
7/26/2000	1221	0.5	14.41	31.01	23.02	7.7		7.8	93	3.7	58.3						
8/28/2000	1151	0.5	9.91	33.16	25.53	7.6				4.0	59.9						
9/25/2000	1241	0.5	10.37	32.57	25.00	8.0		6.2	69	5.4	68.0						
11/13/2000	1200	0.5	10.01	31.32	24.08	8.3		8.2	89	1.0	65.9						
12/5/2000	1223	0.5	8.25	23.54	18.26	8.3		9.3	93	2.1	55.4						



## GYS016, Grays Harbor - Damon Point

Lat (decimal): 46.953

Long (decimal): -124.092

*October 1997 - September 1998*

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3_NO2-N DISS (mg/L)	NH4_NH3-N DISS (mg/L)	ORTHO PO4-P DISS (mg/L)
10/23/1997	1130	7.5	13.86	29.62	22.06			7.9	92		54.9					
10/23/1997	1130	0.5	12.94	23.64	17.62		1 U	8.7	96	2.6	52.3	1.50	0.80	0.079	0.024	0.056
12/22/1997	1148	0.5	7.07	13.52	10.54		16	11.0	99	1.5	36.3					
12/22/1997	1148	8.5	9.57	24.08	18.51			9.7	100		40.1					
1/30/1998	1139	0.5	10.37	23.12	17.64			9.7	101	1.2	20.3	0.48	0.47	0.167	0.010 U	0.044
1/30/1998	1139	5.0	10.39	23.64	18.04			9.6	101		13.2					
2/26/1998	1143	10.0	10.37	28.25	21.63			8.9	96		16.7	2.60	1.70	0.225	0.010 U	0.067
2/26/1998	1143	0.5	10.16	27.02	20.71		1	9.3	99	1.2	16.1	2.50	1.50	0.222	0.010 U	0.068
3/24/1998	1207	10.0												0.107	0.010 U	0.037
3/24/1998	1207	0.5					1 U			1.8				0.127	0.010 U	0.037
4/15/1998	1247	0.5	11.69	21.47	16.16		1 U	9.3	99	2.5	47.6	2.30	1.30	0.056	0.025	0.145
4/15/1998	1247	8.5	11.35	22.48	16.99			9.1	97		28.8	2.70	2.10	0.043	0.010 U	0.148
7/7/1998	1304	0.5	10.49	32.15	24.65	7.7	1 U			3.0	55.6	3.20	2.20	0.244	0.022	0.165
7/7/1998	1304	2.5	10.45	32.17	24.67	7.7					55.0					
8/17/1998	1209	0.5	14.27	32.06	23.86	7.9	1 U	8.3	100	3.0	51.5	7.80	1.80	0.074	0.010 U	0.167
8/17/1998	1209	10.0	12.62	32.52	24.55	7.9		8.5	99		51.5	20.30	2.70	0.057	0.010 U	0.150
9/8/1998	1209	10.0	11.10	32.86	25.09	8.0		7.9	89		41.1	7.60	6.40	0.180	0.010 U	0.186
9/8/1998	1209	0.5	11.13	32.86	25.09	8.0	1 U	7.4	83	1.5	43.4	6.60	5.10	0.156	0.010 U	0.163

## GYS016, Grays Harbor - Damon Point

Lat (decimal): 46.953

Long (decimal): -124.092

*October 1998 - January 1999*

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3_NO2-N DISS (mg/L)	NH4_NH3-N DISS (mg/L)	ORTHO PO4-P DISS (mg/L)
10/5/1998	1141	0.5	13.26	30.10	22.55	8.1	1 U	9.1	105	2.9	56.1	7.40	2.00	0.047	0.010 U	0.204
10/5/1998	1141	8.0	13.26	30.10	22.55	8.1		9.1	105		43.6	8.00	3.60	0.067	0.010 U	0.218
11/9/1998	1153	0.5	10.36	25.62	19.58	7.9	1 U	8.5	90	2.6	54.5					
11/9/1998	1153	7.0	10.69	26.77	20.42	7.9		8.3	89		42.3					
12/14/1998	1128	0.5	8.47	8.57	6.54	7.5	12	10.2	93	0.7	8.3					
12/14/1998	1128	6.0	10.16	24.99	19.13	7.6		8.9	93		8.4					

## GYS016, Grays Harbor - Damon Point

Lat (decimal): 46.953

Long (decimal): -124.092

## February 1999 - December 1999

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3 DISS (uM)	NH4 DISS (uM)	ORTHO PO4 DISS (uM)	Si(OH)4 DISS (uM)
3/9/1999	1154	0.5	6.36	12.23	9.59	7.5	0 N	11.3	100	0.8	5.5			16.14	1.05	0.54	89.21
3/9/1999	1154	6.5	6.70	14.30	11.19	7.5		10.7	97		1.4						
4/5/1999	1146	0.5	7.77	18.77	14.58	7.5	1	10.9	104	1.4	28.0	2.90	0.97	14.98	0.68	0.70	89.99
4/5/1999	1146	5.5	7.62	22.69	17.67	7.5		10.3	101		14.5	3.10	1.60	9.52	0.54	0.75	74.03
5/10/1999	1219	0.5	11.19	20.07	15.15	7.8	1 U	9.3	97	1.9	36.2	3.50	1.40	0.95	0.49	0.37	63.73
5/10/1999	1219	4.0	11.15	20.10	15.18	7.8		9.2	96		29.2	4.40	2.20	0.63	0.43	0.35	62.46
6/1/1999	1124	0.5	11.53	27.84	21.12	7.6	1	8.5	93	2.0	41.4	4.30	1.30	11.15	1.35	1.12	65.38
6/1/1999	1124	6.5	11.24	29.01	22.08	7.6		8.2	91		17.5	3.50	2.20	11.83	1.99	1.31	57.35
7/6/1999	1549	0.5	15.30	27.19	19.90	7.1	1 U	7.7	92	1.9	43.7	8.87	2.84	2.76	0.21	0.58	42.43
7/6/1999	1549	7.0	15.34	27.15	19.86	7.1		7.8	92		39.2	8.58	4.11	2.64	0.21	0.59	42.53
8/2/1999	1132	0.5	15.85	29.83	21.81	7.4	1 U	7.4	90	2.3	39.2	2.45	1.59	2.91	0.86	0.94	63.71
8/2/1999	1132	5.5	15.00	30.71	22.67	7.4		7.4	89		43.3	2.45	2.94	4.75	3.44	1.32	60.02
9/7/1999	1125	0.5	11.70	32.31	24.56	7.5	1	7.8	88	2.0	36.4	28.58	6.91	4.85	0.02	0.73	26.46
9/7/1999	1125	7.5	11.68	32.31	24.56	7.5		7.8	89		30.0	26.73	13.83	6.81	0.07	0.85	25.92
10/11/1999	1220	0.5	11.41	29.61	22.51	7.5	2	8.5	95	1.9	27.8	17.45	6.62	7.58	1.30	0.98	52.92
10/11/1999	1220	5.0	11.41	29.61	22.51	7.5		8.6	96		24.0	15.67	8.07	7.55	1.36	0.96	51.41
12/10/1999	1135	0.5	9.16	22.29	17.17			8.9	90	1.3	27.1	0.92	1.07	12.55	1.32	0.81	69.71
12/10/1999	1135	5.0	9.15	22.24	17.13			9.2	92		22.8	0.80	1.12	11.69	1.30	0.82	69.61

## GYS016, Grays Harbor - Damon Point

Lat (decimal): 46.953

Long (decimal): -124.092

## January 2000 - December 2000

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3 DISS (uM)	NH4 DISS (uM)	ORTHO PO4 DISS (uM)	Si(OH)4 DISS (uM)
1/5/2000	1332	0.5	8.14	22.77	17.67		3	10.8	106		36.6	1.61	0.72	13.49	1.58	0.77	89.60
1/5/2000	1332	6.5	8.47	25.09	19.44			10.3	104		42.9	1.18	1.42	10.09	0.38	0.81	58.90
2/2/2000	1122	0.5	7.74	24.31	18.93		1 U	9.8	97	2.1	40.1	1.48	0.63	12.09	0.73	0.81	65.49
2/2/2000	1122	8.0	7.90	25.65	19.96			10.2	102		34.9	1.18	0.88	11.16	0.61	0.84	53.68
3/7/2000	1220	1.0	9.47	30.10	23.21	8.0	1	9.0	96	1.6	23.9	4.49	3.74	7.35	0.71	0.76	36.24
3/7/2000	1220	3.0	9.52	30.23	23.30	8.0		9.0	96		18.1	3.81	4.57	6.56	0.64	0.76	29.80
4/10/2000	1154	0.5	11.49	24.41	18.46	7.7	1 U	8.0	86	2.2	45.8	4.35	0.88	4.71	0.67	0.64	64.57
4/10/2000	1154	6.0	11.25	25.87	19.63	7.8		8.1	88		46.7	1.13	0.59	4.14	1.34	0.71	52.63
5/22/2000	1136	0.5	14.28	19.70	14.35	7.9	1	8.1	90	2.0	39.7	2.39	1.39	2.22	1.35	0.53	68.53
5/22/2000	1136	4.5	13.92	20.70	15.18	7.9		8.1	89		39.8	2.70	1.28	1.85	1.59	0.54	60.76
6/26/2000	1106	0.5	13.71	27.89	20.75	8.1	1 U	8.3	96	3.8	61.2	1.96	0.53	3.00	0.65	0.63	62.90
6/26/2000	1106	5.0	11.78	30.61	23.23	8.1		7.9	89		49.6	11.56	2.20	7.35	1.00	0.96	38.27
7/26/2000	1133	0.5	14.16	31.09	23.13	7.7	1 U	7.4	88	3.7	57.1	3.35	1.44	3.57	1.15	0.90	51.71
7/26/2000	1133	5.0	13.70	31.34	23.42	7.8		7.8	92		55.2	5.99	2.24	4.67	1.25	0.88	39.82
8/28/2000	1130	0.5	11.53	32.54	24.77	7.7	1 U	5.2	59	2.2	42.9	10.34	4.78	15.93	0.65	1.75	50.45
8/28/2000	1130	3.5	11.39	32.60	24.84	7.7		5.2	59		28.7	9.66	5.61	16.71	0.74	1.78	48.75
9/25/2000	1212	0.5	11.08	32.30	24.66	8.1	1 U	6.3	70	4.5	64.1	9.12	1.36	11.28	0.56	1.25	33.22
9/25/2000	1212	8.0	11.07	32.30	24.66	8.1		6.4	71		63.9	8.98	2.10	12.59	0.85	1.32	32.41
11/13/2000	1134	0.5	9.92	31.07	23.90	8.3	1 U	8.5	92	2.5	60.7	3.30	1.30	8.08	1.00	0.97	26.84
11/13/2000	1134	8.0	9.88	31.00	23.85	8.3		8.6	93		27.2	3.35	1.17	7.87	0.95	0.96	25.42
12/5/2000	1203	0.5	7.95	22.92	17.81	8.3	1 U	9.4	92	2.1	57.4	1.25	0.60	11.19	2.45	0.79	72.38
12/5/2000	1203	5.0	9.20	28.10	21.69	8.4		8.4	88		63.0	1.89	1.07	7.85	1.84	0.86	42.54

## HCB003, Hood Canal - Eldon, Hamma Hamma R.

Lat (decimal): 47.538

Long (decimal): -123.008

## October 1998 - January 1999

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3_NO2-N DISS (mg/L)	NH4_NH3-N DISS (mg/L)	ORTHO PO4-P DISS (mg/L)
10/26/1998	1537	0.5	12.06	27.98	21.13	8.1		8.9	99	4.3	52.9					
11/27/1998	1331	0.5	10.35	23.48	17.92	7.6		6.2	65	1.8	51.6					

HCB003, Hood Canal - Eldon, Hamma Hamma R.

Lat (decimal): 47.538

Long (decimal): -123.008

February 1999 - December 1999

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3 DISS (uM)	NH4 DISS (uM)	ORTHO PO4 DISS (uM)	Si(OH)4 DISS (uM)
3/11/1999	1630	0.5	8.62	22.13	17.11	8.1		12.4	124	2.3	39.7						
5/13/1999	1551	0.5	11.51	25.83	19.57	7.9		10.6	116	7.0	79.2						
6/14/1999	1626	0.5	17.67	21.42	14.98	8.1		11.2	135	8.0	74.7						
7/12/1999	1616	0.5	19.03	20.85	14.24	7.9		9.5	116	4.7	66.5						
8/30/1999	1528	0.5	16.97	24.54	17.51	7.7		8.9	108	6.4	68.6						
9/28/1999	1649	0.5	13.34	27.15	20.26	7.6		9.6	110	4.4	57.7						
10/19/1999	1603	0.5	11.71	28.04	21.25			12.1	134	3.0	43.8						
11/30/1999	1344	0.5	9.82	23.75	18.21			7.3	76	11.5	75.0						

HCB003, Hood Canal - Eldon, Hamma Hamma R.

Lat (decimal): 47.538

Long (decimal): -123.008

January 2000 - December 2000

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3 DISS (uM)	NH4 DISS (uM)	ORTHO PO4 DISS (uM)	Si(OH)4 DISS (uM)
1/26/2000	1328	0.5	7.41	22.09	17.22			9.6	93	9.5	73.0						
3/23/2000	1359	0.5	9.59	27.70	21.32	8.0		10.9	115	4.0	57.3						
4/18/2000	1413	0.5	11.73	27.66	20.94	8.3		11.3	125	4.0	56.1						
5/16/2000	1439	0.5	13.91	26.83	19.90	8.2		11.2	128	7.5	74.3						
6/21/2000	1424	0.5	16.46	23.81	17.06	8.4		11.1	132	5.5	63.9						
7/25/2000	1444	0.5	18.86	25.15	17.55	8.0		9.1	114	6.0	73.1						
8/21/2000	1529	0.5	16.06	28.00	20.36	8.1		9.4	114	4.5	56.6						
9/14/2000	1453	0.5	13.44	29.19	21.81	8.0		8.2	95	4.8	58.8						
10/9/2000	1500	0.5								5.0							
12/19/2000	1330	0.5	9.18	28.61	22.09	7.9		5.5	58	8.0	79.1						

# HCB004, Hood Canal - Gt. Bend, Sisters Point

Lat (decimal): 47.357

Long (decimal): -123.023

October 1997 - September 1998

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3_NO2-N DISS (mg/L)	NH4_NH3-N DISS (mg/L)	ORTHO PO4-P DISS (mg/L)
10/28/1997	1004	10.0	10.22	28.90	22.16			1.7	19		79.0	0.55	0.26	0.480	0.010 U	0.116
10/28/1997	1004	30.0	9.71	29.29	22.55			0.7	8		70.8			0.462	0.010 U	0.129
10/28/1997	1004	0.5	10.37	12.25	9.20		1	10.0	97	3.6	43.1	9.70	0.05 U	0.010	0.010 U	0.030
11/24/1997	934	0.5	9.06	15.31	11.74		2	10.5	101	3.0	47.7	6.10	0.51	0.015	0.010 U	0.056
11/24/1997	934	10.0	10.38	29.14	22.32			1.9	21		77.0	0.79	0.32	0.482	0.010 U	0.144
11/24/1997	934	30.0	10.04	29.35	22.54			0.9	10		69.4			0.428	0.010 U	0.140
12/30/1997	1415	30.0	10.33	29.67	22.74			1.0	11		69.7			0.533	0.010 U	0.141
12/30/1997	1415	0.5	8.23	21.70	16.82		1 U	7.8	77	7.6	64.0			0.289	0.010 U	0.085
12/30/1997	1415	10.0	10.22	29.41	22.56			1.0	11		72.2			0.411	0.010 U	0.122
1/28/1998	1110	30.0	10.37	29.54	22.63			1.3	15		67.0					
1/28/1998	1110	0.5	7.56	9.22	7.13		1 U	9.4	84	2.1	36.0					
1/28/1998	1110	10.0	9.98	28.76	22.09			3.8	41		75.8					
2/17/1998	1045	0.5	7.68	7.38	5.68		3	9.5	84	1.5	22.8	16.50	1.00	0.024	0.010 U	0.031
2/17/1998	1045	10.0	9.92	28.67	22.03			3.1	33		79.2	0.56	0.31	0.437	0.010 U	0.112
2/17/1998	1045	30.0	10.28	29.37	22.52			1.0	11		73.5			0.367	0.010 U	0.109
3/31/1998	1025	10.0	10.15	28.94	22.20			2.6	28		76.0	1.30	0.31	0.461	0.010 U	0.125
3/31/1998	1025	0.5	10.32	22.31	17.02		1 U	12.7	131	4.3	47.7	9.00	0.85	0.089	0.010 U	0.035
3/31/1998	1025	30.0	10.14	29.29	22.48			2.2	23		68.5			0.502	0.010 U	0.128
4/20/1998	1031	10.0	10.31	28.90	22.14			2.9	31		76.9	5.60	1.40	0.263	0.011	0.123
4/20/1998	1031	30.0	10.06	29.29	22.49			2.3	25		70.0			0.413	0.010 U	0.162
4/20/1998	1031	1.0	12.06	21.25	15.92		1 U	11.0	118	6.5	72.9	3.70	0.96	0.024	0.010 U	0.071
5/12/1998	1119	0.5	14.36	22.87	16.77		1 U	10.8	123	5.9	79.0	1.50	0.67	0.027	0.010 U	0.072
5/12/1998	1119	10.0	10.74	28.73	21.94			4.8	52		57.9	16.90	1.80	0.162	0.010 U	0.113
5/12/1998	1119	30.0	10.11	29.28	22.47			1.7	19		71.6			0.289	0.010 U	0.129
6/2/1998	1541	30.0	10.07	29.38	22.56			1.7	19		69.6			0.391	0.010 U	0.157
6/2/1998	1541	0.5	16.67	24.30	17.40		1 U	9.8	118	4.8	71.2	1.60	0.30	0.033	0.010 U	0.070
6/2/1998	1541	10.0	10.48	28.98	22.18			3.1	34		77.7	4.40	1.40	0.263	0.010 U	0.112
7/6/1998	1145	30.0	10.23	29.32	22.48	7.1		0.6	6		75.1			0.486	0.010 U	0.221
7/6/1998	1145	0.5	18.03	25.16	17.75	8.1	1 U	9.0	111	4.2	53.9	3.00	0.31	0.030	0.010 U	0.095
7/6/1998	1145	10.0	11.20	28.88	21.98	7.4		3.7	40		70.6	4.20	1.70	0.427	0.011	0.237
8/3/1998	1054	0.5	19.72	25.78	17.82	8.0	1 U	8.9	115	3.5	60.1	2.10	0.60	0.011	0.010 U	0.116
8/3/1998	1054	10.0	11.75	29.01	21.98	7.6		5.2	58		53.3	20.00	4.90	0.107	0.010 U	0.154
8/3/1998	1054	30.0	10.18	29.41	22.56	7.0		0.5	5		71.0			0.349	0.010 U	0.224
9/14/1998	1653	30.0	11.08	29.87	22.77	8.0		2.8	31		66.4			0.326	0.010 U	0.222
9/14/1998	1653	0.5	20.52	22.49	15.12	8.3	1 U	8.4	107	4.0	61.2	2.40	0.43	0.030	0.010 U	0.109
9/14/1998	1653	10.0	10.96	29.63	22.60	8.2		1.8	20		73.5	10.30	3.20	0.172	0.010 U	0.188

HCB004, Hood Canal - Gt. Bend, Sisters Point

Lat (decimal): 47.357

Long (decimal): -123.023

October 1998 - January 1999

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3_NO2-N DISS (mg/L)	NH4_NH3-N DISS (mg/L)	ORTHO PO4-P DISS (mg/L)
10/26/1998	1625	0.5	12.22	26.06	19.62	8.1	1 U	8.2	91	3.0	47.5					
10/26/1998	1625	10.0	11.73	30.32	23.01	7.6		3.0	33		75.3					
10/26/1998	1625	30.0	11.77	30.43	23.08	7.6		3.4	39		77.7					
1/25/1999	1525	0.5	7.81	16.76	13.01	7.8	1 U	10.9	103	3.8	52.1					
1/25/1999	1525	10.0	10.15	28.91	22.18	7.4		4.9	53		78.6					
1/25/1999	1525	30.0	10.96	29.92	22.83	7.4		3.4	38		67.8					

HCB004, Hood Canal - Gt. Bend, Sisters Point

Lat (decimal): 47.357

Long (decimal): -123.023

February 1999 - December 1999

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3 DISS (uM)	NH4 DISS (uM)	ORTHO PO4 DISS (uM)	Si(OH)4 DISS (uM)
3/11/1999	1701	0.5	8.66	22.92	17.72	8.4		9.4	94	2.0	17.5			0.16	0.20	0.01	77.55
3/11/1999	1701	10.0	9.37	28.37	21.88	7.6		5.6	59		80.9						
3/11/1999	1701	30.0	10.21	29.40	22.55	7.4		3.6	39		72.9						
4/12/1999	1614	0.5	10.61	21.61	16.43	8.1	1 U	12.6	131	5.6	67.2	3.30	0.57	0.49	0.10	0.18	43.17
4/12/1999	1614	10.0	9.75	28.77	22.13	7.8		5.1	54		84.5	5.40	2.30	17.46	2.67	2.27	58.25
4/12/1999	1614	30.0	9.90	29.32	22.54	7.5		3.4	36		70.6			27.41	1.32	3.00	75.67
5/13/1999	1620	0.5	11.50	22.73	17.16	7.9	1 U	10.1	107	6.3	76.0	3.90	0.21	1.59	0.27	0.90	82.07
5/13/1999	1620	10.0	10.09	28.46	21.84	7.6		4.5	48		68.8	20.00	0.19	16.93	2.08	2.37	70.46
5/13/1999	1620	30.0	9.81	29.43	22.64	7.4		3.4	36		64.8			17.68	2.11	2.41	69.46
6/14/1999	1657	0.5	18.26	17.84	12.12	8.0	1 U	11.3	134	4.8	71.2	1.90	0.28	0.00	0.00	0.33	72.65
6/14/1999	1657	10.0	10.72	28.58	21.83	7.9		6.8	74		67.9	190.00	2.00	1.62	0.00	1.32	65.76
6/14/1999	1657	30.0	9.93	29.41	22.60	7.2		2.7	29		67.0			27.90	0.32	3.22	78.20
7/12/1999	1644	0.5	19.56	19.48	13.07	7.7	1 U	9.1	112	4.6	61.8	3.13	0.51	0.00	0.06	0.47	73.40
7/12/1999	1644	10.0	12.07	27.63	20.86	7.4		4.6	52		41.1	6.45	0.55	0.72	0.22	1.64	65.31
7/12/1999	1644	30.0	9.93	29.55	22.71	6.6		1.7	18		53.4			0.73	0.26	1.65	64.99
8/30/1999	1555	0.5	18.09	24.49	17.22	7.7	1 U	8.1	100	4.6	61.7	2.25	0.56	0.16	0.21	0.89	72.27
8/30/1999	1555	10.0	11.24	28.85	21.95	7.1		1.4	15		74.4	7.08	1.54	5.59	2.00	2.52	80.82
8/30/1999	1555	30.0	10.03	29.46	22.62	6.6		0.3	3		67.2			27.02	0.26	4.07	97.62
9/28/1999	1717	0.5	14.63	23.75	17.39	7.6	1 U	9.2	105	4.3	61.5	2.83	0.70	0.52	0.11	1.18	79.31
9/28/1999	1717	10.0	10.89	28.81	21.98	7.4		2.5	28		73.5	2.36	1.38	13.10	0.34	2.55	82.79
9/28/1999	1717	30.0	9.96	29.57	22.72	7.0		0.3	3		69.6			28.67	0.01	3.91	97.44
10/19/1999	1627	0.5	12.65	25.31	18.96		1 U	11.9	132	6.5	76.0	1.66	0.41	0.30	0.50	1.40	66.25
10/19/1999	1627	10.0	10.30	29.41	22.55			1.3	14		76.0	1.89	0.28	5.33	0.00	3.22	89.57
10/19/1999	1627	30.0	10.39	29.91	22.92			2.2	24		60.6			28.43	0.00	3.33	80.29
11/30/1999	1409	0.5	9.95	23.51	18.01		1	6.3	65	8.3	69.0	8.49	0.54	10.17	0.39	0.81	107.20
11/30/1999	1409	10.0	10.60	29.88	22.86			3.3	36		80.0	0.24	0.20	27.99	0.00	2.88	69.66
11/30/1999	1409	30.0	10.55	30.18	23.10			2.5	27		64.4			27.43	0.00	3.08	75.53

# HCB004, Hood Canal - Gt. Bend, Sisters Point

Lat (decimal): 47.357

Long (decimal): -123.023

## January 2000 - December 2000

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3 DISS (uM)	NH4 DISS (uM)	ORTHO PO4 DISS (uM)	Si(OH)4 DISS (uM)
1/26/2000	1348	0.5	6.88	17.93	14.02		1 U	11.1	104	7.0	63.0						
1/26/2000	1348	10.0	9.78	28.15	21.65			8.9	94		75.0						
1/26/2000	1348	30.0	10.06	29.64	22.76			3.8	40		62.8			28.86	0.00	3.03	75.09
2/16/2000	1306	0.5	7.18	16.84	13.14		16	13.9	129	5.0	54.1	5.17	1.12	0.20	0.09	0.01	62.53
2/16/2000	1306	10.0	9.77	29.07	22.36			5.0	53		74.8	6.94	1.29	26.41	0.45	2.23	67.03
2/16/2000	1306	30.0	10.04	29.77	22.87			3.9	43		67.4						
3/23/2000	1430	0.5	10.25	25.61	19.60	8.1	1 U	11.6	122	3.5	48.3	37.00	3.23	0.43	0.17	0.60	54.73
3/23/2000	1430	10.0	9.89	29.58	22.74	7.4		4.6	50		77.5	8.03	0.80	25.48	0.30	2.65	68.59
3/23/2000	1430	30.0	10.03	29.79	22.89	7.4		2.8	30		70.0			28.65	0.02	3.04	75.14
4/18/2000	1446	0.5	13.64	23.75	17.58	8.3	1 U	10.9	122	2.4	36.2	14.46	0.51	0.12	0.08	0.52	71.94
4/18/2000	1446	10.0	10.19	28.65	21.97	7.7		7.3	79		81.3	7.07	0.71	19.22	1.20	2.24	79.19
4/18/2000	1446	30.0	10.00	29.74	22.85	7.3		2.3	25		71.4						
5/16/2000	1511	0.5	13.75	26.43	19.62	8.1	1 U	10.6	122	8.0	77.9	1.52	0.25	0.02	0.19	0.71	24.24
5/16/2000	1511	10.0	10.36	29.43	22.55	7.7		4.8	52		62.6	26.37	3.10	9.38	1.01	1.83	34.15
5/16/2000	1511	30.0	9.90	29.82	22.92	7.3		2.2	24		61.4			29.11	0.31	3.20	76.34
6/21/2000	1458	0.5	17.95	21.38	14.89	8.3	1 U	10.6	128	6.0	66.6	1.57	0.20	0.17	0.14	0.31	54.30
6/21/2000	1458	10.0	10.55	29.18	22.33	7.5		3.5	38		74.5	6.94	2.34	19.16	1.19	2.93	59.78
6/21/2000	1458	30.0	9.88	29.67	22.81	7.3		1.5	16		74.0			31.20	0.10	3.80	79.58
7/25/2000	1515	0.5	20.00	23.09	15.70	8.0	1 U	8.6	109	2.8	60.7	3.13	0.27	0.66	0.34	0.53	40.15
7/25/2000	1515	10.0	11.47	29.01	22.04	7.4		4.6	51		76.3						
7/25/2000	1515	30.0	9.96	29.61	22.75	7.0		1.0	11		67.2			21.47	1.72	3.45	75.35
8/21/2000	1600	0.5	18.10	26.42	18.69	8.1	1 U	8.1	101	3.5	58.5	3.44	0.39	0.00	0.04	0.58	18.60
8/21/2000	1600	10.0	10.73	29.42	22.48	7.2		1.5	16		77.8	5.17	1.12	23.66	0.83	3.74	77.97
8/21/2000	1600	30.0	9.83	29.70	22.84	7.1		0.7	7		73.3			34.26	0.00	3.86	87.54
9/14/2000	1523	0.5	14.79	26.32	19.33	8.9	1 U	13.0	152	1.2	55.1	218.33	4.88	0.05	0.57	0.44	84.00
9/14/2000	1523	10.0	11.24	29.16	22.19	7.7		4.0	44		71.7	9.25	0.48	13.43	0.02	2.68	82.63
9/14/2000	1523	30.0	9.58	29.83	22.99	7.3		0.6	7		72.0			31.57	0.00	3.76	94.90
10/10/2000	1529	0.5	13.35	27.17	20.27	8.4		8.8	100	4.5	64.6	0.72	0.59	0.38	0.06	1.02	73.34
10/10/2000	1529	10.0	10.49	30.12	23.06	7.5		1.8	19		71.8	4.33	1.30	23.83	1.14	4.06	86.37
10/10/2000	1529	30.0	10.88	30.35	23.17	7.7		3.1	34		65.1			28.79	0.00	2.99	64.74
11/9/2000	1512	0.5	10.95	28.84	21.99	8.4		6.1	66	3.5	68.3						
11/9/2000	1512	10.0	10.96	30.23	23.07	7.7		2.5	28		72.6						
11/9/2000	1512	30.0	10.99	30.53	23.30	7.7		2.6	29		60.2						
12/19/2000	1358	0.5	8.40	27.29	21.17	7.9	1 U	6.2	63	9.5	78.6	1.01	0.43	19.48	2.67	2.66	92.20
12/19/2000	1358	10.0	10.35	30.52	23.40	7.8		3.3	35		71.1	0.50	0.30	26.59	0.10	3.23	77.33
12/19/2000	1358	30.0	10.21	30.64	23.51	7.9		3.8	42		65.4						



HCB006, Hood Canal - King Spit, Bangor

Lat (decimal): 47.748

Long (decimal): -122.730

October 1997 - September 1998

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3_NO2-N DISS (mg/L)	NH4_NH3-N DISS (mg/L)	ORTHO PO4-P DISS (mg/L)
10/28/1997	1057	10.0	11.55	28.98	22.00			4.3	48		73.2	1.60	0.75	0.313	0.014	0.077
10/28/1997	1057	22.0	11.46	29.62	22.51			2.9	33		73.4					
10/28/1997	1057	1.0	11.56	24.72	18.70		1 U	8.3	101		58.6	11.30	0.51	0.117	0.010 U	0.055
11/24/1997	1225	1.0	10.58	26.52	20.25		1 U	7.1	75	5.8	70.2	3.50	0.60	0.298	0.010 U	0.101
11/24/1997	1225	10.0	10.61	27.52	21.02			6.7	72		70.8	2.70	0.90	0.317	0.010 U	0.103
11/24/1997	1225	30.0	10.67	29.58	22.62			5.4	59		73.0			0.364	0.010 U	0.112
12/30/1997	1333	30.0	9.44	29.23	22.54			7.1	75		69.8			0.355	0.010 U	0.096
12/30/1997	1333	0.5	9.79	28.55	21.95		1 U	6.7	71	7.9	75.7			0.363	0.010 U	0.099
12/30/1997	1333	10.0	9.61	28.85	22.21			6.8	72		73.0			0.336	0.010 U	0.091
1/28/1998	1158	30.0	9.09	29.35	22.68			6.7	71		69.8					
1/28/1998	1158	0.5	7.95	19.83	15.39		1	8.1	78	4.8	62.3					
1/28/1998	1158	10.0	8.90	28.55	22.08			7.0	73		71.3					
2/17/1998	1132	0.5	8.03	21.32	16.55		1 U	8.4	82	5.3	64.4	5.60	0.31	0.195	0.010 U	0.061
2/17/1998	1132	10.0	9.01	28.35	21.91			6.1	64		72.1	0.35	0.29	0.384	0.010 U	0.098
2/17/1998	1132	30.0	9.18	29.22	22.57			5.0	53		69.2			0.361	0.010 U	0.097
3/31/1998	1117	10.0	9.79	27.12	20.84			9.7	103		59.0	10.00	1.40	0.135	0.010 U	0.050
3/31/1998	1117	1.0	9.97	25.40	19.47		1 U	11.1	116	3.8	54.4	8.20	0.73	0.090	0.010 U	0.037
3/31/1998	1117	30.0	9.58	28.84	22.21			8.5	90		65.2			0.290	0.011	0.077
4/20/1998	1130	10.0	10.07	28.82	22.12			8.0	86		72.4	1.40	0.24	0.158	0.010 U	0.087
4/20/1998	1130	30.0	9.70	29.25	22.51			7.6	81		70.9					
4/20/1998	1130	1.0	11.69	27.03	20.46		1 U	10.2	112	7.8	75.5	2.30	0.37	0.062	0.010 U	0.091
5/12/1998	1210	0.5	12.40	26.32	19.79		1 U	9.9	109	8.7	77.1	3.80	1.20	0.108	0.010 U	0.095
5/12/1998	1210	10.0	10.24	28.98	22.22			7.8	84		76.9	3.10	0.97	0.195	0.010 U	0.089
5/12/1998	1210	30.0	9.97	29.26	22.48			7.1	77		75.5			0.299	0.010 U	0.129
6/2/1998	1429	30.0	10.32	29.42	22.54			6.6	71		76.4	1.30	0.98	0.202	0.010 U	0.097
6/2/1998	1429	0.5	15.95	24.80	17.93		1 U	10.2	121	5.5	64.6	1.50	0.19	0.025	0.010 U	0.071
6/2/1998	1429	10.0	11.15	28.98	22.07			8.2	90		68.7	5.50	1.60	0.195	0.010 U	0.118
7/6/1998	1238	30.0	10.97	29.78	22.72	7.7		5.8	64		71.8			0.290	0.018	0.149
7/6/1998	1238	0.5	14.62	27.84	20.54	8.0	1 U	8.7	102	7.4	68.5	3.50	0.69	0.090	0.010 U	0.160
7/6/1998	1238	10.0	11.82	29.13	22.06	7.8		6.5	73		74.2	1.30	0.83	0.160	0.010 U	0.097
8/3/1998	1145	0.5	17.90	27.60	19.64	8.0	1	9.0	112	5.5	67.7	2.90	0.82	0.025	0.010 U	0.108
8/3/1998	1145	10.0	11.19	29.39	22.38	7.6		5.2	58		72.3	2.40	1.60	0.250	0.010 U	0.173
8/3/1998	1145	30.0	10.87	29.74	22.71	7.5		4.8	53		75.6			0.262	0.010 U	0.194
9/14/1998	1148	30.0	11.81	30.15	22.86	7.6		4.7	53		76.5			0.346	0.010 U	0.203
9/14/1998	1148	0.5	13.12	29.53	22.14	7.5	1 U	6.4	73	4.5	68.9	4.80	1.30	0.092	0.010 U	0.183
9/14/1998	1148	10.0	11.64	29.85	22.66	7.6		4.6	52		77.8	3.30	0.91	0.185	0.010 U	0.172

HCB006, Hood Canal - King Spit, Bangor

Lat (decimal): 47.748

Long (decimal): -122.730

October 1998 - January 1999

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3_NO2-N DISS (mg/L)	NH4_NH3-N DISS (mg/L)	ORTHO PO4-P DISS (mg/L)
10/26/1998	1446	0.5	12.17	28.02	21.14	7.9	1 U	9.3	104	4.3	55.6			0.090	0.010 U	0.055
10/26/1998	1446	10.0	11.65	30.09	22.84	7.7		5.1	57		79.1			0.290	0.010 U	0.076
10/26/1998	1446	30.0	11.57	30.39	23.09	7.6		5.0	56		78.2			0.311	0.010 U	0.073
12/22/1998	1218	0.5	6.08	22.81	17.93	7.8	1 U	9.5	90	5.2	70.6					
12/22/1998	1218	10.0	8.85	28.44	22.01	7.7		7.2	75		73.0					
12/22/1998	1218	30.0	9.48	29.59	22.82	7.7		6.6	71		71.4					
1/25/1999	1450	0.5	7.39	23.28	18.16	7.7	1 U	10.3	100	7.6	69.8					
1/25/1999	1450	10.0	8.20	27.64	21.47	7.6		8.9	91		74.1					
1/25/1999	1450	30.0	8.60	29.20	22.64	7.6		7.9	83		73.0					

# HCB006, Hood Canal - King Spit, Bangor

Lat (decimal): 47.748

Long (decimal): -122.730

February 1999 - December 1999

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3 DISS (uM)	NH4 DISS (uM)	ORTHO PO4 DISS (uM)	Si(OH)4 DISS (uM)
3/11/1999	1549	0.5	8.37	22.95	17.79	8.0		12.9	128	2.8	38.2			4.58	0.37	0.62	70.20
3/11/1999	1549	10.0	8.10	28.63	22.26	7.7		8.4	86		75.9						
3/11/1999	1549	30.0	8.22	29.10	22.62	7.6		7.9	82		73.2						
4/12/1999	1514	0.5	10.30	27.09	20.74	8.1	1 U	13.7	146	3.8	59.0	23.00	0.31	0.65	0.11	0.22	11.99
4/12/1999	1514	10.0	8.80	28.35	21.95	8.0		10.0	103		68.6	28.00	1.20	8.56	0.69	1.09	29.28
4/12/1999	1514	30.0	8.57	29.05	22.52	7.7		8.4	87		77.8			19.62	1.86	1.91	46.01
5/13/1999	1510	0.5	10.60	27.61	21.10	7.8	1 U	9.2	100	8.4	75.9	1.80	0.63	7.65	0.69	1.11	42.27
5/13/1999	1510	10.0	9.53	28.82	22.20	7.7		8.0	85		76.2	1.80	0.67	15.28	1.80	1.72	43.35
5/13/1999	1510	30.0	9.11	29.39	22.72	7.6		7.4	78		75.0			16.47	1.75	1.78	43.89
6/14/1999	1532	0.5	13.09	27.39	20.49	8.1	1 U	11.9	136	3.5	53.1	19.10	0.50	0.76	0.00	0.49	32.04
6/14/1999	1532	10.0	10.42	29.18	22.34	7.8		9.2	100		68.1	13.60	0.05	9.02	0.86	1.20	37.94
6/14/1999	1532	30.0	9.93	29.53	22.69	7.6		8.2	88		66.4			15.60	2.67	1.80	42.63
7/12/1999	1504	0.5	13.15	27.91	20.88	7.6	1 U	10.4	118	3.8	49.9	24.90	2.18	1.56	0.04	0.69	28.82
7/12/1999	1504	10.0	12.87	27.99	20.99	7.6		9.9	113		50.3	20.38	2.04	0.37	0.00	0.53	26.92
7/12/1999	1504	30.0	10.22	29.51	22.64	7.1		6.0	65		71.2			0.25	0.02	0.54	24.93
8/30/1999	1439	0.5	15.71	26.63	19.38	7.8	1 U	9.1	109	4.8	60.4	2.16	0.55	0.36	0.18	0.36	40.64
8/30/1999	1439	10.0	11.36	29.34	22.31	7.4		5.4	60		73.6	1.41	0.57	20.21	0.46	2.12	53.03
8/30/1999	1439	30.0	10.79	29.80	22.77	7.2		4.8	52		70.8			23.17	0.98	2.36	35.83
9/28/1999	1554	0.5	11.76	28.96	21.95	7.4	1 U	6.2	69	6.5	69.5	4.91	1.01	14.01	0.03	1.72	53.73
9/28/1999	1554	10.0	11.32	29.45	22.41	7.3		5.2	57		73.7	2.93	1.02	19.58	0.32	2.11	55.57
9/28/1999	1554	30.0	10.84	29.89	22.83	7.2		4.4	48		75.7			22.86	1.25	2.34	53.67
11/30/1999	1252	0.5	9.16	23.01	17.73		1	8.7	88	5.4	74.3	1.91	0.53	21.09	0.03	1.92	73.19
11/30/1999	1252	10.0	9.46	27.94	21.53			7.1	74		73.2						
11/30/1999	1252	30.0	9.75	29.81	22.95			6.0	64		71.1			26.59	0.00	2.46	62.72

HCB006, Hood Canal - King Spit, Bangor

Lat (decimal): 47.748

Long (decimal): -122.730

January 2000 - December 2000

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3 DISS (uM)	NH4 DISS (uM)	ORTHO PO4 DISS (uM)	Si(OH)4 DISS (uM)
1/26/2000	1249	0.5	7.61	26.75	20.86		1 U	8.5	85	8.5	76.3						
1/26/2000	1249	10.0	8.07	28.87	22.45			8.3	86		71.7						
1/26/2000	1249	30.0	7.95	29.35	22.85			8.4	86		67.5						
3/23/2000	1306	0.5	9.11	28.12	21.72	8.2	1 U	11.6	122	3.5	55.4	48.80	2.05	0.54	0.05	0.69	44.48
3/23/2000	1306	10.0	8.47	29.15	22.62	7.9		9.2	95		69.3	12.76	2.68	15.76	1.24	1.69	46.28
3/23/2000	1306	30.0	8.37	29.28	22.74	7.9		8.7	90		70.7			18.88	1.62	1.86	47.81
4/18/2000	1332	0.5	10.15	29.13	22.35	8.0	1 U	8.9	96	6.9	71.8	8.98	0.60	11.82	0.16	1.35	42.05
4/18/2000	1332	10.0	9.64	29.01	22.34	7.9		9.0	96		73.2	9.25	1.07	14.53	0.60	1.55	43.77
4/18/2000	1332	30.0	8.94	29.56	22.87	7.8		7.7	81		74.0			18.55	2.66	1.90	46.33
5/16/2000	1348	0.5	10.83	29.21	22.30	8.1	1 U	10.6	116	5.0	59.3	7.21	0.42	1.84	0.36	0.47	9.99
5/16/2000	1348	10.0	10.11	29.48	22.62	7.9		9.1	98		65.4	12.11	1.21	8.75	1.51	1.13	24.36
5/16/2000	1348	30.0	9.58	29.71	22.89	7.8		7.7	82		70.1			14.23	2.74	1.66	36.27
6/21/2000	1337	0.5	13.47	28.29	21.11	8.3	1 U	10.2	118	4.5	53.9	7.35	0.88	0.97	0.10	0.51	26.60
6/21/2000	1337	10.0	11.70	29.19	22.14	8.1		8.7	97		66.5	5.17	1.56	11.07	0.62	1.30	35.72
6/21/2000	1337	30.0	10.52	29.72	22.74	7.9		6.9	75		72.0			18.60	1.78	1.92	43.99
7/25/2000	1351	0.5	14.98	28.25	20.78	7.9	1 U	8.2	98	5.0	69.2	5.17	0.97	3.44	0.07	0.78	39.78
7/25/2000	1351	10.0	11.83	29.60	22.43	7.6		6.2	69		76.1	1.48	0.87	16.17	1.55	1.78	45.04
7/25/2000	1351	30.0	11.13	29.91	22.79	7.5		5.6	62		72.2			19.66	2.12	2.07	47.31
8/21/2000	1441	0.5	14.92	28.65	21.10	8.1	1 U	9.1	109	3.0	48.8	7.62	0.91	0.08	0.00	0.88	45.97
8/21/2000	1441	10.0	12.13	29.93	22.63	7.7		5.8	65		71.8	3.53	1.07	15.22	0.55	1.86	50.47
8/21/2000	1441	30.0	11.66	30.18	22.91	7.7		5.3	60		70.8			19.21	2.02	2.19	49.52
9/14/2000	1407	0.5	11.68	29.91	22.70	7.7	1 U	5.3	59	7.7	74.6	2.31	0.57	24.31	0.00	2.23	58.94
9/14/2000	1407	10.0	11.07	29.98	22.85	7.7		4.7	52		75.0	1.70	0.79	25.01	0.02	2.47	59.10
9/14/2000	1407	30.0	10.81	30.23	23.09	7.7		4.0	44		72.7			25.12	0.07	2.41	59.09
10/10/2000	1420	0.5	11.88	29.39	22.26	8.0	1 U	6.5	73	8.0	73.9	3.37	1.20	18.39	0.16	2.13	58.78
10/10/2000	1420	10.0	10.80	30.18	23.06	7.7		3.8	41		80.0	9.22	1.59	28.04	0.00	2.75	63.27
10/10/2000	1420	30.0	10.78	30.25	23.12	7.7		3.7	40		80.0						
11/9/2000	1407	0.5	10.56	29.81	22.81	8.0		6.0	65	7.0	76.4	5.86	1.02	4.76	0.23	2.39	53.55
11/9/2000	1407	10.0	10.72	30.19	23.08	7.9		4.6	51		78.3						
11/9/2000	1407	30.0	10.80	30.39	23.22	7.9		4.1	45		78.6						
12/19/2000	1251	0.5	9.09	29.76	23.01	7.9	1 U	6.0	63	9.5	77.3	0.65	0.40	26.16	0.12	2.68	66.23
12/19/2000	1251	10.0	9.10	29.91	23.12	7.9		6.1	65		76.9	0.48	0.43	26.49	0.10	2.66	64.04
12/19/2000	1251	30.0	9.03	30.39	23.50	8.0		6.1	64		74.2						

## HCB007, Hood Canal - Lynch Cove

*Lat (decimal):* 47.398

*Long (decimal):* -122.928

### *October 1998 - January 1999*

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3_NO2-N DISS (mg/L)	NH4_NH3-N DISS (mg/L)	ORTHO PO4-P DISS (mg/L)
10/26/1998	1607	0.5	12.13	24.62	18.52	8.0		10.5	115	3.9	58.7					
11/27/1998	1439	0.5	9.23	17.70	13.58	7.6		8.4	82	1.8	52.8					

## HCB007, Hood Canal - Lynch Cove

*Lat (decimal):* 47.398

*Long (decimal):* -122.928

### *February 1999 - December 1999*

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3 DISS (uM)	NH4 DISS (uM)	ORTHO PO4 DISS (uM)	Si(OH)4 DISS (uM)
3/11/1999	1734	0.5	8.19	12.88	9.94	8.7		12.9	119	1.9	10.7						
4/12/1999	1709	0.5	10.98	20.22	15.30	8.0		11.2	116	5.8	74.3						
5/13/1999	1710	0.5	12.03	23.01	17.29	7.9		10.4	113	5.7	66.4						
6/14/1999	1747	0.5	20.17	21.29	14.29	8.0		10.1	127	6.0	70.9						
7/12/1999	1726	0.5	22.24	21.02	13.57	7.8		8.5	111	3.8	56.7						
8/30/1999	1659	0.5	18.66	23.62	16.43	7.7		8.1	101	3.1	58.3						
10/19/1999	1715	0.5	11.45	22.47	16.97			10.8	115	7.0	77.5						
11/30/1999	1459	0.5	8.92	16.60	12.76			7.9	77	5.3	44.0						

# HCB007, Hood Canal - Lynch Cove

*Lat (decimal):* 47.398

*Long (decimal):* -122.928

## *January 2000 - December 2000*

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3 DISS (uM)	NH4 DISS (uM)	ORTHO PO4 DISS (uM)	Si(OH)4 DISS (uM)
1/26/2000	1422	0.5	6.47	16.56	12.98			11.5	105	3.0	53.8						
2/16/2000	1353	0.5	7.89	18.95	14.71			12.3	118	6.0	59.2						
3/23/2000	1509	0.5	10.37	24.61	18.80	8.2		12.1	127	4.5	59.6						
4/18/2000	1535	0.5	14.23	24.30	17.90	8.4		12.4	141	2.4	35.0						
5/16/2000	1553	0.5	16.13	25.19	18.19	8.1		9.5	114	10.0	70.3						
6/21/2000	1554	0.5	18.96	22.61	15.59	8.3		9.3	116	6.5	69.3						
7/25/2000	1617	0.5	20.56	23.38	15.79	8.0		8.4	108	2.0	57.0						
8/21/2000	1653	0.5	19.00	25.59	17.85	8.1		8.3	104	3.0	62.1						
9/14/2000	1620	0.5	17.53	25.88	18.41	9.0		14.0	173	1.5	33.4						
11/9/2000	1529	0.5	11.06	27.97	21.30	8.4		7.5	81	4.0	52.4						
12/19/2000	1428	0.5	7.65	26.23	20.44	8.0		7.7	77	10.5	81.2						

## NSQ002, Nisqually Reach - Devils Head

Lat (decimal): 47.168

Long (decimal): -122.787

October 1997 - September 1998

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3_NO2-N DISS (mg/L)	NH4_NH3-N DISS (mg/L)	ORTHO PO4-P DISS (mg/L)
11/26/1997	1433	10.0	11.48	28.57	21.69			6.8	75		74.8	0.56	0.28	0.342	0.010 U	0.113
11/26/1997	1433	30.0	11.64	28.88	21.90			6.4	71		74.6			0.365	0.010 U	0.113
11/26/1997	1433	1.0	11.25	27.66	21.02			7.2	79	6.9	68.8	0.83	0.20	0.348	0.010 U	0.112
12/29/1997	1435	1.0	9.77	28.22	21.70		1 U	7.4	78	7.1	72.5					
12/29/1997	1435	10.0	9.89	28.52	21.91			7.1	76		72.7					
12/29/1997	1435	30.0	9.96	28.64	21.99			7.0	75		73.0					
1/26/1998	1509	10.0	8.84	27.75	21.47			9.7	101		70.8	0.22	0.16	0.426	0.010 U	0.104
1/26/1998	1509	30.0	8.96	28.20	21.80			9.7	101		70.3			0.338	0.010 U	0.104
1/26/1998	1509	0.5	8.50	26.44	20.50		1 U	9.9	101	7.4	73.1	0.32	0.13	0.362	0.010 U	0.100
2/24/1998	1624	10.0														
2/24/1998	1624	30.0														
2/24/1998	1624	0.5					1 U			8.5						
3/17/1998	1626	0.5	9.46	27.37	21.08		1 U	8.7	91	7.3	72.9	1.10	0.23	0.402	0.010 U	0.089
3/17/1998	1626	10.0	9.11	27.90	21.55			8.3	87		74.7	0.97	0.22	0.276	0.010 U	0.063
3/17/1998	1626	30.0	9.05	28.11	21.72			8.2	85		70.8			0.382	0.010 U	0.086
4/13/1998	1722	30.0														
4/13/1998	1722	10.0														
4/13/1998	1722	0.5					1 U			8.2		1.50	0.36	0.284	0.014	0.130
5/19/1998	1532	0.5	12.40	28.09	21.16		1 U	12.8	144	7.0	72.0	9.20	0.18	0.044	0.010 U	0.088
5/19/1998	1532	10.0	11.21	28.29	21.52			11.0	121		74.7	13.40	0.80	0.054	0.010 U	0.061
5/19/1998	1532	30.0	11.01	28.44	21.67			10.2	111		76.7			0.134	0.018	0.094
6/30/1998	1859	30.0	12.28	28.91	21.81	7.9		8.0	90		82.4					
6/30/1998	1859	0.5	13.87	28.64	21.30	8.0		9.3	108	10.1	78.0	3.40	0.12	0.095	0.015	0.137
6/30/1998	1859	10.0	12.79	28.81	21.64	8.0		8.3	95		81.7					
7/27/1998	1628	30.0	13.44	29.18	21.81	7.9		8.1	94		77.3			0.164	0.010 U	0.192
7/27/1998	1628	0.5	15.59	28.91	21.16	8.1	1 U	11.8	142	8.8	66.4	27.10	2.60	0.031	0.010 U	0.189
7/27/1998	1628	10.0	14.20	29.05	21.56	8.0		8.7	102		76.1	6.30	1.20	0.143	0.010 U	0.192
8/24/1998	1038	0.5	14.75	29.33	21.66	7.9	1 U	7.6	90	8.9	69.0	5.50	0.87	0.093	0.010 U	0.154
8/24/1998	1038	10.0	14.48	29.40	21.76	7.9		7.2	86		75.8	4.10	1.10	0.088	0.010 U	0.168
8/24/1998	1038	30.0	14.22	29.48	21.88	7.9		7.1	83		79.6			0.126	0.012	0.203
9/22/1998	1628	30.0	14.40	29.78	22.08	8.1		6.3	74		74.8			0.130	0.021	0.189
9/22/1998	1628	0.5	14.92	29.67	21.88	8.1	1 U	6.8	81	6.5	73.8	4.70	0.46	0.052	0.015	0.154
9/22/1998	1628	10.0	14.64	29.72	21.98	8.1		6.7	79		75.0	4.10	0.62	0.154	0.057	0.207

NSQ002, Nisqually Reach - Devils Head

Lat (decimal): 47.168

Long (decimal): -122.787

October 1998 - January 1999

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3_NO2-N DISS (mg/L)	NH4_NH3-N DISS (mg/L)	ORTHO PO4-P DISS (mg/L)
10/19/1998	1435	0.5	13.54	29.86	22.31	7.7	1 U	6.5	75	9.3	77.6	1.60	0.27	0.123	0.029	0.077 J
10/19/1998	1435	10.0	13.39	29.92	22.38	7.7		6.2	72		77.8	1.60	0.22	0.169	0.038	0.072 J
10/19/1998	1435	30.0	13.37	29.93	22.40	7.7		6.3	73		77.3			0.104	0.018	0.073 J
12/4/1998	1426	0.5	10.52	28.66	21.92	7.7		6.9	75	6.8	75.5			0.375	0.011	0.264
12/4/1998	1426	10.0	10.89	29.39	22.43	7.6		6.4	70		73.7			0.375	0.010 U	0.266
12/4/1998	1426	30.0	10.90	29.48	22.50	7.6		6.4	70		72.5			0.369	0.010 U	0.216



NSQ002, Nisqually Reach - Devils Head

Lat (decimal): 47.168

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February 1999 - December 1999

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3 DISS (uM)	NH4 DISS (uM)	ORTHO PO4 DISS (uM)	Si(OH)4 DISS (uM)
3/18/1999	1528	0.5	8.38	26.50	20.56	7.6	1 U	9.5	96	6.1	70.8	2.40	0.40	26.39	0.40	2.17	73.87
3/18/1999	1528	10.0	8.25	27.18	21.10	7.6		9.1	92		73.8	1.40	0.61	27.75	0.24	2.26	72.27
3/18/1999	1528	30.0	8.24	27.49	21.35	7.6		8.9	91		71.8						
4/13/1999	1546	0.5	9.27	27.30	21.05	7.8	1 U	11.3	118	7.3	75.9	7.20	0.79	15.63	0.48	1.44	43.76
4/13/1999	1546	10.0	8.61	27.58	21.37	7.8		10.4	107		78.8	6.30	1.70	20.17	0.70	1.78	49.87
4/13/1999	1546	30.0	8.43	27.79	21.56	7.7		9.7	99		76.9			20.88	0.74	1.84	50.34
6/7/1999	1634	0.5	11.34	28.18	21.41	7.9	1 U	11.1	122	8.0	76.8	6.90	0.55	6.42	2.56	1.25	27.36
6/7/1999	1634	10.0	11.06	28.24	21.51	7.9		10.7	117		77.7	6.60	0.53	5.51	2.07	1.18	27.03
6/7/1999	1634	30.0	10.50	28.48	21.79	7.9		10.1	109		80.6			10.03	3.98	1.48	32.50
7/8/1999	1558	0.5	12.80	28.54	21.43	7.2	1 U	8.7	99	12.5	82.4	2.96	0.20	9.08	3.25	1.58	39.10
7/8/1999	1558	10.0	12.25	28.56	21.55	7.2		8.6	97		82.5	6.63	0.37	9.83	3.57	1.59	39.73
7/8/1999	1558	30.0	11.59	28.72	21.79	7.2		8.2	91		83.6			11.49	4.20	1.68	39.15
8/9/1999	1716	0.5	13.47	29.09	21.73	7.5	1 U	8.1	93	10.4	76.9	5.00	0.29	10.01	2.01	1.68	42.05
8/9/1999	1716	10.0	13.19	28.86	21.61	7.5		7.9	91		78.0	4.25	0.53	8.78	1.74	1.64	42.03
8/9/1999	1716	30.0	12.89	28.90	21.69	7.5		7.8	90		77.4			8.78	1.73	1.63	41.83
9/13/1999	1648	0.5	14.16	29.11	21.61	7.5	1 U	7.9	93	7.1	69.9	8.96	0.79	8.52	1.89	1.75	55.82
9/13/1999	1648	10.0	13.44	29.21	21.83	7.5		6.9	79		75.8	2.36	0.21	9.36	1.98	1.76	52.50
9/13/1999	1648	30.0	13.30	29.23	21.87	7.4		6.5	75		77.2			9.42	1.97	1.76	52.38
10/18/1999	1603	0.5	12.85	29.37	22.07		1 U	7.6	87	10.5	78.2	4.53	0.87	11.39	3.76	2.06	58.88
10/18/1999	1603	10.0	12.56	29.47	22.20			6.9	78		79.1	3.30	0.64	13.30	3.85	2.12	57.15
10/18/1999	1603	30.0	12.39	29.56	22.30			6.6	75		79.8			14.57	3.57	2.13	53.99

## NSQ002, Nisqually Reach - Devils Head

Lat (decimal): 47.168

Long (decimal): -122.787

## January 2000 - December 2000

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3 DISS (uM)	NH4 DISS (uM)	ORTHO PO4 DISS (uM)	Si(OH)4 DISS (uM)
1/19/2000	1511	0.5	8.37	27.83	21.60		1	8.3	85	6.5	73.6						
1/19/2000	1511	10.0	8.54	28.06	21.76			8.1	84		73.3						
1/19/2000	1511	30.0	8.78	28.37	21.96			7.8	81		73.1			29.23	0.00	2.56	75.20
3/21/2000	1632	0.5	8.44	28.05	21.76	7.7	1 U	9.1	93	10.0	78.6	4.09	0.46	22.98	0.86	2.04	59.10
3/21/2000	1632	10.0	8.27	28.17	21.88	7.7		8.8	90		79.6	4.05	0.69	23.87	0.87	2.04	59.36
3/21/2000	1632	30.0	8.27	28.15	21.86	7.8		8.7	90		79.9			24.49	0.94	2.09	60.07
4/11/2000	1551	0.5	9.66	28.07	21.60	8.1	1 U	10.9	115	7.5	76.5	8.16	0.97	12.00	0.82	1.31	40.33
4/11/2000	1551	10.0	9.15	28.16	21.75	8.0		10.5	110		76.8	16.59	2.13	11.49	0.67	1.26	39.32
4/11/2000	1551	30.0	9.01	28.25	21.83	8.0		9.7	102		81.2			18.74	1.52	1.70	47.84
5/2/2000	1605	0.5	9.94	28.46	21.86	8.0	1	10.7	114	6.0	70.0	12.52	1.10	10.70	1.32	1.27	39.19
5/2/2000	1605	10.0	9.73	28.50	21.92	8.0		10.3	110		71.0	11.56	2.05	10.36	1.32	1.23	37.54
5/2/2000	1605	30.0	9.65	28.59	22.01	8.0		10.2	108		72.7			12.84	1.89	1.45	40.09
6/13/2000	1623	0.5	12.09	28.64	21.64	8.0	1 U	9.1	102	8.4	79.7	4.35	0.59	10.51	2.80	1.57	30.41
6/13/2000	1623	10.0	11.14	28.85	21.97	7.9		8.8	97		81.2	3.53	0.74	11.77	2.83	1.61	30.84
6/13/2000	1623	30.0	11.01	28.90	22.03	7.9		8.8	96		81.9			12.77	2.92	1.64	31.70
7/19/2000	1703	0.5	14.21	28.85	21.40	7.7	1 U	9.7	113	8.0	76.1	3.95	2.64	7.02	1.76	1.57	36.83
7/19/2000	1703	10.0	13.59	29.04	21.67	7.7		8.9	103		76.7	4.08	3.25	9.25	1.71	1.61	36.83
7/19/2000	1703	30.0	12.80	29.06	21.84	7.6		8.3	95		78.3			11.47	2.82	1.82	36.75
8/15/2000	1543	0.5	14.56	29.24	21.63	7.9	1 U	8.4	99	7.5	72.7	5.99	0.60	8.67	0.64	1.85	50.73
8/15/2000	1543	10.0	13.99	29.31	21.80	7.9		7.8	92		75.0	6.53	0.65	10.36	1.27	1.91	50.08
8/15/2000	1543	30.0	13.55	29.35	21.92	7.8		7.0	81		77.0			13.26	1.79	2.00	48.96
9/13/2000	1625	0.5	15.04	29.45	21.69	8.2	1 U	8.7	104	6.0	67.5	10.34	1.03	5.87	0.43	1.65	81.87
9/13/2000	1625	10.0	13.87	29.54	22.00	8.0		7.0	81		70.1	11.16	1.27	9.13	1.54	1.88	55.75
9/13/2000	1625	30.0	13.45	29.65	22.16	8.0		6.4	74		74.4			13.40	3.20	2.14	53.66
10/4/2000	1608	0.5	13.85	29.74	22.16	8.2	1 U	7.6	89	6.7	73.6	10.25	0.79	11.22	1.45	2.03	52.01
10/4/2000	1608	10.0	13.31	29.88	22.37	8.1		6.4	75		77.6	8.97	1.04	12.38	1.89	2.11	51.91
10/4/2000	1608	30.0	13.09	29.93	22.46	8.0		6.2	72		77.4			15.36	2.36	2.20	50.35
11/14/2000	1555	0.5	11.28	29.97	22.81	8.0	1 U	6.3	70	8.0	75.9	1.07	0.34	22.07	0.94	2.63	60.60
11/14/2000	1555	10.0	11.31	29.98	22.81	8.0		6.1	68		75.7	1.11	0.36	22.11	0.92	2.62	60.94
11/14/2000	1555	30.0	11.33	30.04	22.86	8.0		5.9	65		76.6			22.59	0.77	2.60	60.25
12/11/2000	1437	0.5	9.72	30.01	23.10	8.0	1 U	6.4	69	7.5	76.3						
12/11/2000	1437	10.0	9.75	30.02	23.11	8.0		6.5	70		76.3						
12/11/2000	1437	30.0	9.73	30.01	23.10	8.0		6.5	70		76.4						

## OAK004, Oakland Bay - Near Eagle Point

Lat (decimal): 47.213

Long (decimal): -123.077

October 1997 - September 1998

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3_NO2-N DISS (mg/L)	NH4_NH3-N DISS (mg/L)	ORTHO PO4-P DISS (mg/L)
11/24/1997	1530	9.5	10.65	24.94	19.01			7.4	78		65.9					
11/24/1997	1530	1.0	9.82	20.29	15.52		90	8.7	88	3.2	59.1					
12/30/1997	1455	0.5	8.61	20.16	15.57		7	8.5	83	3.3	57.3			0.364	0.018	0.094
12/30/1997	1455	6.5	8.61	24.25	18.77			8.1	81		55.6			0.401	0.014	0.098
1/28/1998	1509	0.5	8.05	17.98	13.93			8.6	82	2.6	51.9					
1/28/1998	1509	8.0	8.14	21.36	16.57			8.2	80		49.8					
2/17/1998	1004	0.5	8.38	19.77	15.30		7	9.6	94	4.3	65.6	1.10	0.49	0.362	0.010 U	0.087
2/17/1998	1004	10.0	8.58	22.56	17.45			8.1	80		63.3	0.67	0.61	0.381	0.010 U	0.095
3/31/1998	951	10.0	9.97	24.02	18.40			9.5	99		63.4	2.40	1.10	0.316	0.010 U	0.081
3/31/1998	951	1.0	9.96	22.38	17.13		11	9.7	99	4.3	58.0	2.20	0.97	0.319	0.010 U	0.078
4/20/1998	959	10.0	11.53	25.34	19.18			10.6	115		63.1	7.90	1.60	0.113	0.011	0.080
4/20/1998	959	1.0	11.67	22.67	17.10		6	10.6	113	4.6	70.8	2.00	0.65	0.084	0.016	0.070
5/12/1998	1043	0.5	13.59	24.33	18.04		1	10.4	117	4.0	61.9	4.20	1.10	0.019	0.010 U	0.079
5/12/1998	1043	10.0	13.15	25.59	19.09			10.7	120		60.0	13.80	2.70	0.034	0.010 U	0.102
6/2/1998	1650	0.5	17.40	24.68	17.55		1	8.8	107	3.3	51.7	2.70	0.76	0.010	0.010 U	0.052
6/2/1998	1650	8.0	14.29	26.72	19.74			9.3	108		48.0	9.80	2.10	0.025	0.010 U	0.093
7/6/1998	1107	0.5	17.93	25.63	18.12	7.9	1 U	7.7	96	3.5	53.6	6.20	1.50	0.046	0.020	0.157
7/6/1998	1107	7.0	16.56	27.25	19.67	7.9		7.9	96		51.3	9.20	1.10	0.046	0.014	0.129
8/3/1998	1018	0.5	20.55	26.82	18.39	8.2	18	10.6	139	2.5	50.7	47.40	5.30	0.010	0.010 U	0.150
8/3/1998	1018	10.0	19.39	27.70	19.35	8.2		10.3	133		63.8	5.00	1.50	0.011	0.010 U	0.136
9/14/1998	1730	10.0	18.07	28.66	20.41	8.1		7.5	95		56.9	8.00	1.70	0.038	0.010 U	0.174
9/14/1998	1730	0.5	18.80	28.32	19.97	8.1	7	7.5	95	3.2	53.9	8.50	1.90	0.036	0.010 U	0.166

## OAK004, Oakland Bay - Near Eagle Point

*Lat (decimal):* 47.213*Long (decimal):* -123.077*October 1998 - January 1999*

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3_NO2-N DISS (mg/L)	NH4_NH3-N DISS (mg/L)	ORTHO PO4-P DISS (mg/L)
10/28/1998	1337	0.5	13.17	28.11	21.03	7.7	7	7.1	81	3.7	63.4	2.60	1.30	0.205	0.052	0.080
10/28/1998	1337	10.0	13.12	28.58	21.41	7.7		7.0	80		67.9	3.30	0.60	0.207	0.044	0.081
11/30/1998	958	0.5	8.95	16.81	12.92	6.7	3	8.3	80	2.3	53.8					
11/30/1998	958	5.0	9.65	20.99	16.09	6.8		7.8	79		58.3					
1/19/1999	1319	0.5	7.53	13.15	10.21	7.4	140	10.7	98	1.1	34.2					
1/19/1999	1319	10.0	8.07	21.41	16.61	7.5		9.5	93		46.0					

## OAK004, Oakland Bay - Near Eagle Point

Lat (decimal): 47.213

Long (decimal): -123.077

## February 1999 - December 1999

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3 DISS (uM)	NH4 DISS (uM)	ORTHO PO4 DISS (uM)	Si(OH)4 DISS (uM)
2/20/1999	1323	0.5	7.29	18.35	14.31	7.6		10.3	97	3.0	56.4			23.88	1.50	1.86	75.21
2/20/1999	1323	5.5	7.43	20.95	16.33	7.6		9.7	93		53.4						
3/15/1999	1118	0.5	8.17	16.04	12.41	7.5		10.4	98	3.7	62.6			20.07	1.53	1.55	101.66
3/15/1999	1118	4.5	8.13	19.08	14.79	7.5		10.0	96		56.7						
4/20/1999	1115	0.5	9.30	27.37	21.10	7.9	8	12.6	132	2.6	66.0	17.40	0.77	0.92	0.19	0.33	32.42
4/20/1999	1115	10.0	9.16	27.37	21.13	7.9		12.3	128		65.4	22.10	4.00	0.85	0.29	0.37	13.94
5/21/1999	1128	0.5	12.88	24.41	18.22	7.9		10.7	118	3.7	59.1	8.10	0.69	0.62	0.31	0.64	36.94
5/21/1999	1128	9.0	12.03	25.71	19.38	7.9		10.6	117		54.2	13.00	1.80	1.05	0.41	0.71	23.15
6/15/1999	1028	0.5	16.17	26.06	18.84	7.9	2	11.4	136	4.3	64.8	4.50	1.30	0.00	0.00	1.04	37.75
6/15/1999	1028	5.5	15.17	26.89	19.69	7.9		11.3	134		39.6	18.00	1.40	0.11	0.50	1.02	29.70
7/21/1999	1156	0.5	17.01	26.89	19.30	7.6	39	8.7	107	5.0	69.2	7.25	2.10	1.15	1.10	1.60	42.32
7/21/1999	1156	6.5	16.91	26.99	19.40	7.6		8.8	107		66.4	5.10	1.50	1.35	1.16	1.59	40.68
8/16/1999	1341	0.5	17.69	27.21	19.39	7.8	1	9.7	121	4.3	65.3	4.81	0.79	0.21	0.13	1.85	68.40
8/16/1999	1341	4.0	16.59	27.75	20.05	7.8		9.2	112		60.5	20.70	1.42	0.35	0.13	1.67	56.10
9/29/1999	1143	0.5	14.73	28.21	20.80	7.8	1 U	10.0	117	3.1	51.0	26.02	1.30	0.00	0.00	1.64	77.79
9/29/1999	1143	8.0	14.65	28.24	20.84	7.8		9.7	114		52.2	24.54	0.83	0.00	0.06	1.72	78.33
10/25/1999	1340	0.5	12.78	27.28	20.46		2	6.8	76	4.0	59.8	9.46	2.25	5.11	4.47	2.04	84.24
10/25/1999	1340	10.0	12.75	27.90	20.95			7.5	85		61.3	11.83	1.51	7.18	3.03	1.92	75.42
11/22/1999	1039	0.5	9.90	21.76	16.65		21	7.8	80	2.0	45.7	3.96	1.85	16.42	8.65	2.11	57.04
11/22/1999	1039	4.0	10.24	24.73	18.91			7.5	78		53.5	1.30	1.63	17.42	8.07	2.28	69.12
12/21/1999	1324	0.5	8.51	15.43	11.90		6	9.6	91	2.0	43.1						
12/21/1999	1324	5.0	8.82	20.04	15.45			8.9	88		46.6	0.41	0.51	20.38	2.78	2.05	77.88

## OAK004, Oakland Bay - Near Eagle Point

Lat (decimal): 47.213

Long (decimal): -123.077

## January 2000 - December 2000

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3 DISS (uM)	NH4 DISS (uM)	ORTHO PO4 DISS (uM)	Si(OH)4 DISS (uM)
1/26/2000	1441	1.0	7.27	21.56	16.82		2	8.9	85	4.0	59.6	0.91	0.46	26.26	1.74	2.23	111.29
1/26/2000	1441	10.0	7.36	23.18	18.09			8.9	87		57.6	1.01	0.70	27.60	1.45	2.36	103.32
2/16/2000	1416	0.5	7.74	22.23	17.30		1 U	9.7	95	4.5	45.5	0.94	0.49	23.68	1.76	2.12	116.10
2/16/2000	1416	10.0	7.73	23.79	18.52			9.4	93		49.1	1.26	0.65	26.45	1.36	2.29	101.23
3/23/2000	1532	0.5	9.35	21.17	16.26	7.8	1	10.0	100	3.0	61.6	2.70	1.08	16.05	1.38	1.46	75.77
3/23/2000	1532	5.5	8.94	23.38	18.05	7.8		9.8	99		64.4	4.90	1.54	18.06	1.28	1.61	74.75
4/18/2000	1559	0.5	12.89	23.87	17.81	8.1	1 U	9.0	100	2.9	62.9	4.90	1.39	1.37	0.63	0.72	45.62
4/18/2000	1559	2.5	11.85	25.22	19.03	8.1		9.7	105		54.0	12.11	1.96	1.37	0.55	0.72	37.02
5/16/2000	1615	0.5	14.01	25.54	18.89	8.1	3	10.9	125	2.5	52.4	11.43	2.94	0.46	0.20	0.69	27.51
5/16/2000	1615	4.5	13.83	25.54	18.92	8.1		10.8	123		48.9	11.91	3.06	0.31	0.24	0.69	28.32
6/21/2000	1619	0.5	17.57	24.84	17.61	8.0	1 U	9.3	114	3.5	56.5	5.03	1.55	0.60	0.79	1.27	42.20
6/21/2000	1619	6.5	16.05	26.19	18.97	8.2		10.0	120		48.0	17.01	3.10	0.34	0.61	1.05	27.23
7/25/2000	1715	0.5	18.76	27.19	19.12	7.7	2	7.2	91	3.5	61.8	5.58	1.46	2.90	2.85	2.18	59.03
7/25/2000	1715	6.5	18.28	27.50	19.47	7.7		7.2	90		66.9	4.08	1.31	3.12	2.84	2.17	55.49
8/21/2000	1728	0.5	19.28	26.80	18.70	8.2	1 U	16.5	211	2.5	47.3	3.31	0.71	0.22	0.07	2.16	96.68
8/21/2000	1728	3.5	17.21	27.93	20.05	8.2		9.3	115		45.8	41.10	2.70	0.17	0.07	2.31	80.33
9/14/2000	1642	0.5	16.82	28.01	20.20	8.3	9	8.9	110	2.4	51.4	14.03	2.34	0.00	0.11	1.77	85.47
9/14/2000	1642	6.0	16.80	28.01	20.21	8.3		9.0	110		44.7	12.33	3.10	0.00	0.14	1.70	84.73

## PGA001, Port Gamble - Inner Harbor

Lat (decimal): 47.840

Long (decimal): -122.580

*October 1997 - September 1998*

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPPL a (ug/L)	PHEOPIG (ug/L)	NO3_NO2-N DISS (mg/L)	NH4_NH3-N DISS (mg/L)	ORTHO PO4-P DISS (mg/L)
10/28/1997	1140	10.0	11.65	28.59	21.68			5.6	62		69.2	6.60	1.40	0.198	0.058	0.072
10/28/1997	1140	0.5	11.41	25.74	19.51		1 U	9.4	102	3.8	54.0	15.60	2.20	0.081	0.028	0.053
11/24/1997	1135	0.5	9.99	27.38	21.01		1	9.5	101		69.9	8.10	0.73	0.223	0.010 U	0.094
11/24/1997	1135	10.0	10.39	28.32	21.68			6.5	70		66.1	5.50	1.80	0.251	0.010 U	0.100
12/30/1997	1255	0.5	8.93	28.11	21.74		1 U	7.6	79	7.2	74.3			0.333	0.010 U	0.093
12/30/1997	1255	10.0	9.12	28.35	21.90			7.3	77		72.2			0.321	0.010 U	0.094
1/28/1998	1241	1.0	8.38	26.13	20.26		1 U	8.2	84	6.8	70.2					
1/28/1998	1241	10.0	8.59	27.69	21.46			7.5	78		69.2					
2/17/1998	1228	0.5	8.56	25.69	19.90		1 U	7.9	80	6.5	69.8			0.207	0.010 U	0.058
2/17/1998	1228	10.0	8.74	27.86	21.57			6.6	69		71.0	0.89	0.68	0.281	0.032	0.081
3/31/1998	1204	10.0	9.71	28.39	21.84			9.3	99		57.5	11.90	2.40	0.187	0.026	0.063
3/31/1998	1204	0.5	9.76	27.99	21.52		1 U	11.3	120	3.6	52.7	16.90	1.60	0.116	0.010 U	0.050
4/20/1998	1215	10.0	10.99	28.22	21.50			9.4	102		56.2	11.80	3.00	0.043	0.010 U	0.082
4/20/1998	1215	1.0	11.99	27.95	21.12		1 U	10.4	115	4.7	70.8	4.80	0.97	0.037	0.010 U	0.073
5/12/1998	1258	0.5	12.15	28.00	21.13		1 U	11.3	126	4.8	64.2	8.40	1.90	0.063	0.010 U	0.090
5/12/1998	1258	10.0	11.63	28.58	21.68			7.3	81		62.1	3.60	3.00	0.101	0.045	0.124
6/2/1998	1356	0.5	15.17	28.59	21.00		1 U	12.5	149	4.3	53.4	10.20	0.64	0.037	0.010 U	0.084
6/2/1998	1356	10.0	12.06	28.95	21.88			9.2	103		65.0	9.60	2.70	0.046	0.010 U	0.052
7/6/1998	1325	0.5	16.37	27.58	19.97	8.3	2	10.1	122	3.8	47.1	4.20	0.47	0.038	0.010 U	0.132
7/6/1998	1325	10.0	13.47	29.05	21.70	8.0		6.3	73		72.3	5.40	1.70	0.112	0.057	0.153
8/3/1998	1226	0.5	18.48	28.45	20.15	8.2	1	11.7	149	4.4	61.4	2.00	0.55	0.032	0.010 U	0.120
8/3/1998	1226	10.0	14.38	29.51	21.88	7.9		6.8	81		66.8	4.20	1.70	0.026	0.010 U	0.093
9/14/1998	1246	10.0	13.47	29.83	22.30	8.2		6.7	78		77.1	3.40	0.69	0.163	0.010 U	0.184
9/14/1998	1246	0.5	15.05	29.71	21.89	8.3	1 U	10.1	121	5.6	78.1	3.20	0.17	0.038	0.010 U	0.184

PNN001, Penn Cove Park (Whidbey Island)

Lat (decimal): 48.232

Long (decimal): -122.675

October 1997 - September 1998

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3_NO2-N DISS (mg/L)	NH4_NH3-N DISS (mg/L)	ORTHO PO4-P DISS (mg/L)
10/13/1997	1415	10.0	12.04	25.95	19.56			5.7	63		70.8	0.16	0.27	0.166	0.053	0.079
10/13/1997	1415	29.0	11.12	29.12	22.18			2.3	26		42.2					
10/13/1997	1415	0.5	11.52	17.21	12.89		3	9.9	102	5.2	60.2	2.40	0.76	0.071	0.027	0.037
11/11/1997	1220	0.5	9.93	13.44	10.18		1	10.3	100	8.1	56.8	2.30	0.50	0.114	0.021	0.038
11/11/1997	1220	10.0	11.68	28.71	21.77			3.0	33		75.0	0.18	0.15	0.255	0.056	0.085
11/11/1997	1220	26.0	11.77	29.31	22.22			2.9	33		45.9			0.209	0.023	0.066
12/10/1997	1331	28.0	11.74	29.38	22.27			3.2	36		40.1			0.310	0.010 U	0.087
12/10/1997	1331	0.5	8.89	24.22	18.71		1 U	8.8	89	6.1	68.3	1.00	0.26	0.277	0.010 U	0.081
12/10/1997	1331	10.0	9.05	24.78	19.12			8.3	85		71.7	0.71	0.26	0.323	0.010 U	0.089
1/7/1998	1331	29.5	11.25	29.36	22.35			3.9	44		27.7					
1/7/1998	1331	0.5	6.89	21.13	16.53		2	9.4	89	4.9	69.2					
1/7/1998	1331	10.0	10.48	28.01	21.43			5.2	56		71.5					
2/19/1998	1308	0.5	8.55	22.46	17.38		1 U	8.8	88	8.6	74.8	1.30	0.33	0.314	0.010 U	0.087
2/19/1998	1308	10.0	8.60	23.95	18.53			8.3	84		78.1	1.20	0.41	0.318	0.010 U	0.088
2/19/1998	1308	24.0	9.97	28.52	21.90			5.0	54		47.3			0.390	0.010 U	0.113
3/5/1998	1447	10.0	9.58	28.12	21.65			6.1	65		67.0	0.58	0.38	0.387	0.010 U	0.087
3/5/1998	1447	0.5	8.58	21.93	16.96			15.0	149	4.2	60.5	13.80	0.68	0.094	0.010 U	0.048
3/5/1998	1447	23.0	9.69	28.66	22.05			5.9	63		44.0					
4/6/1998	1320	10.0	9.55	27.97	21.54			3.5	37		75.8	4.80	0.60	0.337	0.028	0.204
4/6/1998	1320	28.0	9.44	28.61	22.05			4.6	49		54.4			0.387	0.010 U	0.267
4/6/1998	1320	0.5	11.52	22.84	17.25		1 U	6.5	70	5.9	64.1	6.60 J	0.29 J	0.029 J	0.010 U	0.218
5/7/1998	1310	0.5	12.78	25.14	18.81			15.4	171	3.3	45.0	7.10	2.00	0.334	0.027	0.150
5/7/1998	1310	10.0	9.71	28.35	21.81			5.8	62		82.4	2.30	1.30	0.025	0.010 U	0.094
5/7/1998	1310	29.5	9.34	28.78	22.20			5.2	55		48.5			0.399	0.014	0.155
6/8/1998	1623	28.0	9.50	28.87	22.25			4.2	44		43.2			0.352	0.016	0.189
6/8/1998	1623	0.5	14.23	23.19	17.04		1 U	11.1	125	5.0	62.3	5.30	0.81	0.010	0.010 U	0.108
6/8/1998	1623	10.0	10.18	28.12	21.56			6.3	67		75.8	3.70	1.20	0.269	0.012	0.158
7/21/1998	1329	22.5	10.17	28.89	22.16	7.2		2.7	30		11.4					
7/21/1998	1329	0.5	14.79	23.03	16.81	8.2	1 U	11.1	127	3.1	40.6	8.80	2.00	0.021	0.010 U	0.102
7/21/1998	1329	10.0	10.51	28.66	21.92	7.4		3.9	43		69.3	7.30	2.60	0.232	0.035	0.161
8/10/1998	1535	0.5	15.86	26.53	19.27	8.3	1 U	13.1	157	3.3	44.6	8.70	1.40	0.013	0.010 U	0.114
8/10/1998	1535	10.0	10.71	28.91	22.08	7.4		2.8	31		70.8	23.40	3.70	0.205	0.012	0.172
8/10/1998	1535	27.5	10.60	29.21	22.34	7.3		3.6	39		16.9					
9/1/1998	1408	29.0	10.98	29.45	22.46	7.6		3.4	37		36.7					
9/1/1998	1408	0.5	14.46	28.00	20.70	8.4	1 U	11.3	132	2.4	34.2	10.70	2.00	0.021	0.010 U	0.156
9/1/1998	1408	10.0	11.10	29.24	22.28	7.9		4.0	45		75.4	2.80	0.68	0.283	0.010 U	0.216



POD007, Port Orchard - Inner

Lat (decimal): 47.733

Long (decimal): -122.650

October 1997 - September 1998

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3_NO2-N DISS (mg/L)	NH4_NH3-N DISS (mg/L)	ORTHO PO4-P DISS (mg/L)
10/28/1997	1205	5.5	12.17	28.74	21.70			7.6	85		16.5	12.00	3.30	0.166	0.074	0.074
10/28/1997	1205	1.0	12.17	28.75	21.71		2	7.8	87	4.3	56.6	12.00	1.70	0.159	0.061	0.080
11/24/1997	1221	0.5	10.02	26.34	20.20		27	8.4	89	2.2	47.5	1.90	1.00	0.328	0.084	0.115
11/24/1997	1221	5.5	10.77	27.84	21.25			7.2	78		47.3	1.20	0.70	0.318	0.065	0.119
12/30/1997	1233	0.5	8.65	28.05	21.73		1 U	8.2	85	4.0	62.7			0.377	0.041	0.103
12/30/1997	1233	4.5	8.63	28.39	22.00			8.2	84		55.3			0.354	0.028	0.103
1/28/1998	1259	0.5	8.26	25.92	20.12		3	7.5	76	4.1	61.6					
1/28/1998	1259	5.5	8.37	27.46	21.31			7.1	73		57.4					
2/17/1998	1305	0.5	8.93	26.02	20.11		3	7.5	77	4.7	66.8	1.50	0.32	0.411	0.019	0.096
2/17/1998	1305	5.0	8.79	27.90	21.59			7.2	75		53.9	2.60	1.60	0.354	0.019	0.095
3/31/1998	1231	2.5	10.19	27.57	21.13			9.1	98		57.6					
3/31/1998	1231	1.0	10.02	26.65	20.42		1100 J	9.3	98	2.4	41.5	1.60	0.91	0.301	0.032	0.086
4/20/1998	1331	5.0	11.78	28.11	21.29			14.8	164		52.8	9.80	5.00	0.033	0.010 U	0.079
4/20/1998	1331	1.0	13.12	27.87	20.85		1 U	14.4	164	3.7	59.4	5.10	2.00	0.017	0.010 U	0.057
5/12/1998	1323	0.5	13.09	28.19	21.11		1 U	10.0	114	3.0	67.0	2.60	1.90	0.059	0.071	0.129
5/12/1998	1323	3.5	13.03	28.21	21.14			10.3	117		61.8					
6/2/1998	1253	1.0	16.76	28.13	20.31		1 U	12.7	156	3.7	60.7	3.90	0.81	0.030	0.010 U	0.087
6/2/1998	1253	4.5	13.35	28.62	21.39			13.3	153		52.6	42.40	9.60	0.030	0.010 U	0.094
7/6/1998	1354	0.5	16.43	28.63	20.76	8.1	1 U	9.9	121	3.5	60.2	7.20	1.00	0.057	0.015	0.219
7/6/1998	1354	3.5	15.07	28.80	21.18	7.9		8.2	98		24.8	9.20	3.00	0.089	0.091	0.222
8/3/1998	1256	0.5	18.59	29.05	20.58	8.3	1 U	12.8	164	3.5	34.8	2.40	0.49	0.010	0.010 U	0.096
8/3/1998	1256	3.5	16.20	29.16	21.21	7.5		5.4	66		10.4	10.80	3.40	0.023	0.010 U	0.175
9/14/1998	1314	3.5	15.87	29.74	21.73	8.3		5.7	69		37.2	68.40	2.20	0.031	0.010 U	0.173
9/14/1998	1314	0.5	16.43	29.65	21.54	8.4	1 U	7.5	92	1.4	9.3	8.50	2.50	0.026	0.010 U	0.187

## PSB003, Puget Sound Main Basin - West Point

Lat (decimal): 47.660

Long (decimal): -122.442

October 1997 - September 1998

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3_NO2-N DISS (mg/L)	NH4_NH3-N DISS (mg/L)	ORTHO PO4-P DISS (mg/L)
10/27/1997	1351	10.0	12.32	29.41	22.19			6.4	72		79.0	0.76	0.29	0.339	0.010 U	0.090
10/27/1997	1351	30.0	12.30	29.43	22.21			6.3	72		79.4			0.332	0.010 U	0.090
10/27/1997	1351	0.5	12.41	29.12	21.95		1	6.5	74	13.9	78.3	0.49	0.15	0.281	0.010 U	0.077
1/26/1998	1134	0.5	8.98	27.22	21.04		36	9.7	101	4.2	71.5	0.40	0.15	0.382	0.010 U	0.098
1/26/1998	1134	10.0	9.08	28.60	22.10			9.6	101		72.9	0.18	0.14	0.402	0.010 U	0.079
1/26/1998	1134	30.0	9.12	29.00	22.41			9.6	101		74.8			0.468	0.010 U	0.096
2/24/1998	1327	1.0	8.87	28.25	21.86		1 U	7.2	75	8.3	71.1	0.40	0.18	0.610	0.010 U	0.108
2/24/1998	1327	10.0	8.84	28.64	22.17			6.6	69		76.8	0.39	0.26	0.599	0.010 U	0.115
2/24/1998	1327	30.0	8.91	28.84	22.31			4.6	48		75.4			0.577	0.033	0.113
3/17/1998	1316	30.0	9.05	28.63	22.13			8.3	87		75.9			0.370	0.010 U	0.085
3/17/1998	1316	0.5	9.14	27.71	21.40		1	8.7	91	8.4	74.5	1.10	0.34	0.354	0.010 U	0.079
3/17/1998	1316	10.0	9.06	28.43	21.97			8.5	89		75.4	0.84	0.39	0.268	0.021	0.064
4/13/1998	1410	10.0	9.56	28.60	22.03			9.0	96		76.8					
4/13/1998	1410	30.0	9.50	28.70	22.12			8.8	93		77.5					
4/13/1998	1410	0.5	9.88	28.10	21.59		1	9.4	100	8.8	75.7	4.50	0.60	0.207	0.010 U	0.091
7/27/1998	1307	0.5	14.10	29.26	21.73	8.2	1 U	11.2	132	4.5	52.7	24.50	4.90	0.040	0.010 U	0.105
7/27/1998	1307	10.0	13.06	29.41	22.05	7.9		9.1	105		72.1	8.70	1.30	0.127	0.010 U	0.116
7/27/1998	1307	30.0	12.66	29.46	22.17	7.8		7.8	89		77.6			0.123	0.010 U	0.103
8/24/1998	1538	0.5	13.76	29.58	22.05	7.8	1	6.7	78	12.0	78.1	0.89	0.65	0.229	0.010 U	0.169
8/24/1998	1538	10.0	13.01	29.86	22.41	7.8		6.2	72		80.6	0.94	0.71	0.242	0.010 U	0.165
8/24/1998	1538	30.0	12.72	30.00	22.58	7.8		6.0	69		78.4			0.187	0.010 U	0.129
9/22/1998	1336	30.0	13.23	30.18	22.62	8.0		5.8	67		80.1			0.181	0.010 U	0.162
9/22/1998	1336	0.5	13.41	30.07	22.50	8.0	1	6.1	71	11.2	79.4	1.40	0.26	0.160	0.010 U	0.151
9/22/1998	1336	10.0	13.29	30.15	22.59	8.0		5.9	68		80.7	0.98	0.34	0.266	0.010 U	0.243

PSB003, Puget Sound Main Basin - West Point

*Lat (decimal):* 47.660

*Long (decimal):* -122.442

*October 1998 - January 1999*

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3_NO2-N DISS (mg/L)	NH4_NH3-N DISS (mg/L)	ORTHO PO4-P DISS (mg/L)
1/5/1999	1209	0.5	8.77	24.38	18.85	7.7	6	8.2	83	3.0	50.1					
1/5/1999	1209	10.0	9.63	28.42	21.87	7.7		7.3	77		72.0					
1/5/1999	1209	30.0	9.91	29.14	22.40	7.7		6.9	74		73.8					

PSB003, Puget Sound Main Basin - West Point

Lat (decimal): 47.660

Long (decimal): -122.442

February 1999 - December 1999

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3 DISS (uM)	NH4 DISS (uM)	ORTHO PO4 DISS (uM)	Si(OH)4 DISS (uM)
3/18/1999	1234	0.5	8.25	27.92	21.68	7.5	1 U	9.1	93	7.7	77.8	1.00	0.35	27.16	0.37	2.21	64.53
3/18/1999	1234	10.0	8.17	28.40	22.08	7.5		9.0	92		80.3	1.30	0.97	27.11	0.19	2.23	64.59
3/18/1999	1234	19.0	8.18	28.39	22.07	7.6		8.9	91		79.9			27.13	0.18	2.27	63.26
4/13/1999	1236	0.5	8.79	27.27	21.10	7.6	1 U	10.0	103	8.4	79.9	2.60	0.71	22.87	0.48	1.84	56.63
4/13/1999	1236	10.0	8.53	28.28	21.93	7.6		9.7	101		81.3	2.60	0.96	23.84	0.44	1.97	54.76
4/13/1999	1236	30.0	8.48	28.33	21.98	7.6		9.5	98		81.1			25.17	0.77	2.10	55.03
5/11/1999	1214	0.5	9.73	27.88	21.44	8.0	1 U	13.7	145	3.8	57.0	30.00	2.30	1.39	0.08	0.37	8.02
5/11/1999	1214	10.0	9.21	28.53	22.03	8.0		10.4	109		69.6	23.00	1.00	9.40	1.16	1.01	18.47
5/11/1999	1214	30.0	9.05	28.68	22.17	7.8		9.7	101		76.7			14.82	2.98	1.59	31.20
6/7/1999	1301	0.5	11.61	27.90	21.15	7.8	1 U	10.1	112	11.9	80.9	0.92	0.23	9.79	4.23	1.38	36.94
6/7/1999	1301	10.0	10.97	28.27	21.55	7.8		10.1	110		81.4	0.70	0.29	10.38	4.40	1.46	32.02
6/7/1999	1301	30.0	10.21	28.71	22.01	7.8		9.6	103		82.9			11.03	4.50	1.51	34.63
7/8/1999	1248	0.5	12.09	28.13	21.24	7.2	1 U	8.8	99	9.5	79.2	4.03	0.30	10.99	2.46	1.38	38.99
7/8/1999	1248	10.0	11.78	28.72	21.76	7.1		8.8	98		81.4	5.55	0.36	11.50	2.16	1.42	36.64
7/8/1999	1248	24.0	11.46	28.81	21.88	7.1		8.4	93		79.7			12.74	2.76	1.54	39.60
8/9/1999	1405	0.5	14.67	28.17	20.78	7.7	1 U	9.0	106	8.2	70.5	9.46	1.27	5.75	0.74	1.08	22.29
8/9/1999	1405	10.0	12.97	28.75	21.56	7.6		8.3	95		76.7	5.28	1.26	11.85	0.97	1.54	31.88
8/9/1999	1405	30.0	12.12	29.10	21.99	7.4		7.5	84		79.2			11.91	0.97	1.55	31.29
9/13/1999	1401	0.5	12.42	29.55	22.28	7.3	1 U	6.8	77		78.2	2.93	0.60	17.66	0.74	1.98	45.02
9/13/1999	1401	10.0	12.38	29.55	22.29	7.3		6.8	77		78.3	4.44	0.65	18.93	0.69	2.03	45.49
9/13/1999	1401	25.5	12.14	29.59	22.36	7.3		6.3	71		80.1			19.00	0.69	2.03	45.55
10/18/1999	1252	0.5	11.78	29.60	22.44		1	6.7	75	11.5	79.1	1.03	0.35	19.65	2.28	2.24	48.77
10/18/1999	1252	10.0	11.63	30.00	22.78			6.4	72		80.9	1.03	0.44	20.26	1.95	2.24	48.83
10/18/1999	1252	30.0	11.43	30.12	22.90			5.9	66		79.8			20.60	2.29	2.27	48.60

## PSB003, Puget Sound Main Basin - West Point

Lat (decimal): 47.660

Long (decimal): -122.442

## January 2000 - December 2000

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3 DISS (uM)	NH4 DISS (uM)	ORTHO PO4 DISS (uM)	Si(OH)4 DISS (uM)
1/19/2000	1232	0.5	8.59	27.80	21.54		2	8.1	84	6.0	73.0						
1/19/2000	1232	10.0	8.77	28.89	22.37			7.8	81		74.6						
1/19/2000	1232	20.5	8.79	28.98	22.44			7.7	80		74.6						
2/9/2000	1327	0.5	8.41	28.67	22.25			8.7	90	7.5	73.4	0.52	0.19	28.11	0.16	2.37	81.18
2/9/2000	1327	10.0	8.38	28.86	22.40			8.5	87		73.7	0.45	0.24	27.98	0.01	2.45	69.71
2/9/2000	1327	30.0	8.38	28.92	22.45			8.4	86		73.4						
3/21/2000	1258	0.5	8.24	28.80	22.38	7.6	1 U	8.6	89	11.3	80.3	0.59	0.28	26.75	0.79	2.21	60.55
3/21/2000	1258	10.0	8.17	28.87	22.44	7.7		8.5	87		80.9	0.61	0.27	26.69	0.81	2.09	60.53
3/21/2000	1258	17.0	8.12	29.03	22.58	7.7		8.3	85		81.0						
4/11/2000	1250	0.5	8.97	28.88	22.33	7.9	1 U	8.9	93	8.5	78.6	6.26	0.78	20.47	0.55	1.75	51.07
4/11/2000	1250	10.0	8.54	28.96	22.46	7.8		8.5	88		80.8	3.66	0.70	22.99	0.79	1.97	54.10
4/11/2000	1250	30.0	8.53	28.99	22.48	7.8		8.4	88		80.4			23.96	0.77	1.99	54.27
5/2/2000	1306	0.5	9.52	28.83	22.21	7.9	1 U	10.0	106	10.5	78.0	5.03	1.25	14.87	1.96	1.55	41.87
5/2/2000	1306	10.0	9.43	28.90	22.28	7.9		9.7	102		78.7	5.85	1.78	15.86	1.94	1.62	42.41
5/2/2000	1306	30.0	9.13	29.10	22.48	7.9		9.3	98		79.4			16.42	2.04	1.67	42.40
6/13/2000	1300	0.5	11.46	28.43	21.59	7.9	1 U	9.2	102	10.5	79.2			13.26	2.17	1.50	35.17
6/13/2000	1300	10.0	10.85	28.93	22.08	7.9		8.8	96		78.7			15.34	2.11	1.66	35.42
6/13/2000	1300	20.0	10.28	29.33	22.49	7.9		8.0	87		78.6			17.77	2.43	1.85	38.15
7/19/2000	1333	0.5	12.96	29.04	21.78	7.7	1 U	9.2	105	6.0	67.1	9.93	1.44	8.26	0.19	1.15	33.92
7/19/2000	1333	10.0	12.35	29.25	22.07	7.6		7.9	90		75.8	2.53	2.02	15.40	0.68	1.70	35.03
7/19/2000	1333	12.5	12.24	29.27	22.10	7.6		8.0	91		75.9			15.49	0.65	1.70	34.55
8/15/2000	1226	0.5	13.76	29.46	21.96	8.1	1 U	10.7	125	4.0	54.5	31.47	2.21	3.72	0.15	0.78	33.15
8/15/2000	1226	10.0	12.84	29.66	22.29	7.8		7.7	88		73.7	10.07	1.01	14.09	0.33	1.57	36.99
8/15/2000	1226	30.0	12.04	29.85	22.59	7.6		6.0	68		77.6						
9/13/2000	1258	0.5	12.78	29.80	22.41	7.9	1 U	6.6	75	11.3	76.9	2.26	0.42	18.32	2.05	2.11	43.41
9/13/2000	1258	10.0	12.43	30.09	22.70	7.9		6.1	70		79.3	3.95	0.84	18.77	2.32	2.17	43.60
9/13/2000	1258	24.0	12.30	30.11	22.74	7.8		5.9	67		48.0			19.56	4.88	2.37	45.33
10/4/2000	1305	0.5	12.23	30.31	22.91	8.0	1	5.8	66	12.0	80.8	0.60	0.24	19.79	1.76	2.30	49.30
10/4/2000	1305	10.0	12.10	30.37	22.98	7.9		5.7	64		79.9	0.75	0.36	20.26	1.78	2.32	49.29
10/4/2000	1305	21.5	11.94	30.45	23.07	7.9		5.4	61		78.5			20.36	1.75	2.34	49.09
11/14/2000	1255	0.5	10.98	30.45	23.24	8.0	1 U	5.8	64	11.5	80.9	0.37	0.18	25.19	0.21	2.52	55.14
11/14/2000	1255	10.0	11.00	30.46	23.24	8.0		5.7	63		81.0	0.47	0.20	25.00	0.18	2.53	54.35
11/14/2000	1255	15.0	10.99	30.47	23.26	8.0		5.6	62		80.6			25.10	0.19	2.53	55.07
12/11/2000	1309	0.5	9.74	30.16	23.21	8.0	1	6.3	68	8.0	78.2						
12/11/2000	1309	10.0	9.86	30.44	23.42	8.0		6.1	66		78.0						
12/11/2000	1309	30.0	9.84	30.50	23.46	8.0		6.0	65		76.7						

## PSS008, Possession Sound - PG Bay Pier 3

Lat (decimal): 47.982

Long (decimal): -122.222

October 1997 - September 1998

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3_NO2-N DISS (mg/L)	NH4_NH3-N DISS (mg/L)	ORTHO PO4-P DISS (mg/L)
10/13/1997	1705	10.0	12.23	27.87	21.02			6.7	75		70.2	0.62	0.31	0.171	0.011	0.061
10/13/1997	1705	0.5	11.94	19.38	14.50		3	9.0	95	4.6	63.3	1.50	0.52	0.187	0.034	0.067
11/11/1997	1520	0.5	10.57	16.08	12.15		14	9.5	95	4.0	66.7			0.200	0.044	0.054
11/11/1997	1520	10.0	12.06	29.20	22.08			6.1	69		79.0	0.10	0.10	0.316	0.010 U	0.088
1/7/1998	1517	0.5	6.74	13.70	10.71		33	10.0	90	2.4	48.3					
1/7/1998	1517	10.0	9.94	28.81	22.13			6.8	73		75.9					
2/19/1998	1536	1.0	9.55	27.16	20.92		200 J	7.1	74	4.3	61.5	0.81	0.36	0.384	0.087	0.116
2/19/1998	1536	10.0	9.00	28.48	22.02			7.1	74		76.6	0.46	0.28	0.398	0.010 U	0.101
4/6/1998	1621	10.0	9.38	28.17	21.72			8.9	93		71.6	1.30	0.61	0.294	0.022	0.329
4/6/1998	1621	0.5	11.20	15.04	11.22		1 U	15.4	155	4.2	60.2	10.00	0.05 U	0.036	0.010 U	0.171
5/7/1998	1028	10.0	10.21	28.28	21.68			9.6	103		80.9	0.99	0.49	0.247	0.011	0.138
5/7/1998	1028	0.5	12.14	15.65	11.60			11.7	120	3.8	44.9	1.90	1.10	0.113	0.029	0.063
6/8/1998	1848	0.5	17.26	17.05	11.74		1 U	10.3	119	2.5	44.0	10.10	0.26	0.010	0.010 U	0.070
6/8/1998	1848	10.0	12.17	27.57	20.80			8.0	89		68.3	2.60	0.70	0.145	0.079	0.148
7/21/1998	1619	0.5	18.39	23.46	16.37	8.3	1 U	10.3	127	3.2	48.1	9.70	0.89	0.010	0.010 U	0.100
7/21/1998	1619	10.0	11.99	29.30	22.17	7.8		7.1	80		77.2	1.40	0.92	0.209	0.010 U	0.111
8/10/1998	1743	0.5	17.02	26.44	18.95	8.2	7	9.2	113	2.1	46.4	12.40	2.60	0.054	0.148	0.120
8/10/1998	1743	4.5	13.00	29.49	22.13	7.9		8.5	98		72.5	1.90	1.50	0.180	0.010 U	0.152
9/1/1998	1709	10.0	12.33	29.66	22.38	8.1		5.9	66		81.6	1.20	1.30	0.198	0.010 U	0.160
9/1/1998	1709	0.5	19.55	26.58	18.46	8.4	3	11.2	144	2.3	41.2	6.00	1.50	0.025	0.010 U	0.156

## PSS019, Possession Sound - Gedney Island

Lat (decimal): 48.012

Long (decimal): -122.300

*October 1997 - September 1998*

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3_NO2-N DISS (mg/L)	NH4_NH3-N DISS (mg/L)	ORTHO PO4-P DISS (mg/L)
10/13/1997	1629	10.0	12.22	28.93	21.84			6.5	73		75.7	0.15	0.16	0.263	0.010 U	0.083
10/13/1997	1629	30.0	12.20	29.45	22.24			6.1	69		76.0			0.231	0.010 U	0.075
10/13/1997	1629	0.5	12.51	18.15	13.46		1	9.0	95	5.8	62.4	1.20	0.26	0.194	0.032	0.058
11/11/1997	1438	0.5	10.48	17.95	13.61		1 U	9.4	95	4.5	65.9	1.10	0.22	0.135	0.024	0.047
11/11/1997	1438	10.0	12.02	29.22	22.10			5.9	66		79.6	0.07	0.08	0.216	0.010 U	0.069
11/11/1997	1438	30.0	11.94	29.37	22.23			5.6	62		78.0					
1/7/1998	1453	0.5	6.74	17.68	13.83		2	9.8	91	3.6	57.9					
1/7/1998	1453	10.0	9.45	27.08	20.86			7.3	76		75.8					
1/7/1998	1453	30.0	10.42	29.19	22.35			6.3	68		79.2					
2/19/1998	1501	0.5	8.65	19.54	15.08		1 U	8.6	84	5.0	68.2					
2/19/1998	1501	10.0	9.09	28.46	21.99			7.2	75		78.1					
2/19/1998	1501	30.0	9.13	28.69	22.16			7.0	73		78.8					
4/6/1998	1544	30.0	9.22	28.70	22.16			8.0	84		81.4			0.367	0.010 U	0.263
4/6/1998	1544	0.5	11.13	23.52	17.84		1 U	15.5	165	5.6	66.5	7.70	0.21	0.026	0.010 U	0.204
4/6/1998	1544	10.0	9.24	28.39	21.91			8.5	89		82.7	3.20	0.92	0.328	0.010 U	0.346
5/7/1998	1059	10.0	9.98	28.29	21.72			9.5	101		82.3	1.90	1.40	0.233	0.010 U	0.124
5/7/1998	1059	30.0	9.47	28.80	22.20			8.5	90		82.5			0.269	0.010 U	0.103
5/7/1998	1059	0.5	12.45	11.28	8.17			12.7	129	2.7	43.6	9.30	0.75	0.028	0.010 U	0.047
6/8/1998	1818	0.5	17.06	21.02	14.80		1 U	9.9	117	5.3	61.8	2.60	0.17	0.010	0.010 U	0.078
6/8/1998	1818	10.0	10.57	28.69	21.94			8.1	87		78.7	5.80	1.40	0.222	0.010 U	0.135
6/8/1998	1818	30.0	9.95	29.02	22.30			6.8	72		80.2			0.313	0.010 U	0.173
7/21/1998	1541	0.5	16.56	24.44	17.52	8.3	1 U	11.5	138	3.6	43.4	3.50	1.00	0.011	0.010 U	0.139
7/21/1998	1541	10.0	11.86	28.97	21.93	7.8		6.9	78		78.8	1.60	1.30	0.109	0.010 U	0.195
7/21/1998	1541	30.0	11.00	29.30	22.34	7.7		6.2	68		79.0			0.281	0.010 U	0.199
8/10/1998	1711	0.5	15.37	27.71	20.28	8.2		12.4	147	3.8	43.3	14.30	2.50	0.025	0.010 U	0.125
8/10/1998	1711	10.0	12.99	28.94	21.70	7.9		7.7	89		78.8	6.40	2.30	0.086	0.010 U	0.145
8/10/1998	1711	30.0	11.43	29.39	22.34	7.6		6.1	68		81.6			0.202	0.010 U	0.155
9/1/1998	1622	30.0	11.59	29.58	22.46	7.8		5.3	59		82.3			0.250	0.010 U	0.157
9/1/1998	1622	0.5	17.93	27.28	19.38	8.4	1 U	10.7	134	3.5	55.7	8.60	0.74	0.014	0.010 U	0.142
9/1/1998	1622	10.0	12.42	29.46	22.21	8.0		6.2	70		81.5					

PSS019, Possession Sound - Gedney Island

Lat (decimal): 48.012

Long (decimal): -122.300

October 1998 - January 1999

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3_NO2-N DISS (mg/L)	NH4_NH3-N DISS (mg/L)	ORTHO PO4-P DISS (mg/L)
10/26/1998	1351	0.5					1			11.8						
10/26/1998	1351	10.0														
10/26/1998	1351	30.0														
12/22/1998	1359	0.5	5.22	21.00	16.58	7.7	2	10.0	91	4.6	66.7					
12/22/1998	1359	10.0	9.80	28.90	22.22	7.6		7.1	76		76.8					
12/22/1998	1359	30.0	10.33	29.65	22.72	7.7		6.8	74		78.3					
1/25/1999	1405	0.5	6.57	16.35	12.81	7.5	5	11.8	107	3.8	63.1					
1/25/1999	1405	10.0	9.31	28.51	21.99	7.5		8.4	88		77.9					
1/25/1999	1405	28.5	9.58	29.03	22.36	7.6		8.0	85		76.6					



PSS019, Possession Sound - Gedney Island

Lat (decimal): 48.012

Long (decimal): -122.300

February 1999 - December 1999

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3 DISS (uM)	NH4 DISS (uM)	ORTHO PO4 DISS (uM)	Si(OH)4 DISS (uM)
3/11/1999	1457	0.5	7.94	20.84	16.19	7.6		10.4	101	3.0	68.3			28.94	2.99	1.38	74.53
3/11/1999	1457	10.0	8.12	26.54	20.62	7.6		9.2	93		78.6						
3/11/1999	1457	30.0	8.44	28.34	21.99	7.6		8.4	87		81.2						
4/12/1999	1423	0.5	9.52	23.66	18.18	8.1	1 U	13.6	139	6.8	74.6	11.00	1.30	1.21	0.15	0.25	14.59
4/12/1999	1423	10.0	8.43	27.80	21.57	7.9		8.8	90		81.1	15.00	2.90	11.64	0.48	1.30	32.59
4/12/1999	1423	30.0	8.38	28.51	22.13	7.7		8.4	86		85.3			27.66	0.20	2.35	61.43
5/13/1999	1235	0.5	10.47	21.47	16.34	8.1	1 U	11.1	114	7.1	71.6	7.50	0.27	0.47	0.25	0.17	54.82
5/13/1999	1235	10.0	8.98	28.27	21.86	7.9		8.9	93		85.0	0.90	0.67	14.20	1.77	1.56	44.66
5/13/1999	1235	30.0	8.74	28.78	22.29	7.6		6.7	70		83.8			29.76	0.05	2.67	62.52
6/14/1999	1353	0.5	15.29	16.63	11.81	8.3	1	14.1	156	3.2	45.1	8.70	0.06	0.04	0.00	0.04	31.77
6/14/1999	1353	10.0	10.46	28.11	21.51	7.8		10.1	108		82.9	1.10	0.50	10.69	3.39	1.39	31.11
6/14/1999	1353	30.0	9.35	28.79	22.21	7.6		8.5	89		83.3			6.49	1.18	0.85	25.86
7/12/1999	1337	0.5	14.50	18.69	13.53	7.9	2	11.4	127	2.3	42.6	12.73	0.96	0.21	0.15	0.18	26.75
7/12/1999	1337	10.0	10.59	28.53	21.81	7.3		7.5	81		81.1	17.83	1.16	0.30	0.08	0.25	20.05
7/12/1999	1337	30.0	9.50	29.04	22.38	7.1		6.8	72		80.9			0.29	0.21	0.28	19.34
8/30/1999	1332	0.5	13.95	25.08	18.54	7.8	1 U	10.2	116	5.2	57.3	19.52	1.63	0.08	0.42	0.54	18.00
8/30/1999	1332	10.0	12.66	27.95	21.00	7.6		6.7	75		79.0	7.36	0.84	10.66	0.65	1.37	28.56
8/30/1999	1332	30.0	10.75	29.27	22.36	7.2		5.8	63		79.0			22.04	0.06	2.12	41.70
9/28/1999	1437	0.5	12.53	27.28	20.51	7.8	1 U	12.1	135	3.1	51.7	14.79	1.48	0.48	0.06	0.24	9.54
9/28/1999	1437	10.0	11.36	29.06	22.09	7.6		6.2	68		75.4	24.84	2.48	4.18	0.35	0.78	18.52
9/28/1999	1437	30.0	11.01	29.45	22.46	7.3		5.2	57		78.6			22.55	0.14	2.18	45.07
10/19/1999	1421	0.5	11.84	24.04	18.12		1	12.4	134	3.0	54.4						
10/19/1999	1421	10.0	11.11	29.61	22.57			5.2	58		82.2						
10/19/1999	1421	30.0	10.83	29.85	22.80			4.4	48		80.5						
11/30/1999	1201	0.5	9.09	20.64	15.88		2	8.7	87	3.5	66.4	0.54	0.19	23.49	1.27	1.77	61.44
11/30/1999	1201	10.0	10.48	28.74	21.99			6.3	68		76.7	0.12	0.11	25.36	0.00	2.34	59.37
11/30/1999	1201	30.0	10.44	29.79	22.81			6.1	67		79.3			25.45	0.00	2.36	57.74

## PSS019, Possession Sound - Gedney Island

Lat (decimal): 48.012

Long (decimal): -122.300

## January 2000 - December 2000

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3 DISS (uM)	NH4 DISS (uM)	ORTHO PO4 DISS (uM)	Si(OH)4 DISS (uM)
1/26/2000	1204	0.5	7.42	24.32	18.97		1 U	8.9	87	8.0	73.4						
1/26/2000	1204	10.0	9.09	28.31	21.87			7.9	83		77.5						
1/26/2000	1204	30.0	9.28	29.06	22.43			7.4	78		77.3						
2/16/2000	1207	0.5	7.30	23.38	18.25		1	10.7	104	5.0	64.2						
2/16/2000	1207	10.0	8.77	28.90	22.38			8.0	83		77.1						
2/16/2000	1207	28.5	8.73	29.15	22.58			7.7	80		74.4						
3/23/2000	1213	0.5	8.44	24.22	18.77	8.1	1	12.2	123	4.0	56.9	28.07	0.94	6.10	1.16	0.44	48.09
3/23/2000	1213	10.0	8.47	27.86	21.60	7.9		9.0	92		81.3	25.52	2.08	8.94	0.52	1.08	35.42
3/23/2000	1213	30.0	8.27	28.97	22.50	7.7		7.9	81		84.6			26.89	0.20	2.28	28.04
4/18/2000	1141	0.5	10.95	13.38	10.00	8.5	2	10.9	109	2.1	40.0	6.39	0.04	4.82	1.34	0.11	49.35
4/18/2000	1141	10.0	8.93	28.53	22.07	7.9		9.6	100		77.9	5.31	0.08	15.63	1.16	1.54	42.81
4/18/2000	1141	30.0	8.36	29.06	22.56	7.7		7.6	79		85.1			27.34	0.00	2.28	60.43
5/16/2000	1158	0.5	13.35	21.01	15.52	8.4	1 U	11.9	130	5.5	63.9	13.18	0.38	0.51	0.30	0.11	37.93
5/16/2000	1158	10.0	9.43	28.54	22.00	7.8		8.6	91		80.4	3.09	0.98	17.10	1.70	1.70	41.93
5/16/2000	1158	30.0	9.02	29.27	22.63	7.7		7.7	81		81.0			22.40	1.33	2.09	48.93
6/21/2000	1205	0.5	14.45	19.09	13.85	8.4	1 U	10.6	118	4.5	52.7	5.17	0.52	1.65	0.93	0.17	31.56
6/21/2000	1205	10.0	10.90	28.12	21.44	8.0		8.4	91		78.8	3.95	0.84	12.65	1.21	1.45	26.62
6/21/2000	1205	30.0	9.75	29.25	22.51	7.8		7.2	77		80.3			20.57	0.31	1.92	38.63
7/25/2000	1152	0.5	16.08	23.80	17.14	8.2	1 U	10.8	128	3.0	48.1	5.99	0.60	0.83	0.11	0.12	6.22
7/25/2000	1152	10.0	11.80	29.06	22.02	7.7		7.1	79		81.7	1.57	1.11	17.03	0.74	1.74	31.97
7/25/2000	1152	30.0	10.35	29.29	22.44	7.5		6.3	68		80.4			23.26	0.09	2.10	42.68
8/21/2000	1223	0.5	15.02	27.00	19.81	8.3	1 U	12.0	141	4.0	60.5	6.53	0.65	0.17	0.01	0.30	6.21
8/21/2000	1223	10.0	11.97	29.45	22.29	7.7		6.3	71		80.2	8.84	3.58	11.98	0.45	1.47	31.14
8/21/2000	1223	30.0	11.11	29.58	22.54	7.6		5.6	62		80.0			22.55	0.01	2.12	44.03
9/14/2000	1224	0.5	14.68	25.80	18.95	8.3	1 U	10.1	117	4.6	62.0	5.85	1.03	0.30	0.01	0.43	14.95
9/14/2000	1224	10.0	12.21	29.10	21.97	8.0		6.7	76		77.1	1.13	1.36	19.03	0.67	2.05	56.13
9/14/2000	1224	30.0	10.63	29.87	22.85	7.7		4.1	45		79.0			25.29	0.00	2.40	76.22
10/10/2000	1229	0.5	12.53	25.13	18.85	8.3		10.3	114	5.0	63.8	14.18	2.34	5.92	0.22	0.90	43.53
10/10/2000	1229	10.0	11.49	29.67	22.55	7.8		4.7	53		83.2	1.22	0.73	23.17	0.69	2.43	48.93
10/10/2000	1229	30.0	11.38	30.19	22.97	7.8		4.4	49		82.7			27.64	0.00	2.68	55.42
11/9/2000	1244	0.5	10.38	27.40	20.96	8.3		9.3	100	4.7	66.2	18.26	1.24	9.85	0.68	1.56	54.06
11/9/2000	1244	10.0	11.39	30.17	22.95	7.9		4.6	51		82.0	1.12	0.45	24.68	0.18	2.54	54.94
11/9/2000	1244	30.0	11.43	30.48	23.18	7.9		4.5	50		80.9			26.34	0.03	2.52	52.06
12/19/2000	1210	0.5	8.89	29.05	22.48	8.0	7	7.6	79	4.5	68.6	0.98	0.45	26.14	1.98	2.21	71.98
12/19/2000	1210	10.0	9.62	29.87	23.01	7.9		6.4	68		74.4	0.48	0.29	25.76	0.17	2.62	61.30
12/19/2000	1210	30.0	9.90	30.30	23.30	7.9		5.9	64		77.8						

PTH005, Port Townsend Harbor - Walan Point

Lat (decimal): 48.083

Long (decimal): -122.763

October 1997 - September 1998

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3_NO2-N DISS (mg/L)	NH4_NH3-N DISS (mg/L)	ORTHO PO4-P DISS (mg/L)
10/27/1997	1158	10.0	11.19	30.05	22.89			7.5	83		74.6	3.40 J	0.58 J	0.292 J	0.023	0.083
10/27/1997	1158	0.5	11.24	29.92	22.78		1 U	7.4	81	9.0	74.1	4.20 J	0.27 J	0.287 J	0.028	0.074
11/26/1997	1115	0.5	9.69	29.79	22.93			7.6	82	6.8	75.9	0.93 J	0.25 J			
11/26/1997	1115	10.0	9.85	30.02	23.09			7.2	78		75.8	1.00 J	0.29 J	0.324 J	0.010 U	0.142
12/29/1997	1059	0.5	8.86	29.82	23.09		6	8.2	86	8.0	75.1					
12/29/1997	1059	10.0	8.85	29.89	23.14			8.1	86		75.5					
1/26/1998	1027	0.5	8.56	29.59	22.95		2	9.7	101	5.0	71.8	0.40	0.33	0.318	0.010 U	0.094
1/26/1998	1027	10.0	8.54	29.64	23.00			9.7	101		72.3	0.38	0.23	0.349	0.010 U	0.093
2/24/1998	1048	0.5	8.68	29.53	22.88		1 U	6.1	63	6.8	71.7	1.40	0.36	0.464	0.010 U	0.100
2/24/1998	1048	10.0	8.83	29.67	22.97			5.3	55		72.5	0.90	0.46	0.480	0.010 U	0.099
3/17/1998	1109	10.0	9.66	29.92	23.04			9.0	96		74.0	0.45 J	0.21 J	0.326 J	0.010 U	0.082
3/17/1998	1109	0.5	9.70	29.80	22.94		1 U	9.0	97	8.2	75.3	0.84 J	0.33 J	0.316 J	0.010 U	0.079
4/13/1998	1146	10.0	9.53	30.07	23.18			8.9	96		75.9	4.50 J	1.10 J	0.193 J	0.010 U	0.116
4/13/1998	1146	0.5	9.78	29.72	22.87		1 U	9.6	103	7.3	71.7	5.10 J	0.61 J	0.172 J	0.010 U	0.095
5/19/1998	1033	0.5	10.81	29.95	22.88		1 U	9.6	105	5.5	69.2	4.30	0.56	0.151	0.010 U	0.091
5/19/1998	1033	10.0	10.31	30.28	23.22			9.0	98		71.4	8.10	0.76	0.134	0.010 U	0.067
6/30/1998	1338	0.5	12.31	29.95	22.62			11.1	126	4.0	60.8	18.30	0.60	0.041	0.010 U	0.124
6/30/1998	1338	10.0	11.20	30.45	23.20			8.0	89		74.0	8.40	1.70	0.161	0.010 U	0.128
7/27/1998	1107	0.5	14.07	30.37	22.60	8.2	1 U	13.0	153	3.0	44.4	11.90 J	2.30 J	0.042	0.010 U	0.107
7/27/1998	1107	10.0	11.55	30.62	23.27	7.8		7.5	84		71.0	11.10 J	0.68 J	0.177	0.010 U	0.124
8/24/1998	1339	0.5	13.69	30.69	22.92	8.0	1 U	10.0	117	4.5	59.2	9.80	1.60	0.126	0.010 U	0.172
8/24/1998	1339	10.0	12.41	30.85	23.29	7.9		7.2	83		67.9	9.90	2.70	0.165	0.010 U	0.172
9/22/1998	1133	10.0	11.65	31.27	23.76	8.0		6.0	68		74.0	4.30 J	1.30 J	0.249 J	0.010 U	0.256
9/22/1998	1133	0.5	12.23	31.00	23.44	8.0	1 U	7.0	80	6.2	71.8	7.20 J	1.10 J	0.193 J	0.010 U	0.225

PTH005, Port Townsend Harbor - Walan Point

Lat (decimal): 48.083

Long (decimal): -122.763

October 1998 - January 1999

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3_NO2-N DISS (mg/L)	NH4_NH3-N DISS (mg/L)	ORTHO PO4-P DISS (mg/L)
10/26/1998	1256	0.5	11.00	31.08	23.73	7.7	1 U	6.5	72	10.6	80.1			0.304	0.010 U	0.069
10/26/1998	1256	10.0	10.47	31.35	24.03	7.7		5.8	63		80.7			0.329	0.010 U	0.072
12/22/1998	1307	0.5	7.60	29.84	23.28	7.7	1 U	8.5	87	7.3	72.0					
12/22/1998	1307	10.0	7.74	29.98	23.37	7.7		8.5	87		71.5					
1/25/1999	1250	0.5	7.90	29.54	23.00	7.6	1 U	9.0	92	8.8	74.9					
1/25/1999	1250	10.0	7.90	29.60	23.05	7.6		8.9	91		75.1					

PTH005, Port Townsend Harbor - Walan Point

Lat (decimal): 48.083

Long (decimal): -122.763

February 1999 - December 1999

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3 DISS (uM)	NH4 DISS (uM)	ORTHO PO4 DISS (uM)	Si(OH)4 DISS (uM)
3/11/1999	1326	0.5	7.91	29.21	22.74	7.6		9.3	95	6.3	77.1			23.22	0.33	1.98	59.60
3/11/1999	1326	7.5	7.82	29.31	22.83	7.6		9.1	94		77.1						
4/12/1999	1040	0.5	8.74	29.27	22.67	7.5	1 U	11.5	120	6.7	72.6	14.00	1.70	9.56	0.39	1.00	28.02
4/12/1999	1040	10.0	8.40	29.61	22.98	7.6		10.4	108		76.9	10.00	2.60	14.44	0.60	1.37	33.42
5/13/1999	1435	0.5	9.61	29.46	22.69	7.7	1 U	10.0	106	5.3	67.0	12.00	0.48	7.50	0.20	0.92	28.85
5/13/1999	1435	10.0	9.00	30.12	23.30	7.7		8.7	92		73.9	7.10	2.00	14.10	1.26	1.46	32.47
6/14/1999	1240	0.5	12.05	30.03	22.72	7.9	1 U	11.2	126	4.3	59.8	18.10	0.66	8.87	0.44	1.13	31.84
6/14/1999	1240	10.0	10.56	30.21	23.12	7.8		9.6	105		63.9	12.70	1.50	12.56	0.99	1.39	33.47
7/12/1999	1207	0.5	12.43	29.97	22.60	7.4	1 U	9.1	103	4.4	63.0	12.45	2.18	6.75	0.69	1.13	36.06
7/12/1999	1207	10.0	10.72	30.15	23.05	7.2		7.3	81		69.2	9.62	1.90	15.24	1.23	1.65	41.60
8/30/1999	1209	0.5	11.40	30.38	23.11	7.3	1 U	6.9	77	12.0	77.4	1.94	0.32	17.61	1.87	1.95	44.94
8/30/1999	1209	10.0	10.90	30.65	23.41	7.2		6.1	68		78.3	2.08	0.39	20.31	1.58	2.04	45.77
9/28/1999	1313	0.5	11.39	30.62	23.30	7.4	1 U	7.7	86	8.0	73.1	3.87	1.01	17.01	1.25	1.85	43.95
9/28/1999	1313	10.0	10.83	30.79	23.52	7.3		6.6	73		73.6	5.66	0.98	18.17	1.16	1.91	43.83
10/19/1999	1332	0.5	10.86	30.57	23.35		1 U	8.7	96	9.2	74.4						
10/19/1999	1332	10.0	10.24	30.86	23.69			6.8	74		77.1						
11/30/1999	1050	0.5	8.99	30.20	23.36		1 U	7.7	81	7.4	73.9	0.75	0.47	26.41	0.34	2.32	59.35
11/30/1999	1050	10.0	9.02	30.27	23.41			7.1	76		74.0	0.46	0.46	26.98	0.08	2.30	58.24

PTH005, Port Townsend Harbor - Walan Point

Lat (decimal): 48.083

Long (decimal): -122.763

January 2000 - December 2000

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3 DISS (uM)	NH4 DISS (uM)	ORTHO PO4 DISS (uM)	Si(OH)4 DISS (uM)
1/24/2000	1400	0.5	7.65	29.98	23.38		2	8.2	84	7.0	71.1						
1/24/2000	1400	10.0	7.59	30.03	23.43			8.7	89		69.8						
2/15/2000	1348	0.5	7.71	29.88	23.29		1 U	8.9	91	7.0	71.5						
2/15/2000	1348	10.0	7.64	30.02	23.42			8.7	89		72.3						
3/13/2000	1455	0.5	8.11	29.92	23.27	7.9	1 U	8.8	91	6.5	76.3						
3/13/2000	1455	10.0	8.06	30.03	23.36	7.9		8.6	89		76.6	2.66	0.46	20.88	0.51	1.94	50.41
4/17/2000	1408	0.5	9.33	30.11	23.24	8.0	1 U	9.5	101	6.0	71.1	8.71	0.27	15.10	1.02	1.54	40.90
4/17/2000	1408	10.0	8.72	30.42	23.58	7.9		8.2	87		74.6	5.85	0.88	17.88	1.49	1.72	42.65
5/8/2000	1442	0.5	9.99	30.25	23.25	7.9	1 U	8.6	93	7.0	71.2	2.87	0.53	14.79	2.14	1.64	38.25
5/8/2000	1442	10.0	9.66	30.34	23.37	7.9		8.3	89		75.2	1.48	0.67	16.07	2.19	1.70	36.96
6/6/2000	1437	0.5	11.12	30.32	23.11	8.0	1 U	10.0	110	4.0	57.1	11.70	2.52	8.88	0.75	1.14	34.99
6/6/2000	1437	10.0	10.56	30.56	23.40	7.9		8.1	89		60.1	7.35	1.63	14.47	1.42	1.52	38.88
7/17/2000	1406	0.5	11.94	30.28	22.94	7.9	1 U	10.2	115	2.7	49.6	34.02	2.47	0.29	0.16	0.33	16.08
7/17/2000	1406	10.0	11.13	30.70	23.41	7.6		7.6	85		67.3	12.24	1.82	13.05	1.36	1.53	33.17
8/14/2000	1421	0.5	12.10	30.43	23.02	7.9	1	7.6	86	7.3	69.4	19.56	1.02	5.70	0.34	0.92	30.82
8/14/2000	1421	10.0	11.78	30.69	23.28	7.8		7.4	83		69.9	7.62	1.06	15.05	1.77	1.71	40.37
9/12/2000	1449	0.5	11.77	30.88	23.43	7.9	1	5.9	67	7.5	74.1	3.57	0.60	18.28	1.50	2.06	49.08
9/12/2000	1449	10.0	11.02	31.21	23.83	7.9		5.9	66		77.0	1.31	0.37	18.43	1.57	2.07	82.75
10/3/2000	1408	0.5	11.11	31.20	23.80	8.0	1 U	6.6	74	8.5	76.7	2.80	0.51	20.55	1.33	2.11	50.42
10/3/2000	1408	10.0	10.33	31.39	24.08	7.9		5.4	59		75.5	2.08	0.72	21.87	1.21	2.14	48.02
11/15/2000	1414	0.5	9.42	31.01	23.93	8.0	1 U	6.6	71	9.0	73.6	1.55	0.41	23.57	0.84	2.41	54.84
11/15/2000	1414	10.0	9.28	31.11	24.03	8.0		6.3	67		74.9	1.15	0.50	23.87	0.90	2.40	54.44
12/12/2000	1324	0.5	8.07	31.07	24.18	8.0		7.0	73	7.5	72.9						
12/12/2000	1324	10.0	8.35	31.19	24.23	8.0		6.5	68		71.0						

QM002, Quartermaster Harbor - Inner Harbor

Lat (decimal): 47.320

Long (decimal): -122.442

October 1997 - September 1998

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3_NO2-N DISS (mg/L)	NH4_NH3-N DISS (mg/L)	ORTHO PO4-P DISS (mg/L)
12/30/1997	1057	8.0	9.42	28.51	21.98			7.9	83		39.4			0.366	0.010 U	0.100
12/30/1997	1057	0.5	8.51	27.53	21.35		1 U	8.7	89	2.9	53.7			0.366	0.022	0.098
1/28/1998	1405	0.5	8.85	26.95	20.84		1 U	7.8	80	5.3	67.3					
1/28/1998	1405	8.0	9.17	28.59	22.08			6.6	69		51.0					
2/17/1998	1427	0.5	8.93	27.59	21.33		1 U	6.4	67	6.4	72.9	0.64	0.28	0.348	0.022	0.089
2/17/1998	1427	7.5	8.97	28.51	22.05			6.8	71		55.2	1.30	0.52	0.324	0.010 U	0.089
3/31/1998	1359	1.0	10.35	27.58	21.11		1 U	15.0	161	3.8	57.2	16.90	0.43	0.103	0.010 U	0.043
3/31/1998	1359	7.0	9.63	28.34	21.81			9.2	97		46.1	40.10	2.40	0.285	0.019	0.072
4/20/1998	1513	7.0	10.05	28.50	21.87			9.5	101		35.3	20.70	5.40	0.132	0.019	0.114
4/20/1998	1513	1.0	13.28	28.06	20.97		1 U	11.9	136	3.9	62.1	10.50	4.90	0.039	0.010 U	0.089
5/12/1998	1457	6.5	10.77	28.74	21.95			7.4	81		60.7	2.10	1.40	0.090	0.038	0.103
5/12/1998	1457	0.5	12.50	28.07	21.13		1 U	9.7	110	6.2	75.1	1.50	0.50	0.033	0.014	0.079
6/2/1998	1056	1.0	15.45	23.75	17.23		1 U	14.7	172	2.0	38.9	9.10	0.42	0.015	0.010 U	0.055
6/2/1998	1056	7.0	11.06	28.82	21.96			7.5	82		32.6	28.60	3.20	0.047	0.010 U	0.060
7/6/1998	1522	0.5	19.87	27.40	19.01	8.4	1 U	8.7	114	5.0	58.0	4.20	1.00	0.035	0.010 U	0.118
7/6/1998	1522	7.5	11.98	29.13	22.04	7.7		6.4	71		55.1	2.60	1.00	0.180	0.086	0.190
8/3/1998	1451	0.5	20.56	28.55	19.71	8.1	1 U	8.9	118	6.7	70.4	1.60	0.67	0.015	0.010 U	0.129
8/3/1998	1451	7.0	13.43	29.40	21.98	7.9		8.4	97		48.9	8.20	1.40	0.057	0.032	0.216
9/14/1998	1532	7.0	13.90	29.90	22.27	8.4		3.3	39		54.3	10.70	0.57	0.034	0.010 U	0.204
9/14/1998	1532	0.5	15.99	29.82	21.77	8.7	1 U	9.5	117	2.1	43.2	28.20	3.00	0.033	0.010 U	0.193

## SAR003, Saratoga Passage - East Point

Lat (decimal): 48.108

Long (decimal): -122.490

October 1997 - September 1998

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3_NO2-N DISS (mg/L)	NH4_NH3-N DISS (mg/L)	ORTHO PO4-P DISS (mg/L)
10/13/1997	1455	10.0	11.94	27.92	21.11			6.1	68		76.2	0.20	0.21	0.304	0.012	0.095
10/13/1997	1455	30.0	12.20	29.33	22.15			6.0	68		77.0			0.234	0.010 U	0.072
10/13/1997	1455	1.0	12.04	20.47	15.33		1 U	9.6	101	6.9	66.0	3.30	0.90	0.087	0.019	0.039
11/11/1997	1301	0.5	10.24	18.57	14.12		1 U	9.3	94	10.3	63.6	0.98	0.20	0.166	0.032	0.060
11/11/1997	1301	10.0	11.91	28.74	21.75			5.5	62		80.6	0.16	0.19	0.329	0.013	0.091
11/11/1997	1301	30.0	11.97	29.44	22.28			5.6	62		79.8			0.199	0.010 U	0.070
12/10/1997	1409	10.0	10.72	27.61	21.08			6.1	66		75.7					
12/10/1997	1409	30.0	11.55	29.29	22.23			5.2	57		76.0					
12/10/1997	1409	1.0	10.17	26.82	20.55		1	7.4	79	7.6	74.1					
1/7/1998	1401	10.0	9.23	26.00	20.05			5.8	59		76.6					
1/7/1998	1401	30.0	10.68	29.17	22.30			4.1	44		79.6					
1/7/1998	1401	0.5	7.22	21.91	17.10		1 U	8.0	77	6.4	71.4					
2/19/1998	1343	0.5	8.97	24.61	19.00		1 U			7.7	73.8	2.40	0.72	0.329	0.010 U	0.085
2/19/1998	1343	10.0	8.90	25.40	19.63						75.5	2.30	0.62	0.376	0.010 U	0.095
2/19/1998	1343	30.0	9.28	28.73	22.17						78.0			0.404	0.010 U	0.103
3/5/1998	1522	24.5	9.15	28.59	22.08			7.4	77		77.6					
3/5/1998	1522	10.0	9.22	27.34	21.09			7.8	81		70.8	1.70	0.57	0.298	0.010 U	0.064
3/5/1998	1522	0.5	8.58	23.64	18.29			16.4	165	3.7	53.5	18.30	1.80	0.060	0.010 U	0.040
4/6/1998	1438	0.5	11.30	22.28	16.85		1 U	15.3	162	4.5	63.7	27.00	1.20	0.029	0.010 U	0.210
4/6/1998	1438	10.0	9.45	27.70	21.34			8.0	84		80.8	11.40	2.80	0.298	0.010 U	0.317
4/6/1998	1438	30.0	9.20	28.65	22.12			7.8	82		82.4			0.363	0.010 U	0.335
5/7/1998	1216	30.0	9.43	28.74	22.15			8.1	86		84.9			0.340	0.010 U	0.131
5/7/1998	1216	0.5	13.53	20.50	15.10			14.9	163	2.7	43.7	10.20	1.10	0.021	0.010 U	0.044
5/7/1998	1216	10.0	9.64	28.44	21.89			8.5	90		84.2	0.49	0.33	0.367	0.010 U	0.150
6/8/1998	1705	30.0	10.11	29.02	22.27			7.0	75		82.6					
6/8/1998	1705	0.5	16.46	20.61	14.63		1 U	10.4	122	6.3	55.0	4.60	0.49	0.016	0.010 U	0.093
6/8/1998	1705	10.0	10.31	28.53	21.86			7.4	80		81.3	1.30	0.50	0.275	0.010 U	0.165
7/21/1998	1419	0.5	16.60	23.87	17.08	8.2	1 U	10.7	128	2.8	43.7	7.80	1.20	0.022	0.010 U	0.094
7/21/1998	1419	10.0	11.27	28.65	21.79	7.7		7.2	79		71.6	5.50	1.50	0.141	0.010 U	0.194
7/21/1998	1419	30.0	10.72	29.19	22.30	7.6		6.0	65		78.8			0.172	0.010 U	0.203
9/1/1998	1453	30.0	11.70	29.67	22.51	7.8		5.4	60		82.1			0.245	0.010 U	0.199
9/1/1998	1453	0.5	15.76	27.56	20.08	8.5	1 U	12.7	152	2.5	42.4	9.60	0.76	0.015	0.010 U	0.116
9/1/1998	1453	10.0	11.85	29.40	22.27	8.0		5.4	61		83.3	1.80	1.00	0.170	0.010 U	0.161

## SAR003, Saratoga Passage - East Point

Lat (decimal): 48.108

Long (decimal): -122.490

*October 1998 - January 1999*

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3_NO2-N DISS (mg/L)	NH4_NH3-N DISS (mg/L)	ORTHO PO4-P DISS (mg/L)
10/26/1998	1325	0.5					1 U			8.2						
10/26/1998	1325	10.0														
10/26/1998	1325	30.0														
12/22/1998	1327	0.5	5.87	22.42	17.64	7.7	1 U	9.6	89	5.7	70.8					
12/22/1998	1327	10.0	9.98	28.83	22.15	7.6		6.9	74		78.5					
12/22/1998	1327	30.0	10.52	29.74	22.76	7.6		6.4	70		77.8					
1/25/1999	1335	0.5	6.63	19.46	15.24	7.7	1 U	11.4	106	6.1	72.3					
1/25/1999	1335	10.0	9.42	28.57	22.02	7.5		8.1	85		78.6					
1/25/1999	1335	30.0	9.53	28.84	22.22	7.6		8.0	85		78.4					



## SAR003, Saratoga Passage - East Point

Lat (decimal): 48.108

Long (decimal): -122.490

February 1999 - December 1999

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3 DISS (uM)	NH4 DISS (uM)	ORTHO PO4 DISS (uM)	Si(OH)4 DISS (uM)
3/11/1999	1413	0.5	7.97	22.72	17.65	7.7		10.3	101	6.5	75.0			23.59	0.38	1.75	79.73
3/11/1999	1413	10.0	8.00	25.46	19.79	7.6		9.6	96		79.3						
3/11/1999	1413	30.0	8.53	28.36	21.99	7.5		8.3	86		81.7						
4/12/1999	1327	0.5	9.27	24.34	18.75	8.1	1 U	13.1	134	5.3	68.1	10.00	1.00	0.63	0.14	0.41	15.17
4/12/1999	1327	10.0	8.59	26.78	20.74	8.0		9.2	94		75.9	22.00	4.00	3.78	0.36	0.84	19.40
4/12/1999	1327	30.0	8.47	28.54	22.14	7.6		7.7	80		86.3			29.32	0.34	2.47	50.19
5/13/1999	1352	0.5	10.95	21.89	16.59	8.1	1 U	10.7	112	10.0	75.5	5.10	0.05	0.16	0.11	0.13	54.71
5/13/1999	1352	10.0	8.75	28.30	21.91	7.8		7.8	81		85.7	0.95	0.60	19.28	1.55	1.96	54.35
5/13/1999	1352	30.0	8.53	28.64	22.21	7.6		7.0	73		84.5			24.88	1.19	2.34	59.33
6/14/1999	1313	0.5	14.63	19.44	14.08	8.3	1 U	14.5	162	3.0	45.2	10.20	0.20	0.00	0.00	0.05	25.08
6/14/1999	1313	10.0	10.21	27.29	20.91	7.8		9.5	101		82.2	0.67	0.23	11.38	2.74	1.46	36.78
6/14/1999	1313	30.0	9.27	28.79	22.22	7.5		8.2	87		82.9			17.63	2.88	1.91	42.13
7/12/1999	1257	0.5	14.56	19.79	14.37	7.9	1 U	11.5	128	2.5	40.9	9.62	0.65	0.03	0.10	0.06	25.15
7/12/1999	1257	10.0	9.98	28.58	21.95	7.1		7.1	76		79.7	9.62	0.65	15.31	0.08	1.54	38.48
7/12/1999	1257	30.0	9.69	28.82	22.18	7.0		6.6	70		80.4			0.35	0.38	0.42	21.09
8/30/1999	1246	0.5	13.33	25.04	18.63	7.8	1 U	9.5	107	4.5	53.8	13.90	1.39	0.00	0.72	0.95	16.79
8/30/1999	1246	10.0	11.19	28.58	21.75	7.4		6.2	68		76.7	3.87	0.91	16.59	0.30	1.84	38.22
8/30/1999	1246	30.0	10.38	29.24	22.40	7.1		5.3	57		75.9			24.00	0.12	2.30	51.07
9/28/1999	1356	0.5	11.60	27.90	21.15	7.8	1 U	11.1	123	4.3	57.9			0.83	0.06	0.38	21.46
9/28/1999	1356	10.0	11.28	28.53	21.69	7.6		7.4	82		65.0			18.83	0.44	1.94	42.24
9/28/1999	1356	30.0	10.82	29.49	22.52	7.3		4.7	52		77.5			24.20	0.02	2.33	51.18
10/19/1999	1354	0.5	11.69	25.40	19.20		1 U	14.5	158	2.9	49.3						
10/19/1999	1354	10.0	10.99	29.61	22.58			4.5	50		82.0						
10/19/1999	1354	30.0	11.21	30.01	22.86			5.0	55		81.1						
11/30/1999	119	0.5	8.65	18.54	14.30		3	9.4	92	3.8	64.4	0.24	0.23	22.83	1.53	1.68	58.46
11/30/1999	119	10.0	10.56	29.43	22.51			6.0	65		79.8	0.41	0.08	23.37	0.87	2.02	65.62
11/30/1999	119	30.0	10.58	29.92	22.89			5.7	62		79.2			25.12	0.00	2.41	58.54

## SAR003, Saratoga Passage - East Point

Lat (decimal): 48.108

Long (decimal): -122.490

## January 2000 - December 2000

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3 DISS (uM)	NH4 DISS (uM)	ORTHO PO4 DISS (uM)	Si(OH)4 DISS (uM)
1/24/2000	1328	0.5	7.08	23.01	17.99		1 U	9.4	91	6.0	74.8	1.14	0.45	25.67	0.07	1.99	81.32
1/24/2000	1328	10.0	9.00	27.94	21.59			7.5	78		75.7	0.24	0.21	27.91	0.00	2.50	69.30
1/24/2000	1328	30.0	9.63	29.29	22.55			6.5	69		72.5						
2/15/2000	1306	0.5	7.54	23.81	18.56		1 U	10.7	105		65.9	9.66	1.27	19.07	0.08	1.62	71.14
2/15/2000	1306	10.0	9.02	28.78	22.25			7.5	79		76.6	1.10	0.36	28.20	0.00	2.45	68.33
2/15/2000	1306	30.0	9.02	29.21	22.59			7.2	75		74.1			28.59	0.00	2.51	66.46
3/13/2000	1424	0.5	8.51	25.32	19.62	8.1	1 U	11.5	117	3.6	64.7						
3/13/2000	1424	10.0	8.64	27.81	21.54	8.1		8.6	89		83.8						
3/13/2000	1424	30.0	8.57	29.10	22.56	7.7		7.0	73		84.2						
4/18/2000	1219	0.5	11.00	20.57	15.56	8.6	1 U	13.8	143	2.8	45.2	22.96	0.00	0.07	0.09	0.00	14.80
4/18/2000	1219	10.0	8.58	28.70	22.25	7.7		8.6	90		82.1	5.44	1.14	23.01	0.75	2.05	53.82
4/18/2000	1219	30.0	8.38	29.01	22.52	7.7		7.2	75		82.3			27.22	0.18	2.32	60.54
5/16/2000	1234	0.5	11.90	23.59	17.76	8.3	1 U	11.2	121	7.0	71.7	9.25	0.78	0.06	0.14	0.20	36.16
5/16/2000	1234	10.0	9.15	28.63	22.11	7.7		7.9	83		81.4	1.31	0.66	20.19	0.89	1.97	50.53
5/16/2000	1234	30.0	8.94	28.77	22.25	7.7		6.5	68		81.7			24.83	0.34	2.20	53.43
6/21/2000	1246	0.5	14.49	20.42	14.86	8.5	1 U	11.0	123	3.5	49.4	10.75	0.63	0.13	0.15	0.16	15.08
6/21/2000	1246	10.0	10.35	28.16	21.56	7.9		7.6	82		79.0	5.71	1.32	14.82	0.53	1.66	34.52
6/21/2000	1246	30.0	9.74	29.24	22.50	7.8		7.1	76		81.1			22.63	0.09	2.00	44.85
7/25/2000	1242	0.5	16.34	21.95	15.67	8.3	1 U	11.8	138	2.5	38.8	7.07	0.86	0.14	0.37	0.09	7.34
7/25/2000	1242	10.0	10.86	28.95	22.09	7.5		6.7	73		79.8	3.67	1.71	16.42	0.60	1.75	34.45
7/25/2000	1242	30.0	10.33	29.22	22.39	7.4		6.1	66		79.5			23.14	0.04	2.12	48.29
8/21/2000	1326	0.5	13.67	26.66	19.82	8.4	1 U	12.3	140	4.0	62.5	9.66	0.52	0.16	0.02	0.18	5.27
8/21/2000	1326	10.0	11.71	28.96	21.95	7.8		6.4	71		72.6	17.44	2.68	11.95	0.16	1.49	30.56
8/21/2000	1326	30.0	11.00	29.45	22.46	7.6		5.4	59		77.6			23.11	0.00	2.21	46.82
9/14/2000	1303	0.5	14.17	24.52	18.08	8.5	1 U	11.1	127	3.3	53.1	9.52	1.55	0.00	0.00	0.20	21.66
9/14/2000	1303	10.0	11.20	29.50	22.46	7.7		4.8	53		78.0						
9/14/2000	1303	30.0	11.05	29.85	22.76	7.7		4.5	49		78.5			23.24	0.06	2.36	52.43
10/10/2000	1306	0.5	12.70	26.96	20.23	8.4		11.0	124	4.5	62.9	21.36	2.88	0.15	0.11	0.86	29.23
10/10/2000	1306	10.0	11.37	29.85	22.70	7.8		4.1	46		82.7	3.35	0.86	22.96	0.48	2.56	51.86
10/10/2000	1306	30.0	11.44	30.26	23.01	7.8		4.3	48		81.5						
11/9/2000	1322	0.5	10.30	26.98	20.66	8.4		10.0	107	4.5	64.5	29.25	1.76	5.17	0.23	1.38	53.98
11/9/2000	1322	10.0	11.35	30.06	22.87	7.9		4.5	50		81.0	2.17	1.52	24.09	0.27	2.56	55.40
11/9/2000	1322	30.0	11.41	30.37	23.10	7.9		4.3	48		81.2			26.91	0.08	2.64	54.13

## SEQ002, Sequim Bay - Northern

Lat (decimal): 48.077

Long (decimal): -123.017

*January 2000 - December 2000*

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3 DISS (uM)	NH4 DISS (uM)	ORTHO PO4 DISS (uM)	Si(OH)4 DISS (uM)
1/24/2000	1440	0.5	7.42	30.69	23.97		1 U	7.2	73	7.5	72.2						
1/24/2000	1440	10.0	7.37	30.68	23.97			8.1	83		71.4						
2/15/2000	1432	0.5	7.16	30.75	24.05		1	8.9	90	11.0	75.2	1.24	0.39	24.21	0.36	2.03	53.47
2/15/2000	1432	10.0	7.53	30.89	24.12			8.3	85		75.2	0.81	0.46	24.45	0.37	2.06	52.71
3/13/2000	1547	0.5	8.06	30.69	23.88	7.9	1 U	8.9	92	11.9	79.7						
3/13/2000	1547	10.0	8.00	30.72	23.92	7.9		8.5	88		79.6						
4/17/2000	1518	0.5	9.82	31.03	23.88	8.1	1 U	11.7	127	5.0	65.2	20.84	0.68	1.70	0.17	0.68	19.72
4/17/2000	1518	10.0	8.96	31.15	24.11	7.9		9.0	95		76.6	9.25	1.37	11.97	1.70	1.47	33.84
5/8/2000	1552	0.5	10.71	30.27	23.15	8.3	1 U	11.9	131	5.3	63.5	3.35	0.43	6.25	1.05	0.96	22.84
5/8/2000	1552	10.0	10.43	30.28	23.20	8.2		10.8	118		69.1	3.53	0.54	4.87	0.67	0.82	20.82
6/6/2000	1548	0.5	10.86	30.87	23.59	8.0	1 U	8.9	98	5.5	64.9	3.13	0.60	10.98	2.05	1.37	33.38
6/6/2000	1548	10.0	10.69	30.90	23.64	8.0		8.7	96		65.8	8.57	2.50	12.95	2.32	1.52	35.46
7/17/2000	1508	0.5	14.10	30.86	22.97	8.1	1 U	12.7	150	3.0	39.3	17.86	1.79	1.65	0.60	0.72	11.30
7/17/2000	1508	10.0	12.03	31.07	23.53	7.8		9.9	112		55.3	17.44	2.21	7.76	1.85	1.27	26.24
8/14/2000	1524	0.5	15.18	30.83	22.72	8.4	1 U	12.9	156	2.8	28.2	14.88	1.02	0.11	0.10	0.04	2.48
8/14/2000	1524	10.0	11.95	31.10	23.57	7.8		6.9	78		75.5	5.99	1.80	13.28	4.14	1.84	39.55
9/12/2000	1602	0.5	12.57	31.59	23.83	8.2	1 U	9.6	110	6.5	69.7	9.93	0.99	6.92	0.62	1.35	37.55
9/12/2000	1602	10.0	11.17	31.66	24.15	8.0		6.2	69		75.0	6.12	0.91	14.70	4.31	2.10	53.95
10/3/2000	1513	0.5	10.71	31.98	24.47	8.1	1 U	7.1	79	12.5	80.4	4.64	0.41	13.30	1.62	1.74	48.81
10/3/2000	1513	10.0	10.15	32.07	24.64	7.9		5.7	63		81.0	5.27	0.68	18.67	1.87	1.97	48.55
11/15/2000	1507	0.5	8.87	31.79	24.62	8.0	1 U	6.4	68	13.5	79.9	2.86	0.26	23.15	2.28	2.36	55.45
11/15/2000	1507	10.0	8.82	31.78	24.63	8.0		6.2	66		80.1	1.10	0.33	23.41	2.34	2.36	55.42
12/12/2000	1409	0.5	7.74	31.78	24.78	8.0	1	6.5	68	8.5	74.3						
12/12/2000	1409	10.0	7.73	31.78	24.78	8.0		6.5	67		75.4						

## SIN001, Sinclair Inlet - Naval Shipyards

Lat (decimal): 47.550

Long (decimal): -122.642

October 1997 - September 1998

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3_NO2-N DISS (mg/L)	NH4_NH3-N DISS (mg/L)	ORTHO PO4-P DISS (mg/L)
11/24/1997	1343	10.0	11.34	28.91	21.98			6.5	72		73.4	1.10	0.29	0.327	0.010 U	0.115
11/24/1997	1343	1.0	11.12	28.40	21.62		4	7.2	79	6.2	68.3	5.70	0.68	0.331	0.021	0.115
12/30/1997	1124	0.5	9.59	28.50	21.94		2	8.1	85	5.9	69.4			0.374	0.013	0.100
12/30/1997	1124	10.0	9.65	28.83	22.19			7.5	80		69.4			0.390	0.010 U	0.100
1/28/1998	1340	0.5	8.51	26.42	20.48		1 U	7.8	80	7.5	64.2					
1/28/1998	1340	10.0	8.86	28.15	21.78			7.4	77		70.0					
2/17/1998	1352	0.5	8.93	27.09	20.94		2	8.5	88	6.9	71.1	1.40	0.31	0.418	0.031	0.101
2/17/1998	1352	10.0	8.89	28.26	21.86			6.4	67		63.0	1.10	0.31	0.418	0.010 U	0.103
3/31/1998	1317	10.0	9.52	28.27	21.78			8.5	89		69.9	0.81	0.49	0.411	0.010 U	0.091
3/31/1998	1317	1.0	9.98	27.75	21.30		1 U	9.6	102	5.9	75.2	1.30	0.24	0.346	0.010 U	0.085
4/20/1998	1429	10.0	10.37	28.42	21.76			10.6	114		66.1	14.20	2.60	0.146	0.013	0.100
4/20/1998	1429	1.0	13.19	27.76	20.76		1 U	16.3	186	3.5	50.5	12.10	2.70	0.037	0.010 U	0.070
5/12/1998	1409	0.5	12.43	27.95	21.04		1 U	12.7	143	6.4	69.4	12.00	2.30	0.032	0.010 U	0.065
5/12/1998	1409	10.0	11.73	28.53	21.62			10.0	111		73.1	3.10	1.60	0.095	0.093	0.152
6/2/1998	1132	0.5	13.85	28.26	21.04		1	14.4	167	2.0	45.9					
6/2/1998	1132	10.0	11.76	28.82	21.84			9.8	109		65.9	7.60	0.97	0.111	0.024	0.095
7/6/1998	1447	0.5	14.56	28.91	21.38	8.1	1 U	9.9	117	5.3	66.5	5.40	1.90	0.063	0.010 U	0.147
7/6/1998	1447	10.0	13.42	29.02	21.68	7.9		6.8	78		49.2	7.30	2.50	0.121	0.044	0.152
8/3/1998	1412	0.5	17.76	29.02	20.76	8.3	1 U	12.1	152	6.4	71.6	8.90	1.90	0.020	0.010 U	0.157
8/3/1998	1412	10.0	15.01	29.27	21.56	8.0		7.6	91		65.8	5.00	1.80	0.048	0.010 U	0.119
9/14/1998	1449	10.0	15.06	29.81	21.96	8.5		6.8	81		66.8	12.40	3.10	0.091	0.010 U	0.183
9/14/1998	1449	0.5	17.25	29.37	21.14	8.7	1 U	11.4	142	3.7	49.7	5.80	1.00	0.029	0.010 U	0.172

SIN001, Sinclair Inlet - Naval Shipyards

Lat (decimal): 47.550

Long (decimal): -122.642

October 1998 - January 1999

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3_NO2-N DISS (mg/L)	NH4_NH3-N DISS (mg/L)	ORTHO PO4-P DISS (mg/L)
10/28/1998	1010	0.5	12.61	30.07	22.65	7.6	4	6.7	76	8.4	75.4	2.80	0.95	0.232	0.037	0.067
10/28/1998	1010	10.0	12.65	30.25	22.79	7.6		6.5	74		73.9	1.40	0.42	0.255	0.016	0.069
11/30/1998	1100	0.5	10.00	28.72	22.05	7.6	11	7.1	76	9.2	77.5					
11/30/1998	1100	10.0	10.94	29.86	22.79	7.6		5.9	65		70.5					
1/19/1999	1018	0.5	9.06	28.05	21.67		890 J	8.8	91	6.0	70.6					
1/19/1999	1018	10.0	9.34	28.77	22.19			8.2	87		69.6					

## SIN001, Sinclair Inlet - Naval Shipyards

Lat (decimal): 47.550

Long (decimal): -122.642

February 1999 - December 1999

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3 DISS (uM)	NH4 DISS (uM)	ORTHO PO4 DISS (uM)	Si(OH)4 DISS (uM)
2/20/1999	1104	0.5	7.81	27.19	21.18	7.6		9.2	93	6.7	75.7			28.28	2.46	2.38	79.05
2/20/1999	1104	10.0	8.34	28.10	21.82	7.6		8.6	88		70.4						
3/15/1999	1324	0.5	8.31	26.78	20.79	7.6		9.6	98	6.6	77.1			26.22	2.87	2.14	90.85
3/15/1999	1324	10.0	8.22	27.79	21.59	7.5		8.9	91		73.3			27.08	1.09	2.28	73.42
4/20/1999	1301	0.5	10.08	27.79	21.32	8.0	1 U	13.1	140	5.1	73.6	33.40	0.80	6.64	0.33	0.72	18.89
4/20/1999	1301	10.0	9.14	28.22	21.80	7.9		9.9	104		67.9	8.50	1.10	17.68	1.28	1.57	54.09
5/21/1999	1317	0.5	11.30	28.18	21.42	8.0		12.5	137	3.3	53.1	33.00	0.87	3.44	0.43	0.82	24.65
5/21/1999	1317	10.0	10.04	28.59	21.95	7.9		9.6	102		66.9	5.70	0.99	10.49	3.41	1.48	32.12
6/15/1999	1351	0.5	14.58	27.94	20.62	8.3	2	15.8	185	1.7	36.8	23.00	0.43	0.22	0.09	0.49	10.61
6/15/1999	1351	10.0	11.97	28.42	21.49	7.9		10.1	113		45.6	14.00	2.50	5.88	3.58	1.29	27.74
7/21/1999	1330	0.5	14.71	28.45	20.99	7.8	1	11.1	131	5.0	60.8	8.49	1.78	0.82	0.69	1.02	10.37
7/21/1999	1330	10.0	13.16	28.70	21.49	7.6		9.1	104		64.8	17.55	2.07	4.94	1.87	1.36	20.29
8/16/1999	1034	0.5	14.50	28.69	21.21	7.4	1 U	7.5	88	7.5	72.9	1.89	0.68	9.81	3.34	2.10	42.59
8/16/1999	1034	10.0	13.32	29.01	21.70	7.4		7.0	80		72.2	1.83	0.70	13.01	3.24	2.06	40.43
9/29/1999	1351	1.0					1 U			3.7		35.03	1.47	0.08	0.52	0.98	43.14
9/29/1999	1351	10.0										10.65	1.72	9.77	2.62	1.84	45.58
10/25/1999	1025	0.5	12.15	29.59	22.36		1 U	8.2	92	8.0	73.0	8.49	1.47	12.14	6.92	2.12	57.86
10/25/1999	1025	10.0	12.01	29.76	22.52			7.7	87		71.2	7.27	2.49	14.93	2.96	2.14	51.01
11/22/1999	1246	0.5	10.43	28.88	22.11		4	7.0	75	5.2	71.4	2.11	0.88	21.57	6.45	2.50	70.90
11/22/1999	1246	10.0	10.65	29.46	22.52			6.3	69		66.6	1.50	1.16	23.64	3.45	2.48	64.54
12/21/1999	1024	0.5	9.22	27.82	21.47		22	7.3	76	5.5	71.7	0.72	0.47		3.61	2.54	79.62
12/21/1999	1024	10.0	9.63	28.75	22.13			6.8	72		55.4	0.48	0.51	23.86	4.12	2.56	76.13

## SIN001, Sinclair Inlet - Naval Shipyards

Lat (decimal): 47.550

Long (decimal): -122.642

*January 2000 - December 2000*

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3 DISS (uM)	NH4 DISS (uM)	ORTHO PO4 DISS (uM)	Si(OH)4 DISS (uM)
1/26/2000	1124	1.0	8.15	27.97	21.74		11	7.6	78	7.0	70.5	1.07	0.41	29.25	3.38	2.66	77.89
1/26/2000	1124	10.0	8.47	28.52	22.13			7.7	79		68.1	0.87	0.48	28.61	0.85	2.51	71.95
2/16/2000	1133	0.5	7.79	28.12	21.90		1 U	9.3	95	8.0	74.2						
2/16/2000	1133	10.0	8.08	28.52	22.18			8.6	88		69.3						
3/23/2000	1128	0.5	8.62	28.37	21.99	7.8	1 U	10.1	104	7.5	73.6	3.95	0.84	17.94	7.04	1.91	53.69
3/23/2000	1128	10.0	8.30	28.76	22.34	7.7		8.7	90		72.4	3.61	1.08	23.05	1.15	2.03	55.50
4/18/2000	1057	0.5	10.73	28.56	21.81	8.3	1 U	13.9	151	2.5	44.7	28.92	0.09	0.12	0.13	0.06	29.80
4/18/2000	1057	9.5	9.59	28.74	22.13	7.9		9.9	105		64.9	9.12	2.26	12.85	3.44	1.55	47.74
5/16/2000	1117	0.5	12.69	28.52	21.44	8.5	1 U	14.0	159	3.0	41.6	9.66	0.52	0.08	0.05	0.03	13.72
5/16/2000	1117	10.0	10.57	28.83	22.04	8.0		10.5	114		45.5	10.07	2.05	5.41	1.70	0.99	28.57
6/21/2000	1124	0.5	15.14	28.40	20.86	8.3	1 U	11.8	141	4.3	57.3	8.30	0.38	0.31	0.17	0.79	6.61
6/21/2000	1124	10.0	12.31	28.83	21.74	8.1		8.2	92		60.1	7.48	4.34	4.86	2.65	1.45	16.02
7/25/2000	1111	0.5	16.37	28.77	20.88	8.1	1	11.4	140	2.0	55.7	24.24	1.96	0.89	0.10	0.78	24.35
7/25/2000	1111	10.0	13.85	29.11	21.67	7.6		5.6	65		52.9	14.46	1.91	8.86	2.89	1.78	41.58
8/21/2000	1203	0.5	14.98	29.40	21.67	8.2	1 U	12.0	143	3.0	67.2	2.26	0.37	5.72	1.23	1.89	64.77
8/21/2000	1203	10.0	13.80	29.59	22.05	7.8		6.7	78		58.4	1.87	0.62	10.97	1.85	2.01	56.19
9/14/2000	1146	0.5	14.86	29.68	21.90	8.5	1	11.4	136	1.9	26.8	24.24	3.36	0.18	0.00	0.08	8.36
9/14/2000	1146	8.5	13.47	29.85	22.31	7.8		5.5	64		32.1	11.02	3.20	11.69	10.15	2.60	70.37
10/10/2000	1148	0.5	13.55	29.67	22.16	8.4		10.4	121	3.5	38.7	2.61	0.68	5.92	2.69	2.03	60.54
10/10/2000	1148	9.5	13.16	30.09	22.56	8.0		6.2	72		62.4	3.47	1.95	11.79	3.02	2.10	54.38
11/9/2000	1202	0.5	11.14	29.92	22.80	8.0		6.5	72	4.0	61.9	5.32	0.63	22.69	2.92	2.58	66.75
11/9/2000	1202	10.0	11.49	30.17	22.93	8.0		5.8	64		50.5	1.18	0.80	22.79	2.79	2.58	63.77
12/19/2000	1134	0.5	8.56	29.90	23.19	8.0	3	7.2	75	4.7	67.5	2.00	0.64	26.24	5.36	2.72	72.45
12/19/2000	1134	10.0	8.93	30.14	23.33	7.9		6.7	70		59.3	0.61	0.80	26.00	2.70	2.68	69.17

SJF000, JEMS - S. of Cattle Pt. - North

Lat (decimal): 48.417

Long (decimal): -123.025

February 1999 - December 1999

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3 DISS (uM)	NH4 DISS (uM)	ORTHO PO4 DISS (uM)	Si(OH)4 DISS (uM)
8/31/1999	1201	1.0	10.53	30.07	23.02			5.0		8.0							
9/2/1999	943	0.5	10.87	29.26	22.34			4.8		9.5		1.14	0.19	21.12	0.48	1.82	41.99
9/2/1999	943	40.0	10.04	30.53	23.46			4.1				0.39	0.30	22.95	0.73	1.98	44.75
9/2/1999	943	70.0	9.46	31.28	24.13			3.6				0.31	0.34	24.09	0.73	2.09	55.11
9/2/1999	943	153.0	7.97	33.05	25.75			2.2				0.40	1.11	31.31	0.14	2.51	53.60
10/15/1999	1044	0.5	9.64	30.91	23.82			5.3		9.5		0.53	0.11	24.57	0.94	2.18	45.26
10/15/1999	1044	30.0	9.36	31.28	24.15			4.5				0.29	0.18	26.12	0.72	2.25	46.70
10/15/1999	1044	80.0	9.07	31.61	24.45			4.0				0.26	0.20	26.83	0.61	2.28	46.90
10/15/1999	1044	140.0	8.30	32.75	25.46							0.33	0.15	29.89	0.25	2.44	49.67
11/23/1999	937	0.5	8.93	30.58	23.67			6.2		7.0		0.29	0.14	27.13	0.13	2.33	54.44
11/23/1999	937	30.0	8.93	30.79	23.83			5.8				0.12	0.17	26.89	0.09	2.33	56.25
11/23/1999	937	80.0	8.90	30.97	23.98			5.8				0.12	0.17	27.80	0.09	2.35	55.48
11/23/1999	937	140.0	8.76	31.53	24.44			5.4				0.12	0.20	27.43	0.08	2.35	54.23
12/20/1999	1003	0.5	8.53	29.88	23.18			7.3		8.0		0.21	0.08	26.06	0.06	2.24	55.54
12/20/1999	1003	30.0	8.59	30.10	23.35			9.2				0.08	0.13	26.12	0.00	2.24	55.80
12/20/1999	1003	80.0	8.60	30.44	23.61			8.0				0.11	0.08	25.71	0.00	2.20	54.62
12/20/1999	1003	140.0	8.60	30.56	23.70			9.2				0.16	0.00	26.02	0.00	2.22	55.25



SJF000, JEMS - S. of Cattle Pt. - North

Lat (decimal): 48.417

Long (decimal): -123.025

January 2000 - December 2000

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3 DISS (uM)	NH4 DISS (uM)	ORTHO PO4 DISS (uM)	Si(OH)4 DISS (uM)
1/27/2000	953	0.5	7.51	30.17	23.55			7.4		6.5		0.14	0.16	27.21	0.00	2.26	56.53
1/27/2000	953	30.0	7.56	30.31	23.66			7.2				0.12	0.08	27.17	0.00	2.24	54.63
1/27/2000	953	80.0	7.60	30.62	23.89			7.0				0.12	0.12	25.10	0.00	1.93	48.83
1/27/2000	953	140.0	7.64	30.91	24.11			6.6				0.13	0.16	24.99	0.00	1.91	47.38
2/12/2000	1012	1.0	7.58	30.22	23.58			7.7		6.5		0.39	0.09	22.38	0.25	1.95	51.24
2/12/2000	1012	30.0	7.62	30.42	23.73			7.5				0.24	0.12	26.47	0.03	2.26	59.24
2/12/2000	1012	80.0	7.69	30.84	24.05			7.2				0.17	0.07	26.05	0.04	2.22	56.66
2/12/2000	1012	140.0	7.75	31.37	24.46			6.7				0.15	0.13	25.54	0.14	2.15	54.17
3/29/2000	1010	1.0	8.16	30.42	23.66			8.0		7.5		0.33	0.15	23.16	0.32	2.03	48.61
3/29/2000	1010	30.0	8.12	30.60	23.80			7.8				0.65	0.33	23.61	0.41	2.06	49.32
3/29/2000	1010	80.0	8.06	31.07	24.18			7.1				0.28	0.16	23.60	0.21	2.04	47.10
3/29/2000	1010	140.0	7.91	32.40	25.24			5.5				0.23	0.29	25.14	0.12	2.08	46.92
5/2/2000	1001	1.0	8.97	30.64	23.71			7.2		10.5		1.25	0.18	20.89	1.24	1.95	40.80
5/2/2000	1001	30.0	8.65	30.97	24.01			6.7				0.36	0.24	22.28	1.07	2.05	41.95
5/2/2000	1001	77.5	8.44	31.34	24.34			5.5				0.27	0.25	24.04	0.97	2.14	43.36
5/2/2000	1001	140.0	8.11	32.00	24.90			5.3				0.33	0.39	25.43	0.87	2.18	45.13
7/5/2000	1000	1.0	10.27	30.66	23.52			6.1		8.5		1.41	0.04	20.74	1.38	1.95	40.00
7/5/2000	1000	30.0	9.93	30.79	23.67			5.7				1.02	0.46	21.16	1.44	1.98	40.09
7/5/2000	1000	80.0	9.29	31.37	24.23			4.9				0.99	0.51	23.53	1.16	2.11	43.26
7/5/2000	1000	136.0	8.27	32.40	25.20			3.8				0.78	1.47	27.65	0.79	2.33	48.63
8/31/2000	850	1.5	10.67	30.89	23.63			5.7				2.09	0.17	20.75	1.65	1.89	37.51
8/31/2000	850	30.0	10.15	31.24	23.99			5.0				1.94	0.28	21.72	1.27	1.93	37.06
8/31/2000	850	80.0	9.49	31.86	24.58			4.3				1.42	1.31	25.84	1.00	2.17	42.63
8/31/2000	850	130.5	8.71	32.62	25.30			3.5				1.23	0.81	28.49	0.75	2.30	45.42
11/14/2000	1056	1.5	9.00	31.01	24.00			5.5		10.0		0.21	0.12	26.40	0.33	2.27	49.80
11/14/2000	1056	30.0	8.93	31.33	24.26			4.9				0.09	0.72	26.95	0.31	2.28	50.42
11/14/2000	1056	80.0	8.82	31.64	24.52			4.5				0.29	0.24	27.59	0.26	2.33	50.69
11/14/2000	1056	140.0	8.41	32.58	25.31			3.5				0.23	0.26	28.82	0.15	2.37	49.98

SJF001, JEMS - S. of Cattle Pt. - Central

Lat (decimal): 48.333

Long (decimal): -123.025

February 1999 - December 1999

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3 DISS (uM)	NH4 DISS (uM)	ORTHO PO4 DISS (uM)	Si(OH)4 DISS (uM)
9/2/1999	1104	1.5	11.11	29.48	22.47			5.0		10.0		0.39	0.16	20.45	0.95	1.88	43.36
9/2/1999	1104	40.0	9.88	30.89	23.76			4.0				0.67	0.14	25.66	0.73	2.21	46.70
9/2/1999	1104	70.0	9.10	31.86	24.64			3.2				0.28	0.30	27.07	0.88	2.28	49.08
9/2/1999	1104	131.5	8.01	33.08	25.76			2.3				0.35	0.74	31.02	0.20	2.48	51.85
10/15/1999	1209	1.0	9.86	30.82	23.71			5.1		10.5		0.80	0.13	23.46	1.06	2.13	44.93
10/15/1999	1209	30.0	9.55	31.10	23.98			4.7				0.43	0.29	25.51	0.86	2.24	45.99
10/15/1999	1209	80.0	8.23	32.79	25.50			2.9						30.08	0.13	2.43	49.71
10/15/1999	1209	125.5	7.99	33.07	25.76			2.7				0.31	0.39	31.18	0.02	2.46	49.91
11/23/1999	1049	1.5	9.08	30.58	23.65			6.2		6.5		0.17	0.20	26.09	0.14	2.26	53.36
11/23/1999	1049	30.0	9.04	30.69	23.74			6.0				0.15	0.25	26.63	0.10	2.33	56.13
11/23/1999	1049	80.0	8.92	31.08	24.06			6.0				0.14	0.14	27.16	0.10	2.33	55.26
11/23/1999	1049	115.5	8.93	31.09	24.07			6.5				0.13	0.27	27.89	0.10	2.35	54.29
12/20/1999	1105	1.5	8.60	30.07	23.32			10.8		6.0		0.34	0.07	22.99	0.03	1.96	49.54
12/20/1999	1105	30.0	8.61	30.24	23.45			10.1				0.17	0.08	23.83	0.00	2.02	50.89
12/20/1999	1105	80.0	8.65	30.41	23.58			11.2				0.13	0.12	24.58	0.00	2.07	51.52
12/20/1999	1105	116.0	8.60	30.80	23.89			10.2				0.10	0.28	25.09	0.00	2.16	51.69

## SJF001, JEMS - S. of Cattle Pt. - Central

Lat (decimal): 48.333

Long (decimal): -123.025

## January 2000 - December 2000

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3 DISS (uM)	NH4 DISS (uM)	ORTHO PO4 DISS (uM)	Si(OH)4 DISS (uM)
1/27/2000	1100	0.5	7.64	30.14	23.51			7.6		6.0		0.19	0.10	26.80	0.00	2.19	55.60
1/27/2000	1100	30.0	7.63	30.28	23.62			7.4				0.15	0.11	27.29	0.00	2.26	56.13
1/27/2000	1100	80.0	7.65	30.59	23.86			7.0				0.13	0.09	26.54	0.00	2.14	52.15
1/27/2000	1100	112.5	7.66	31.29	24.41			6.5				0.15	0.50	24.31	0.00	1.84	44.55
2/12/2000	1201	1.0	7.66	30.24	23.59			10.1		6.3		0.03	0.41	26.83	0.04	2.27	59.14
2/12/2000	1201	30.0	7.73	30.57	23.83			7.8				0.03	0.29	26.59	0.00	2.24	59.49
2/12/2000	1201	80.0	7.76	31.41	24.49			8.3				0.02	0.28	25.76	0.00	2.16	70.68
2/12/2000	1201	135.5	7.78	31.50	24.56			9.4				0.13	0.15	24.07	0.00	2.11	78.41
3/29/2000	1116	0.5	8.23	30.33	23.58			8.1		8.0		0.47	0.11	23.30	0.29	2.04	57.27
3/29/2000	1116	30.0	8.09	30.44	23.68			7.8				0.63	0.27	23.38	0.28	2.06	48.69
3/29/2000	1116	80.0	7.97	31.92	24.86			6.1				0.20	0.19	24.59	0.08	2.05	46.74
3/29/2000	1116	138.5	7.82	32.75	25.54			4.9				0.17	0.32	25.64	0.09	2.10	45.85
5/2/2000	1110	1.0	9.10	30.36	23.47			7.3		10.5		0.76	0.17	19.78	1.45	1.90	40.62
5/2/2000	1110	30.0	8.84	30.62	23.71			6.9				0.70	0.40	19.91	1.62	1.90	41.06
5/2/2000	1110	80.0	8.64	31.00	24.04			6.3				0.76	0.37	21.44	1.30	2.00	41.50
5/2/2000	1110	134.0	8.05	32.15	25.03			5.1				0.33	0.41	18.97	0.73	1.78	33.56
7/5/2000	1110	1.0	10.48	30.50	23.36			6.0		8.5		1.07	0.26	20.65	1.44	1.94	39.82
7/5/2000	1110	30.0	9.52	31.11	23.99			5.1				0.86	0.72	22.42	1.45	2.05	42.20
7/5/2000	1110	80.0	8.65	32.02	24.84			4.2				0.60	0.90	25.35	1.10	2.21	45.89
7/5/2000	1110	138.0	7.83	32.85	25.61			3.3				0.76	1.05	29.32	0.68	2.41	50.47
8/31/2000	1024	1.0	10.52	31.03	23.77			5.3				1.83	0.32	21.71	1.37	1.95	38.03
8/31/2000	1024	30.0	9.87	31.66	24.37			4.5				1.27	0.34	23.24	1.90	2.06	40.72
8/31/2000	1024	80.0	9.03	32.37	25.05			3.8				0.03	0.06	26.57	1.05	2.20	43.69
8/31/2000	1024	138.5	8.18	33.08	25.74			3.1				1.05	1.21	28.80	0.69	2.26	45.30
11/14/2000	1206	1.5	9.08	30.94	23.93			5.5		12.0		0.58	0.34	25.75	0.46	2.25	48.87
11/14/2000	1206	30.0	8.85	31.63	24.51			4.6				0.56	0.44	27.74	0.18	2.33	50.65
11/14/2000	1206	80.0	8.69	32.12	24.91			4.1				0.08	0.51	27.29	0.22	2.29	49.58
11/14/2000	1206	134.0	8.53	32.49	25.22			3.7				0.27	0.46	28.55	0.09	2.34	50.66

## SJF002, JEMS - S. of Cattle Pt. - South

Lat (decimal): 48.250

Long (decimal): -123.025

## February 1999 - December 1999

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3 DISS (uM)	NH4 DISS (uM)	ORTHO PO4 DISS (uM)	Si(OH)4 DISS (uM)
9/2/1999	1231	1.5	11.94	28.94	21.90			5.2		9.0		0.74	0.19	18.72	1.30	1.81	42.27
9/2/1999	1231	40.0	9.57	31.56	24.34			9.0				0.40	0.19	23.56	1.02	2.13	44.84
9/2/1999	1231	70.0	8.97	32.21	24.94			4.5				0.66	0.39	27.41	0.54	2.30	47.61
9/2/1999	1231	147.0	7.96	33.15	25.83			5.8						31.52	0.02	2.52	52.19
10/15/1999	1313	1.0	9.96	30.83	23.70			5.8		9.5		0.63	0.23	23.54	1.03	2.16	45.36
10/15/1999	1313	30.0	9.19	31.87	24.64			4.1				0.06	0.76	26.63	0.67	2.27	47.85
10/15/1999	1313	80.0	8.38	32.70	25.41			3.1				0.12	0.45	29.34	0.25	2.40	49.67
10/15/1999	1313	140.0	8.30	32.78	25.49			3.0				0.34	0.29	29.97	0.18	2.41	49.77
11/23/1999	1200	1.5	8.99	30.88	23.90			6.0		10.0		0.03	0.34	27.66	0.11	2.33	54.95
11/23/1999	1200	30.0	8.83	31.30	24.25			5.7				0.06	0.23	27.88	0.08	2.33	53.51
11/23/1999	1200	80.0	8.67	31.70	24.59			5.1				0.11	0.17	27.94	0.08	2.35	53.31
11/23/1999	1200	139.0	8.64	31.79	24.66			4.9				0.10	0.22	28.67	0.08	2.37	53.78
12/20/1999	1207	1.5	8.76	29.72	23.02			7.8		8.0		0.28	0.12	19.51	0.18	1.67	43.81
12/20/1999	1207	30.0	8.71	30.18	23.39			6.9				0.14	0.13	21.86	0.03	1.88	46.07
12/20/1999	1207	80.0	8.62	30.78	23.87			10.0				0.11	0.14	24.37	0.00	2.08	49.32
12/20/1999	1207	135.0	8.60	31.02	24.07			9.7				0.10	0.16	25.15	0.00	2.14	50.49

## SJF002, JEMS - S. of Cattle Pt. - South

Lat (decimal): 48.250

Long (decimal): -123.025

## January 2000 - December 2000

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3 DISS (uM)	NH4 DISS (uM)	ORTHO PO4 DISS (uM)	Si(OH)4 DISS (uM)
1/27/2000	1207	0.5	7.67	30.79	24.01			7.1		7.0		0.20	0.09	27.34	0.00	2.25	55.48
1/27/2000	1207	30.0	7.64	31.10	24.26			6.7				0.12	0.11	26.61	0.00	2.17	51.40
1/27/2000	1207	80.0	7.61	31.35	24.46			6.6				0.10	0.09	26.67	0.00	2.16	51.03
1/27/2000	1207	134.0	7.67	31.50	24.57			6.3				0.17	0.00	26.63	0.00	2.14	49.40
2/12/2000	1231	1.0	7.64	30.88	24.09			9.3		6.0		0.02	0.50	24.45	0.15	2.18	54.15
2/12/2000	1231	30.0	7.67	30.95	24.15			7.6				0.02	0.30	23.69	0.00	2.11	51.93
2/12/2000	1231	80.0	7.73	31.19	24.32			7.2				0.03	0.42	22.97	0.02	2.07	50.41
2/12/2000	1231	129.5	7.78	31.50	24.55			6.6				0.15	0.15	23.13	0.02	2.08	48.99
3/29/2000	1210	1.0	8.54	29.96	23.24			8.2		8.5		0.58	0.11	20.74	0.75	1.87	46.47
3/29/2000	1210	30.0	8.10	30.81	23.97			7.3				0.46	0.22	23.38	0.24	2.02	70.69
3/29/2000	1210	80.0	7.98	32.08	24.98			5.8				0.18	0.26	24.58	0.12	2.05	57.25
3/29/2000	1210	140.0	7.84	32.82	25.58			4.8				0.13	0.26	25.62	0.08	2.10	45.67
5/2/2000	1207	5.0	9.20	30.49	23.56			7.5		10.5		1.09	0.31	19.55	1.18	1.81	37.62
5/2/2000	1207	30.0	8.73	31.19	24.18			6.5				0.54	0.23	21.21	1.03	1.91	39.56
5/2/2000	1207	80.0	8.48	31.67	24.59			5.9				0.43	0.36	26.33	0.59	2.21	45.29
5/2/2000	1207	140.0	7.91	32.43	25.27			4.8				0.44	0.76				
7/5/2000	1211	0.5	10.54	30.22	23.13			6.1		7.0		1.15	0.33	20.19	1.54	1.93	39.73
7/5/2000	1211	30.0	9.85	30.82	23.71			5.4				1.18	0.78	21.58	1.49	2.02	40.61
7/5/2000	1211	80.0	8.23	32.46	25.25			3.8				0.78	1.37	28.03	0.83	2.36	49.41
7/5/2000	1211	129.0	7.84	32.85	25.61			3.3				1.20	1.83	29.36	0.64	2.42	50.64
8/31/2000		1.0	10.90	30.45	23.25			5.6				2.51	0.08	20.49	1.56	1.89	36.47
8/31/2000		30.0	10.34	31.29	24.00			4.9				1.16	0.66	21.55	1.65	1.97	38.63
8/31/2000		80.0	8.79	32.60	25.27			3.6				1.38	0.88	15.01	1.75	1.48	23.41
8/31/2000		115.5	8.18	33.05	25.72			3.0				1.20	1.46	29.04	4.69	2.27	45.46
11/14/2000	1305	1.5	9.43	31.13	24.02			5.6		12.0		0.86	0.31	26.05	0.40	2.31	51.44
11/14/2000	1305	30.0	9.09	31.64	24.47			4.7				0.76	0.54	26.86	0.24	2.31	50.72
11/14/2000	1305	80.0	8.58	32.42	25.16			3.9				0.42	0.39	28.04	0.18	2.34	50.82
11/14/2000	1305	140.0	8.16	33.05	25.72			3.0				0.25	0.59	29.22	0.09	2.38	50.64

## SKG001, Skagit Bay - Hope Island

Lat (decimal): 48.397

Long (decimal): -122.580

October 1997 - September 1998

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3_NO2-N DISS (mg/L)	NH4_NH3-N DISS (mg/L)	ORTHO PO4-P DISS (mg/L)
10/13/1997	1315	10.0	11.12	25.54	19.40			6.7	72		47.7	0.15	0.11	0.166	0.019	0.059
10/13/1997	1315	1.0	11.24	22.36	16.92		1	7.2	101	2.9	46.8	0.79	0.39	0.236	0.029	0.076
11/11/1997	1123	0.5	10.45	27.81	21.28		1	6.3	68	3.4	57.4	0.55	0.36	0.355	0.010 U	0.086
11/11/1997	1123	8.5	10.37	28.19	21.58			6.4	69		57.5	0.69	0.47	0.218	0.010 U	0.067
12/10/1997	1239	0.5	8.78	22.80	17.61		1 U	8.1	81	3.1	54.0	0.67	0.28	0.198	0.010 U	0.061
12/10/1997	1239	6.5	9.29	25.89	19.95			7.2	75		50.3	0.41	0.29	0.329	0.010 U	0.098
1/7/1998	1236	0.5	6.94	16.35	12.77		3	9.1	84	2.5	48.7			0.225	0.010 U	0.058
1/7/1998	1236	10.0	9.12	25.99	20.06			6.7	69		47.0			0.249	0.010 U	0.071
2/19/1998	1224	0.5	7.93	15.72	12.18		4	8.9	83	2.4	39.6	1.20	0.45	0.293	0.010 U	0.073
2/19/1998	1224	10.0	8.38	23.15	17.94			7.9	78		61.6	0.57	0.30	0.320	0.010 U	0.087
3/5/1998	1305	7.0	8.82	26.42	20.43			8.5	87		59.2	0.97	0.44	0.290	0.010 U	0.066
3/5/1998	1305	0.5	8.24	19.86	15.38			9.7	95	2.8	57.9	0.91	0.27	0.359	0.010 U	0.072
4/6/1998	1230	10.0	9.55	27.12	20.87			8.2	86		70.1	0.87	0.35	0.259	0.013	0.290
4/6/1998	1230	0.5	9.90	23.73	18.18		1 U	8.8	91	5.4	64.8	1.30	0.24	0.253	0.011	0.282
5/7/1998	1615	0.5	11.66	19.64	14.74			10.0	105	2.9	36.7	4.50	1.20	0.072	0.010 U	0.040
5/7/1998	1615	9.0	10.32	27.16	20.79			9.0	96		58.5	4.50	1.90	0.222	0.010 U	0.114
6/8/1998	1503	0.5	11.88	25.57	19.30		1 U	9.3	101		53.8	8.20	1.20	0.134	0.010 U	0.134
6/8/1998	1503	10.0	11.13	27.97	21.29			8.5	93		57.1	8.00	2.20	0.192	0.010 U	0.150
7/21/1998	1231	0.5	11.87	28.67	21.70	7.7	1 U	7.0	78	3.7	56.3	5.90	1.50	0.230	0.010 U	0.108
7/21/1998	1231	10.0	11.80	28.68	21.73	7.7		6.9	76		55.4	5.90	2.30	0.223	0.010 U	0.139
8/10/1998	1437	0.5	12.61	28.02	21.06	7.7	1 U	7.6	86	2.0	35.4	13.40	3.80	0.156	0.010 U	0.148
8/10/1998	1437	10.0	12.54	28.20	21.22	7.7		7.6	85		39.8	11.20	5.40	0.170	0.010 U	0.149
9/1/1998	1319	7.5	13.15	28.40	21.26	8.0		8.0	91		48.0	10.50	1.10	0.093	0.010 U	0.113
9/1/1998	1319	0.5	13.93	27.58	20.48	8.1	1 U	9.6	111	2.3	42.1	15.30	2.50	0.060	0.010 U	0.157

## SKG003, Skagit Bay - Str. Point Red Buoy

Lat (decimal): 48.297

Long (decimal): -122.488

October 1997 - September 1998

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3_NO2-N DISS (mg/L)	NH4_NH3-N DISS (mg/L)	ORTHO PO4-P DISS (mg/L)
10/13/1997	1346	5.0	11.50	28.09	21.31			4.5	50		31.4	0.31	0.65	0.213	0.015	0.067
10/13/1997	1346	0.5	11.38	20.23	15.25		4	7.0	73	3.9	58.1	0.93	0.33	0.165	0.037	0.062
11/11/1997	1155	0.5	9.80	21.27	16.28		2	6.6	67	2.9	53.7	0.47	0.22	0.176	0.012	0.056
11/11/1997	1155	10.0	11.78	29.08	22.03			4.3	48		57.3	0.23	0.48	0.212	0.010 U	0.068
12/10/1997	1306	0.5	8.71	23.75	18.37		1 U	8.3	84	4.4	64.8	1.70	0.37	0.319	0.010 U	0.092
12/10/1997	1306	10.0	11.30	28.55	21.71			4.3	48		60.4	0.31	0.16	0.359	0.010 U	0.110
1/7/1998	1304	0.5	6.37	15.45	12.11		2	8.9	80	3.6	52.2			0.324	0.010 U	0.068
1/7/1998	1304	10.0	10.77	28.72	21.93			4.9	54		59.6			0.377	0.010 U	0.103
2/19/1998	1247	0.5	8.67	23.07	17.84		1 U	8.5	86	5.9	68.7	1.30	0.35	0.314	0.010 U	0.087
2/19/1998	1247	10.0	8.64	23.87	18.47			8.5	86		76.3	1.20	0.38	0.339	0.010 U	0.090
3/5/1998	1329	9.0	8.88	24.92	19.26			10.1	103		60.0	5.70	0.72	0.260	0.010 U	0.069
3/5/1998	1329	0.5	7.67	12.33	9.55			10.8	98	3.5	50.6	0.71	0.34	0.240	0.010 U	0.018
4/6/1998	1255	4.5	9.45	27.66	21.31			6.9	73		64.2			0.340	0.010 U	0.263
4/6/1998	1255	0.5	10.11	19.99	15.25		1 U	9.1	93	4.6	69.1	2.20	0.47	0.177	0.010 U	0.222
5/7/1998	1635	0.5	11.68	19.55	14.68			9.2	96	3.2	46.1	4.10	2.00	0.183	0.010 U	0.084
5/7/1998	1635	6.0	9.70	28.19	21.69			7.5	79		68.9	5.80	1.50	0.203	0.010 U	0.094
6/8/1998	1536	0.5	12.31	22.69	17.00		1 U	7.8	85	3.8	55.1	4.90	1.10	0.169	0.010 U	0.138
6/8/1998	1536	6.5	9.70	28.94	22.27			6.6	70		52.8	2.40	1.10	0.325	0.010 U	0.172
7/21/1998	1257	0.5	11.74	27.29	20.65	7.6	1 U	6.6	73	2.5	49.1	4.70	1.50	0.166	0.010 U	0.116
7/21/1998	1257	5.0	11.31	27.97	21.25	7.6		6.1	67		49.3	4.70	1.90	0.245	0.010 U	0.116
8/10/1998	1507	0.5	14.72	21.36	15.54	7.8	1	7.8	89	1.7	35.4	4.40	1.20	0.063	0.010 U	0.093
8/10/1998	1507	8.0	12.22	27.36	20.63	7.7		6.7	75		44.6	6.80	2.00	0.197	0.010 U	0.149
9/1/1998	1344	7.0	11.29	29.32	22.30	7.8		4.3	48		61.4	3.60	1.90	0.250	0.010 U	0.158
9/1/1998	1344	0.5	11.95	28.90	21.86	8.1	1 U	5.7	64	2.7	61.2	9.20	1.20	0.013	0.010 U	0.127

## SUZ001, Port Susan - Kayak Point

Lat (decimal): 48.135

Long (decimal): -122.370

October 1997 - September 1998

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3_NO2-N DISS (mg/L)	NH4_NH3-N DISS (mg/L)	ORTHO PO4-P DISS (mg/L)
10/13/1997	1539	10.0	12.12	28.73	21.71			6.4	72		70.8	0.10	0.11	0.172	0.010 U	0.058
10/13/1997	1539	30.0	11.37	29.37	22.33			4.8	53		72.9			0.355	0.010	0.097
10/13/1997	1539	0.5	11.49	10.29	7.54		4	10.8	107	1.7	33.0	9.50	2.50	0.218	0.024	0.029
11/11/1997	1340	0.5	11.55	23.73	17.93		1 U	7.7	83	7.7	71.0	1.30	0.15	0.188	0.024	0.059
11/11/1997	1340	10.0	12.10	29.02	21.93			6.1	68		76.7	0.13	0.07	0.343	0.010 U	0.094
11/11/1997	1340	30.0	11.75	29.36	22.26			5.1	57		73.8			0.202	0.010 U	0.065
1/7/1998	1429	0.5	6.08	13.23	10.39		3	10.7	94	0.9	16.5					
1/7/1998	1429	10.0	10.12	28.49	21.85			6.7	72		77.0					
1/7/1998	1429	30.0	10.57	29.09	22.25			6.1	66		78.2					
2/19/1998	1425	0.5	8.06	15.52	12.01		1			2.3	39.6	1.50	0.52	0.359	0.010 U	0.061
2/19/1998	1425	10.0	9.14	28.42	21.95						71.4	0.19	0.11	0.406	0.010 U	0.102
2/19/1998	1425	30.0	9.24	28.79	22.22						79.2			0.399	0.010 U	0.105
4/6/1998	1515	27.0	9.17	28.61	22.10			7.8	82		78.9			0.365	0.010 U	0.337
4/6/1998	1515	0.5	11.02	18.56	14.01		1 U	14.2	146	4.2	58.9	13.40	0.74	0.054	0.010 U	0.190
4/6/1998	1515	10.0	9.27	28.08	21.67			8.1	85		78.3	0.84	0.30	0.332	0.017	0.330
5/7/1998	1138	10.0	9.78	28.36	21.81			9.3	99		81.5	3.30	2.10	0.151	0.010 U	0.072
5/7/1998	1138	30.0	9.32	28.75	22.18			8.2	86		82.8			0.265	0.010 U	0.099
5/7/1998	1138	0.5	13.57	22.25	16.45			12.7	141	8.8	65.0	0.76	0.80	0.043	0.010 U	0.099
6/8/1998	1743	0.5	17.23	15.48	10.55		1	10.8	124	3.3	46.7	9.00	0.45	0.012	0.010 U	0.079
6/8/1998	1743	10.0	10.41	28.52	21.83			7.6	82		73.2	2.40	0.60	0.199	0.010 U	0.114
6/8/1998	1743	30.0	9.60	29.05	22.37			5.7	61		78.2			0.308	0.010 U	0.139
7/21/1998	1455	0.5	15.08	26.76	19.61	8.1	1 U	10.8	128	3.7	54.5	3.40	1.10	0.033	0.010 U	0.108
7/21/1998	1455	10.0	11.80	28.84	21.85	7.8		7.0	78		78.1	3.10	1.10	0.162	0.010 U	0.131
7/21/1998	1455	30.0	10.17	29.08	22.31	7.5		5.9	63		78.3			0.355	0.010 U	0.128
8/10/1998	1636	0.5	15.73	27.38	19.95	8.2	1 U	11.2	135	3.8	52.2	3.20	0.88	0.038	0.010 U	0.122
8/10/1998	1636	10.0	12.58	29.07	21.88	7.8		7.1	81		78.4	8.70	3.50	0.114	0.010 U	0.139
8/10/1998	1636	30.0	10.54	29.15	22.30	7.5		5.7	62		74.8			0.334	0.010 U	0.164
9/1/1998	1538	30.0	10.56	29.43	22.52	7.7		4.5	49		77.0			0.305	0.010 U	0.180
9/1/1998	1538	0.5	15.69	28.27	20.64	8.2	1 U	12.1	146	4.2	61.3	2.40	0.61	0.027	0.010 U	0.128
9/1/1998	1538	10.0	11.85	29.31	22.20	8.1		5.4	60		71.6	3.10	0.67	0.191	0.010 U	0.134



TOT001, Totten Inlet - Windy Point

Lat (decimal): 47.165

Long (decimal): -122.963

October 1998 - January 1999

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3_NO2-N DISS (mg/L)	NH4_NH3-N DISS (mg/L)	ORTHO PO4-P DISS (mg/L)
10/28/1998	1410	0.5	13.29	29.36	21.98	7.7	4	7.6	88	4.9	67.9	6.30	1.40	0.170	0.020	0.072
10/28/1998	1410	10.0	13.27	29.43	22.03	7.7		7.4	85		71.3	5.00	1.60	0.185	0.016	0.073
11/30/1998	1316	0.5	10.24	26.44	20.24	7.7	1 U	7.1	76		68.3					
11/30/1998	1316	10.0	10.45	27.04	20.68	7.7		6.9	74		67.9					
1/19/1999	1344	0.5	8.26	23.70	18.39	7.5	1	9.5	94	3.0	55.1					
1/19/1999	1344	10.0	8.55	25.51	19.76	7.5		8.9	91		61.0					

## TOT001, Totten Inlet - Windy Point

Lat (decimal): 47.165

Long (decimal): -122.963

February 1999 - December 1999

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3 DISS (uM)	NH4 DISS (uM)	ORTHO PO4 DISS (uM)	Si(OH)4 DISS (uM)
2/20/1999	1347	0.5	7.61	23.44	18.26	7.6		9.7	95	3.8	65.0			27.95	1.62	2.24	87.18
2/20/1999	1347	10.0	7.89	24.92	19.38	7.6		9.1	90		61.2						
3/15/1999	1048	0.5	8.29	22.43	17.39	7.6		10.0	99	4.4	70.4			25.15	1.64	1.97	96.71
3/15/1999	1048	10.0	8.27	24.59	19.08	7.5		9.4	94		71.4			26.51	0.95	2.12	88.04
4/20/1999	1053	0.5	10.28	26.17	20.02	8.1	1 U	13.1	138	3.7	60.8	25.10	0.88	1.03	0.22	0.37	9.41
4/20/1999	1053	10.0	10.24	26.19	20.05	8.1		13.0	138		60.6	24.30	0.92	1.55	0.22	0.46	11.59
5/21/1999	1104	0.5	11.92	26.79	20.24	7.9		11.8	130	4.2	60.0	11.00	0.95	0.00	0.12	0.53	12.64
5/21/1999	1104	10.0	11.29	27.18	20.65	7.9		11.1	121		62.9	12.00	2.10	3.02	0.96	0.83	17.99
6/15/1999	1436	0.5	15.36	27.53	20.15	8.0	1 U	11.5	137	5.0	67.5	8.80	0.53	0.00	0.36	1.22	23.09
6/15/1999	1436	10.0	14.92	27.59	20.28	8.0		11.7	138		67.4	12.00	0.35	0.00	0.46	1.17	23.19
7/21/1999	1129	0.5	16.54	28.10	20.33	7.6	1 U	9.4	115	8.0	74.1	8.06	1.40	1.24	0.82	1.65	33.06
7/21/1999	1129	10.0	14.99	28.32	20.83	7.6		9.5	112		77.7	9.90	0.99	3.38	1.70	1.57	33.24
8/16/1999	1433	0.5	17.47	28.33	20.29	8.0	1 U	14.7	184	3.6	68.8	1.72	0.35	0.00	0.08	1.62	61.23
8/16/1999	1433	10.0	15.85	28.43	20.73	7.9		9.8	119		63.9	42.40	2.21	0.00	0.09	1.68	56.99
9/29/1999	1115	0.5	14.21	28.96	21.48	7.7	1 U	9.4	111	4.4	60.7	26.61	1.03	1.56	0.32	1.68	69.13
9/29/1999	1115	10.0	14.11	28.98	21.52	7.7		9.1	107		63.5	20.11	1.03	2.40	0.42	1.70	68.10
10/25/1999	1409	0.5	12.72	28.97	21.78		1 U	8.2	93	5.9	69.0	18.93	0.59	6.25	2.59	1.79	67.01
10/25/1999	1409	10.0	12.67	29.02	21.83			8.1	92		69.3	15.08	1.83	6.92	2.99	1.87	65.61
11/22/1999	1359	0.5	10.37	27.42	20.98		5	7.5	80	4.6	66.6						
11/22/1999	1359	10.0	10.49	27.74	21.21			7.2	78		65.8						
12/21/1999	1352	0.5	9.17	24.81	19.13		1 U	8.6	88	4.0	61.6						
12/21/1999	1352	10.0	9.34	25.97	20.01			8.2	85		63.3						

## TOT002, Inner Totten Inlet

Lat (decimal): 47.122

Long (decimal): -123.020

*October 1998 - January 1999*

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3_NO2-N DISS (mg/L)	NH4_NH3-N DISS (mg/L)	ORTHO PO4-P DISS (mg/L)
10/28/1998	1439	0.5	13.34	29.10	21.77	7.7	1 U	7.5	87	3.8	61.0	5.80	1.30	0.142	0.065	0.077
10/28/1998	1439	6.0	13.34	29.11	21.77	7.7		7.5	86		59.7	6.50	1.40	0.144	0.068	0.077
11/30/1998	1336	0.5	9.46	24.01	18.46	7.6	2	7.5	77	3.6	64.2					
11/30/1998	1336	9.0	10.59	26.84	20.49	7.6		6.5	70		46.7					
1/19/1999	1359	0.5	8.17	22.53	17.48	7.5	8	8.9	88	1.3	32.9					
1/19/1999	1359	2.5	8.43	24.99	19.37	7.5		8.4	85		48.4					

## TOT002, Inner Totten Inlet

Lat (decimal): 47.122

Long (decimal): -123.020

*February 1999 - December 1999*

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3 DISS (uM)	NH4 DISS (uM)	ORTHO PO4 DISS (uM)	Si(OH)4 DISS (uM)
2/20/1999	1405	0.5	7.75	23.35	18.17	7.6		9.3	91	2.9	62.5			27.84	2.55	1.88	69.88
2/20/1999	1405	4.5	7.74	23.58	18.35	7.6		9.2	90		59.2						
3/15/1999	1029	0.5	8.36	23.31	18.06	7.5		9.6	96	3.0	60.5			23.81	2.60	1.94	100.51
3/15/1999	1029	4.5	8.18	24.34	18.89	7.5		9.1	91		36.8						
4/20/1999	1033	0.5	10.71	25.63	19.54	8.1	1 U	13.1	139	3.1	59.2	19.60	2.00	0.86	0.30	0.40	6.65
4/20/1999	1033	7.0	10.56	25.95	19.81	8.1		12.9	137		43.1	21.60	1.90	0.79	0.21	0.39	9.52
5/21/1999	1044	0.5	12.74	26.43	19.81	7.9		11.1	125	3.3	51.4	9.40	0.70	0.00	0.17	0.61	13.37
5/21/1999	1044	5.5	11.81	26.86	20.31	7.9		10.8	119		44.4	21.00	1.40	0.31	0.27	0.61	13.10
6/15/1999	1459	0.5	17.09	27.18	19.50	7.7	3	8.7	107	1.7	23.0	6.90	2.30	0.30	3.28	1.75	33.22
6/15/1999	1459	2.5	15.97	27.44	19.95	7.8		9.9	119		16.3	18.00	2.60	0.10	1.28	1.46	24.39
7/21/1999	1108	0.5	16.65	28.01	20.24	7.6	2	8.8	108	4.0	64.3	9.62	1.90	0.49	1.51	2.03	38.69
7/21/1999	1108	3.0	16.28	28.07	20.36	7.6		8.7	105		65.5	11.60	2.09	0.76	1.68	1.92	35.22
8/16/1999	1414	0.5	17.93	28.25	20.12	7.9	1 U	9.5	120	1.7	41.5	7.45	1.06	0.21	0.05	2.12	72.61
8/16/1999	1414	3.5	17.57	28.25	20.21	7.7		9.0	113		35.1	13.31	2.31	0.10	0.50	2.14	72.74
9/29/1999	1054	0.5	14.97	28.73	21.15	7.9	1	10.3	122	2.4	38.8	27.80	1.15	0.02	0.13	2.00	90.62
9/29/1999	1054	6.0	14.86	28.76	21.20	7.8		9.8	117		39.1	35.03	0.46	0.00	0.47	1.80	88.30
10/25/1999	1429	0.5	12.63	28.58	21.49		6	7.7	87	3.7	59.1	17.74	1.45	3.54	5.28	1.96	81.34
10/25/1999	1429	10.0	12.66	28.62	21.52			7.9	90		57.8	16.56	1.01	3.36	5.57	1.96	80.43
11/22/1999	1412	0.5	10.46	26.85	20.53		2	7.0	75	2.7	57.0						
11/22/1999	1412	7.5	10.70	27.60	21.07			6.7	72		39.0						

## WPA001, Willapa Bay - Willapa R., Raymond

Lat (decimal): 46.688

Long (decimal): -123.748

*October 1997 - September 1998*

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3_NO2-N DISS (mg/L)	NH4_NH3-N DISS (mg/L)	ORTHO PO4-P DISS (mg/L)
10/23/1997	1510	9.0	12.89	19.18	14.19			8.4	90		2.6			0.440	0.030	0.028
10/23/1997	1510	0.5	11.38	6.47	4.60		20	10.0	96	1.8	43.9			0.362	0.026	0.021
12/22/1997	1425	0.5	7.02	2.81	2.13	6.6	11	11.9	101	1.5	39.0					
12/22/1997	1425	6.5	8.37	17.14	13.25			8.9	85		26.8					
1/30/1998	1505	0.5	9.30	5.28	3.90			11.1	101	0.8	12.5			0.671	0.010 U	0.017
1/30/1998	1505	9.5	9.49	13.95	10.63			10.4	101		0.0			0.348	0.010 U	0.043
2/26/1998	1435	9.0	8.55	14.35	11.04			10.1	95		0.7			0.568	0.036	0.039
2/26/1998	1435	0.5	8.16	7.17	5.47		10	14.0	125	0.9	13.0			0.699	0.015	0.025
3/24/1998	1502	8.5	10.84	3.43	2.30			10.0	93		2.5			0.466	0.010	0.010 U
3/24/1998	1502	0.5	10.48	0.97	0.42		510	10.3	94	0.7	10.9			0.604	0.010 U	0.010 U
4/15/1998	1605	0.5	12.16	6.16	4.26		6	9.7	95	1.5	32.6			0.309	0.019	0.093
4/15/1998	1605	10.0	11.08	10.77	7.97			9.2	90		13.8			0.209	0.019	0.094
7/7/1998	1143	0.5	18.93	14.96	9.78	7.4	12	7.0	83	1.6	28.5			0.086	0.030	0.075
7/7/1998	1143	7.5	18.39	16.59	11.14	7.4		6.9	82		16.8			0.049	0.031	0.070
8/17/1998	1614	0.5	21.96	18.88	12.02	7.4	12	6.9	89	1.4	26.6			0.028	0.010 U	0.097
8/17/1998	1614	6.5	21.31	22.47	14.90	7.4		6.3	82		20.7			0.034	0.010 U	0.109
9/8/1998	1557	8.5	19.14	27.15	19.00	7.8		5.7	73		5.0			0.041	0.022	0.102
9/8/1998	1557	0.5	19.31	26.76	18.66	7.8	16	5.5	71	0.4	9.5			0.053	0.027	0.180

## WPA001, Willapa Bay - Willapa R., Raymond

Lat (decimal): 46.688

Long (decimal): -123.748

*October 1998 - January 1999*

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3_NO2-N DISS (mg/L)	NH4_NH3-N DISS (mg/L)	ORTHO PO4-P DISS (mg/L)
10/5/1998	1531	0.5	16.24	25.34	18.28	7.7	5	6.5	77	0.7	8.1			0.089	0.067	0.168
10/5/1998	1531	7.0	16.25	25.35	18.28	7.7		6.5	78		2.4			0.051	0.054	0.098
11/9/1998	1504	0.5	10.11	16.36	12.43	7.5	86	7.8	77	1.5	29.7					
11/9/1998	1504	7.0	10.31	20.60	15.69	7.5		7.5	77		12.4					
12/14/1998	1429	0.5	8.37	0.04	-0.14	7.9	35	10.3	88	0.4	0.1			1.080	0.019	0.010 U
12/14/1998	1429	5.5	8.35	0.03	-0.14	7.7		10.1	87		0.0					

## WPA001, Willapa Bay - Willapa R., Raymond

Lat (decimal): 46.688

Long (decimal): -123.748

*February 1999 - December 1999*

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3 DISS (uM)	NH4 DISS (uM)	ORTHO PO4 DISS (uM)	Si(OH)4 DISS (uM)
4/5/1999	1528	0.5	8.25	4.02	3.00	7.5	7	11.5	101	1.5	29.4			37.45	1.25	0.18	139.60
4/5/1999	1528	5.0	8.15	13.57	10.48	7.2		10.5	98		0.8			22.86	1.29	0.40	109.44
5/10/1999	1623	0.5	11.99	3.89	2.52	7.6	17	10.0	96	2.0	41.9			17.37	2.11	0.10	116.06
5/10/1999	1623	5.0	12.11	13.36	9.83	7.2		8.0	81		30.2			5.63	4.72	0.33	67.96
6/1/1999	1520	0.5	16.63	11.91	7.95	8.1	14	10.1	112	0.7	18.8			0.96	0.65	0.42	58.94
6/1/1999	1520	7.0	16.17	13.96	9.60	7.8		9.2	103		4.4			1.04	0.90	0.15	52.55
7/6/1999	1512	0.5	18.08	8.14	4.79	6.5	13	7.9	89	1.5	32.3			7.97	2.34	0.22	235.76
7/6/1999	1512	5.0	17.44	15.58	10.58	6.5		7.1	82		10.1			3.51	3.22	0.38	88.85
8/2/1999	1439	0.5	20.51	16.03	10.24	7.1	1	7.0	86		36.9			2.80	2.55	0.24	85.63
8/2/1999	1439	6.5	19.22	19.24	12.97	7.0		6.6	81		4.4			2.09	3.30	0.38	73.41
9/7/1999	1523	0.5	18.37	20.65	14.24	7.1	7	6.8	82	1.4	19.9			3.34	3.27	0.66	76.29
9/7/1999	1523	4.5	18.23	20.95	14.49	7.1		4.5	54		17.9			3.35	3.42	0.50	74.42
10/11/1999	1618	0.5	13.39	24.21	17.98	7.1	3	6.7	75	2.5	24.9			5.48	7.27	0.68	72.24
10/11/1999	1618	4.5	13.29	25.10	18.68	7.1		7.1	80		15.2			4.94	6.84	0.74	65.53
11/2/1999	1517	0.5	10.14	11.96	9.01		20	8.6	83	2.0	35.3			29.55	6.51	0.38	51.43
11/2/1999	1517	3.5	10.25	16.10	12.21			7.8	77		29.5			24.45	7.62	0.48	44.05

## WPA001, Willapa Bay - Willapa R., Raymond

Lat (decimal): 46.688

Long (decimal): -123.748

## January 2000 - December 2000

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3 DISS (uM)	NH4 DISS (uM)	ORTHO PO4 DISS (uM)	Si(OH)4 DISS (uM)
1/5/2000	1028	0.5	6.93	0.72	0.48		150	11.8	98	0.7	3.8			47.99	1.63	0.15	103.49
1/5/2000	1028	8.0	6.69	6.45	5.02			11.3	97		0.2			35.42	3.34	0.30	161.85
2/2/2000	1444	0.5	7.13	2.67	2.01		110	11.6	98	0.6	3.3			44.19	1.39	0.14	75.04
2/2/2000	1444	3.5	7.08	3.46	2.64			11.7	99		1.2			37.16	4.02	0.31	94.51
3/7/2000	1638	0.5	7.89	7.39	5.67	7.5	4	9.7	86	0.8	12.6						
3/7/2000	1638	6.0	8.10	12.09	9.33	7.7		10.3	95		1.3						
4/10/2000	1613	0.5	12.41	7.15	4.99	7.3	9	8.8	87	1.4	39.8			18.05	1.96	0.28	134.37
4/10/2000	1613	6.0	11.94	12.39	9.10	7.7		8.9	90		6.8			11.71	1.85	0.33	89.76
5/22/2000	1512	0.5	15.30	6.16	3.79	7.5	22	10.1	105	1.1	24.9			15.40	1.30	0.11	173.35
5/22/2000	1512	3.0	15.18	8.01	5.23	7.5		9.4	99		11.9			11.40	1.02	0.09	141.34
6/26/2000	1403	0.5	18.60	9.20	5.49	7.9		9.2	104	1.8	36.7			7.03	0.93	0.05	149.33
6/26/2000	1403	5.5	17.19	17.06	11.76	7.8		7.2	84		25.1			0.65	1.27	0.13	89.47
7/26/2000	1519	0.5	20.39	15.38	9.77	7.2	15	6.6	81	1.8	27.0			5.29	0.84	0.08	63.86
7/26/2000	1519	5.5	19.86	20.11	13.48	7.2		6.0	75		19.6			1.65	3.17	0.24	70.50
8/28/2000	1442	0.5	20.02	22.50	15.25	7.7		6.9	87	1.0	13.9			2.72	0.50	0.58	72.44
8/28/2000	1442	5.5	19.70	23.43	16.04	7.6		6.5	82		14.5			1.79	0.57	0.66	64.93
9/25/2000	1617	0.5	16.79	21.48	15.21	7.6	2	6.2	73	0.8	12.0			7.22	7.10	0.63	86.64
9/25/2000	1617	5.5	16.74	21.94	15.57	7.6		6.3	75		5.3			7.17	7.48	0.66	84.15
11/13/2000	1532	0.5	8.10	21.18	16.43	8.0	27	8.7	85	0.5	7.3			11.26	5.69	0.81	93.17
11/13/2000	1532	7.0	8.10	21.41	16.61	8.0		8.8	86		0.1			10.69	5.37	0.83	87.31
12/5/2000	1455	0.5	7.18	15.08	11.76	7.9	7	9.6	88	2.4	51.7			33.22	2.98	0.43	79.01
12/5/2000	1455	3.0	7.82	20.75	16.13	8.2		9.0	87		45.2			15.37	3.98	0.75	73.13

## WPA003, Willapa Bay - Willapa R., John. Slough

Lat (decimal): 46.705

Long (decimal): -123.837

## October 1997 - September 1998

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3_NO2-N DISS (mg/L)	NH4_NH3-N DISS (mg/L)	ORTHO PO4-P DISS (mg/L)
10/23/1997	1448	6.0	13.19	23.20	17.24			8.5	94		46.1	1.30	1.10	0.109	0.022	0.055
10/23/1997	1448	0.5	12.53	14.46	10.61		7	9.2	95	1.6	37.5	3.70	0.79	0.260	0.032	0.041
12/22/1997	1415	0.5	7.80	10.82	8.36	6.1	14	11.1	101	1.7	42.3					
12/22/1997	1415	6.5	8.64	21.60	16.70			6.7	67		18.9					
1/30/1998	1446	0.5	10.16	16.73	12.71			10.1	101	0.8	18.4	0.44	0.61	0.301	0.010 U	0.044
1/30/1998	1446	9.5	9.92	21.32	16.30			9.9	101		15.8	0.69	0.92	0.212	0.010 U	0.051
2/26/1998	1410	8.5	8.90	22.03	17.00			9.9	99		9.2	2.30	3.10	0.296	0.010 U	0.061
2/26/1998	1410	1.0	9.28	15.02	11.49		1 U	9.3	90	1.4	26.2	0.73	0.48	0.450	0.010 U	0.050
3/24/1998	1440	6.5	11.85	17.04	12.70			9.2	95		6.1			0.190	0.014	0.029
3/24/1998	1440	0.5	11.58	12.47	9.22		110	9.6	96	1.3	32.8			0.316	0.016	0.016
4/15/1998	1538	0.5	11.84	17.93	13.40		1 U	9.1	95	1.5	36.8	3.10	1.20	0.067	0.010 U	0.184
4/15/1998	1538	6.5	11.69	18.29	13.70			9.1	94		23.0	3.00	2.20	0.066	0.010 U	0.183
7/7/1998	1603	0.5	18.80	21.60	14.86	7.8	2	8.0	99	1.5	22.2	7.30	2.60	0.026	0.010 U	0.104
7/7/1998	1603	7.0	18.32	22.88	15.94	7.8		7.2	88		26.7	3.40	2.10	0.021	0.010 U	0.079
8/17/1998	1547	0.5	21.79	24.69	16.46	7.8	3	7.5	99	1.4	25.0	6.00	3.00	0.023	0.010 U	0.135
8/17/1998	1547	4.5	19.88	27.98	19.45	7.8		6.5	85		38.1	3.80	2.90	0.027	0.010 U	0.118
9/8/1998	1534	8.0	15.67	31.07	22.80	8.1		6.2	76		32.5	4.00	2.50	0.044	0.010 U	0.107
9/8/1998	1534	0.5	15.75	31.08	22.79	8.0	1	7.5	91	1.6	38.2	3.50	3.20	0.048	0.010 U	0.155

## WPA003, Willapa Bay - Willapa R., John. Slough

Lat (decimal): 46.705

Long (decimal): -123.837

## October 1998 - January 1999

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3_NO2-N DISS (mg/L)	NH4_NH3-N DISS (mg/L)	ORTHO PO4-P DISS (mg/L)
10/5/1998	1509	0.5	14.79	29.61	21.87	7.8	1	7.8	93	1.8	36.9	3.00	1.60	0.072	0.022	0.223
10/5/1998	1509	6.0	14.64	29.69	21.96	7.8		7.9	94		20.7	3.20	4.30	0.086	0.018	0.211
11/9/1998	1452	0.5	10.38	25.14	19.21	7.8	2	8.4	89	2.3	48.0					
11/9/1998	1452	5.0	10.49	25.46	19.44	7.8		8.3	88		42.6					
12/14/1998	1406	0.5	9.09	2.26	1.55	7.6	60	9.9	88	0.4	0.0			0.909	0.028	0.011 J
12/14/1998	1406	6.5	9.52	18.45	14.13	7.6		9.0	90		2.9			0.321	0.038	0.108 J

## WPA003, Willapa Bay - Willapa R., John. Slough

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## February 1999 - December 1999

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3 DISS (uM)	NH4 DISS (uM)	ORTHO PO4 DISS (uM)	Si(OH)4 DISS (uM)
4/5/1999	1501	0.5	8.22	18.53	14.34	7.6	1	10.9	105	2.2	45.4	2.60	0.78	22.02	0.95	0.33	100.61
4/5/1999	1501	4.0	8.32	22.83	17.70	7.6		10.4	103		29.1	5.20	3.20	8.89	0.56	0.48	56.42
5/10/1999	1600	0.5	12.84	10.50	7.52	7.6	4	8.9	90	1.7	36.4	1.60	1.40	15.49	3.77	0.25	102.61
5/10/1999	1600	4.5	11.87	17.37	12.96	7.4		8.3	86		26.6	4.60	1.50	1.50	2.68	0.30	61.70
6/1/1999	1457	0.5	14.77	21.96	15.99	7.7	1	8.8	100	1.2	20.2	6.20	2.10	1.03	0.44	0.48	67.65
6/1/1999	1457	5.5	14.31	22.69	16.64	7.7		8.7	99		3.6	6.30	4.10	1.23	0.49	0.52	64.66
7/6/1999	1448	0.5	18.00	15.90	10.71	6.8	2	7.6	89	1.4	25.2	9.17	2.22	3.31	1.31	0.30	98.80
7/6/1999	1448	3.0	17.41	21.36	14.99	7.0		7.4	89		27.4	3.87	3.60	0.64	0.71	0.46	61.82
8/2/1999	1418	0.5	18.57	24.68	17.25	7.3	2	7.3	91	1.8	37.9	7.55	2.42	0.79	0.83	0.56	55.48
8/2/1999	1418	4.0	17.56	25.64	18.22	7.3		7.2	88		23.4			0.79	1.25	0.65	52.58
9/7/1999	1459	0.5	17.73	26.63	18.93	7.5	1	7.3	91	1.9	32.0	4.44	3.14	0.93	1.10	0.79	38.48
9/7/1999	1459	6.0	16.15	28.69	20.87	7.5		7.4	90		38.8	4.15	3.11	1.12	1.26	0.85	34.59
10/11/1999	1558	0.5	12.29	28.32	21.36	7.4	1	7.5	84	2.5	41.6	5.66	2.95	4.94	3.98	1.04	53.39
10/11/1999	1558	5.5	12.22	28.65	21.62	7.4		7.6	85		41.2	4.44	2.31	5.09	3.43	1.02	51.04
11/2/1999	1454	0.5	10.01	19.02	14.51		9	8.3	84	1.9	32.2	1.97	1.45	16.57	7.21	0.69	49.59
11/2/1999	1454	3.0	10.19	21.48	16.39			8.4	86		36.9	2.26	2.30	12.18	6.98	0.83	86.09



## WPA003, Willapa Bay - Willapa R., John. Slough

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## January 2000 - December 2000

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3 DISS (uM)	NH4 DISS (uM)	ORTHO PO4 DISS (uM)	Si(OH)4 DISS (uM)
1/5/2000	1048	0.5	7.45	17.61	13.71		27	10.5	99	1.3	26.7	1.31	1.20	27.71	2.88	0.46	143.56
1/5/2000	1048	6.5	7.81	20.85	16.20			10.1	98		0.3	2.77	6.96	14.32	1.69	0.82	77.74
2/2/2000	1419	0.5	6.94	8.61	6.70		79	11.0	97	1.3	21.6	1.31	1.14	31.44	1.96	0.32	50.92
2/2/2000	1419	3.5	7.14	20.11	15.70			10.9	103		2.5	1.96	2.45	27.62	1.96	0.42	59.73
3/7/2000	1618	0.5	8.34	14.57	11.24	7.9	1 U	9.6	90	2.1	40.9						
3/7/2000	1618	6.0	8.55	23.48	18.18	8.1		9.7	97		23.8						
4/10/2000	1549	0.5	12.72	17.59	12.99	7.9	1 U	8.3	88	1.8	42.6	5.31	0.68	6.88	0.61	0.32	71.55
4/10/2000	1549	4.5	11.51	22.99	17.36	8.0		8.8	94		37.9	4.76	3.47	3.24	0.74	0.43	61.64
5/22/2000	1447	0.5	15.70	14.05	9.75	7.8	2	9.1	100	1.4	26.3	13.61	3.23	2.98	0.63	0.24	86.86
5/22/2000	1447	3.0	15.34	15.05	10.59	7.8		8.5	94		18.8	3.81	3.22	2.45	1.30	0.34	73.02
6/26/2000	1344	0.5	18.96	15.86	10.46	8.5	2	10.4	124	1.5	27.1	5.44	1.29	0.05	0.17	0.01	86.66
6/26/2000	1344	1.5	17.54	19.29	13.38	8.2		10.1	120		13.8	8.71	2.37	0.11	0.12	0.29	47.31
7/26/2000	1456	0.5	19.99	22.33	15.13	7.8	1	7.4	93	1.4	18.2	19.14	3.32	0.00	0.13	0.14	60.77
7/26/2000	1456	1.5	19.57	23.44	16.07	7.7		7.2	91		19.3	10.48	3.29	0.00	0.14	0.24	57.87
8/28/2000	1419	0.5	17.43	28.73	20.61	8.0	1 U	7.1	89	1.3	34.4	6.39	2.59	0.66	0.93	1.09	44.03
8/28/2000	1419	7.0	17.22	28.83	20.74	8.0		7.0	87		34.9	6.26	2.87	0.91	0.96	1.08	39.66
9/25/2000	1553	0.5	15.99	26.92	19.55	8.0	3	7.0	84	1.5	26.2	5.31	2.03	2.91	3.89	0.92	51.33
9/25/2000	1553	5.0	15.49	27.97	20.46	8.1		7.2	86		27.8	3.81	2.78	2.18	2.83	0.97	43.50
11/13/2000	1504	0.5	8.63	29.00	22.48	8.3	2	8.6	90	2.0	43.0	2.31	1.09	7.43	2.54	1.04	44.87
11/13/2000	1504	8.0	8.83	29.56	22.89	8.3		8.8	92		0.0	1.89	1.97	7.81	2.06	1.08	36.55
12/5/2000	1435	0.5	7.73	22.19	17.27	8.3	1	9.5	92	2.4	55.0	0.85	0.70	8.84	2.33	0.76	54.94
12/5/2000	1435	4.0	8.19	25.14	19.52	8.4		9.2	92		65.6	1.62	0.73	18.89	3.11	0.64	73.01

## WPA004, Willapa Bay - Toke Point

Lat (decimal): 46.687

Long (decimal): -123.972

## October 1997 - September 1998

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3_NO2-N DISS (mg/L)	NH4_NH3-N DISS (mg/L)	ORTHO PO4-P DISS (mg/L)
10/23/1997	1327	8.0	13.38	27.57	20.57			9.0	103		64.7					
10/23/1997	1327	0.5	13.08	24.09	17.95		1	9.0	100	3.3	57.6	1.90	0.86	0.073	0.021	0.052
11/25/1997	1247	0.5	10.35	22.83	17.42	6.0		9.7	101	2.2	55.6	0.94	0.49	0.221	0.010 U	0.064
11/25/1997	1247	10.0	10.69	25.85	19.72			9.6	102		55.7	1.40	0.83	0.124	0.010 U	0.070
12/22/1997	1232	0.5	7.55	16.94	13.18		5	10.6	99	2.6	53.5					
12/22/1997	1232	10.0	9.49	25.70	19.78			9.7	100		57.4					
1/30/1998	1221	8.0	10.41	24.65	18.82			9.6	101		24.8	0.62	0.82	0.150	0.010 U	0.054
1/30/1998	1221	1.0	10.43	24.67	18.84			9.6	101	1.4	30.1	0.62	0.72	0.077	0.010 U	0.038
3/24/1998	1247	10.0	11.97	21.17	15.88			9.3	99		37.9			0.107	0.010 U	0.034
3/24/1998	1247	0.5	12.07	20.74	15.53		2	8.0	85	1.5	30.7			0.094	0.010 U	0.036
4/15/1998	1327	0.5	11.58	22.55	17.01		1 U	9.4	100	2.5	43.6	5.00	2.10	0.026	0.010 U	0.179
4/15/1998	1327	6.0	11.55	22.55	17.02			9.4	100		43.7	5.10	0.90	0.032	0.010 U	0.182
8/17/1998	1346	0.5	17.62	30.38	21.83	8.0	1 U	8.8	112	2.6	50.6	5.40	3.00	0.022	0.010 U	0.159
8/17/1998	1346	7.5	16.84	30.49	22.09	8.0		9.1	114		43.6	11.50	5.70	0.038	0.010 U	0.156
9/8/1998	1336	10.0	12.41	31.93	24.13	8.1		8.6	99		40.1	11.70	4.50	0.097	0.010 U	0.144
9/8/1998	1336	0.5	13.02	31.55	23.72	8.1	1 U	7.8	90	1.9	41.5	12.20	3.20	0.071	0.010 U	0.159

## WPA004, Willapa Bay - Toke Point

Lat (decimal): 46.687

Long (decimal): -123.972

## October 1998 - January 1999

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3_NO2-N DISS (mg/L)	NH4_NH3-N DISS (mg/L)	ORTHO PO4-P DISS (mg/L)
10/5/1998	1218	0.5	13.49	28.56	21.31	8.0	1 U	9.2	106	3.5	57.7	10.00	3.60	0.032	0.010 U	0.093
10/5/1998	1218	8.0	13.48	28.56	21.32	8.0		9.1	105		46.3	6.90	2.20	0.056	0.010 U	0.209
11/9/1998	1239	0.5	10.95	27.06	20.61	7.9	3	8.5	92		65.5	3.10	0.94	0.035	0.010 U	0.030
11/9/1998	1239	6.0	11.08	27.22	20.71	7.9		8.5	92		59.0	3.00	1.60	0.034	0.010 U	0.027
12/14/1998	1214	0.5	9.09	13.01	9.94	7.8	17	9.6	91	0.7	11.8			0.610	0.027	0.051 J
12/14/1998	1214	10.0	9.98	24.64	18.88	7.8		9.0	94		25.4			0.237	0.020	0.177 J

## WPA004, Willapa Bay - Toke Point

Lat (decimal): 46.687

Long (decimal): -123.972

## February 1999 - December 1999

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3 DISS (uM)	NH4 DISS (uM)	ORTHO PO4 DISS (uM)	Si(OH)4 DISS (uM)
3/9/1999	1248	0.5	6.93	14.54	11.35	7.6	1 U	9.9	90	2.8	39.2	0.85	1.50	25.57	1.10	0.53	102.33
3/9/1999	1248	7.5	7.48	19.38	15.09	7.6		10.0	95		48.1						
4/5/1999	1232	0.5	8.07	21.61	16.77	7.6	1 U	10.7	104	2.6	48.5	1.80	0.59	15.18	0.59	0.36	89.91
4/5/1999	1232	8.0	8.37	26.11	20.25	7.6		10.3	104		42.8	5.90	1.60	6.85	0.21	0.61	37.94
5/10/1999	1351	0.5	11.79	18.52	13.86	7.9	1 U	9.7	101	2.8	54.5	3.00	0.82	0.60	0.53	0.21	61.36
5/10/1999	1351	8.0	11.85	18.96	14.19	7.9		9.7	102		52.9	3.70	1.00	0.34	0.34	0.20	56.09
6/1/1999	1213	0.5	13.00	26.70	19.97	7.7	1 U	9.3	105	2.1	43.4	6.20	1.60	3.75	0.38	0.76	53.44
6/1/1999	1213	7.0	12.94	26.78	20.05	7.7		9.2	104		25.6	6.20	2.30	4.44	0.61	0.80	50.33
7/6/1999	1217	0.5	17.36	23.16	16.37	7.1	1 U	7.9	96	1.7	40.0	5.00	2.26	0.06	0.05	0.44	52.33
7/6/1999	1217	4.0	17.29	23.71	16.81	7.2		7.9	96		40.9	4.44	2.10	0.00	0.04	0.45	48.89
8/2/1999	1219	0.5	16.09	28.37	20.63	7.4	1 U	7.8	95	2.3	47.2	4.91	2.26	0.50	0.70	0.75	46.63
8/2/1999	1219	7.0	15.81	28.66	20.92	7.4		7.6	92		38.9			0.88	1.08	0.84	44.70
9/7/1999	1213	0.5	11.92	31.62	23.98	7.6	1 U	9.1	103	3.8	52.3	23.66	4.64	3.59	0.85	0.57	19.05
9/7/1999	1213	7.5	11.79	31.65	24.03	7.6		8.9	101		50.4			4.09	0.29	0.58	18.93
10/11/1999	1531	0.5	11.61	29.85	22.66	7.6	1 U	8.6	96	4.7	65.8	15.67	1.57	5.36	0.26	0.72	36.16
10/11/1999	1531	9.0	11.34	30.25	23.02	7.6		8.7	97		64.1			5.99	0.27	0.74	35.13
11/2/1999	1241	0.5	10.22	26.82	20.54		1	8.4	89	2.7	51.2			9.44	4.59	1.01	61.78
11/2/1999	1241	10.0	10.37	28.47	21.80			9.3	100		36.6	2.55	2.02	7.85	2.81	0.99	43.04

## WPA004, Willapa Bay - Toke Point

Lat (decimal): 46.687

Long (decimal): -123.972

## January 2000 - December 2000

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3 DISS (uM)	NH4 DISS (uM)	ORTHO PO4 DISS (uM)	Si(OH)4 DISS (uM)
1/5/2000	1116	0.5	8.36	23.98	18.59		1	9.0	90	2.2	47.9	1.48	0.85	10.10	0.44	0.81	63.39
1/5/2000	1116	6.0	8.36	24.00	18.60			9.7	97		46.1	1.27	0.78	10.73	0.40	0.80	63.32
2/2/2000	1157	0.5	7.91	25.99	20.22		1	9.8	98	2.8	49.5	1.65	0.69	12.13	0.61	0.77	61.41
2/2/2000	1157	9.5	8.04	26.67	20.73			10.5	106		49.1	1.18	0.74	10.22	0.49	0.83	45.70
3/7/2000	1407	0.5	9.29	29.44	22.72	8.0	1 U	9.7	103	1.8	41.1	3.54	1.55	5.44	0.58	0.73	28.66
3/7/2000	1407	10.0	9.40	30.29	23.37	8.0		9.4	100		38.2	2.87	1.87	5.48	0.56	0.74	23.25
4/10/2000	1335	0.5	11.81	22.85	17.21	7.9	1 U	8.8	94	2.7	54.9	2.61	0.98	2.18	0.70	0.42	61.07
4/10/2000	1335	5.0	11.46	24.98	18.91	7.9		8.6	93		55.9	4.35	1.18	1.28	0.70	0.45	50.14
5/22/2000	1224	0.5	14.75	19.08	13.78	7.8	1	8.0	90	1.8	40.5	3.67	1.57	1.58	0.95	0.38	64.54
5/22/2000	1224	3.5	14.72	19.15	13.84	7.9		8.0	89		24.1	3.40	2.88	0.54	0.85	0.46	50.08
6/26/2000	1147	0.5	15.88	26.05	18.90	8.2	1 U	9.4	112	2.5	55.3	2.48	1.16	0.25	0.08	0.40	45.35
6/26/2000	1147	8.5	14.13	28.53	21.17	8.3		9.8	115		34.3	20.41	4.38	0.12	0.02	0.24	16.78
7/26/2000	1248	0.5	16.75	29.07	21.02	7.8	1 U	7.9	98	2.9	51.9	7.35	2.23	0.35	0.32	0.68	33.96
7/26/2000	1248	8.5	15.80	29.66	21.69	7.9		8.5	103		49.9	10.34	3.28	0.34	0.40	0.60	27.61
8/28/2000	1215	0.5	12.76	31.53	23.75	7.9	1	7.9	91	1.9	45.9	20.84	4.89	4.39	0.26	0.94	32.81
8/28/2000	1215	6.5	12.46	31.63	23.89	7.9		7.8	90		22.5	20.41	4.38	9.38	0.22	1.21	39.18
9/25/2000	1308	0.5	12.89	31.45	23.66	8.2	1 U	8.3	96	4.0	62.0	12.33	2.17	8.37	0.29	1.04	24.74
9/25/2000	1308	6.5	11.94	31.89	24.18	8.2		7.8	88		63.3	15.31	2.00	8.68	0.21	1.07	24.82
11/13/2000	1231	0.5	9.71	30.75	23.68	8.3	1 U	8.8	95	4.5	66.6	2.97	0.79	8.15	0.85	0.97	26.30
11/13/2000	1231	7.0	9.71	30.73	23.67	8.3		8.9	95		50.3	4.75	0.60	8.28	0.87	0.97	26.12
12/5/2000	1247	0.5	8.19	25.92	20.13	8.4	1 U	9.3	94	4.7	69.5	1.40	0.55	9.41	2.26	0.75	57.72
12/5/2000	1247	10.0	8.51	27.53	21.35	8.4		9.1	94		70.9	1.62	1.86	6.99	1.72	0.77	44.06

## WPA006, Willapa Bay - Nahcotta Channel

Lat (decimal): 46.545

Long (decimal): -123.978

*October 1997 - September 1998*

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3_NO2-N DISS (mg/L)	NH4_NH3-N DISS (mg/L)	ORTHO PO4-P DISS (mg/L)
11/25/1997	1324	9.0	10.37	24.37	18.61	6.0		9.6	101		40.2	2.30	3.60	0.094	0.010 U	0.072
11/25/1997	1324	0.5	10.25	23.77	18.17			9.6	100	1.5	35.8	1.60	2.00	0.091	0.010 U	0.071
12/22/1997	1305	1.0	7.59	21.45	16.70		1 U	10.2	99	2.0	48.6					
12/22/1997	1305	3.0	7.61	21.46	16.71			10.1	98		26.0					
1/30/1998	1258	0.5	9.83	21.08	16.13			9.9	101	1.8	38.6	0.83	0.53	0.176	0.010 U	0.051
1/30/1998	1258	7.5	9.95	22.43	17.17			9.8	101		19.9	1.30	2.00	0.163	0.010 U	0.050
2/26/1998	1230	6.5	9.11	24.10	18.58			8.9	90		50.3	1.20	0.47	0.247	0.010 U	0.066
2/26/1998	1230	0.5	9.07	23.74	18.31		1	8.9	90	2.4	52.1	1.70	0.89	0.258	0.010 U	0.064
3/24/1998	1317	9.5	11.98	21.53	16.16			9.5	101		28.2			0.077	0.010 U	0.033
3/24/1998	1317	0.5	11.98	21.53	16.16		1 U	9.5	102	1.7	33.9			0.080	0.010 U	0.032
4/15/1998	1359	0.5	11.91	22.05	16.57		1 U	8.9	95	3.0	47.9	2.00	0.82	0.044	0.010 U	0.214
4/15/1998	1359	10.0	11.78	22.17	16.68			9.0	96		52.7	1.90	0.83	0.043	0.010 U	0.260
8/17/1998	1425	0.5	18.71	29.45	20.86	7.9	1 U	7.7	99	3.1	56.4	4.50	2.50	0.028	0.010 U	0.168
8/17/1998	1425	10.0	18.35	29.60	21.06	7.9		7.6	97		57.4	4.70	4.10	0.030	0.010 U	0.171
9/8/1998	1407	10.0	15.94	30.87	22.59	8.1		8.4	103		47.5	7.10	3.00	0.037	0.010 U	0.106
9/8/1998	1407	0.5	16.04	30.83	22.53	8.1	1 U	8.0	98	2.4	51.5	7.90	2.10	0.046	0.010 U	0.129

## WPA006, Willapa Bay - Nahcotta Channel

Lat (decimal): 46.545

Long (decimal): -123.978

*October 1998 - January 1999*

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3_NO2-N DISS (mg/L)	NH4_NH3-N DISS (mg/L)	ORTHO PO4-P DISS (mg/L)
10/5/1998	1249	0.5	14.31	30.27	22.47	7.9	1 U	8.5	101	3.0	60.7	8.20	2.40	0.073	0.010 U	0.219
10/5/1998	1249	10.0	14.20	30.28	22.50	7.9		8.6	102		58.0	6.50	2.00	0.065	0.010 U	0.229
11/9/1998	1321	0.5	10.90	26.98	20.56	7.9	1 U	7.4	80	4.3	64.3	2.30	1.10	0.036	0.010 U	0.034
11/9/1998	1321	6.0	10.90	26.99	20.56	7.9		8.2	88		63.1	1.80	1.80	0.036	0.010 U	0.037
12/14/1998	1248	0.5	8.80	18.91	14.57	7.8	2	9.4	92	1.5	32.2					
12/14/1998	1248	10.0	8.85	19.59	15.10	7.8		9.4	92		11.2					

## WPA006, Willapa Bay - Nahcotta Channel

Lat (decimal): 46.545

Long (decimal): -123.978

February 1999 - December 1999

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3 DISS (uM)	NH4 DISS (uM)	ORTHO PO4 DISS (uM)	Si(OH)4 DISS (uM)
4/5/1999	1310	0.5	8.43	20.58	15.93	7.9	1 U	11.4	112	1.6	27.8	14.10	2.30	0.35	0.03	0.14	41.22
4/5/1999	1310	7.0	8.30	22.34	17.32	7.8		11.1	110		25.9	16.40	3.80	0.67	0.01	0.21	37.91
5/10/1999	1426	0.5	12.07	22.43	16.84	7.8	1 U	9.1	98	4.0	66.6	1.40	0.54	0.00	0.08	0.39	31.54
5/10/1999	1426	9.5	12.05	22.50	16.90	7.8		9.0	97		63.6	2.10	0.92	0.00	0.06	0.39	28.99
6/1/1999	1309	0.5	14.23	24.23	17.84	7.8	1 U	9.3	106	2.5	51.0	4.40	1.30	1.22	0.12	0.66	52.34
6/1/1999	1309	5.0	13.78	25.35	18.78	7.8		8.8	100		38.1	6.70	2.50	1.89	0.12	0.67	50.25
7/6/1999	1257	0.5	17.27	22.84	16.15	7.1	1 U	7.9	95	2.4	55.4	3.21	1.77	0.00	0.06	0.74	57.69
7/6/1999	1257	8.0	17.25	22.87	16.18	7.1		7.8	94		53.3	3.11	2.18	0.05	0.07	0.72	55.25
8/2/1999	1253	0.5	17.94	26.20	18.56	7.5	1 U	7.7	96	2.8	54.2	6.04	2.16	0.30	0.26	0.96	43.21
8/2/1999	1253	6.0	17.26	27.34	19.58	7.5		8.2	101		61.0			0.05	0.38	0.92	40.43
9/7/1999	1245	0.5	15.59	29.46	21.58	7.6	1 U	8.5	103	4.0	60.2	12.72	0.30	0.75	0.19	0.78	28.69
9/7/1999	1245	10.0	15.30	29.66	21.80	7.6		8.5	103		53.6	12.42	3.84	0.76	0.22	0.74	26.72
10/11/1999	1442	0.5	12.37	29.57	22.31	7.6	1 U	9.5	108	4.7	65.0	20.11	2.99	2.73	0.21	0.79	38.05
10/11/1999	1442	10.0	12.54	29.66	22.34	7.6		9.0	102		60.7	14.49	3.40	2.97	0.50	0.87	38.13
11/2/1999	1220	0.5	10.48	28.32	21.67		1 U	7.7	83	2.9	50.5	3.02	2.27	6.35	3.76	1.21	44.72
11/2/1999	1220	6.5	10.48	28.32	21.67			8.3	90		49.2	3.21	2.40	6.30	3.76	1.22	45.20

## WPA006, Willapa Bay - Nahcotta Channel

Lat (decimal): 46.545

Long (decimal): -123.978

January 2000 - December 2000

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3 DISS (uM)	NH4 DISS (uM)	ORTHO PO4 DISS (uM)	Si(OH)4 DISS (uM)
1/5/2000	1150	0.5	7.82	22.41	17.43		1 U	10.0	98	1.7	32.3	1.52	1.17	12.27	1.36	0.90	68.63
1/5/2000	1150	8.5	7.87	22.98	17.87			10.0	98		27.8	1.61	1.32	12.29	1.35	0.90	68.08
2/2/2000	1237	0.5	6.84	23.33	18.26		1 U	9.7	93	2.5	47.3	2.13	0.93	10.73	0.51	0.77	62.04
2/2/2000	1237	8.0	6.92	23.56	18.44			10.0	96		23.1	2.87	2.73	10.87	0.51	0.78	59.49
3/7/2000	1447	0.5	8.60	25.82	19.99	8.0	1 U	9.8	100	3.0	57.2	4.76	1.37	3.48	0.22	0.50	37.94
3/7/2000	1447	7.0	8.79	27.02	20.90	8.1		9.6	98		47.7	5.03	2.00	4.37	0.37	0.58	34.11
4/10/2000	1412	0.5	11.98	22.78	17.13	7.9	1 U	8.4	90	3.5	61.5	3.09	1.12	0.26	0.15	0.44	39.94
4/10/2000	1412	10.0	11.94	24.28	18.29	8.0		8.5	92		61.0	4.90	1.54	0.14	0.12	0.44	34.38
5/22/2000	1304	0.5	15.44	20.40	14.66	7.9	1	8.3	95	3.2	58.3	2.48	1.21	0.07	0.25	0.58	45.18
5/22/2000	1304	7.0	15.16	20.90	15.10	8.0		8.4	95		58.6	3.18	1.61	0.03	0.16	0.54	42.67
6/26/2000	1219	0.5	16.85	23.46	16.72	8.2	2	8.4	101	3.0	59.9	2.48	1.06	0.09	0.06	0.48	28.14
6/26/2000	1219	10.0	15.81	25.16	18.24	8.2		8.6	102		53.9						
7/26/2000	1321	0.5	17.91	28.15	20.05	7.8	1 U	7.6	95	4.0	61.4	5.17	2.46	0.12	0.23	0.82	26.62
7/26/2000	1321	4.5	17.87	28.19	20.10	7.8		7.5	94		60.3	6.26	4.67	0.00	0.21	0.80	26.19
8/28/2000	1253	0.5	17.95	29.18	20.84	8.0	1 U	7.4	94	2.7	46.5	12.76	4.08	0.41	0.61	0.95	22.49
8/28/2000	1253	10.0	17.51	29.31	21.04	8.0		7.4	93		42.4	14.03	5.61	0.31	0.51	0.89	24.27
9/25/2000	1354	0.5	15.67	29.64	21.70	8.2	1 U	7.6	92	3.9	60.4	7.48	1.80	1.37	0.75	0.97	24.64
9/25/2000	1354	8.5	15.00	29.97	22.10	8.2		7.7	92		53.9	8.98	2.99	1.77	1.25	0.94	24.10
11/13/2000	1308	0.5	8.79	29.35	22.73	8.3	1 U	8.8	92	3.0	60.4	2.06	1.39	6.92	1.71	1.07	35.27
11/13/2000	1308	2.0	8.79	29.34	22.72	8.3		8.8	92		59.6	2.10	1.68	7.05	1.69	1.07	35.00
12/5/2000	1317	0.5	7.59	25.49	19.87	8.3	1	9.4	93	4.3	66.2	1.95	0.78	5.05	1.62	0.86	48.76
12/5/2000	1317	10.0	7.61	25.74	20.06	8.3		9.3	93		66.1	1.89	1.05	4.92	1.55	0.85	48.06

## WPA007, Willapa Bay - Long Isl., S. Jenson Point

Lat (decimal): 46.453

Long (decimal): -124.008

October 1997 - September 1998

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3_NO2-N DISS (mg/L)	NH4_NH3-N DISS (mg/L)	ORTHO PO4-P DISS (mg/L)
10/23/1997	1357	8.0	13.03	21.02	15.59			9.1	99		39.6	2.30	1.40	0.089	0.019	0.049
10/23/1997	1357	0.5	12.99	20.39	15.11		1 U	9.3	101	2.0	37.5	2.40	1.20	0.114	0.021	0.056
11/25/1997	1348	1.0	9.76	21.42	16.40			9.8	100	1.4	30.9	0.79 J	0.77 J	0.111 J	0.010 U	0.074
11/25/1997	1348	10.0	9.98	22.36	17.11			9.7	99		27.6	1.10 J	2.00 J	0.094 J	0.010 U	0.071
12/22/1997	1325	0.5	6.77	19.66	15.38	5.9	1 U	10.7	101	1.9	48.0					
12/22/1997	1325	10.0	7.07	20.62	16.10			10.2	97		43.1					
1/30/1998	1319	0.5	9.39	18.68	14.32			10.2	101	0.8	10.6	1.20	1.90	0.199	0.010 U	0.050
1/30/1998	1319	10.0	9.38	18.84	14.45			10.1	101		8.1	1.20	1.70	0.166	0.010 U	0.046
2/26/1998	1259	10.0	8.59	20.95	16.19			11.6	114		37.3	1.90	1.50	0.272	0.010 U	0.059
2/26/1998	1259	0.5	8.57	20.63	15.94		1 U			2.1	40.4	1.70	0.92	0.278	0.010 U	0.062
3/24/1998	1341	8.5	12.09	20.74	15.53			9.3	99		24.6			0.079	0.010 U	0.036
3/24/1998	1341	0.5	12.08	20.48	15.33		1 U	9.3	99	1.6	32.4			0.073	0.010 U	0.037
4/15/1998	1428	0.5	11.89	21.66	16.27		1 U	8.9	95	3.0	55.4	1.50	0.98	0.040	0.010 U	0.254
4/15/1998	1428	9.5	11.92	21.59	16.21			9.0	96		53.0	1.50	0.84	0.033	0.010 U	0.194
7/7/1998	1510	0.5	17.74	25.48	18.06	7.9	1 U	7.8	97	3.2	52.0	2.30	0.91	0.025	0.010 U	0.104
7/7/1998	1510	10.0	17.54	25.54	18.15	7.9		7.6	94		52.4	2.10	1.20	0.014	0.010 U	0.113
8/17/1998	1449	0.5	20.55	28.22	19.46	7.8	1 U	7.2	95	2.5	48.8	2.40	1.30	0.013	0.010 U	0.154
8/17/1998	1449	7.5	20.39	28.26	19.53	7.8		7.1	94		47.8	2.70	2.30	0.016	0.010 U	0.165
9/8/1998	1432	10.0	17.98	29.83	21.33	8.1		6.6	84		31.7	2.30	3.20	0.032	0.010 U	0.148
9/8/1998	1432	0.5	17.96	29.85	21.34	8.0	1 U	6.6	83	1.9	38.3	2.20	3.00	0.041	0.010 U	0.172



## WPA007, Willapa Bay - Long Isl., S. Jenson Point

Lat (decimal): 46.453

Long (decimal): -124.008

*October 1998 - January 1999*

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3_NO2-N DISS (mg/L)	NH4_NH3-N DISS (mg/L)	ORTHO PO4-P DISS (mg/L)
10/5/1998	1320	0.5	15.35	30.14	22.16	7.8	1 U	7.8	95	2.6	53.0	2.70	2.00	0.070	0.016	0.229
10/5/1998	1320	10.0	15.31	30.14	22.16	7.9		7.8	94		50.2	2.80	1.70	0.036	0.016	0.184
11/9/1998	1352	0.5	10.35	26.10	19.96	7.8	1 U	8.6	91	2.8	55.2	1.30	1.20	0.034	0.010 U	0.047
11/9/1998	1352	10.0	10.36	26.11	19.97	7.8		8.5	90		54.5			0.032	0.010 U	0.040
12/14/1998	1305	0.5	8.62	17.85	13.77	7.8	1 U	9.4	91	1.2	16.0			0.222	0.049	0.073 J
12/14/1998	1305	7.5	8.64	18.55	14.32	7.8		9.3	91		1.7			0.177	0.052	0.118 J

## WPA007, Willapa Bay - Long Isl., S. Jenson Point

Lat (decimal): 46.453

Long (decimal): -124.008

*February 1999 - December 1999*

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3 DISS (uM)	NH4 DISS (uM)	ORTHO PO4 DISS (uM)	Si(OH)4 DISS (uM)
4/5/1999	1351	0.5	8.10	19.52	15.14	7.9	1 U	11.0	106	0.8	9.7	13.80	2.50	0.20	0.09	0.11	44.19
4/5/1999	1351	10.0	7.99	19.53	15.15	7.9		11.0	106		8.7	14.70	2.80	0.15	0.04	0.11	44.01
5/10/1999	1503	0.5	12.51	21.82	16.29	7.8	1 U	9.3	101	3.4	58.7	1.40	0.69	0.00	0.08	0.47	39.80
5/10/1999	1503	10.0	12.35	22.02	16.47	7.8		9.3	100		59.0	1.40	0.83	0.00	0.05	0.48	37.89
6/1/1999	1346	0.5	15.10	21.68	15.71	7.8	1	9.1	104	1.7	44.5	3.30	1.70	0.10	0.00	0.66	57.38
6/1/1999	1346	4.0	15.11	21.68	15.71	7.8		9.1	104		44.9	3.50	2.00	0.00	0.00	0.65	56.99
7/6/1999	1334	0.5	17.96	21.78	15.18	7.2	1	7.9	96	1.9	43.5	2.36	1.59	0.00	0.04	0.83	59.16
7/6/1999	1334	5.0	17.92	21.87	15.27	7.2		7.9	96		41.0	2.45	1.70	0.00	0.06	0.83	57.99
8/2/1999	1325	0.5	18.31	25.71	18.10	7.5	1	7.5	94	2.8	55.5	2.83	1.84	0.08	0.25	1.08	37.88
8/2/1999	1325	10.0	18.07	25.75	18.19	7.5		7.5	93		50.4	2.74	2.04	0.01	0.32	1.09	38.40
9/7/1999	1349	0.5	17.64	27.89	19.92	7.6	1 U	7.8	97	3.6	54.6	3.68	1.30	0.50	0.65	1.20	39.94
9/7/1999	1349	10.0	17.28	28.11	20.17	7.6		7.7	96		58.9	3.02	1.96	0.52	0.67	1.15	37.06
10/11/1999	1339	0.5	13.01	30.00	22.52	7.4	1 U	8.3	96	2.3	50.7	3.77	2.25	1.86	1.74	1.27	41.96
10/11/1999	1339	10.0	13.02	30.00	22.52	7.4		8.3	95		48.1	4.53	2.43	1.81	1.76	1.27	38.79
11/2/1999	1357	0.5	10.47	28.12	21.51		1	8.1	87	2.0	43.0	1.58	1.41	3.67	3.57	1.30	49.09
11/2/1999	1357	5.5	10.49	28.12	21.51			8.8	94		37.5	1.66	1.60	3.61	3.61	1.29	48.56

## WPA007, Willapa Bay - Long Isl., S. Jenson Point

Lat (decimal): 46.453

Long (decimal): -124.008

## January 2000 - December 2000

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3 DISS (uM)	NH4 DISS (uM)	ORTHO PO4 DISS (uM)	Si(OH)4 DISS (uM)
1/5/2000	1253	0.5	7.53	20.85	16.24		1	10.6	102	1.4	27.4	1.69	0.96	14.02	2.13	0.94	78.04
1/5/2000	1253	10.0	7.57	21.39	16.66			10.5	101		26.0	1.69	1.84	13.33	1.77	0.93	73.38
2/2/2000	1321	0.5	6.67	21.12	16.54		1 U	10.3	97	1.5	37.2	2.74	1.18	10.76	0.66	0.76	69.55
2/2/2000	1321	7.0	6.57	22.10	17.32			10.1	96		23.0	2.87	1.58	10.71	0.67	0.76	67.25
3/7/2000	1539	0.5	8.19	22.12	17.16	8.0	1 U	9.5	93	3.0	58.8						
3/7/2000	1539	9.5	8.17	22.41	17.38	8.1		10.2	101		52.0						
4/10/2000	1452	0.5	12.71	22.12	16.49	8.0	1 U	8.3	90	2.9	59.5	2.09	0.78	0.20	0.14	0.51	40.79
4/10/2000	1452	10.0	12.14	22.25	16.68	8.0		8.7	93		60.4	2.53	0.92	0.08	0.11	0.51	40.42
5/22/2000	1345	0.5	15.37	20.57	14.81	8.0	1 U	8.5	97	2.4	59.4	2.13	1.08	0.02	0.20	0.64	46.64
5/22/2000	1345	9.5	15.36	20.57	14.81	8.0		8.6	98		58.4	1.96	1.15	0.00	0.15	0.65	45.42
6/26/2000	1255	0.5	18.25	20.16	13.89	8.3	1 U	8.6	104	3.0	51.6	2.00	0.92	0.05	0.07	0.59	25.91
6/26/2000	1255	9.0	17.34	20.87	14.63	8.2		8.3	99		45.0	2.53	1.78	0.04	0.14	0.59	28.29
7/26/2000	1402	0.5	19.10	26.55	18.55	7.9	1 U	7.5	96	2.9	53.1	3.54	1.55	0.06	0.28	1.03	26.46
7/26/2000	1402	9.5	18.82	26.76	18.78	7.8		7.2	91		49.3	2.83	2.49	0.06	0.35	1.02	27.39
8/28/2000	1326	0.5	18.82	28.64	20.21	8.0	2	6.4	82	2.3	30.3	3.40	2.29	0.27	0.46	1.32	23.80
8/28/2000	1326	9.5	18.80	28.64	20.22	8.0		6.6	84		30.4	3.95	2.79	0.28	0.45	1.32	23.32
9/25/2000	1442	0.5	16.97	29.06	20.97	8.1	1 U	6.7	84	3.8	61.9	3.27	1.24	0.97	0.98	1.31	31.76
9/25/2000	1442	9.5	16.92	29.04	20.96	8.1		7.1	88		44.5	3.40	2.59	0.89	1.30	1.31	30.16
11/13/2000	1359	0.5	8.97	27.26	21.07	8.3	2	8.9	93		55.6	2.34	1.40	4.94	1.81	1.11	45.70
11/13/2000	1359	7.5	9.03	27.56	21.30	8.3		8.9	92		52.1	2.17	2.01	5.49	1.86	1.10	43.21
12/5/2000	1351	0.5	7.33	24.71	19.29	8.4	1 U	9.9	97	3.1	60.1	0.05	2.84	3.28	1.47	0.90	52.11
12/5/2000	1351	5.0	7.32	24.80	19.36	8.3		9.8	96		59.5	1.29	0.97	3.36	1.51	0.90	52.02

## WPA008, Willapa Bay - Naselle River

Lat (decimal): 46.464

Long (decimal): -123.939

October 1997 - September 1998

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3_NO2-N DISS (mg/L)	NH4_NH3-N DISS (mg/L)	ORTHO PO4-P DISS (mg/L)
10/23/1997	1438	10.0	12.85	17.71	13.07			9.0	95		25.1	1.80	1.30	0.165	0.029	0.058
10/23/1997	1438	0.5	12.80	15.05	11.03		1 U	9.4	98	1.4	27.4	2.60	1.00	0.193	0.027	0.054
11/25/1997	1414	0.5	9.84	17.39	13.26			10.0	99	1.2	24.7	0.84 J	0.90 J	0.182 J	0.010 U	0.062
11/25/1997	1414	10.0	9.89	18.36	14.01			9.9	99		25.4	1.00 J	0.95 J	0.164 J	0.010 U	0.069
12/22/1997	1343	0.5	6.78	11.99	9.36		5	10.9	97	1.0	17.0					
12/22/1997	1343	7.0	7.10	17.13	13.37			10.4	97		16.5					
1/30/1998	1402	0.5	9.41	17.39	13.31			10.2	101	0.8	10.5	0.98	1.60	0.218	0.010 U	0.047
1/30/1998	1402	10.0	9.45	18.13	13.89			10.2	101		4.7	1.40	3.10	0.201	0.010 U	0.049
2/26/1998	1338	10.0	8.56	20.75	16.04			10.4	102		37.7	1.80	0.98	0.282	0.010 U	0.063
2/26/1998	1338	0.5	8.55	18.97	14.65		1 U	10.4	101	1.5	26.7	1.80	1.20	0.294	0.010 U	0.058
3/24/1998	1402	10.0	12.06	17.26	12.85			9.6	100		36.5			0.101	0.010 U	0.033
3/24/1998	1402	0.5	11.90	15.22	11.29		3	9.7	100	1.8	42.2			0.119	0.010 U	0.024
4/15/1998	1455	0.5	11.95	18.32	13.68		1 U	9.1	95	2.5	50.3	1.90	0.90	0.040	0.010 U	0.124
4/15/1998	1455	10.0	12.03	18.92	14.14			9.0	95		48.4	2.00	1.00	0.030	0.010 U	0.168
7/7/1998	1535	0.5	18.03	23.41	16.41	7.8	4	7.4	91	1.7	37.0	2.90	2.30	0.014	0.010 U	0.079
7/7/1998	1535	10.0	18.02	23.46	16.46	7.8		7.4	91		29.2					
8/17/1998	1514	0.5	21.45	25.42	17.10	7.7	2	6.9	92	1.9	36.5	3.40	2.50	0.014	0.010 U	0.135
8/17/1998	1514	10.0	21.16	25.96	17.58	7.7		6.6	87		40.2	3.40	2.40	0.012	0.010 U	0.107
9/8/1998	1455	10.0	18.05	29.75	21.24	8.0		6.7	85		25.8	2.80	2.90	0.042	0.010 U	0.187
9/8/1998	1455	0.5	18.04	29.75	21.25	8.0	1 U	6.6	84	1.9	31.2	2.80	2.50	0.031	0.010 U	0.123

## WPA008, Willapa Bay - Naselle River

Lat (decimal): 46.464

Long (decimal): -123.939

*October 1998 - January 1999*

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3_NO2-N DISS (mg/L)	NH4_NH3-N DISS (mg/L)	ORTHO PO4-P DISS (mg/L)
10/5/1998	1438	0.5	15.64	29.89	21.90	7.9	1 U	7.8	95	2.4	50.9	2.50	1.60	0.067	0.010 U	0.230
10/5/1998	1438	10.0	15.41	30.11	22.12	7.9		7.7	93		49.0	3.00	1.70	0.041	0.018	0.199
11/9/1998	1421	0.5	9.94	23.47	17.98	7.8	4	8.6	89	1.7	41.6	1.40	1.50	0.053	0.010 U	0.043
11/9/1998	1421	7.0	9.99	23.74	18.17	7.8		8.6	89		39.0	1.60	1.60	0.050	0.010 U	0.041
12/14/1998	1332	0.5	8.80	9.59	7.31	7.6	20	9.9	91	0.6	2.7			0.401	0.028	0.041 J
12/14/1998	1332	7.5	8.83	13.98	10.73	7.7		9.4	90		0.7			0.287	0.037	0.082 J

## WPA008, Willapa Bay - Naselle River

Lat (decimal): 46.464

Long (decimal): -123.939

*February 1999 - December 1999*

DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3 DISS (uM)	NH4 DISS (uM)	ORTHO PO4 DISS (uM)	Si(OH)4 DISS (uM)
4/5/1999	1426	0.5	8.76	13.89	10.67	8.0	1 U	12.3	117	1.2	20.1	19.80	1.20	0.50	0.12	0.02	56.27
4/5/1999	1426	4.0	8.66	14.12	10.86	8.0		12.4	117		19.8	22.40	4.20	0.26	0.06	0.05	49.85
5/10/1999	1528	0.5	12.49	16.16	11.93	7.8	1	9.8	102	2.3	47.4	3.10	0.72	1.14	0.31	0.17	56.98
5/10/1999	1528	3.0	12.31	17.83	13.24	7.7		9.5	100		44.6	4.10	1.40	0.03	0.15	0.24	48.88
6/1/1999	1421	0.5	15.81	17.77	12.58	7.7	3	8.9	101	1.7	27.6	4.20	1.30	0.00	0.06	0.53	61.84
6/1/1999	1421	10.0	15.73	18.66	13.27	7.7		9.0	102		30.4	4.40	1.80	0.00	0.00	0.56	60.32
7/6/1999	1359	0.5	18.14	15.87	10.65	6.8	4	7.9	93	1.3	23.6	7.08	2.58	0.56	0.18	0.38	75.61
7/6/1999	1359	10.0	18.05	18.07	12.34	6.9		7.8	92		34.0	4.06	2.69	0.00	0.14	0.55	63.89
8/2/1999	1348	0.5	19.12	22.87	15.75	7.3	2	7.1	89	1.5	31.5	5.00	2.78	0.05	0.28	0.84	44.30
8/2/1999	1348	10.0	19.07	23.02	15.88	7.3		7.1	89		32.9	4.91	3.29	0.05	0.27	0.82	44.10
9/7/1999	1413	0.5	17.84	27.30	19.42	7.5	1	7.4	92	2.3	45.9	3.49	1.91	0.53	0.50	1.14	40.18
9/7/1999	1413	7.5	17.23	28.11	20.19	7.5		7.6	94		55.2	4.15	2.18	0.66	0.61	1.14	37.80
10/11/1999	1413	0.5	13.01	29.55	22.17	7.4	1	8.2	94	2.1	35.0	3.96	4.65	1.44	1.89	1.27	
10/11/1999	1413	10.0	13.00	29.53	22.16	7.4		8.2	95		29.0	3.11	2.39	1.33	1.83	1.22	
11/2/1999	1422	0.5	10.25	22.58	17.24		9	8.1	84	1.8	35.6	1.58	1.56	8.26	4.28	0.99	68.51
11/2/1999	1422	5.0	10.24	23.56	18.00			9.0	94		29.5	1.79	2.77	7.46	4.33	1.07	62.96

## WPA008, Willapa Bay - Naselle River

Lat (decimal): 46.464

Long (decimal): -123.939

*January 2000 - December 2000*

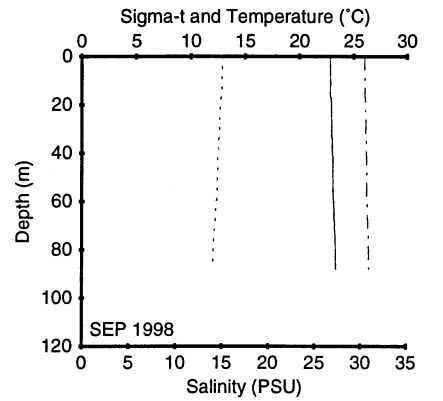
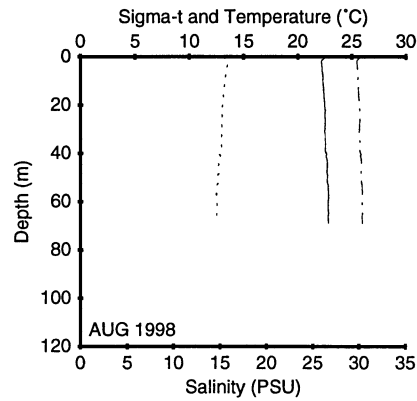
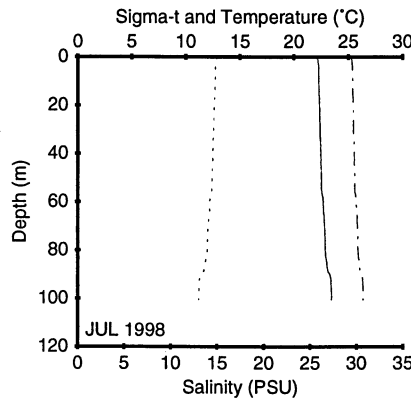
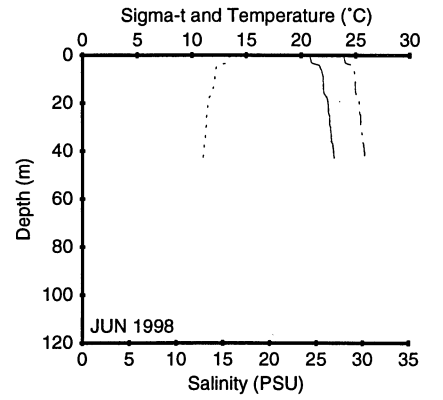
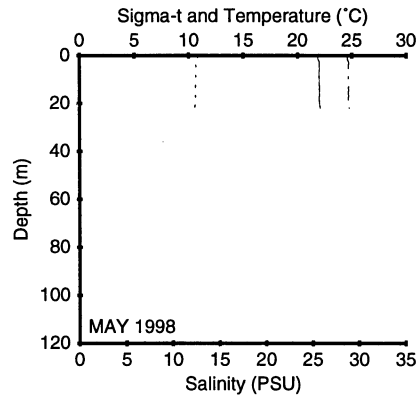
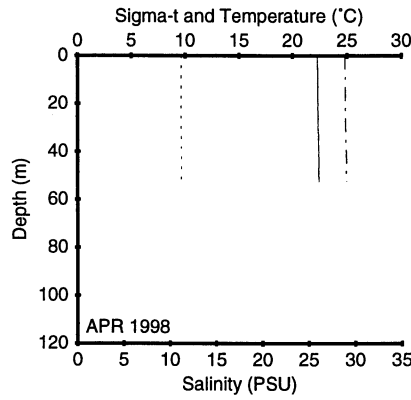
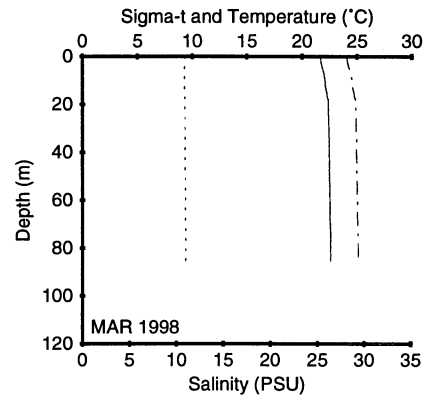
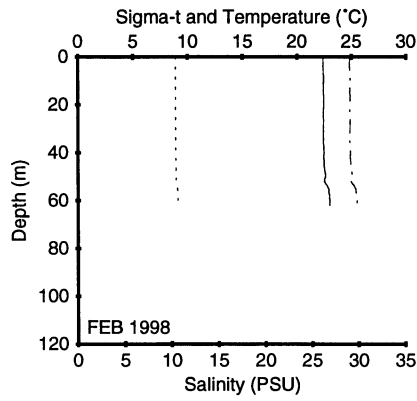
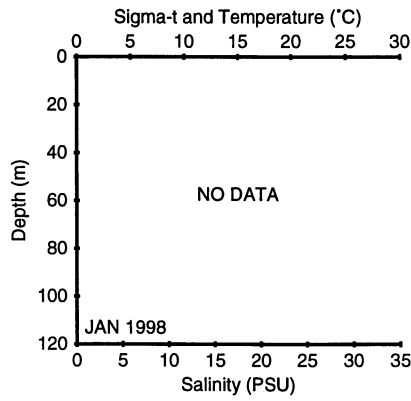
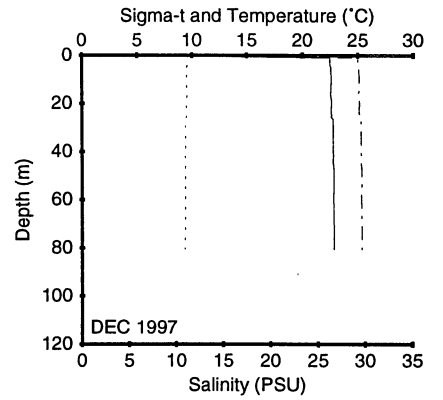
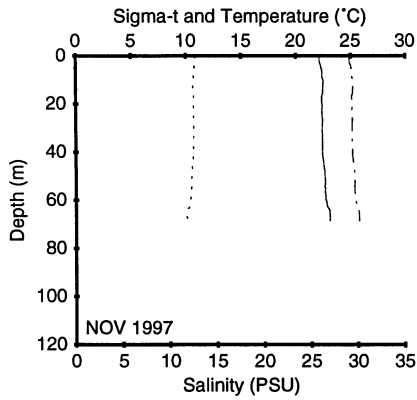
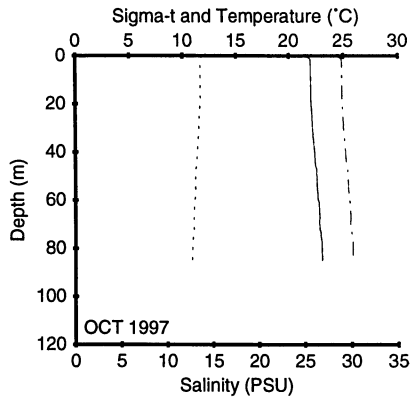
DATE (YY/MM/DD)	START TIME (LOCAL)	WATER DEPTH (m)	TEMP (deg C)	SALINITY (PSU)	DENSITY (sigma-t)	pH	FEC COLI MF (#/100mL)	DO (mg/L)	DO SATUR (%)	SECCHI (m)	LIGHT TRANS (%)	CHLRPHL a (ug/L)	PHEOPIG (ug/L)	NO3 DISS (uM)	NH4 DISS (uM)	ORTHO PO4 DISS (uM)	Si(OH)4 DISS (uM)
1/5/2000	1228	0.5	7.31	19.10	14.89		15	10.7	101	1.1	14.4	1.99	1.17	16.64	2.22	0.74	89.12
1/5/2000	1228	3.5	7.32	19.25	15.01			10.7	101		9.6	1.82	2.88	14.33	2.14	0.90	81.89
2/2/2000	1348	0.5	6.88	12.52	9.77		21	11.2	101	1.1	19.1	2.13	1.79	15.50	0.92	0.52	66.80
2/2/2000	1348	2.0	6.64	18.20	14.25			11.2	104		6.3	2.70	1.71	12.56	0.89	0.65	76.48
3/7/2000	1555	0.5	8.15	19.22	14.89	8.0	1 U	10.6	102	2.3	50.4						
3/7/2000	1555	6.5	8.08	21.21	16.46	8.1		10.4	102		38.2						
4/10/2000	1516	0.5	12.86	17.59	12.97	7.9	1 U	8.3	88	2.4	52.9	3.48	1.26	0.92	0.22	0.34	56.22
4/10/2000	1516	10.0	12.47	19.28	14.34	7.9		8.6	91		47.4	3.81	1.28	0.69	0.20	0.35	51.67
5/22/2000	1409	0.5	15.76	16.03	11.26	7.7	1	8.2	91	1.6	39.5	3.13	2.09	0.20	0.54	0.48	57.70
5/22/2000	1409	6.0	15.56	16.85	11.92	7.7		8.1	91		43.7	3.40	1.99	0.67	0.44	0.52	53.28
6/26/2000	1315	0.5	19.12	14.24	9.20	8.1	2	8.7	103	1.0	27.9	4.76	1.97	0.08	0.16	0.39	38.37
6/26/2000	1315	8.5	18.60	15.47	10.25	8.1		8.6	102		28.4	4.49	2.24	0.20	0.21	0.40	39.72
7/26/2000	1426	0.5	20.08	23.17	15.74	7.5	1	6.7	85	1.9	38.5	0.95	7.88	0.30	0.38	0.81	41.22
7/26/2000	1426	10.0	19.93	23.30	15.88	7.5		6.7	85		35.5	3.67	2.61	0.25	0.54	0.88	39.96
8/28/2000	1348	0.5	19.06	28.71	20.21	7.9	1 U	6.6	85	1.7	35.9	4.08	2.80	0.20	0.35	1.35	34.93
8/28/2000	1348	4.5	19.02	28.70	20.21	7.9		6.8	87		15.6	5.03	5.14	0.07	0.35	1.35	36.70
9/25/2000	1516	0.5	17.14	28.54	20.53	8.0	1 U	7.0	87	1.9	40.6	2.70	1.95	0.69	0.86	1.33	36.30
9/25/2000	1516	4.0	17.13	28.54	20.54	8.0		7.0	87		32.5	2.66	2.76	0.65	0.86	1.34	35.67
11/13/2000	1423	0.5	8.79	26.88	20.80	8.3	3	9.1	94	2.0	46.0	2.32	1.79	4.69	1.84	1.08	45.86
11/13/2000	1423	10.0	8.90	27.43	21.21	8.3		9.0	93		47.8	2.05	1.71	5.10	1.86	1.10	45.06
12/5/2000	1407	0.5	7.23	19.95	15.56	8.3	1	10.1	96	2.4	51.0	1.04	0.86	9.93	2.08	0.72	65.80
12/5/2000	1407	8.5	7.22	21.64	16.89	8.3		9.8	94		51.6	1.29	1.28	7.85	2.00	0.78	62.12



## **Appendix B**

**Depth profiles of temperature, salinity,  
density, dissolved oxygen and light  
transmission  
for WY 1998-2000**

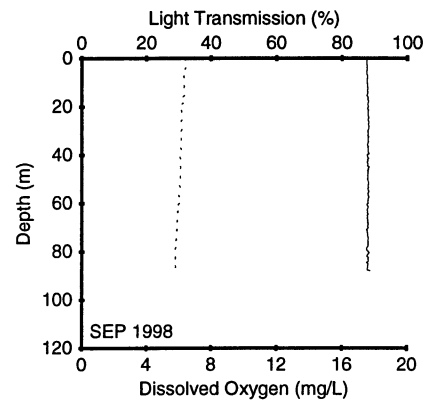
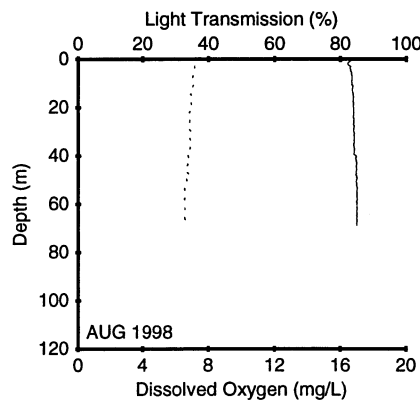
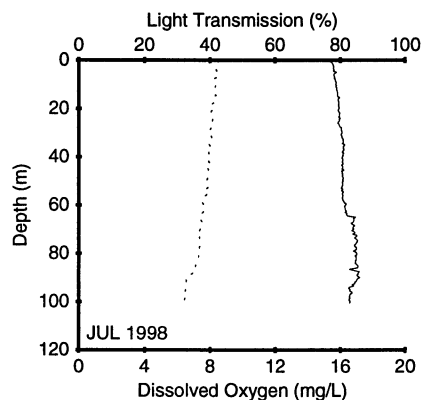
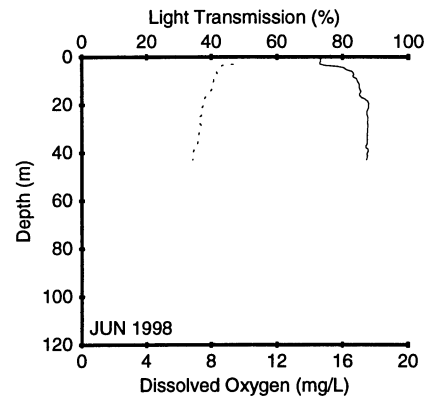
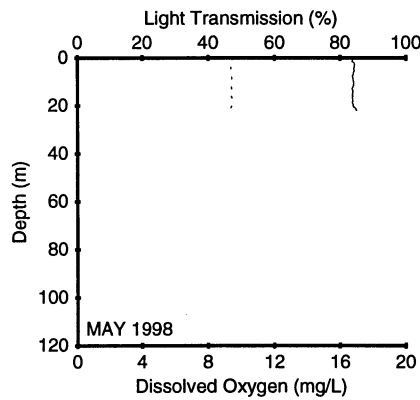
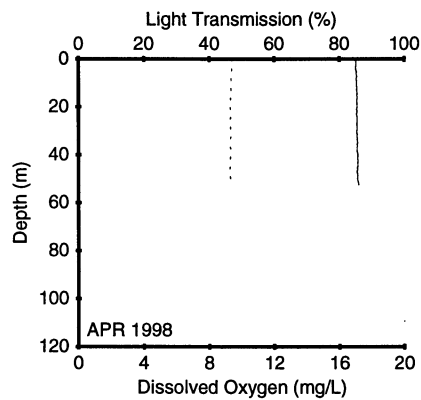
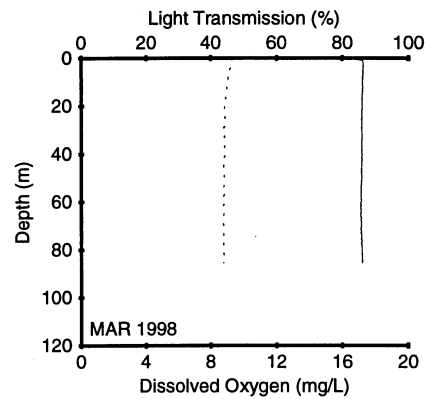
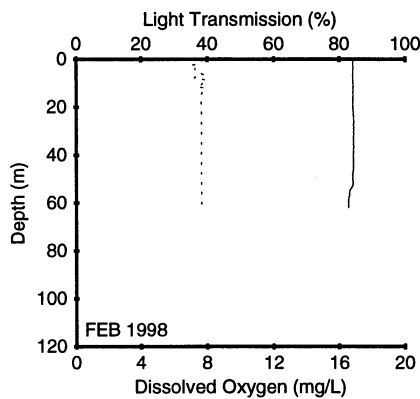
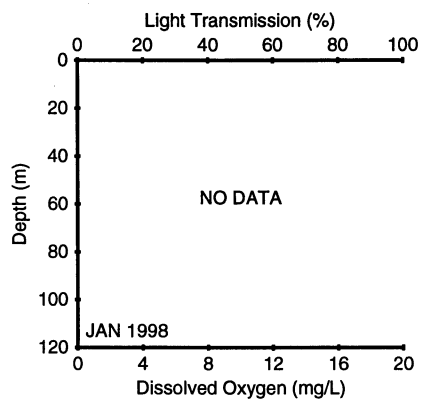
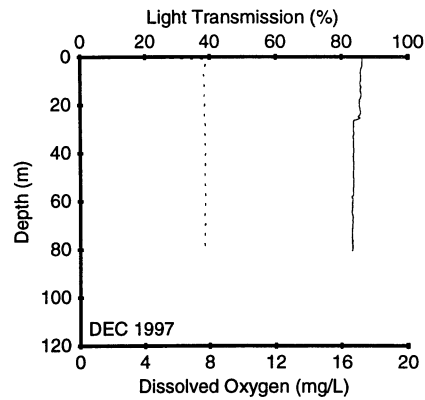
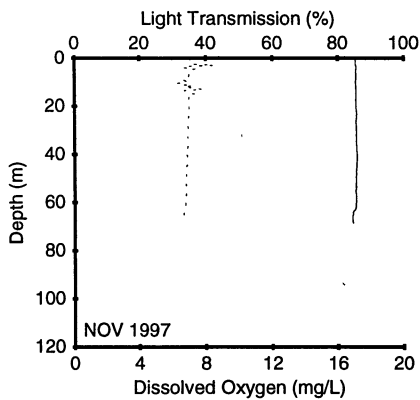
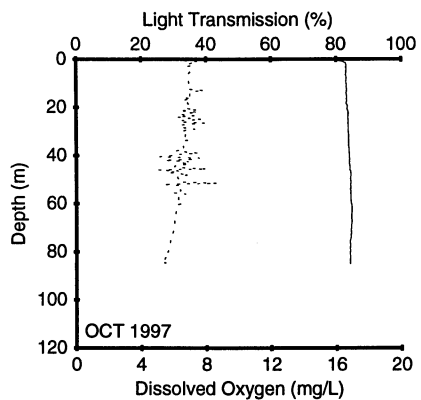
# ADM001 Admiralty Inlet - Bush Point



**Legend: Temperature = Dotted Line Salinity = Dot-Dashed Line Sigma-t = Solid Line**

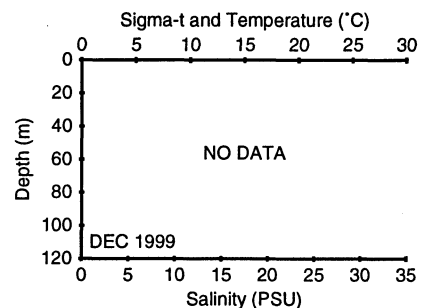
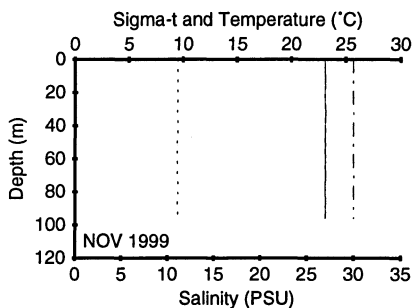
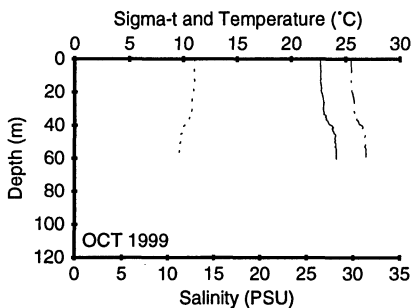
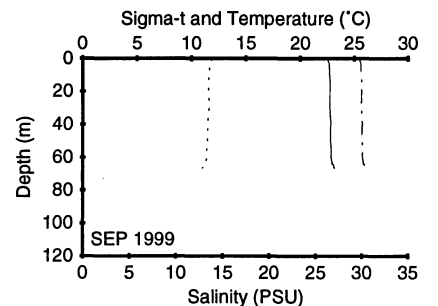
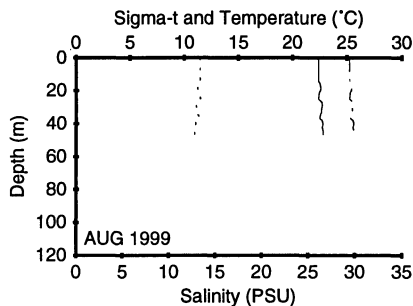
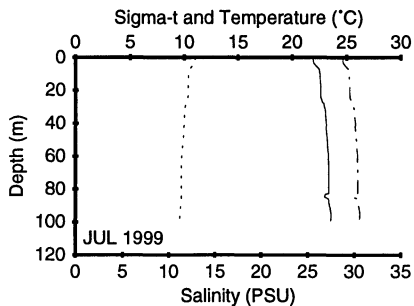
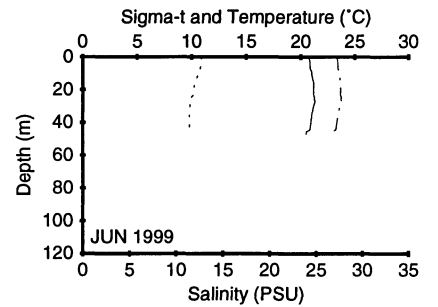
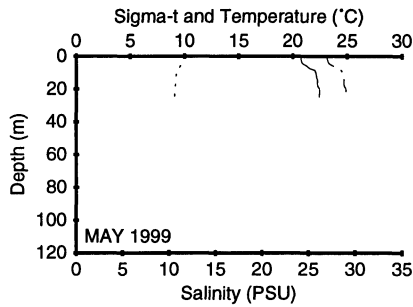
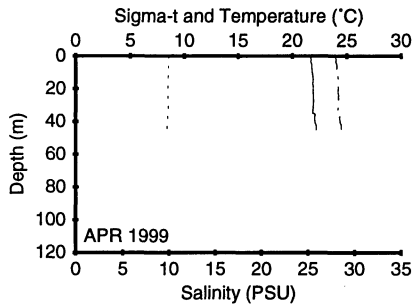
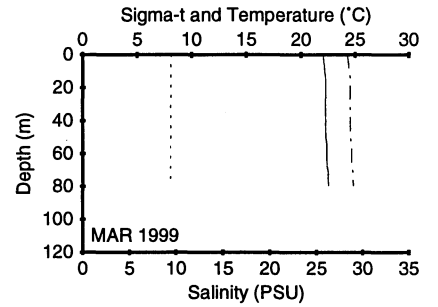
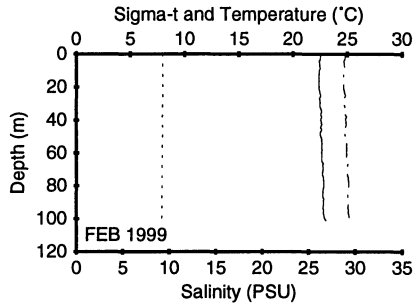
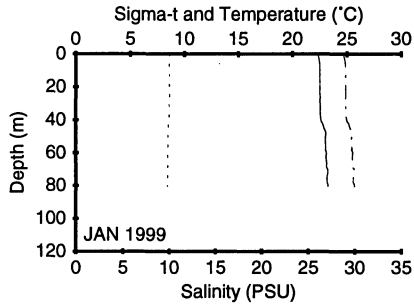
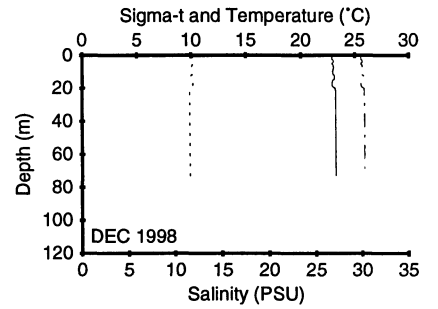
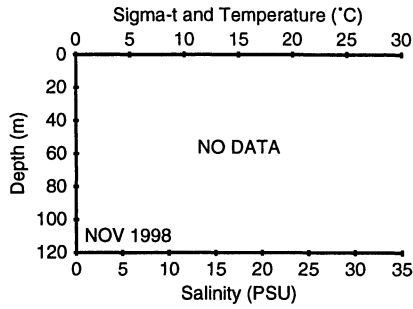
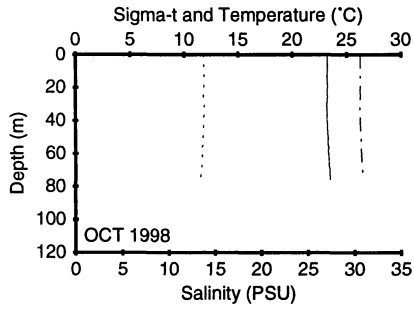


# ADM001 Admiralty Inlet - Bush Point



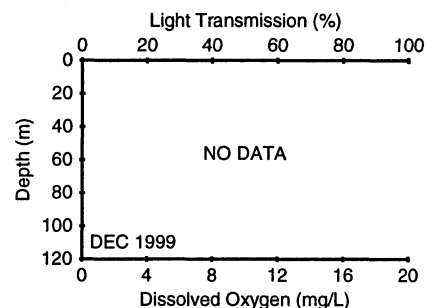
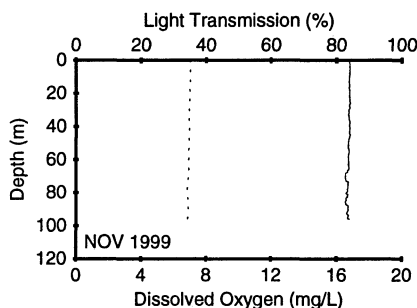
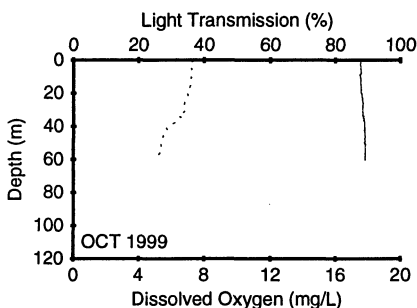
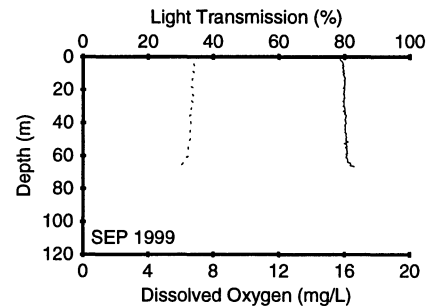
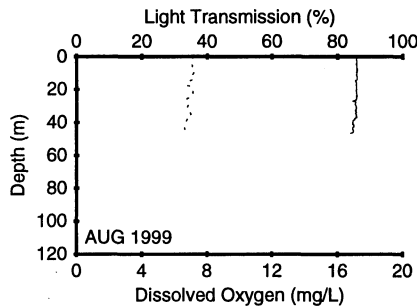
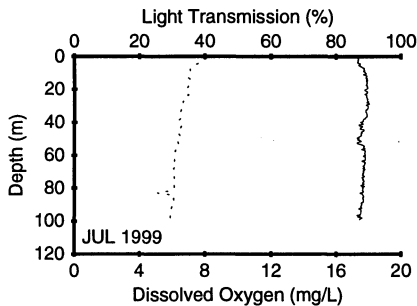
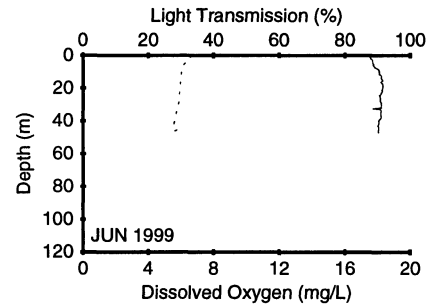
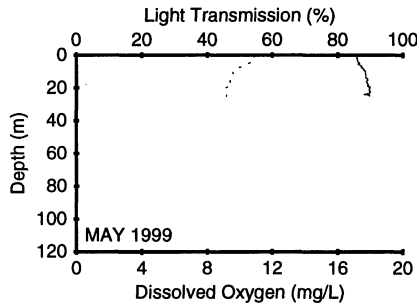
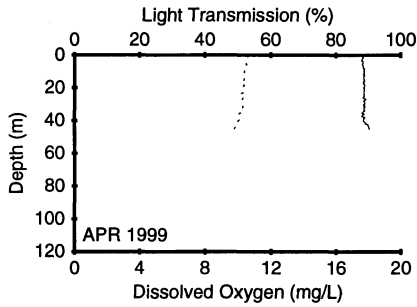
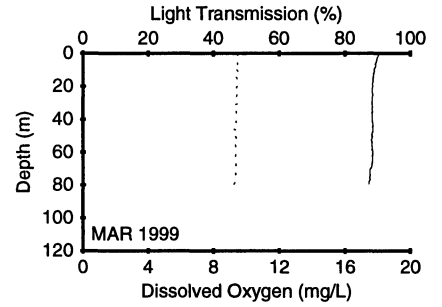
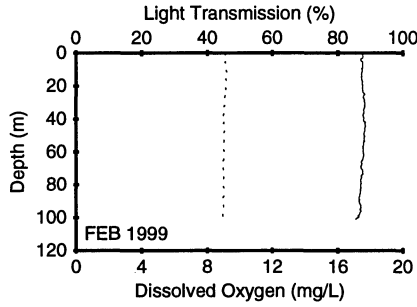
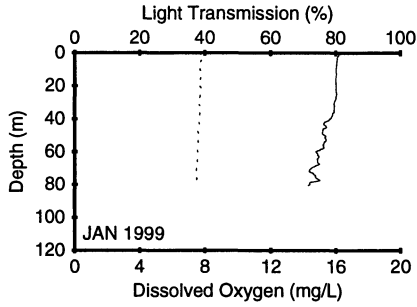
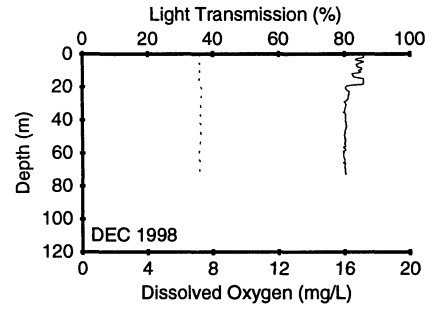
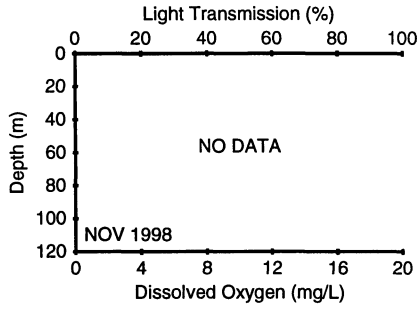
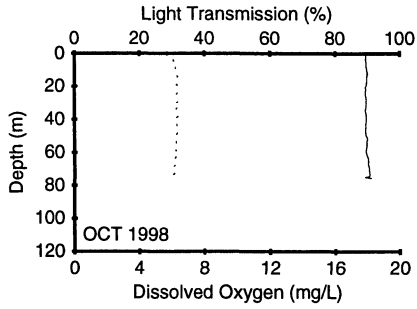
**Legend: Light Transmission = Solid Line Dissolved Oxygen = Dotted Line**

# ADM001 Admiralty Inlet - Bush Point



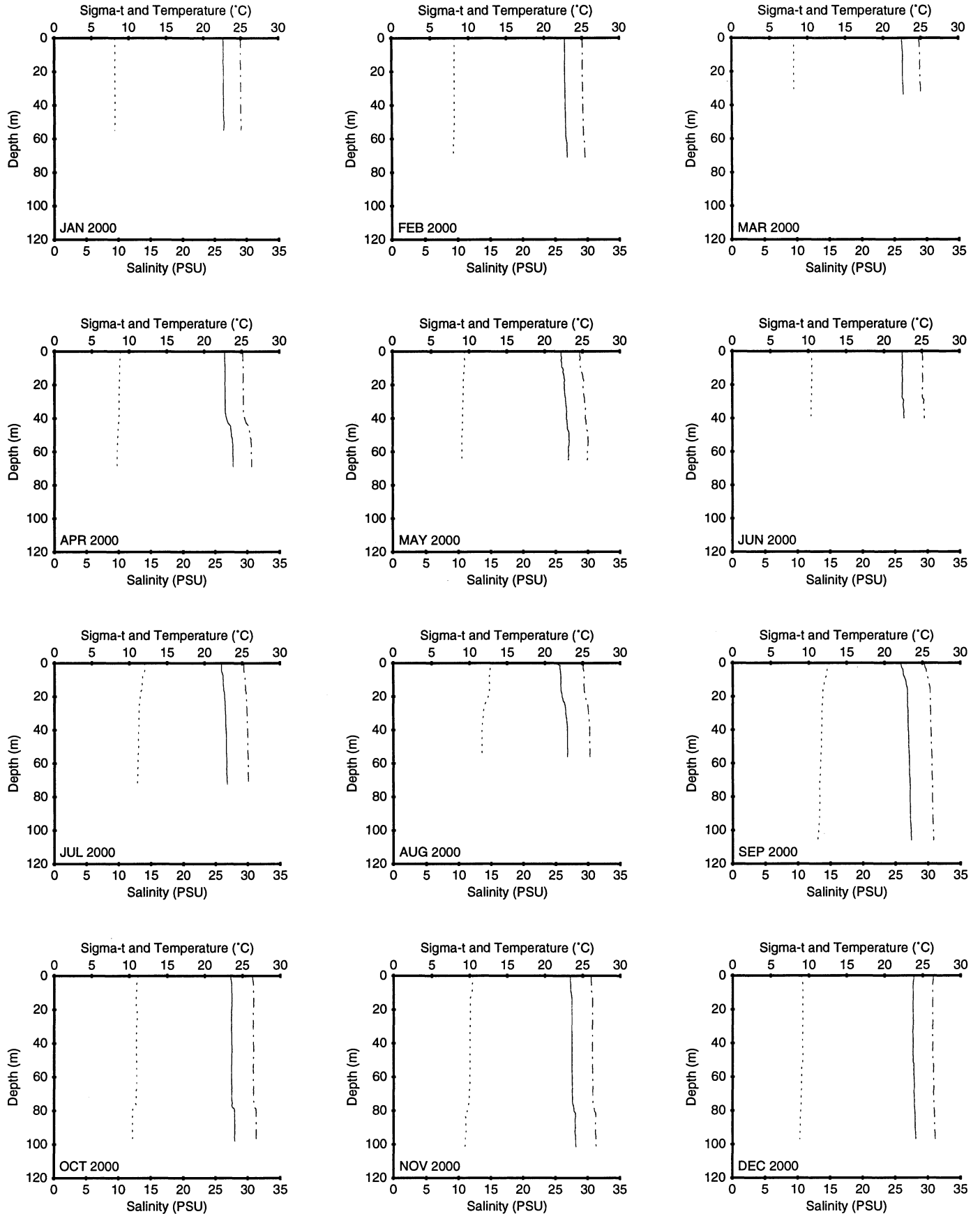
**Legend: Temperature = Dotted Line Salinity = Dot-Dashed Line Sigma-t = Solid Line**

# ADM001 Admiralty Inlet - Bush Point



**Legend: Light Transmission = Solid Line Dissolved Oxygen = Dotted Line**

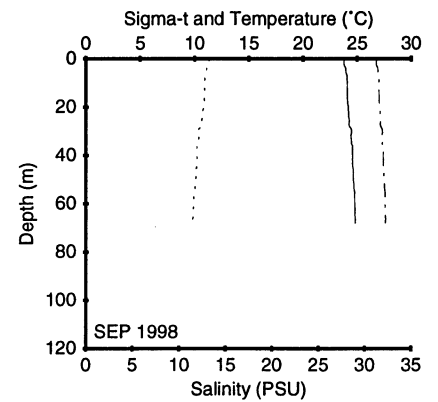
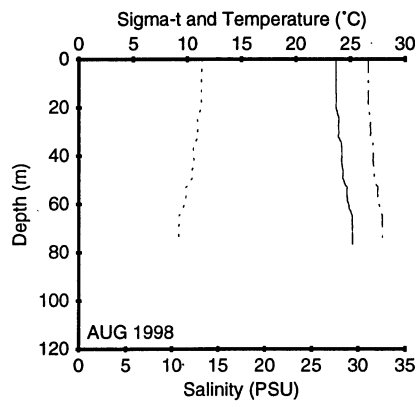
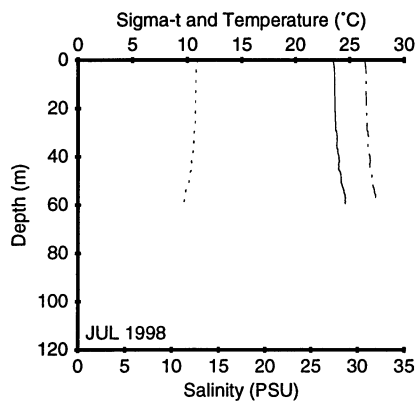
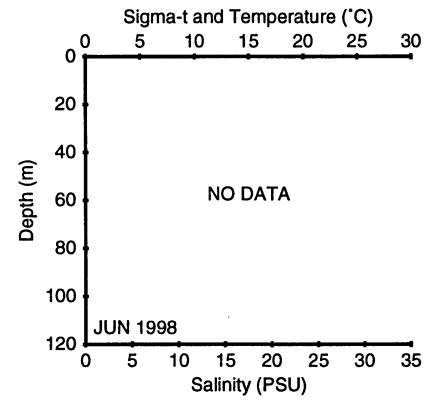
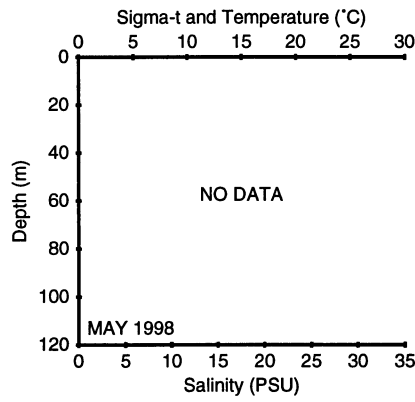
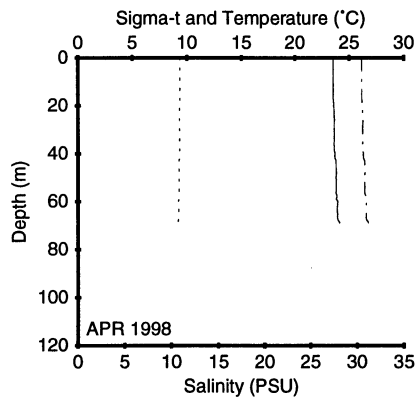
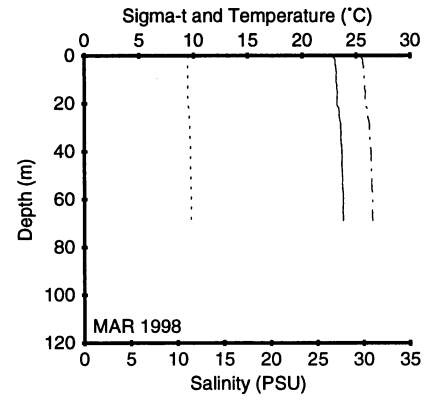
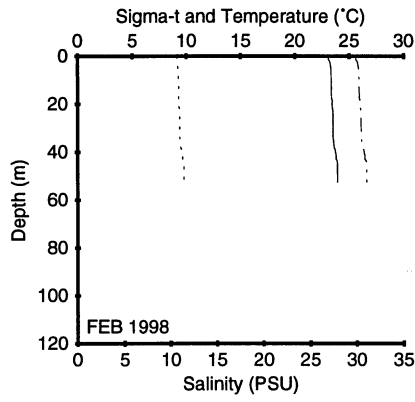
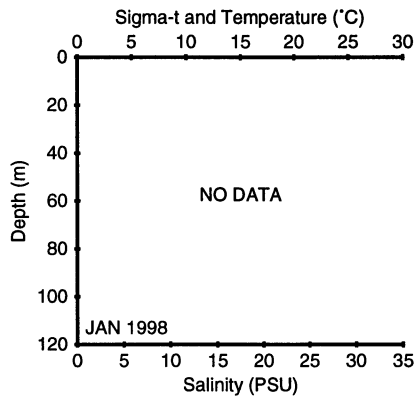
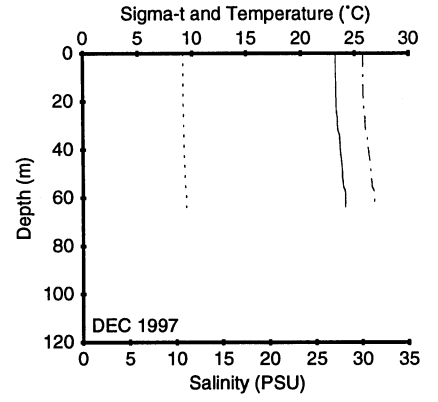
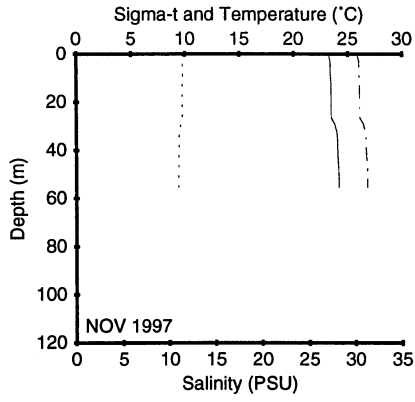
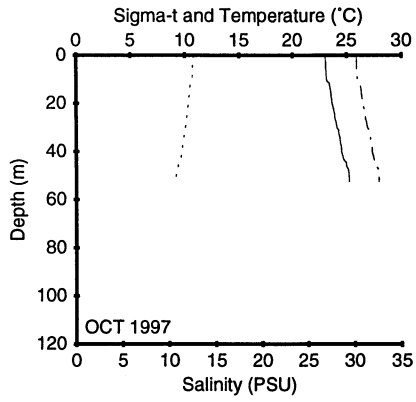
# ADM001 Admiralty Inlet - Bush Point



**Legend: Temperature = Dotted Line Salinity = Dot-Dashed Line Sigma-t = Solid Line**

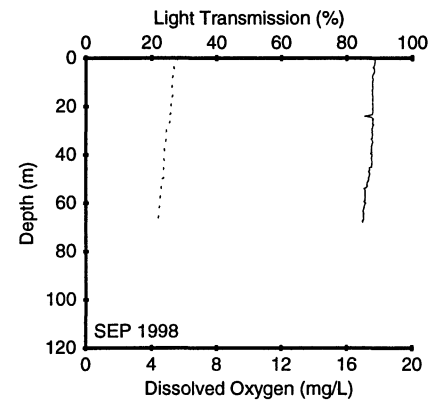
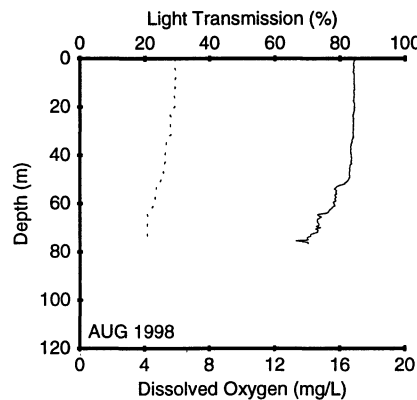
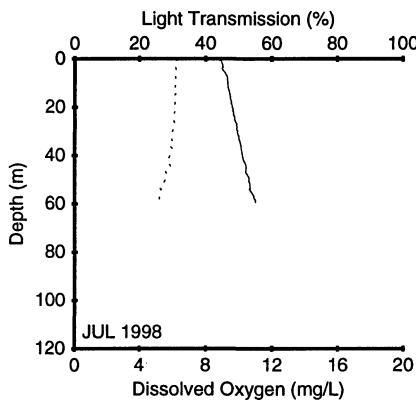
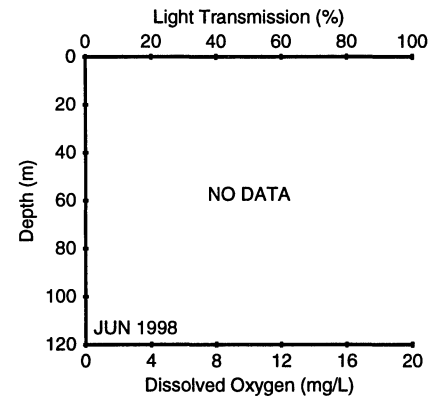
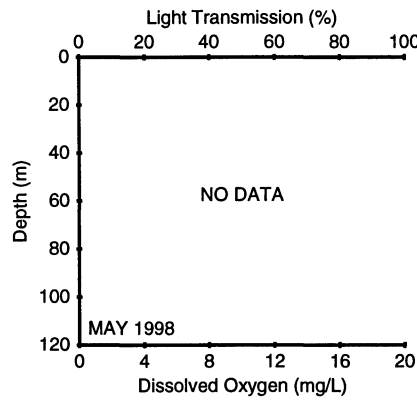
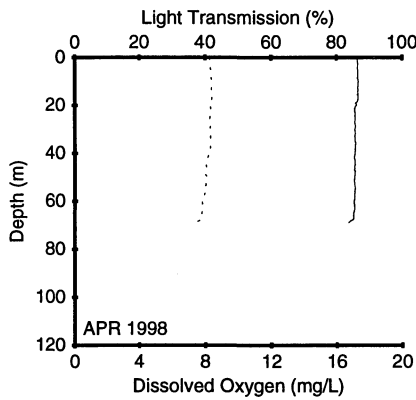
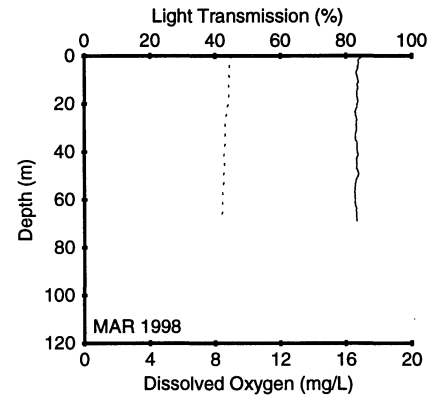
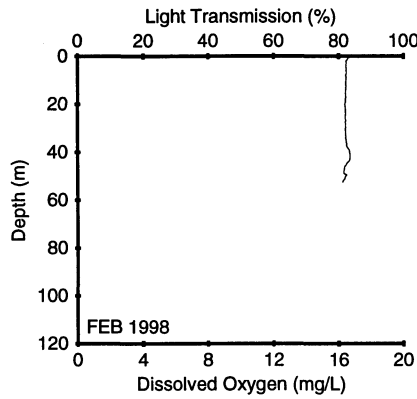
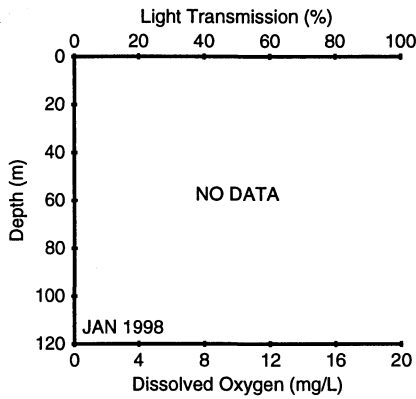
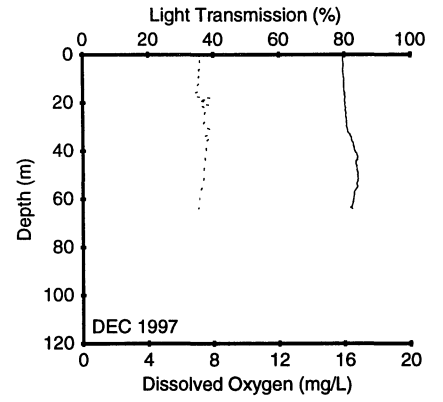
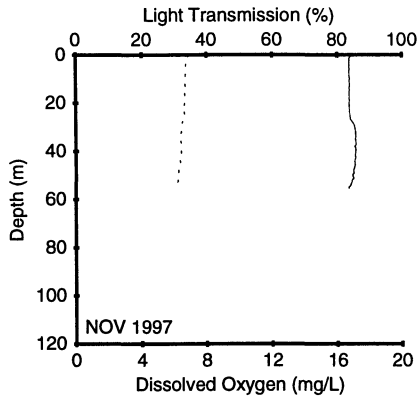
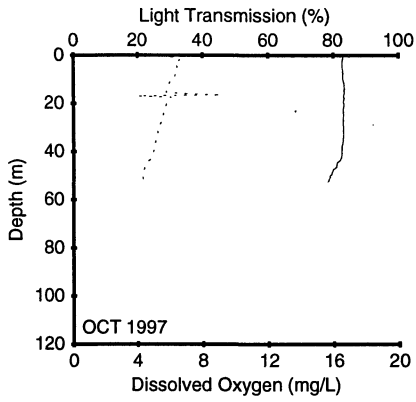


**ADM002 Admiralty Inlet - Quimper Pen.**



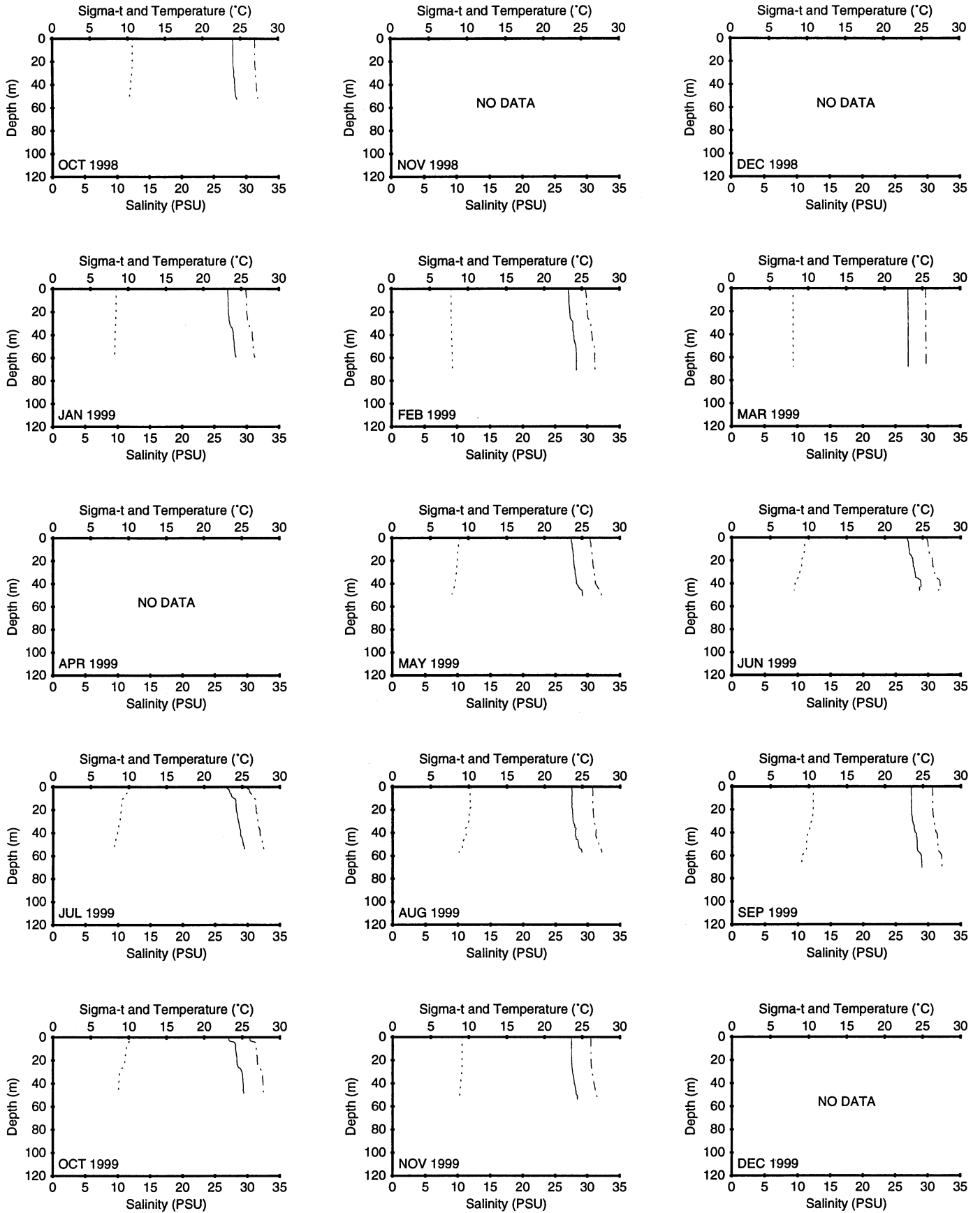
**Legend: Temperature = Dotted Line Salinity = Dot-Dashed Line Sigma-t = Solid Line**

ADM002 Admiralty Inlet - Quimper Pen.



Legend: Light Transmission = Solid Line Dissolved Oxygen = Dotted Line

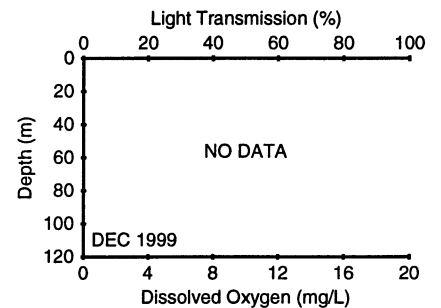
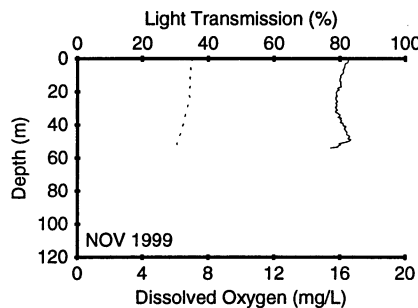
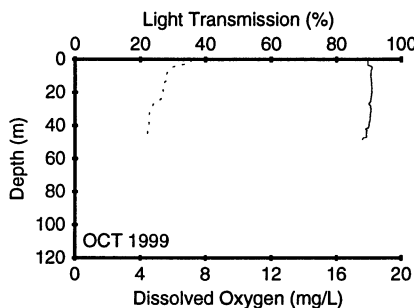
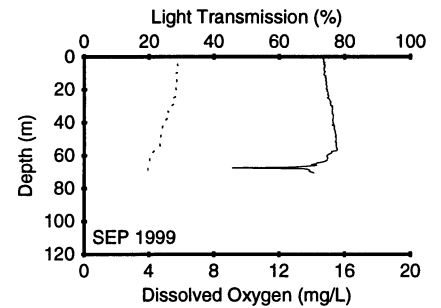
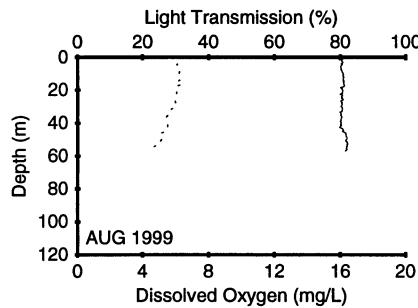
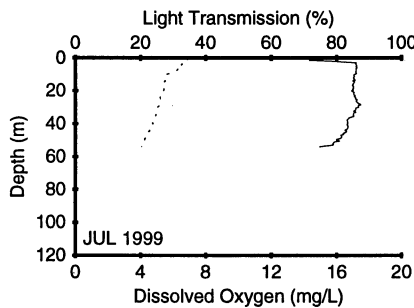
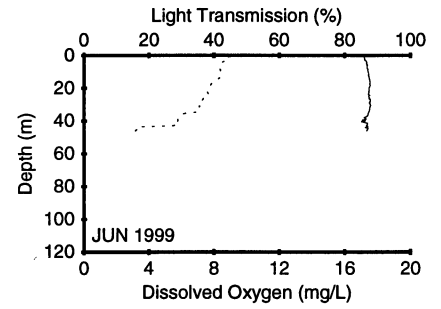
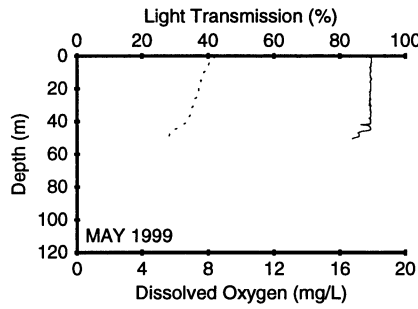
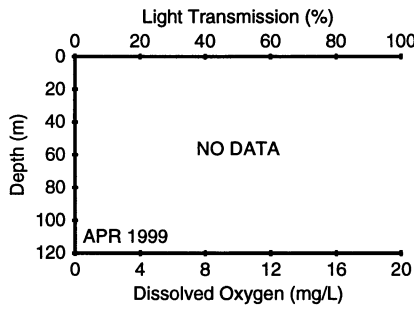
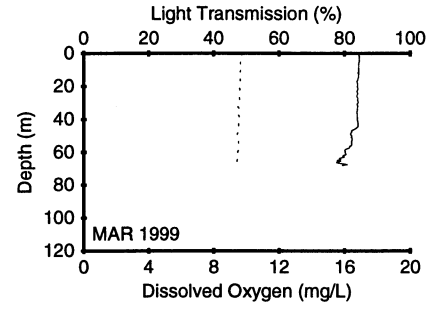
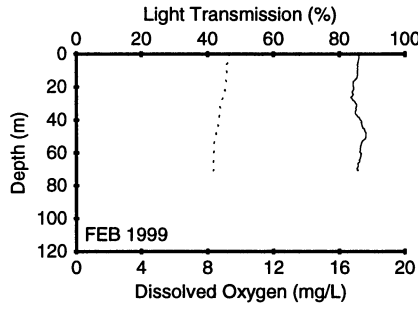
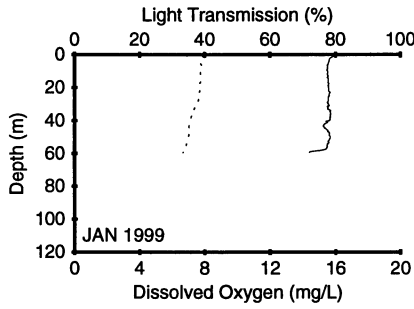
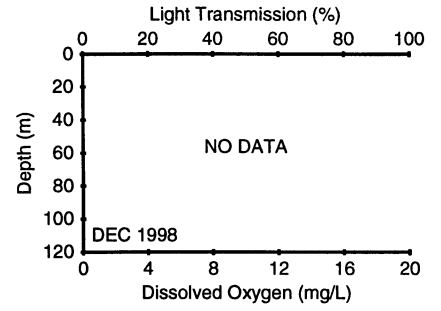
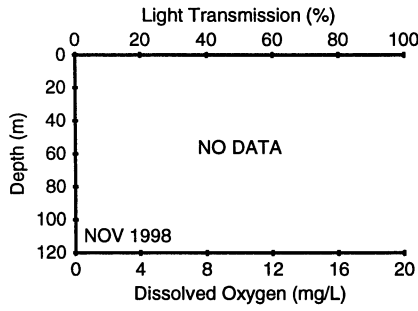
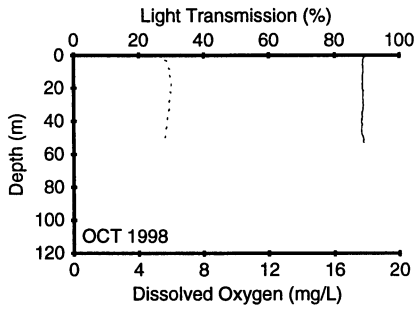
**ADM002 Admiralty Inlet - Quimper Pen.**



**Legend: Temperature = Dotted Line Salinity = Dot-Dashed Line Sigma-t = Solid Line**

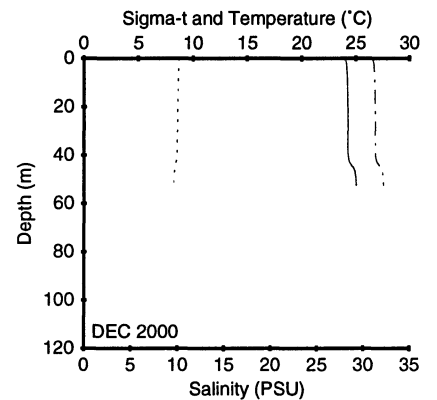
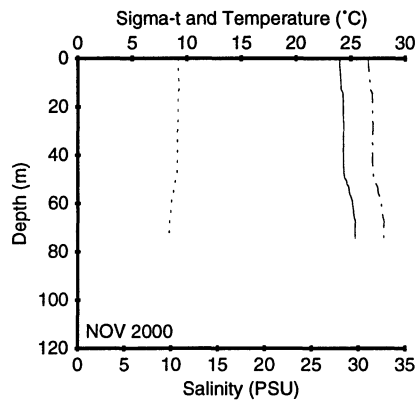
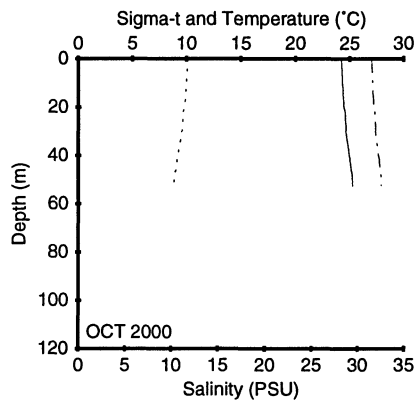
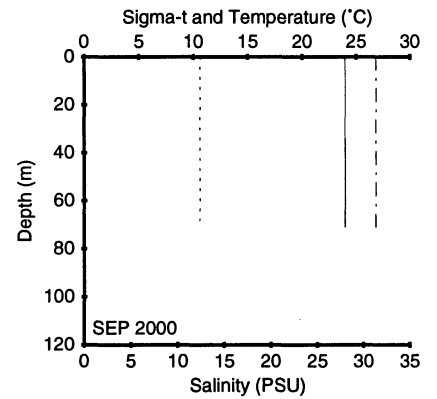
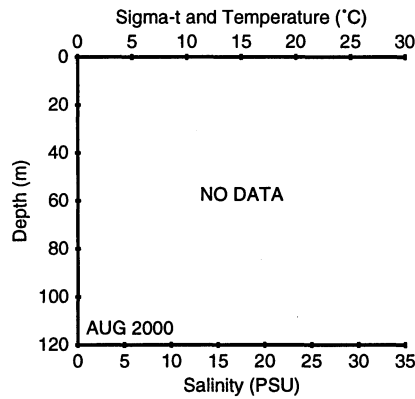
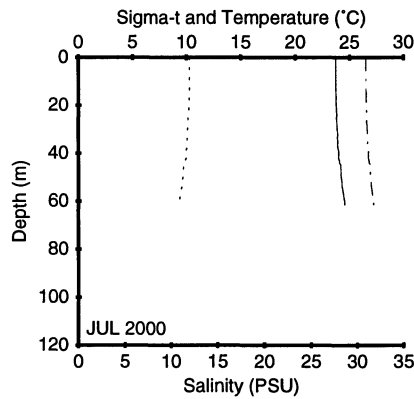
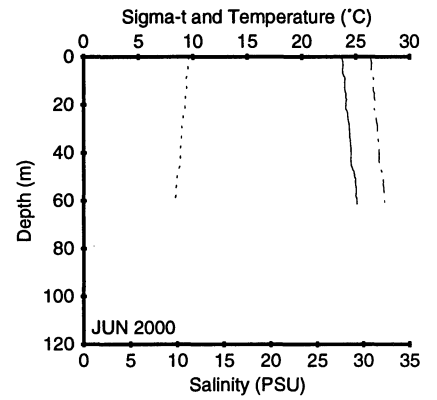
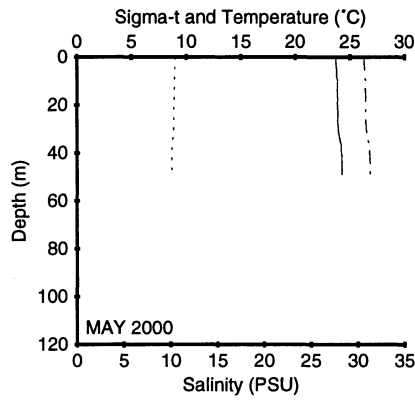
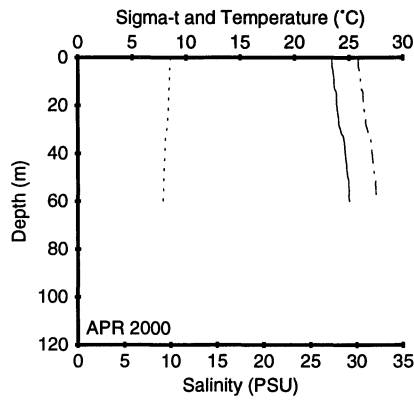
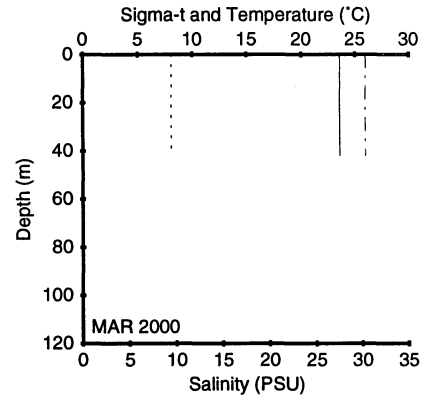
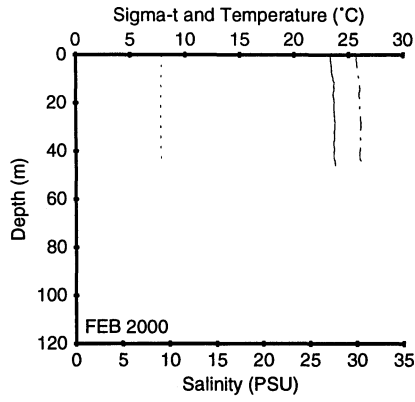
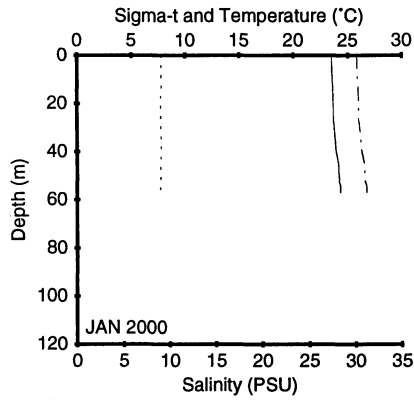


**ADM002 Admiralty Inlet - Quimper Pen.**



**Legend: Light Transmission = Solid Line Dissolved Oxygen = Dotted Line**

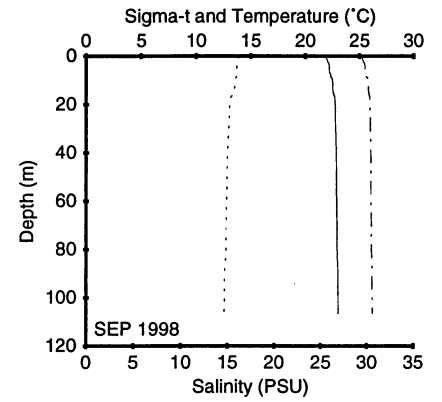
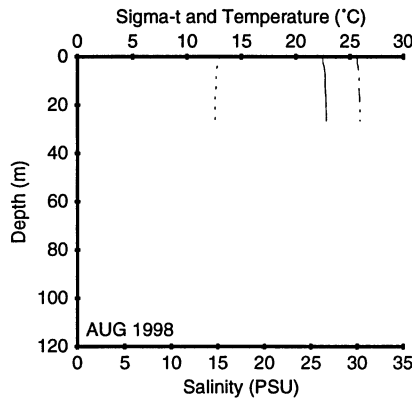
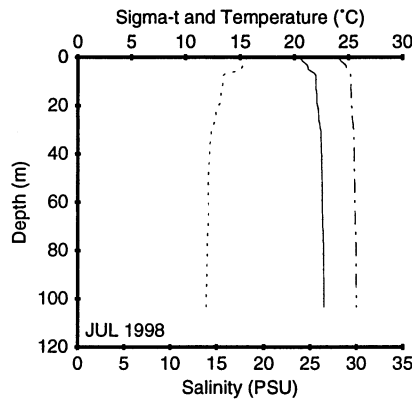
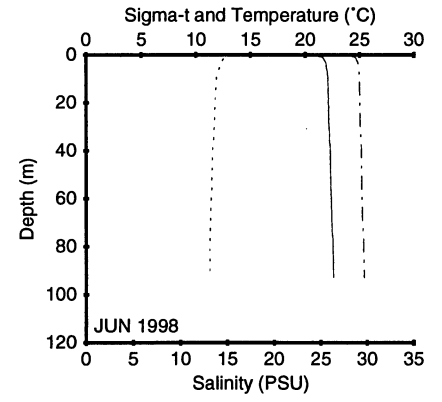
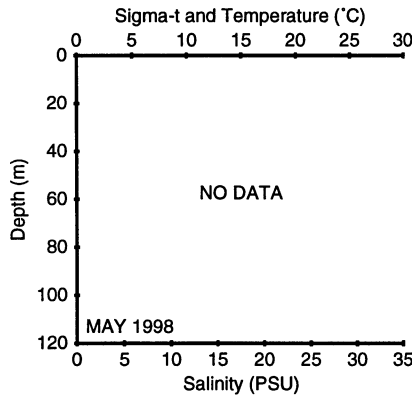
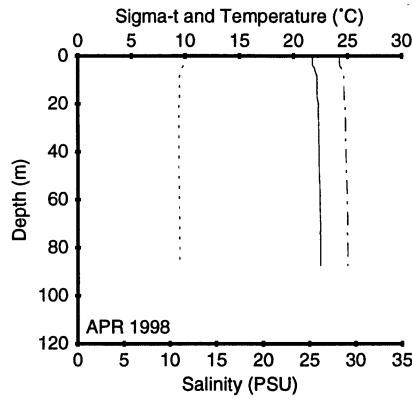
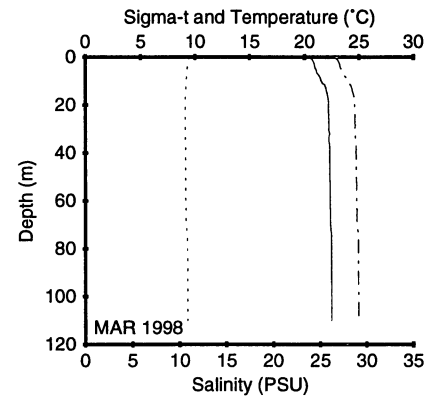
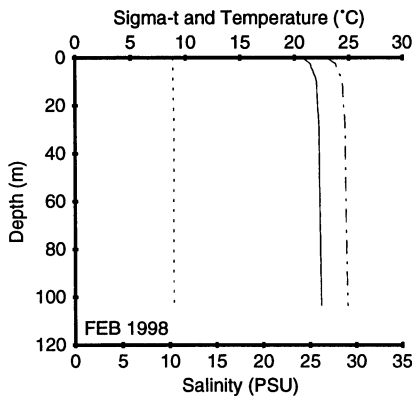
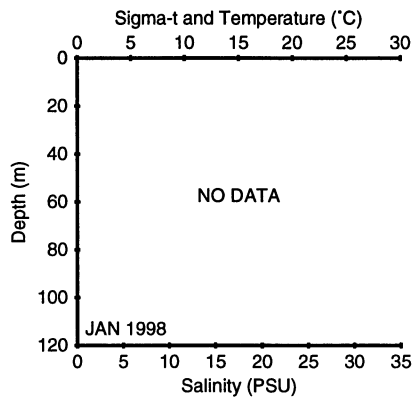
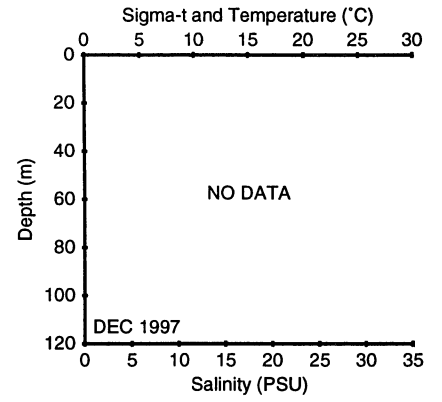
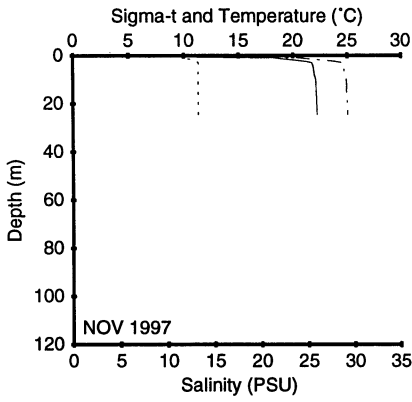
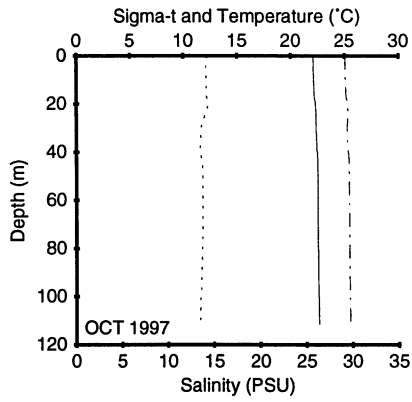
**ADM002 Admiralty Inlet - Quimper Pen.**



**Legend: Temperature = Dotted Line Salinity = Dot-Dashed Line Sigma-t = Solid Line**

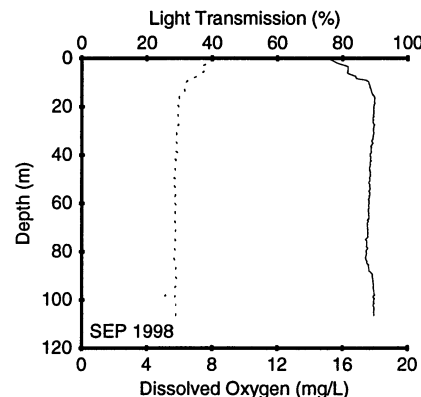
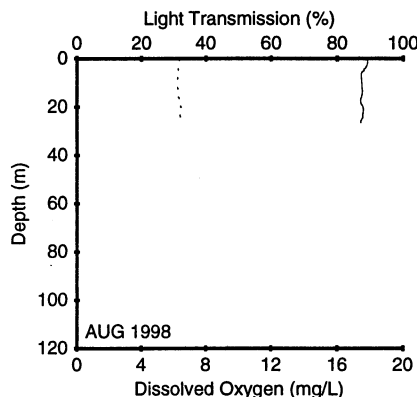
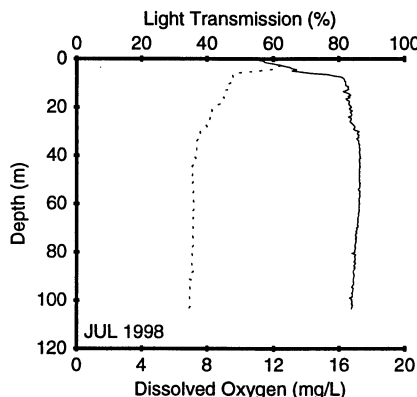
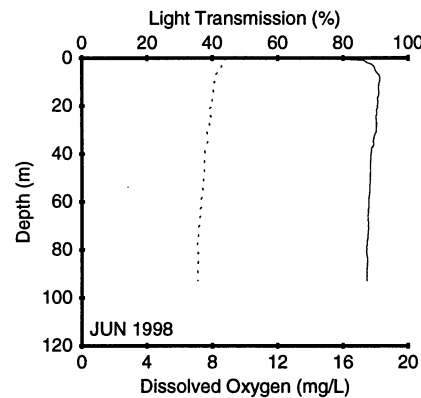
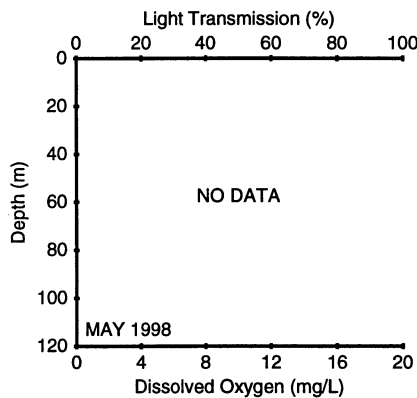
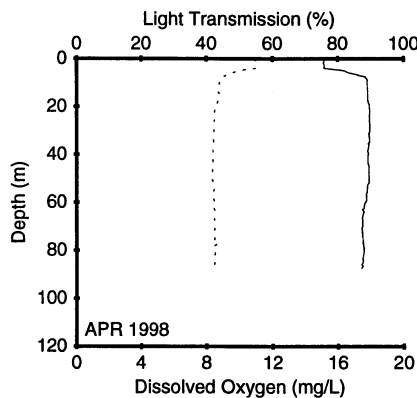
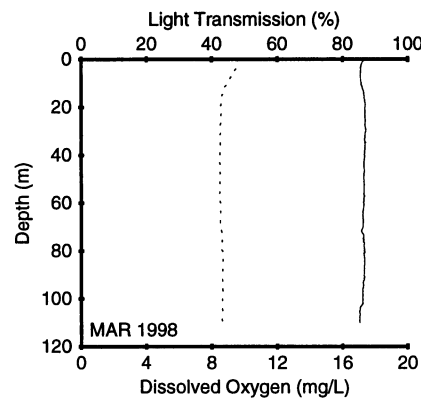
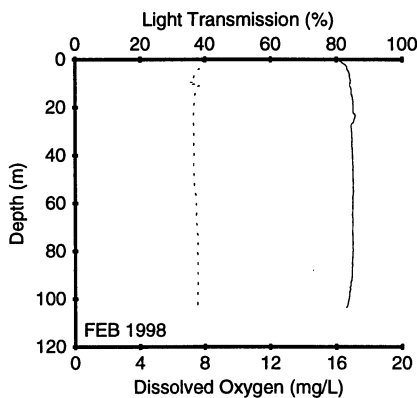
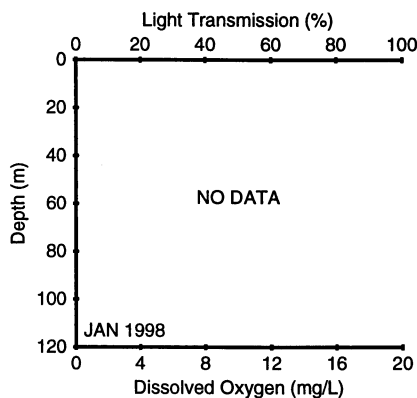
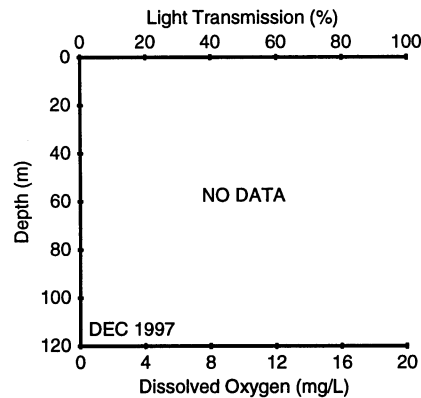
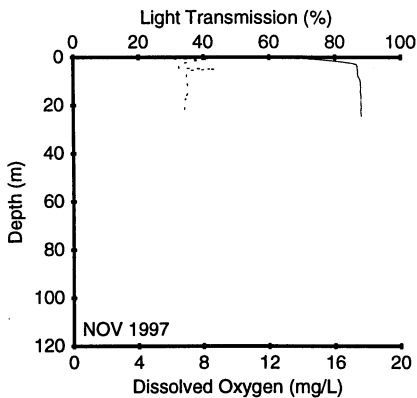
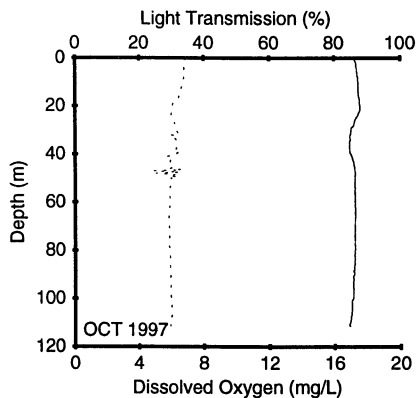


**ADM003 Admiralty Inlet - S. Adm. Inlet**



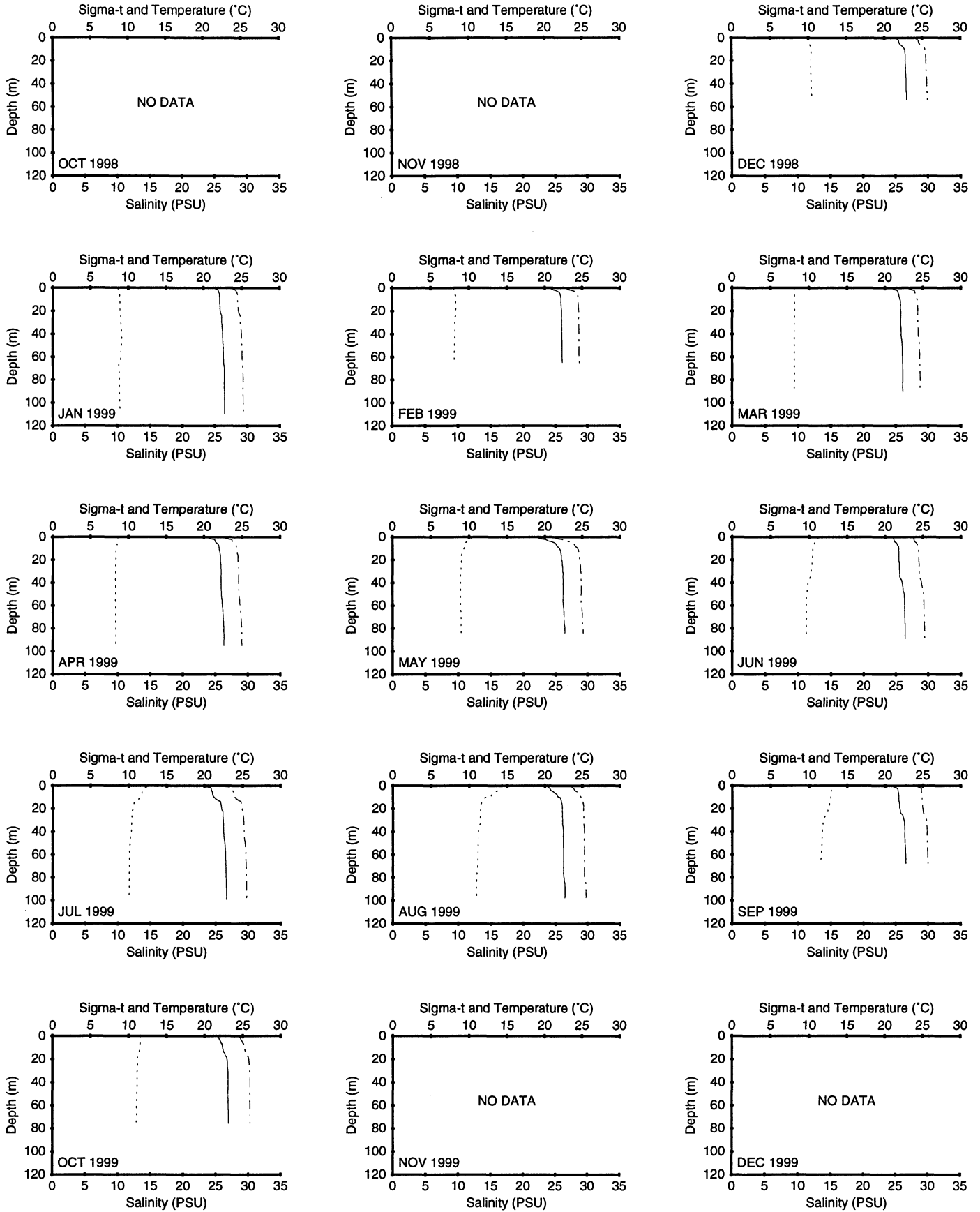
**Legend: Temperature = Dotted Line Salinity = Dot-Dashed Line Sigma-t = Solid Line**

ADM003 Admiralty Inlet - S. Adm. Inlet



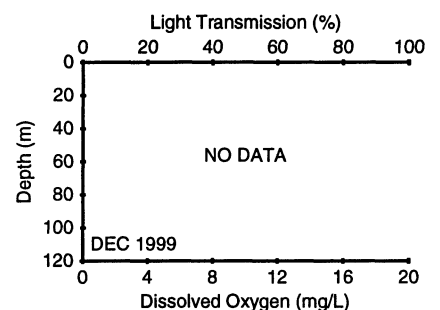
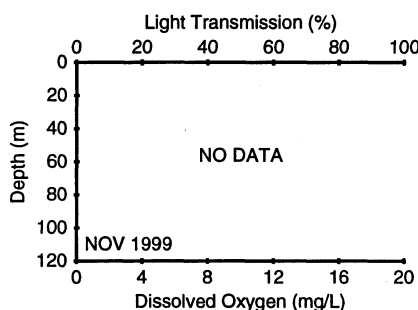
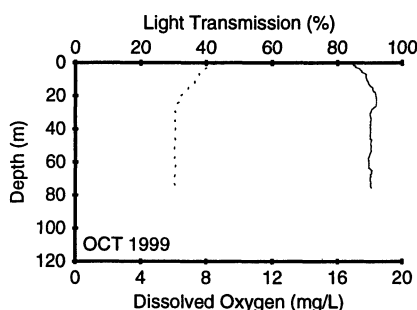
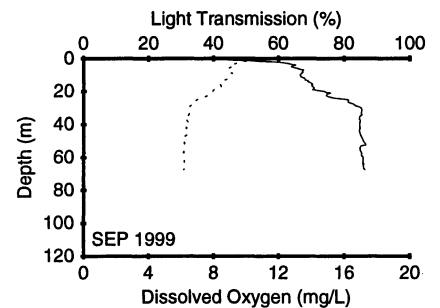
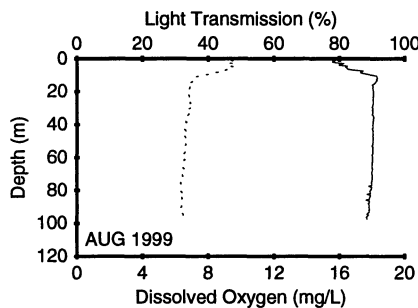
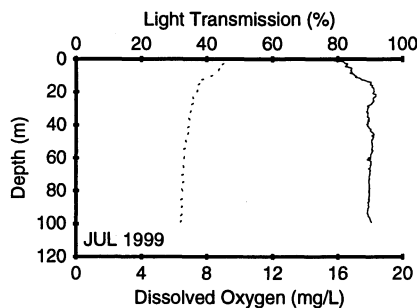
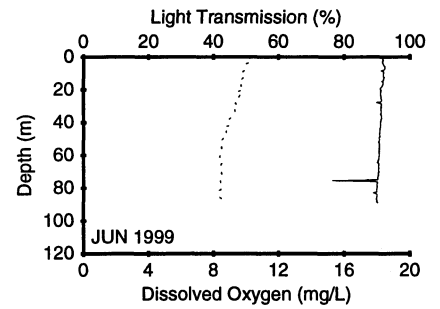
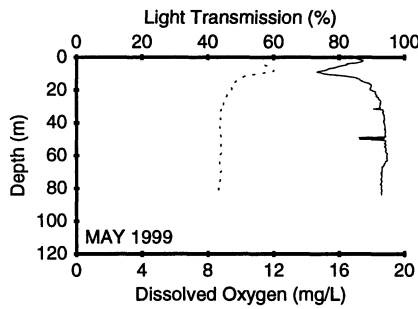
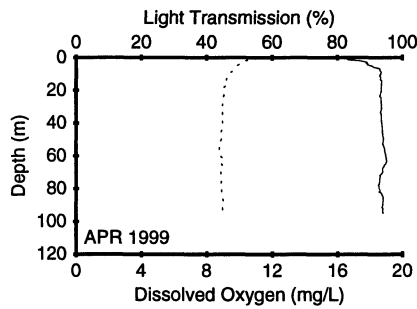
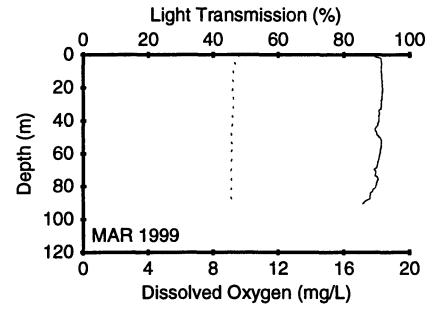
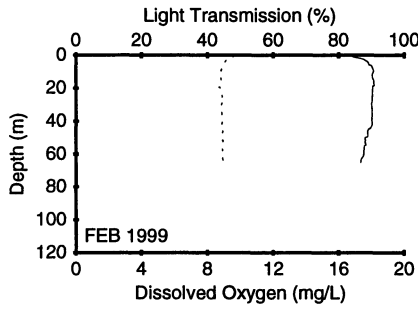
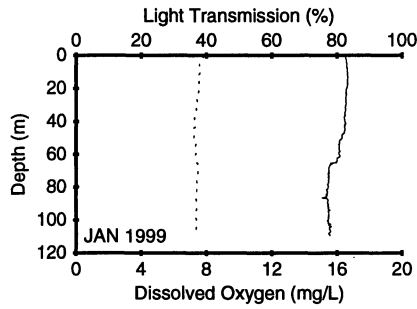
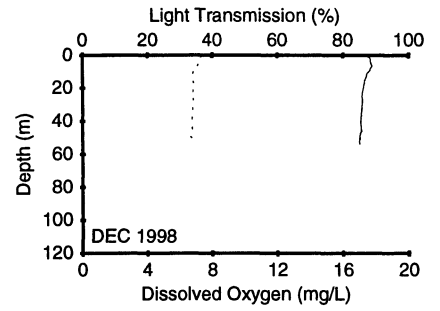
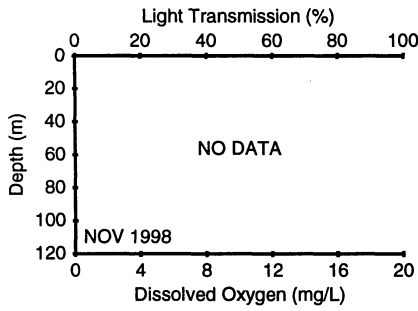
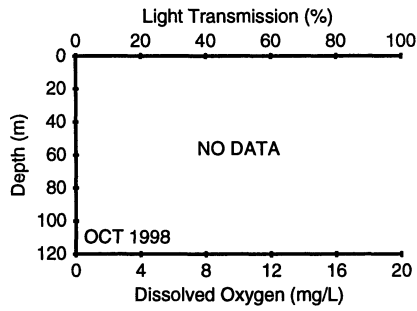
Legend: Light Transmission = Solid Line Dissolved Oxygen = Dotted Line

**ADM003 Admiralty Inlet - S. Adm. Inlet**



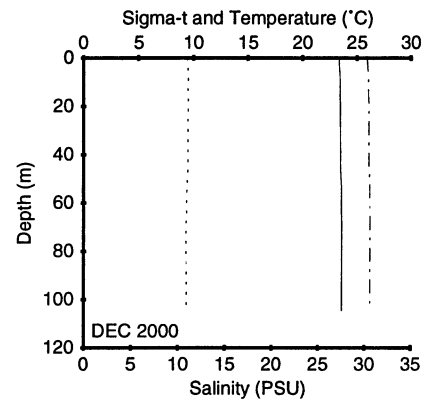
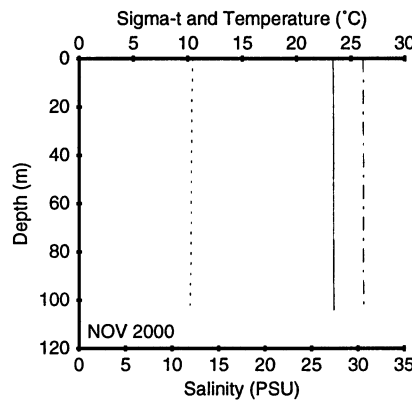
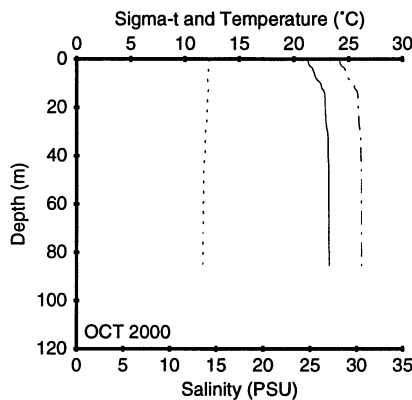
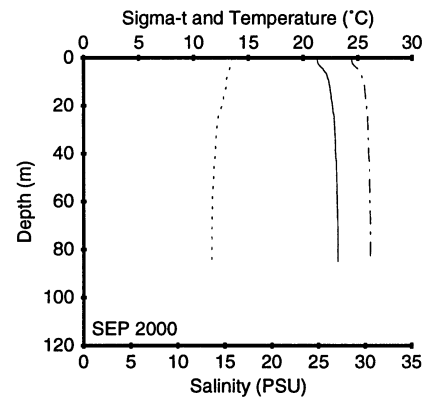
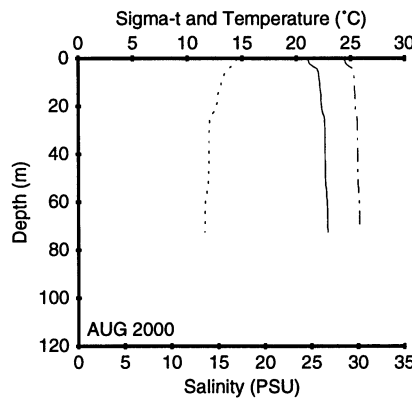
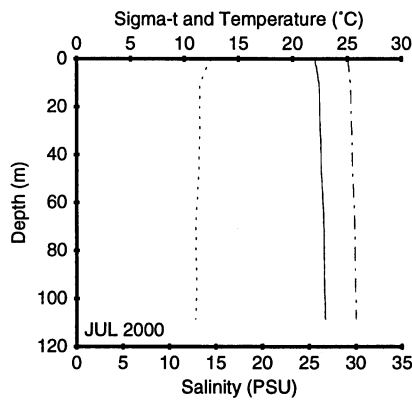
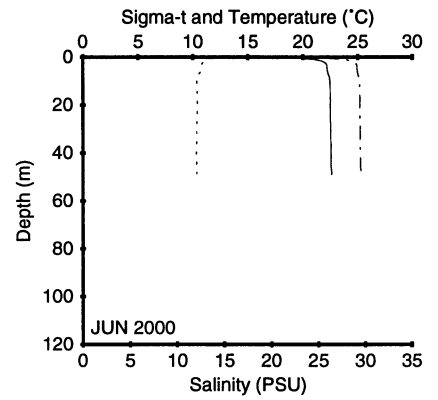
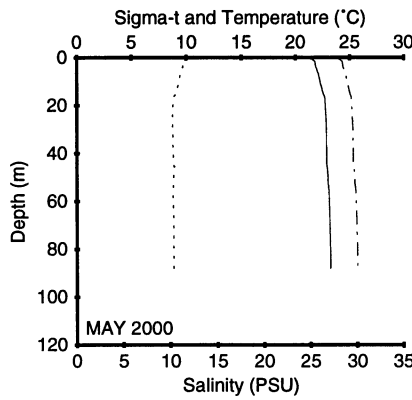
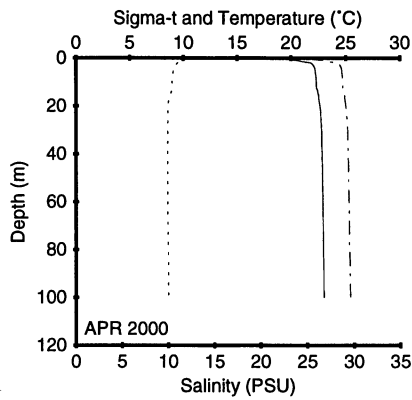
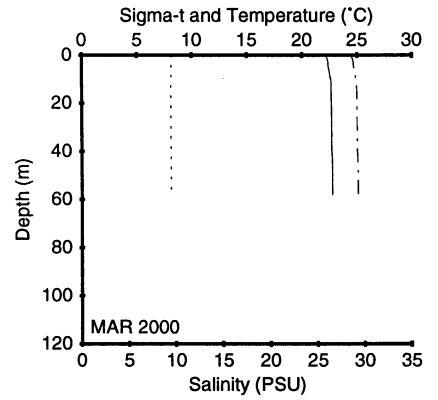
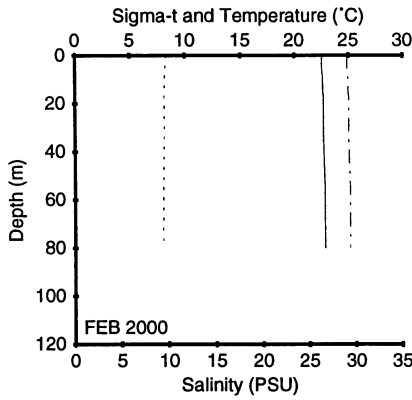
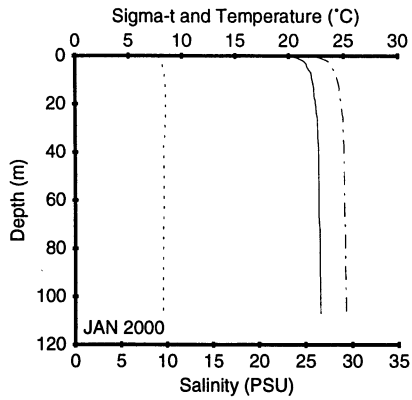
**Legend: Temperature = Dotted Line Salinity = Dot-Dashed Line Sigma-t = Solid Line**

ADM003 Admiralty Inlet - S. Adm. Inlet



Legend: Light Transmission = Solid Line Dissolved Oxygen = Dotted Line

**ADM003 Admiralty Inlet - S. Adm. Inlet**



**Legend: Temperature = Dotted Line Salinity = Dot-Dashed Line Sigma-t = Solid Line**

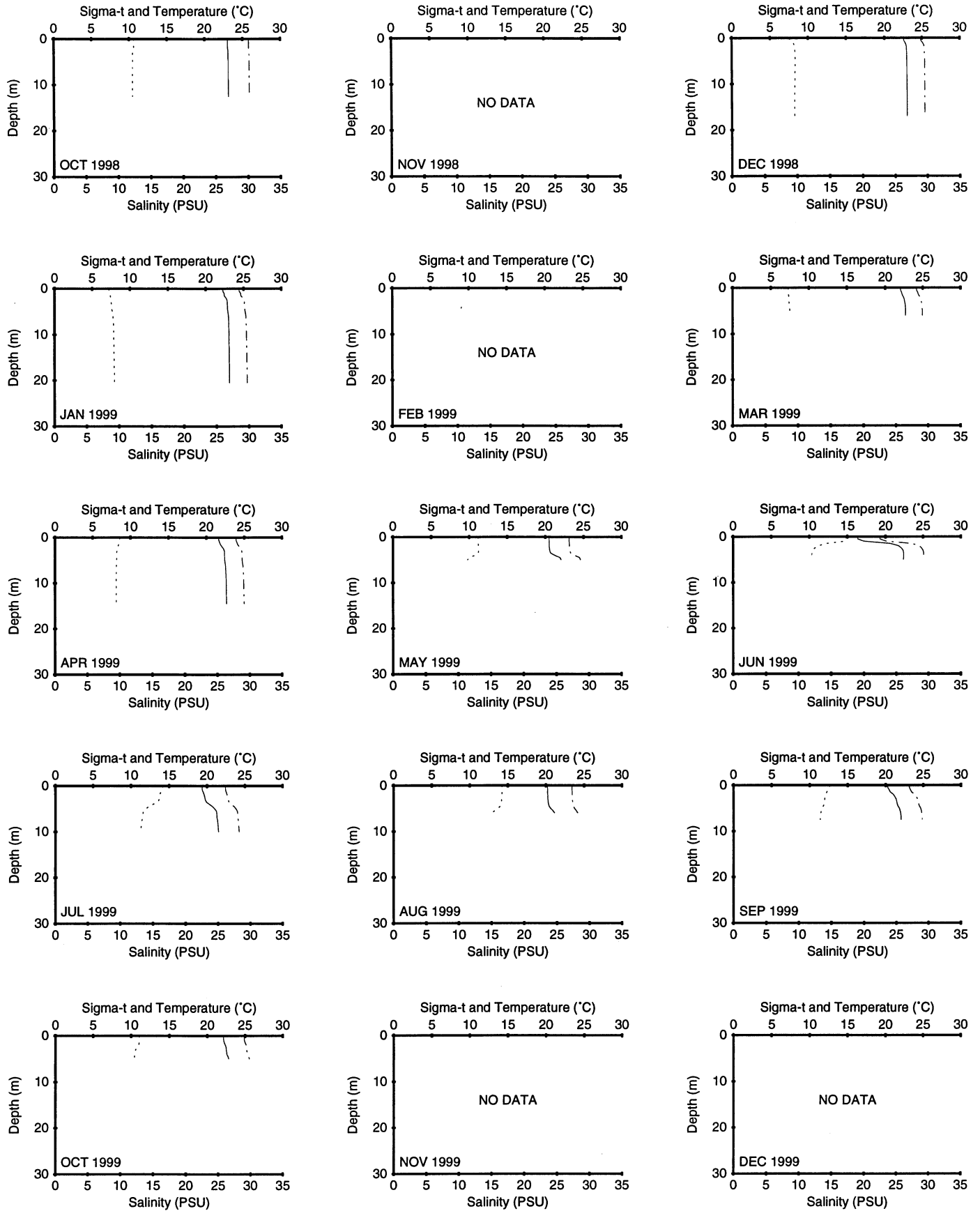






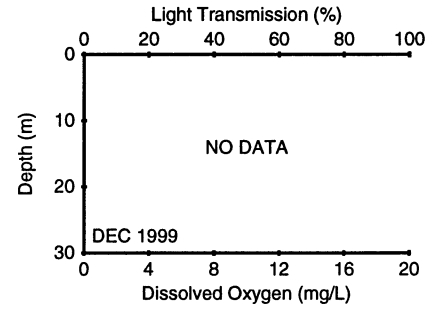
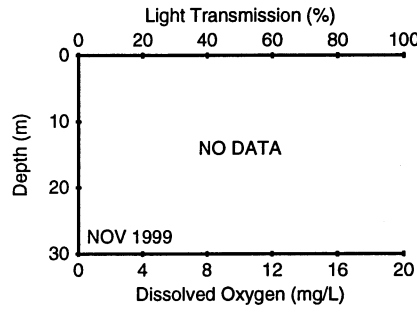
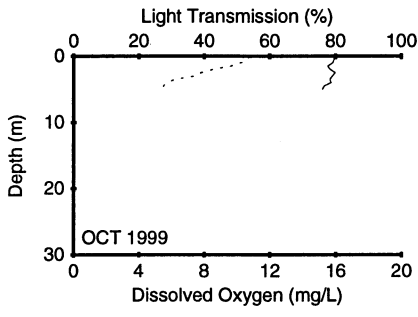
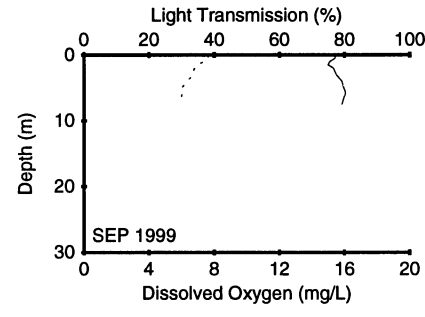
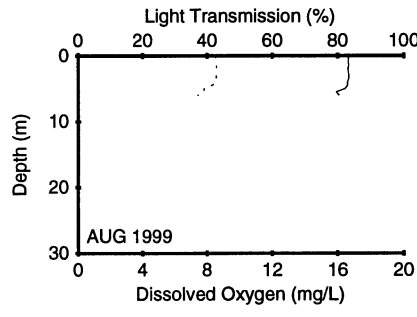
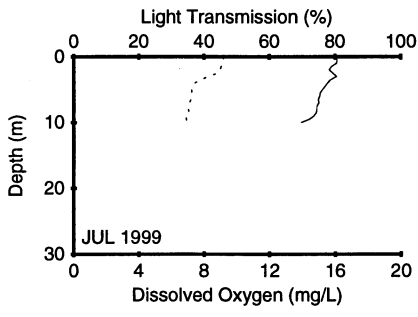
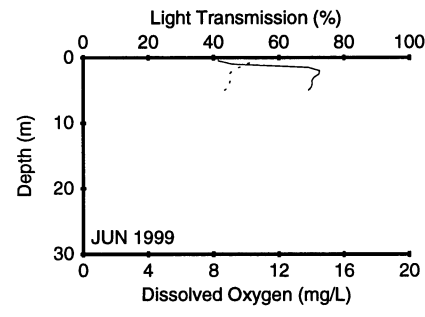
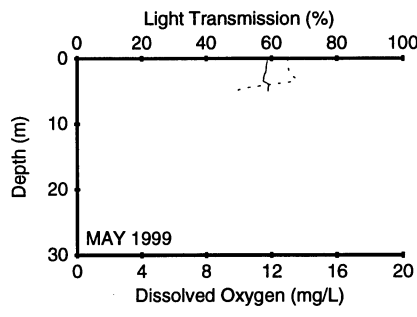
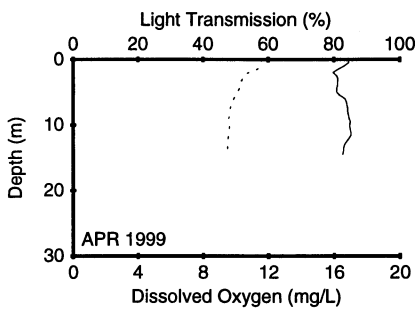
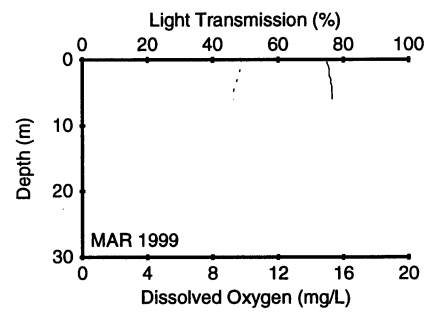
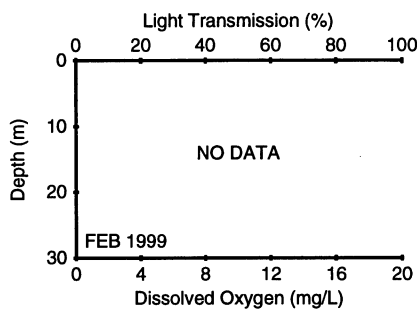
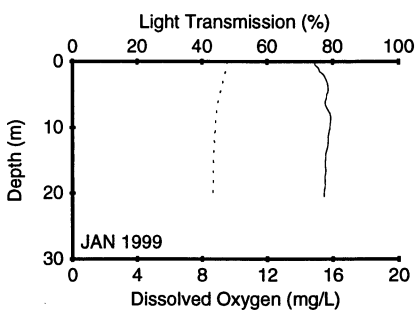
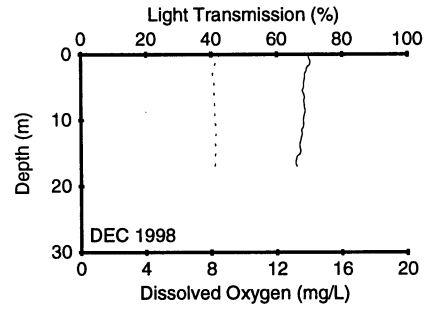
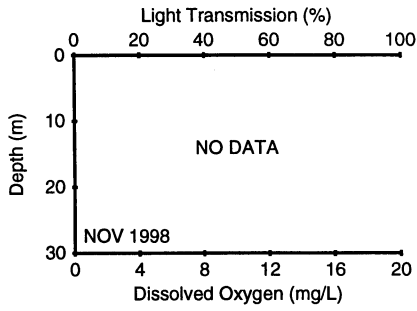
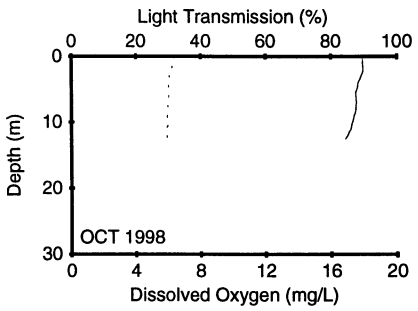


**BLL009 Bellingham Bay - Pt. Frances**



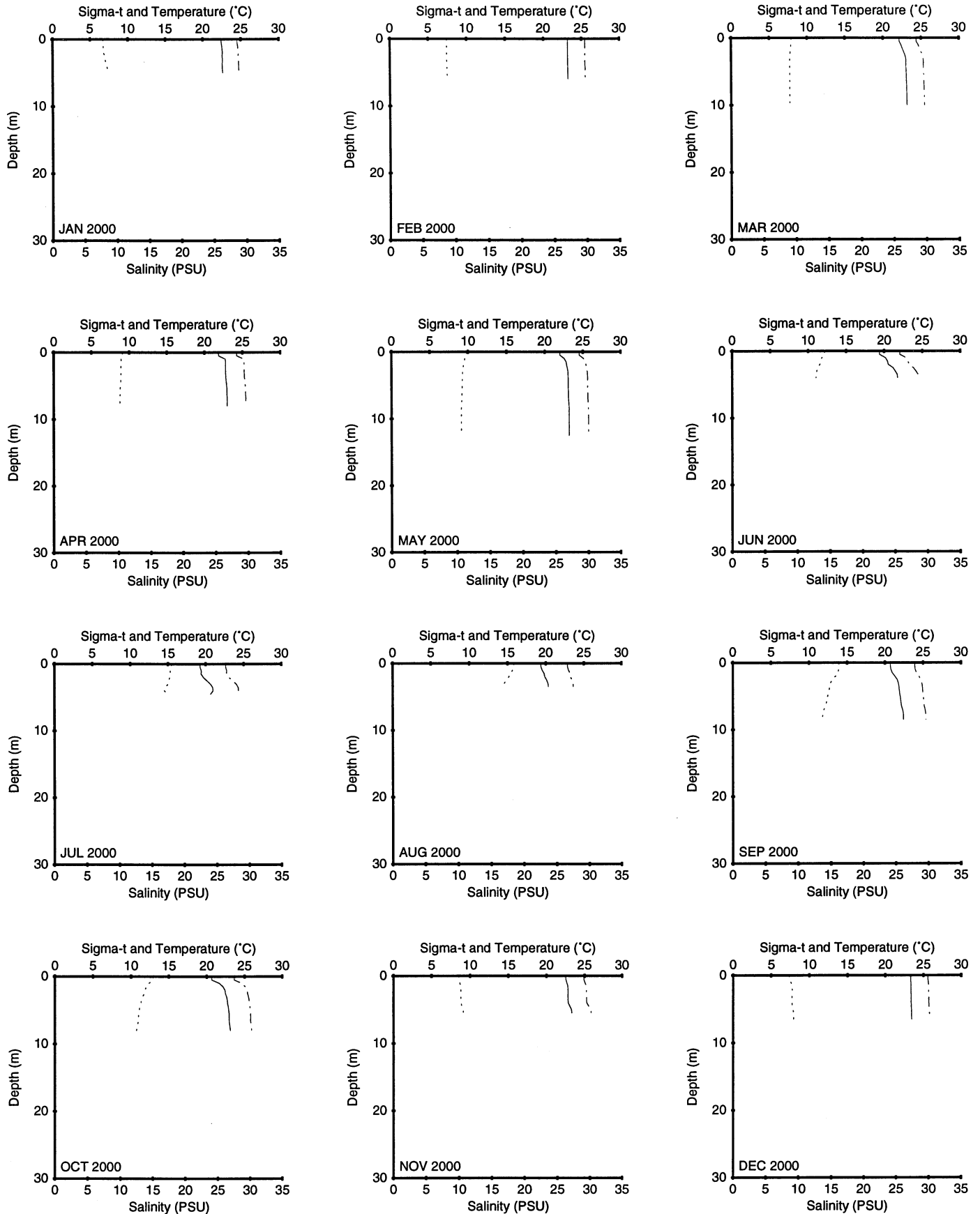
**Legend: Temperature = Dotted Line Salinity = Dot-Dashed Line Sigma-t = Solid Line**

**BLL009 Bellingham Bay - Pt. Frances**



**Legend: Light Transmission = Solid Line Dissolved Oxygen = Dotted Line**

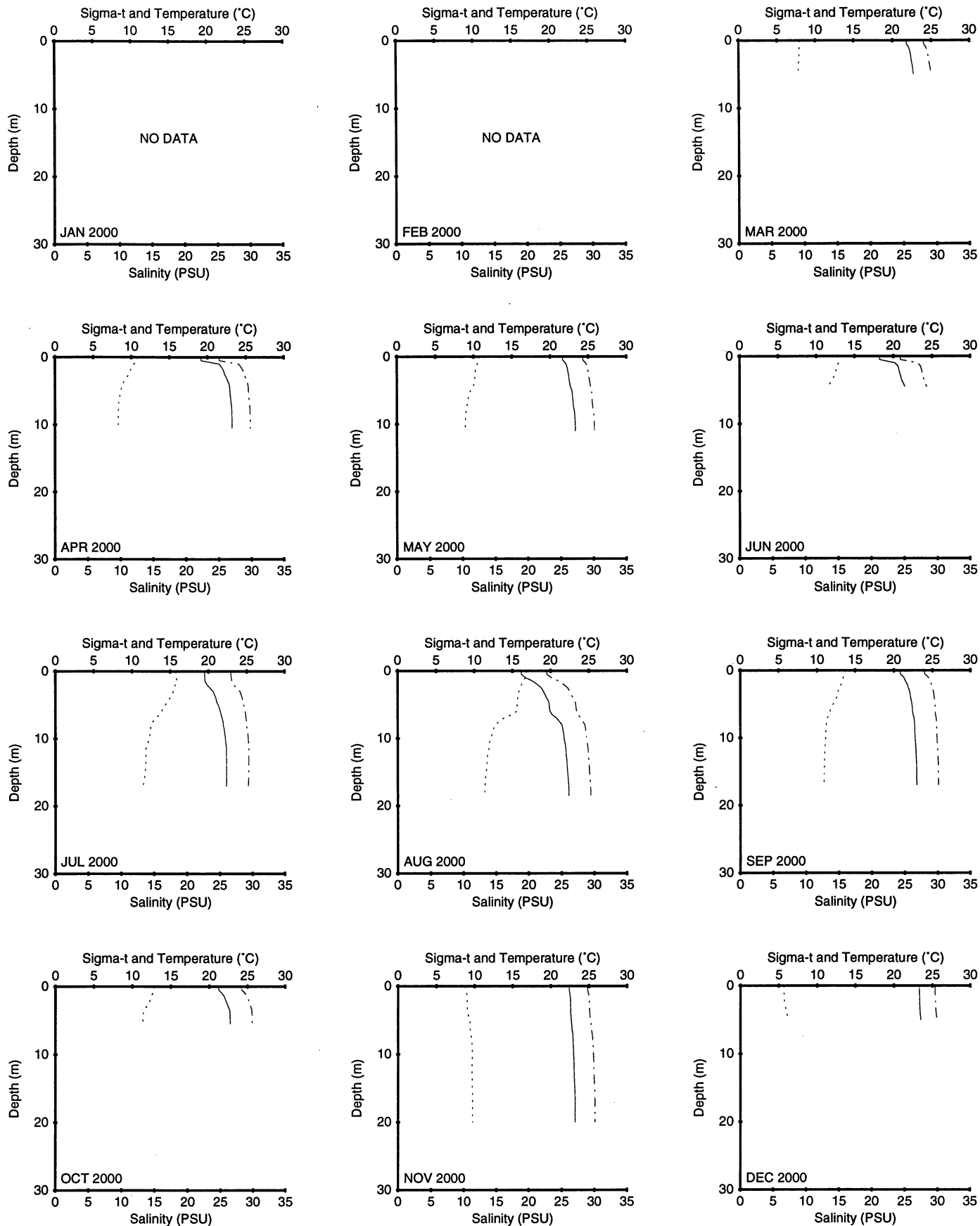
# BLL009 Bellingham Bay - Pt. Frances



**Legend: Temperature = Dotted Line Salinity = Dot-Dashed Line Sigma-t = Solid Line**



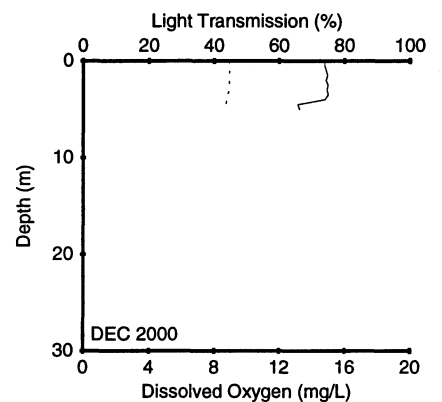
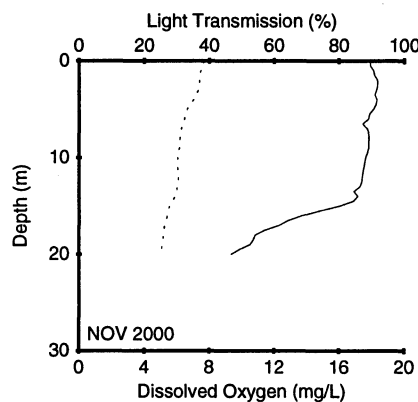
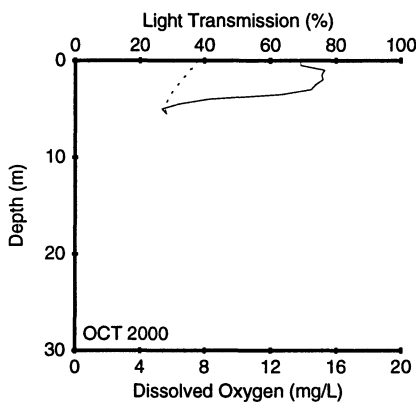
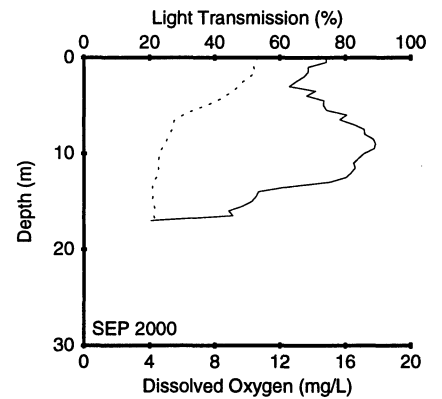
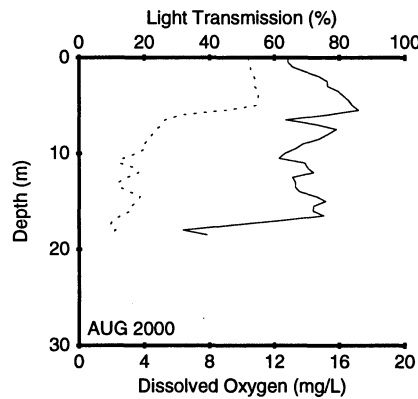
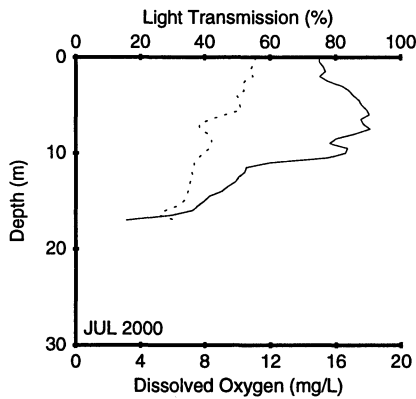
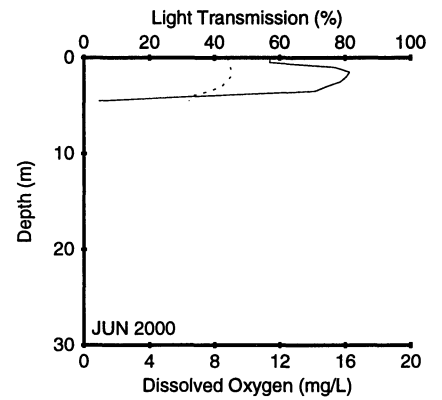
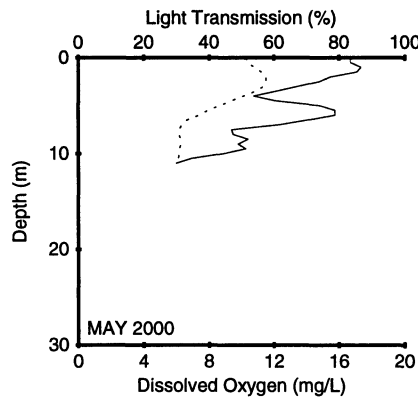
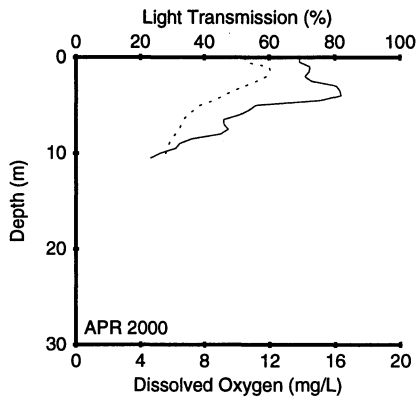
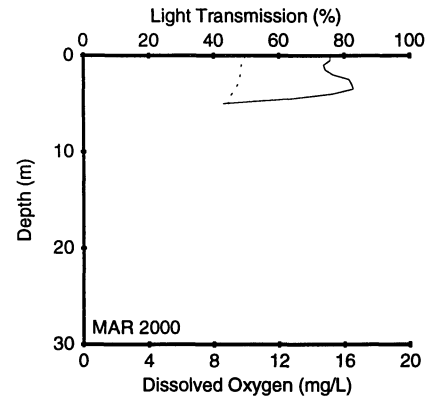
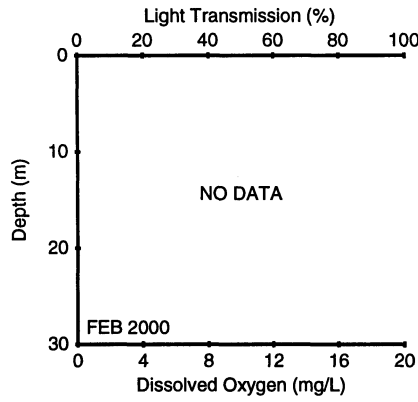
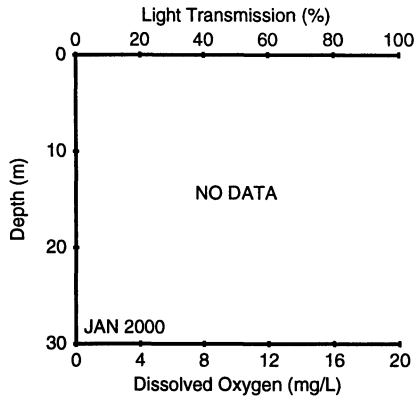
**BLL011 Bellingham Bay - Off Nooksack**



**Legend: Temperature = Dotted Line Salinity = Dot-Dashed Line Sigma-t = Solid Line**

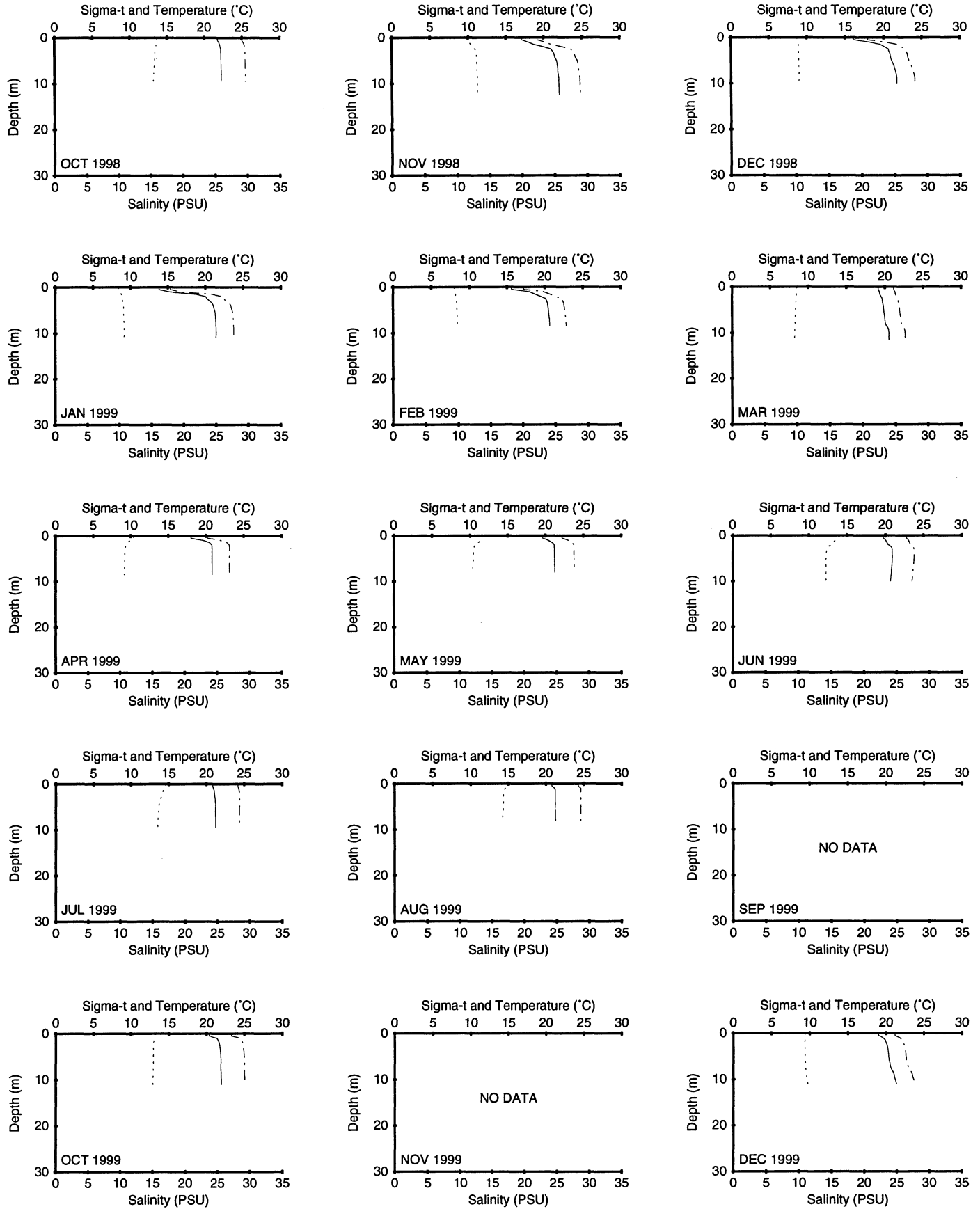


**BLL011 Bellingham Bay - Off Nooksack**



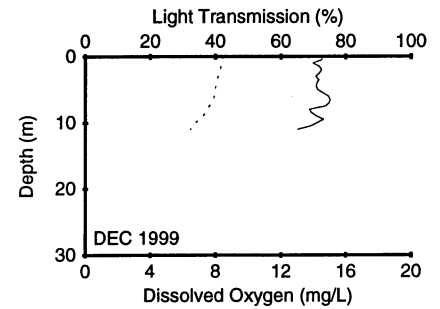
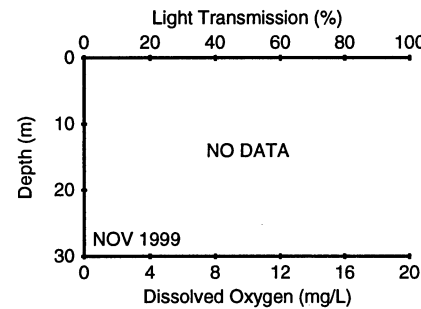
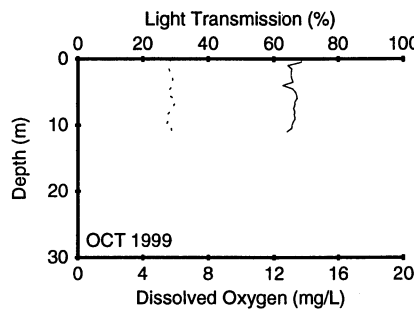
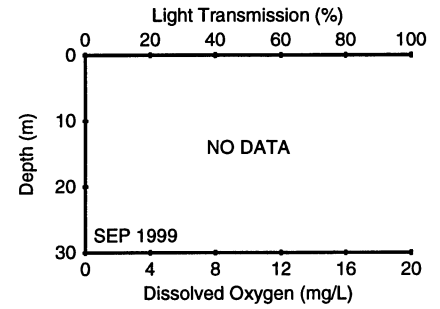
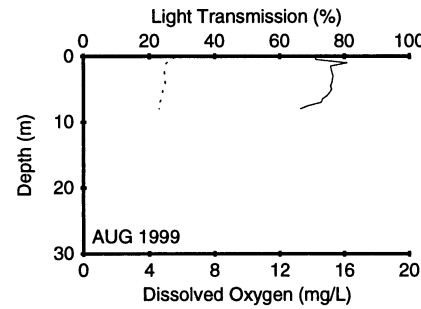
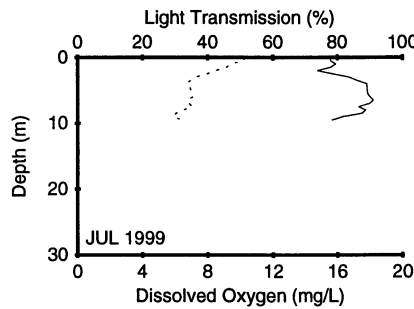
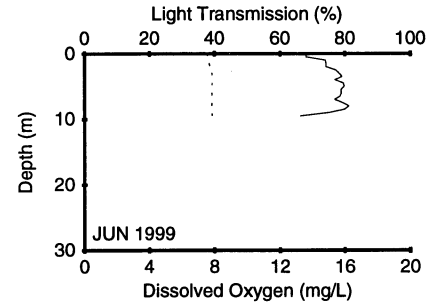
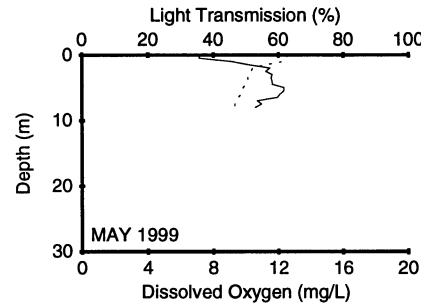
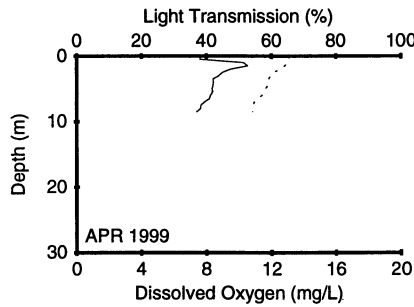
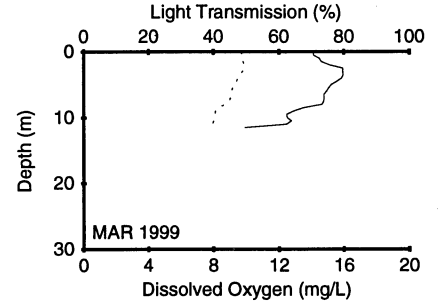
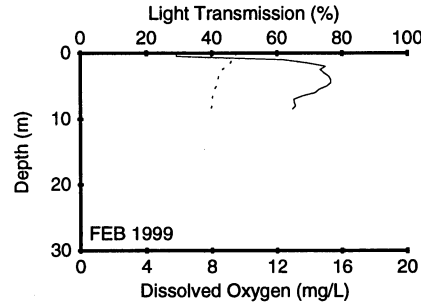
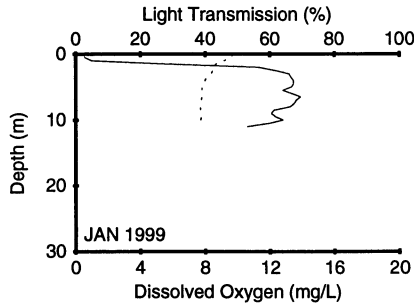
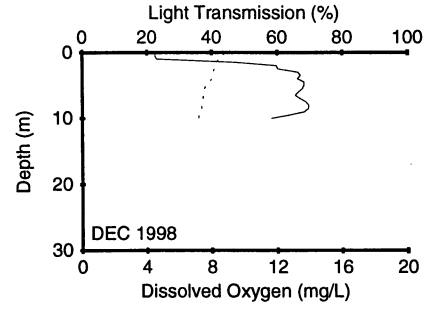
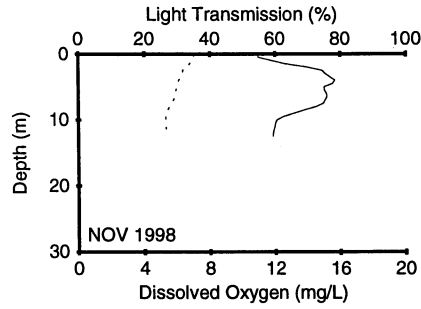
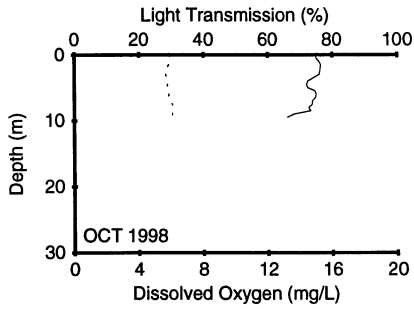
**Legend: Light Transmission = Solid Line Dissolved Oxygen = Dotted Line**

# BUD002 Budd Inlet - S. End Oly Port



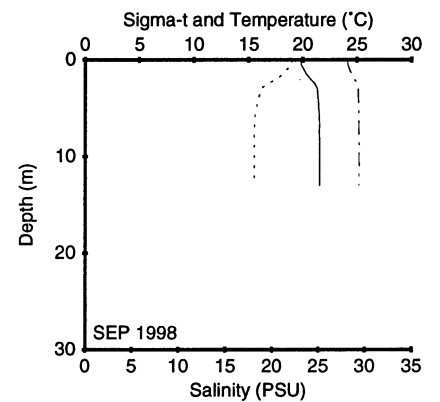
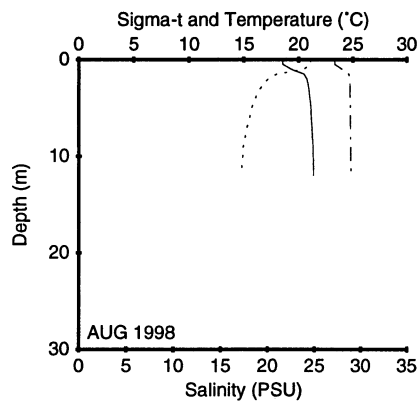
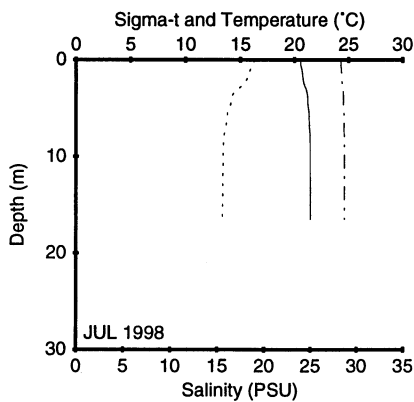
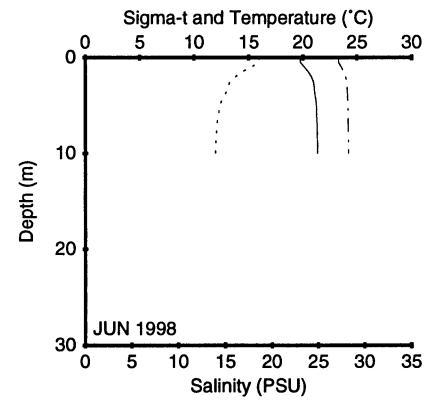
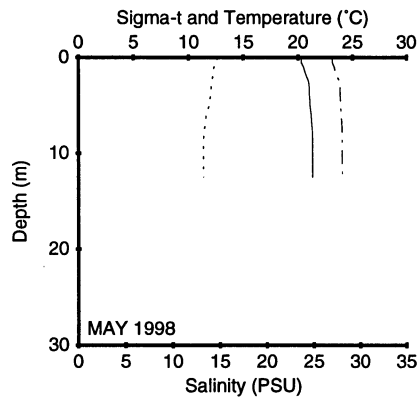
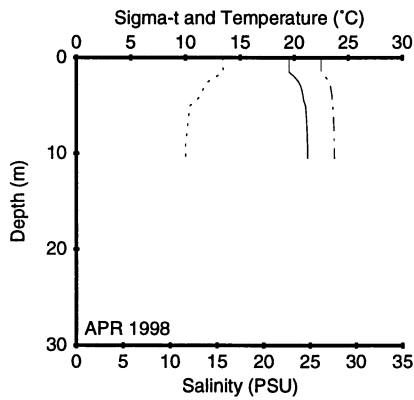
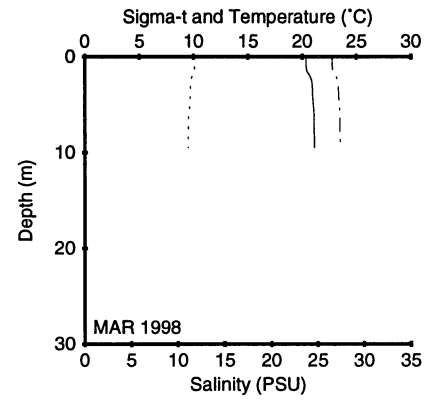
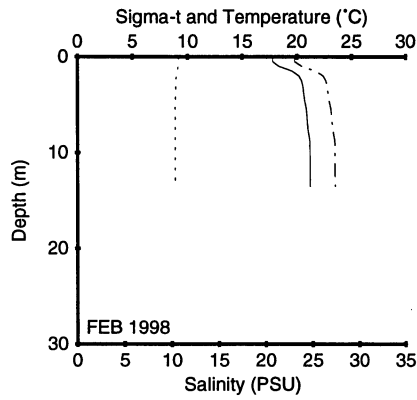
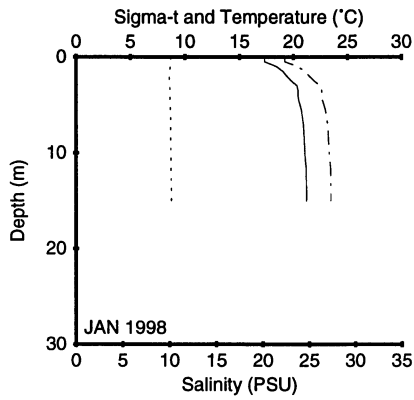
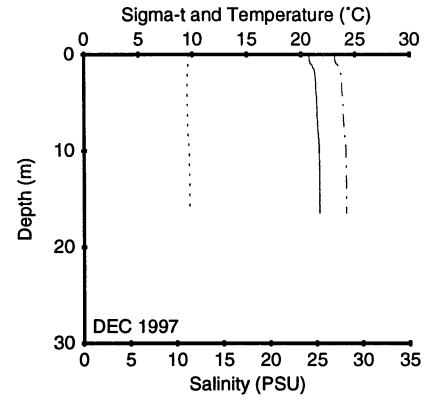
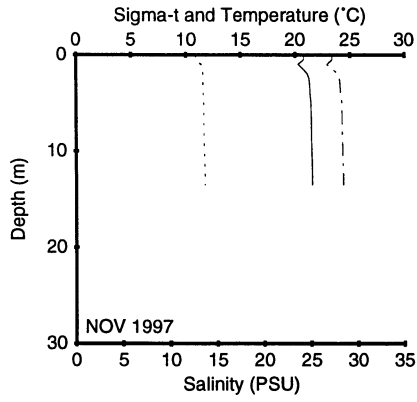
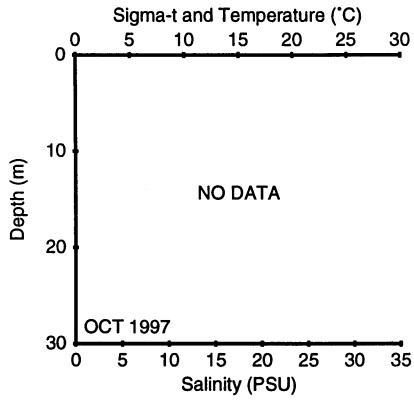
**Legend: Temperature = Dotted Line Salinity = Dot-Dashed Line Sigma-t = Solid Line**

**BUD002 Budd Inlet - S. End Oly Port**



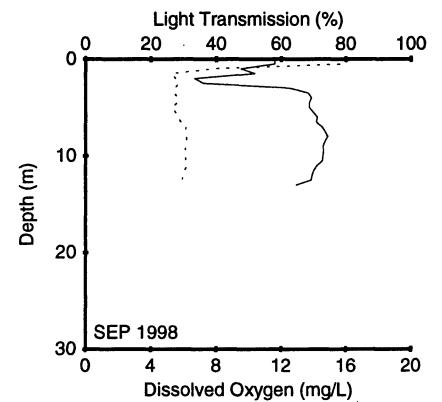
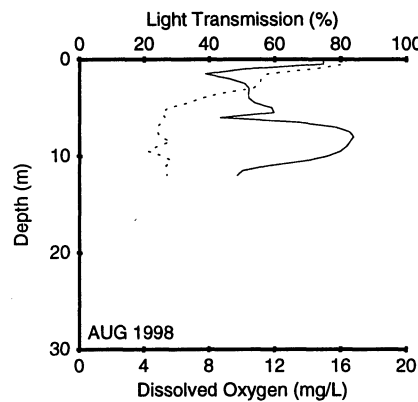
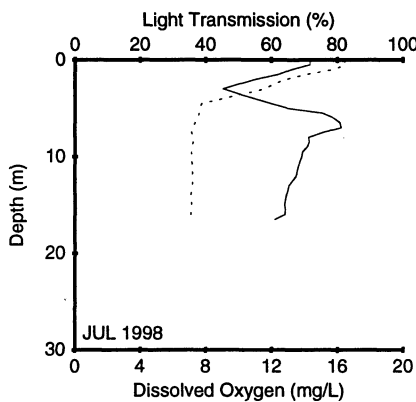
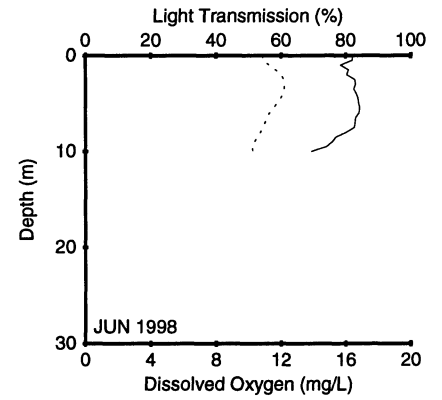
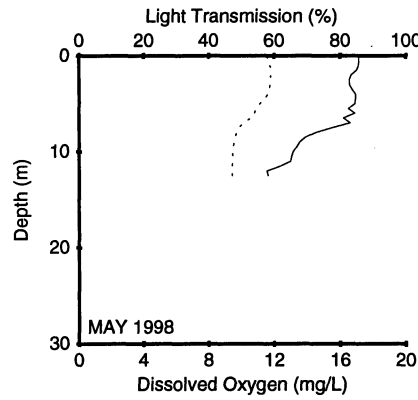
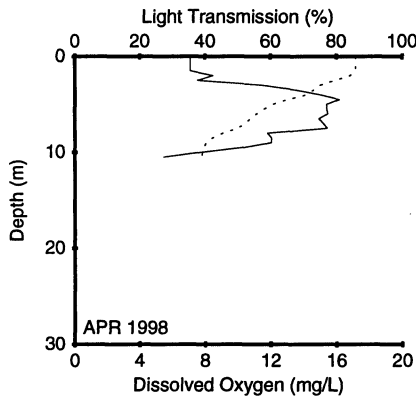
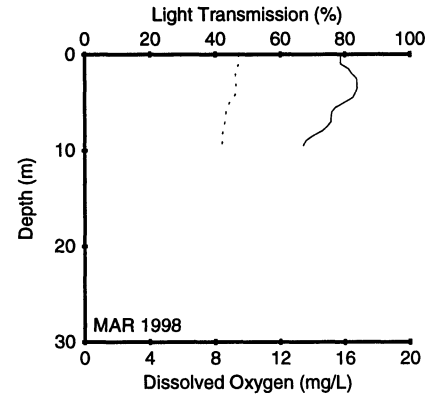
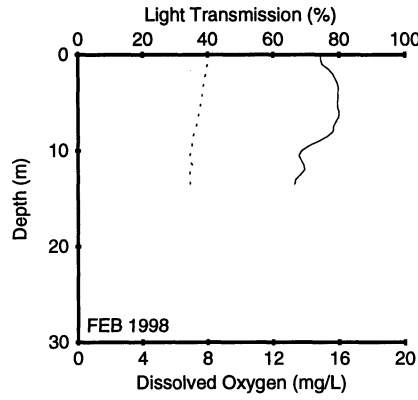
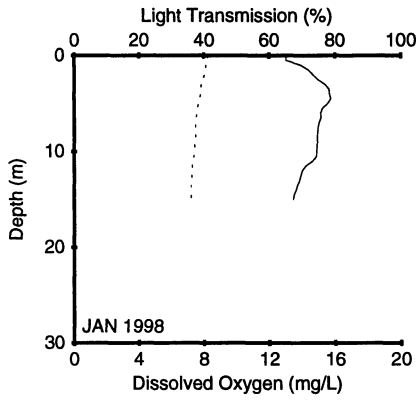
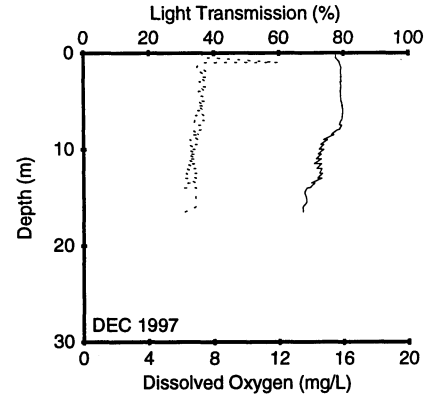
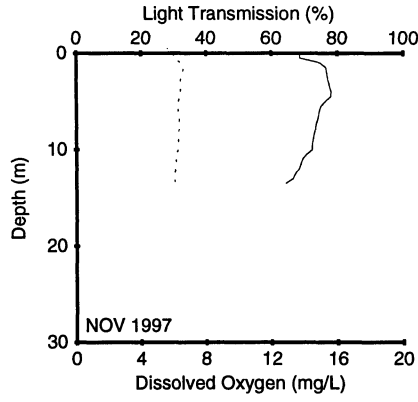
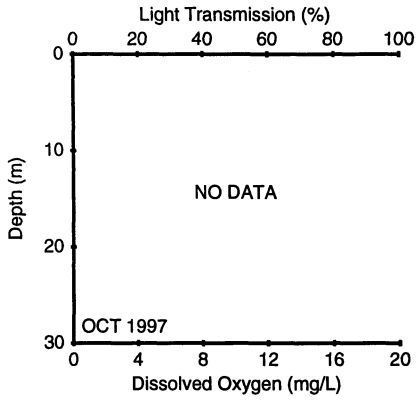
**Legend: Light Transmission = Solid Line Dissolved Oxygen = Dotted Line**

**BUD005 Budd Inlet - Olympia Shoal**



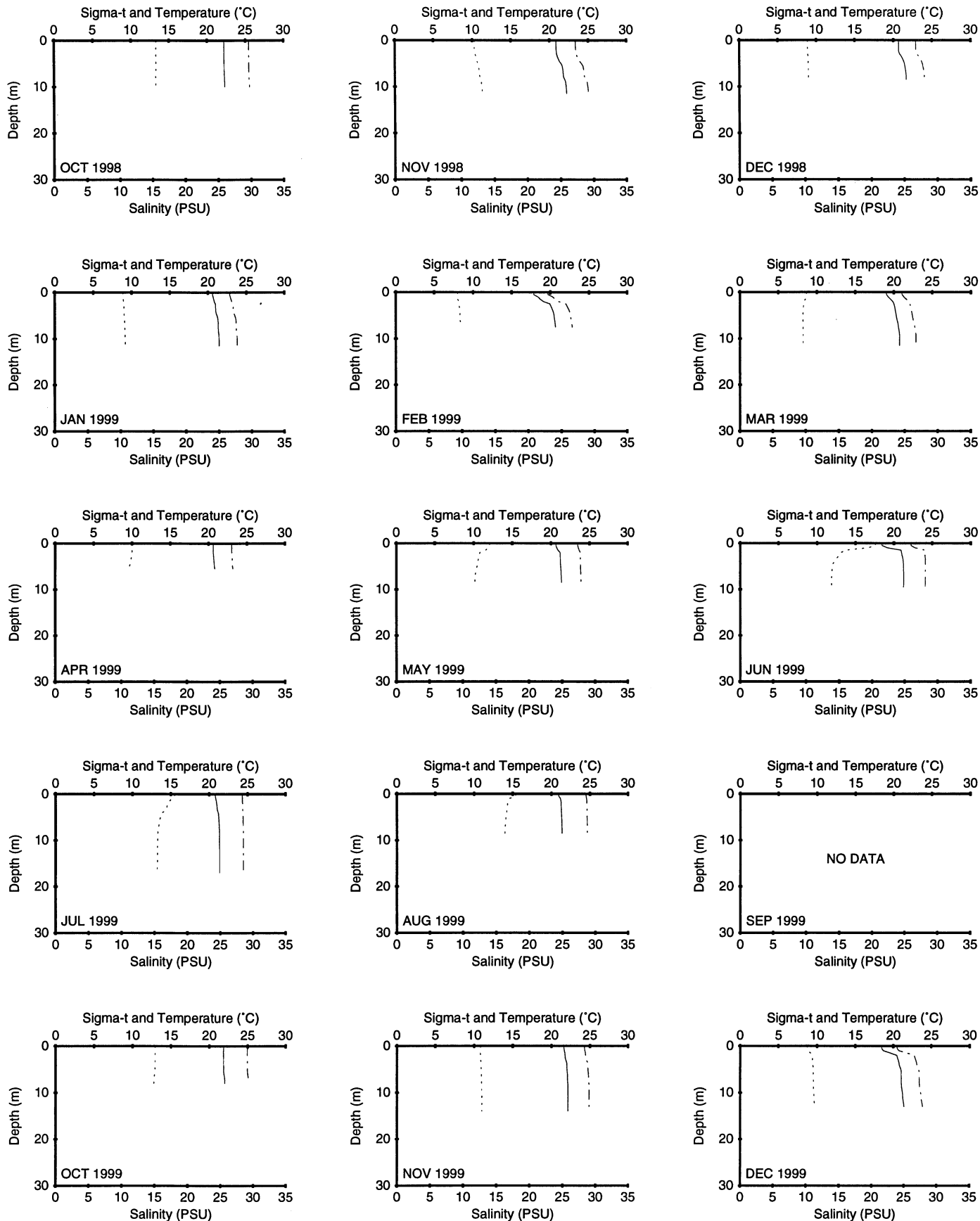
**Legend: Temperature = Dotted Line Salinity = Dot-Dashed Line Sigma-t = Solid Line**

**BUD005 Budd Inlet - Olympia Shoal**



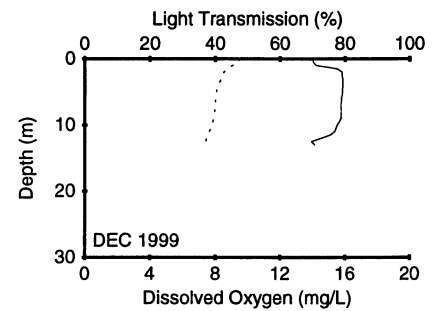
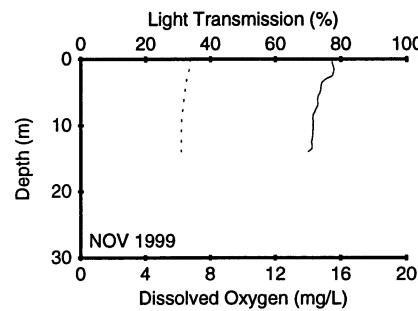
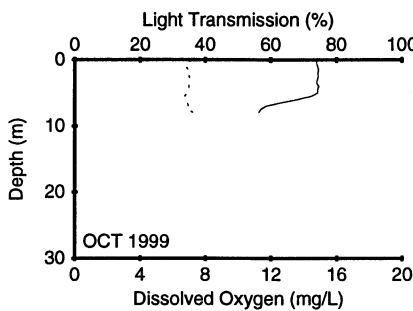
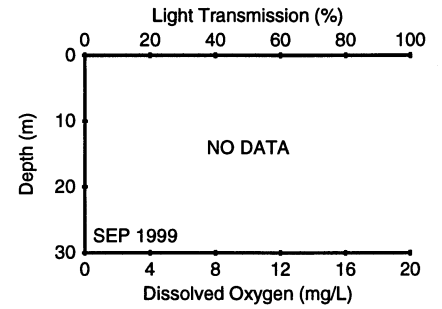
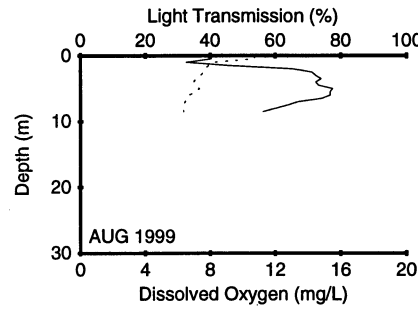
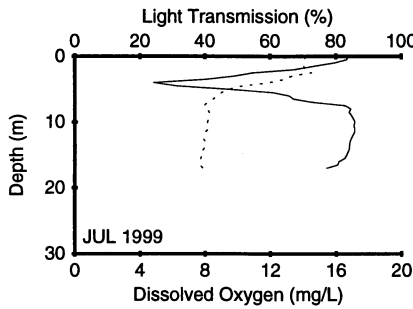
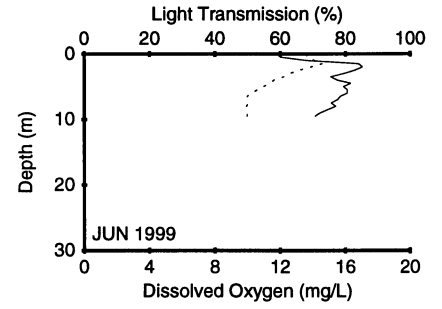
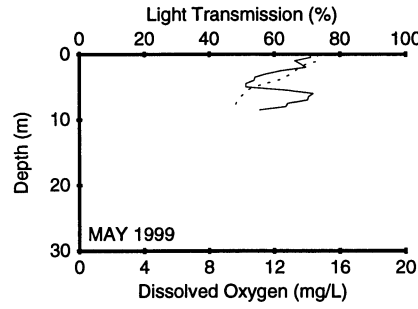
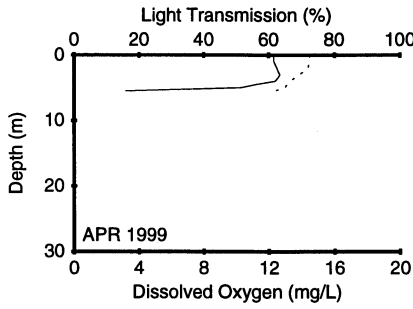
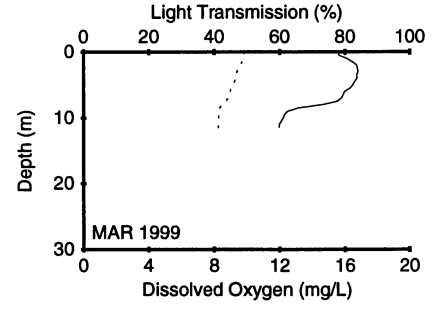
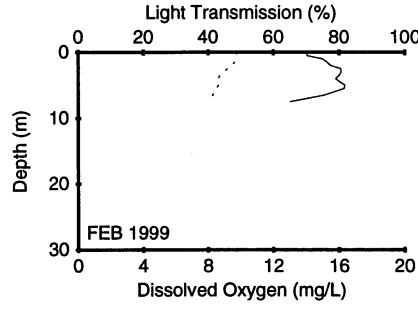
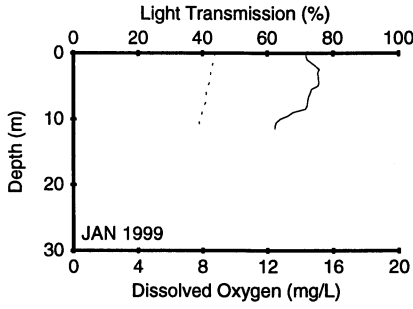
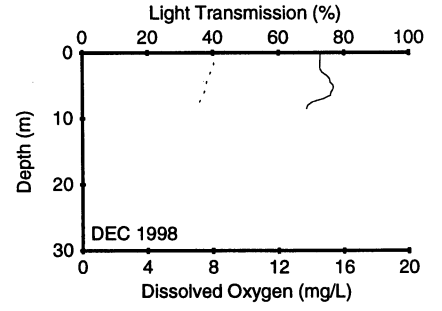
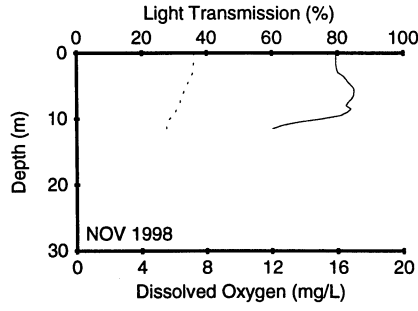
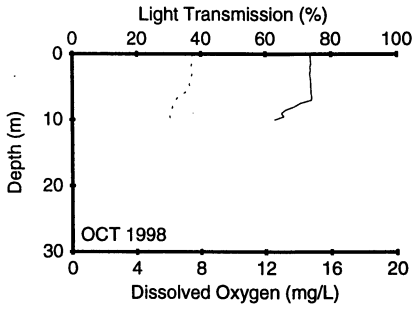
**Legend: Light Transmission = Solid Line Dissolved Oxygen = Dotted Line**

**BUD005 Budd Inlet - Olympia Shoal**



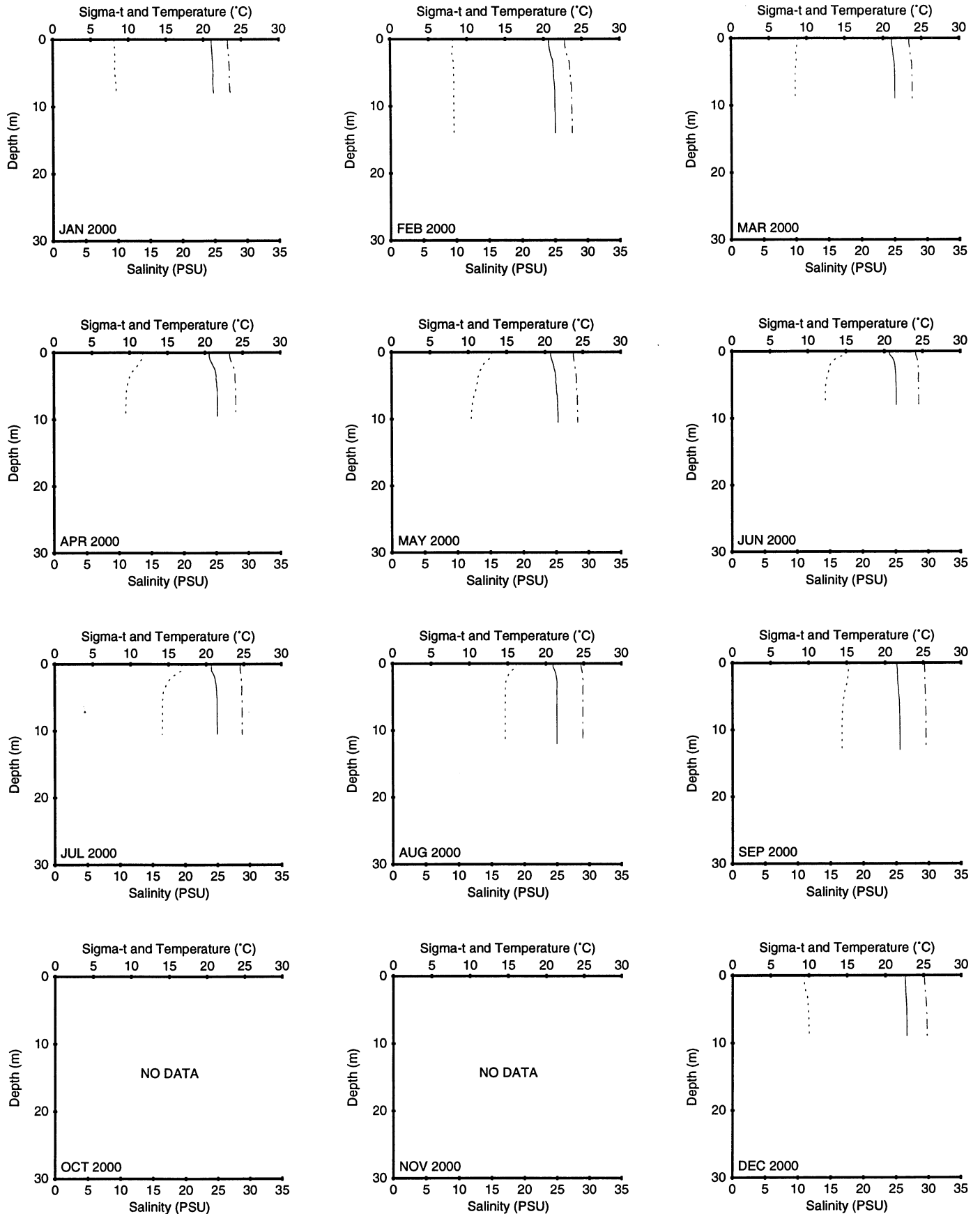
**Legend: Temperature = Dotted Line Salinity = Dot-Dashed Line Sigma-t = Solid Line**

**BUD005 Budd Inlet - Olympia Shoal**



**Legend: Light Transmission = Solid Line Dissolved Oxygen = Dotted Line**

# BUD005 Budd Inlet - Olympia Shoal

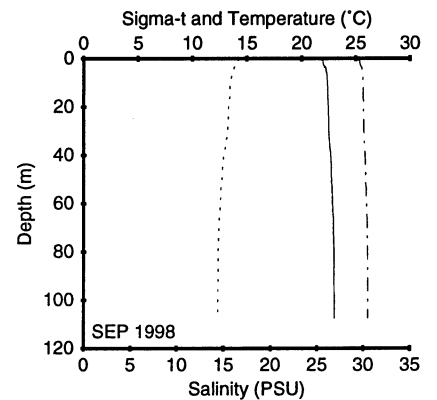
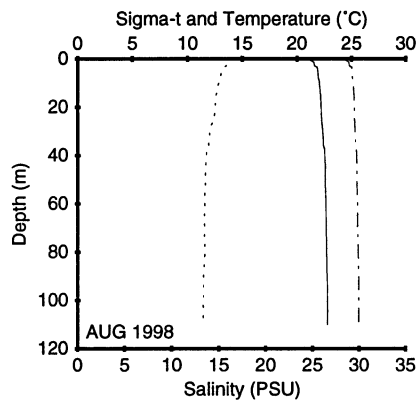
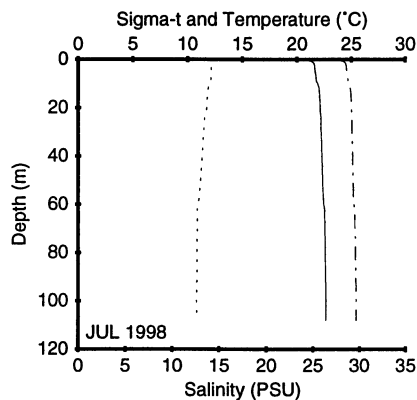
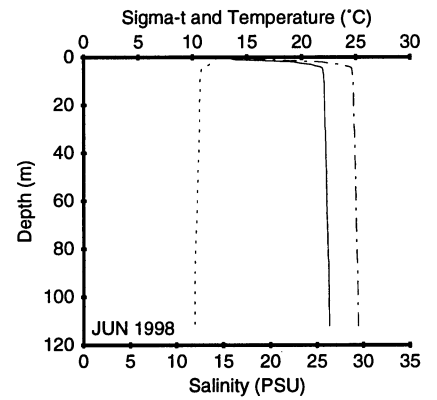
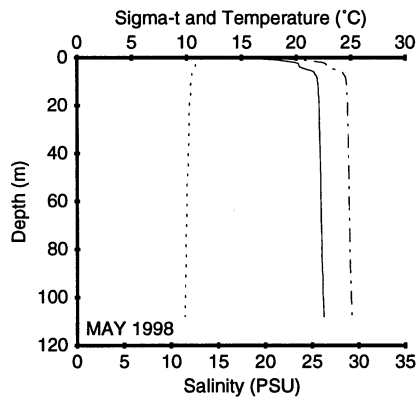
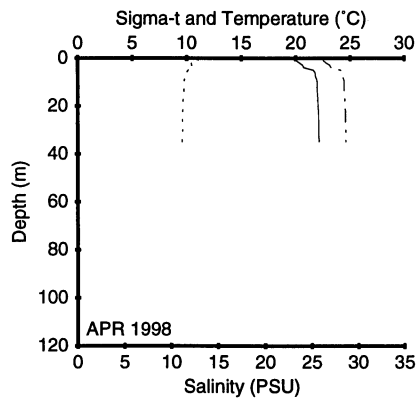
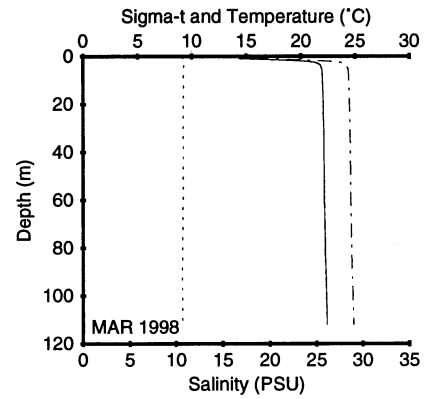
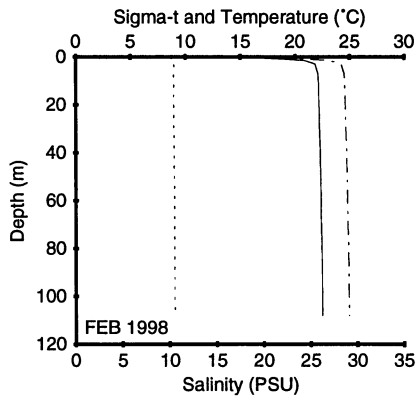
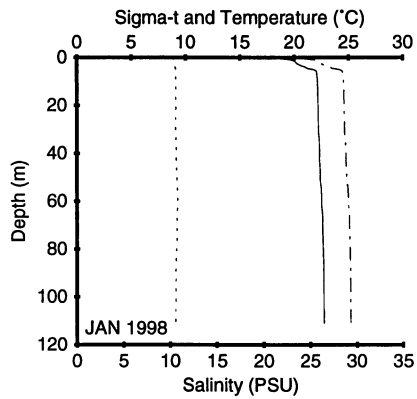
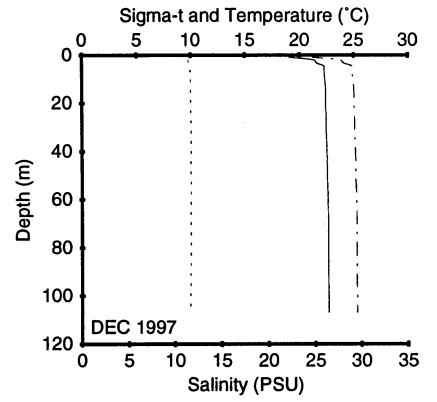
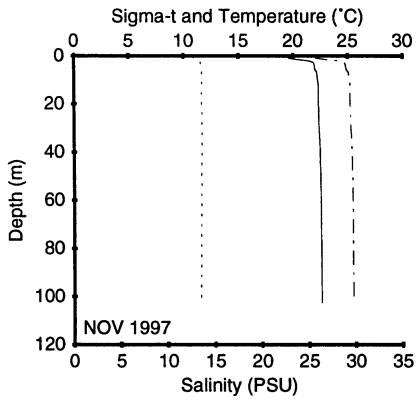
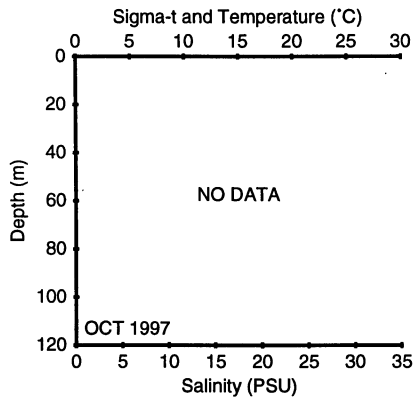


**Legend: Temperature = Dotted Line Salinity = Dot-Dashed Line Sigma-t = Solid Line**



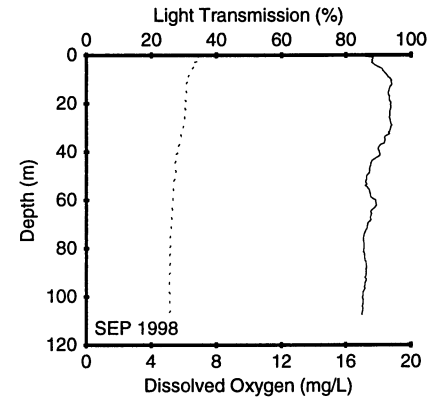
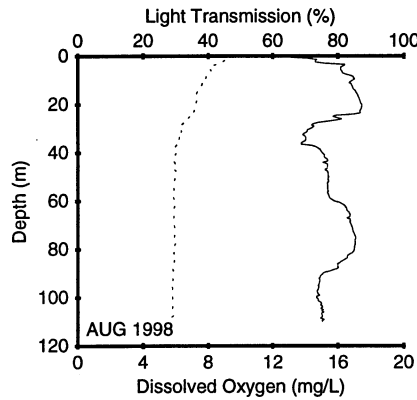
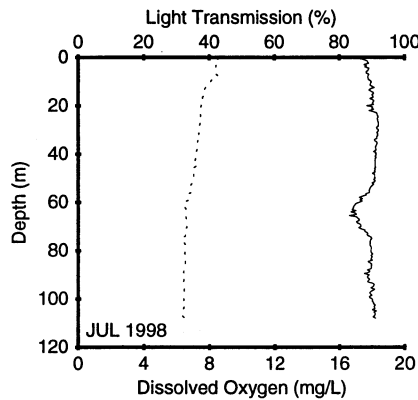
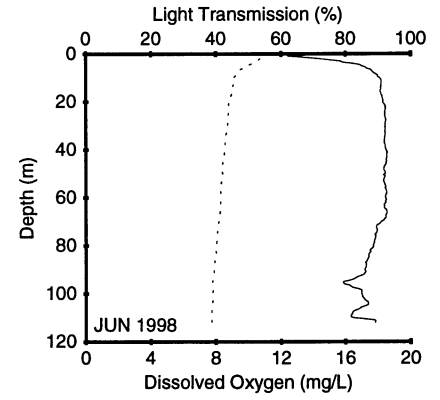
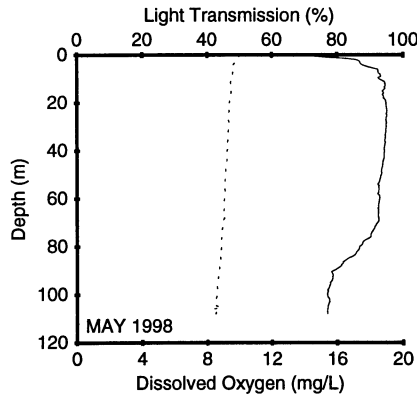
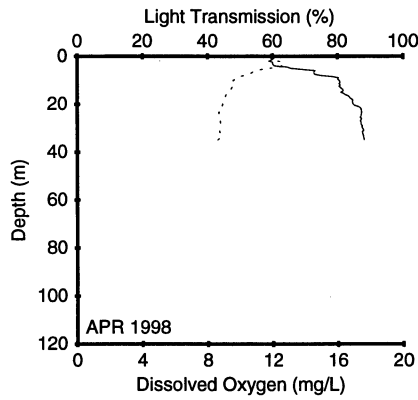
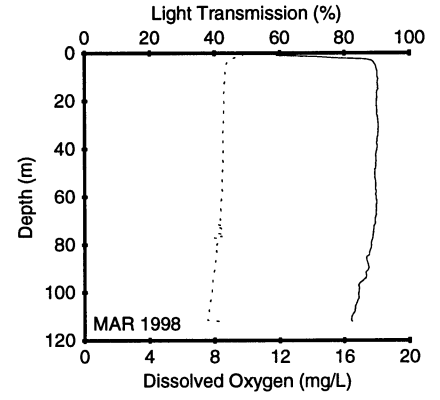
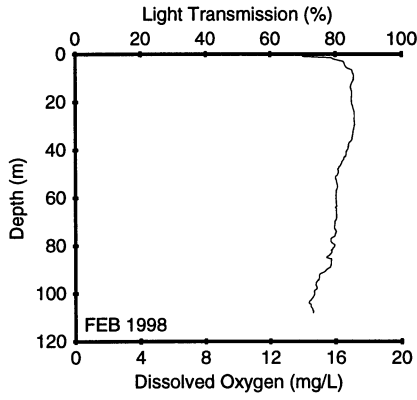
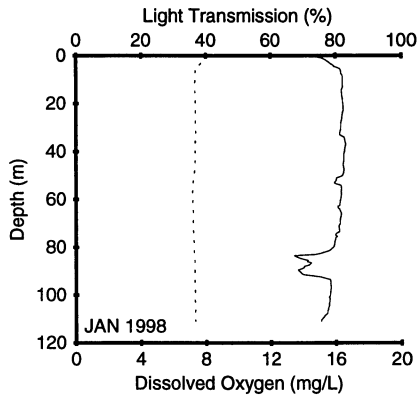
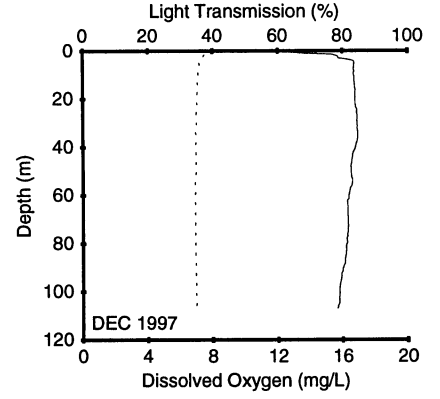
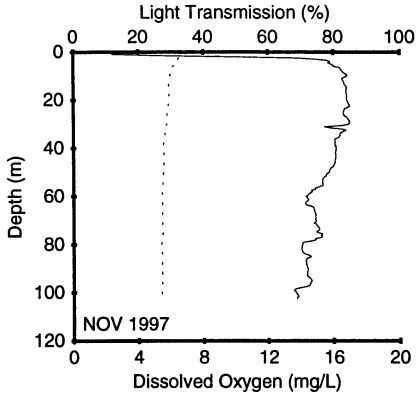
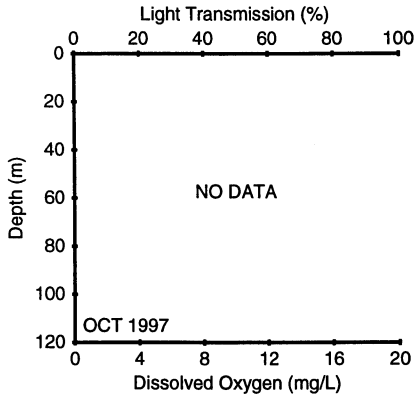


# CMB003 Commencement Bay - Browns Point



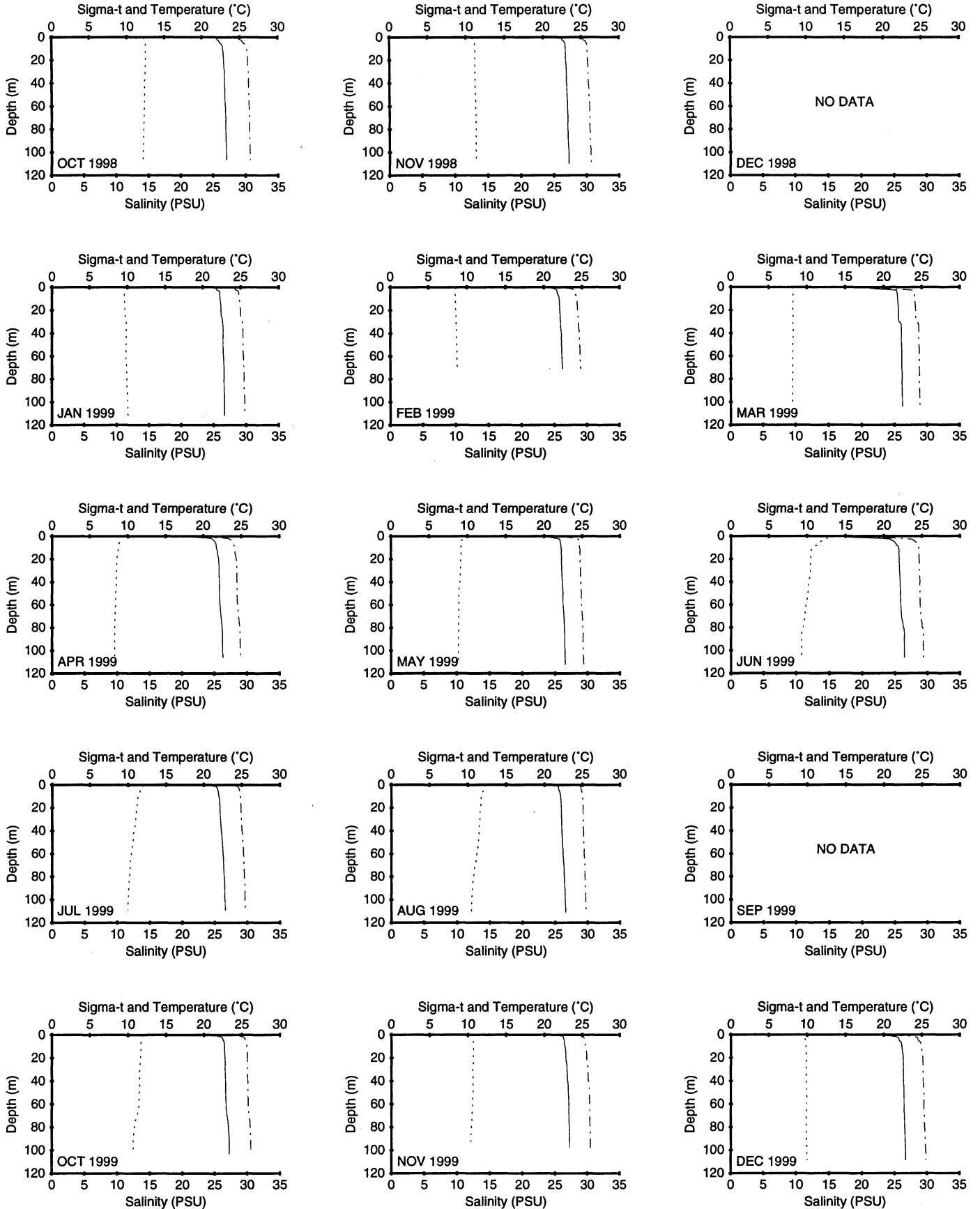
**Legend: Temperature = Dotted Line Salinity = Dot-Dashed Line Sigma-t = Solid Line**

# CMB003 Commencement Bay - Browns Point



**Legend: Light Transmission = Solid Line Dissolved Oxygen = Dotted Line**

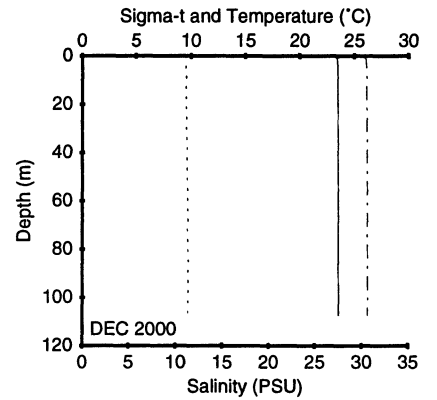
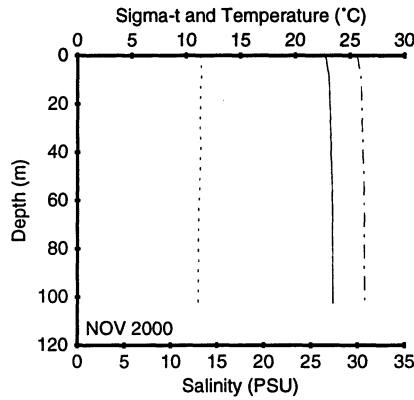
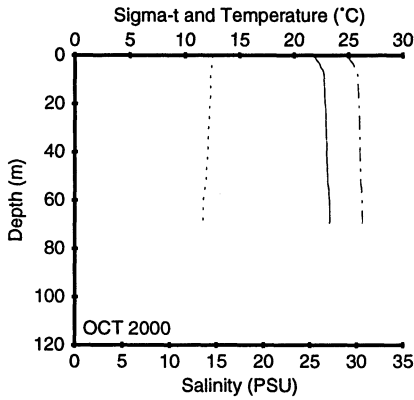
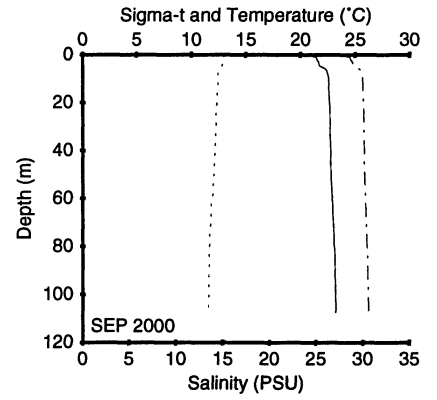
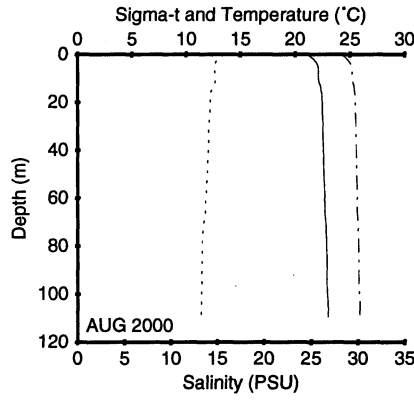
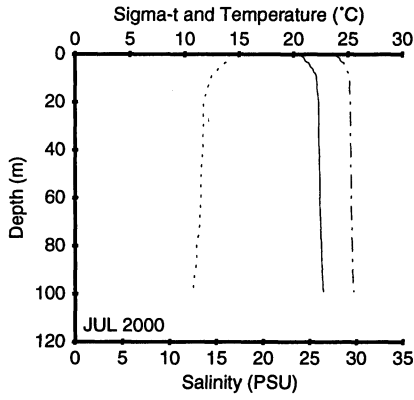
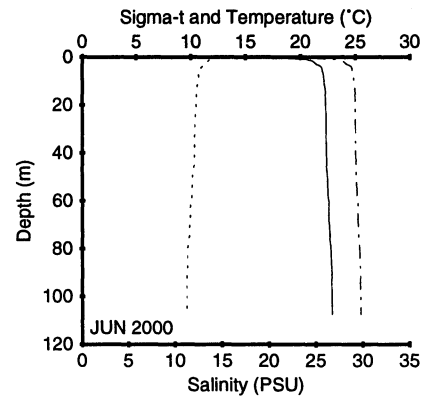
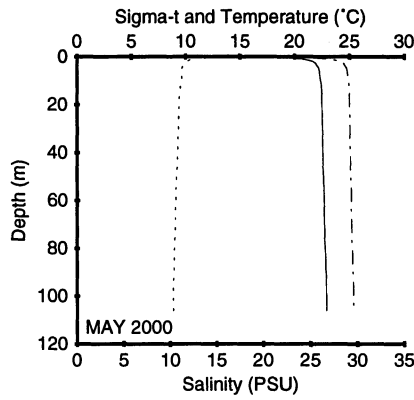
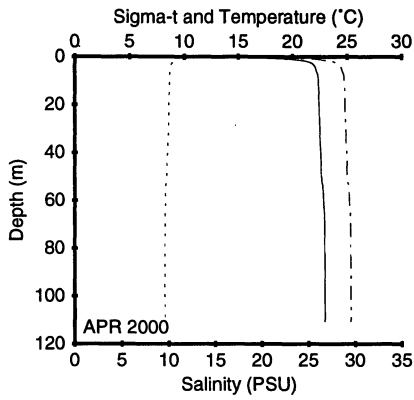
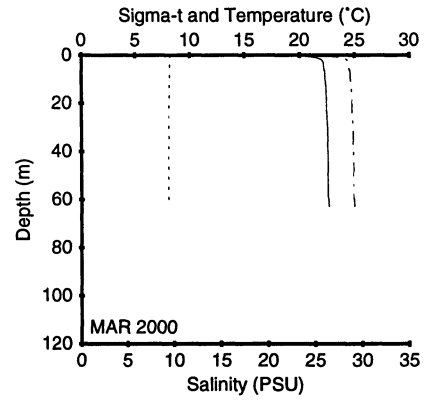
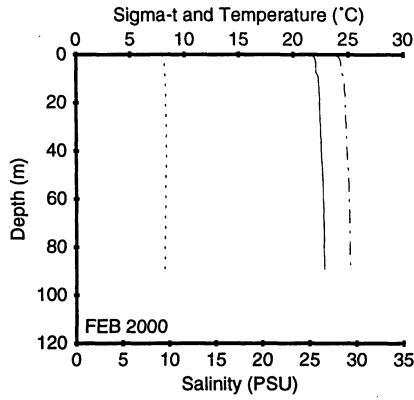
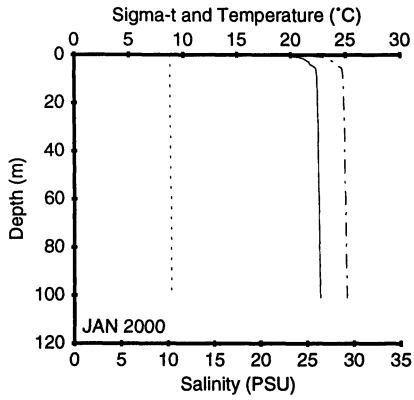
**CMB003 Commencement Bay - Browns Point**



**Legend: Temperature = Dotted Line Salinity = Dot-Dashed Line Sigma-t = Solid Line**



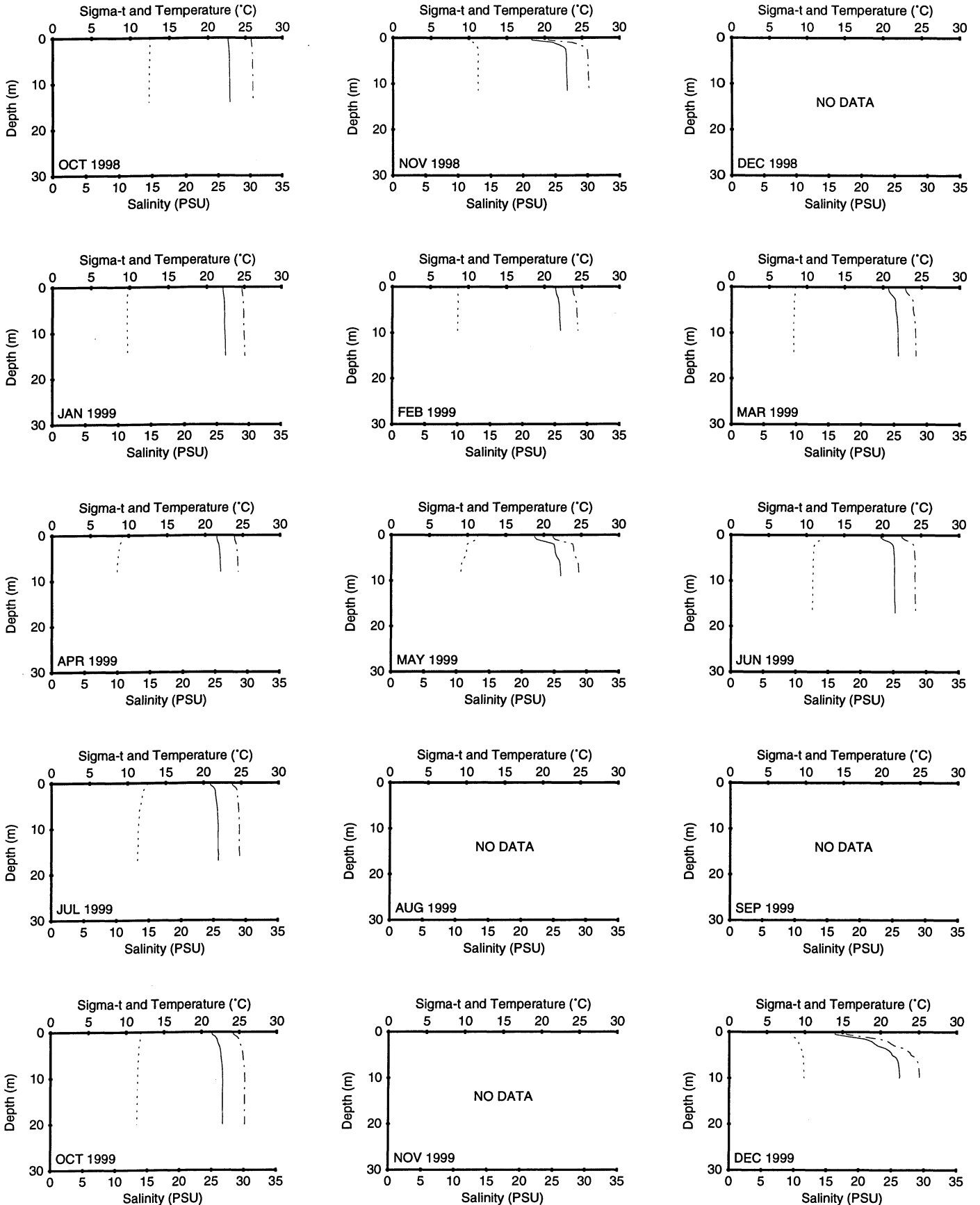
**CMB003 Commencement Bay - Browns Point**



**Legend: Temperature = Dotted Line Salinity = Dot-Dashed Line Sigma-t = Solid Line**



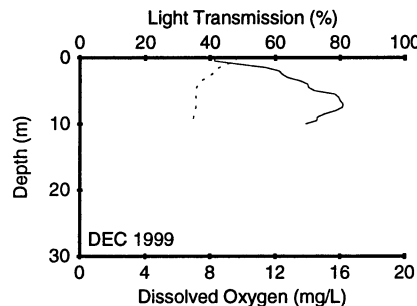
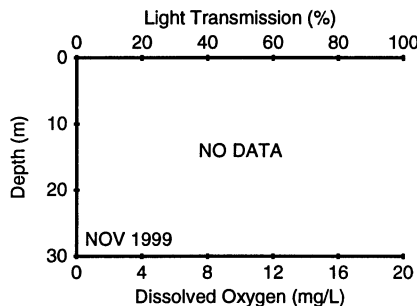
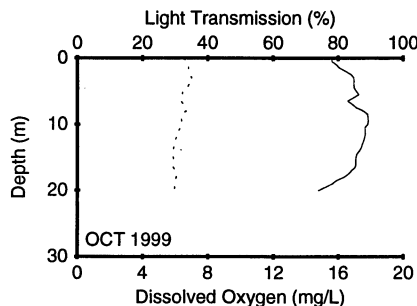
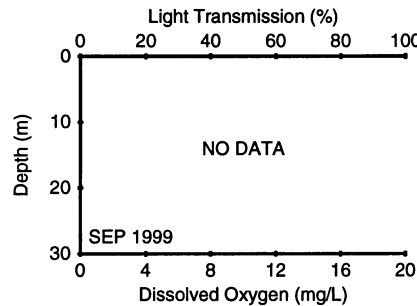
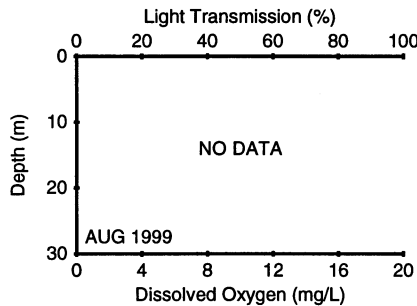
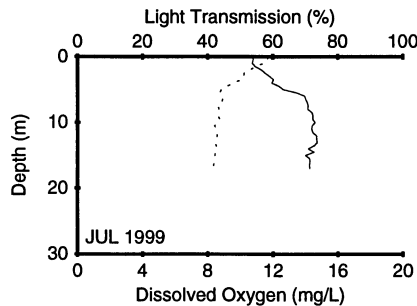
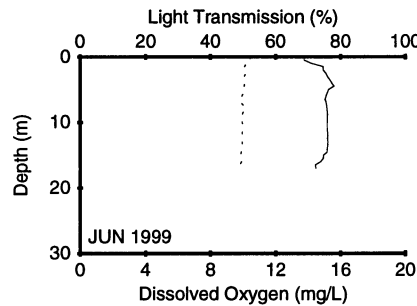
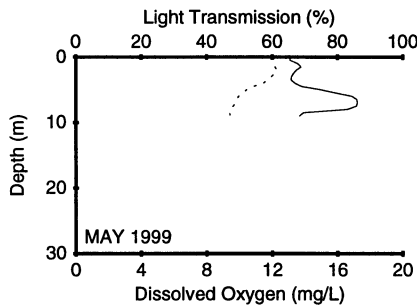
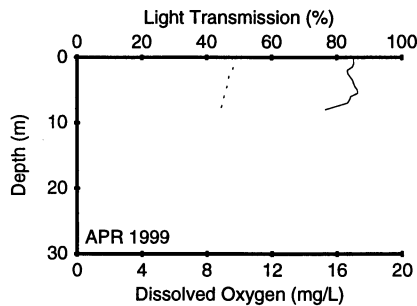
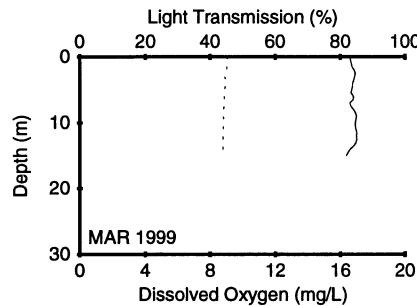
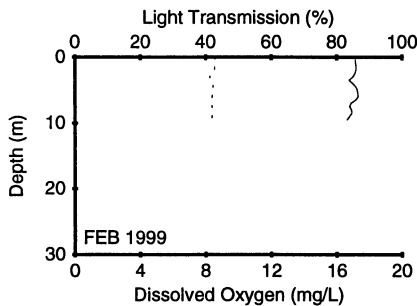
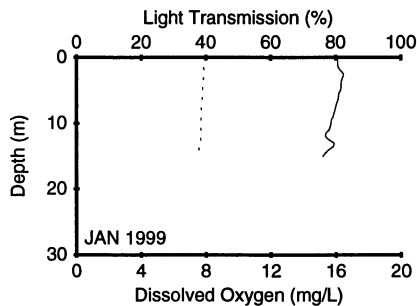
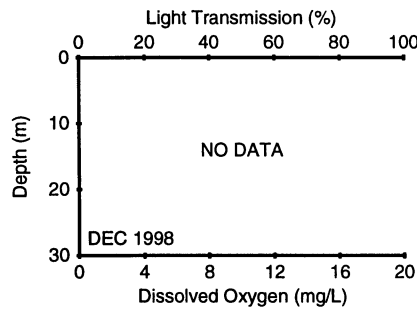
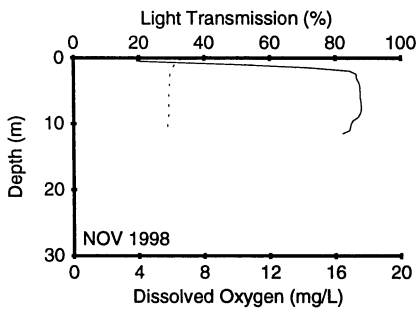
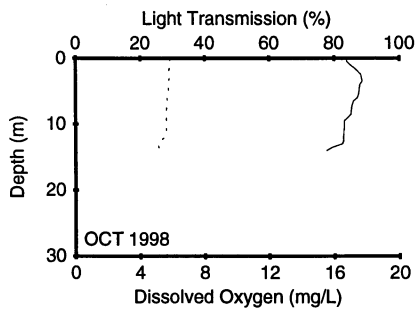
**CMB006 Commencement Bay - Mouth of City WW**



**Legend: Temperature = Dotted Line Salinity = Dot-Dashed Line Sigma-t = Solid Line**

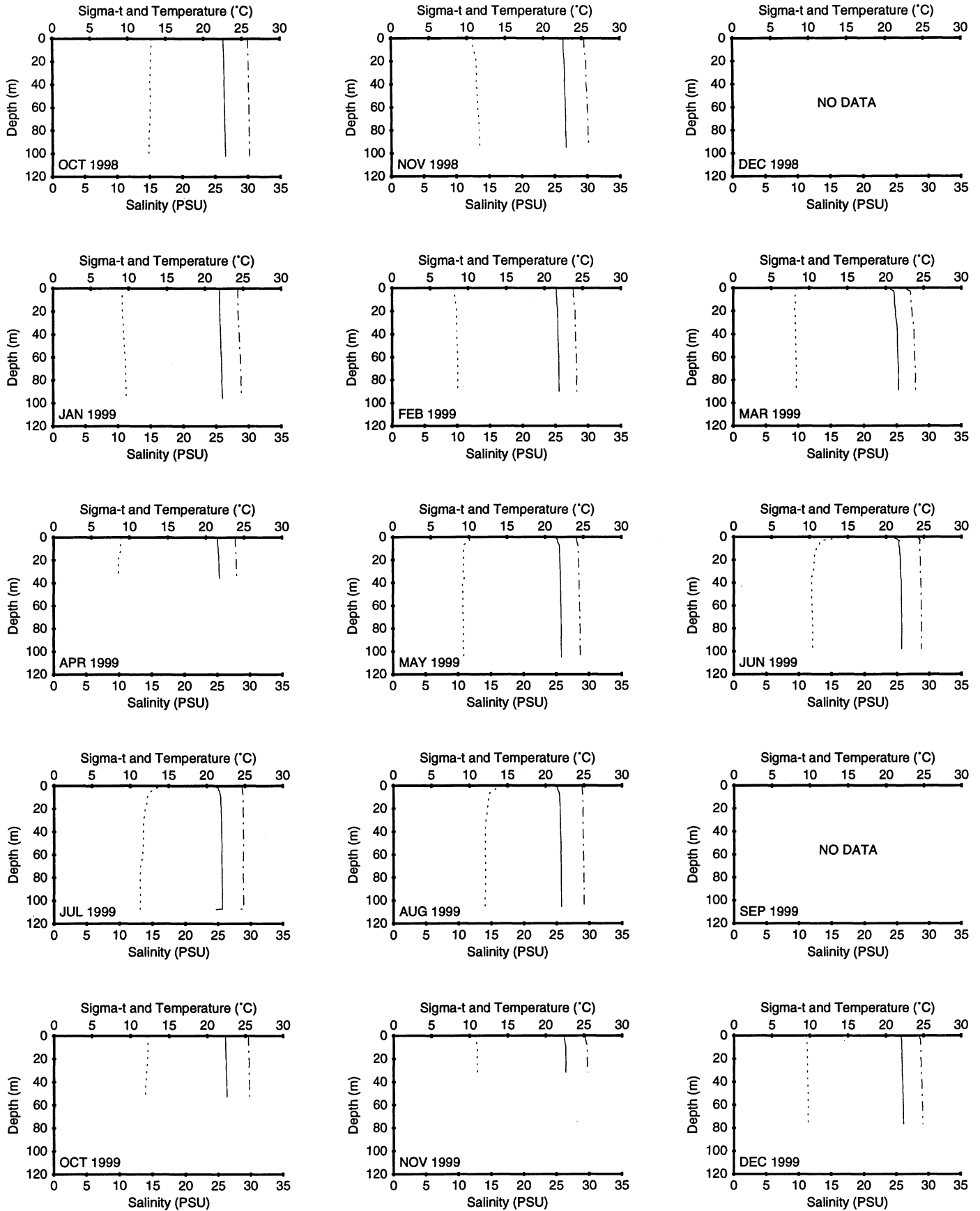


**CMB006 Commencement Bay - Mouth of City WW**



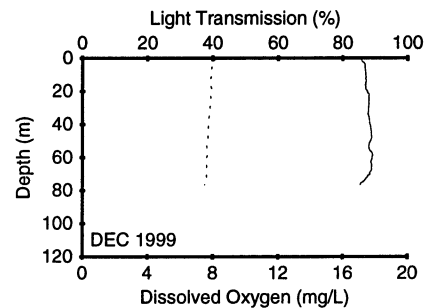
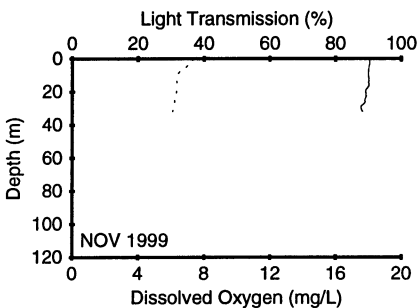
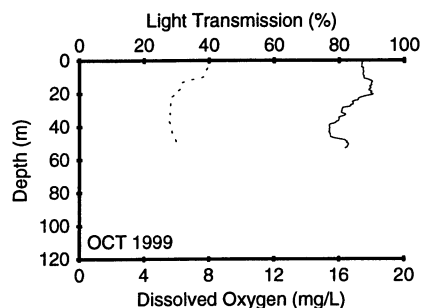
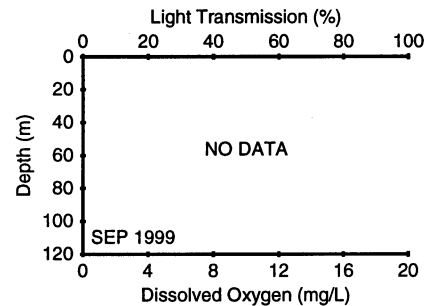
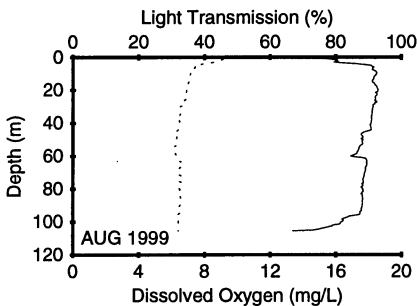
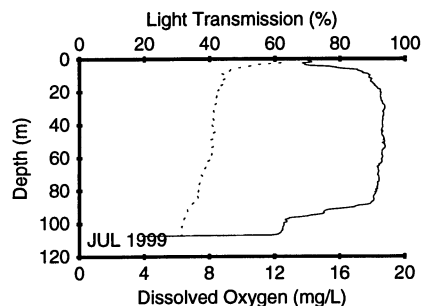
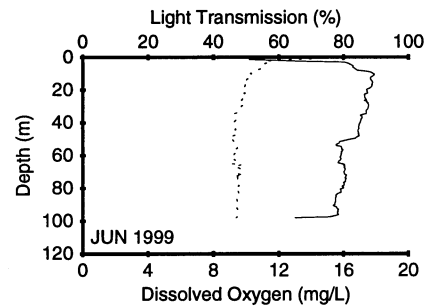
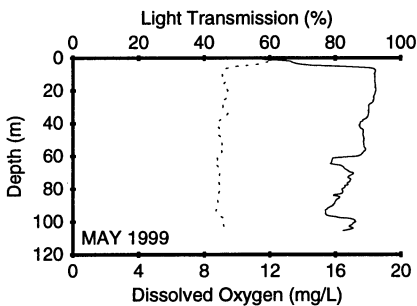
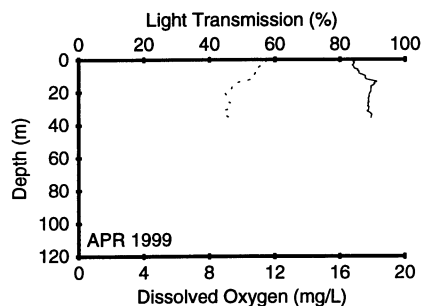
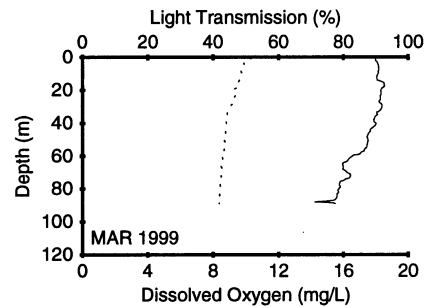
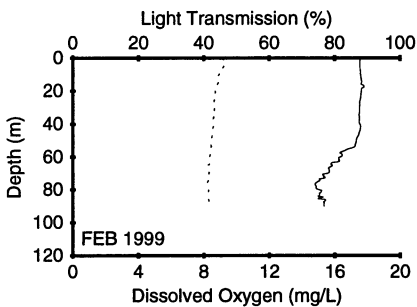
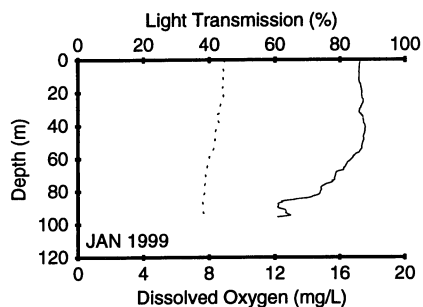
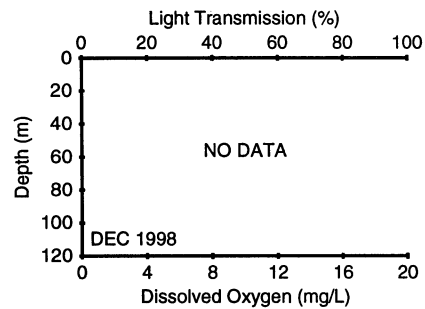
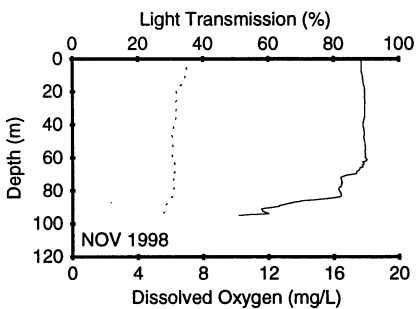
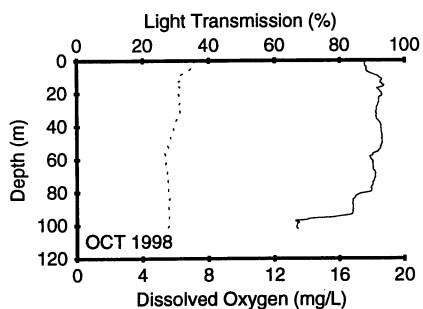
**Legend: Light Transmission = Solid Line Dissolved Oxygen = Dotted Line**

# CRR001 Carr Inlet - Off Green Point



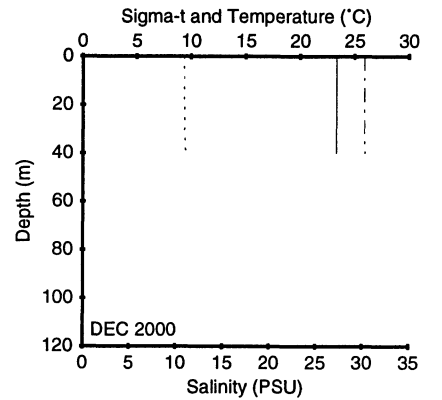
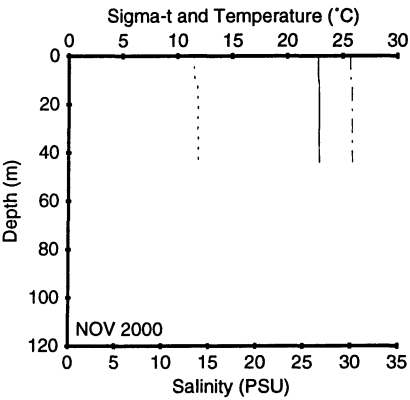
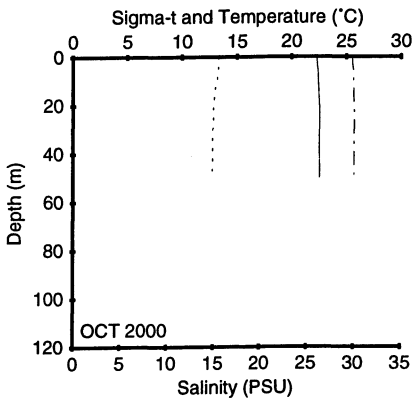
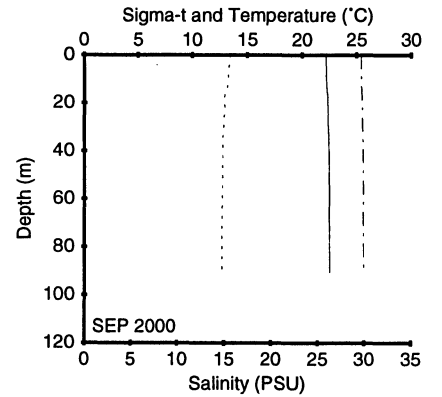
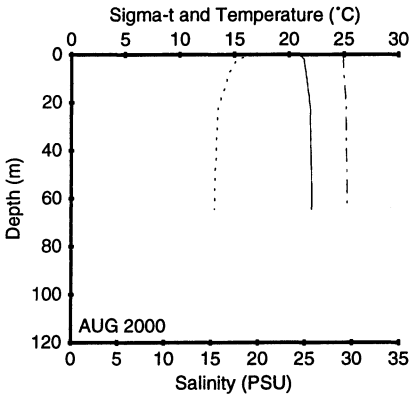
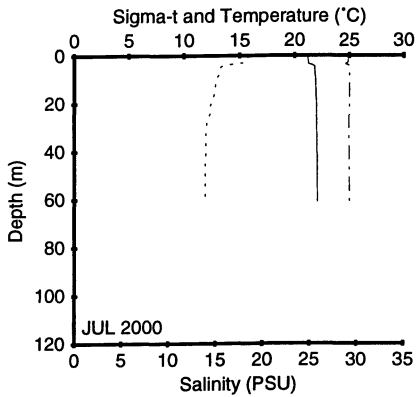
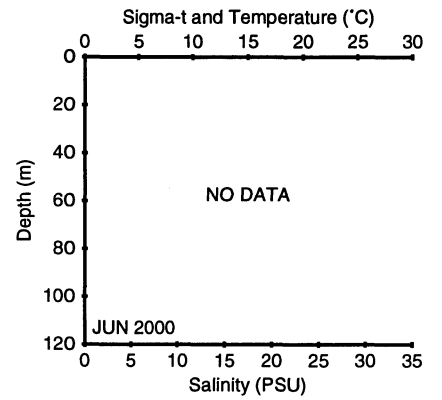
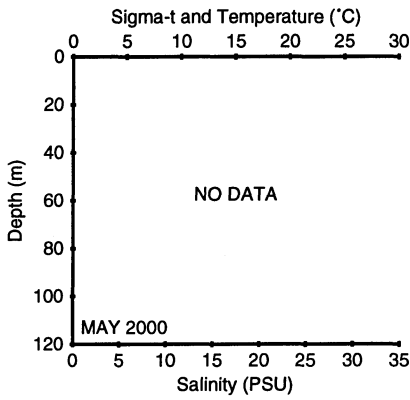
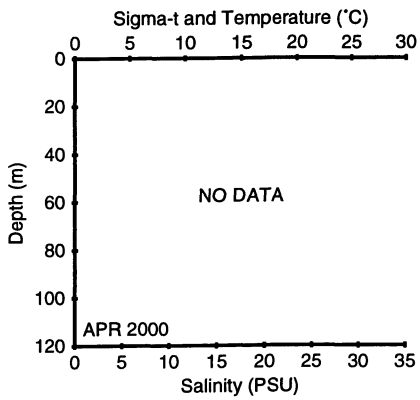
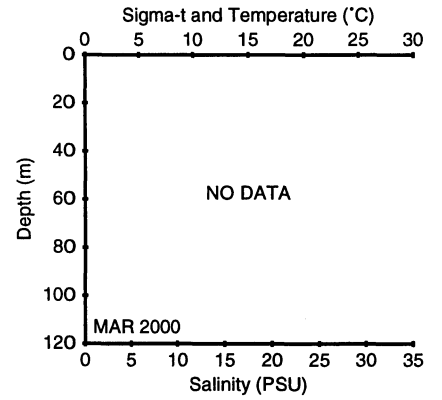
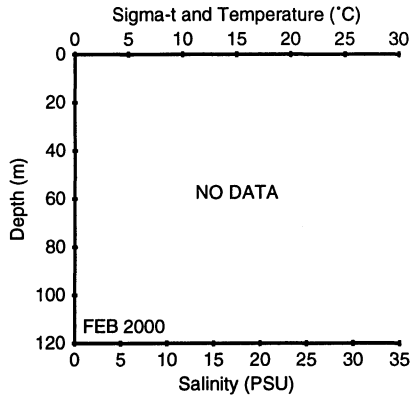
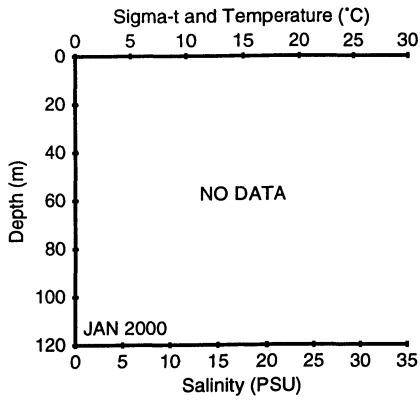
**Legend: Temperature = Dotted Line Salinity = Dot-Dashed Line Sigma-t = Solid Line**

# CRR001 Carr Inlet - Off Green Point



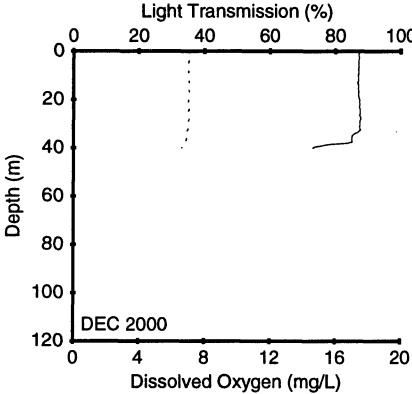
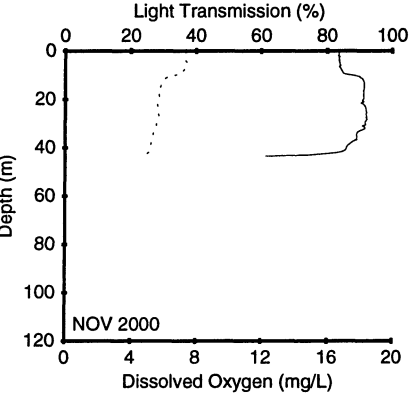
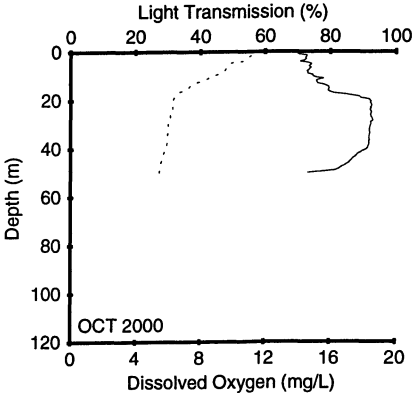
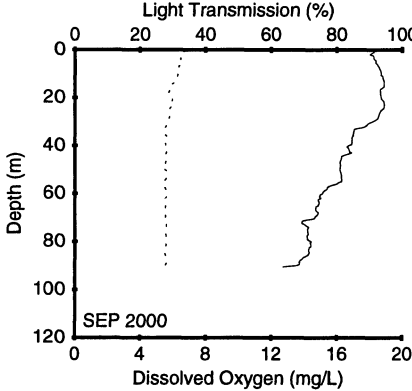
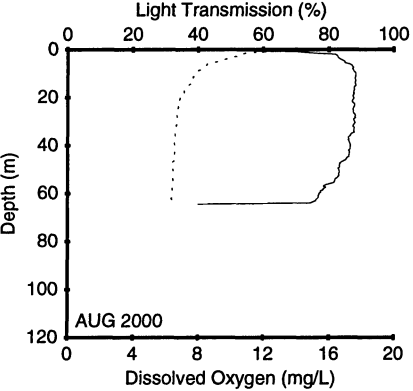
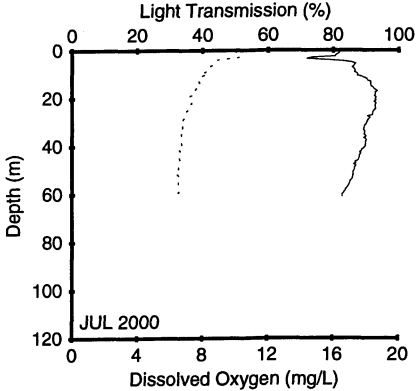
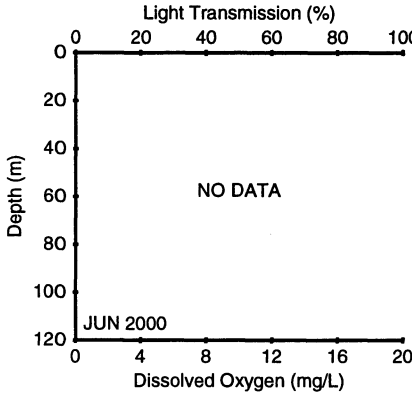
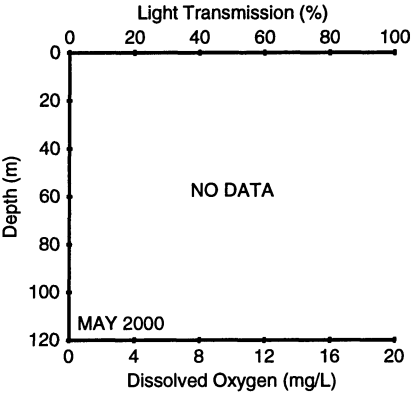
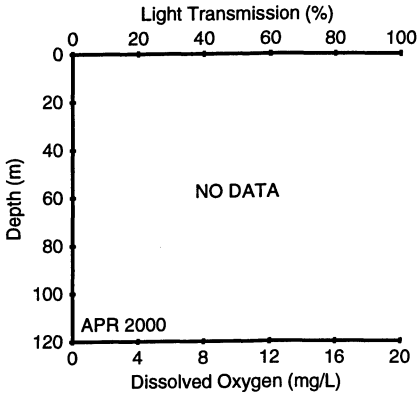
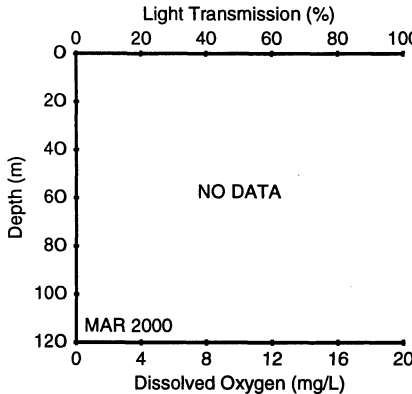
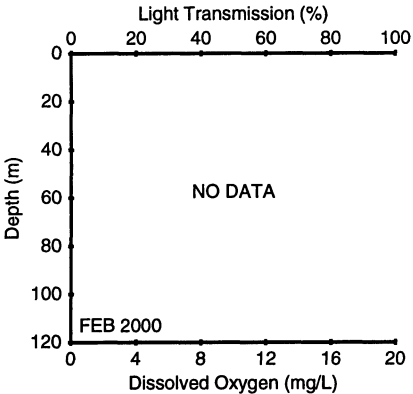
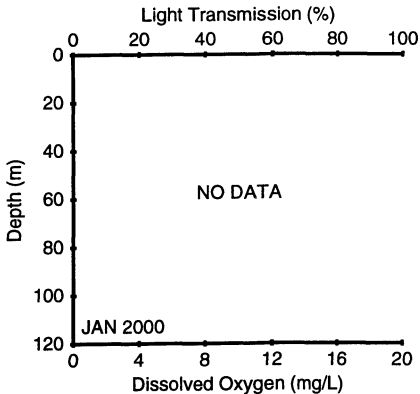
Legend: Light Transmission = Solid Line Dissolved Oxygen = Dotted Line

**CRR001 Carr Inlet - Off Green Point**



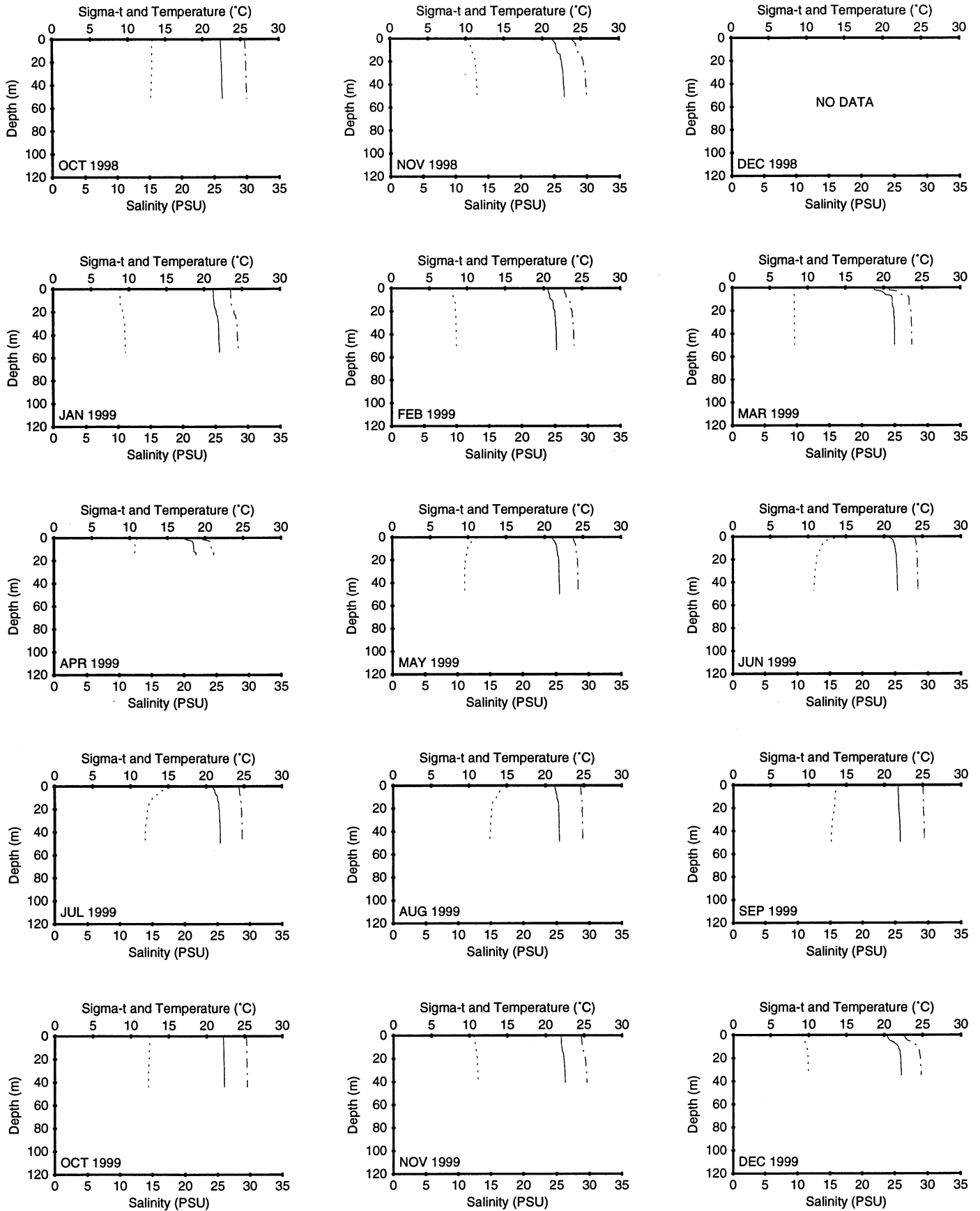
**Legend: Temperature = Dotted Line Salinity = Dot-Dashed Line Sigma-t = Solid Line**

CRR001 Carr Inlet - Off Green Point



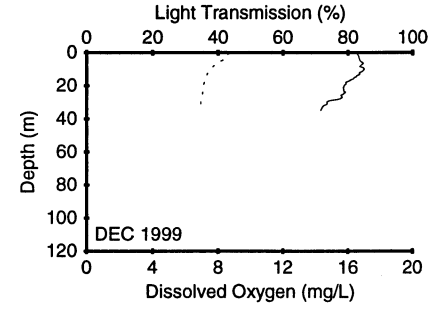
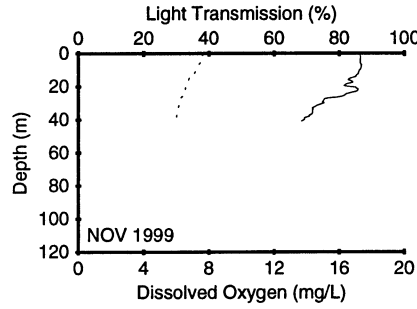
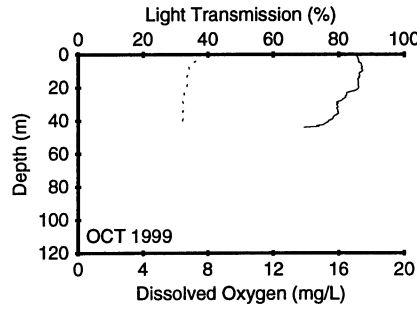
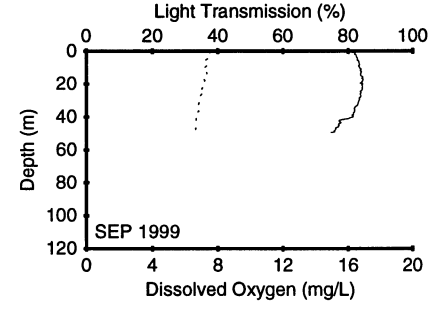
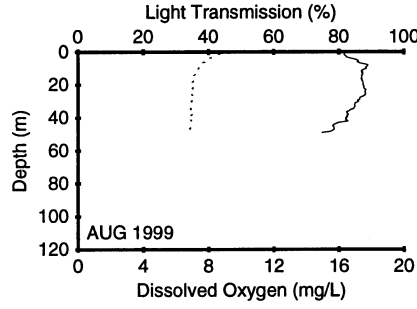
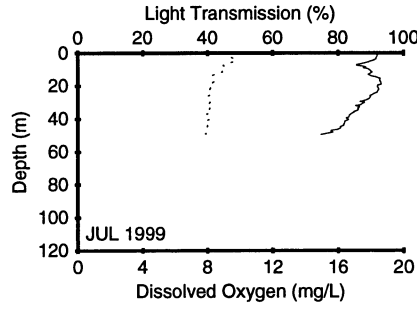
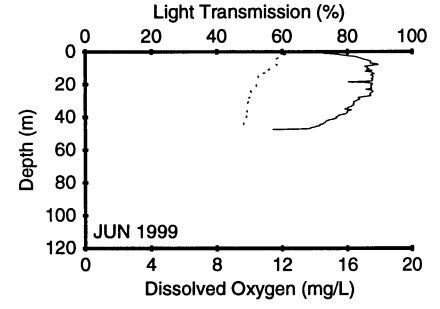
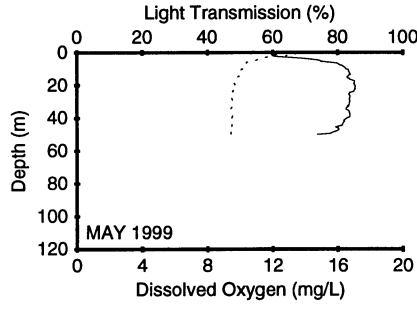
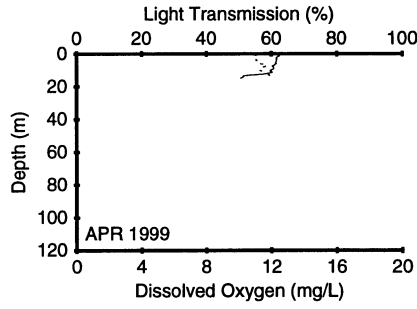
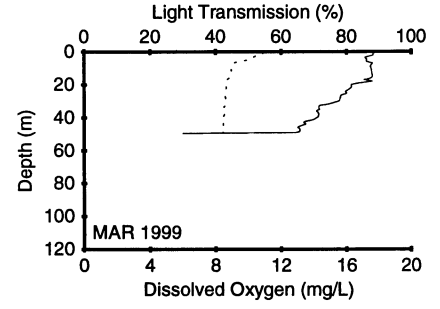
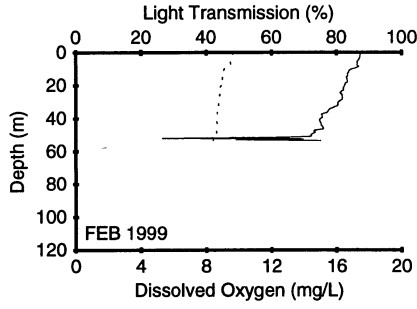
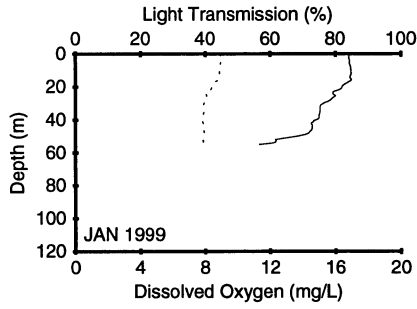
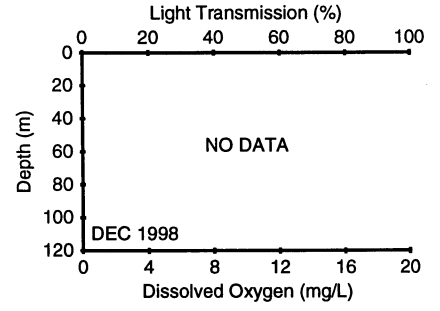
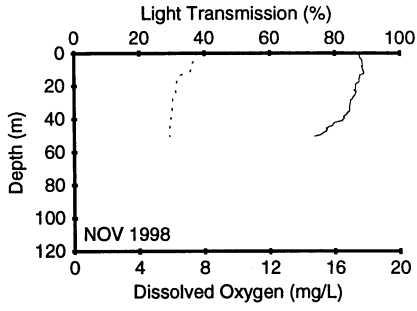
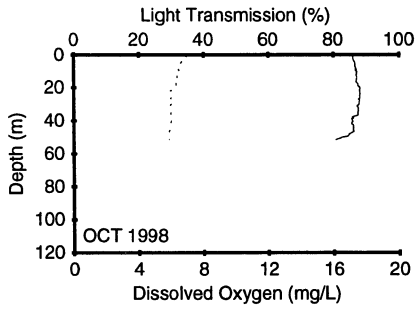
Legend: Light Transmission = Solid Line Dissolved Oxygen = Dotted Line

**CSE001 Case Inlet - S. Heron Island**



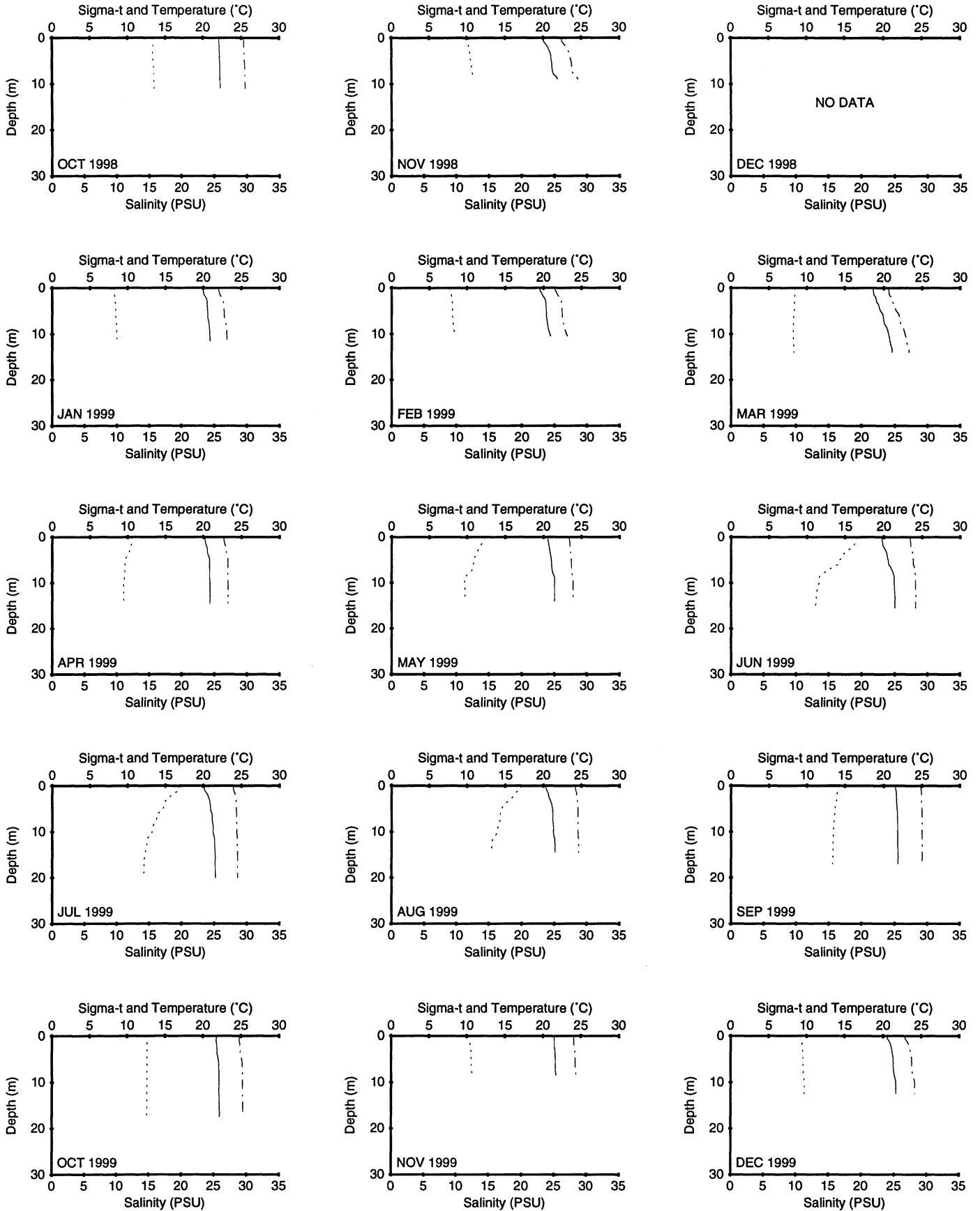
**Legend: Temperature = Dotted Line Salinity = Dot-Dashed Line Sigma-t = Solid Line**

CSE001 Case Inlet - S. Heron Island



Legend: Light Transmission = Solid Line Dissolved Oxygen = Dotted Line

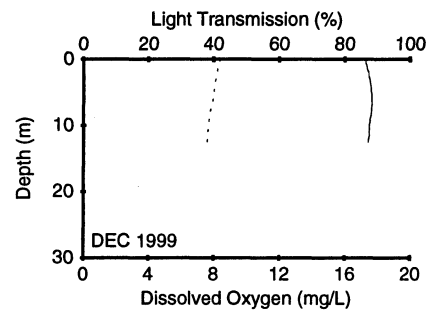
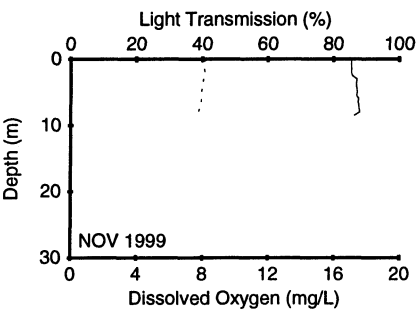
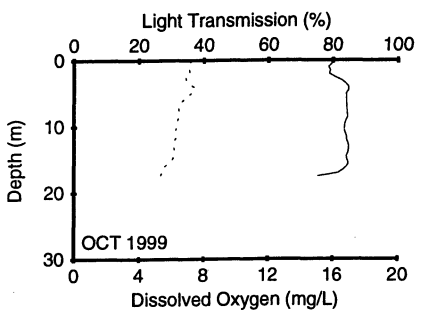
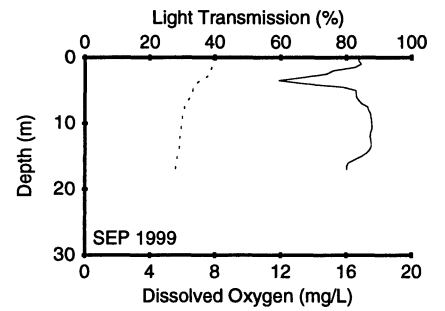
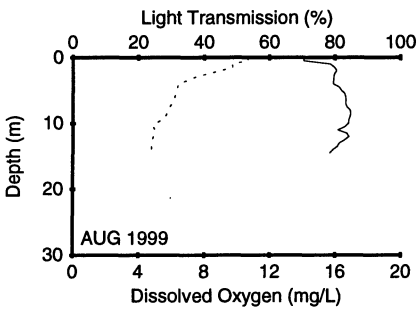
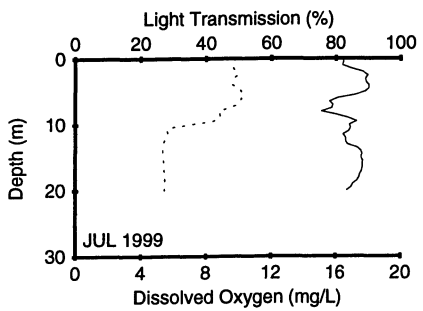
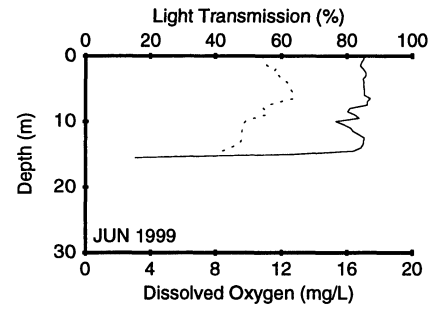
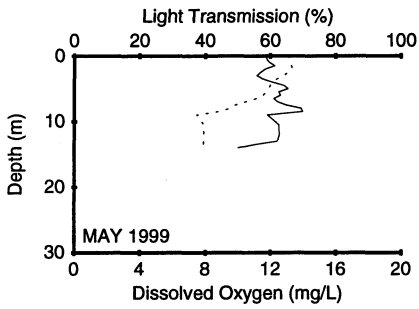
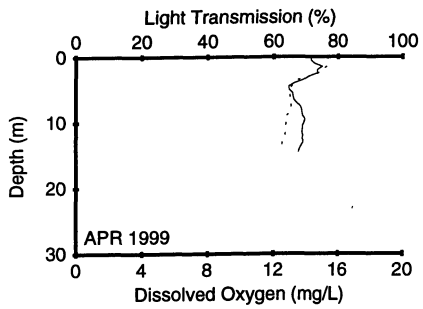
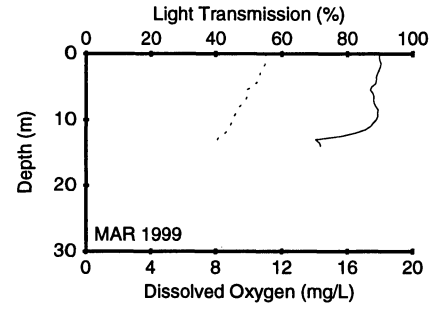
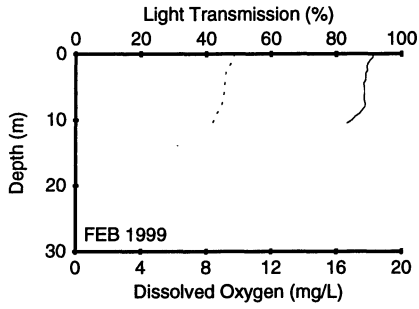
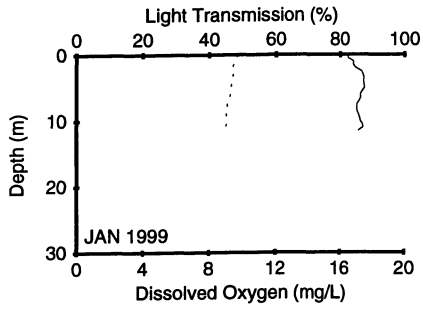
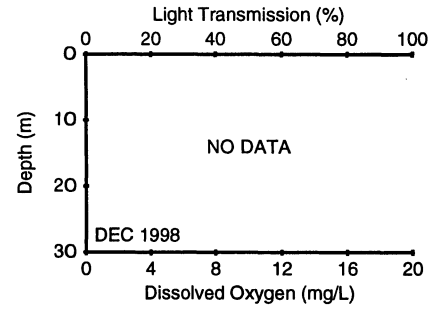
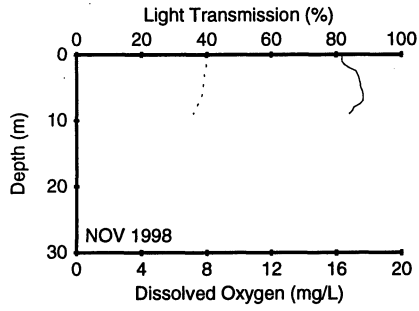
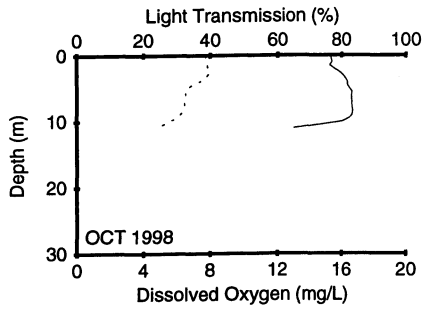
# CSE002 Case Inlet - Off Rocky Point



**Legend: Temperature = Dotted Line Salinity = Dot-Dashed Line Sigma-t = Solid Line**

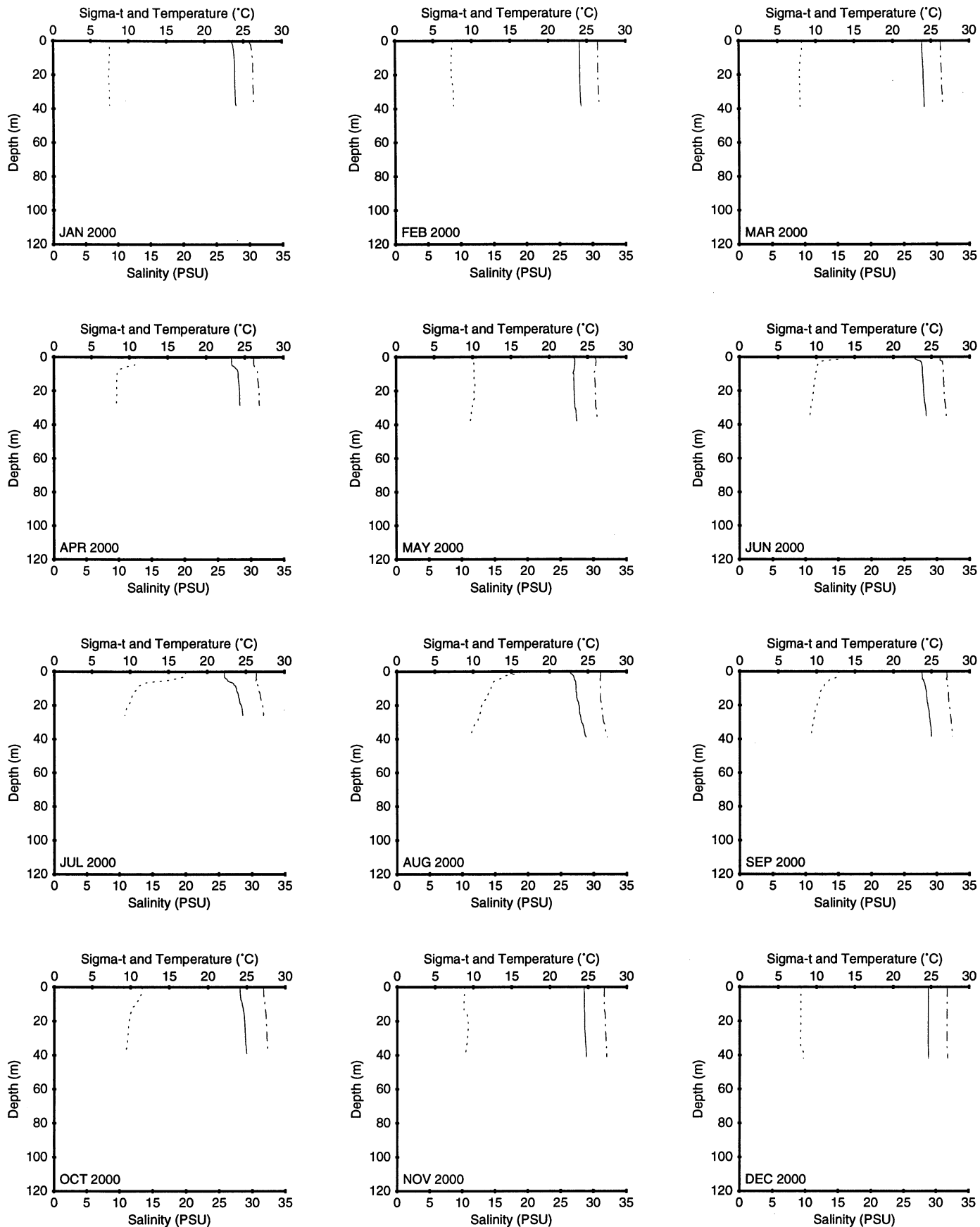


**CSE002 Case Inlet - Off Rocky Point**



**Legend: Light Transmission = Solid Line Dissolved Oxygen = Dotted Line**

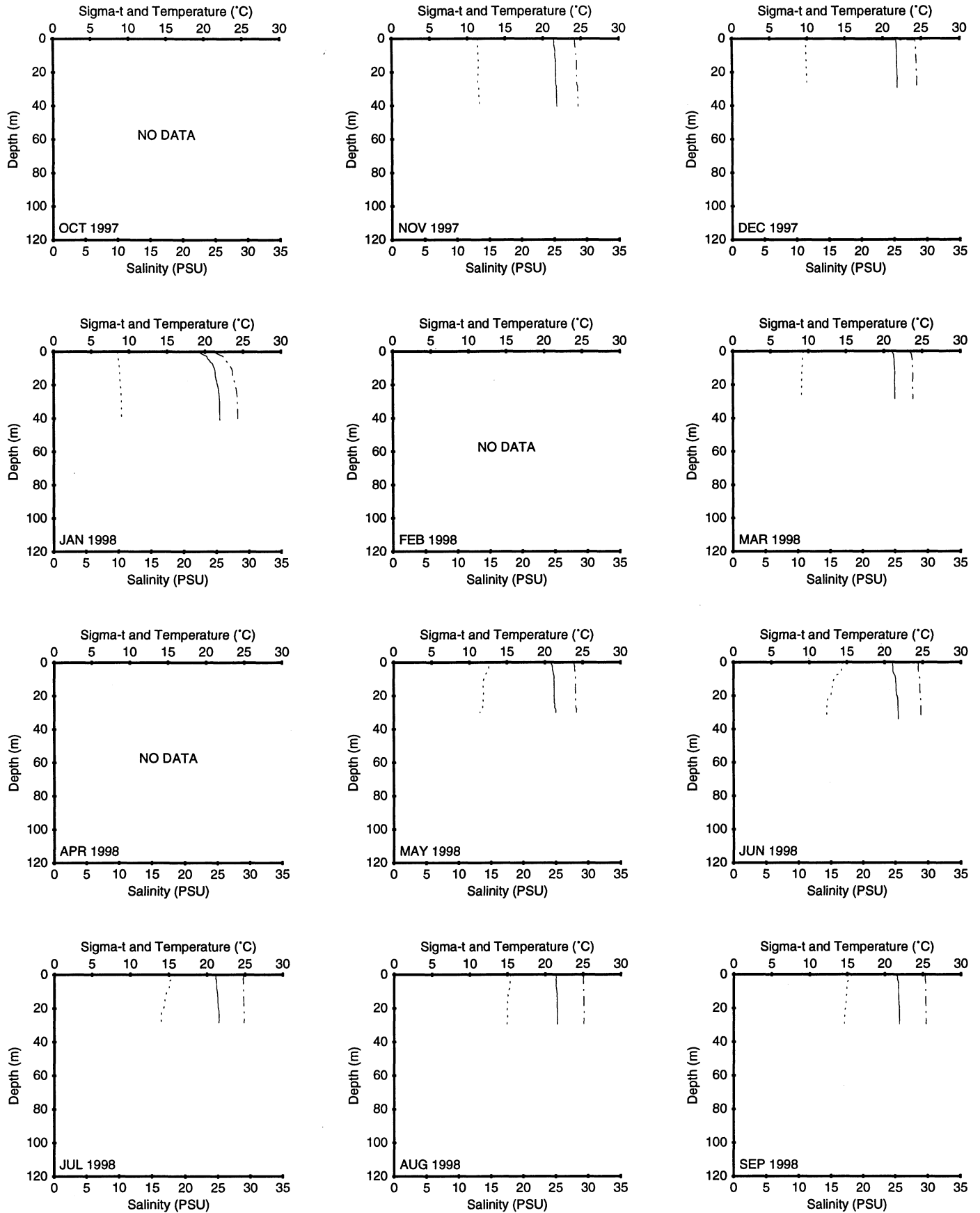
**DIS001 Discovery Bay - Near Mill Point**



**Legend: Temperature = Dotted Line Salinity = Dot-Dashed Line Sigma-t = Solid Line**

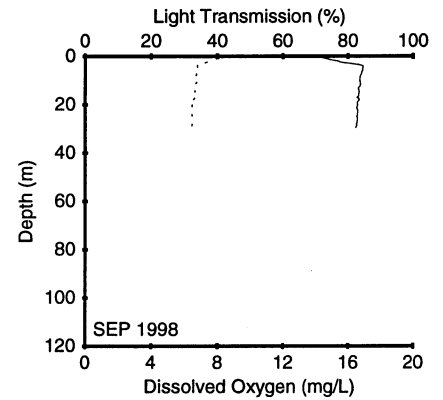
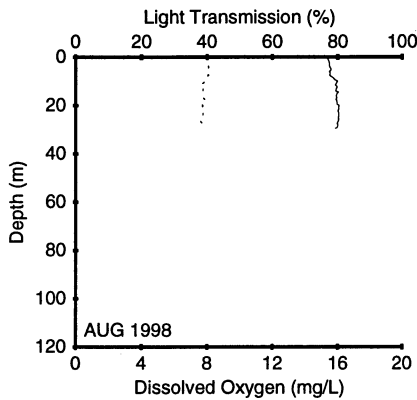
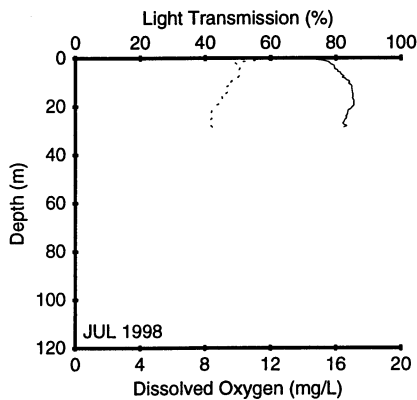
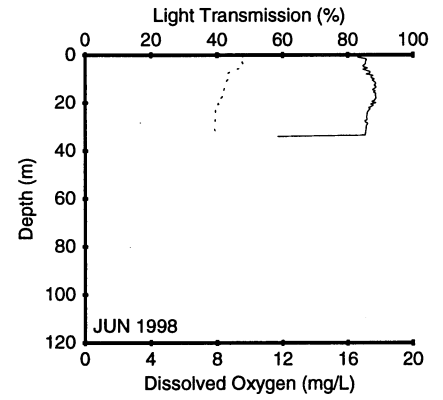
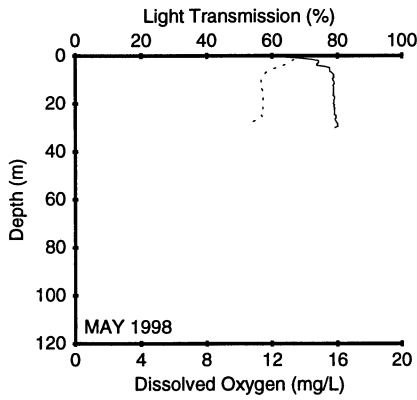
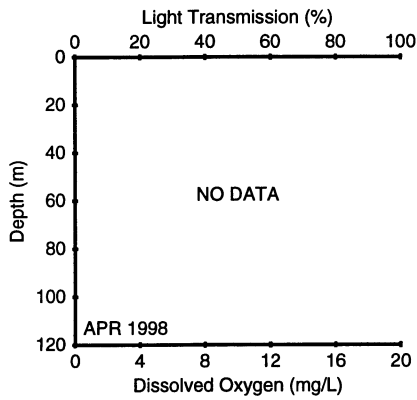
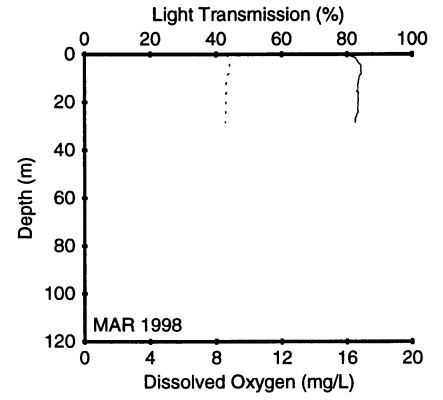
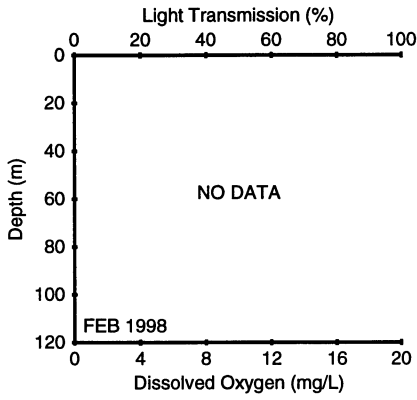
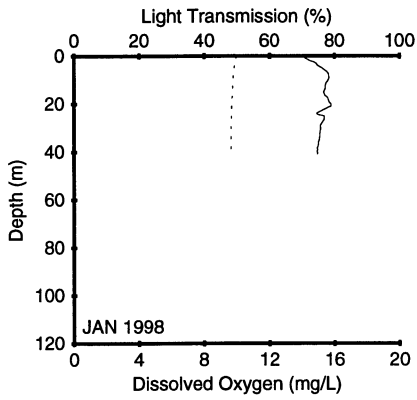
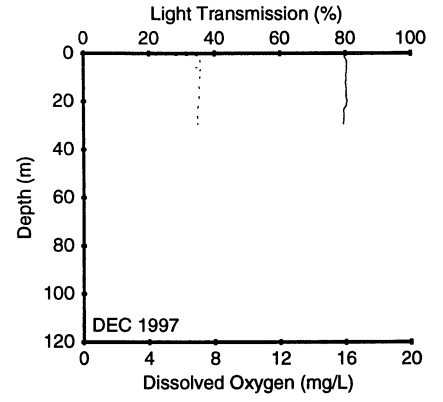
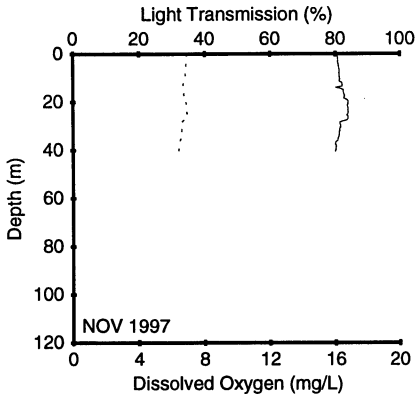
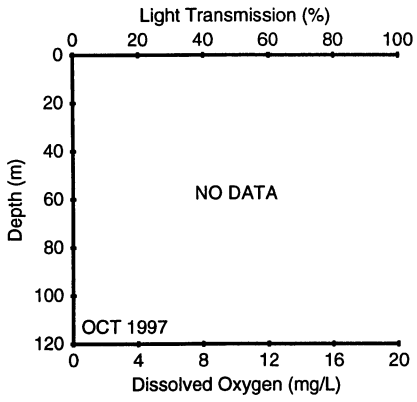


**DNA001 Dana Passage - S. of Brisco Point**



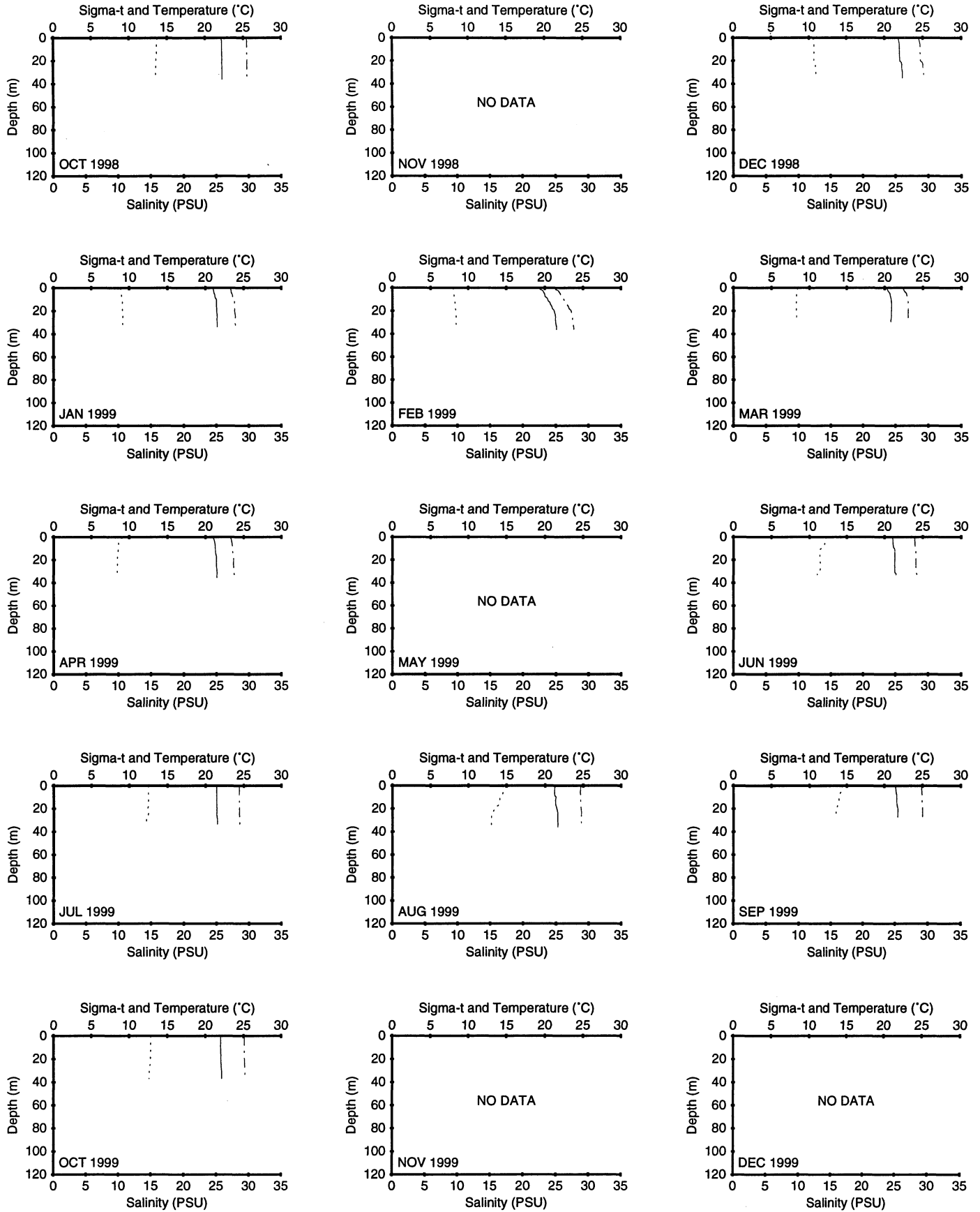
**Legend: Temperature = Dotted Line Salinity = Dot-Dashed Line Sigma-t = Solid Line**

**DNA001 Dana Passage - S. of Brisco Point**



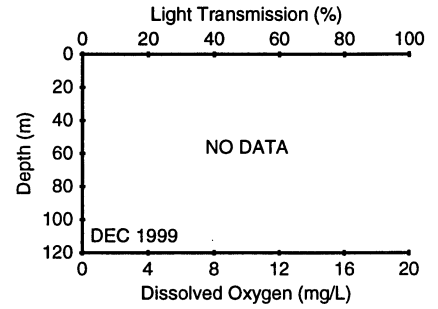
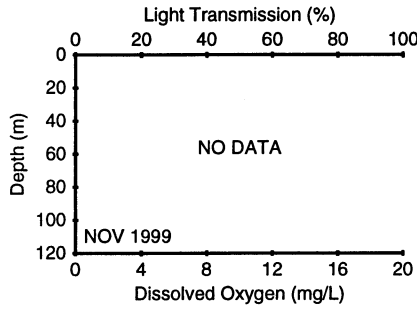
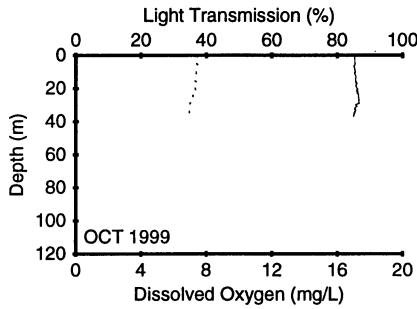
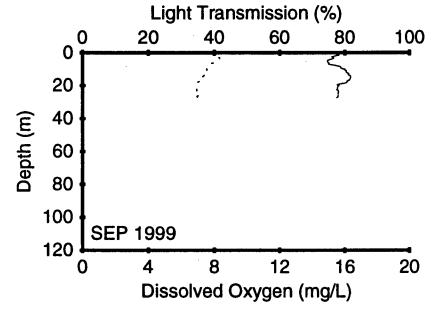
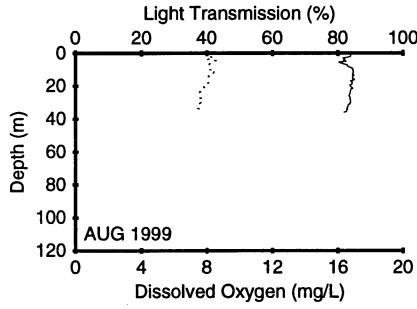
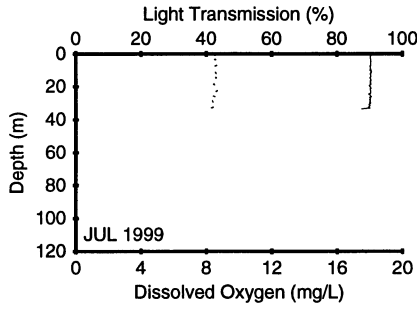
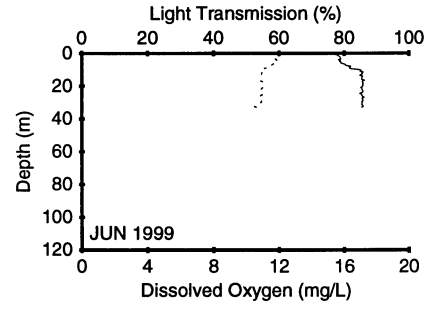
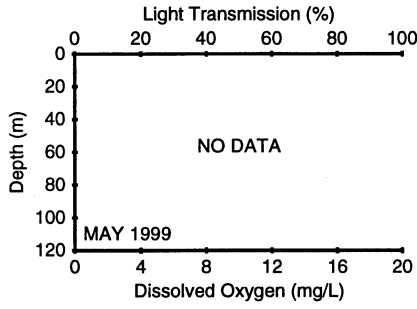
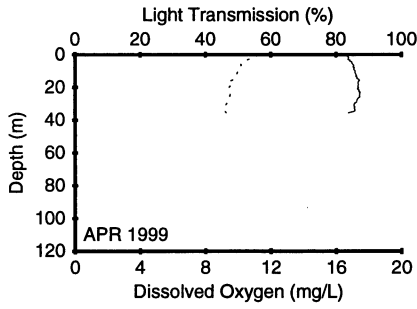
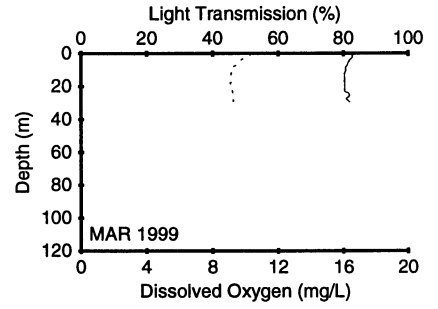
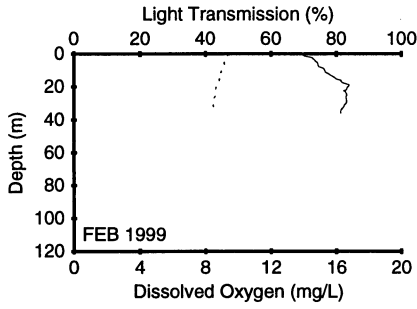
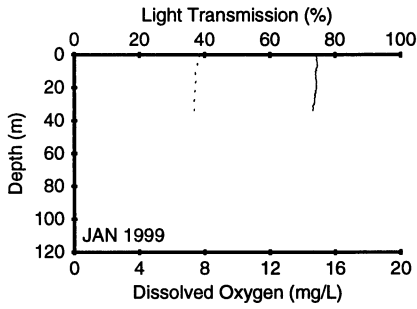
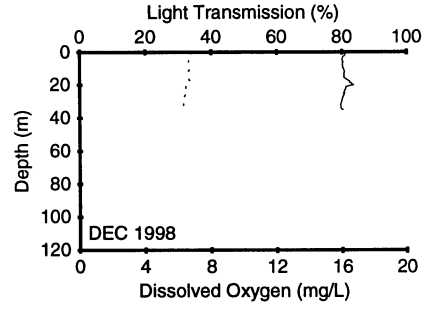
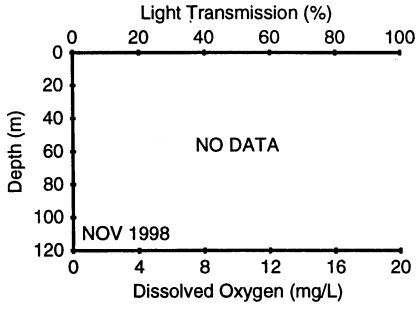
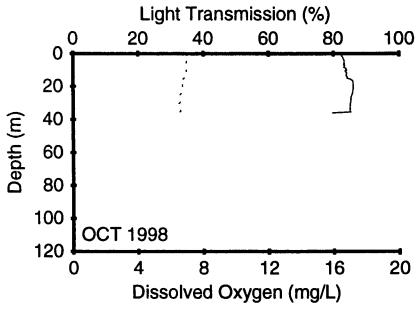
**Legend: Light Transmission = Solid Line Dissolved Oxygen = Dotted Line**

**DNA001 Dana Passage - S. of Brisco Point**



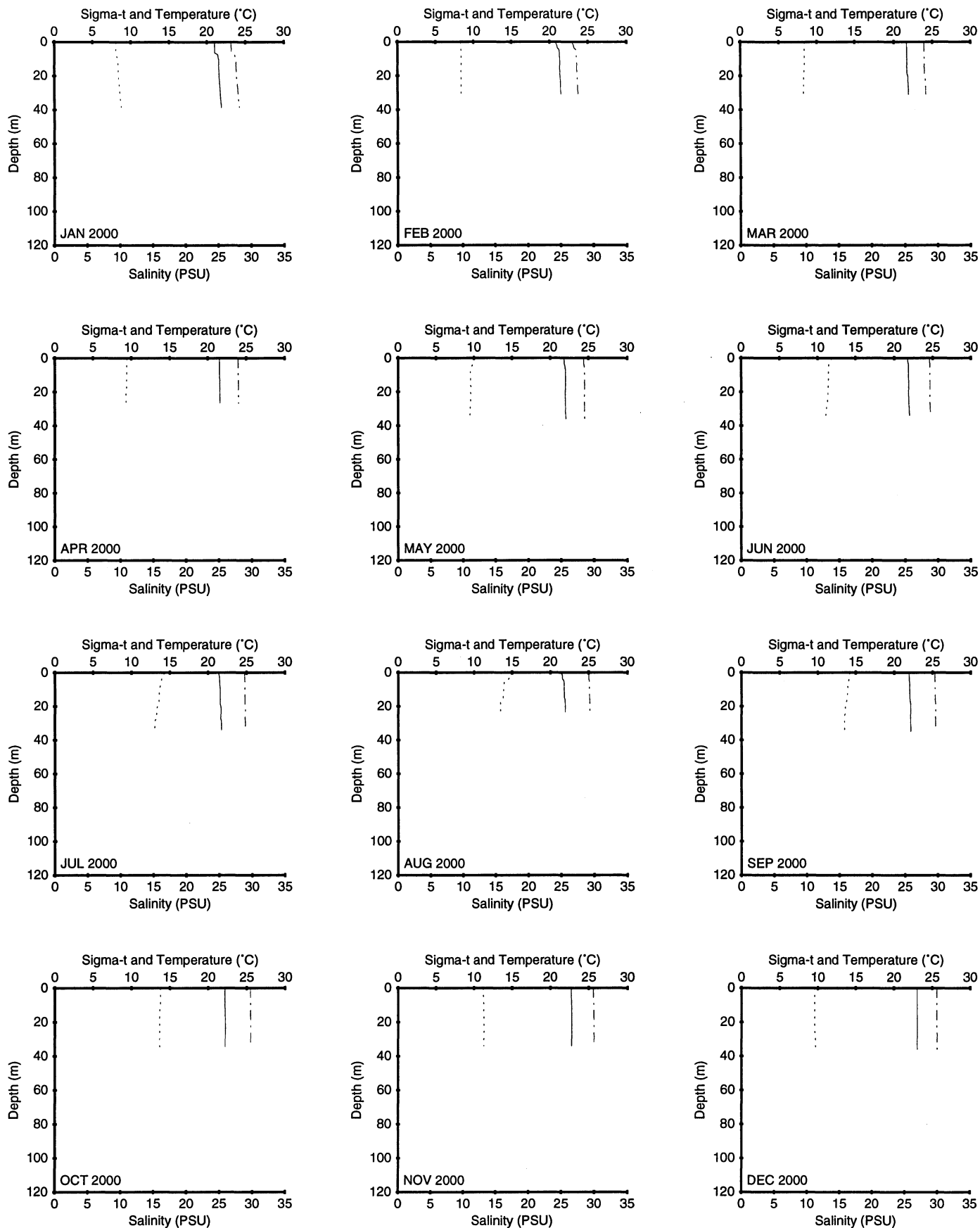
**Legend: Temperature = Dotted Line Salinity = Dot-Dashed Line Sigma-t = Solid Line**

**DNA001 Dana Passage - S. of Brisco Point**



**Legend: Light Transmission = Solid Line Dissolved Oxygen = Dotted Line**

**DNA001 Dana Passage - S. of Brisco Point**



**Legend: Temperature = Dotted Line Salinity = Dot-Dashed Line Sigma-t = Solid Line**

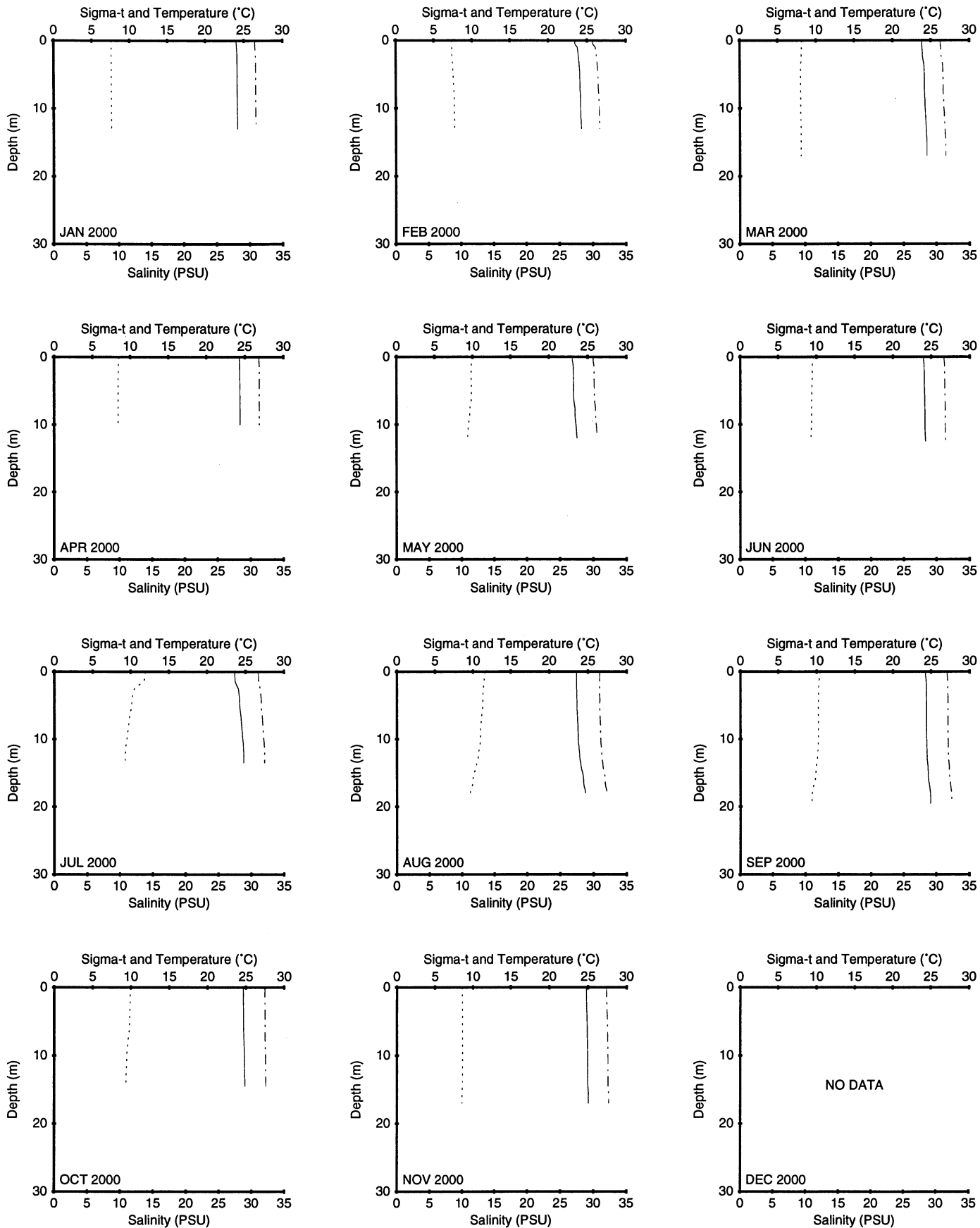








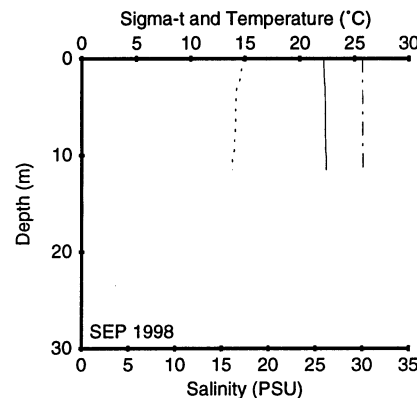
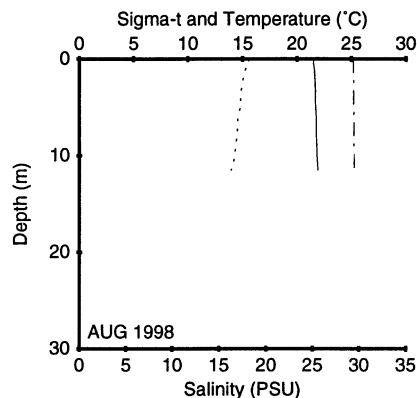
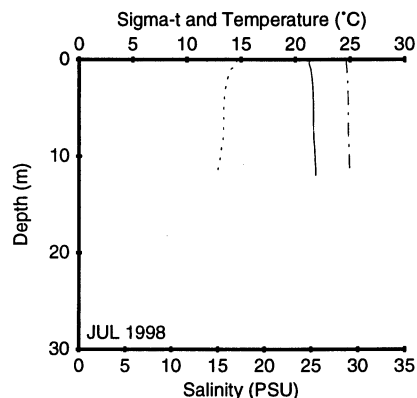
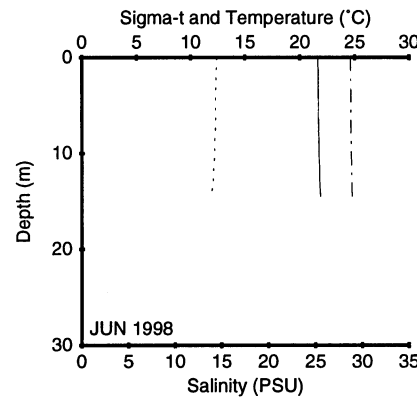
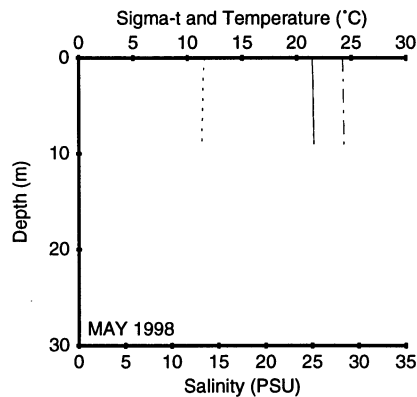
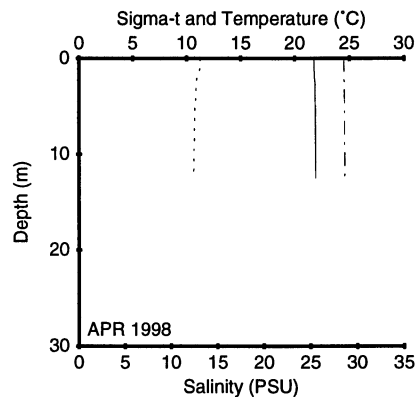
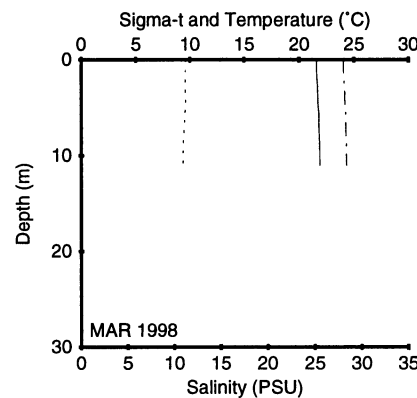
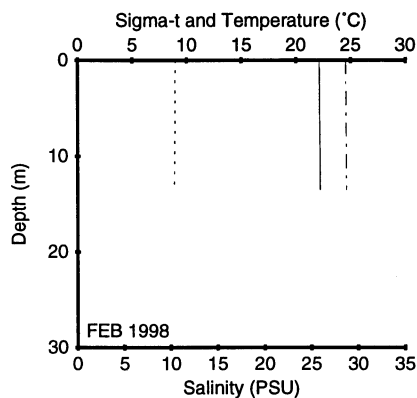
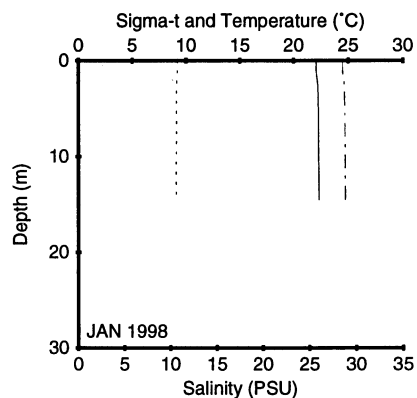
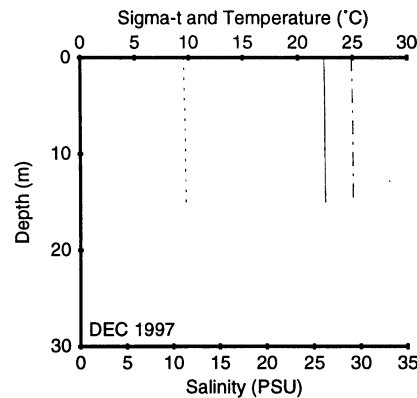
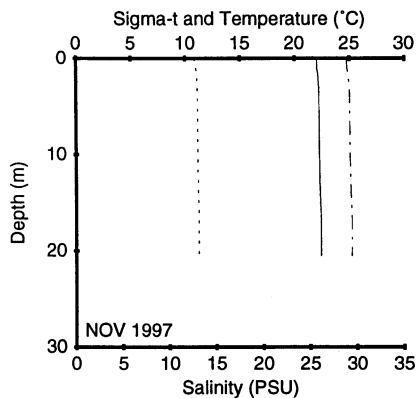
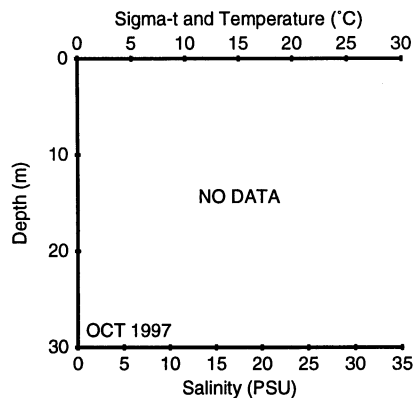
# DUN001 Dungeness Bay - Dungeness Bay



**Legend: Temperature = Dotted Line Salinity = Dot-Dashed Line Sigma-t = Solid Line**

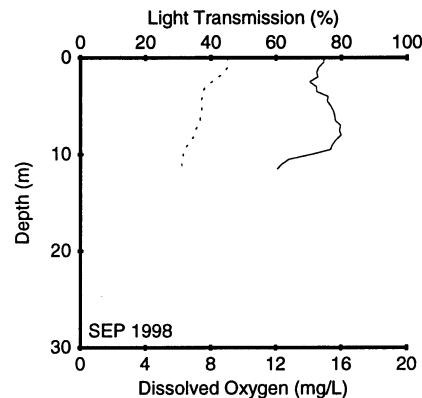
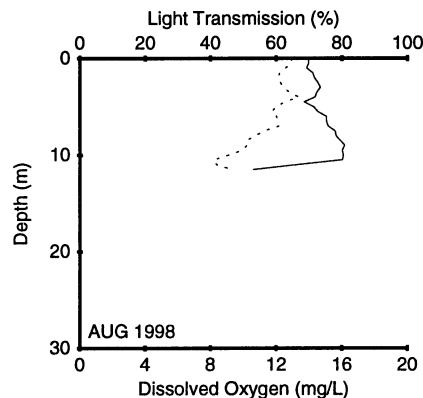
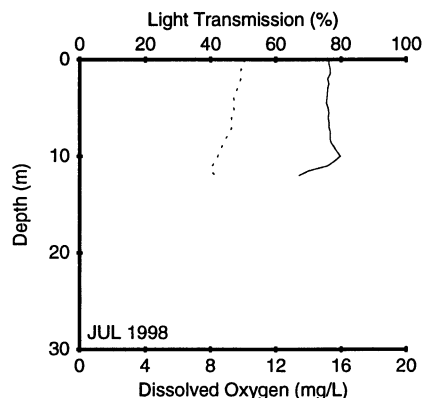
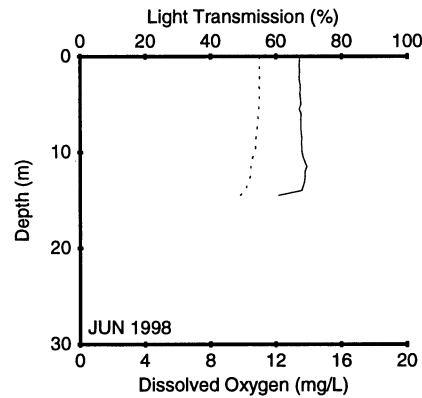
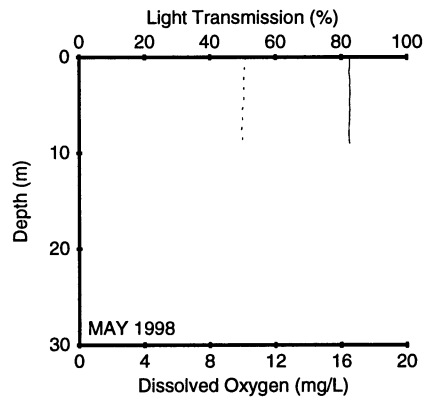
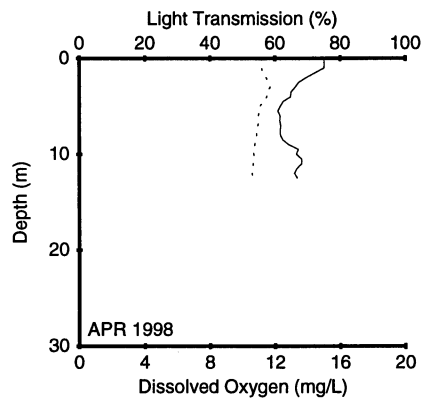
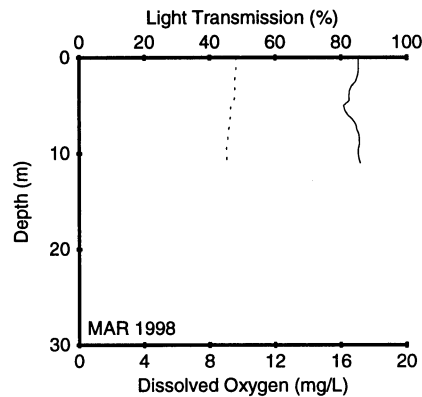
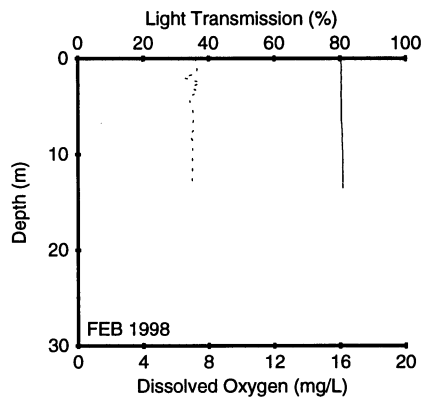
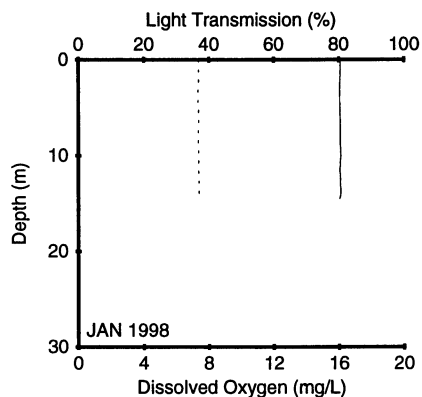
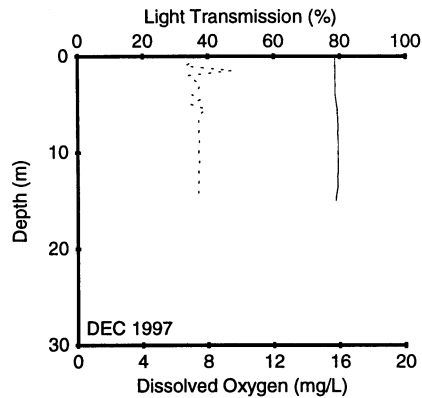
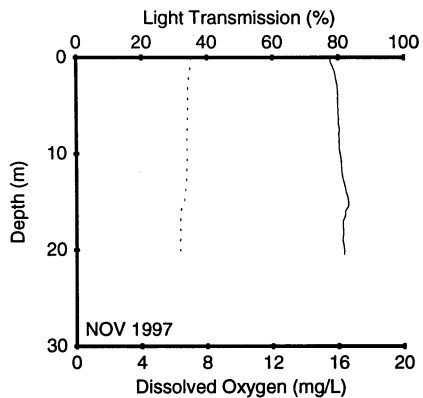
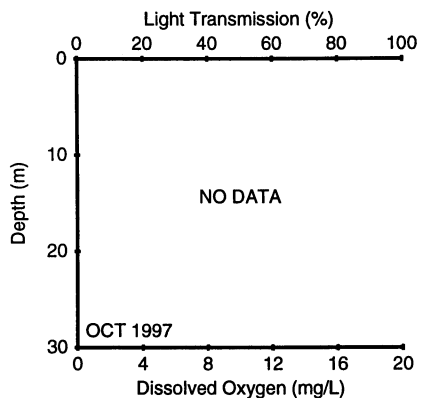


**EAG001 Eagle Harbor - Inner Harbor**



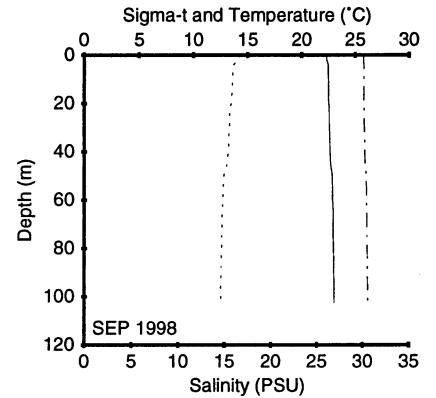
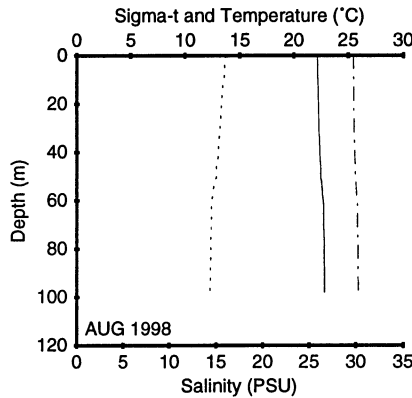
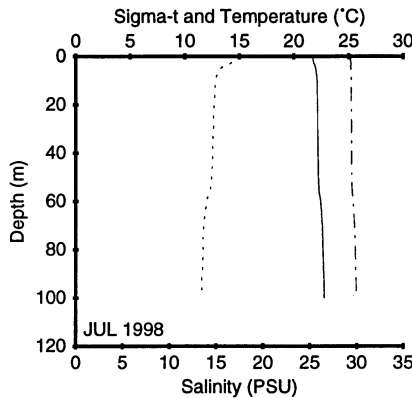
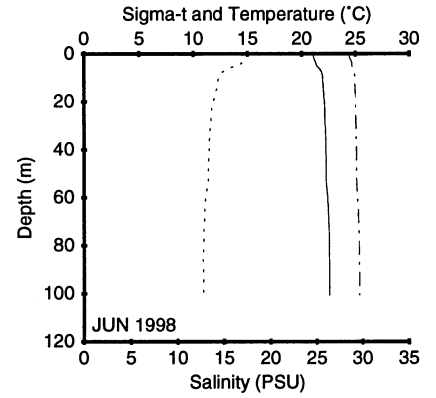
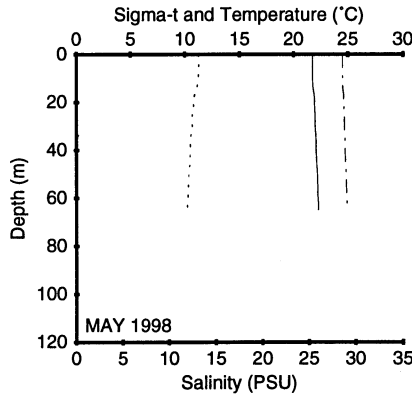
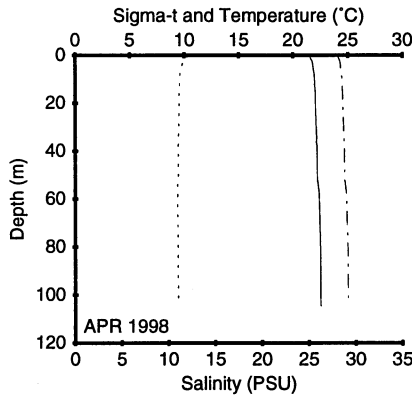
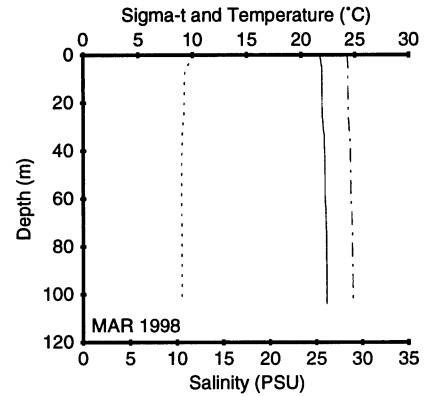
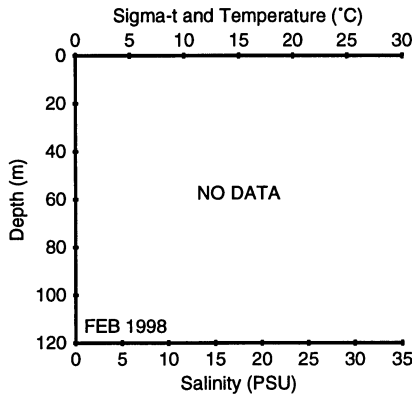
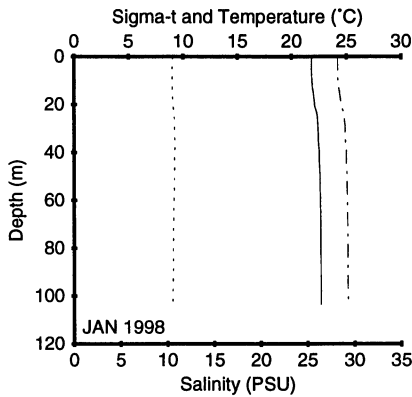
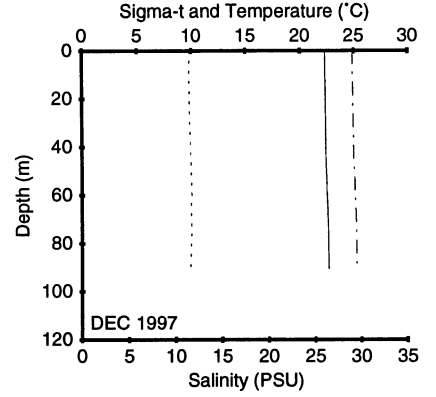
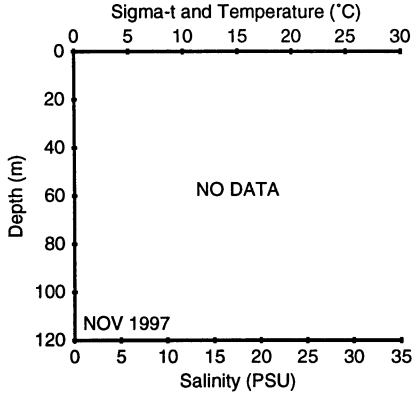
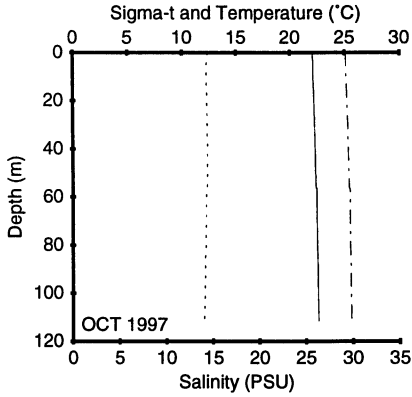
**Legend: Temperature = Dotted Line Salinity = Dot-Dashed Line Sigma-t = Solid Line**

**EAG001 Eagle Harbor - Inner Harbor**



**Legend: Light Transmission = Solid Line Dissolved Oxygen = Dotted Line**

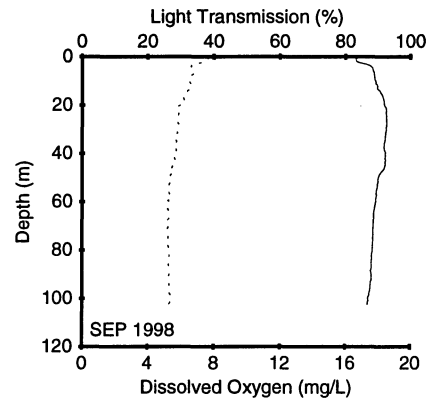
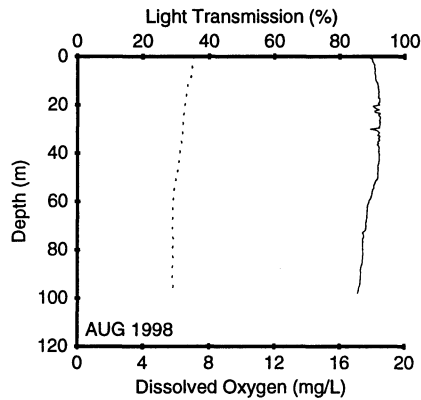
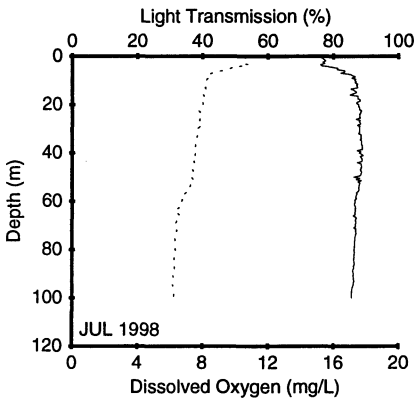
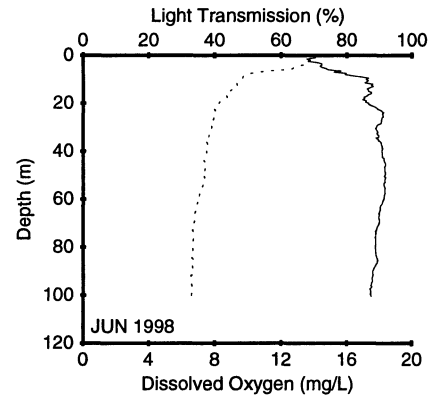
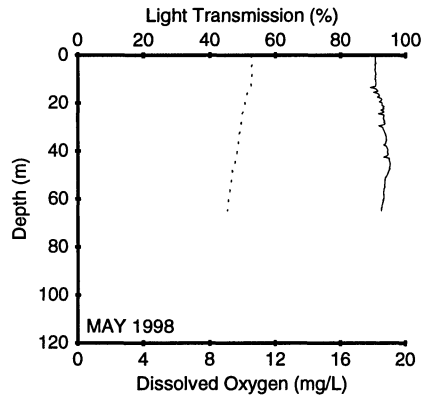
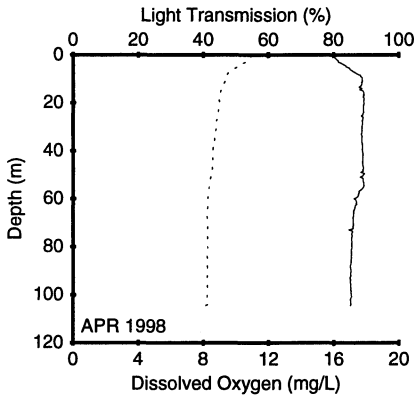
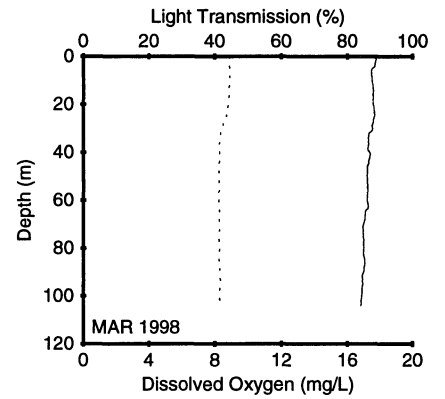
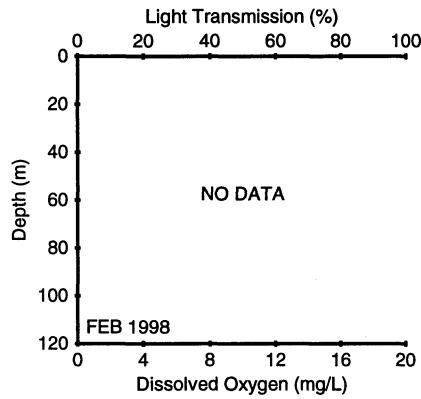
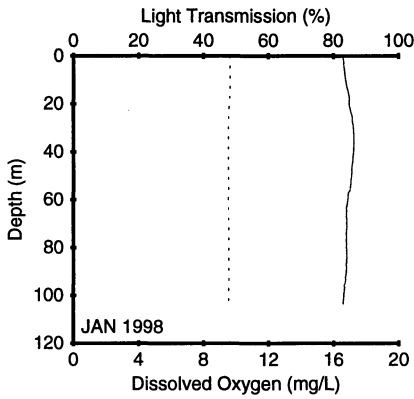
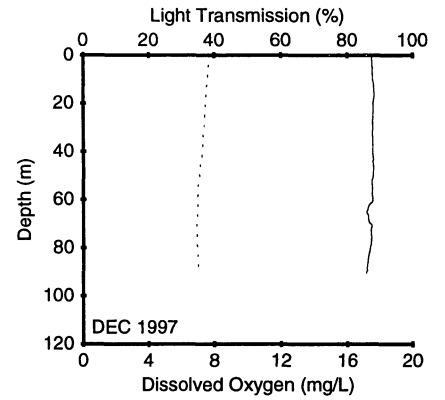
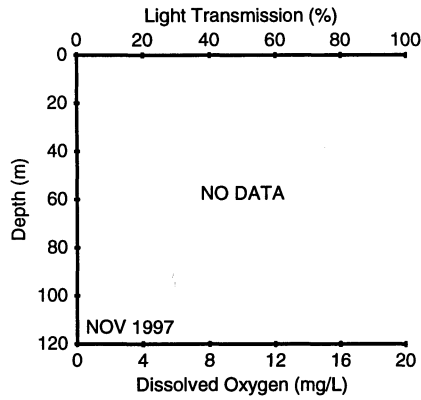
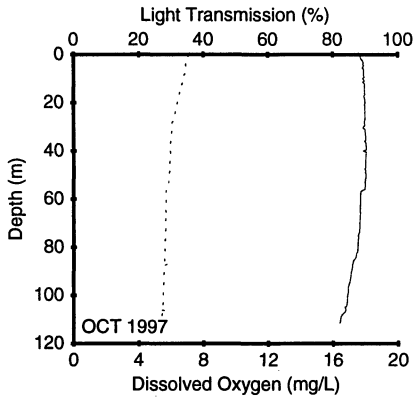
**EAP001 East Passage - SW of Three Tree Point**



**Legend: Temperature = Dotted Line Salinity = Dot-Dashed Line Sigma-t = Solid Line**

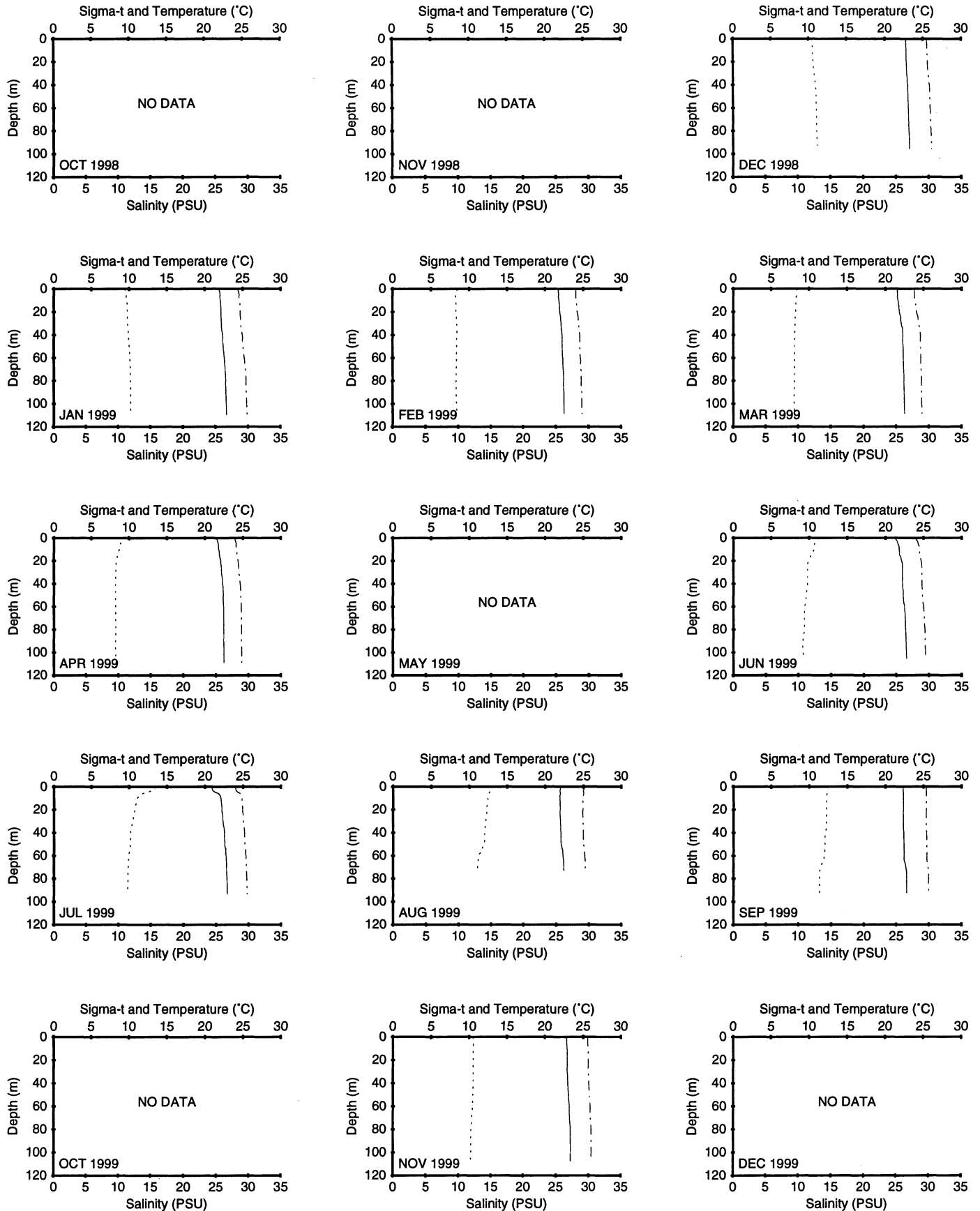


# EAP001 East Passage - SW of Three Tree Point



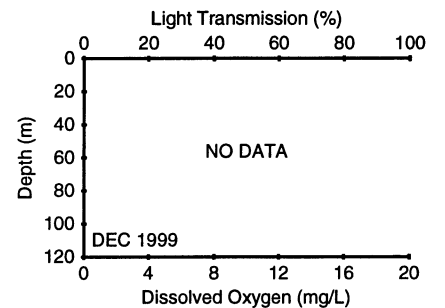
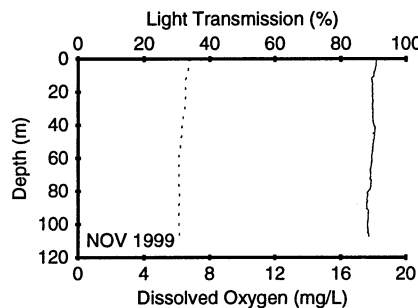
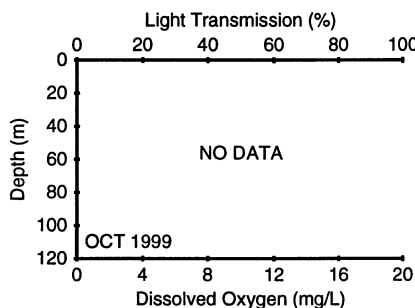
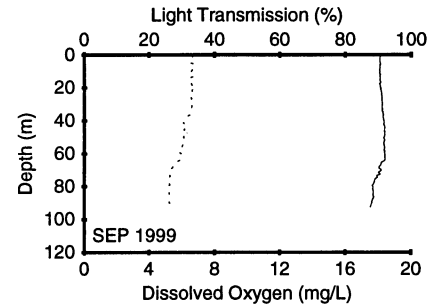
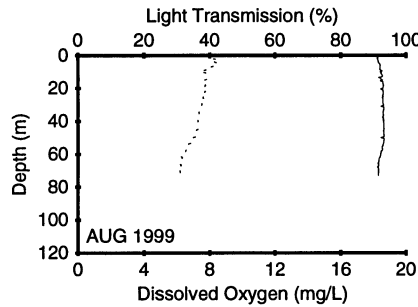
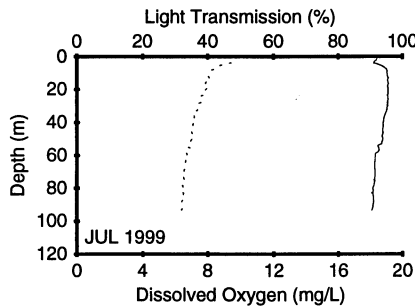
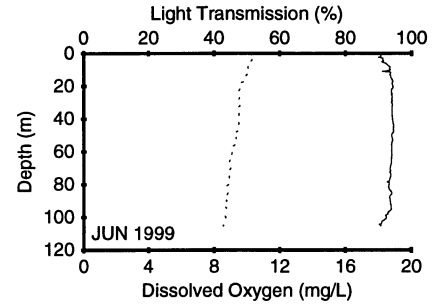
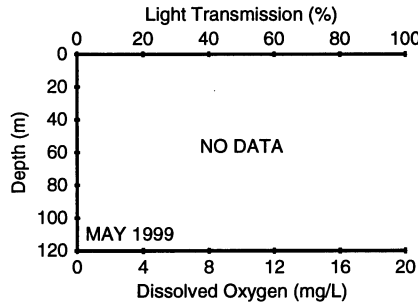
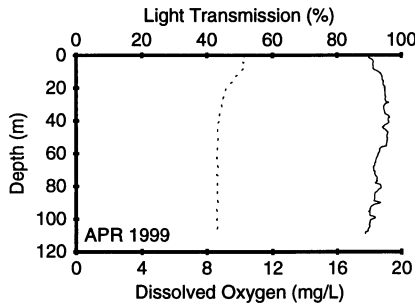
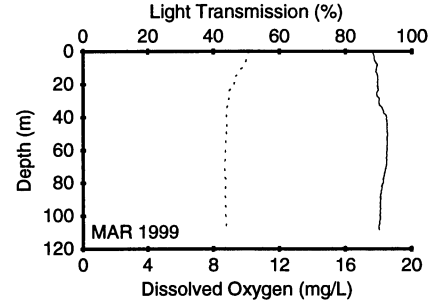
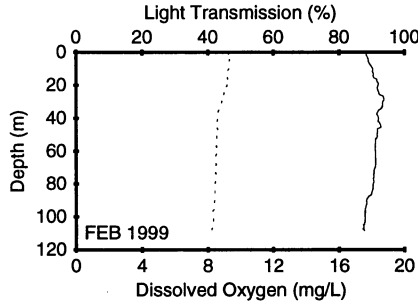
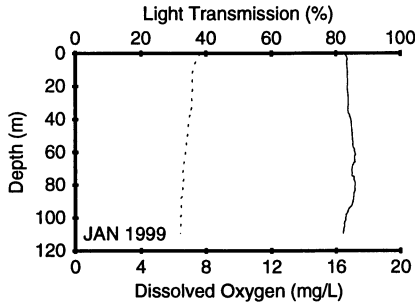
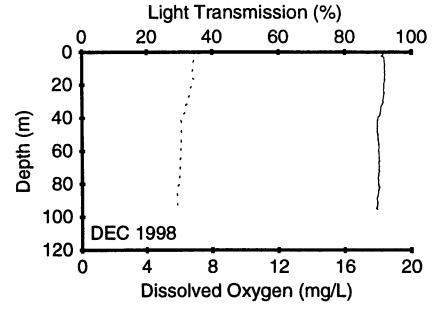
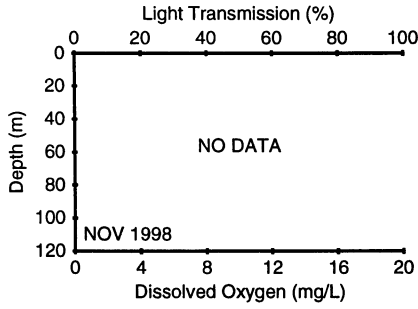
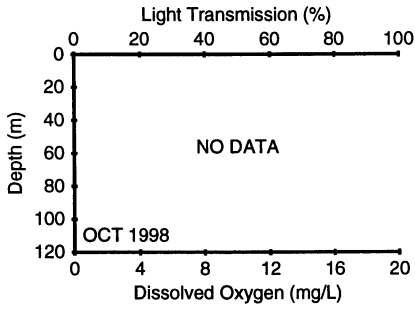
**Legend: Light Transmission = Solid Line Dissolved Oxygen = Dotted Line**

**EAP001 East Passage - SW of Three Tree Point**



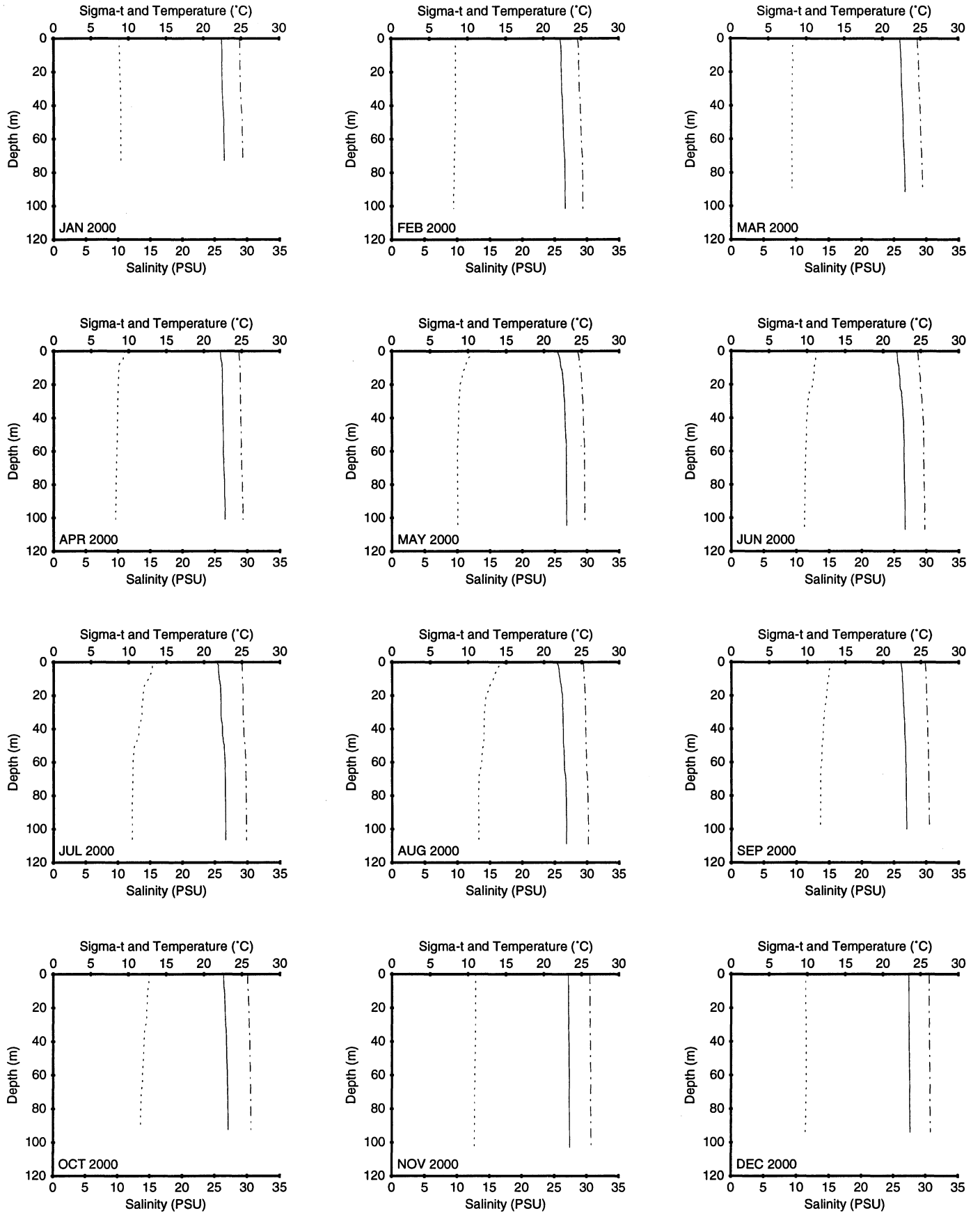
**Legend: Temperature = Dotted Line Salinity = Dot-Dashed Line Sigma-t = Solid Line**

**EAP001 East Passage - SW of Three Tree Point**



**Legend: Light Transmission = Solid Line Dissolved Oxygen = Dotted Line**

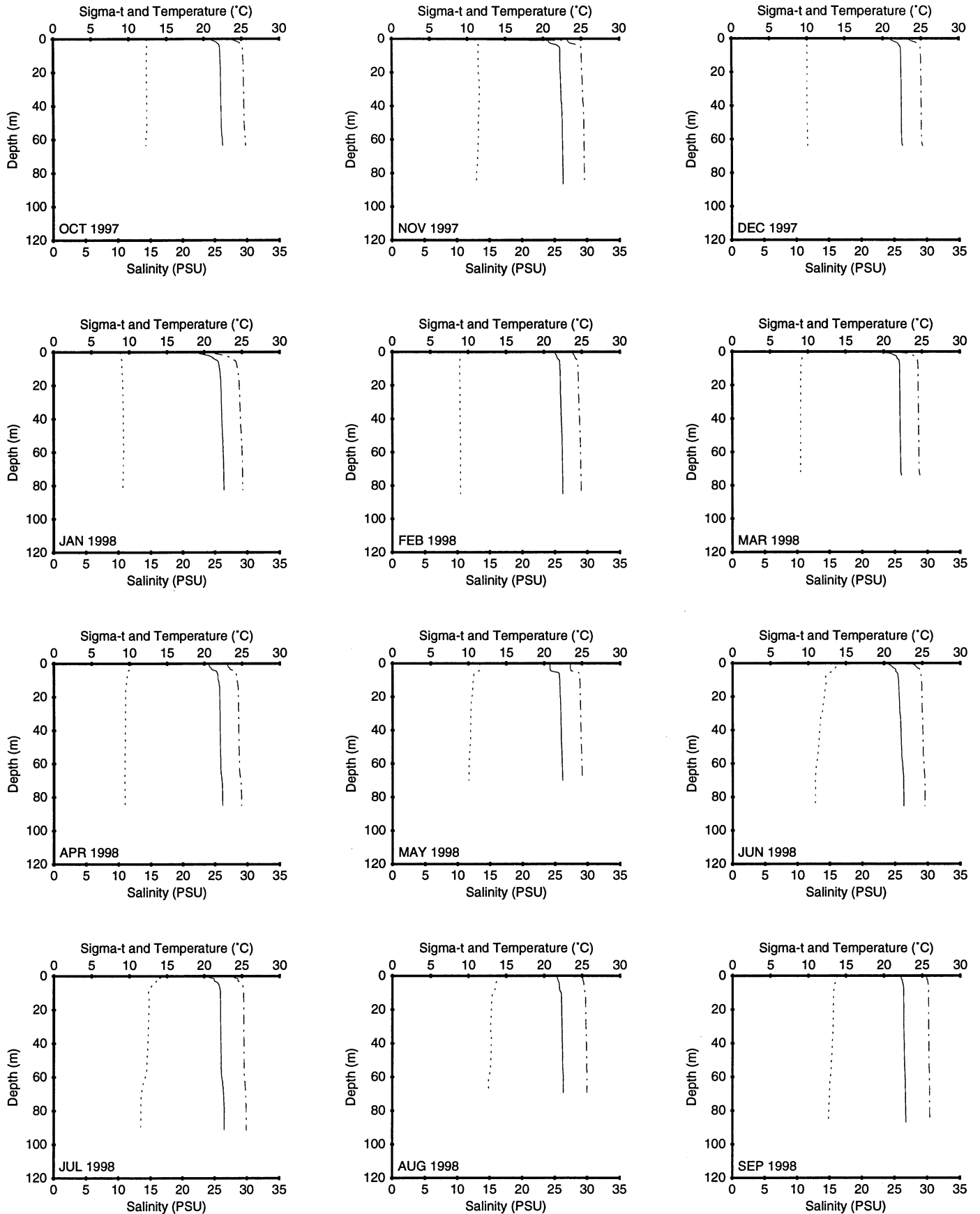
# EAP001 East Passage - SW of Three Tree Point



**Legend: Temperature = Dotted Line Salinity = Dot-Dashed Line Sigma-t = Solid Line**



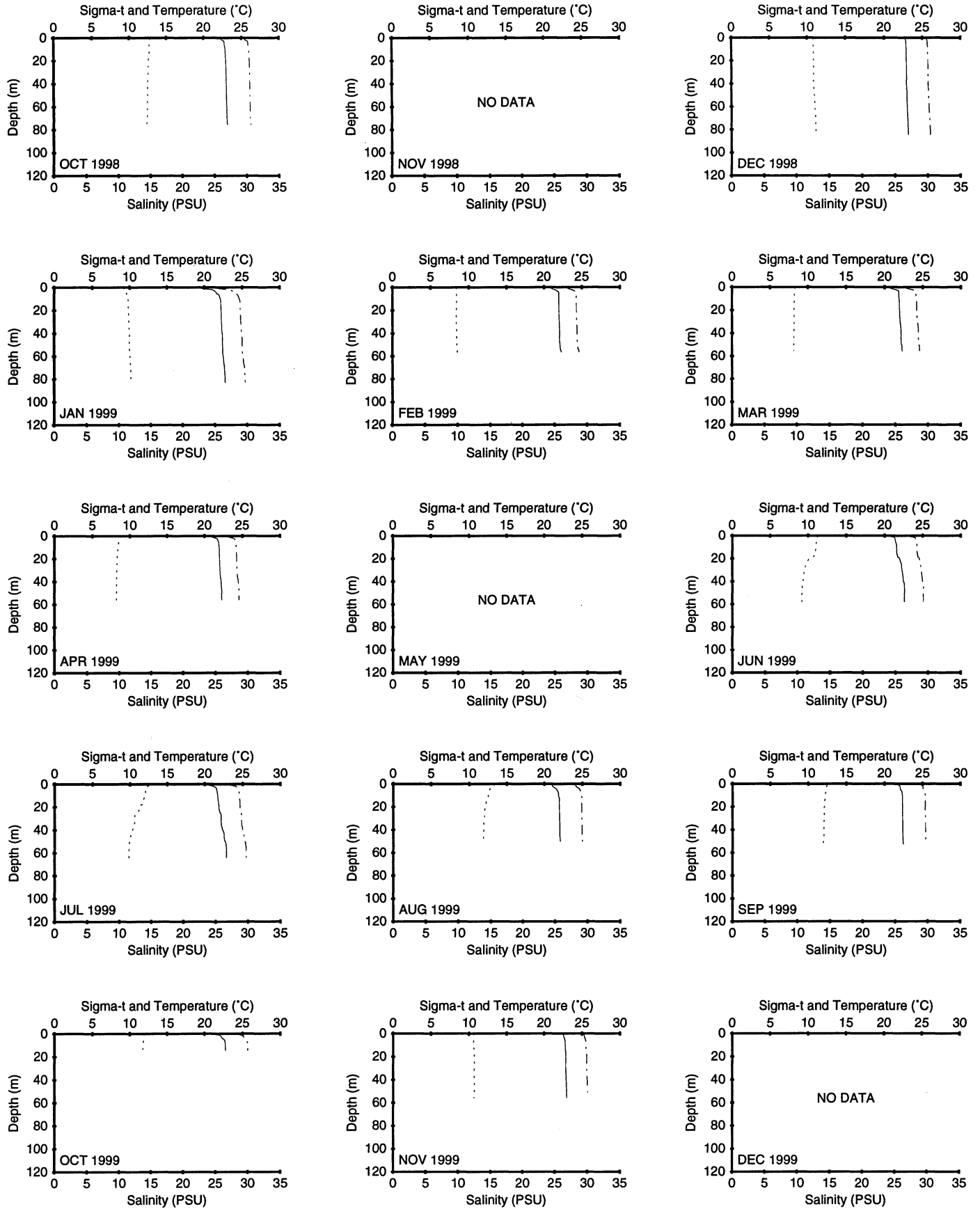
**ELB015 Elliott Bay - E. of Duwamish Head**



**Legend: Temperature = Dotted Line Salinity = Dot-Dashed Line Sigma-t = Solid Line**



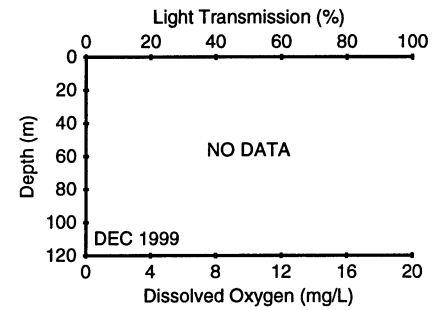
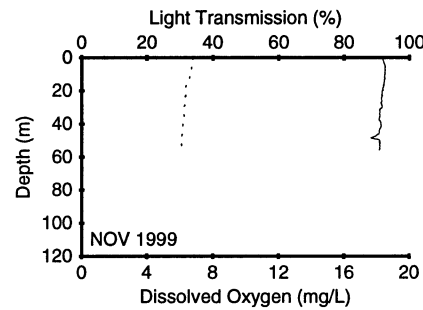
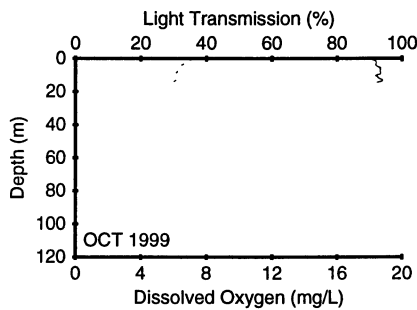
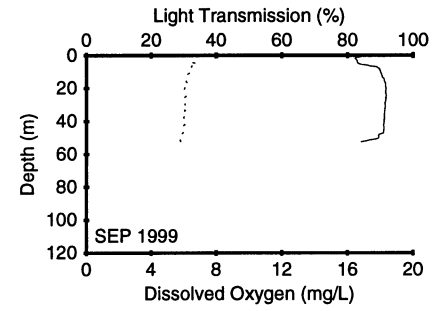
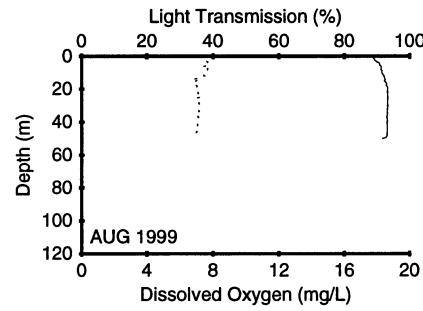
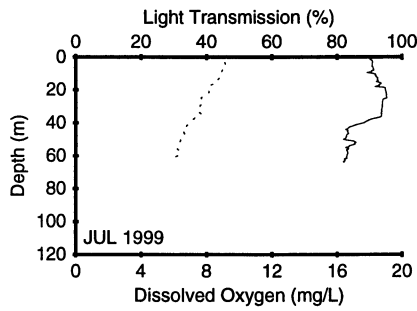
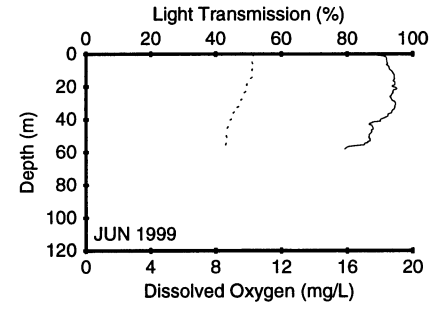
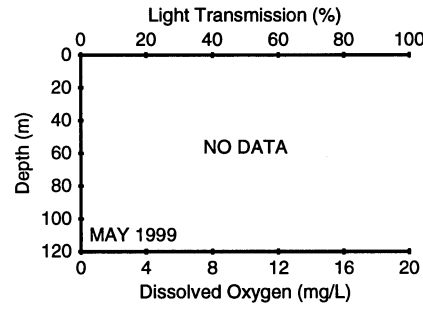
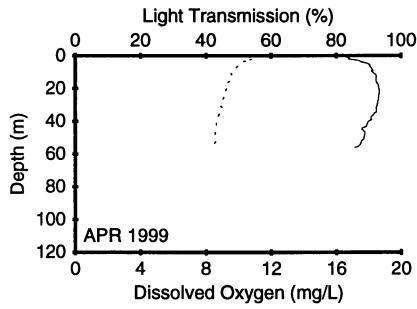
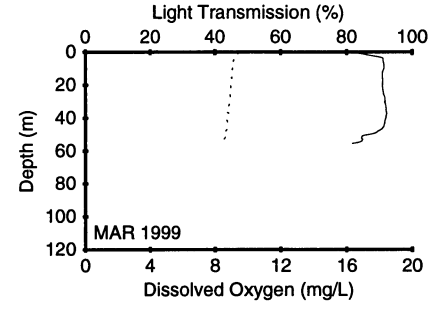
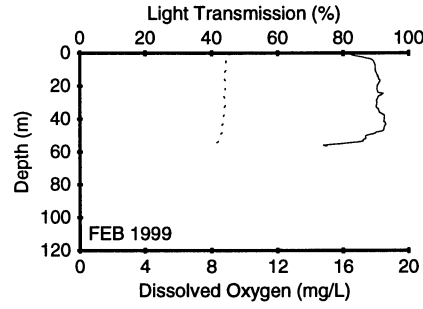
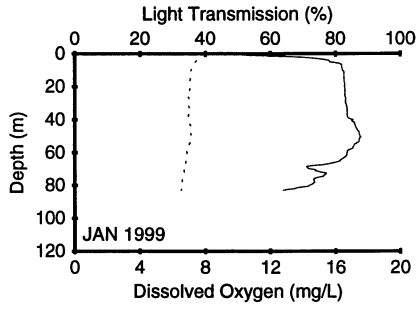
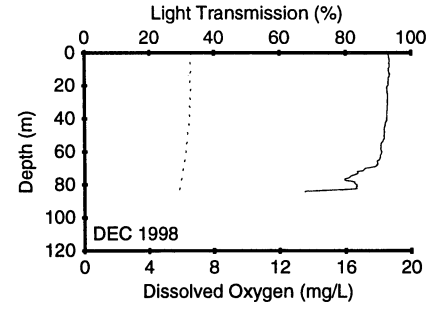
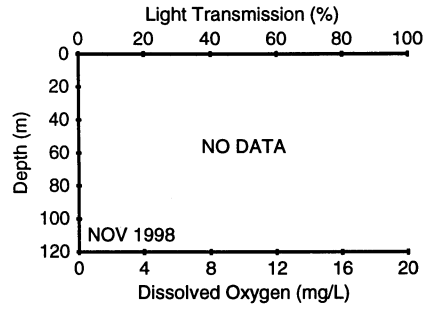
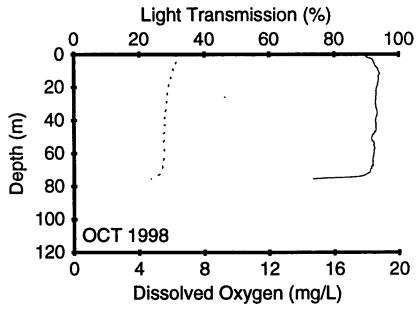
**ELB015 Elliott Bay - E. of Duwamish Head**



**Legend: Temperature = Dotted Line Salinity = Dot-Dashed Line Sigma-t = Solid Line**



ELB015 Elliott Bay - E. of Duwamish Head

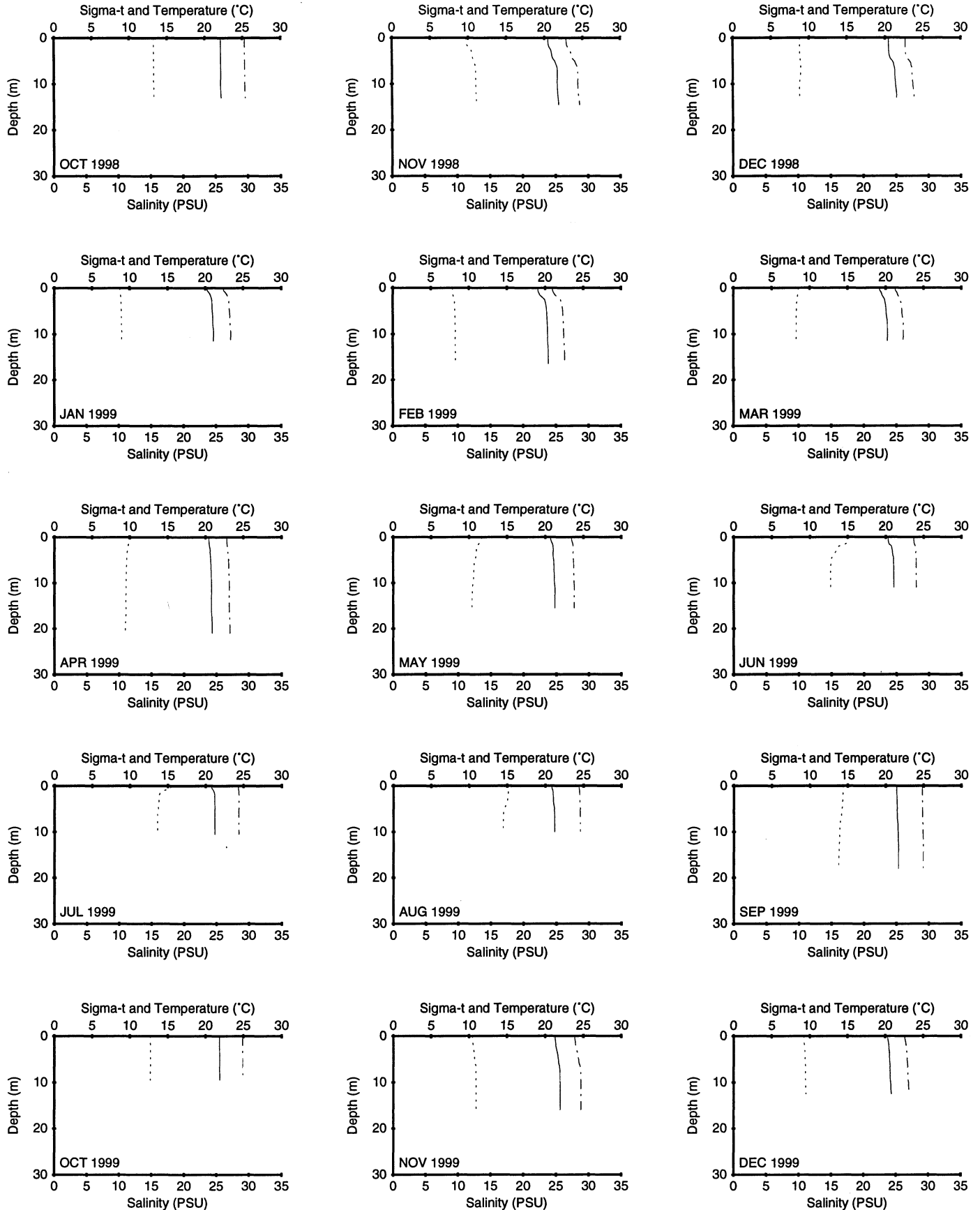


Legend: Light Transmission = Solid Line Dissolved Oxygen = Dotted Line



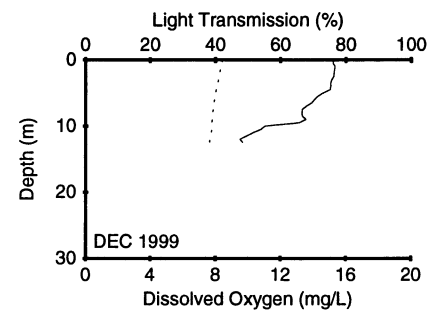
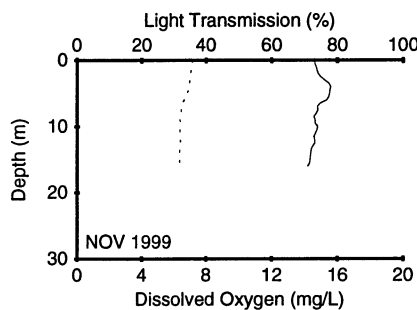
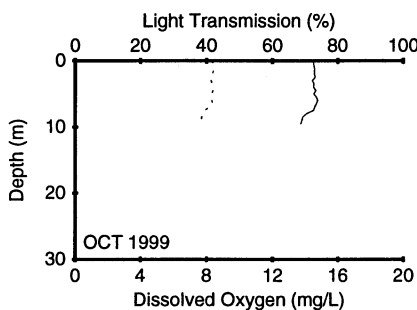
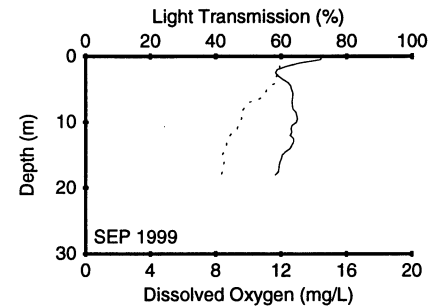
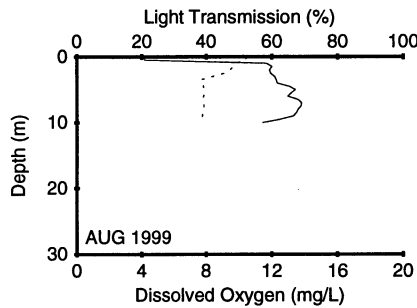
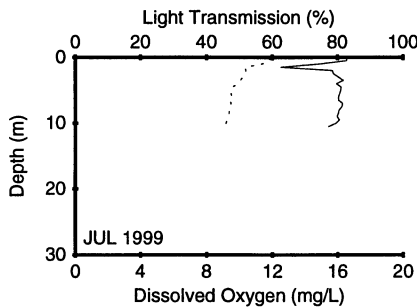
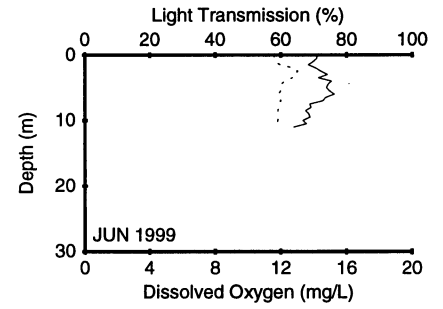
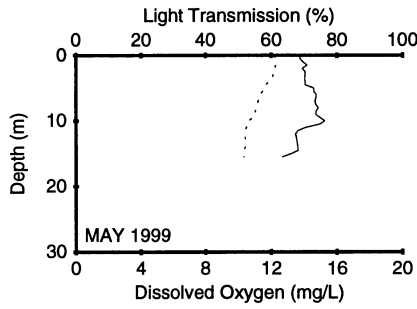
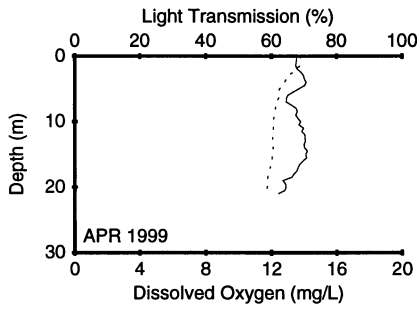
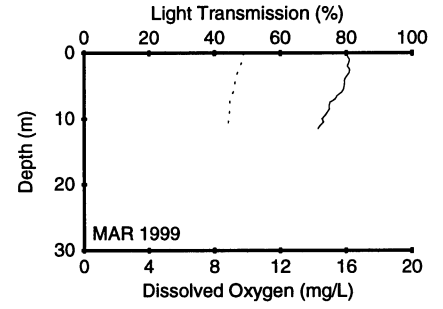
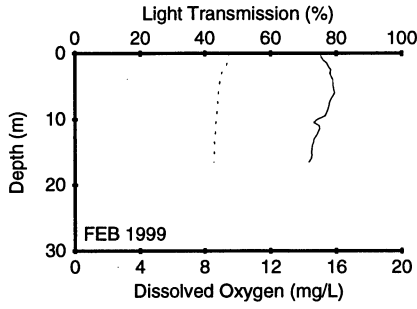
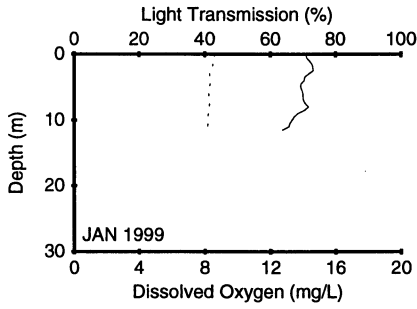
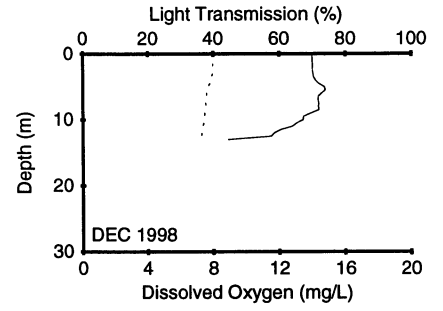
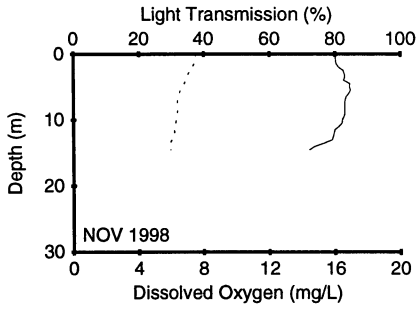
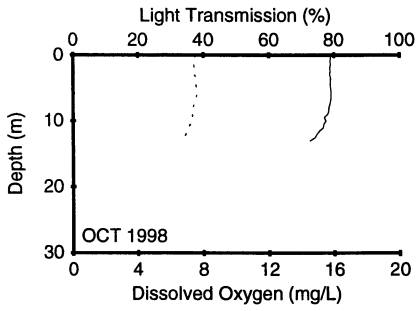


# ELD001 Eld Inlet - Flapjack Point



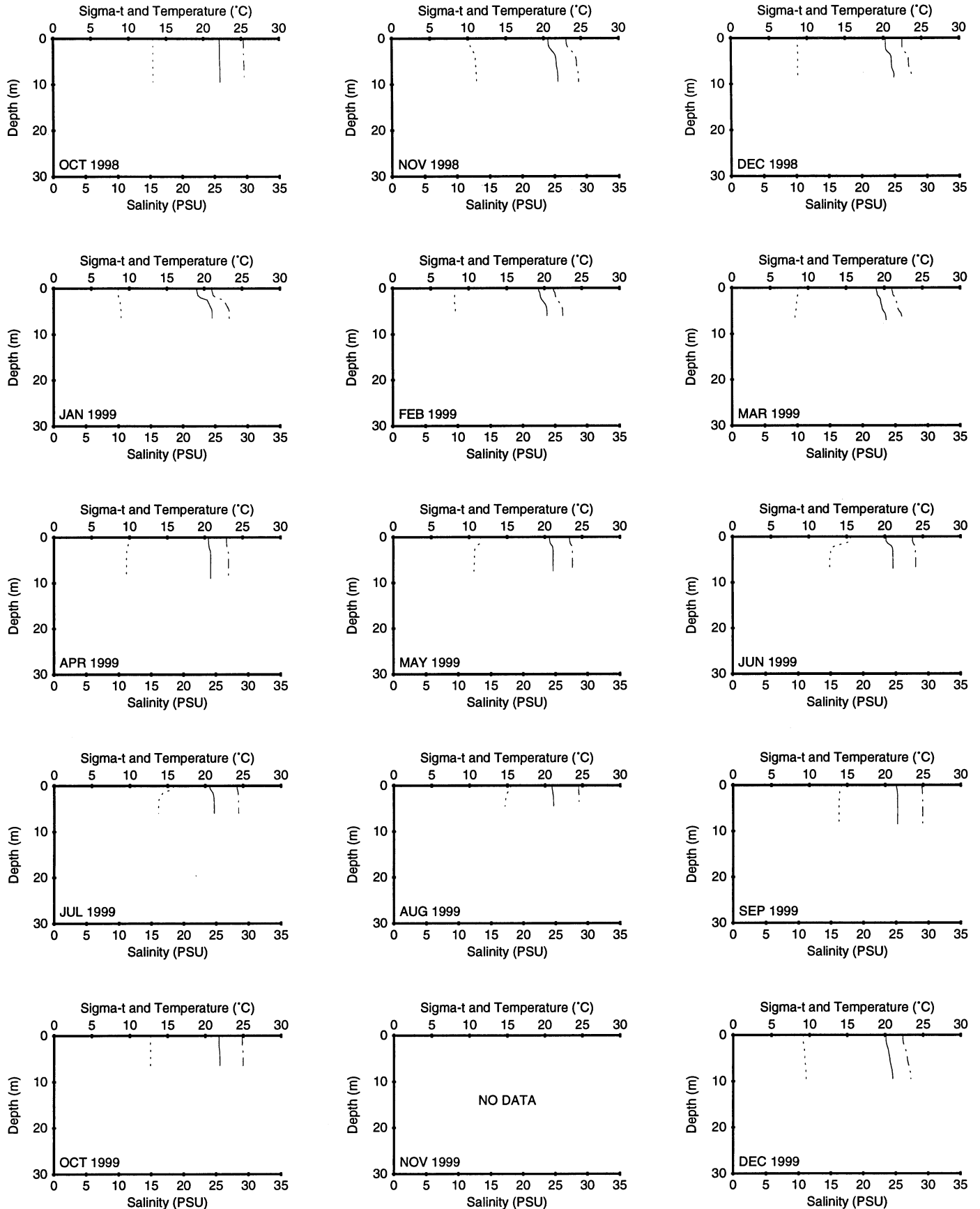
**Legend: Temperature = Dotted Line Salinity = Dot-Dashed Line Sigma-t = Solid Line**

**ELD001 Eld Inlet - Flapjack Point**



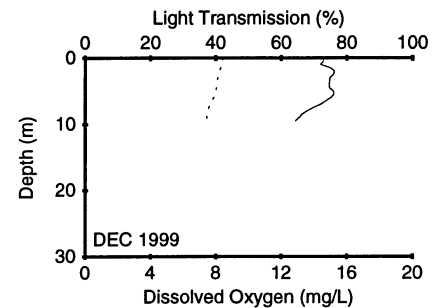
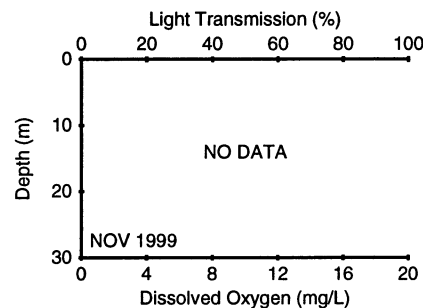
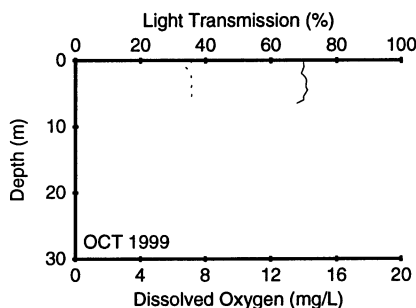
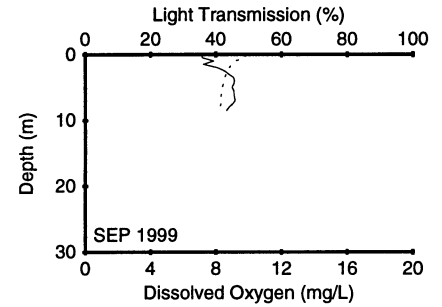
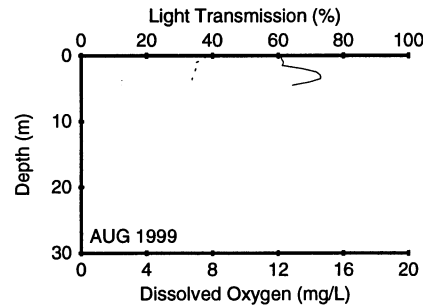
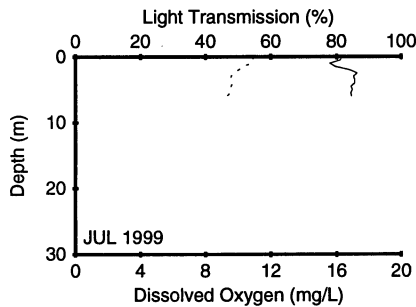
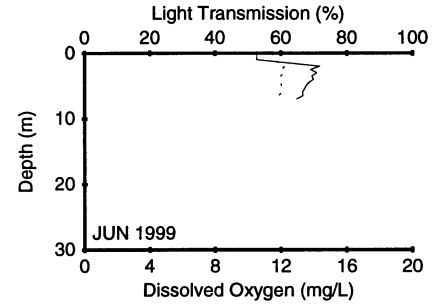
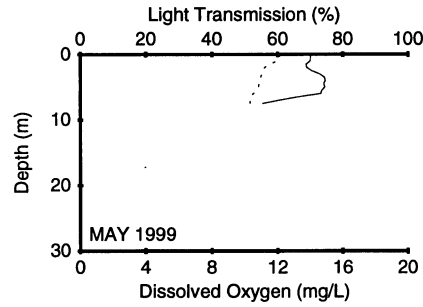
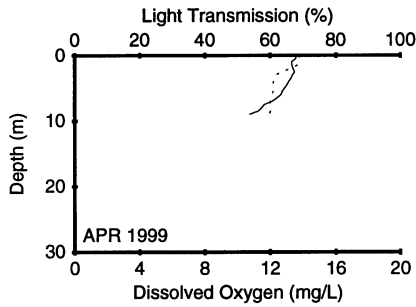
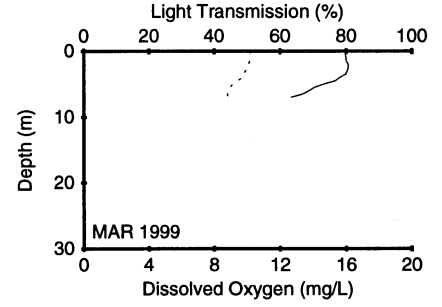
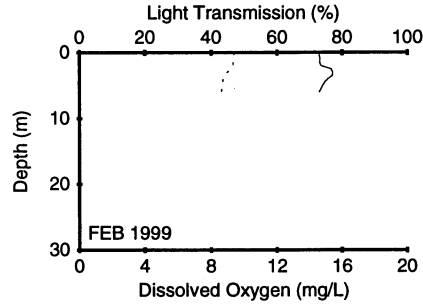
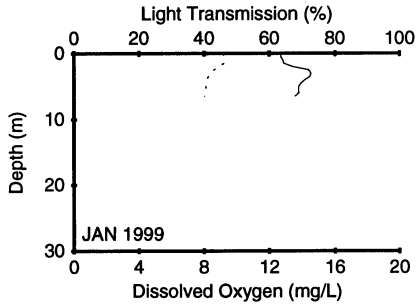
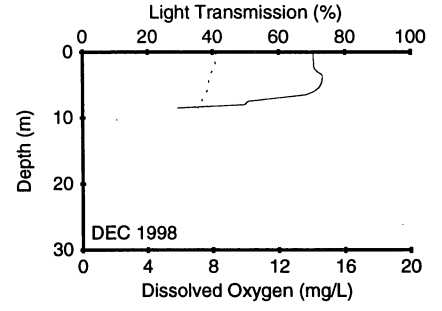
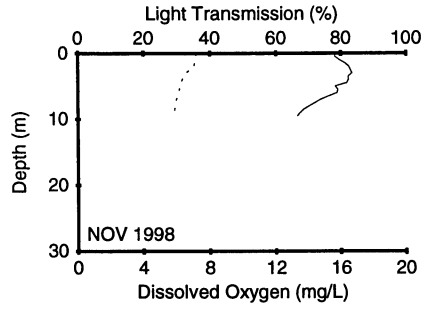
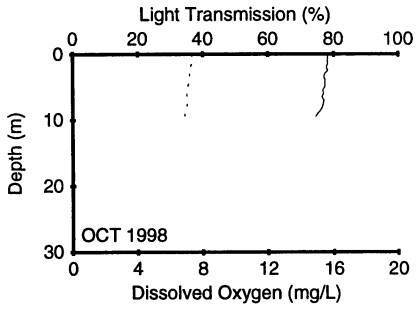
**Legend: Light Transmission = Solid Line Dissolved Oxygen = Dotted Line**

# ELD002 Eld Inlet - S. Flapjack Point



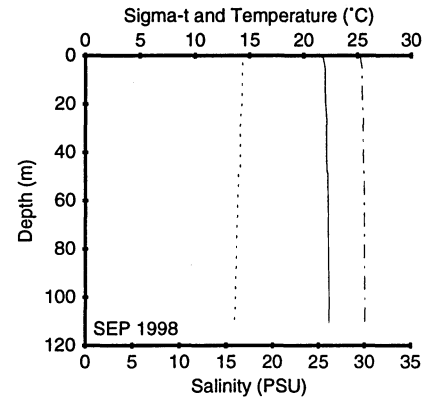
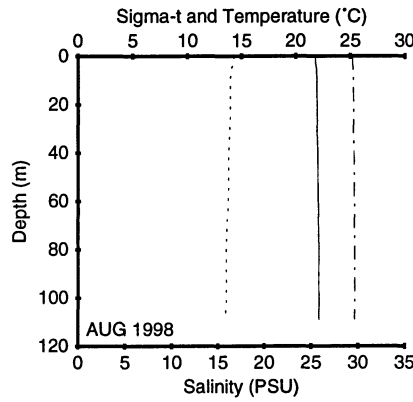
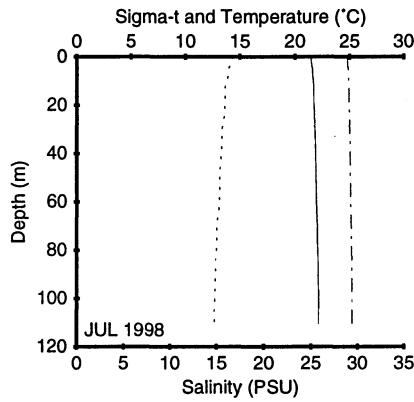
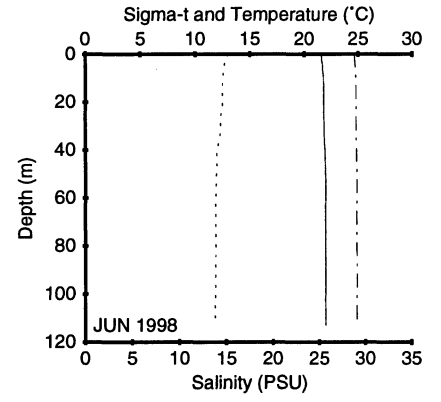
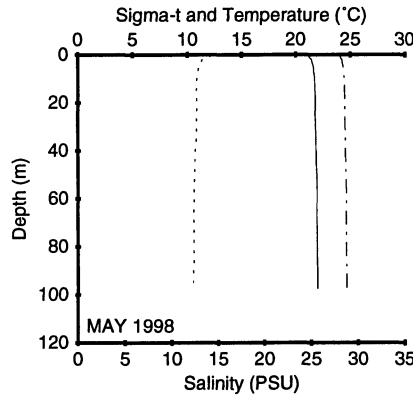
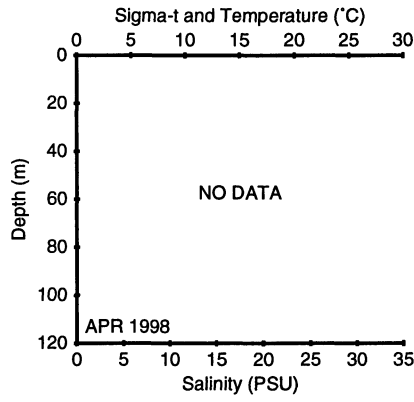
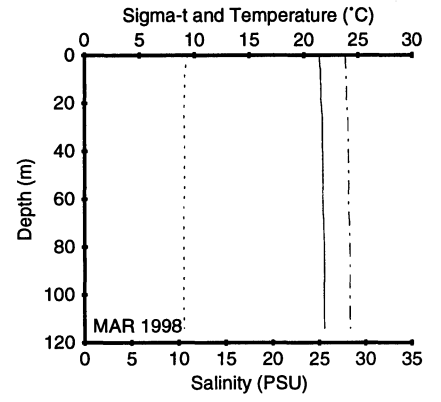
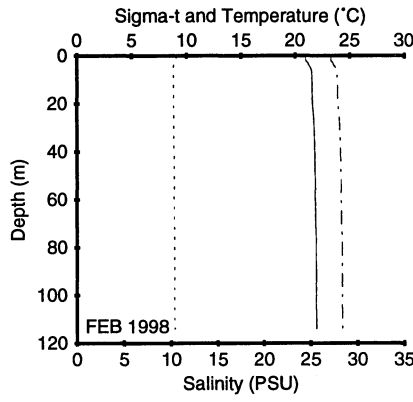
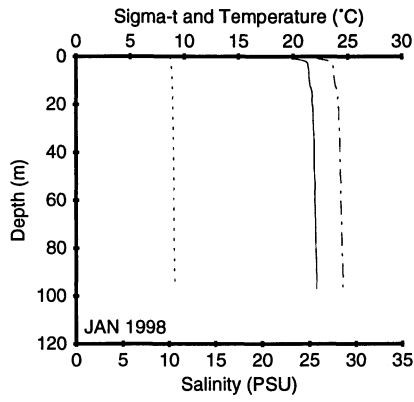
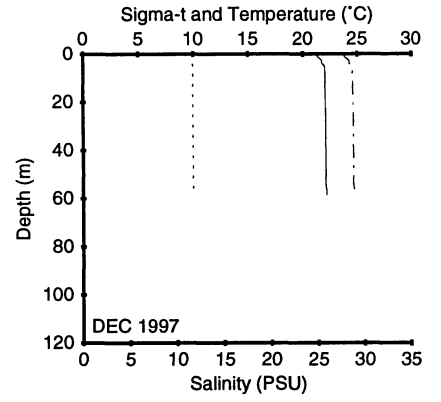
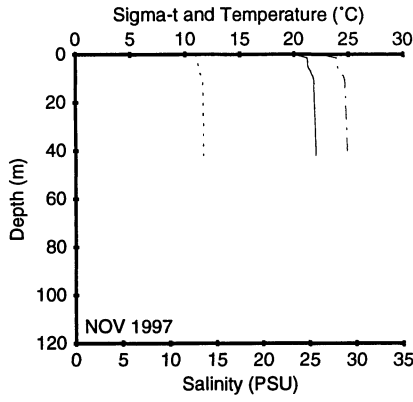
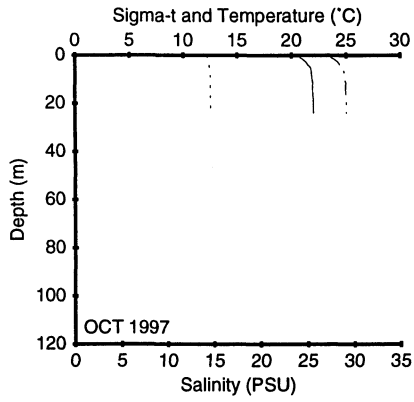
**Legend: Temperature = Dotted Line Salinity = Dot-Dashed Line Sigma-t = Solid Line**

**ELD002 Eld Inlet - S. Flapjack Point**



**Legend: Light Transmission = Solid Line Dissolved Oxygen = Dotted Line**

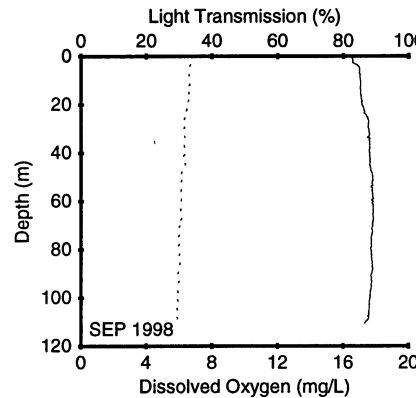
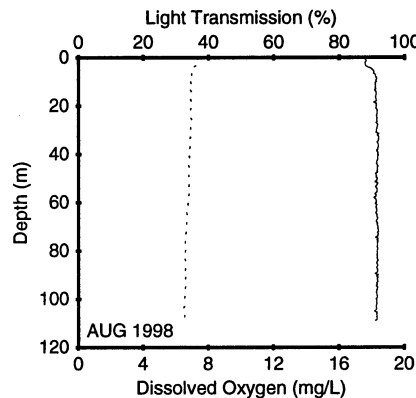
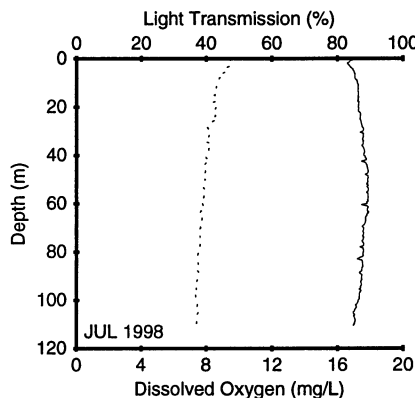
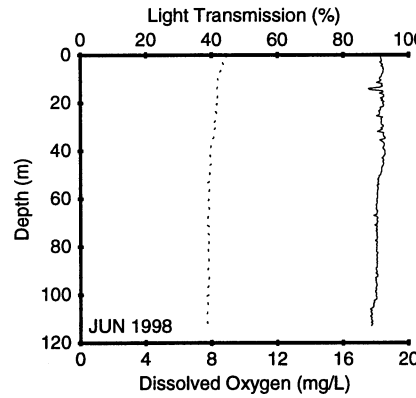
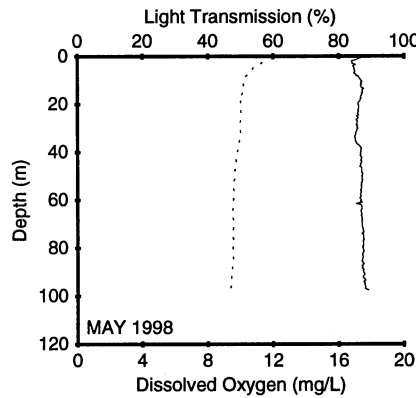
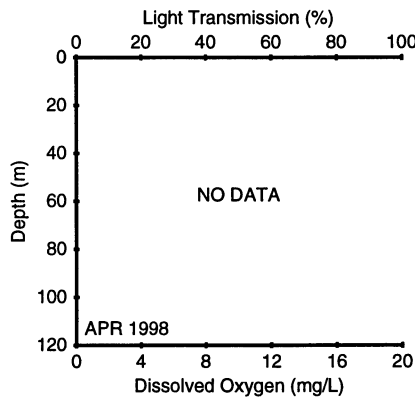
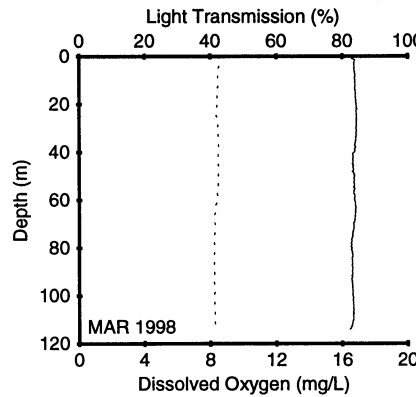
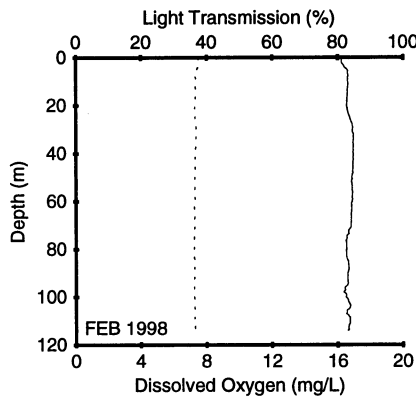
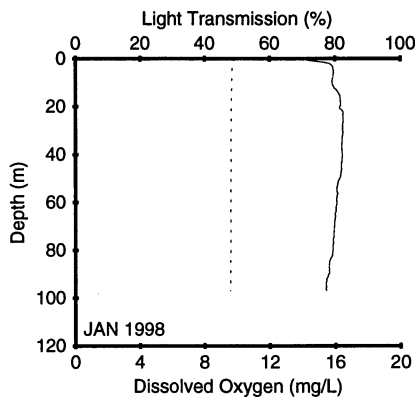
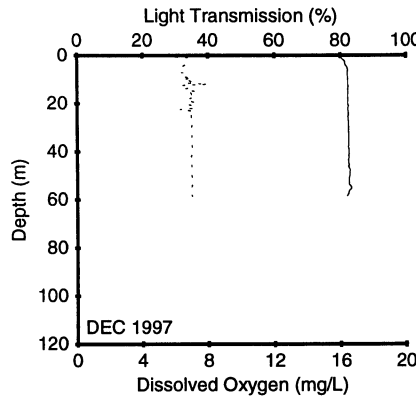
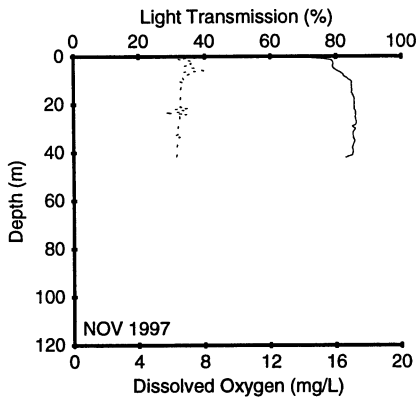
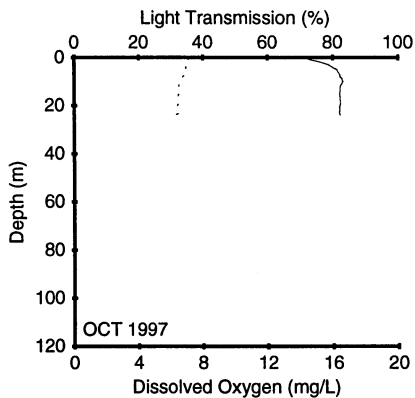
# GOR001 Gordon Point - Gordon Point



Legend: Temperature = Dotted Line Salinity = Dot-Dashed Line Sigma-t = Solid Line

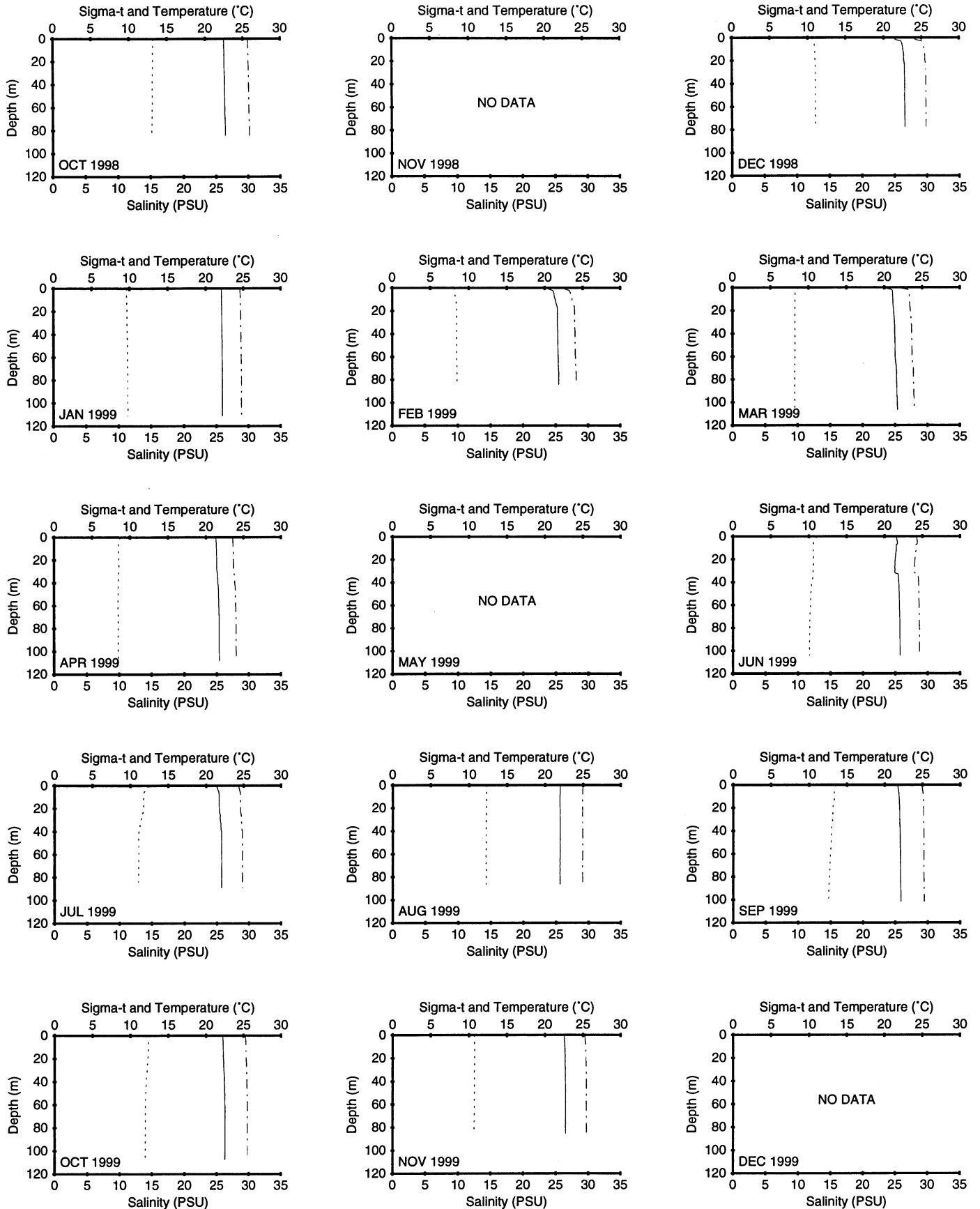


**GOR001 Gordon Point - Gordon Point**



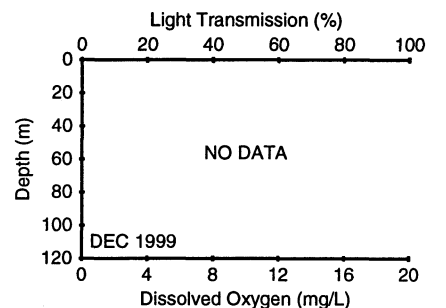
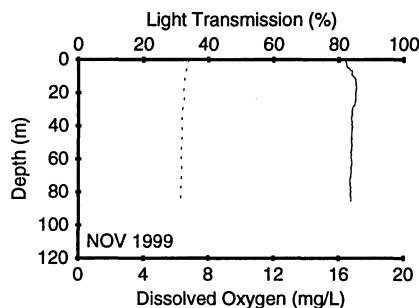
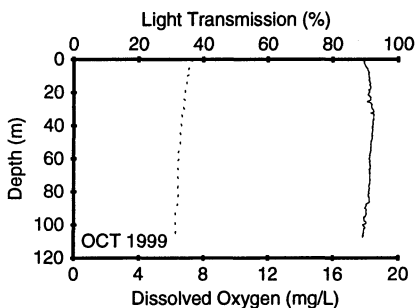
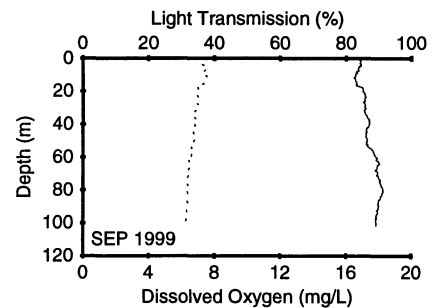
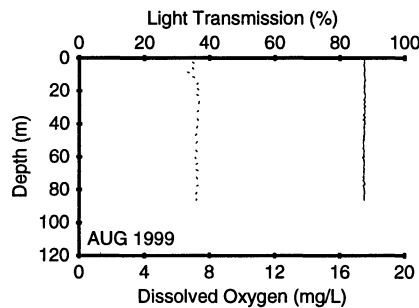
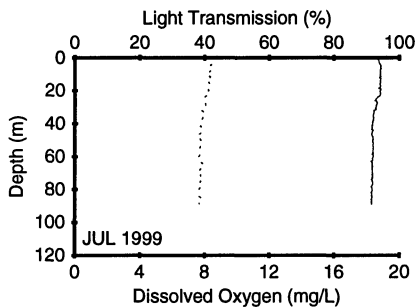
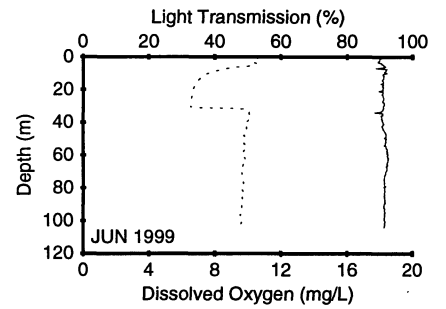
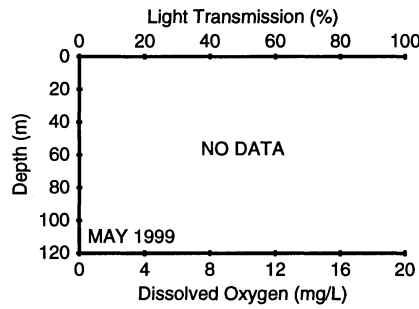
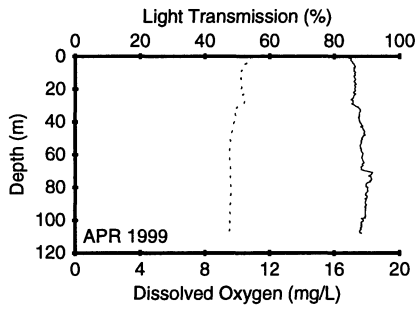
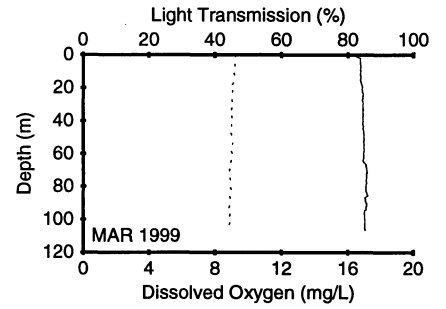
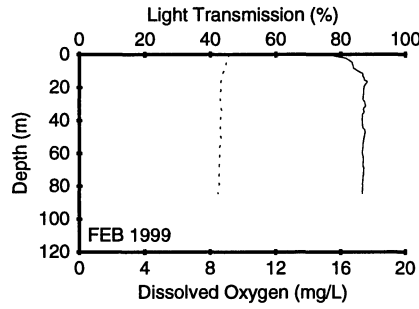
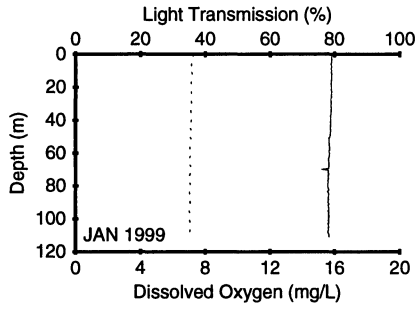
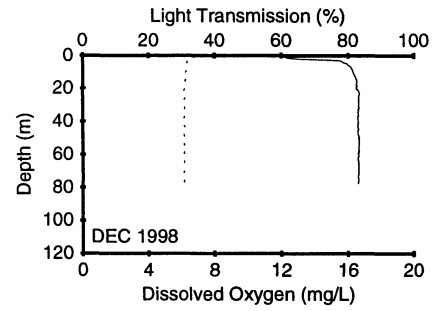
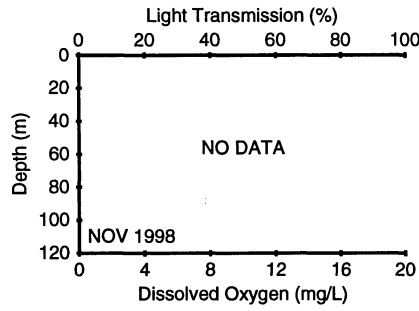
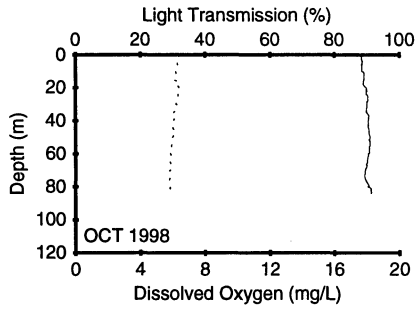
**Legend: Light Transmission = Solid Line Dissolved Oxygen = Dotted Line**

**GOR001 Gordon Point - Gordon Point**



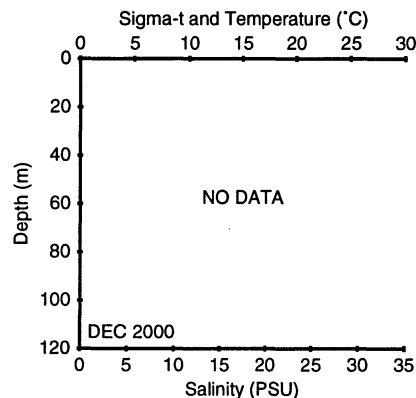
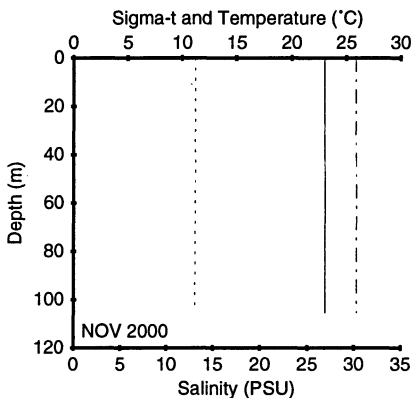
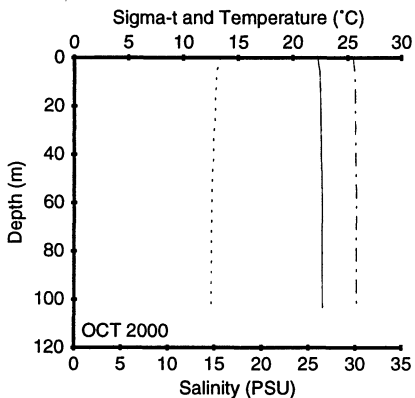
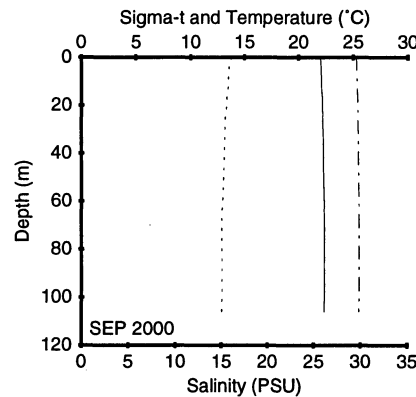
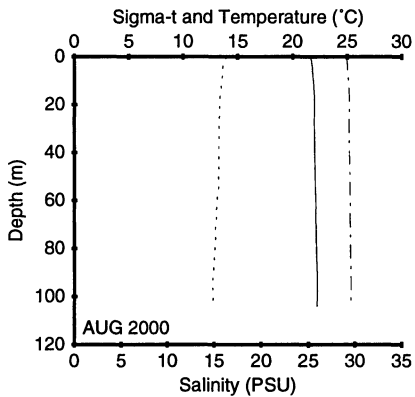
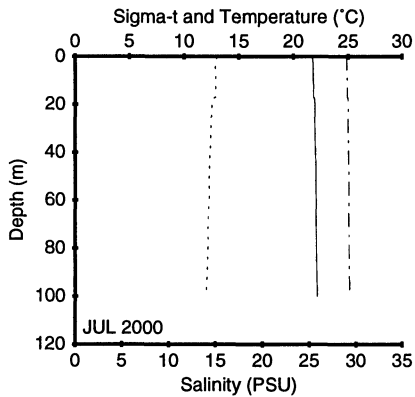
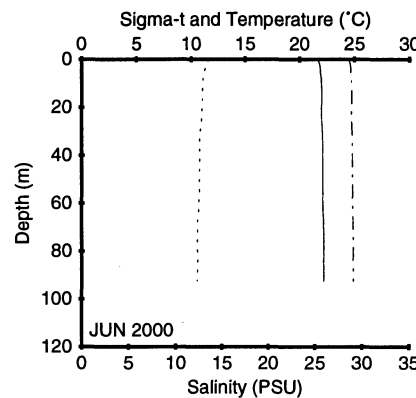
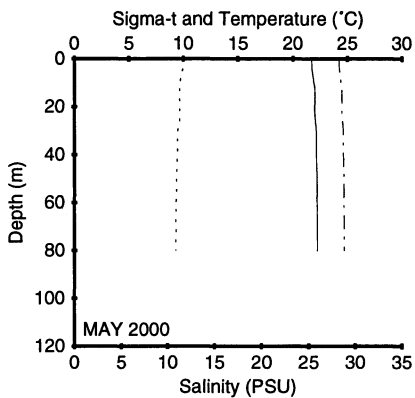
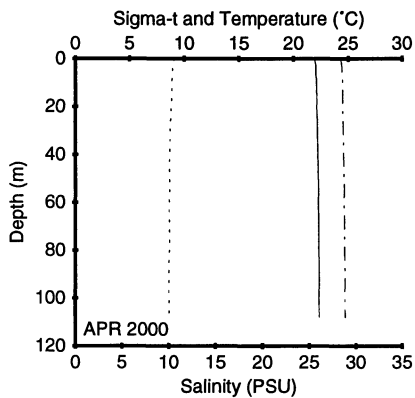
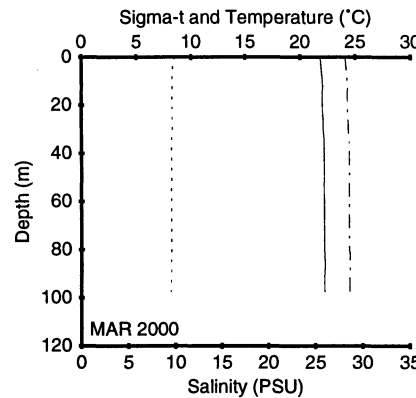
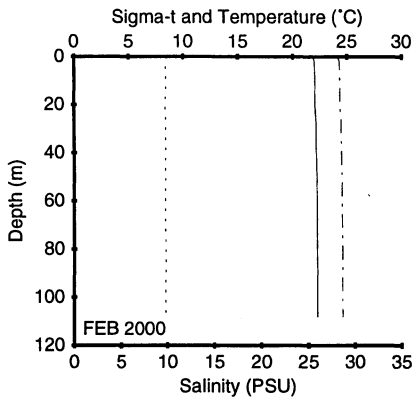
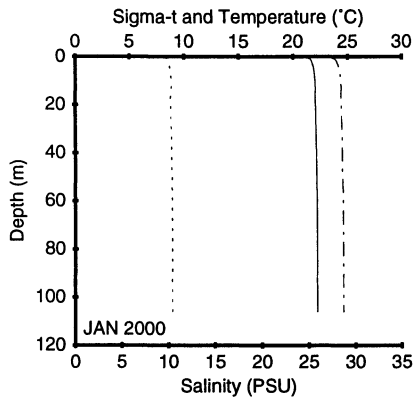
**Legend: Temperature = Dotted Line Salinity = Dot-Dashed Line Sigma-t = Solid Line**

**GOR001 Gordon Point - Gordon Point**



**Legend: Light Transmission = Solid Line Dissolved Oxygen = Dotted Line**

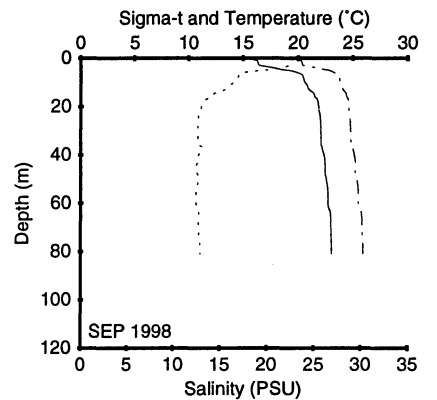
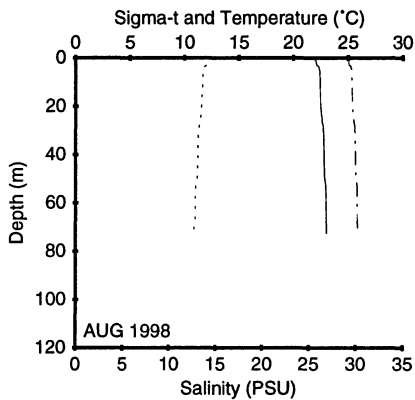
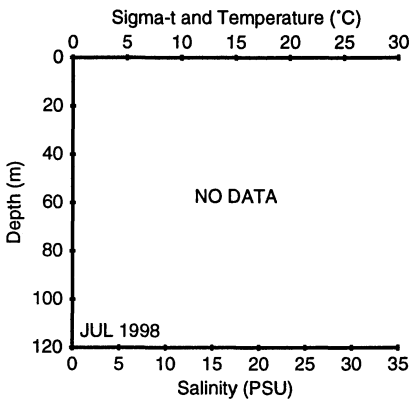
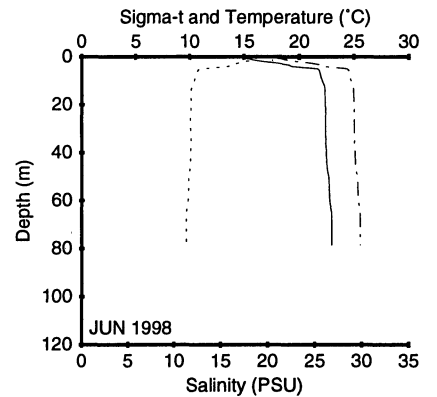
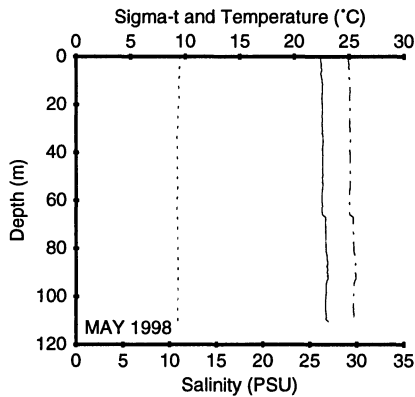
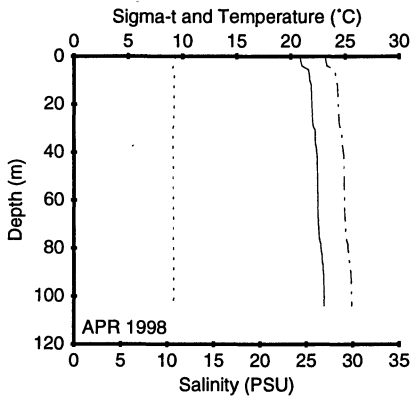
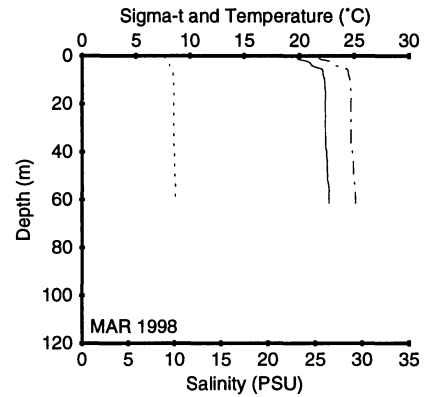
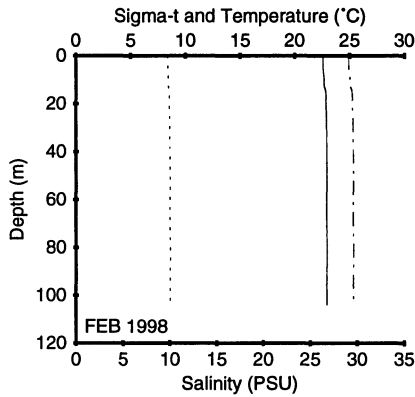
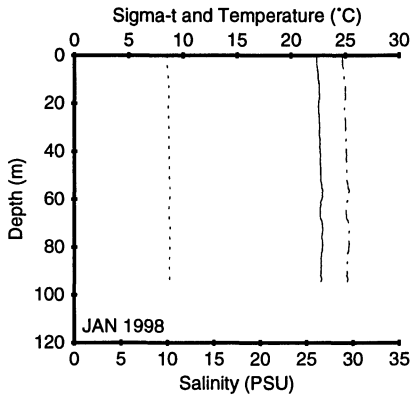
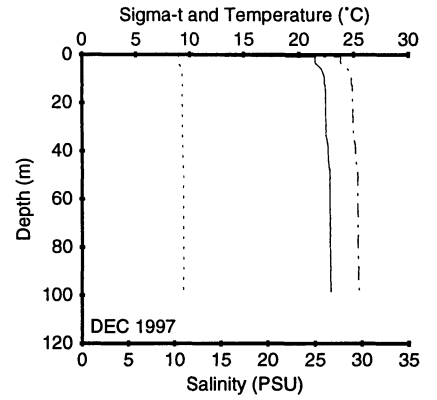
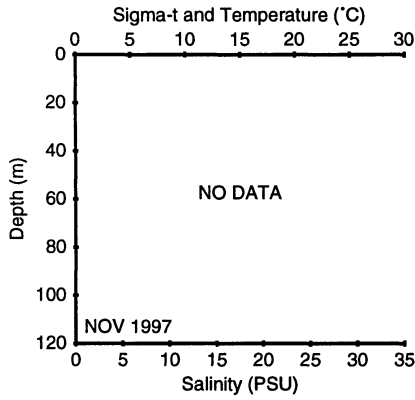
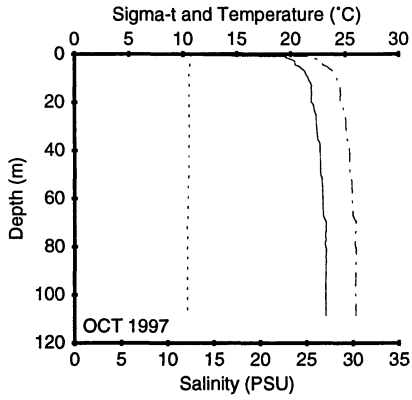
**GOR001 Gordon Point - Gordon Point**



**Legend: Temperature = Dotted Line Salinity = Dot-Dashed Line Sigma-t = Solid Line**

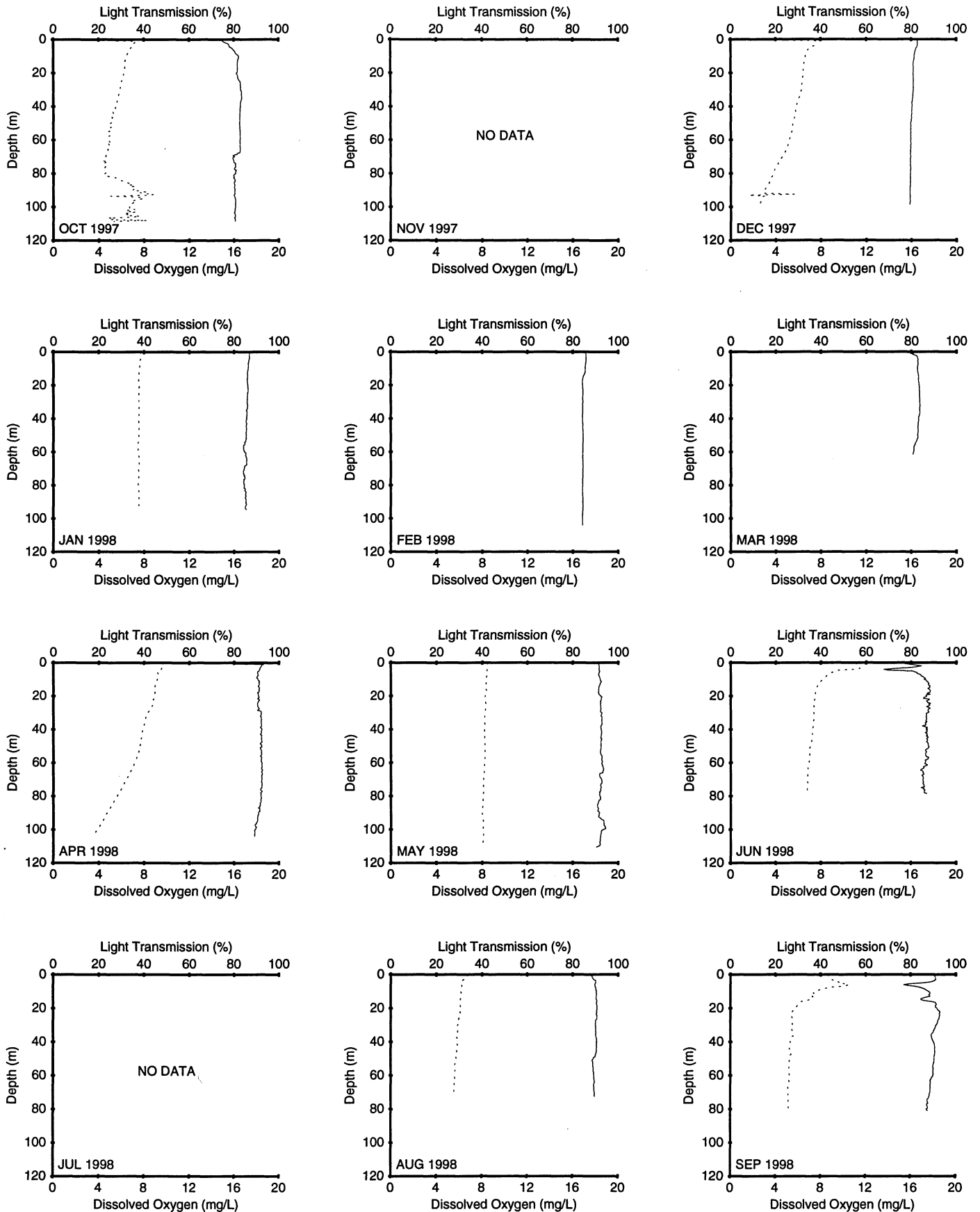


**GRG002 Strait of Georgia - N. of Patos Island**



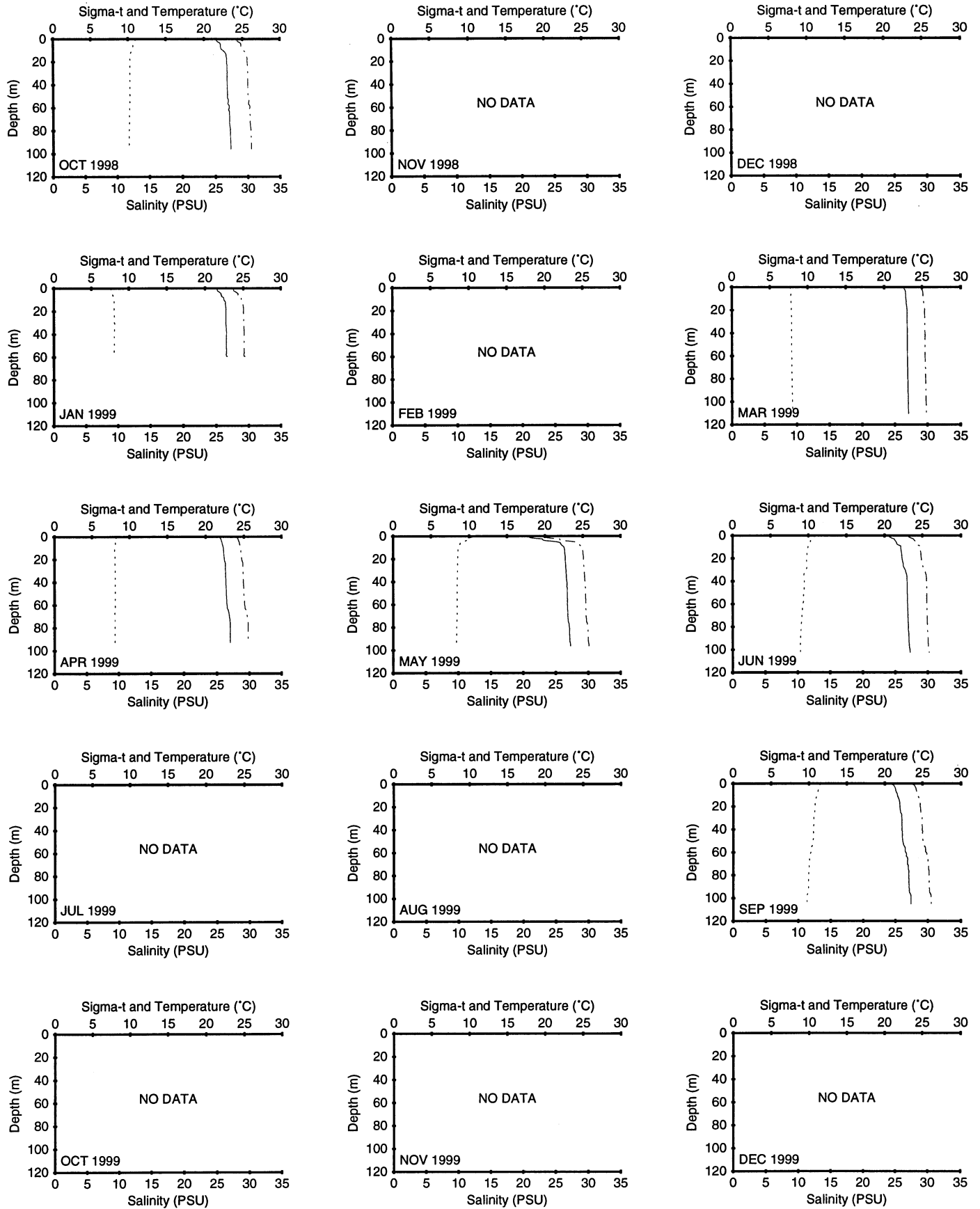
**Legend: Temperature = Dotted Line Salinity = Dot-Dashed Line Sigma-t = Solid Line**

# GRG002 Strait of Georgia - N. of Patos Island



Legend: Light Transmission = Solid Line Dissolved Oxygen = Dotted Line

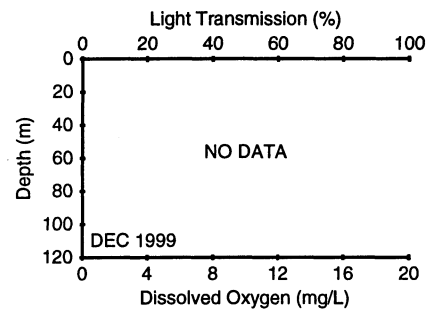
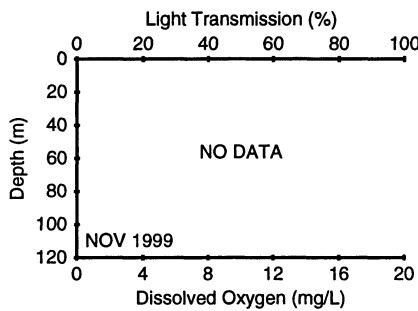
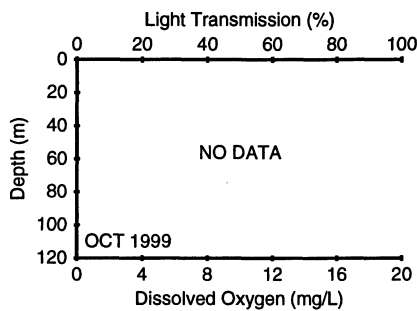
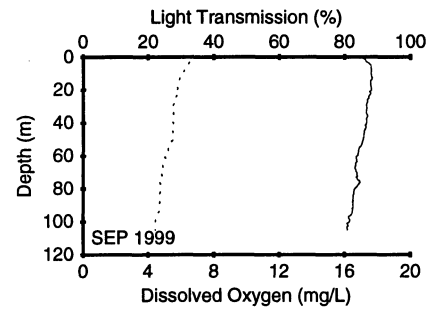
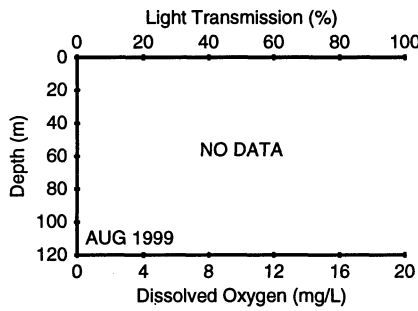
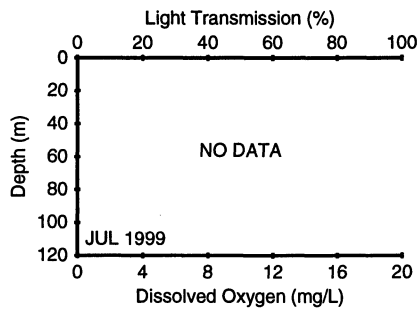
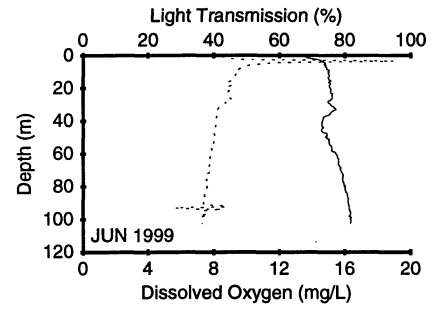
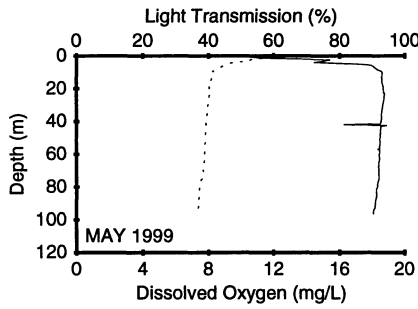
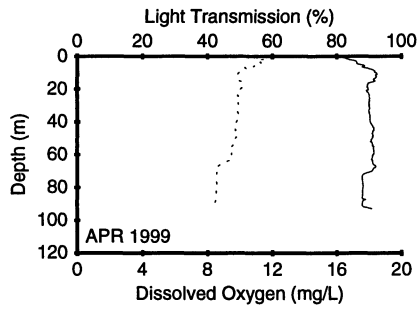
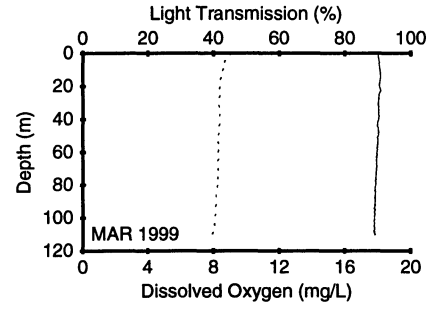
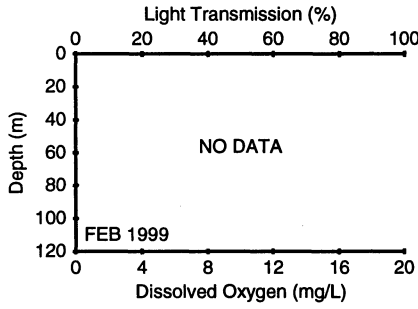
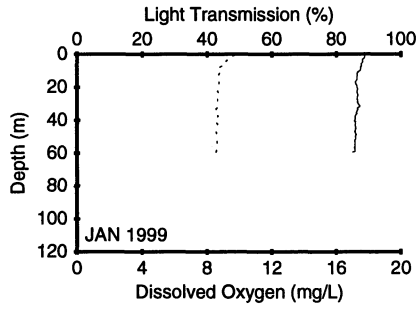
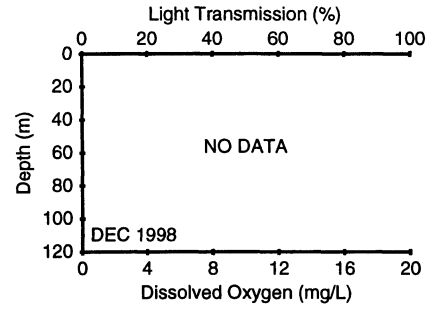
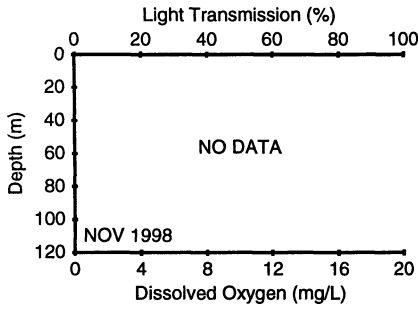
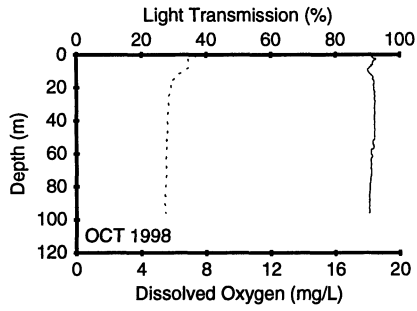
# GRG002 Strait of Georgia - N. of Patos Island



**Legend: Temperature = Dotted Line Salinity = Dot-Dashed Line Sigma-t = Solid Line**

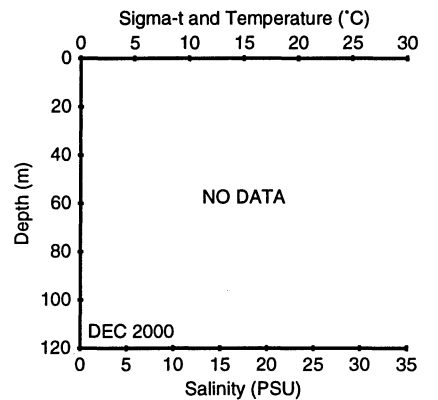
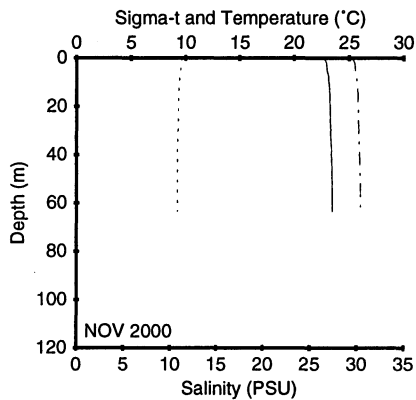
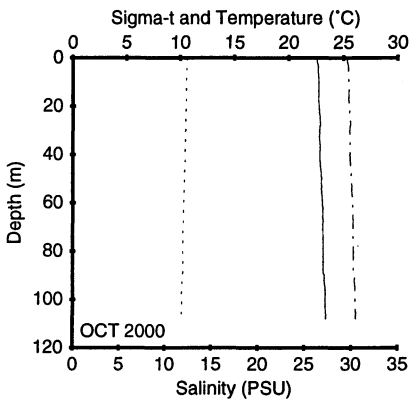
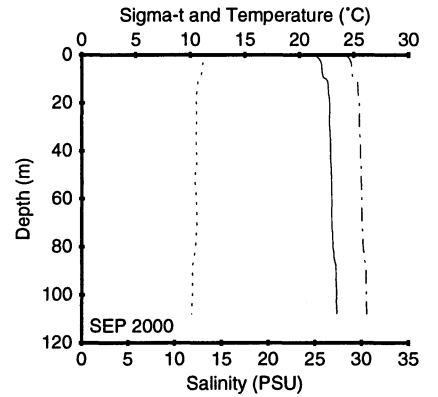
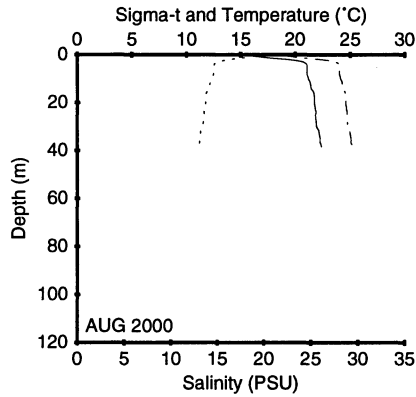
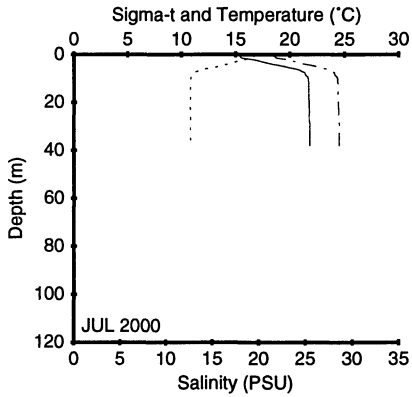
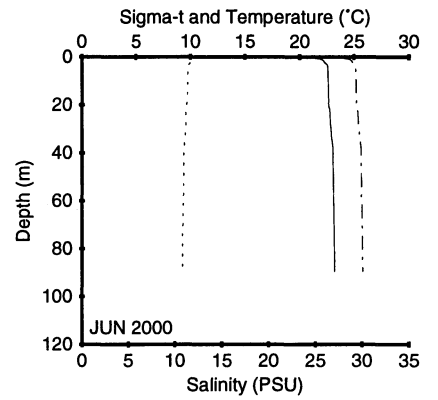
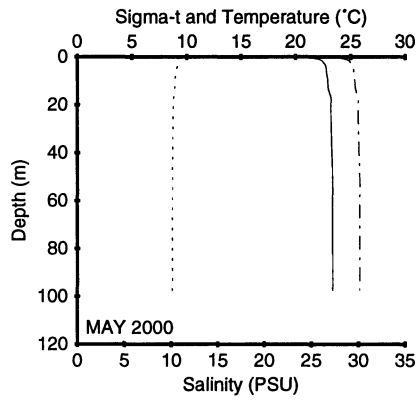
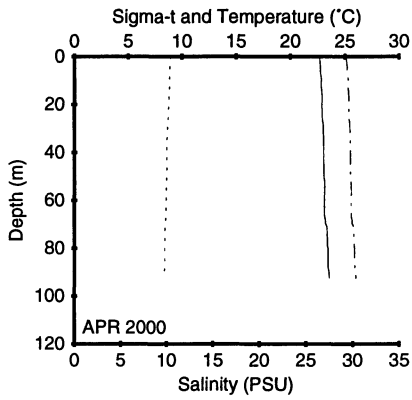
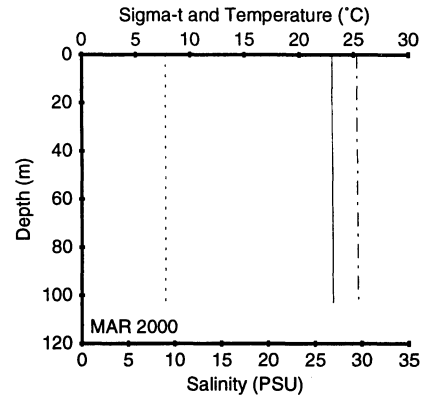
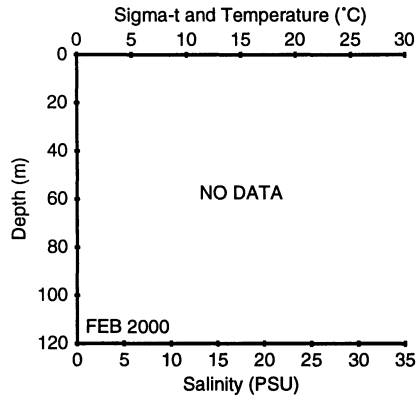
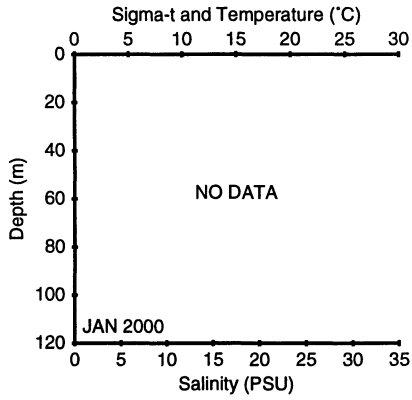


GRG002 Strait of Georgia - N. of Patos Island



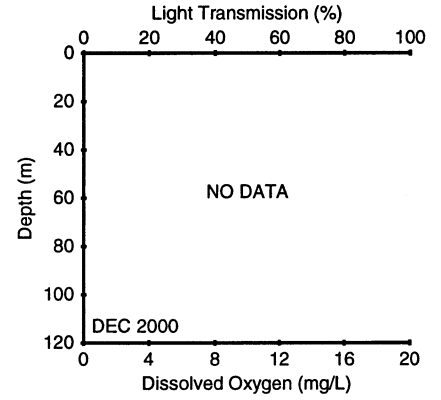
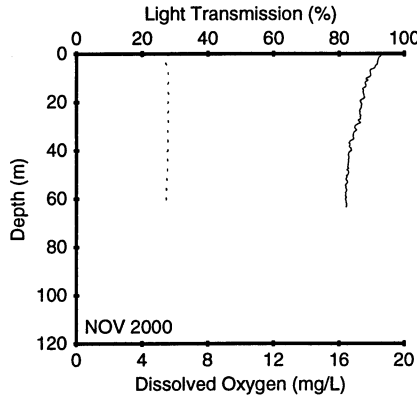
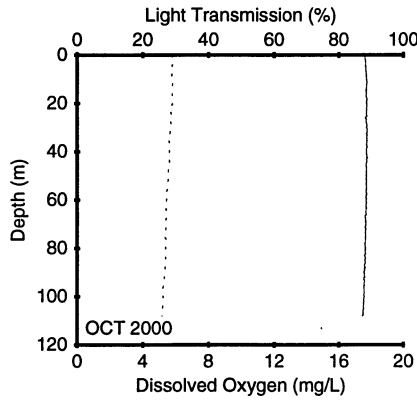
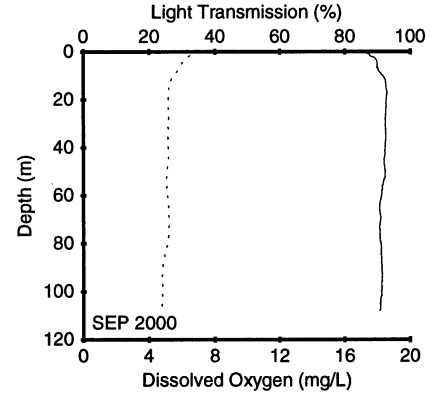
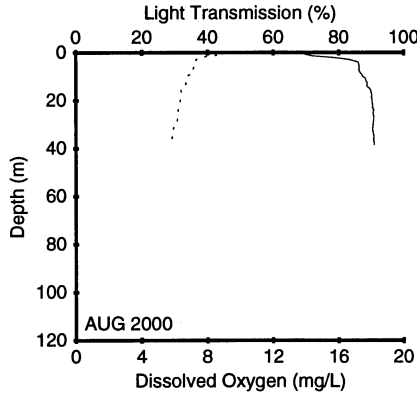
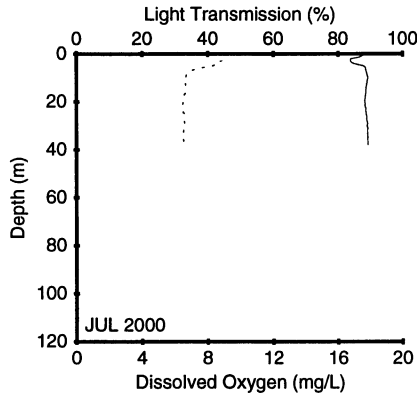
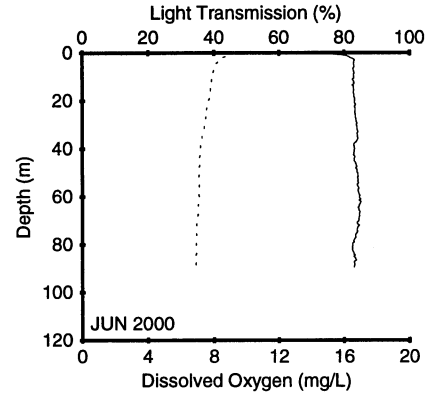
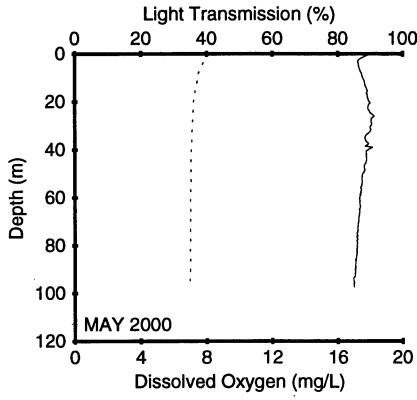
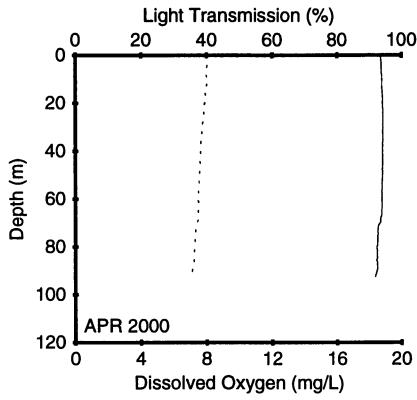
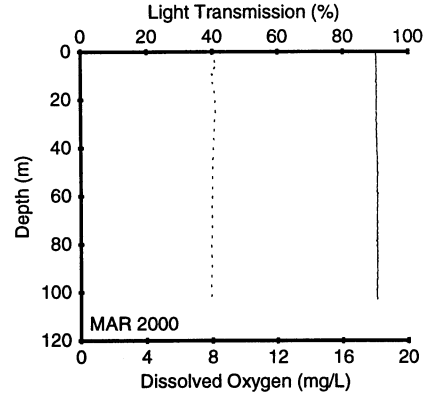
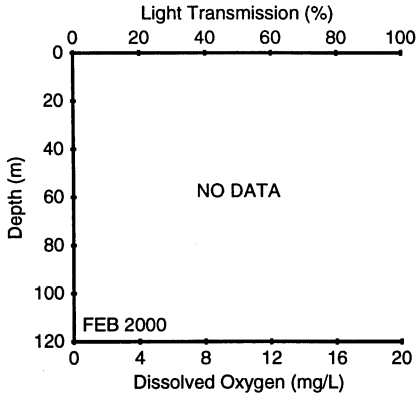
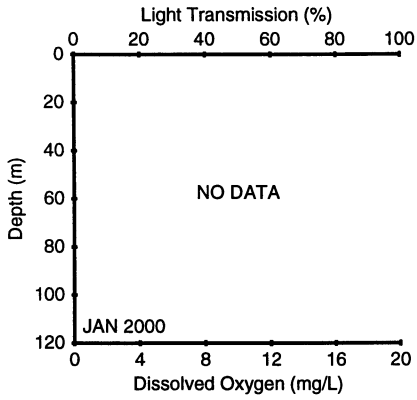
Legend: Light Transmission = Solid Line Dissolved Oxygen = Dotted Line

**GRG002 Strait of Georgia - N. of Patos Island**



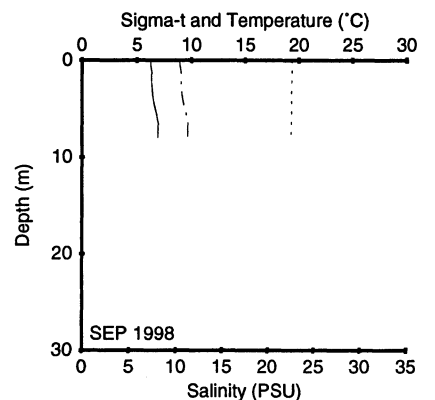
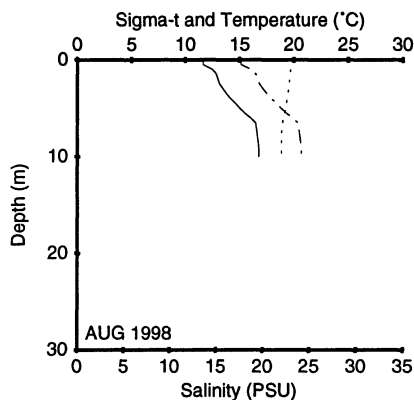
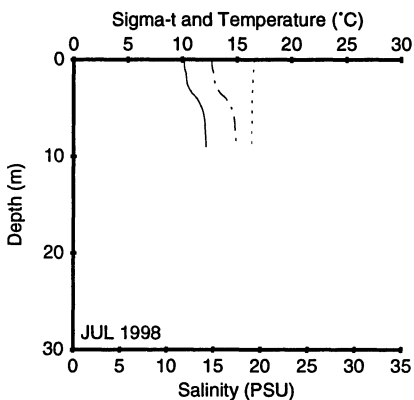
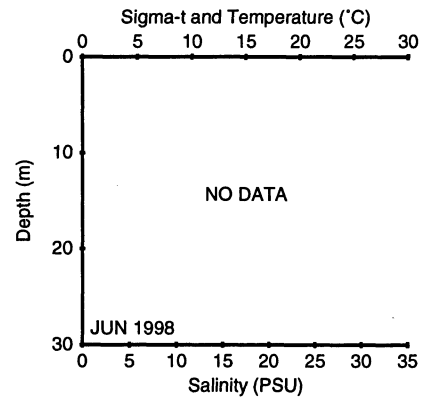
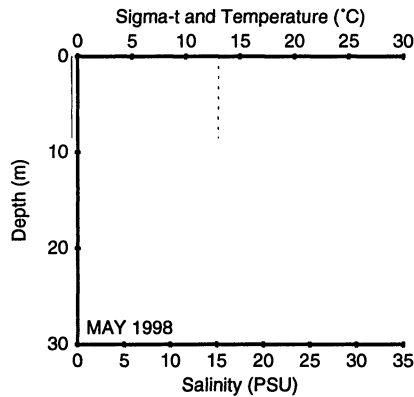
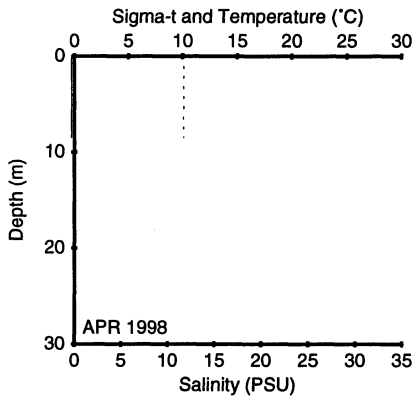
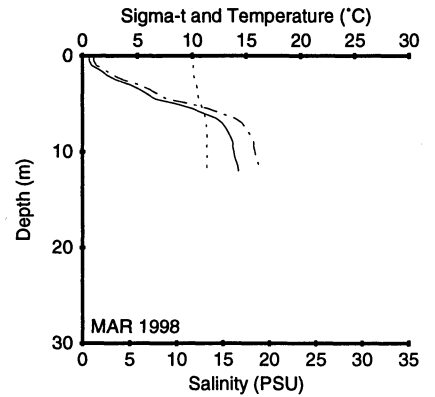
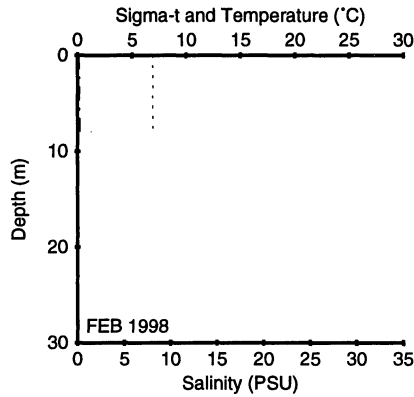
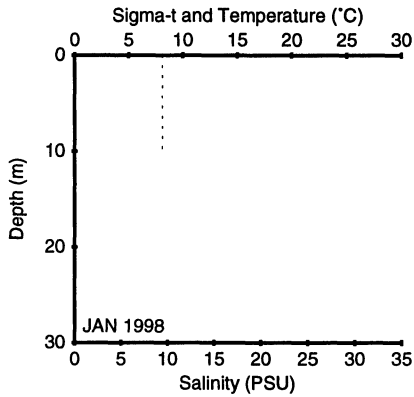
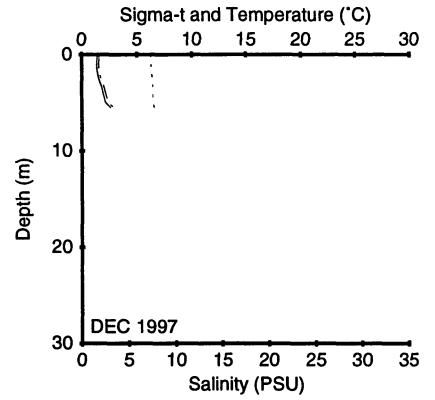
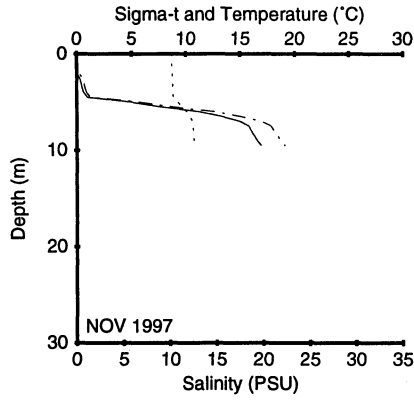
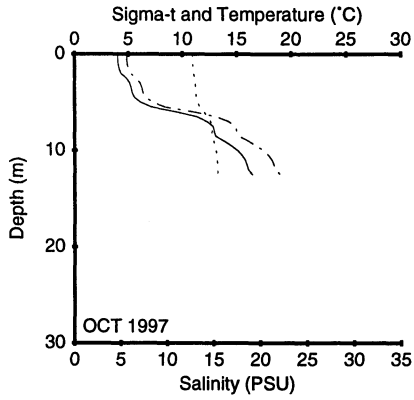
**Legend: Temperature = Dotted Line Salinity = Dot-Dashed Line Sigma-t = Solid Line**

GRG002 Strait of Georgia - N. of Patos Island



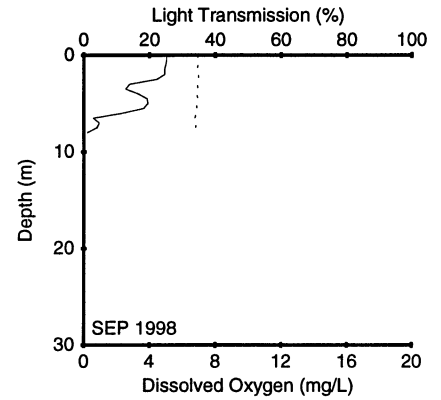
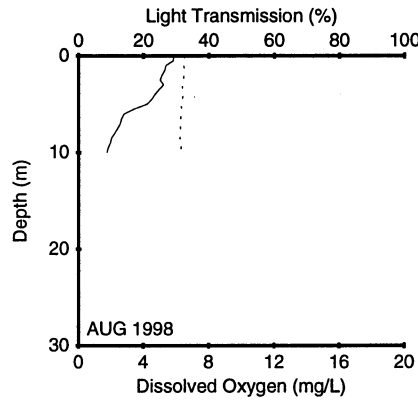
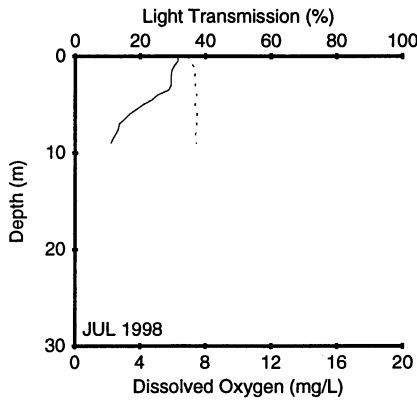
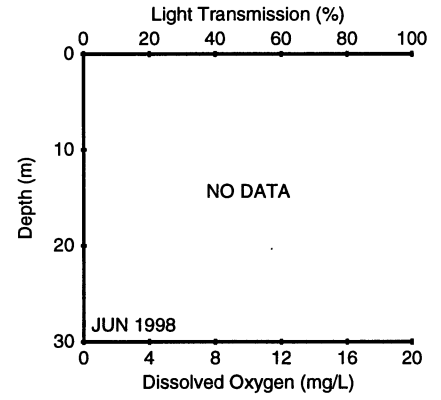
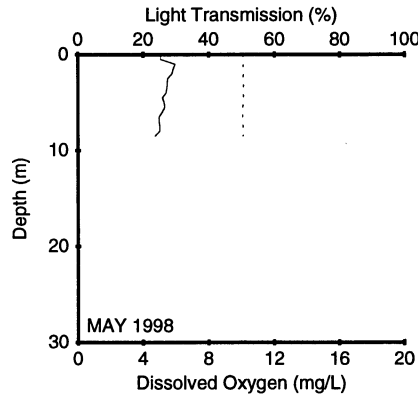
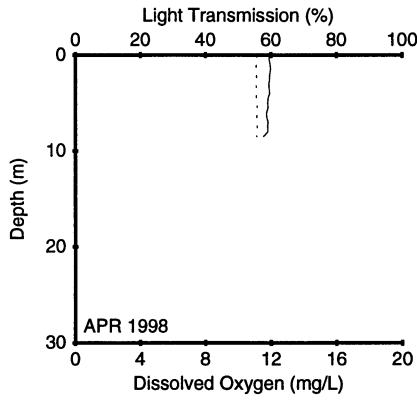
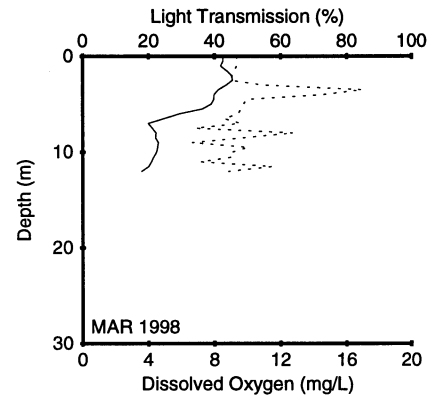
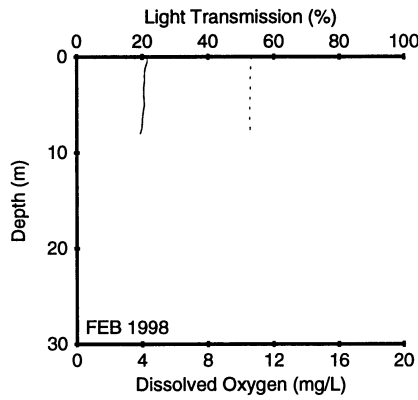
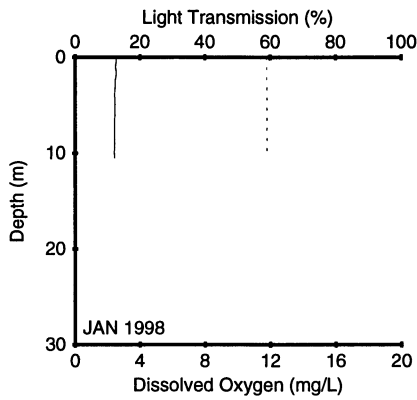
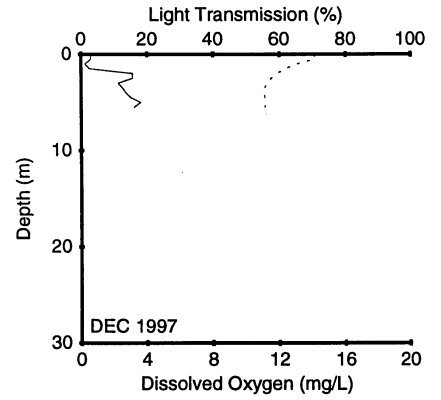
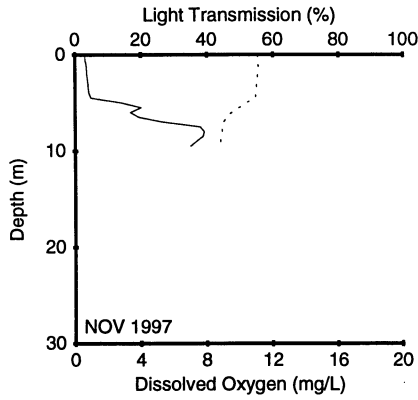
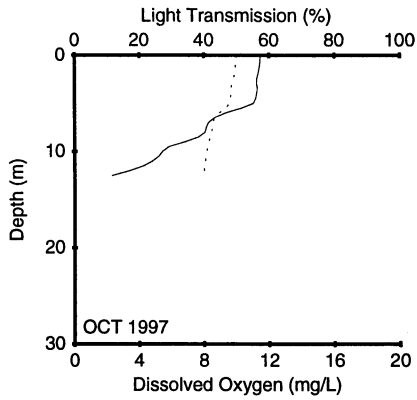
Legend: Light Transmission = Solid Line Dissolved Oxygen = Dotted Line

**GYS004 Grays Harbor - Chehalis R.**



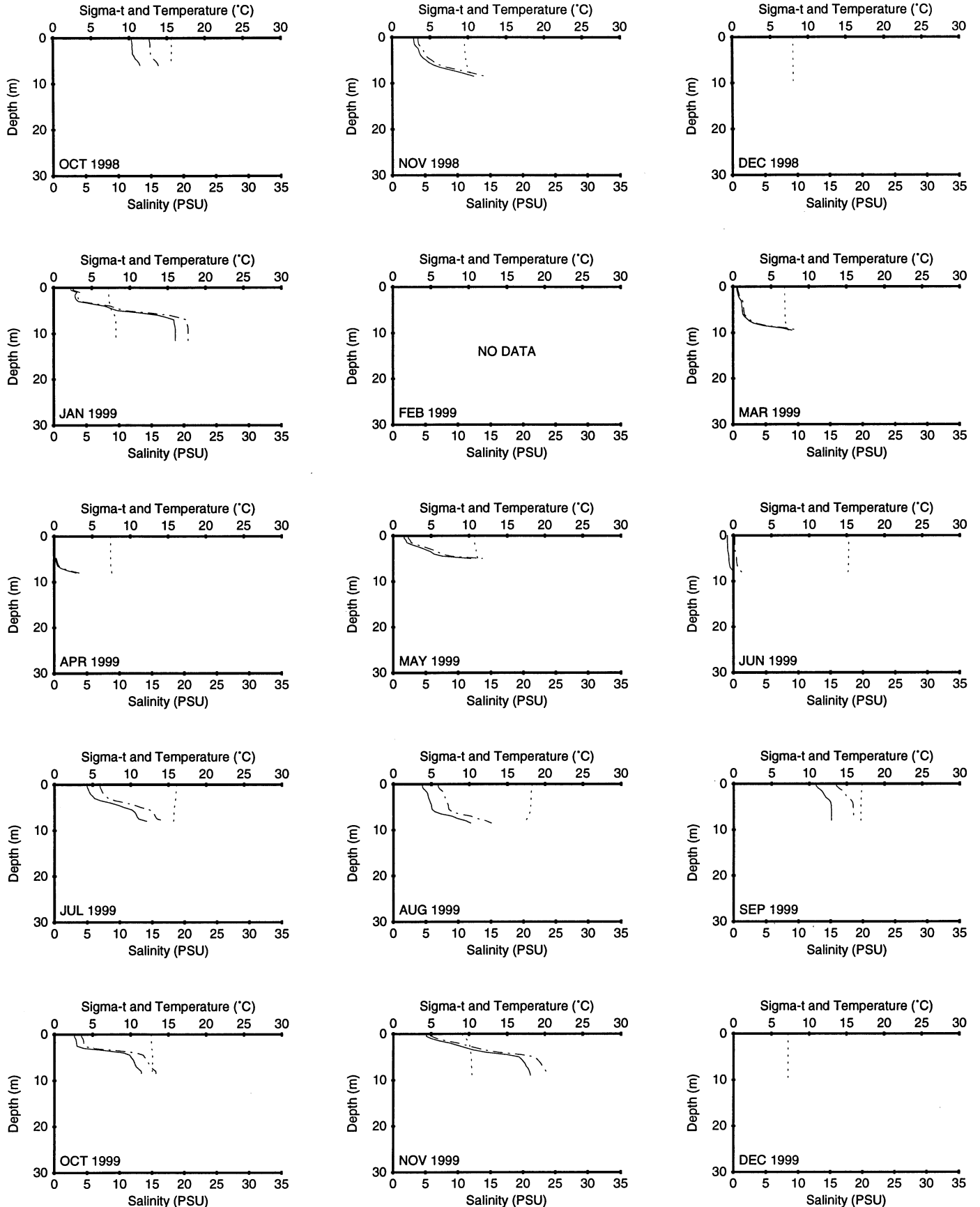
**Legend: Temperature = Dotted Line Salinity = Dot-Dashed Line Sigma-t = Solid Line**

**GYS004 Grays Harbor - Chehalis R.**



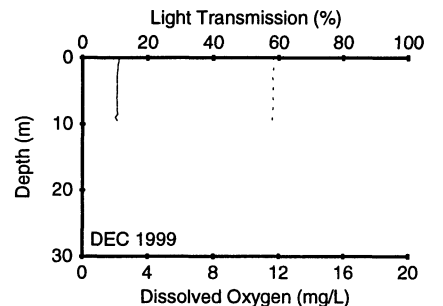
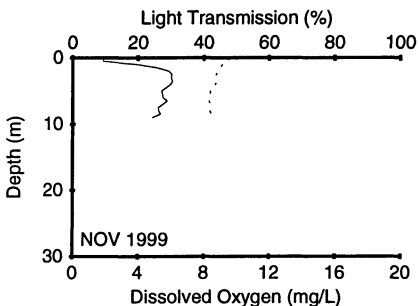
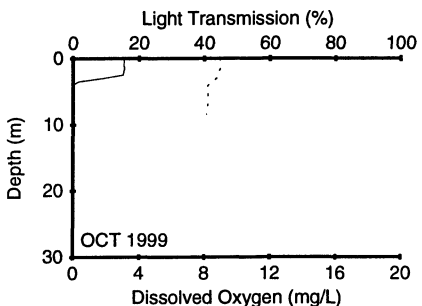
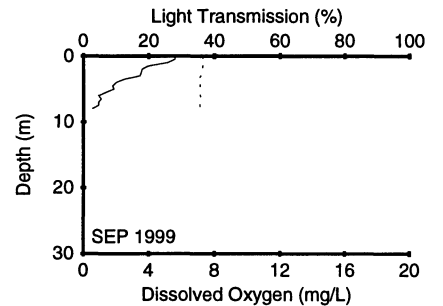
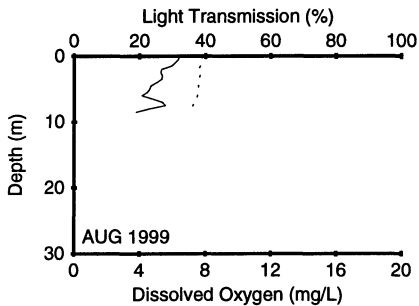
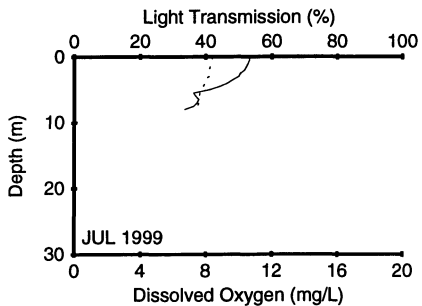
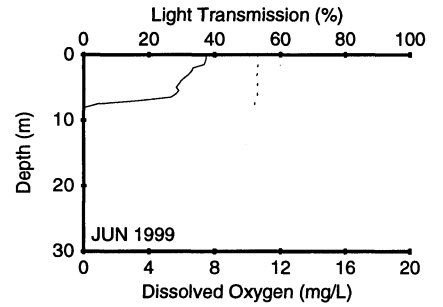
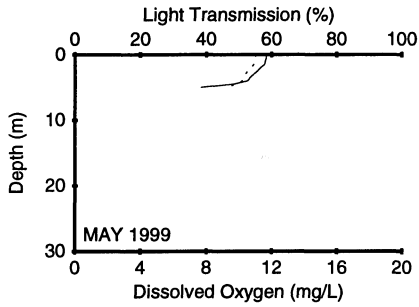
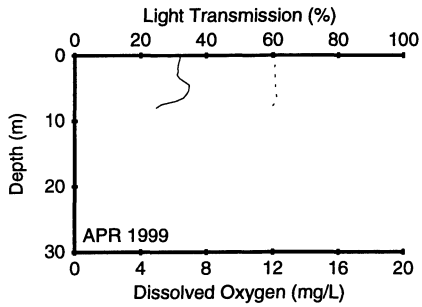
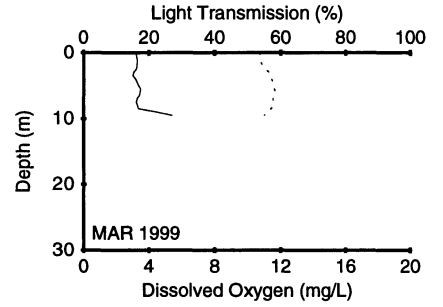
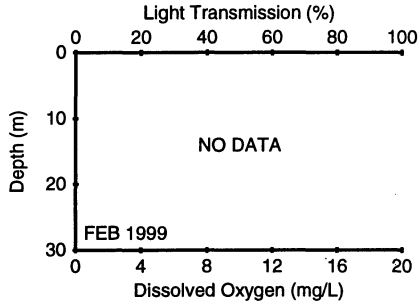
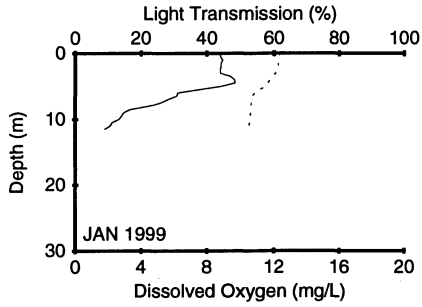
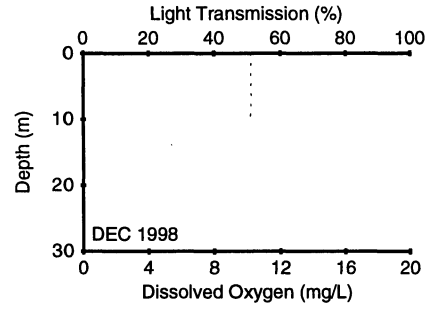
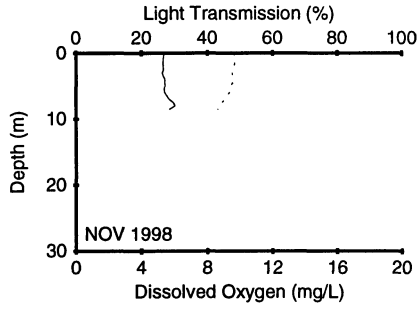
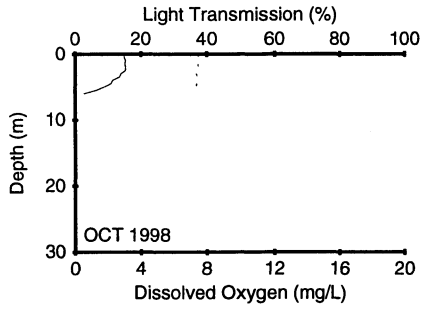
**Legend: Light Transmission = Solid Line Dissolved Oxygen = Dotted Line**

**GYS004 Grays Harbor - Chehalis R.**



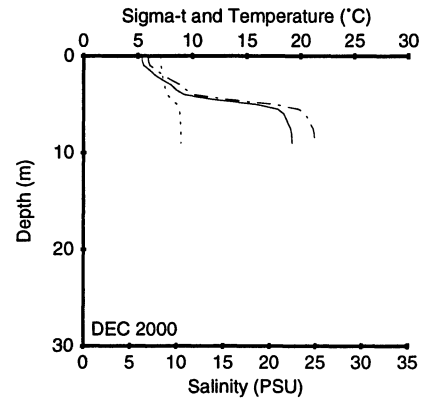
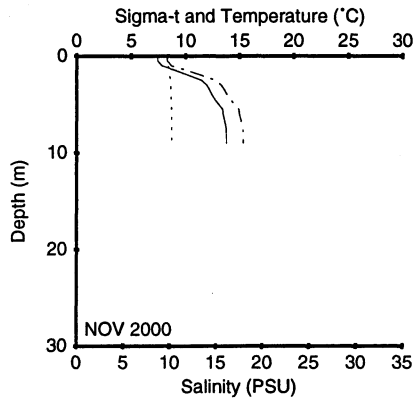
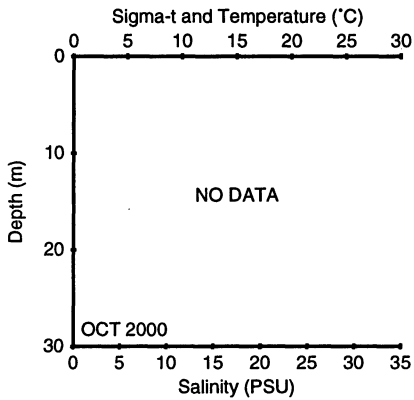
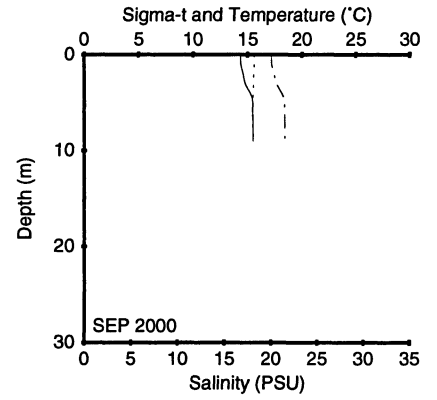
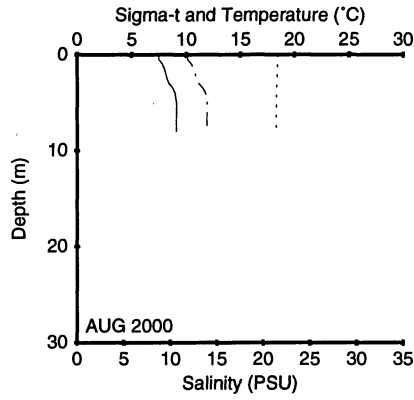
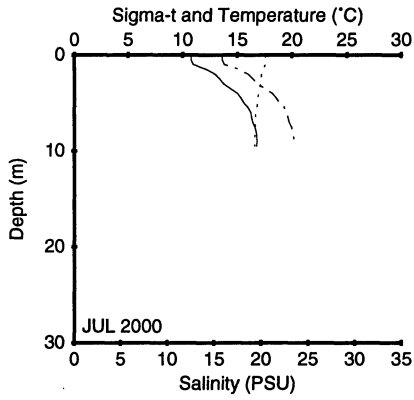
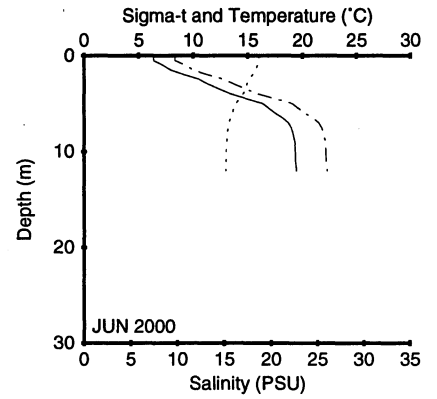
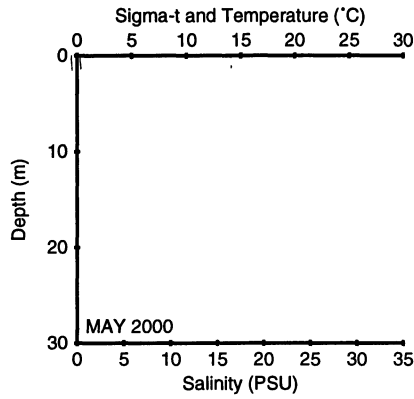
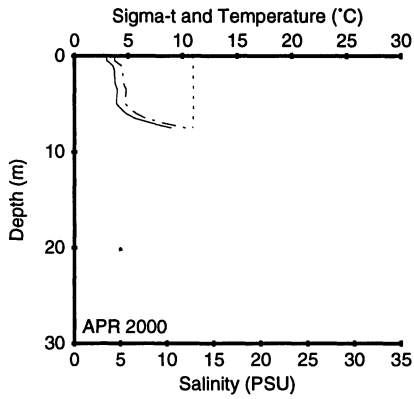
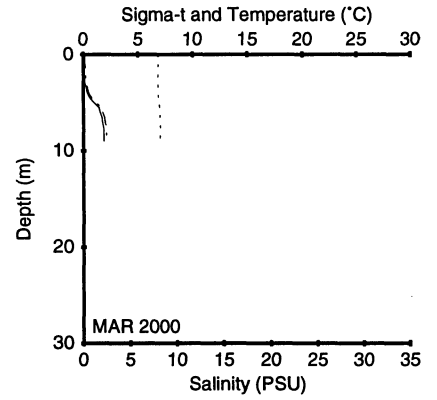
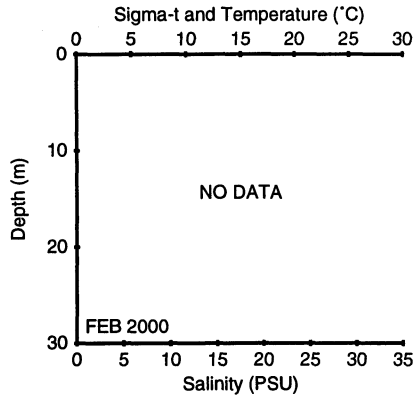
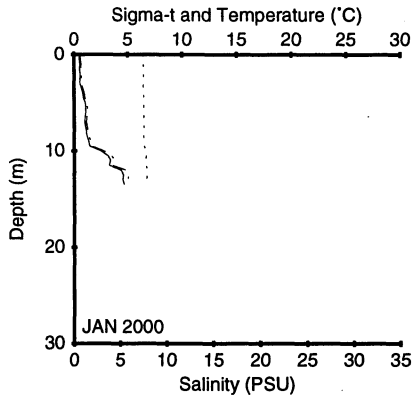
**Legend: Temperature = Dotted Line Salinity = Dot-Dashed Line Sigma-t = Solid Line**

**GYS004 Grays Harbor - Chehalis R.**



**Legend: Light Transmission = Solid Line Dissolved Oxygen = Dotted Line**

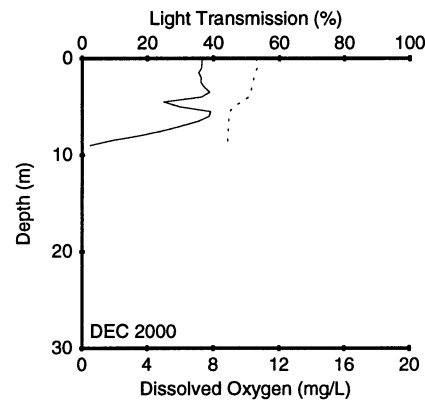
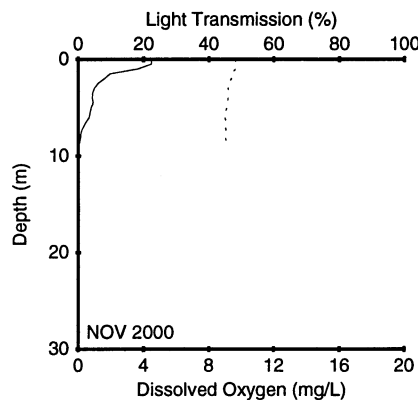
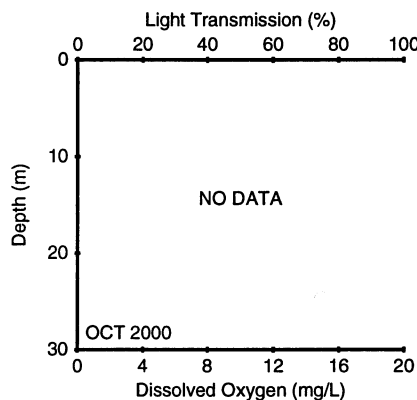
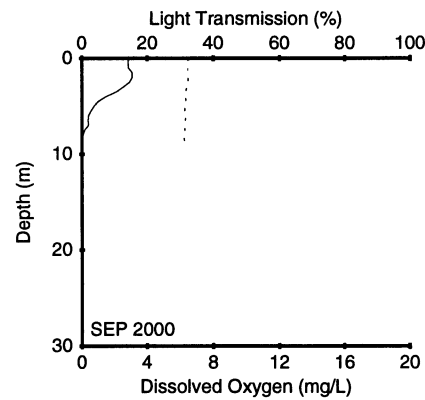
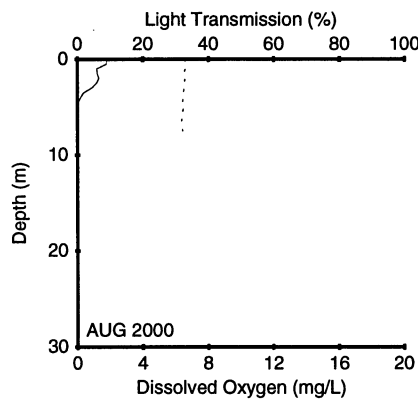
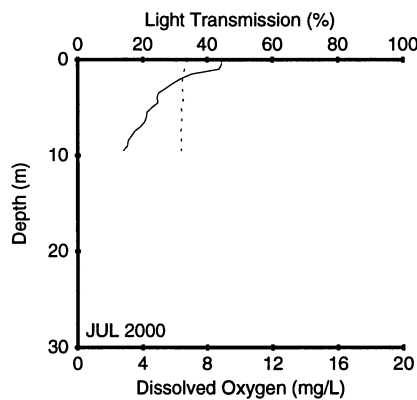
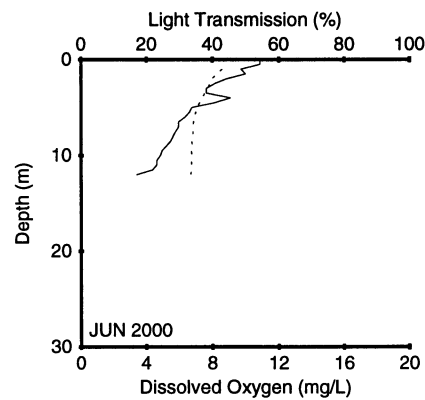
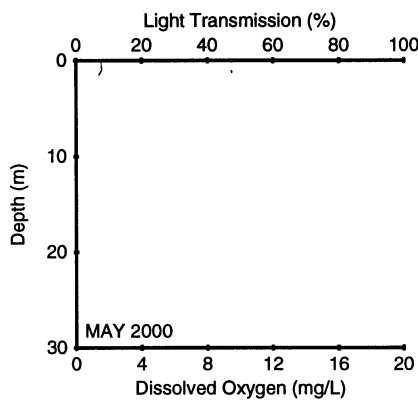
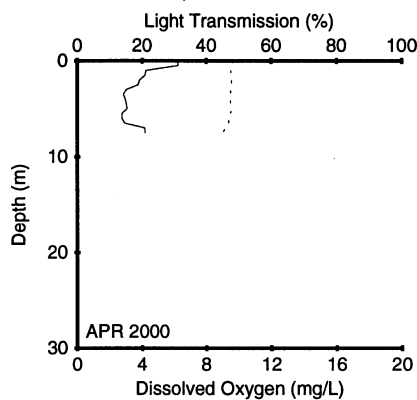
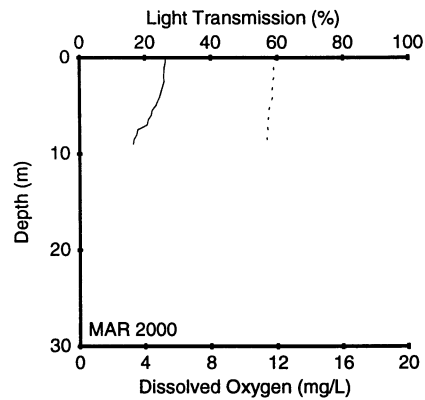
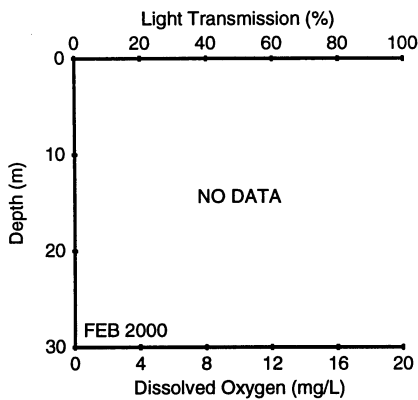
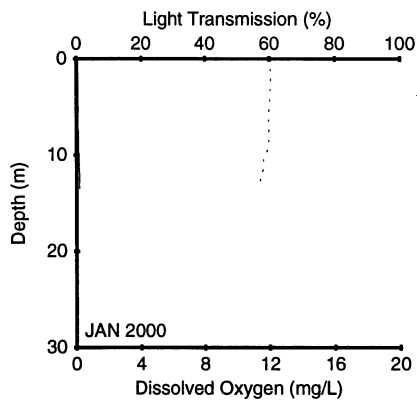
**GYS004 Grays Harbor - Chehalis R.**



**Legend: Temperature = Dotted Line Salinity = Dot-Dashed Line Sigma-t = Solid Line**

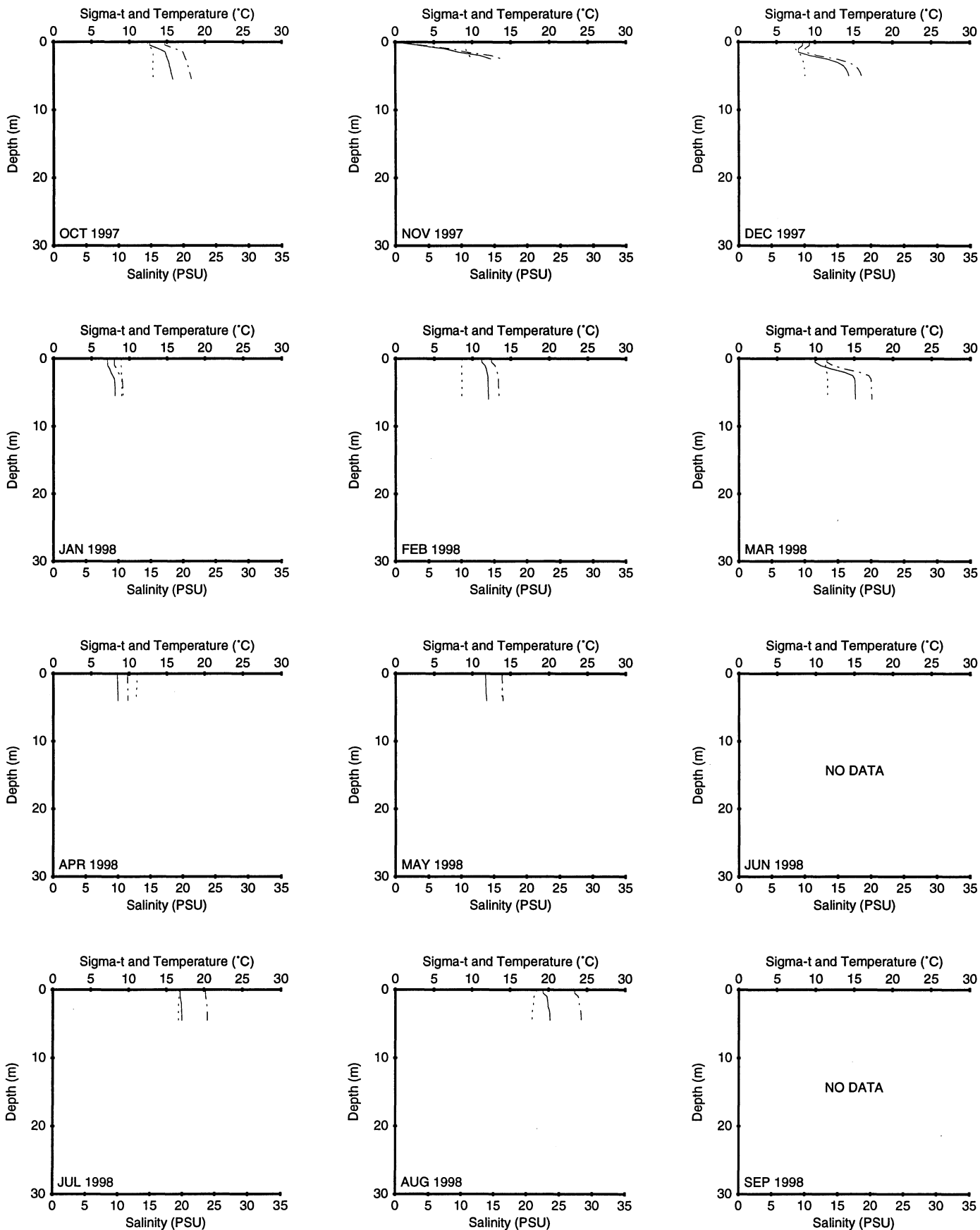


**GYS004 Grays Harbor - Chehalis R.**



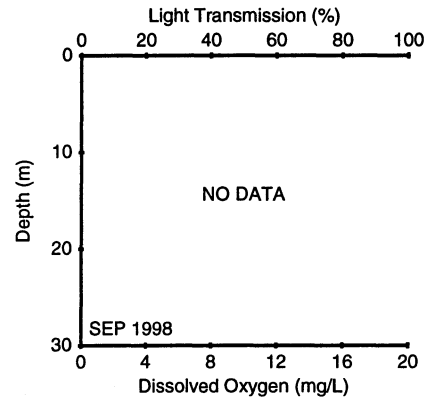
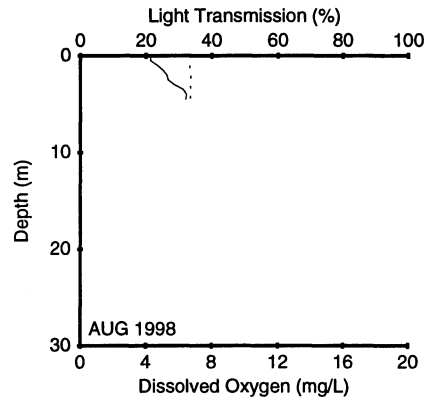
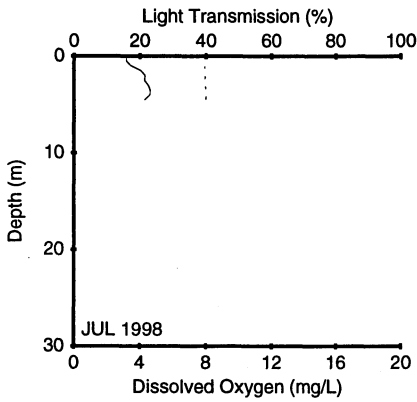
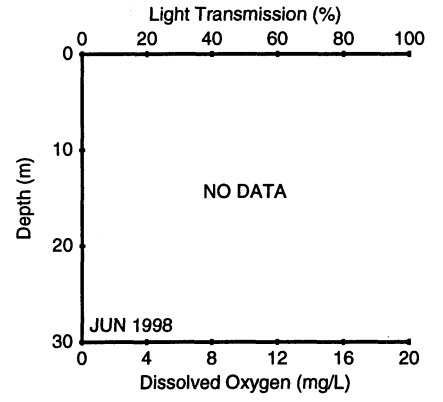
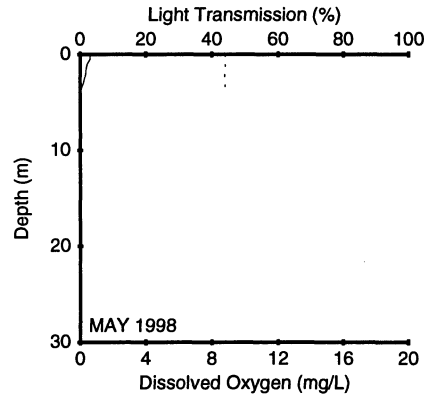
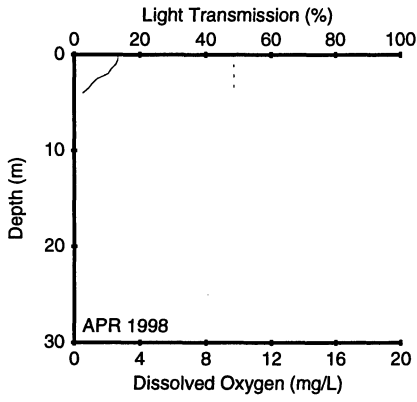
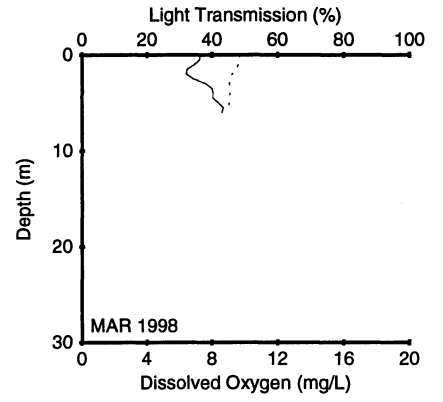
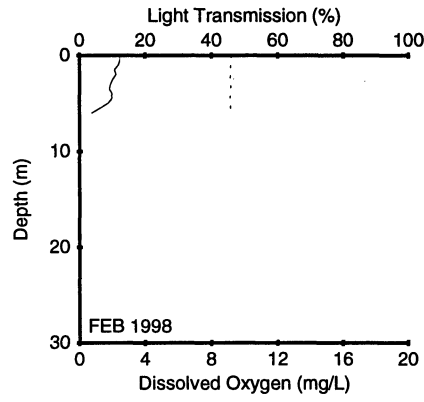
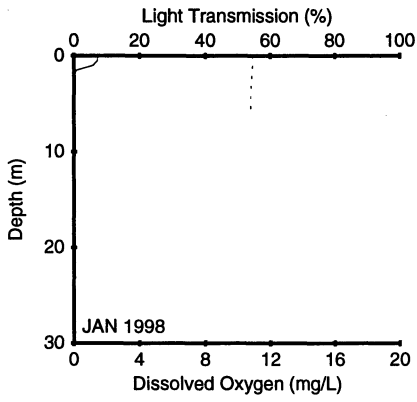
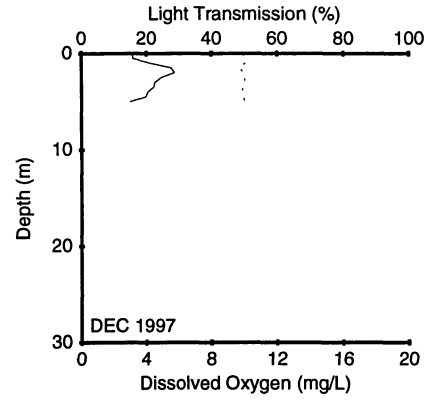
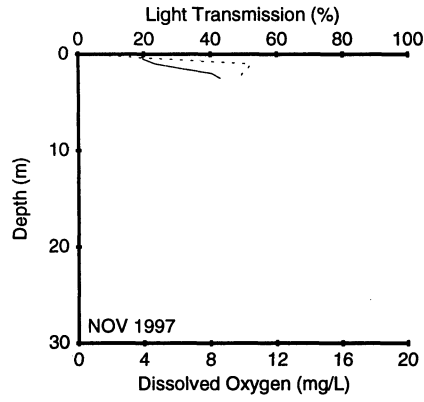
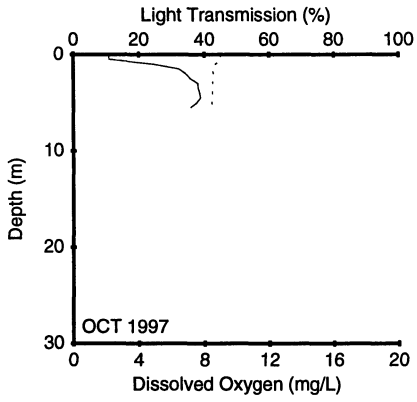
**Legend: Light Transmission = Solid Line Dissolved Oxygen = Dotted Line**

# GYS008 Grays Harbor - Mid-S. Channel



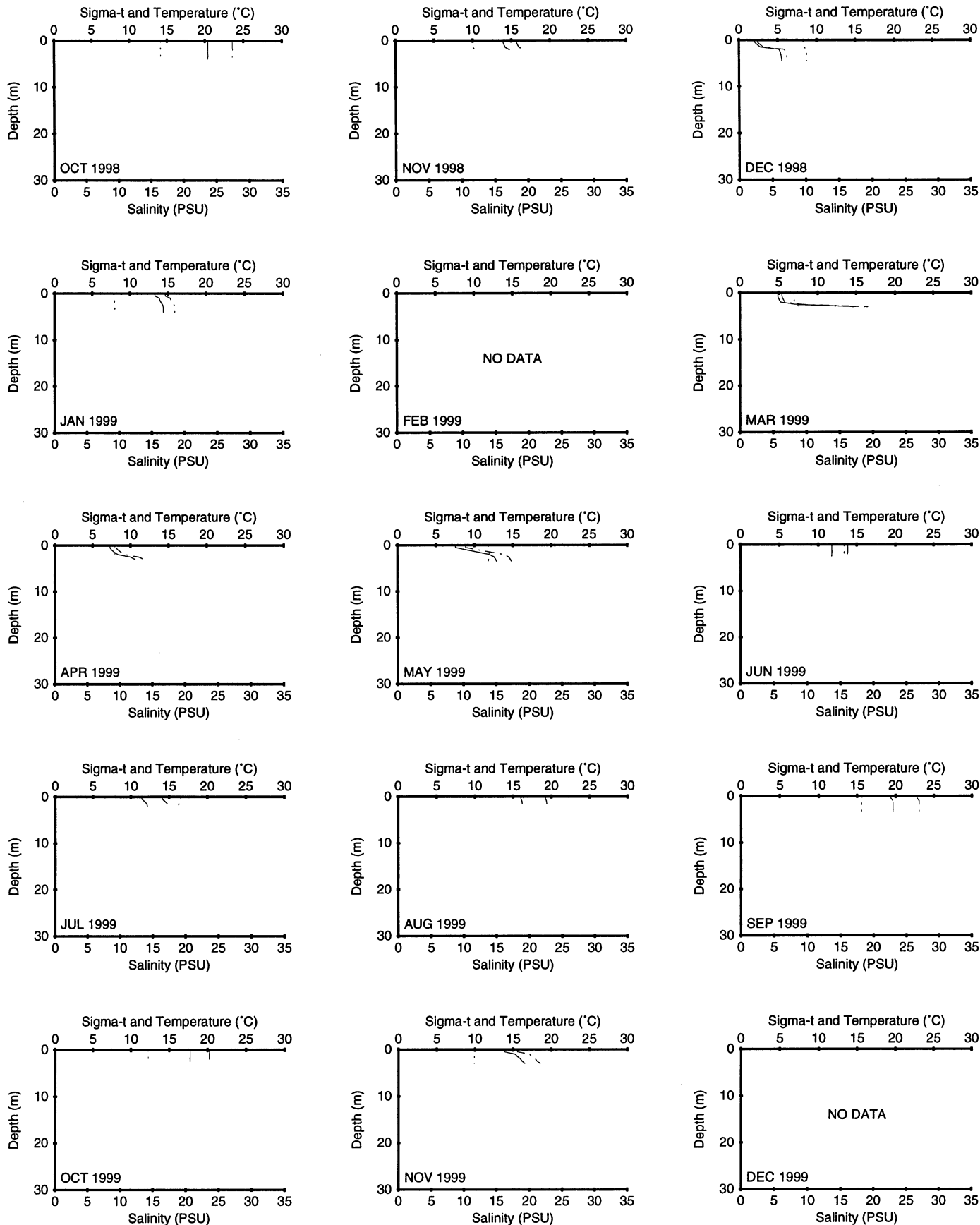
**Legend: Temperature = Dotted Line Salinity = Dot-Dashed Line Sigma-t = Solid Line**

**GYS008 Grays Harbor - Mid-S. Channel**



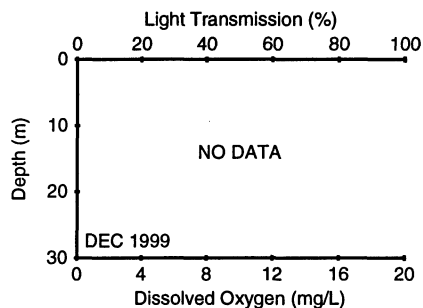
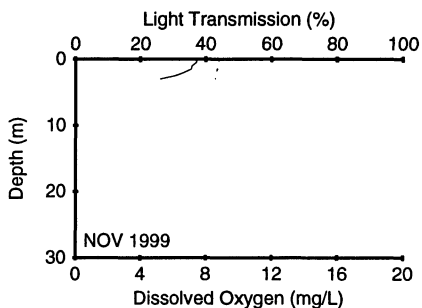
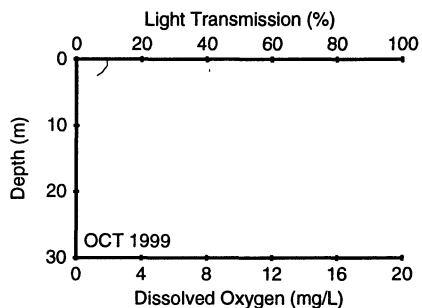
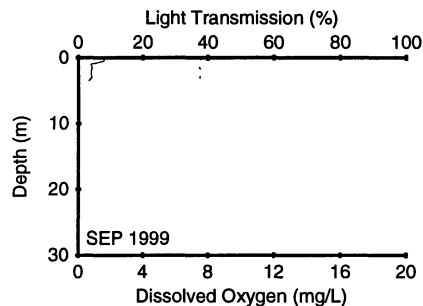
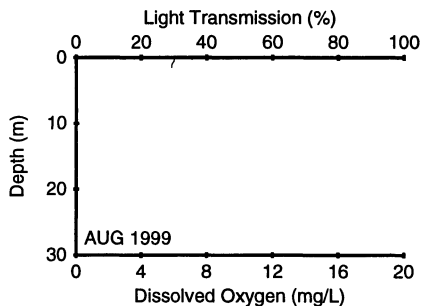
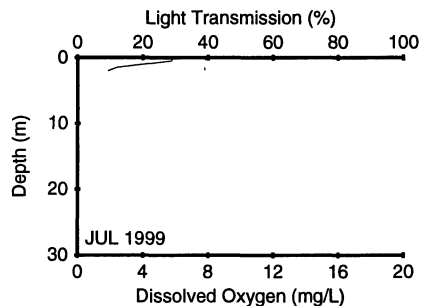
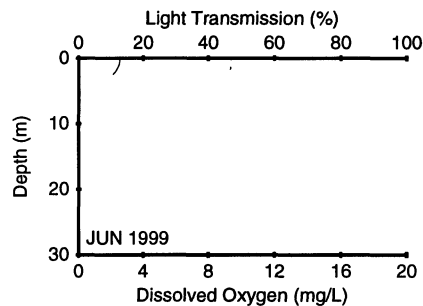
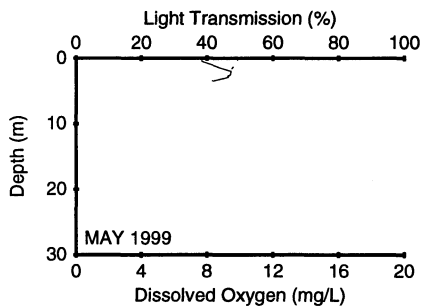
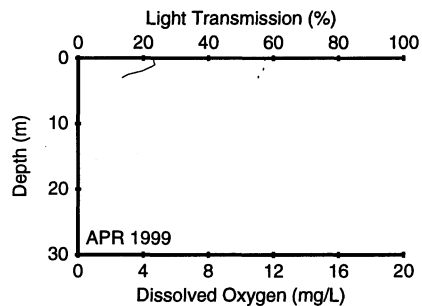
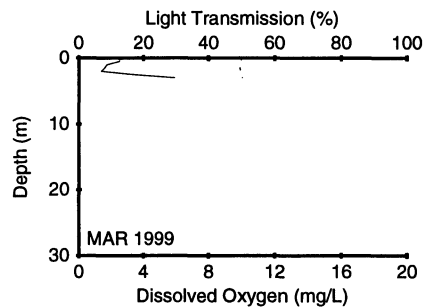
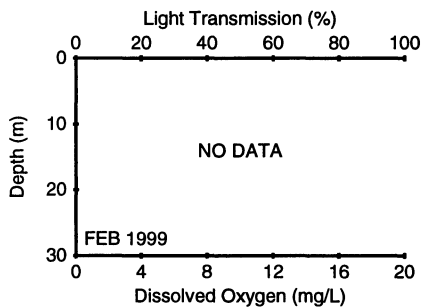
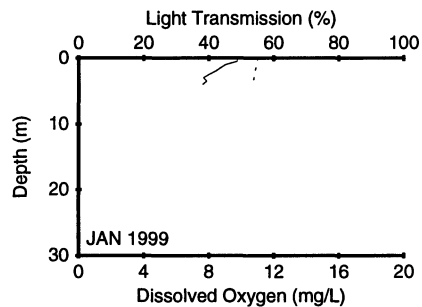
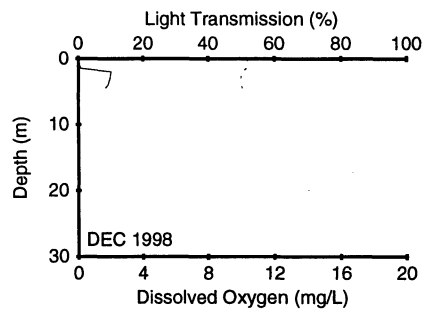
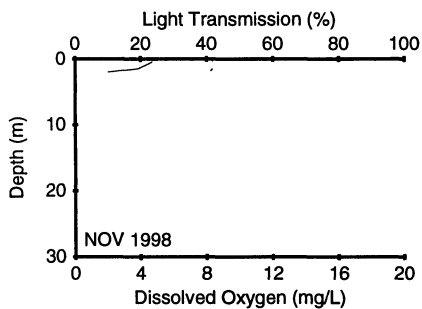
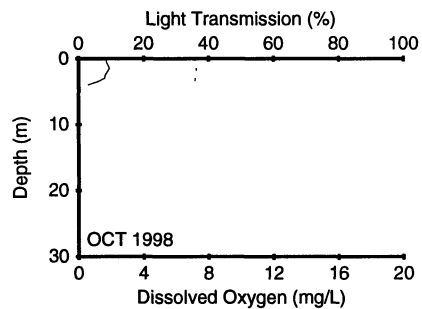
**Legend: Light Transmission = Solid Line Dissolved Oxygen = Dotted Line**

**GYS008 Grays Harbor - Mid-S. Channel**



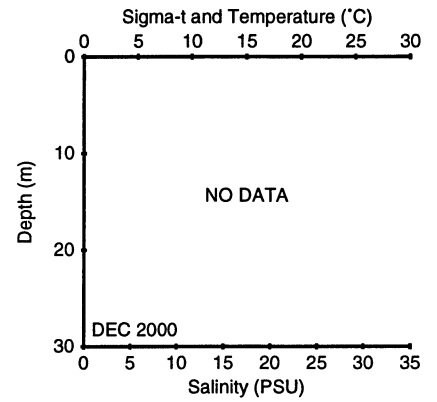
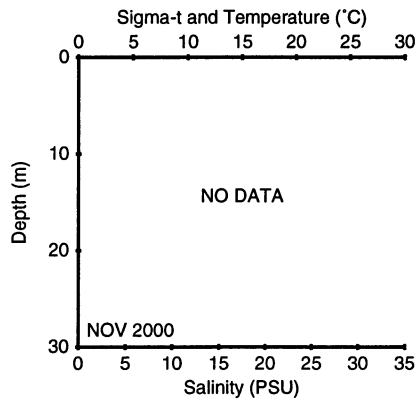
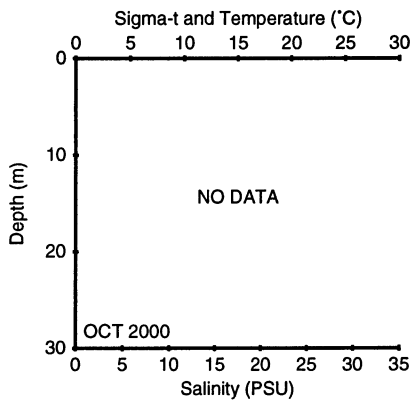
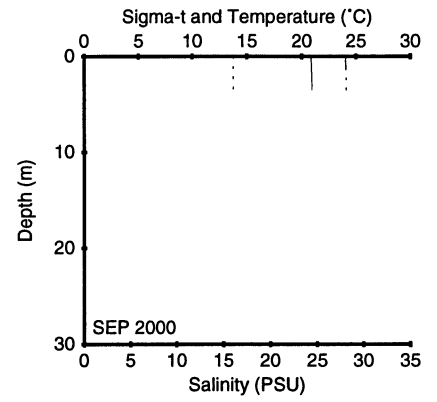
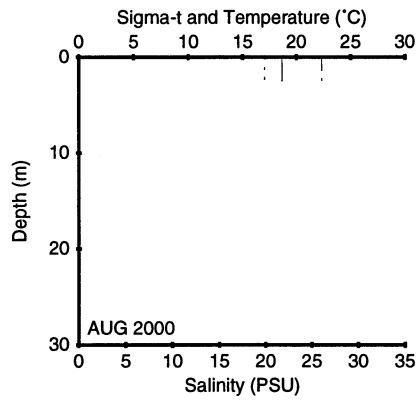
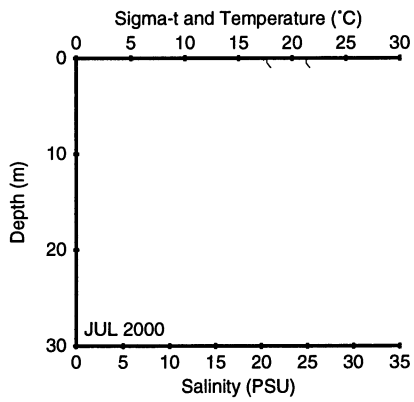
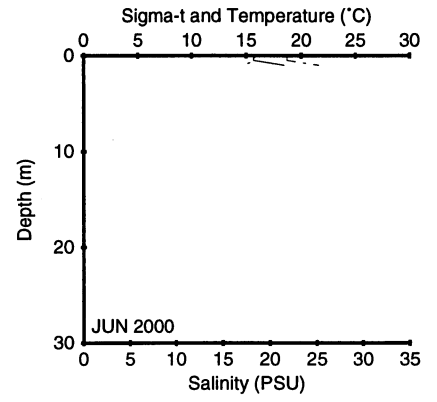
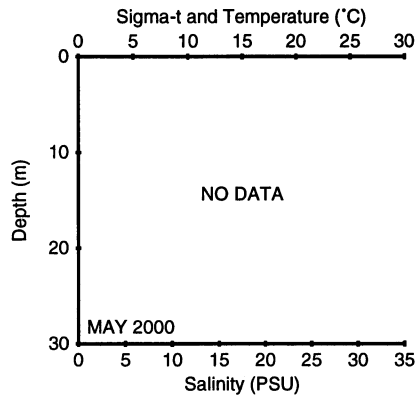
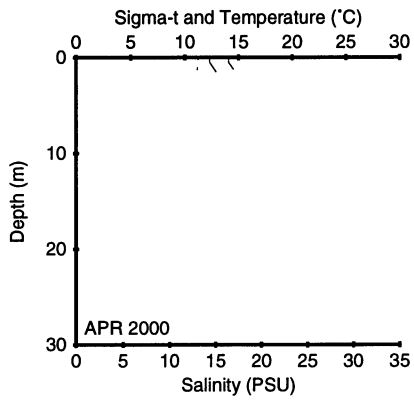
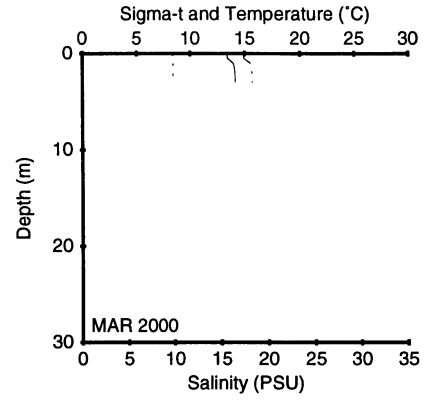
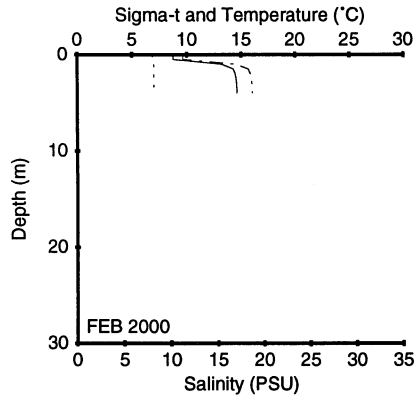
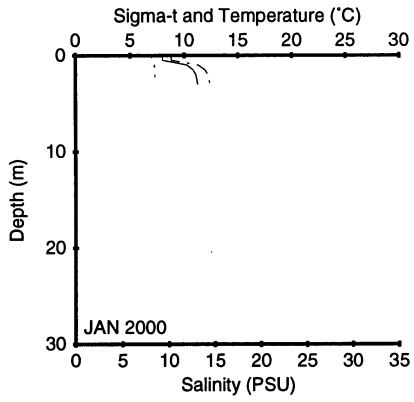
**Legend: Temperature = Dotted Line Salinity = Dot-Dashed Line Sigma-t = Solid Line**

## GYS008 Grays Harbor - Mid-S. Channel



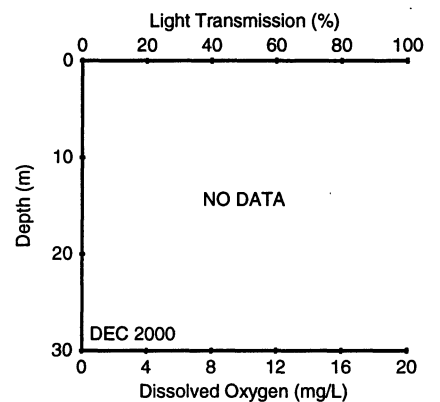
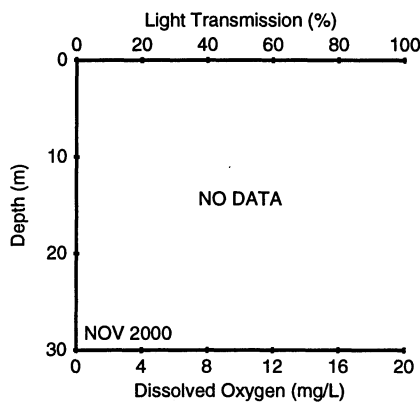
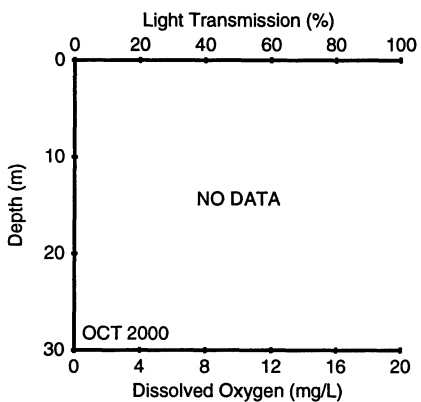
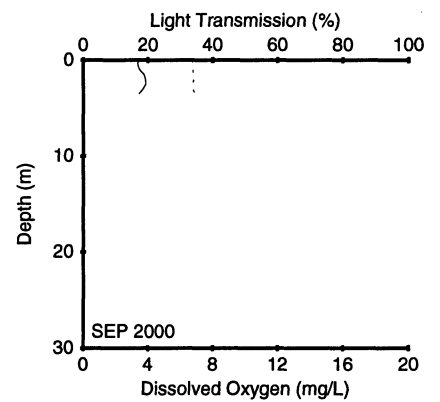
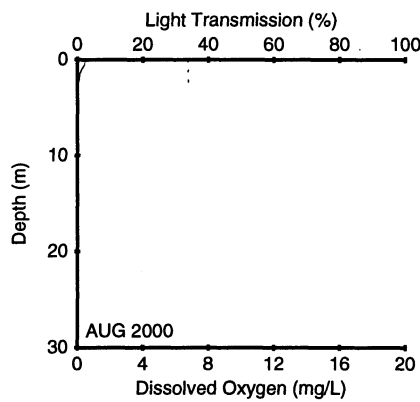
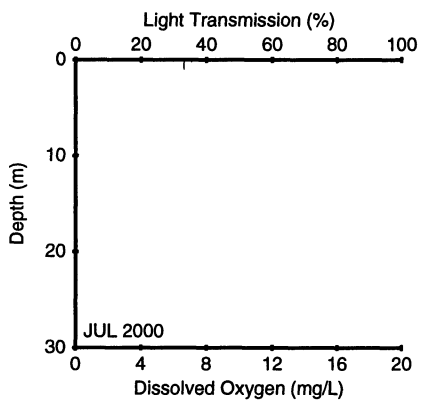
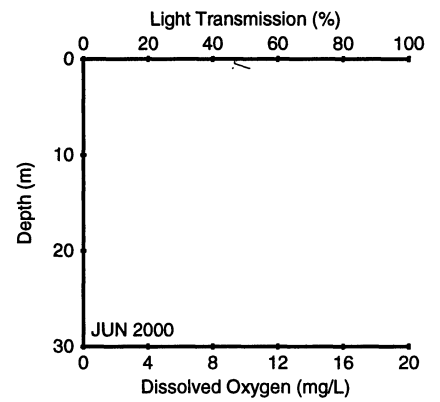
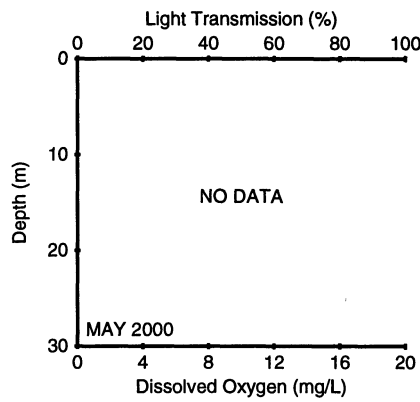
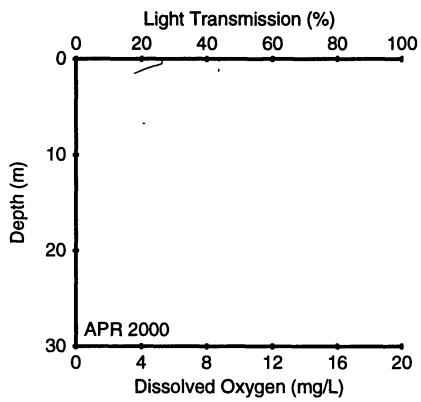
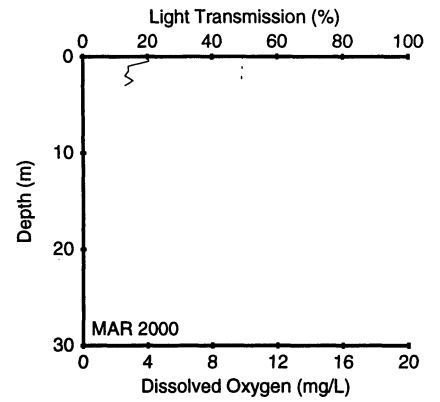
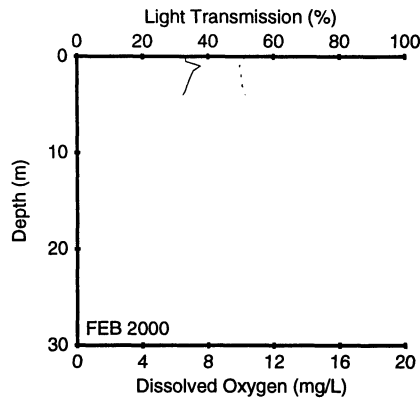
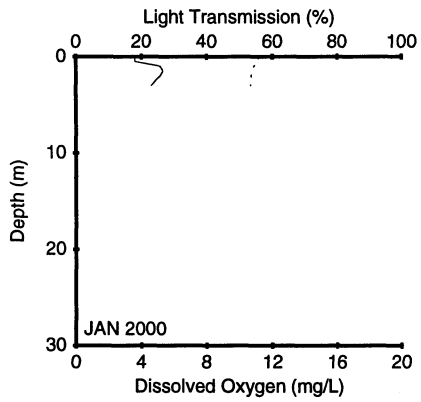
**Legend: Light Transmission = Solid Line    Dissolved Oxygen = Dotted Line**

**GYS008 Grays Harbor - Mid-S. Channel**



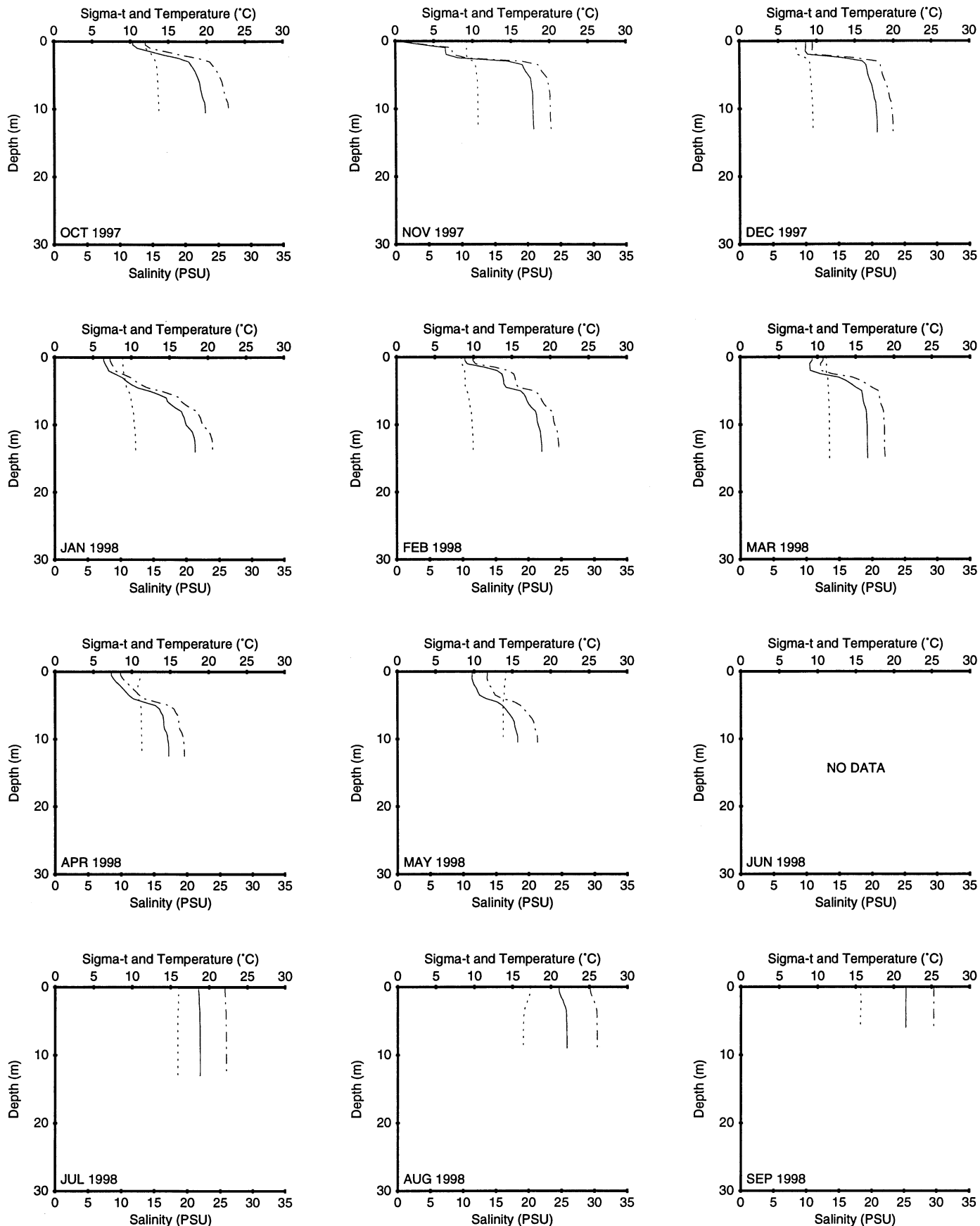
**Legend: Temperature = Dotted Line Salinity = Dot-Dashed Line Sigma-t = Solid Line**

**GYS008 Grays Harbor - Mid-S. Channel**



**Legend: Light Transmission = Solid Line Dissolved Oxygen = Dotted Line**

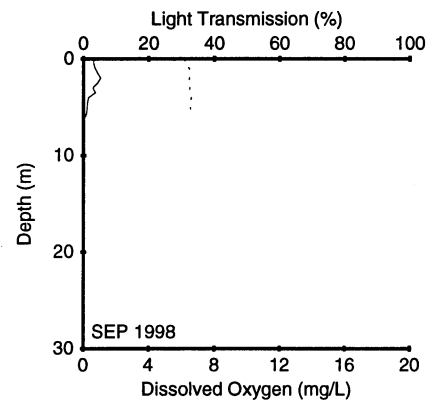
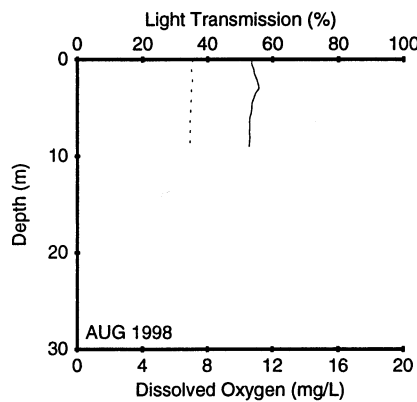
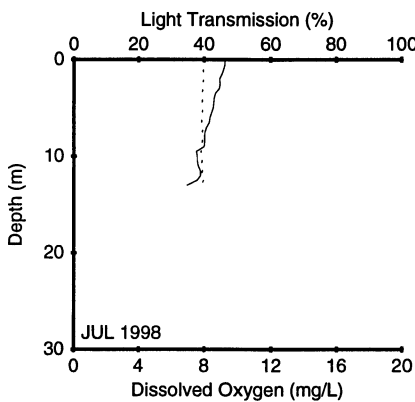
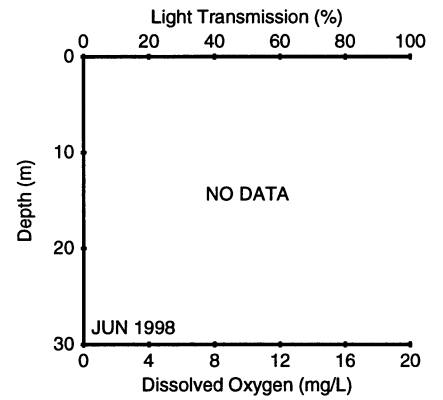
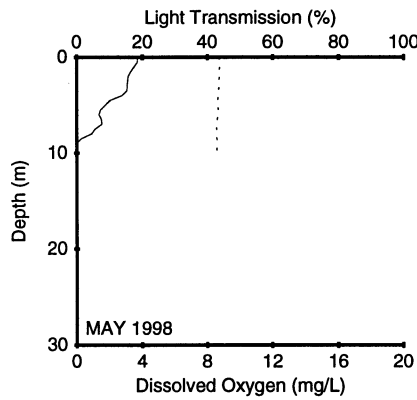
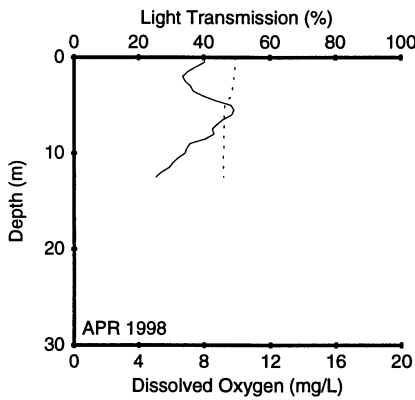
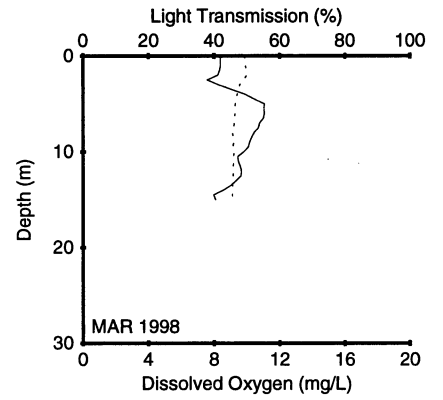
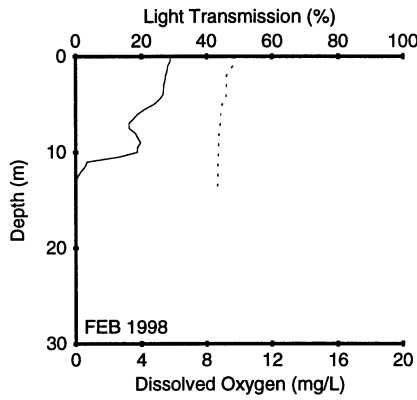
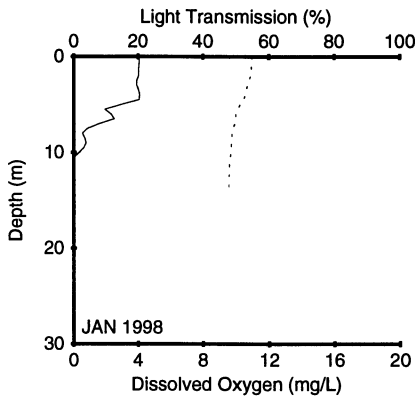
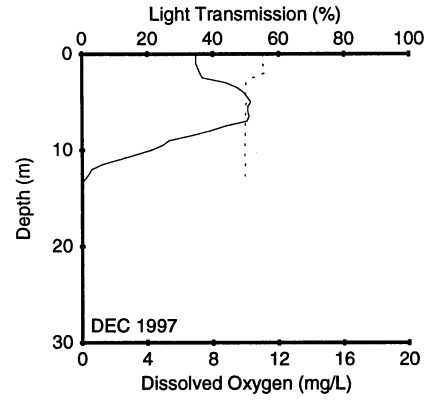
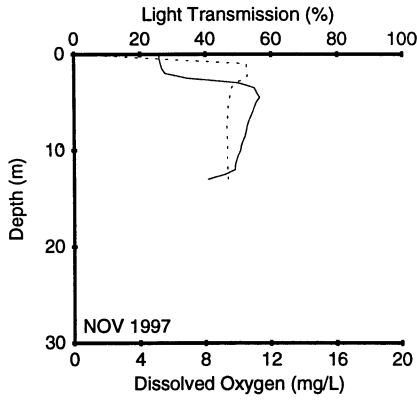
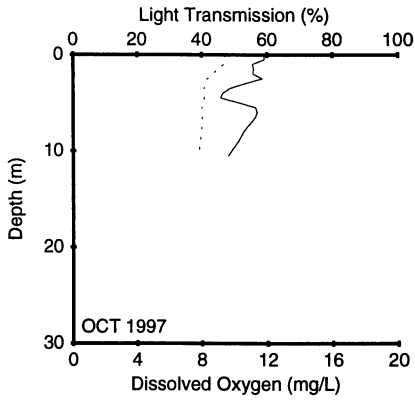
**GYS009 Grays Harbor - Moon Island Reach**



**Legend: Temperature = Dotted Line Salinity = Dot-Dashed Line Sigma-t = Solid Line**

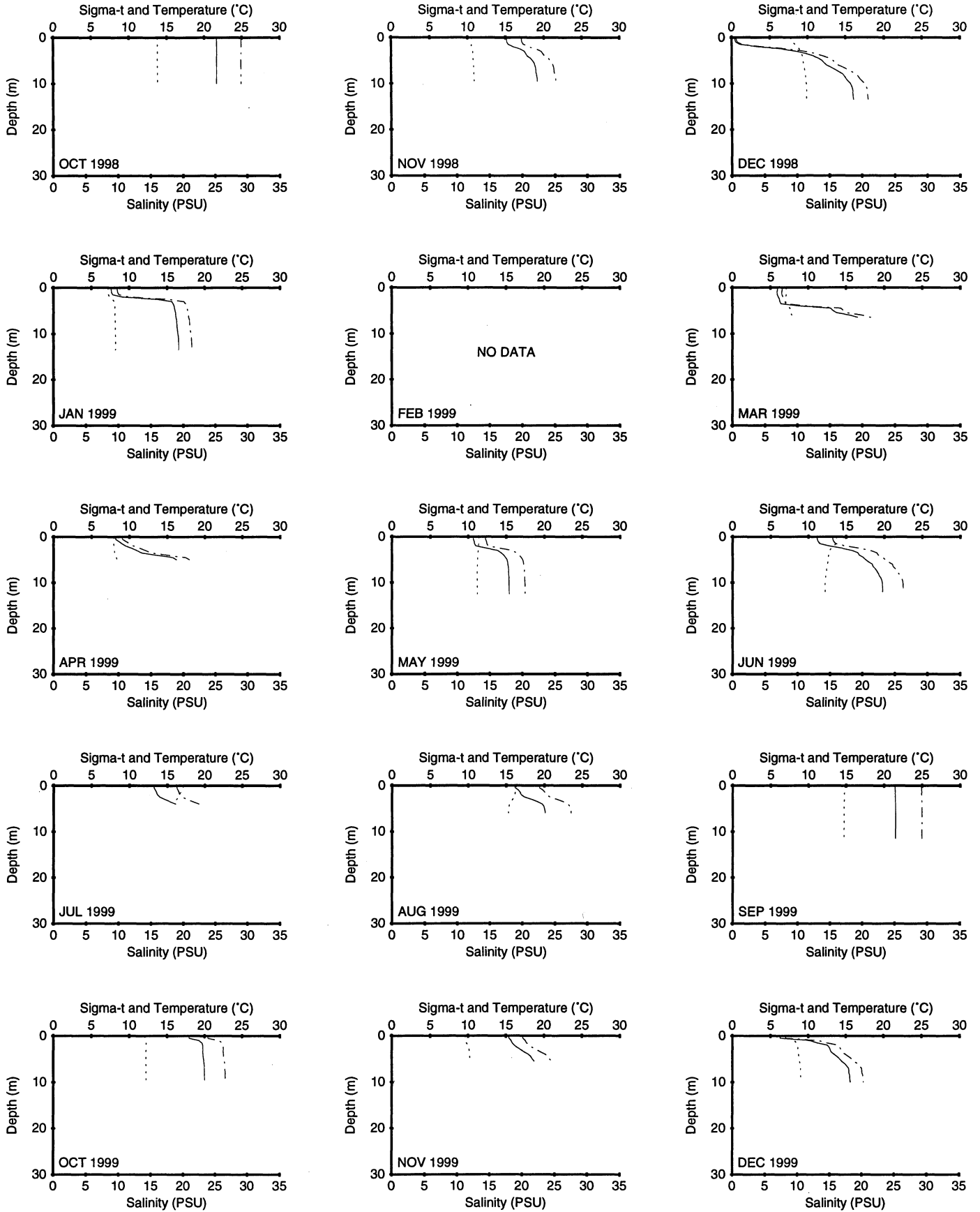


**GYS009 Grays Harbor - Moon Island Reach**



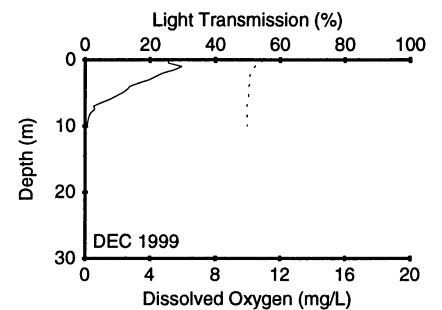
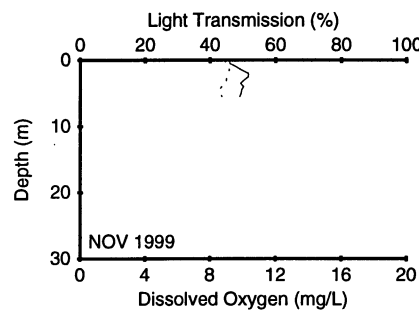
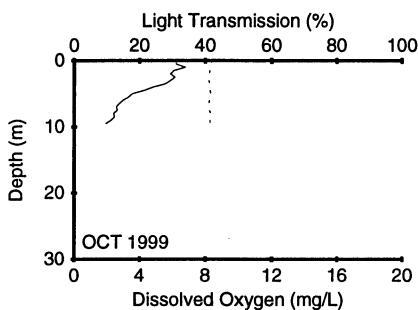
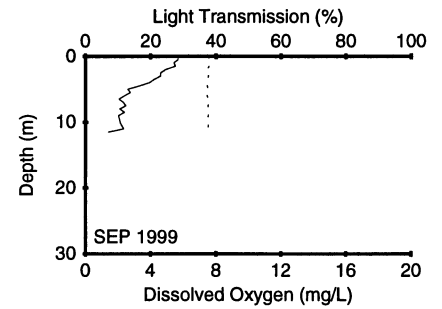
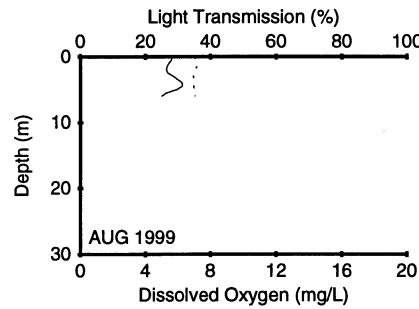
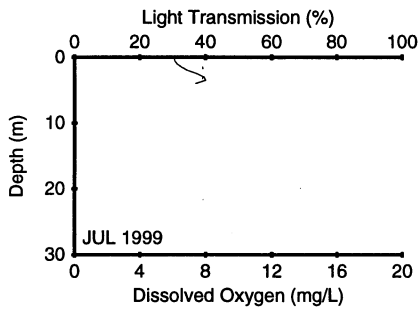
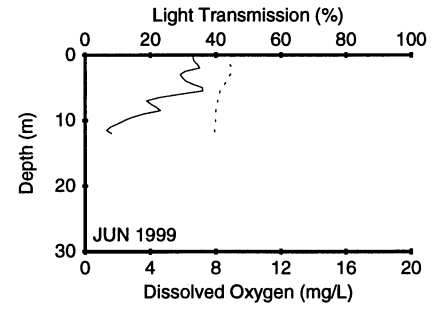
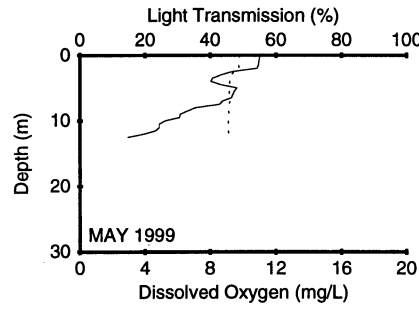
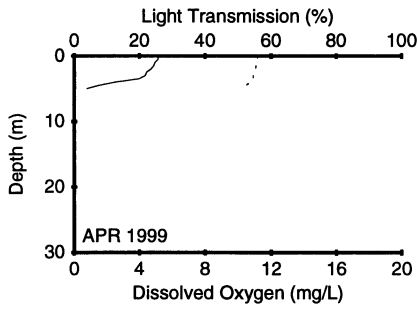
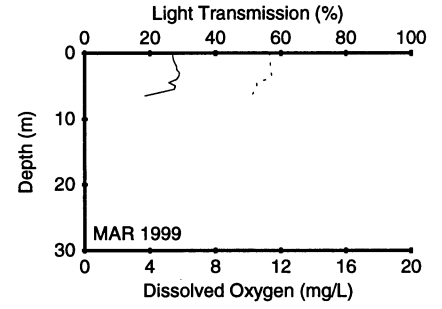
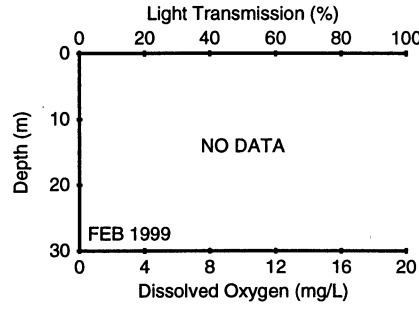
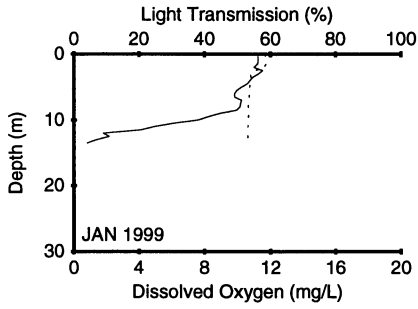
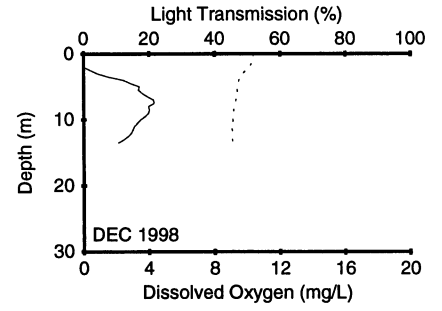
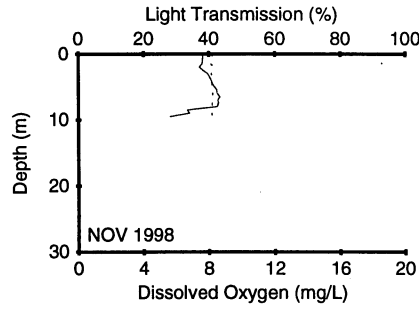
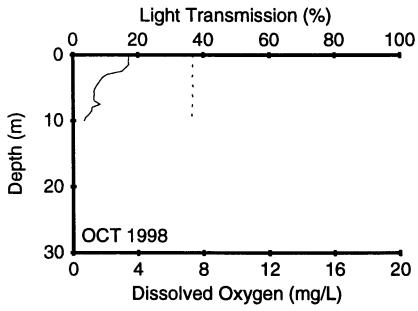
**Legend: Light Transmission = Solid Line Dissolved Oxygen = Dotted Line**

**GYS009 Grays Harbor - Moon Island Reach**



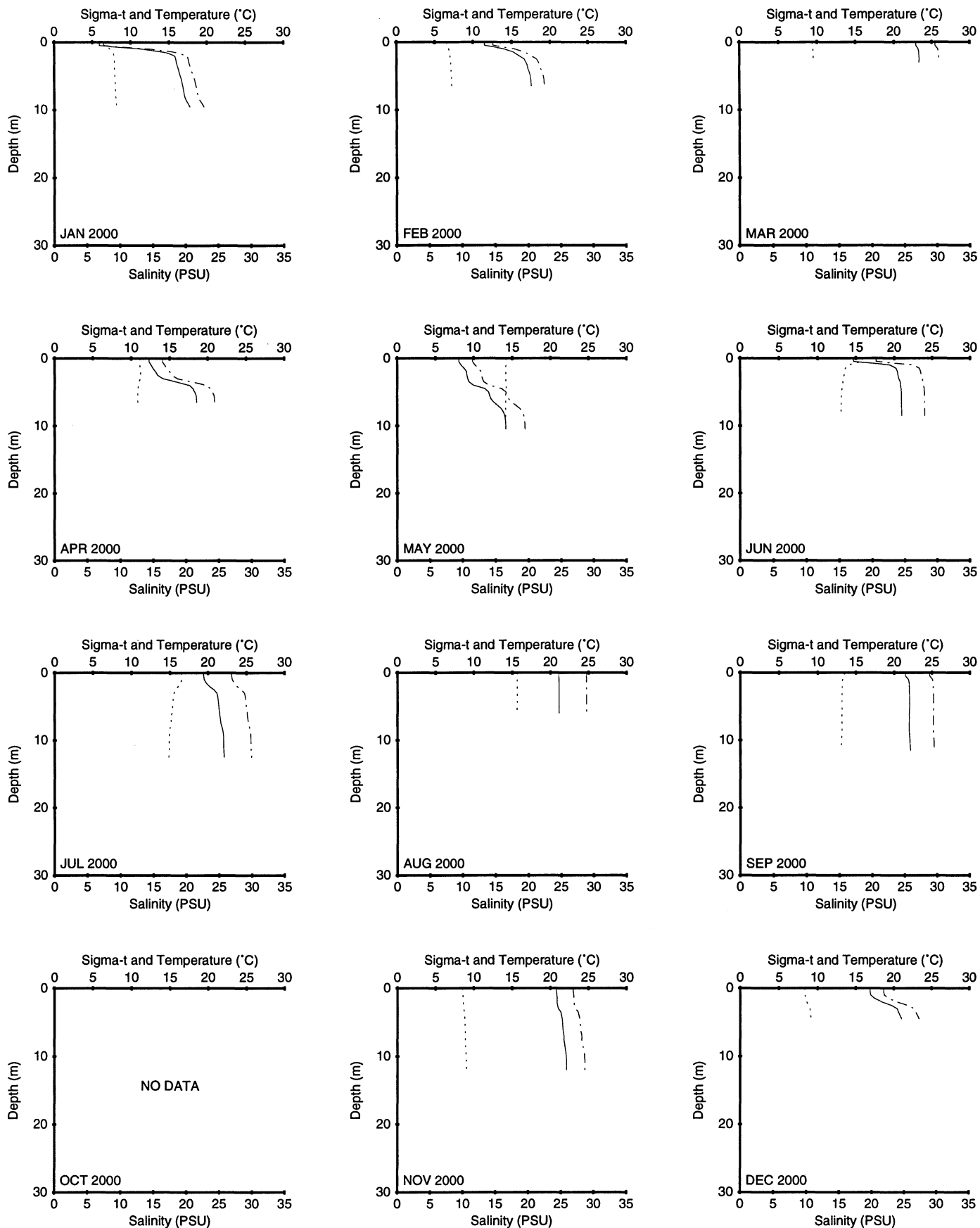
**Legend: Temperature = Dotted Line Salinity = Dot-Dashed Line Sigma-t = Solid Line**

## GYS009 Grays Harbor - Moon Island Reach



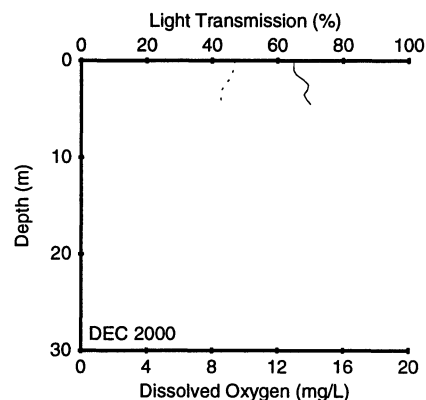
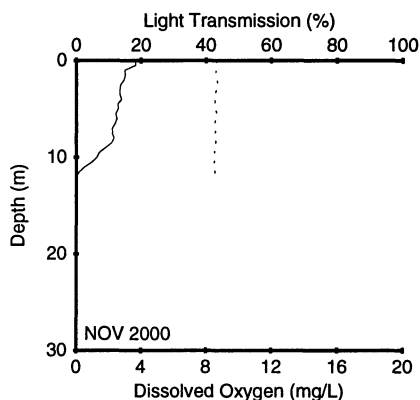
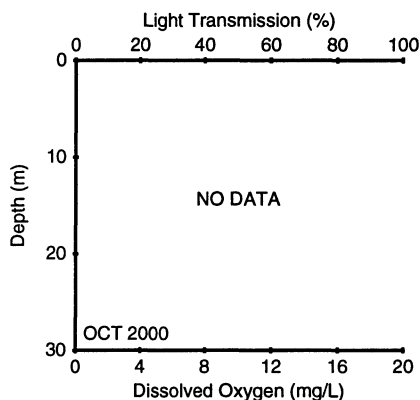
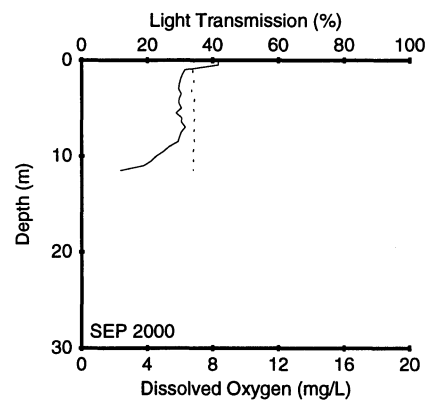
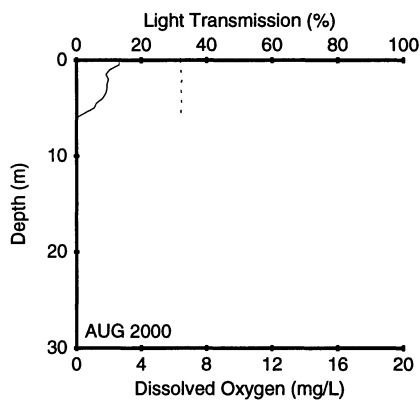
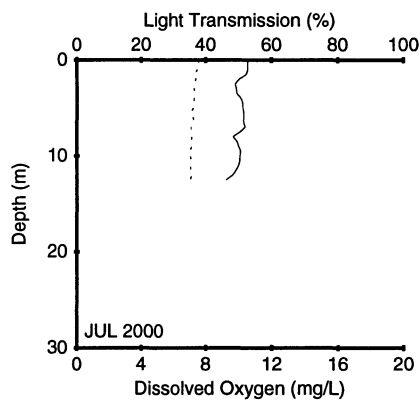
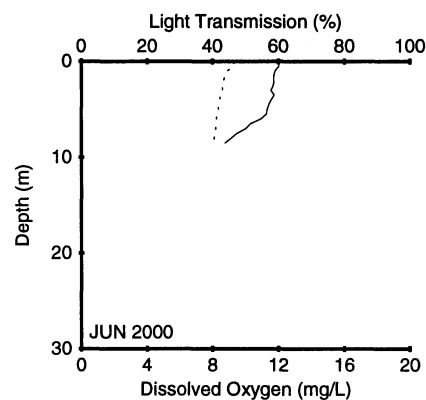
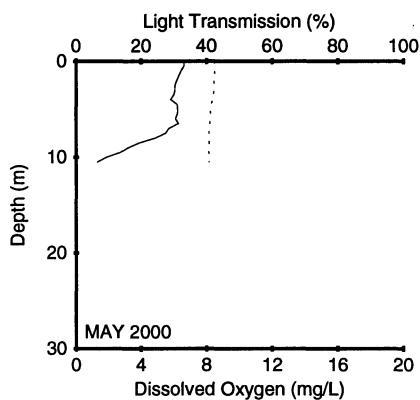
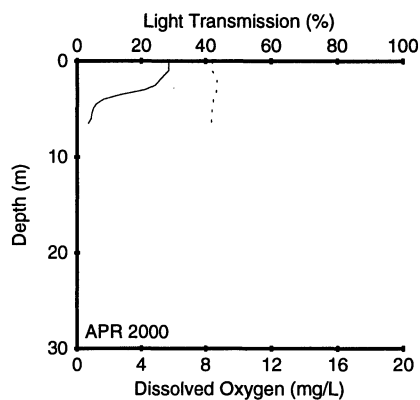
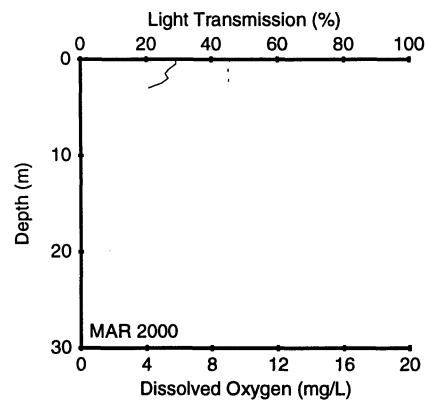
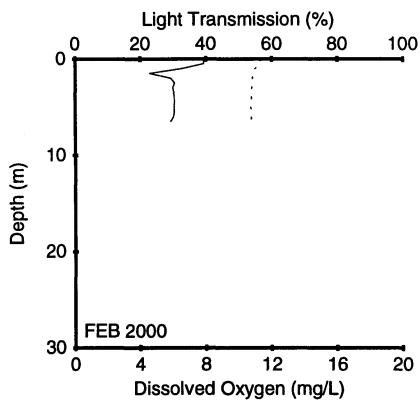
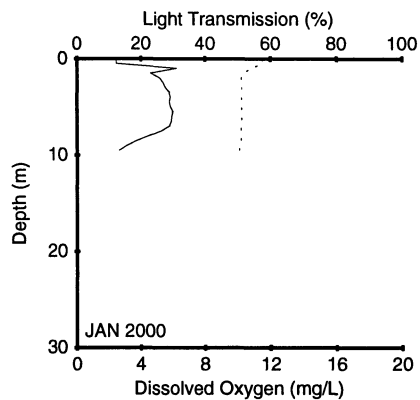
**Legend: Light Transmission = Solid Line    Dissolved Oxygen = Dotted Line**

# GYS009 Grays Harbor - Moon Island Reach



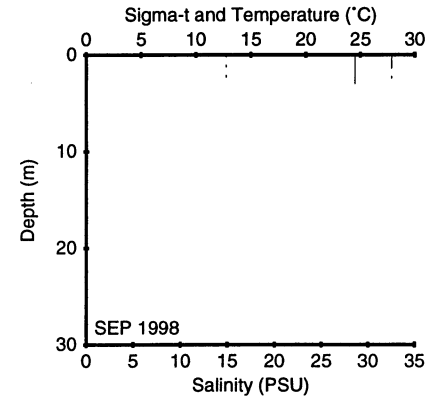
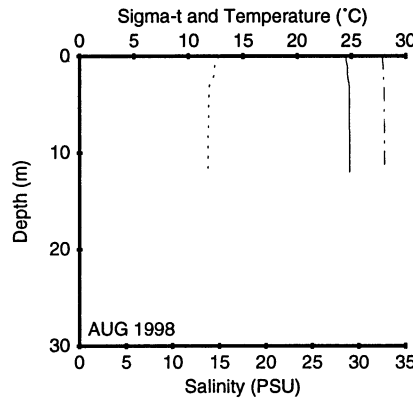
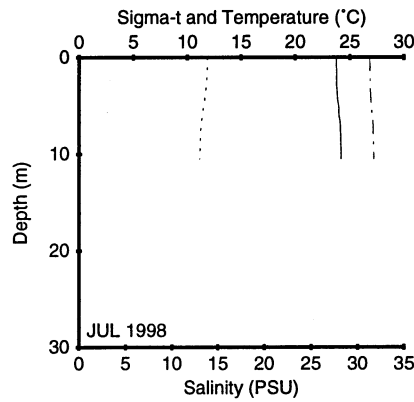
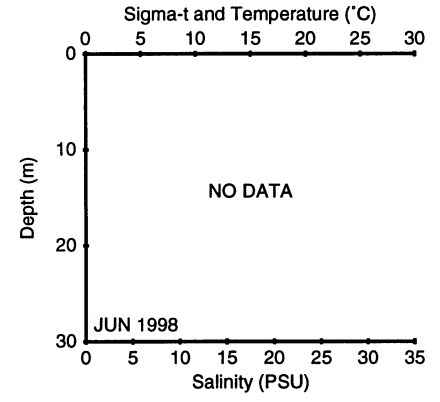
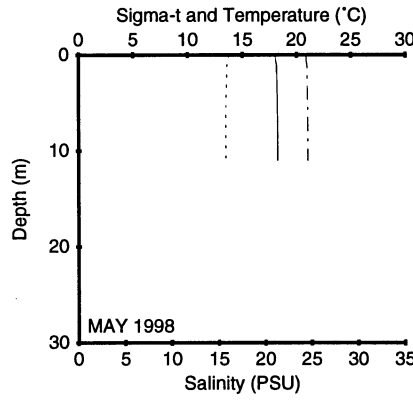
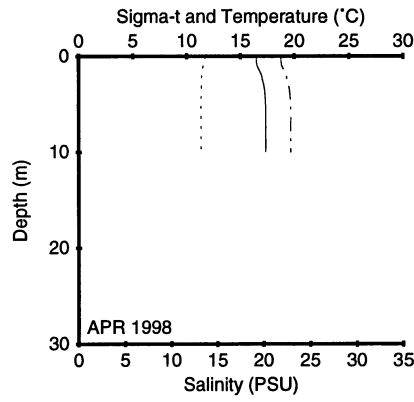
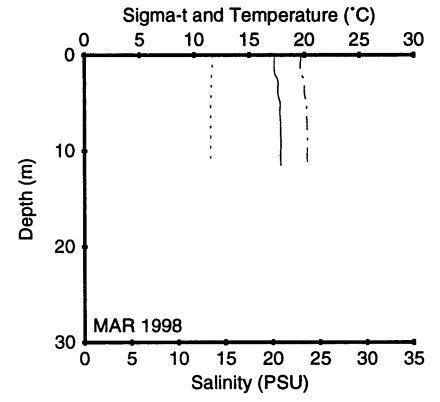
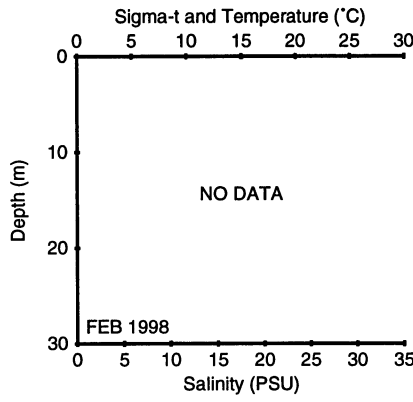
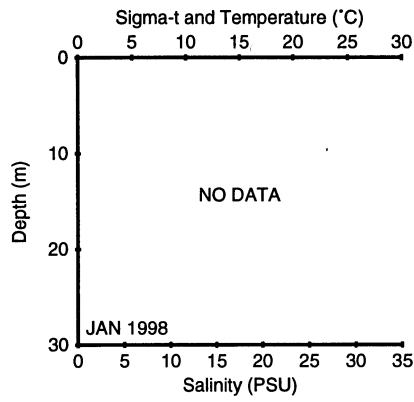
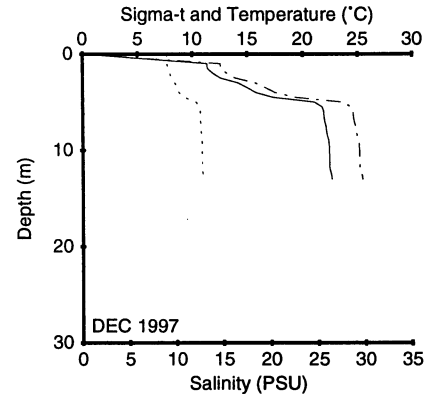
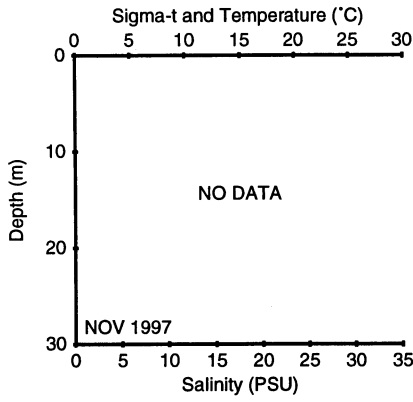
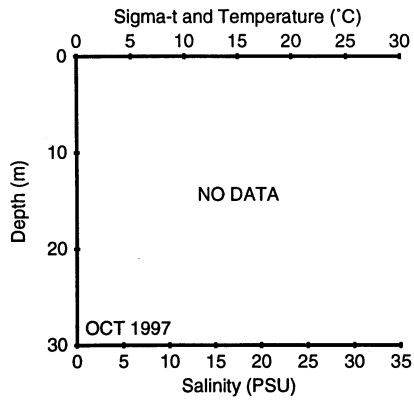
**Legend: Temperature = Dotted Line Salinity = Dot-Dashed Line Sigma-t = Solid Line**

## GYS009 Grays Harbor - Moon Island Reach



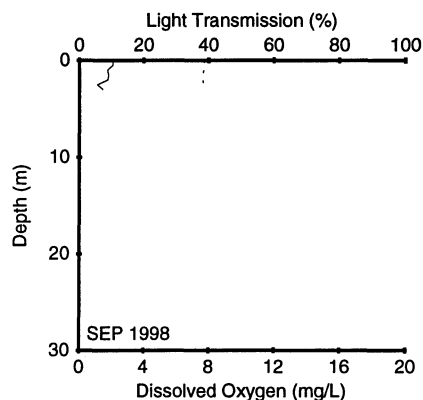
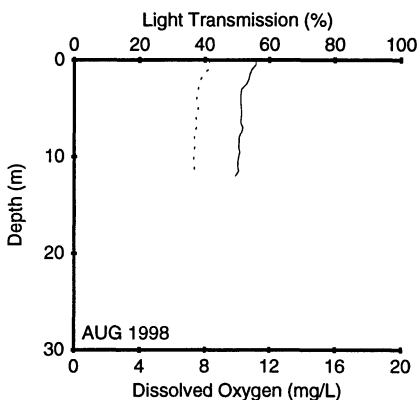
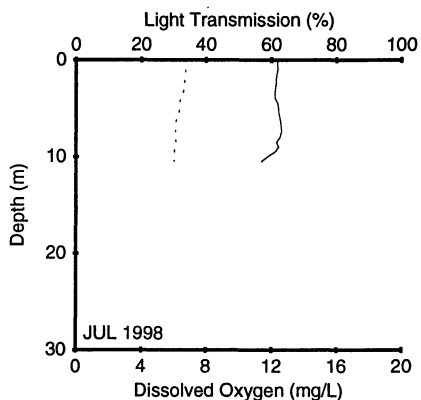
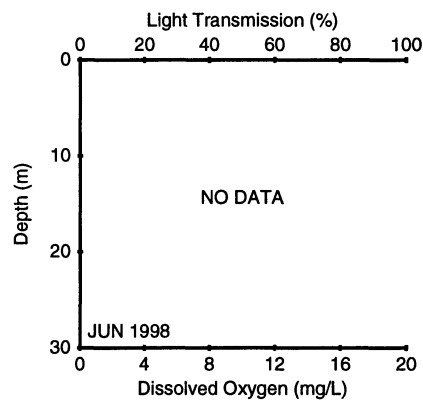
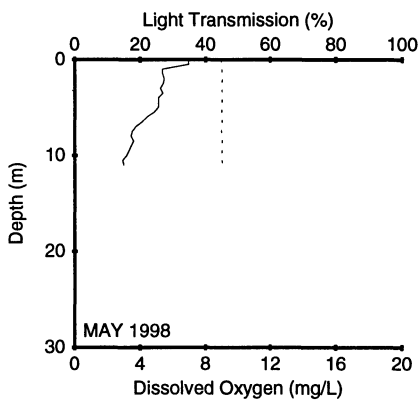
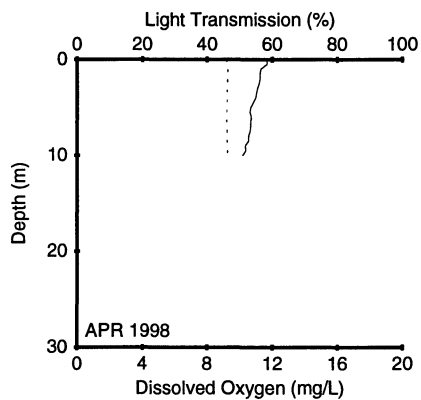
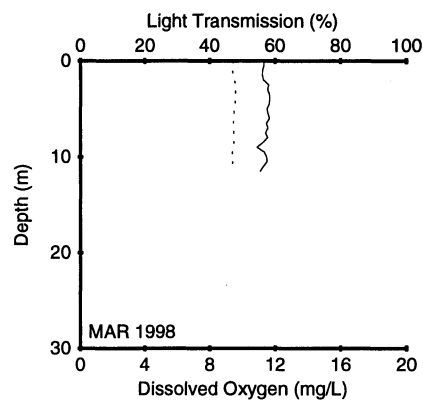
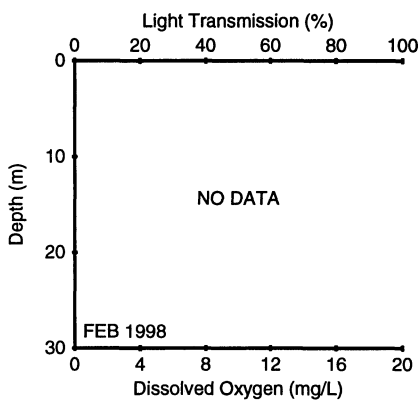
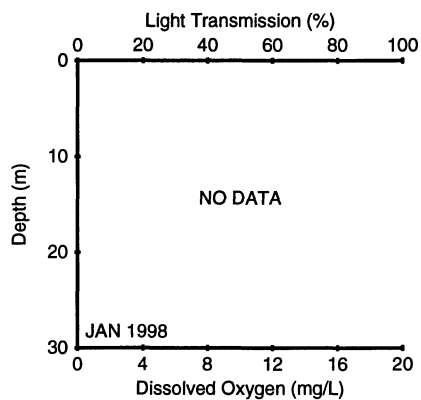
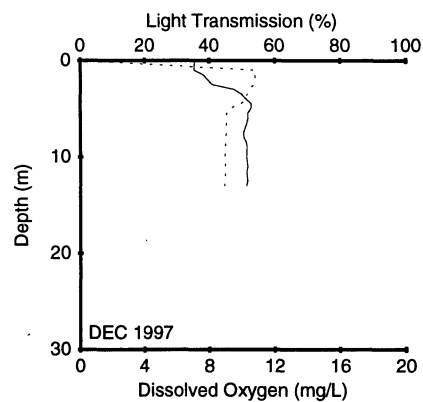
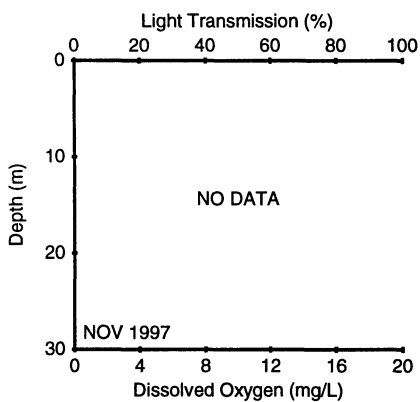
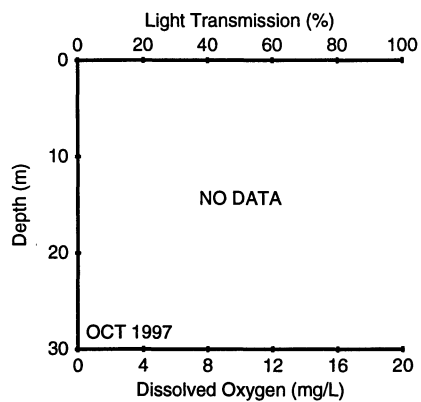
**Legend: Light Transmission = Solid Line    Dissolved Oxygen = Dotted Line**

# GYS015 Grays Harbor - N. Whitcomb Flats



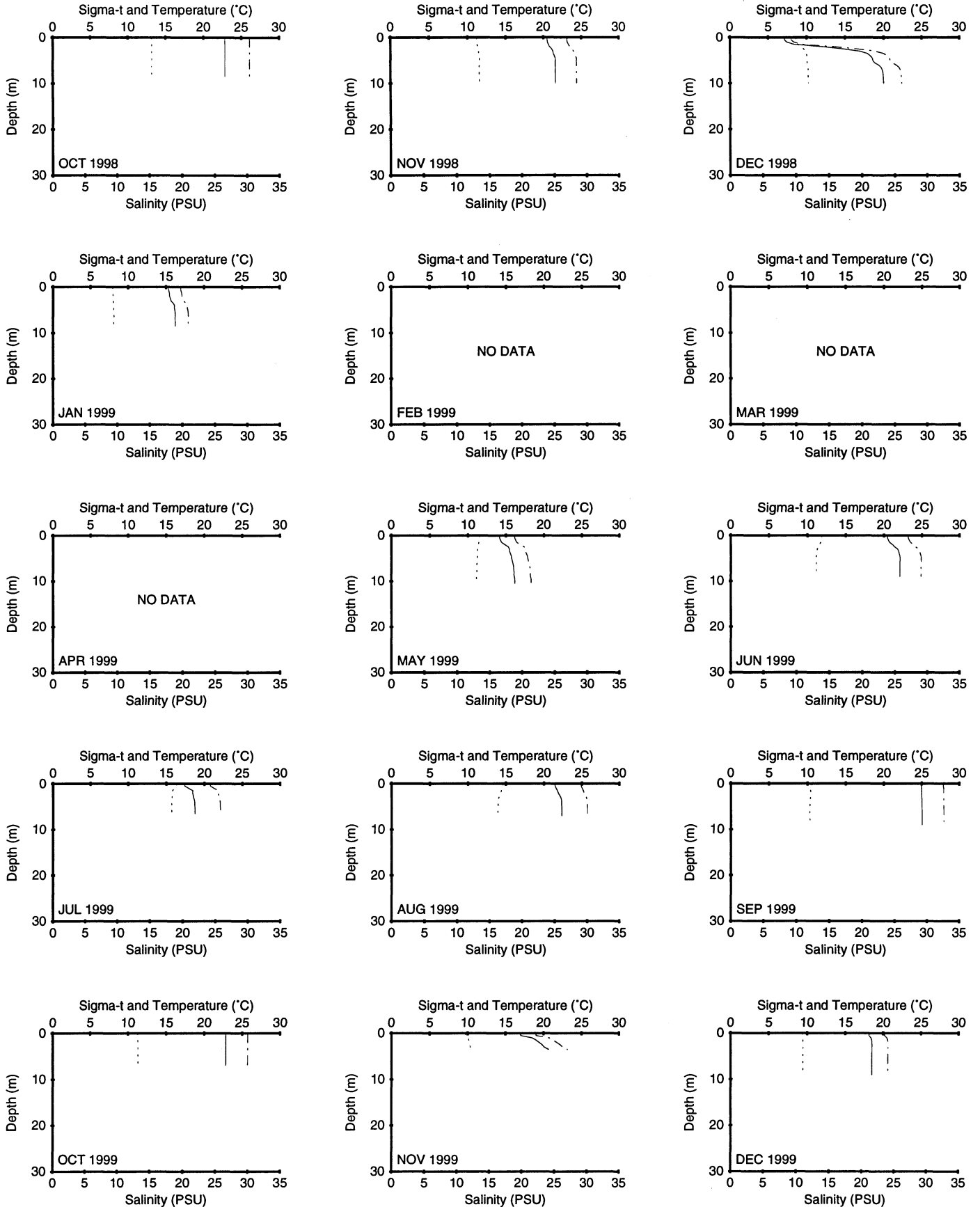
**Legend: Temperature = Dotted Line Salinity = Dot-Dashed Line Sigma-t = Solid Line**

## GYS015 Grays Harbor - N. Whitcomb Flats



**Legend: Light Transmission = Solid Line    Dissolved Oxygen = Dotted Line**

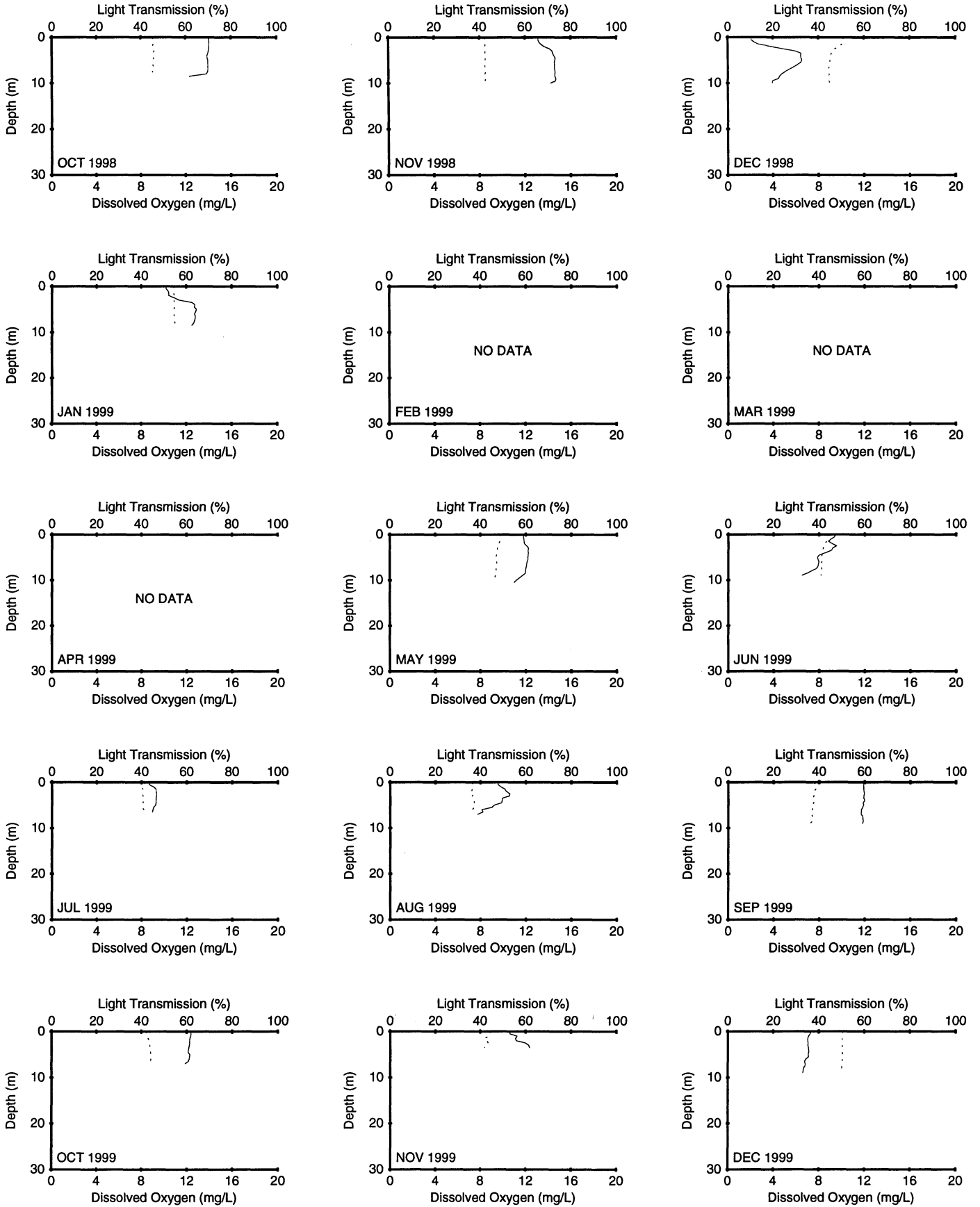
**GYS015 Grays Harbor - N. Whitcomb Flats**



**Legend: Temperature = Dotted Line Salinity = Dot-Dashed Line Sigma-t = Solid Line**

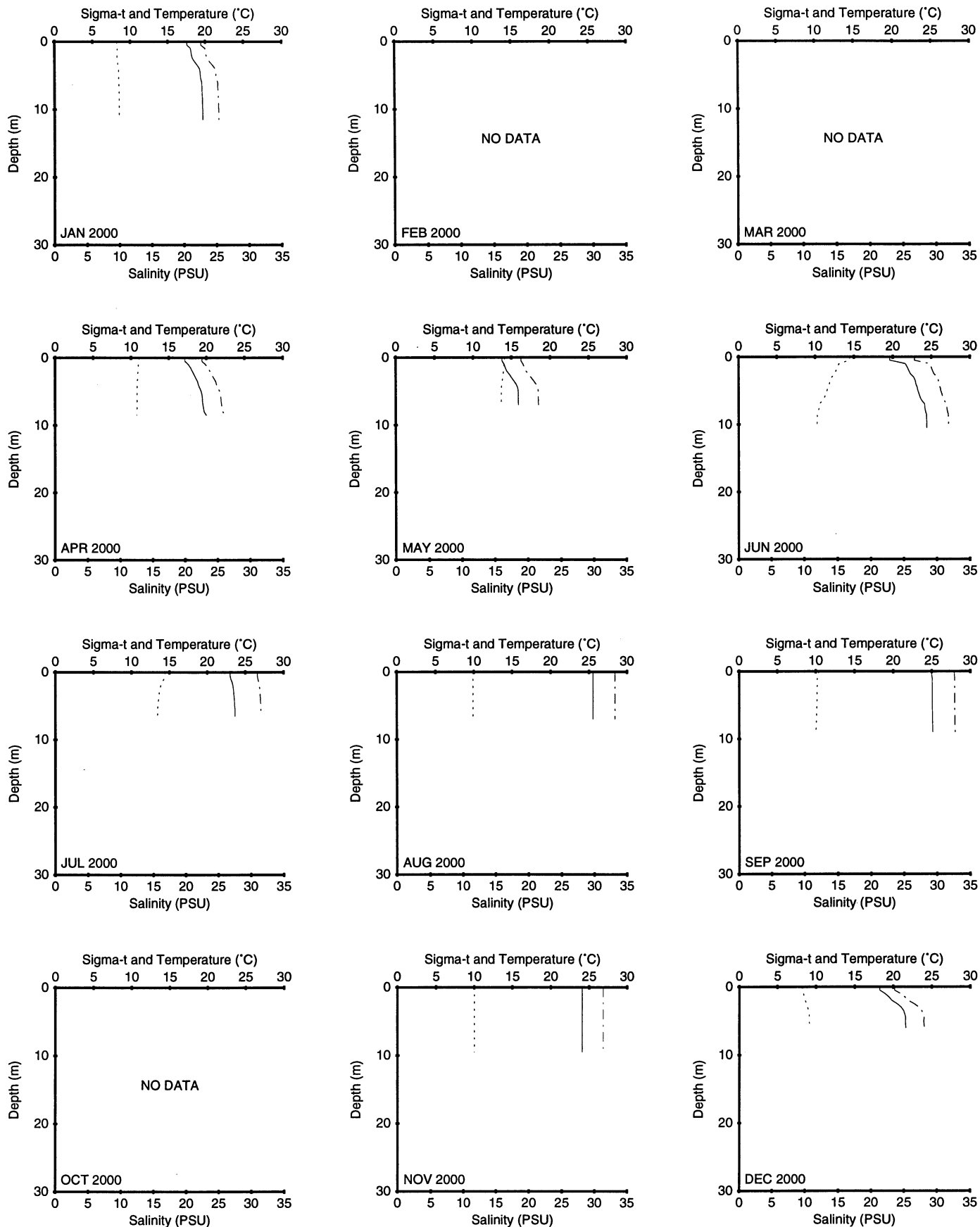


**GYS015 Grays Harbor - N. Whitcomb Flats**



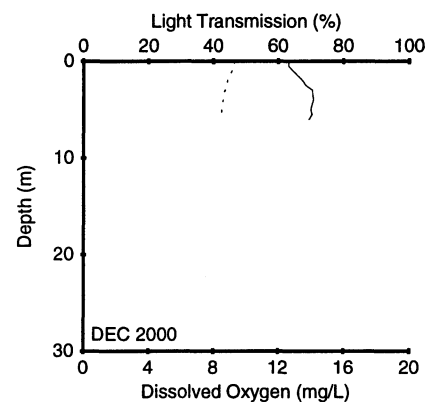
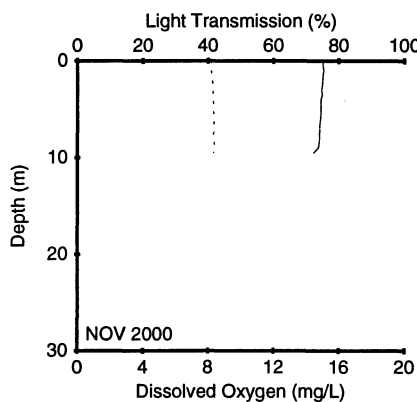
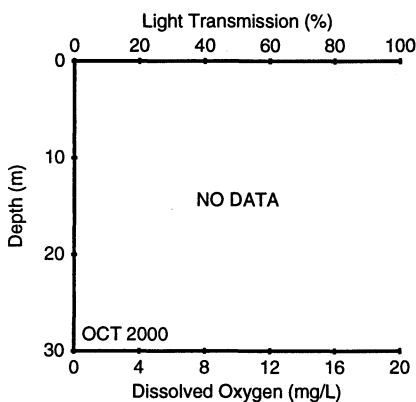
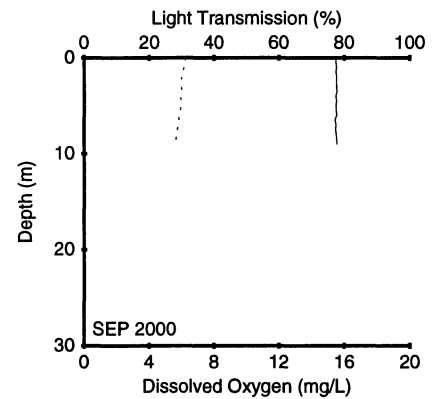
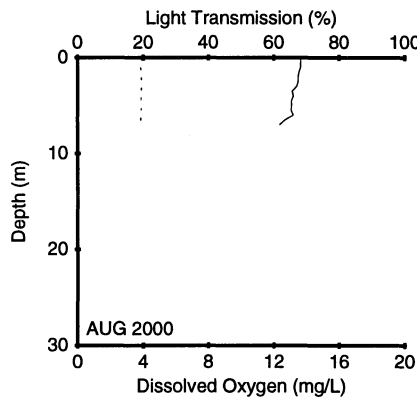
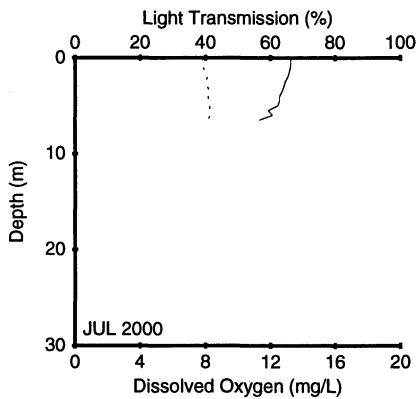
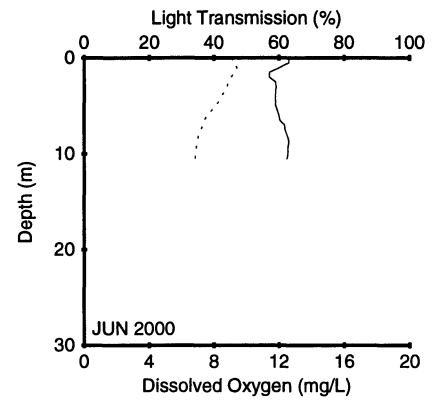
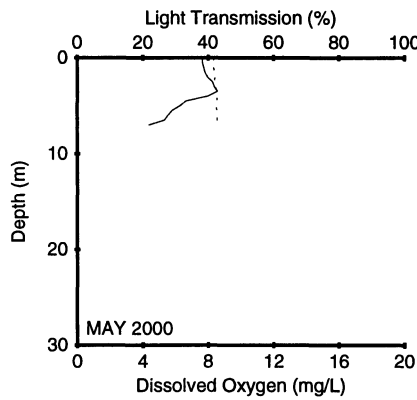
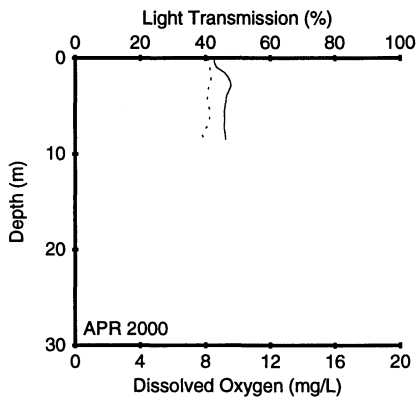
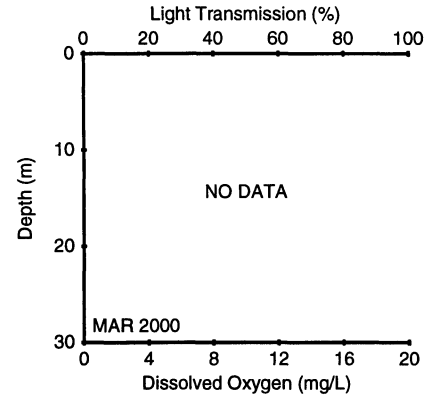
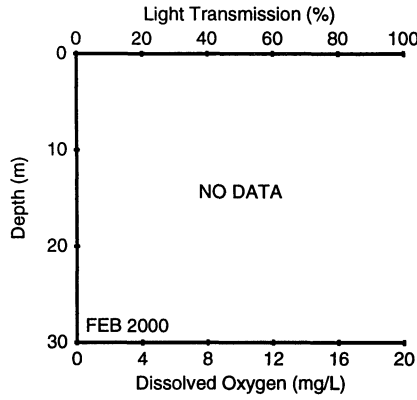
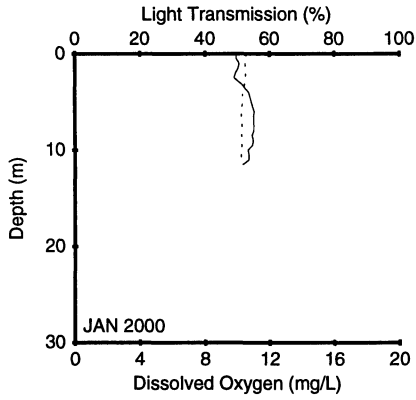
**Legend: Light Transmission = Solid Line Dissolved Oxygen = Dotted Line**

# GYS015 Grays Harbor - N. Whitcomb Flats



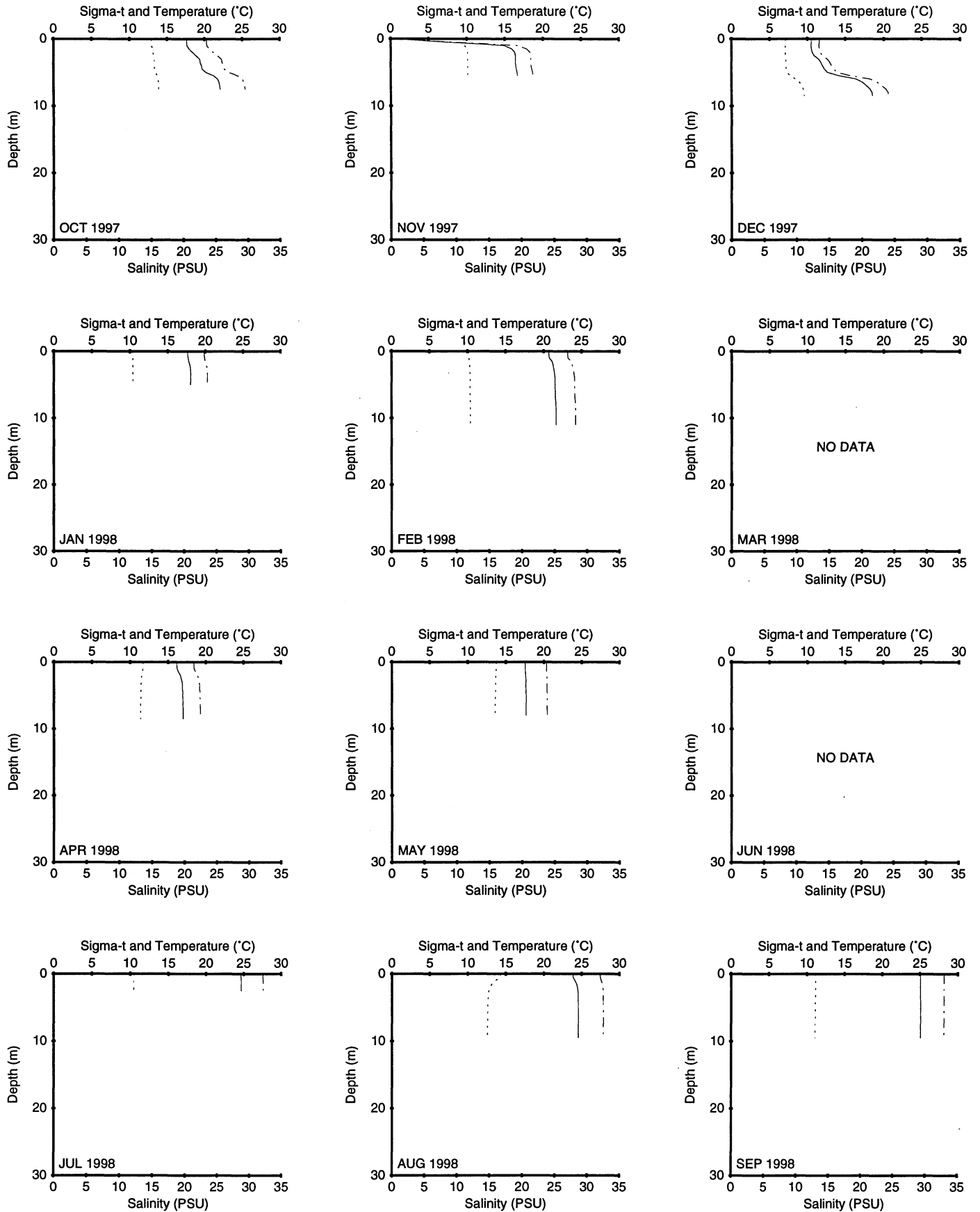
**Legend: Temperature = Dotted Line Salinity = Dot-Dashed Line Sigma-t = Solid Line**

GYS015 Grays Harbor - N. Whitcomb Flats



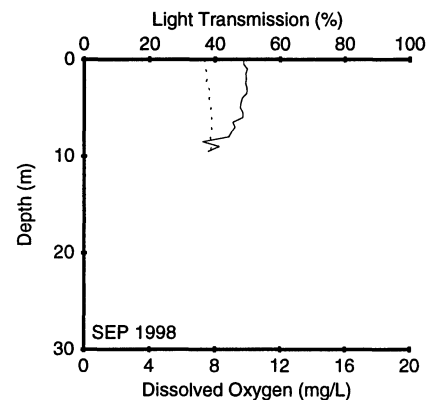
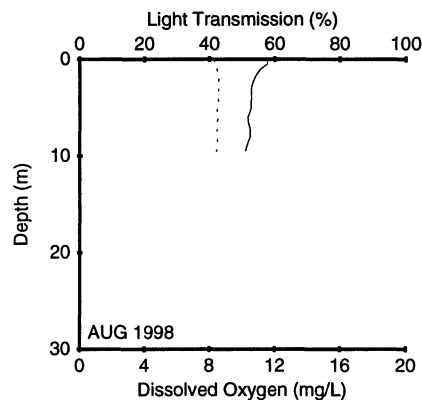
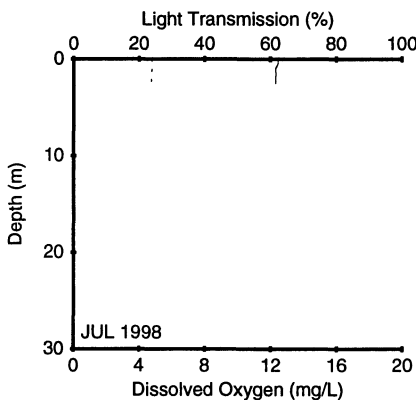
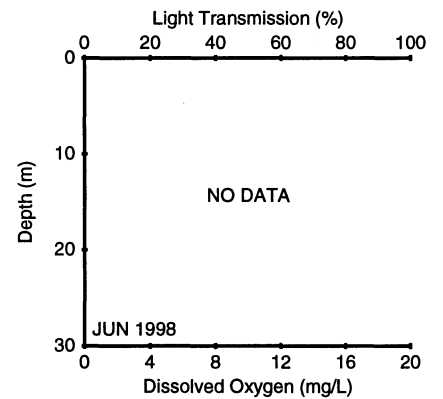
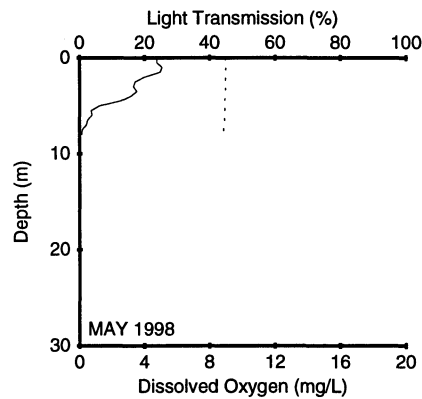
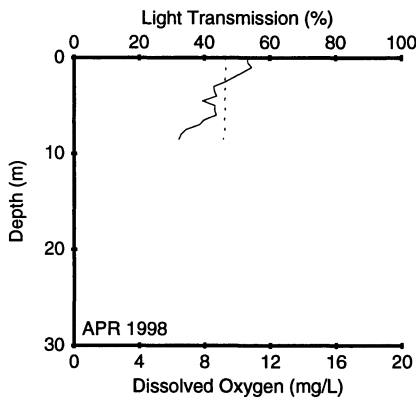
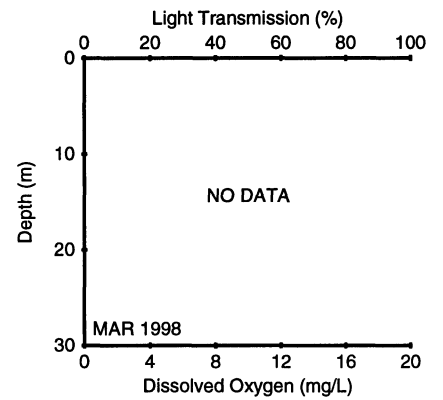
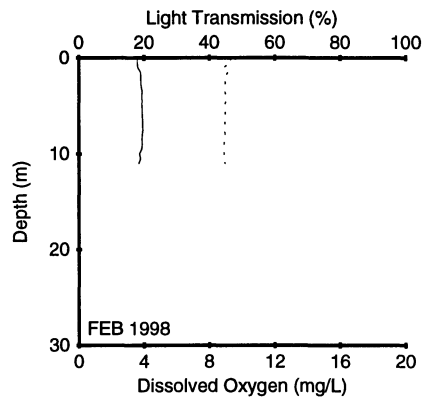
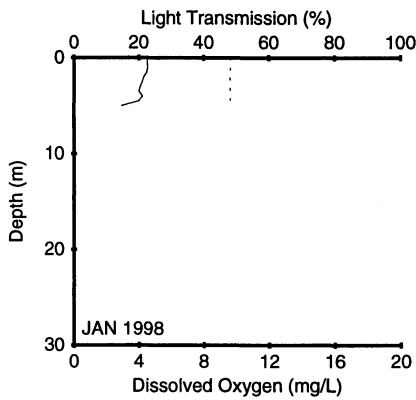
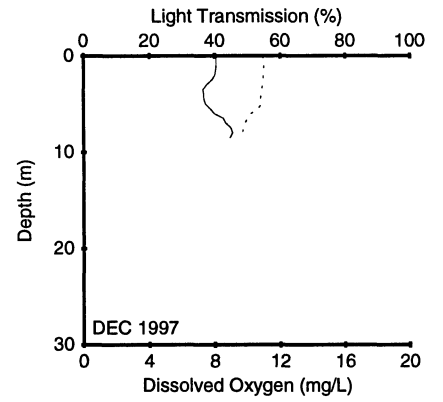
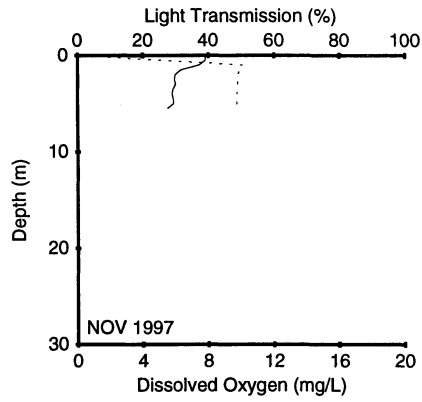
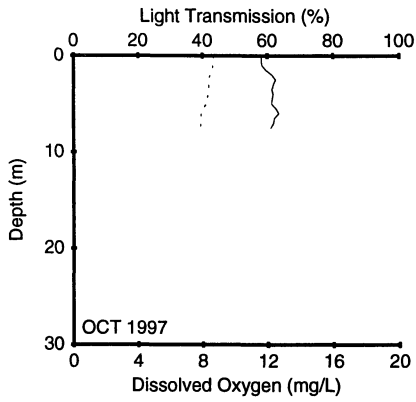
Legend: Light Transmission = Solid Line Dissolved Oxygen = Dotted Line

# GYS016 Grays Harbor - Damon Point



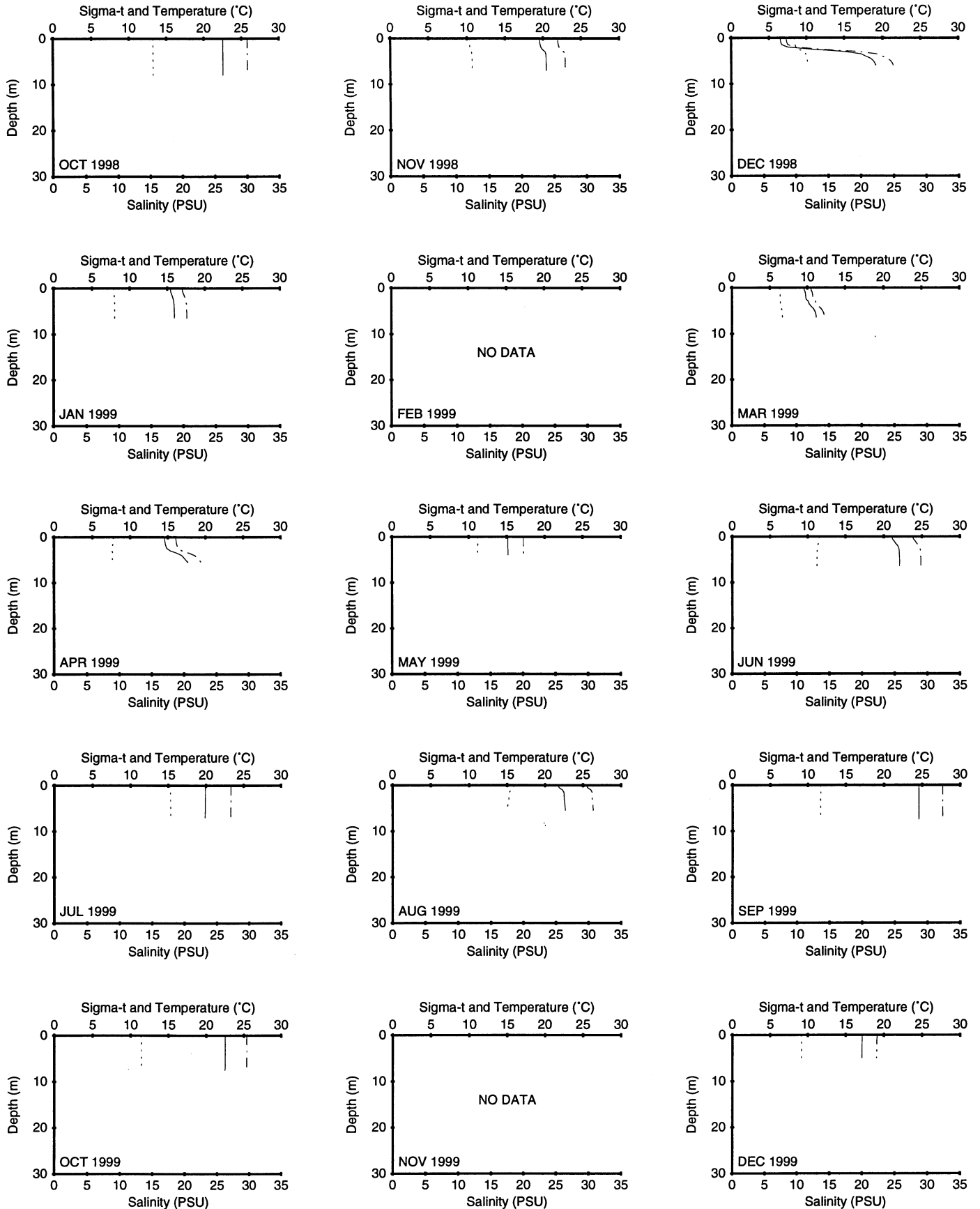
**Legend: Temperature = Dotted Line Salinity = Dot-Dashed Line Sigma-t = Solid Line**

## GYS016 Grays Harbor - Damon Point



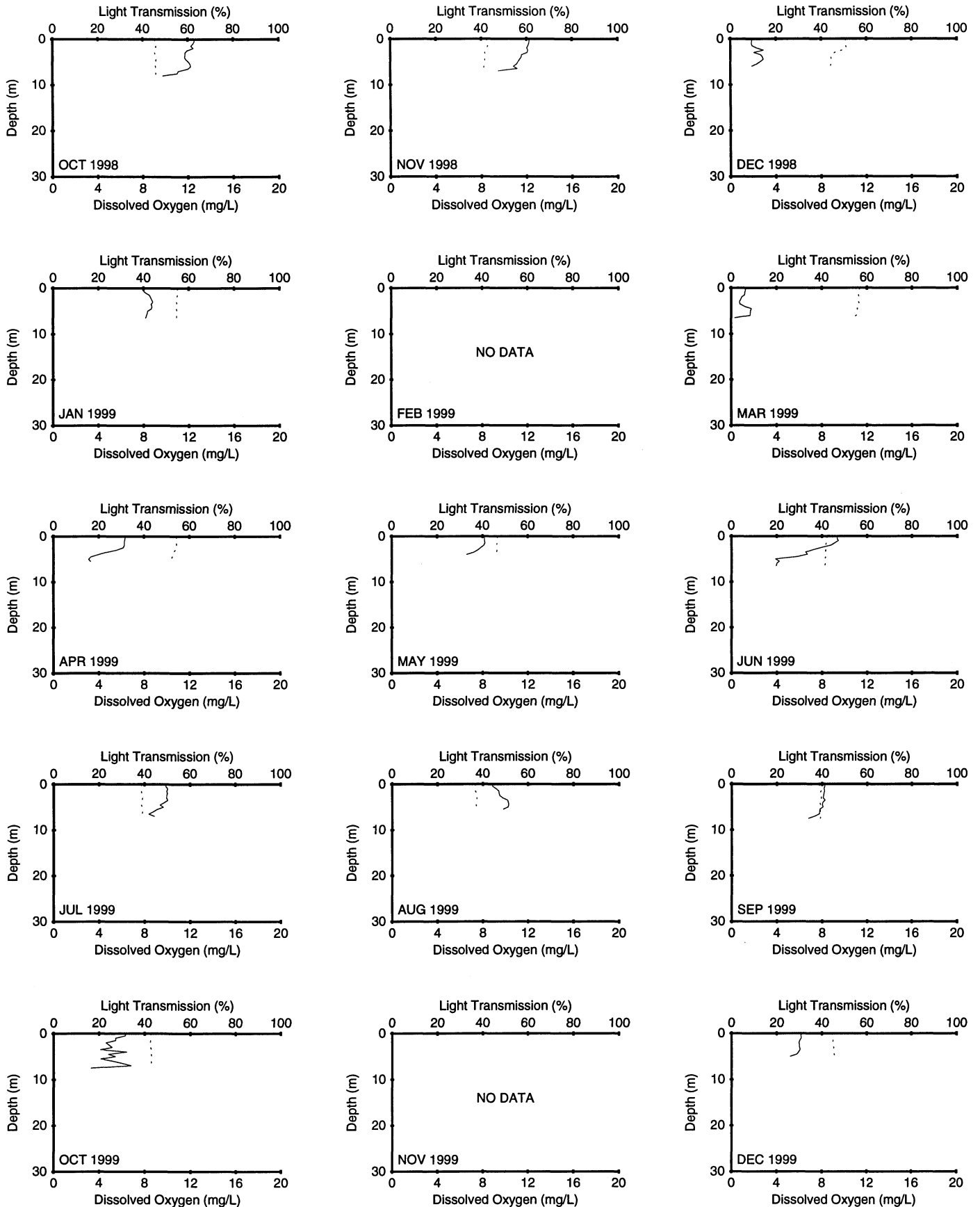
**Legend: Light Transmission = Solid Line    Dissolved Oxygen = Dotted Line**

# GYS016 Grays Harbor - Damon Point



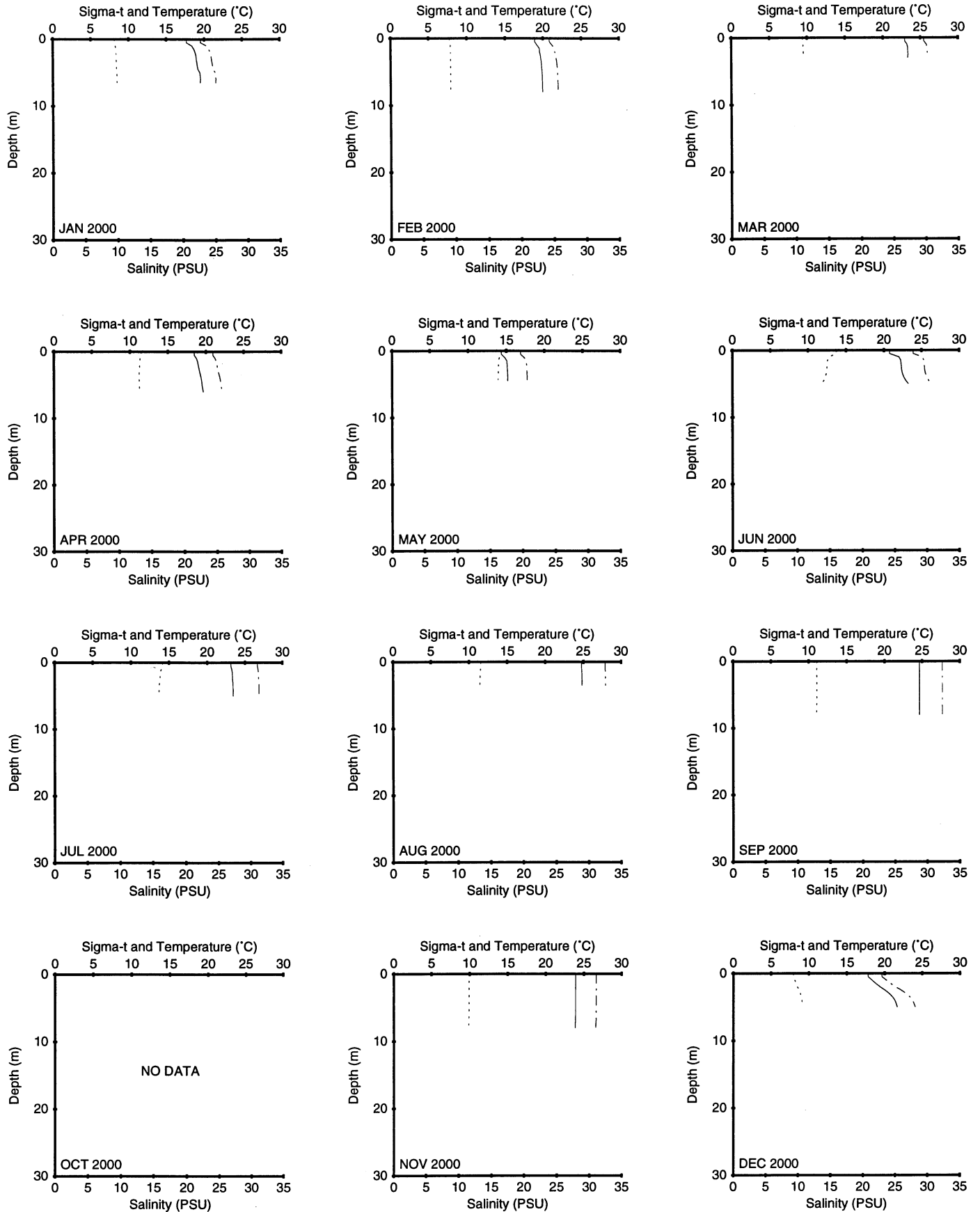
**Legend: Temperature = Dotted Line Salinity = Dot-Dashed Line Sigma-t = Solid Line**

# GYS016 Grays Harbor - Damon Point



**Legend: Light Transmission = Solid Line Dissolved Oxygen = Dotted Line**

# GYS016 Grays Harbor - Damon Point

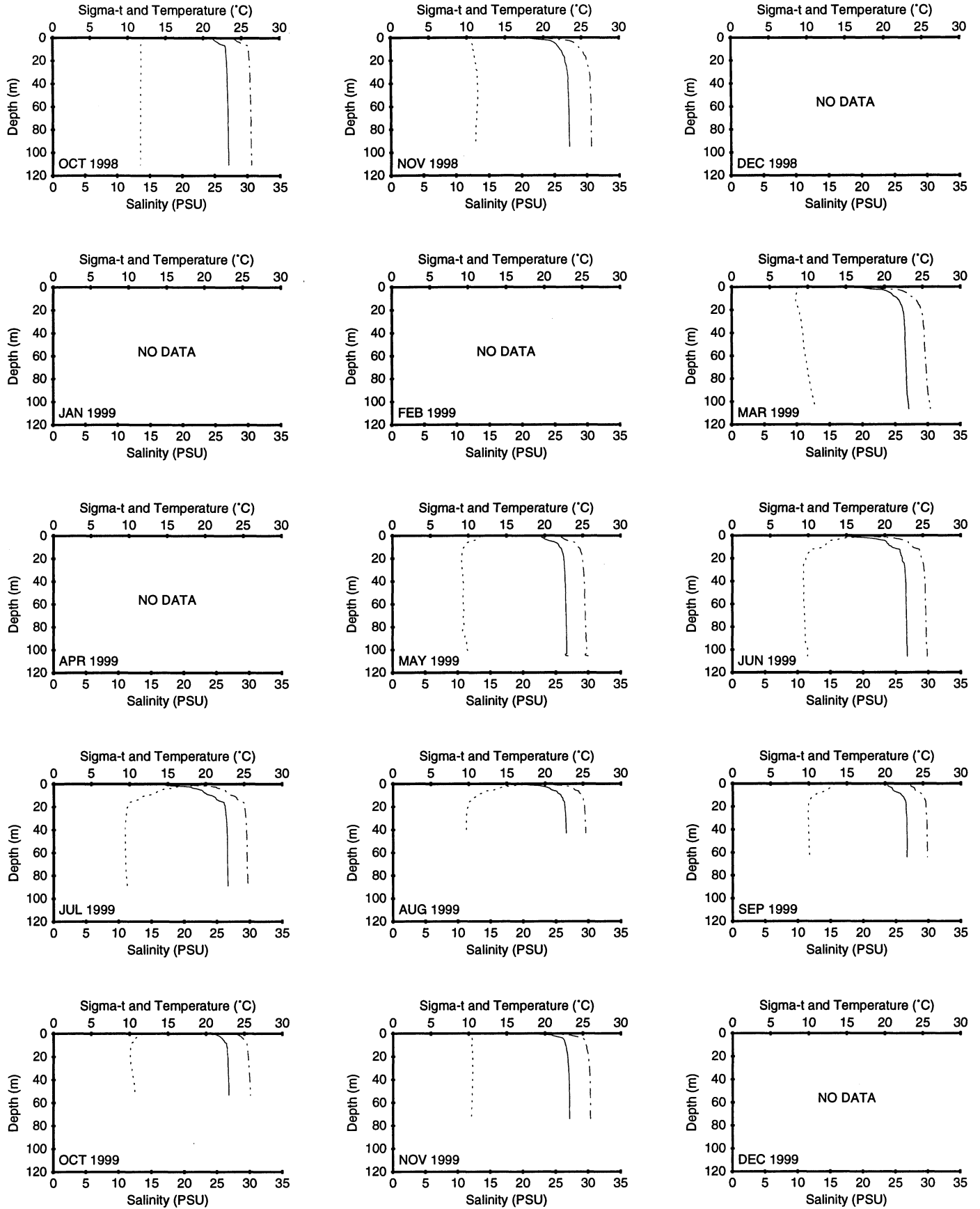


**Legend: Temperature = Dotted Line Salinity = Dot-Dashed Line Sigma-t = Solid Line**



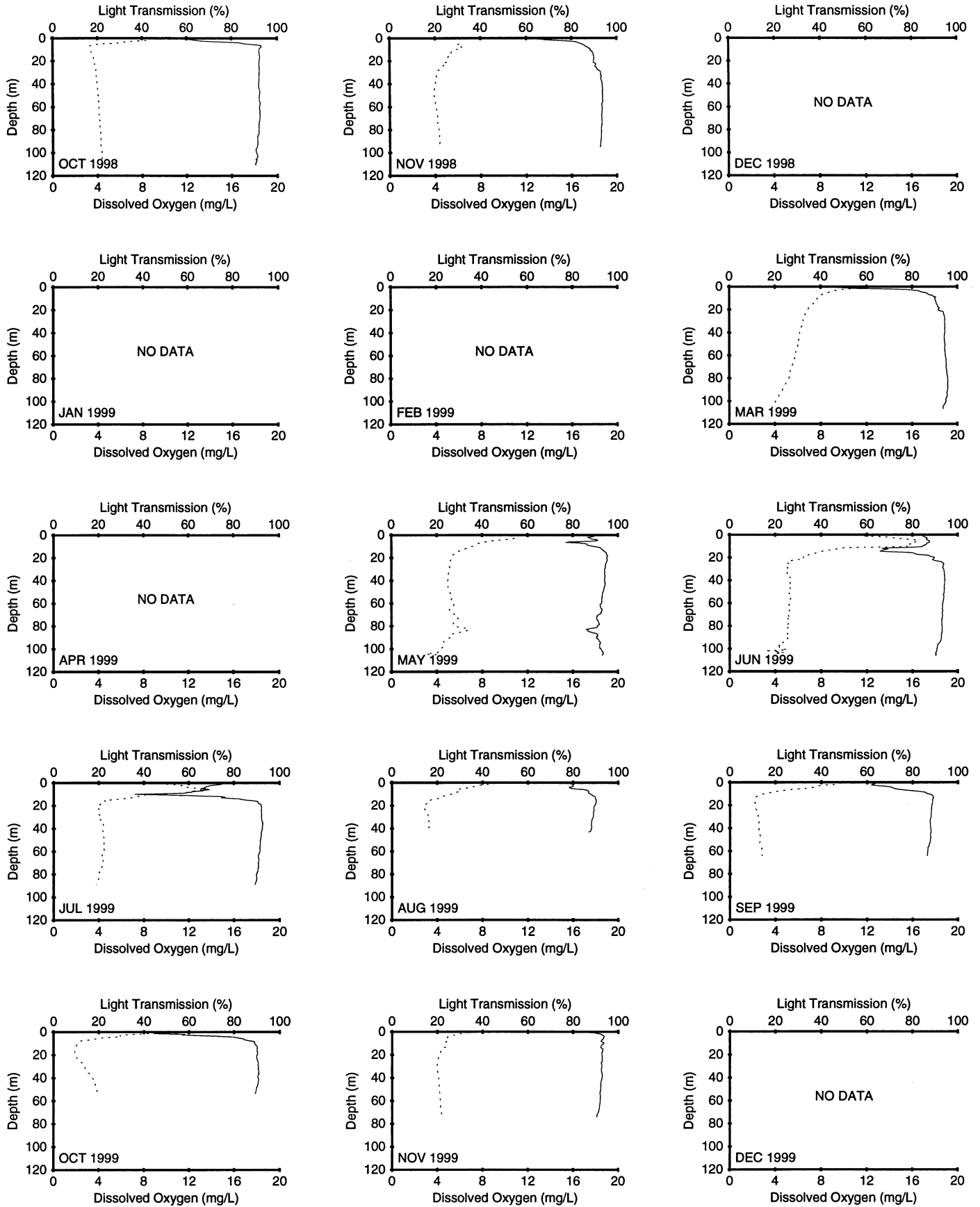


**HCB003 Hood Canal - Eldon, Hamma Hamma R.**



**Legend: Temperature = Dotted Line Salinity = Dot-Dashed Line Sigma-t = Solid Line**

# HCB003 Hood Canal - Eldon, Hamma Hamma R.

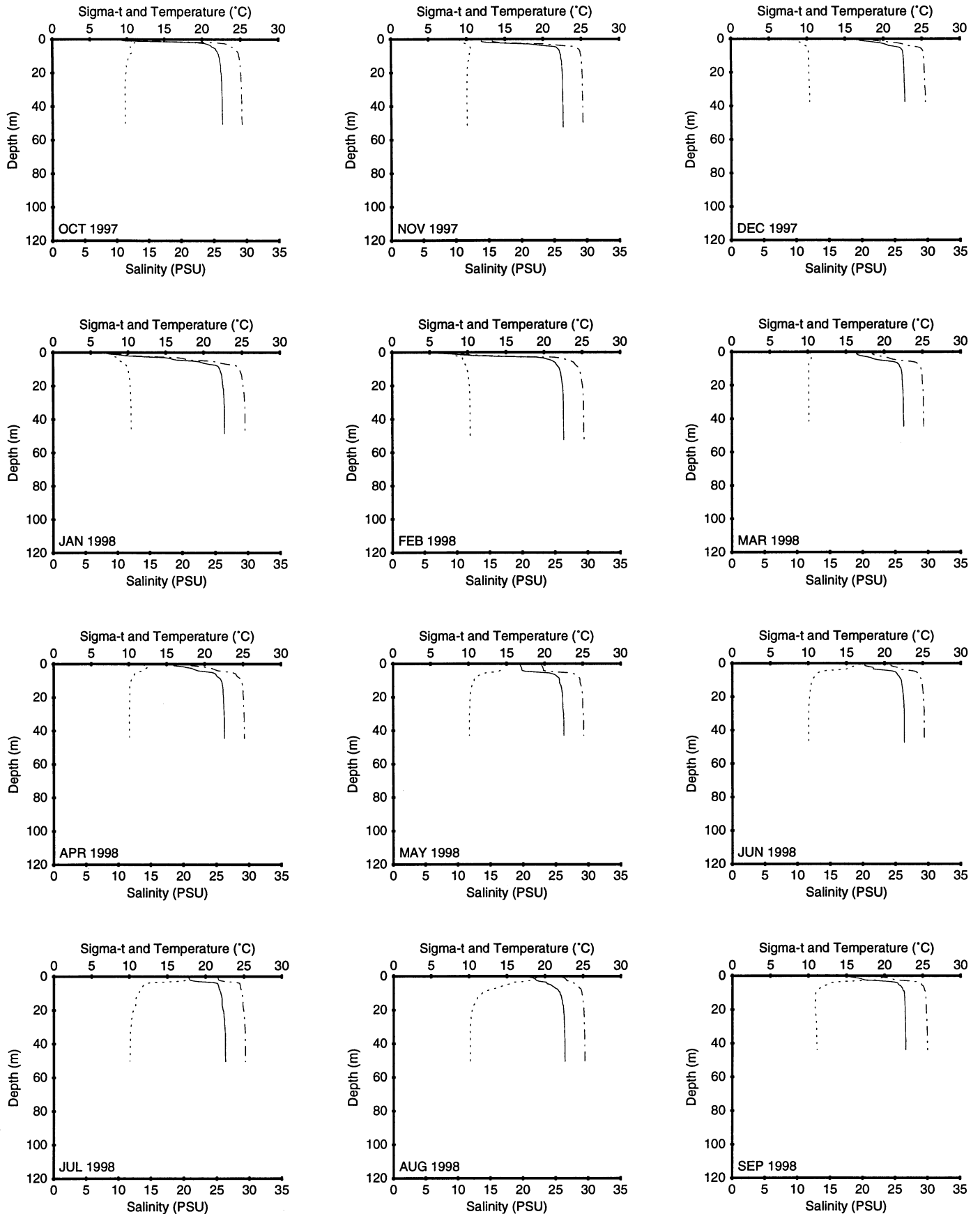


**Legend: Light Transmission = Solid Line Dissolved Oxygen = Dotted Line**





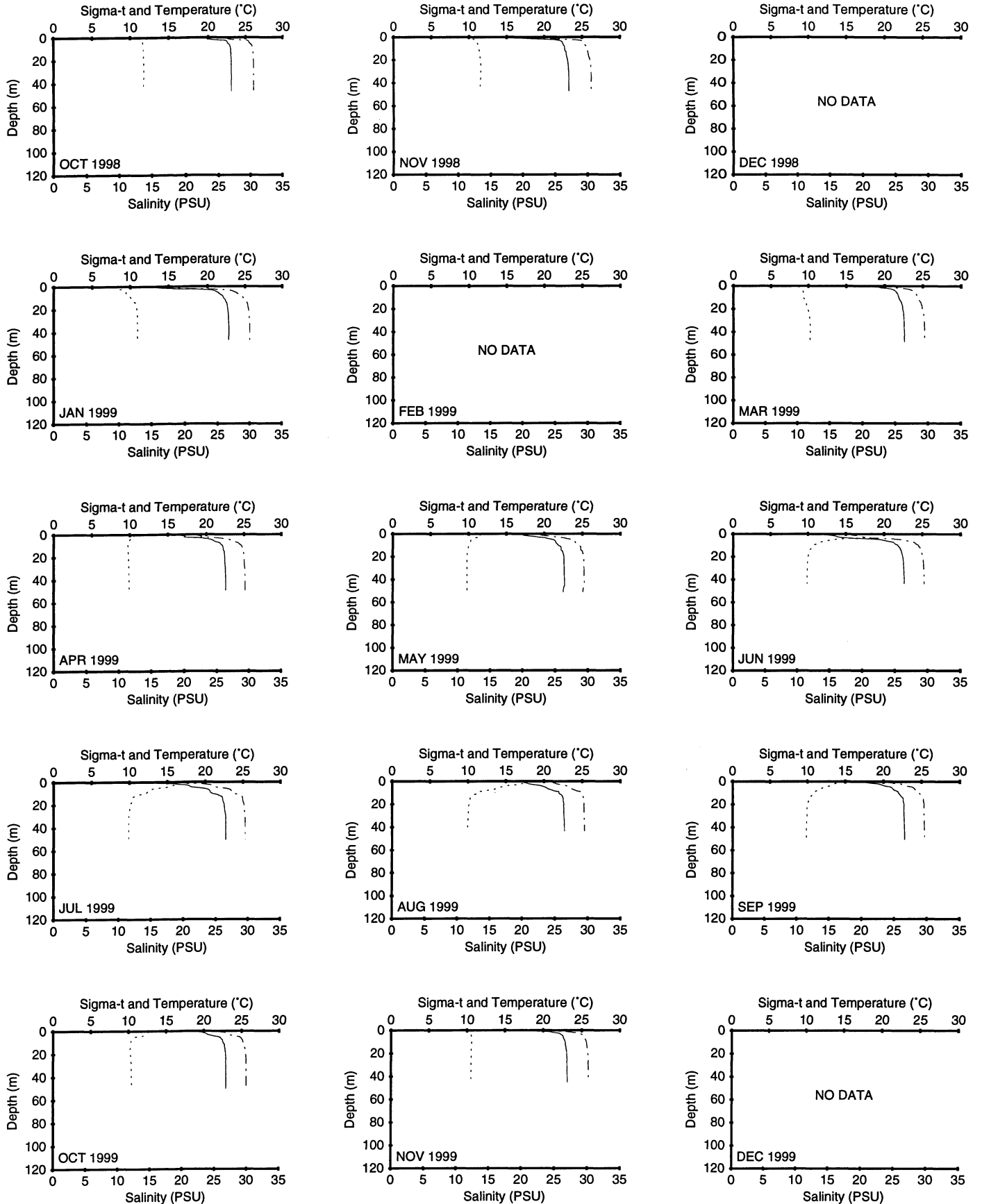
# HCB004 Hood Canal - Gt. Bend, Sisters Point



**Legend: Temperature = Dotted Line Salinity = Dot-Dashed Line Sigma-t = Solid Line**



# HCB004 Hood Canal - Gt. Bend, Sisters Point



**Legend: Temperature = Dotted Line Salinity = Dot-Dashed Line Sigma-t = Solid Line**

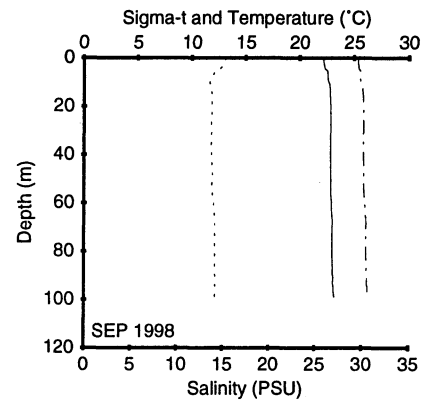
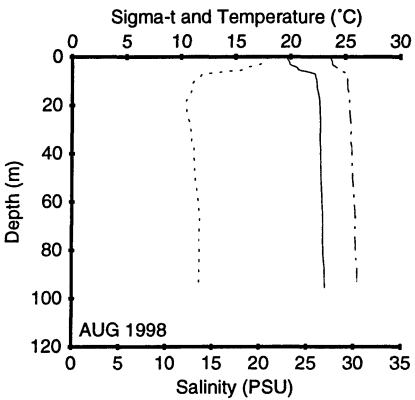
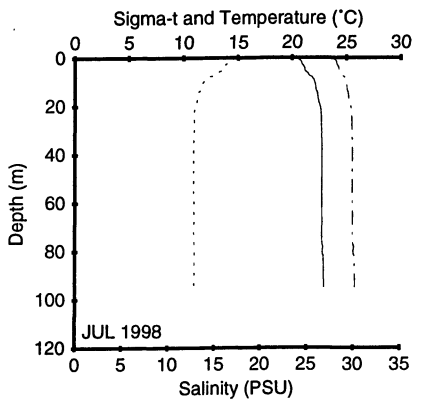
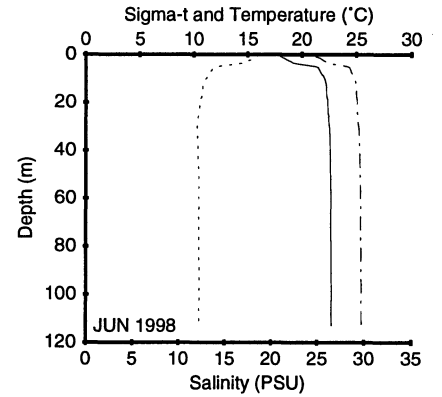
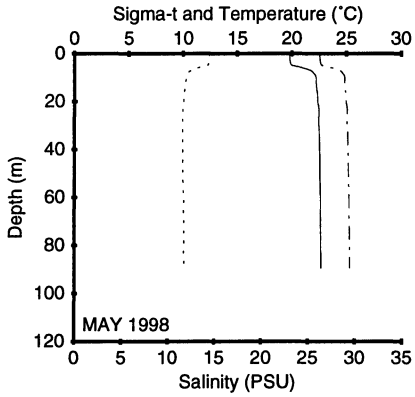
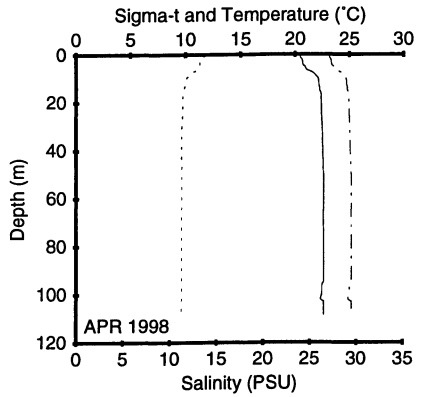
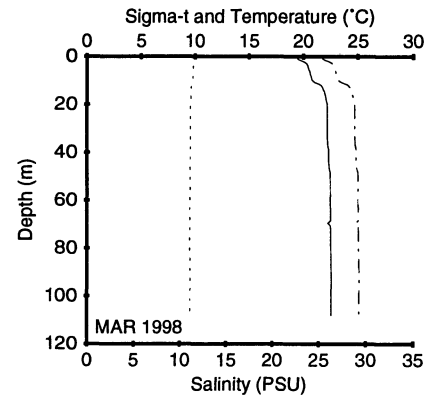
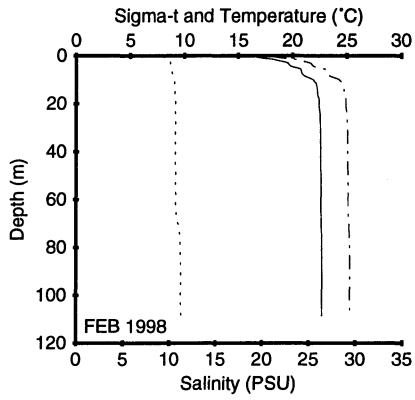
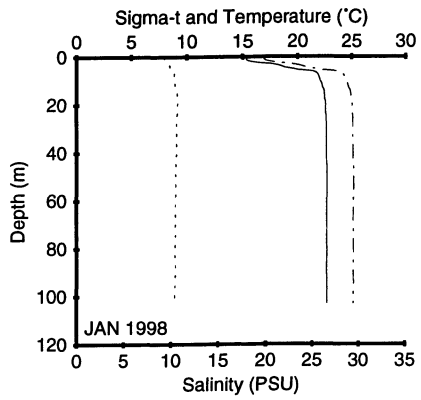
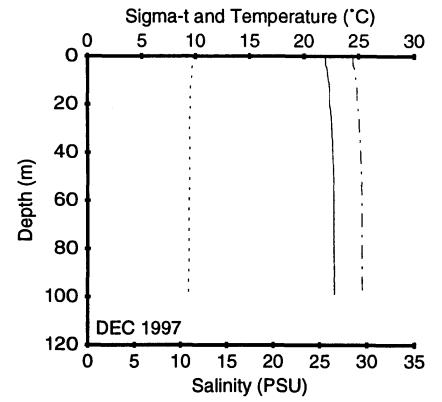
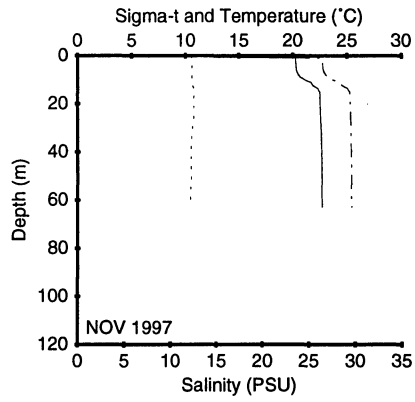
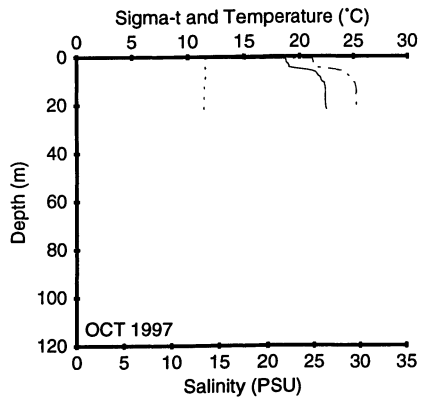








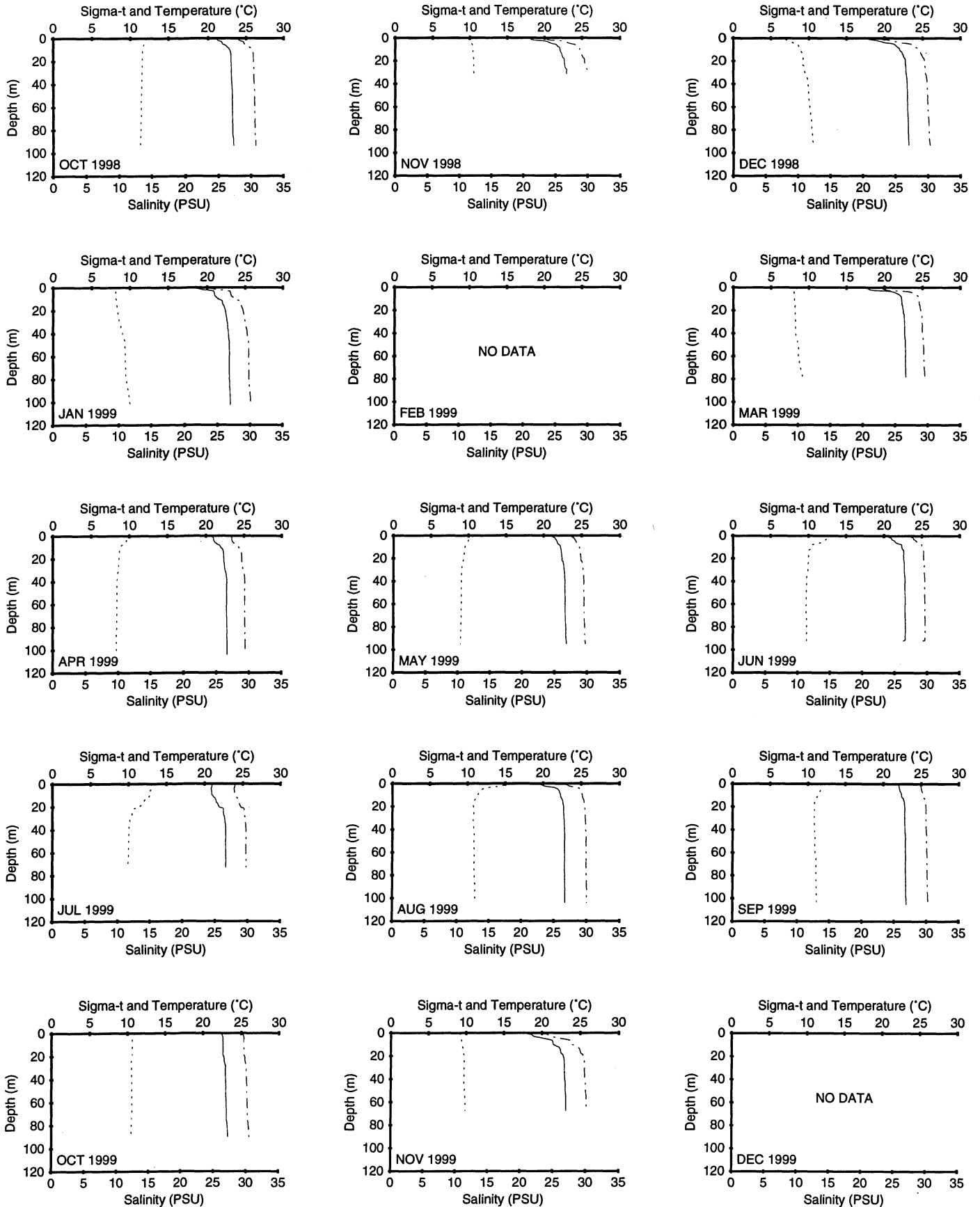
# HCB006 Hood Canal - King Spit, Bangor



**Legend: Temperature = Dotted Line Salinity = Dot-Dashed Line Sigma-t = Solid Line**



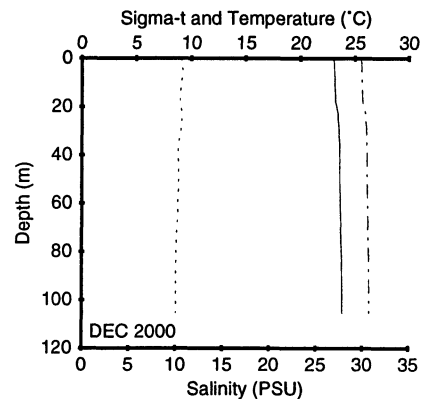
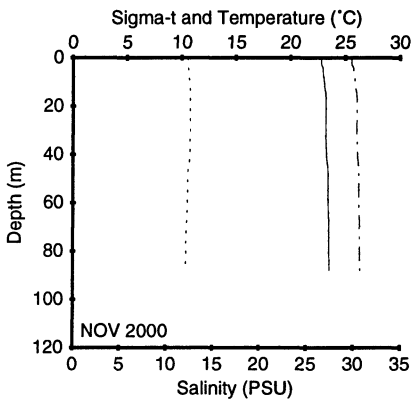
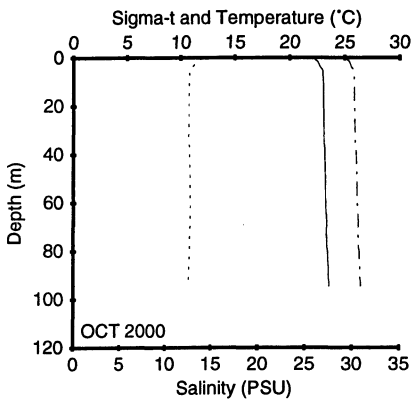
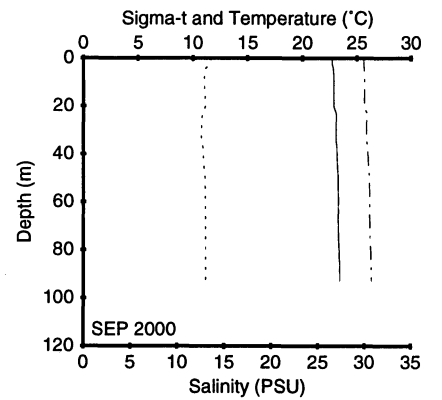
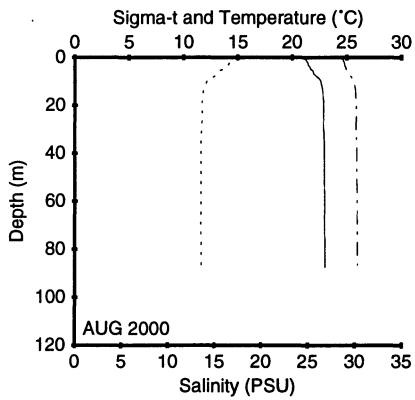
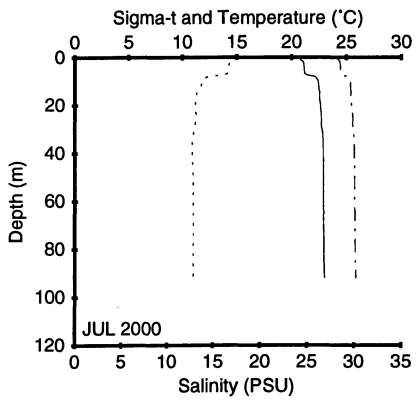
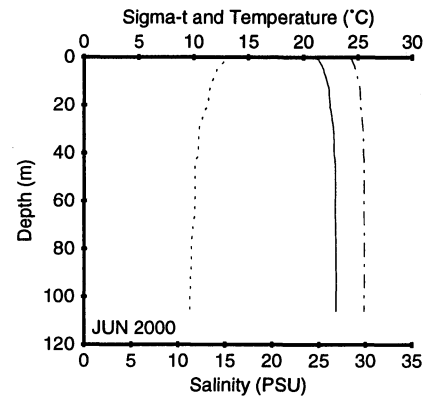
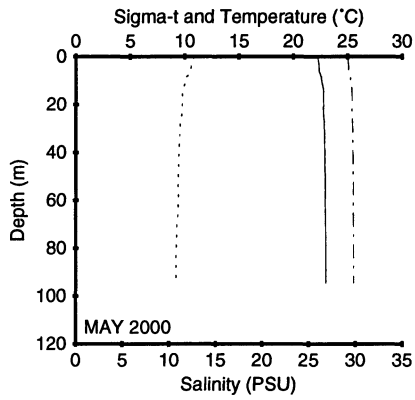
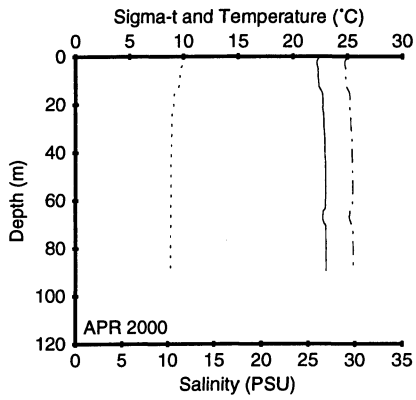
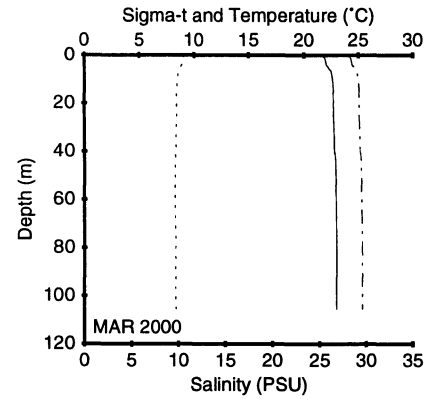
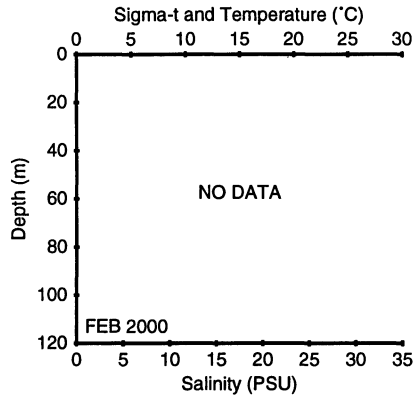
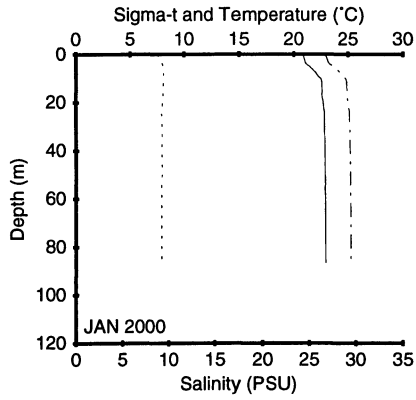
# HCB006 Hood Canal - King Spit, Bangor



**Legend: Temperature = Dotted Line Salinity = Dot-Dashed Line Sigma-t = Solid Line**



**HCB006 Hood Canal - King Spit, Bangor**

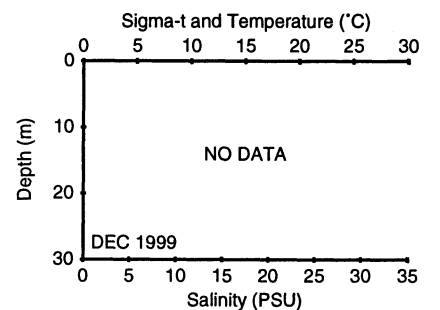
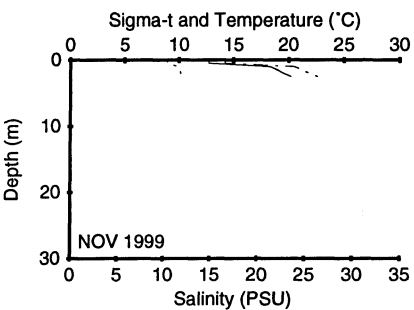
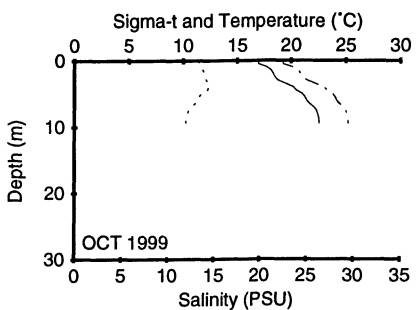
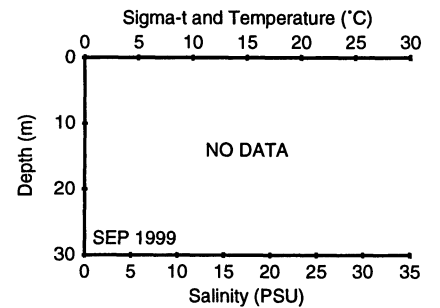
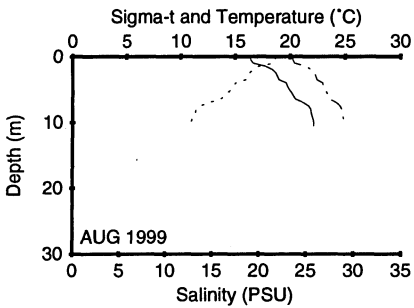
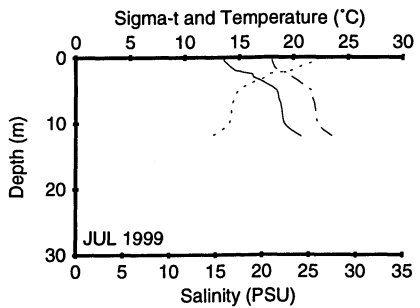
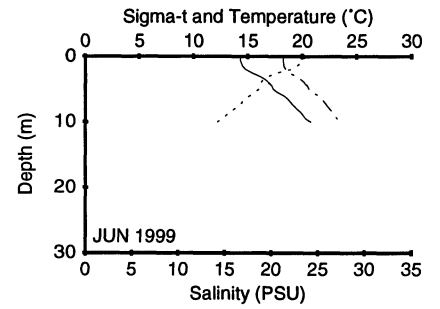
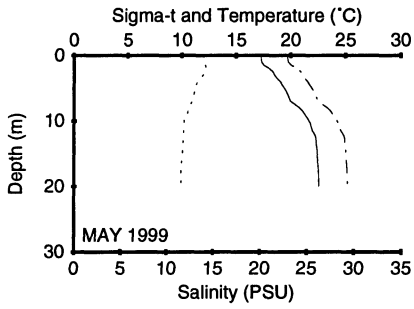
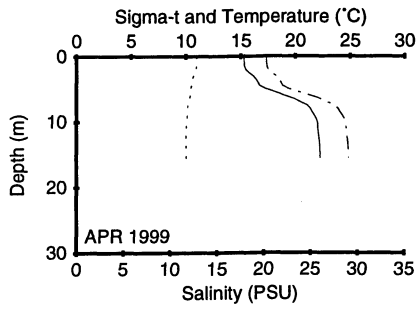
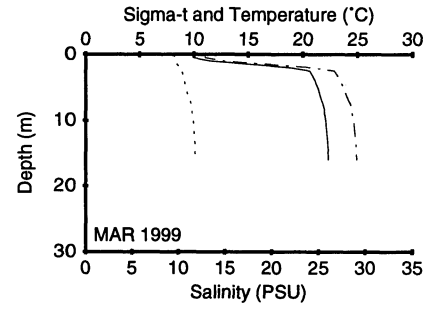
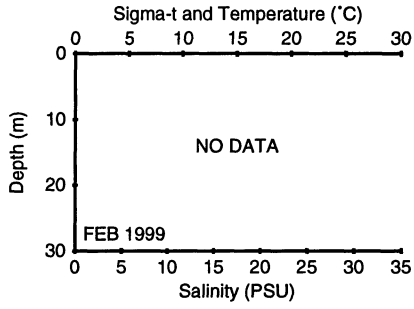
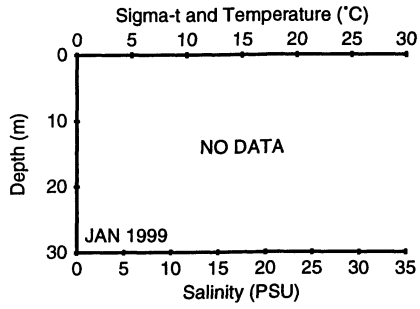
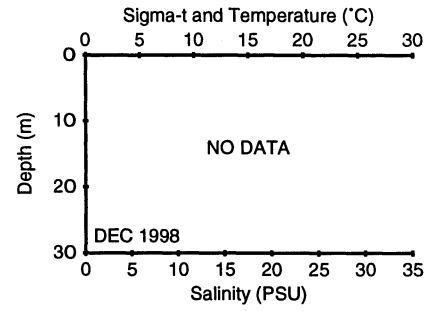
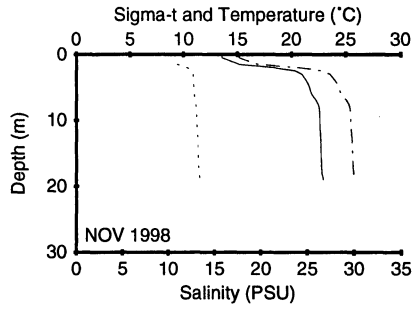
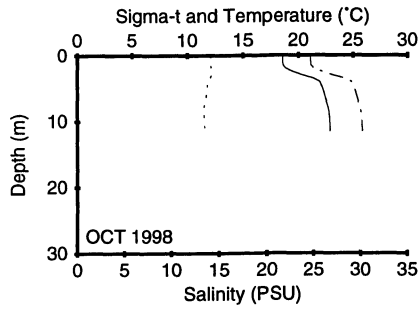


**Legend: Temperature = Dotted Line Salinity = Dot-Dashed Line Sigma-t = Solid Line**





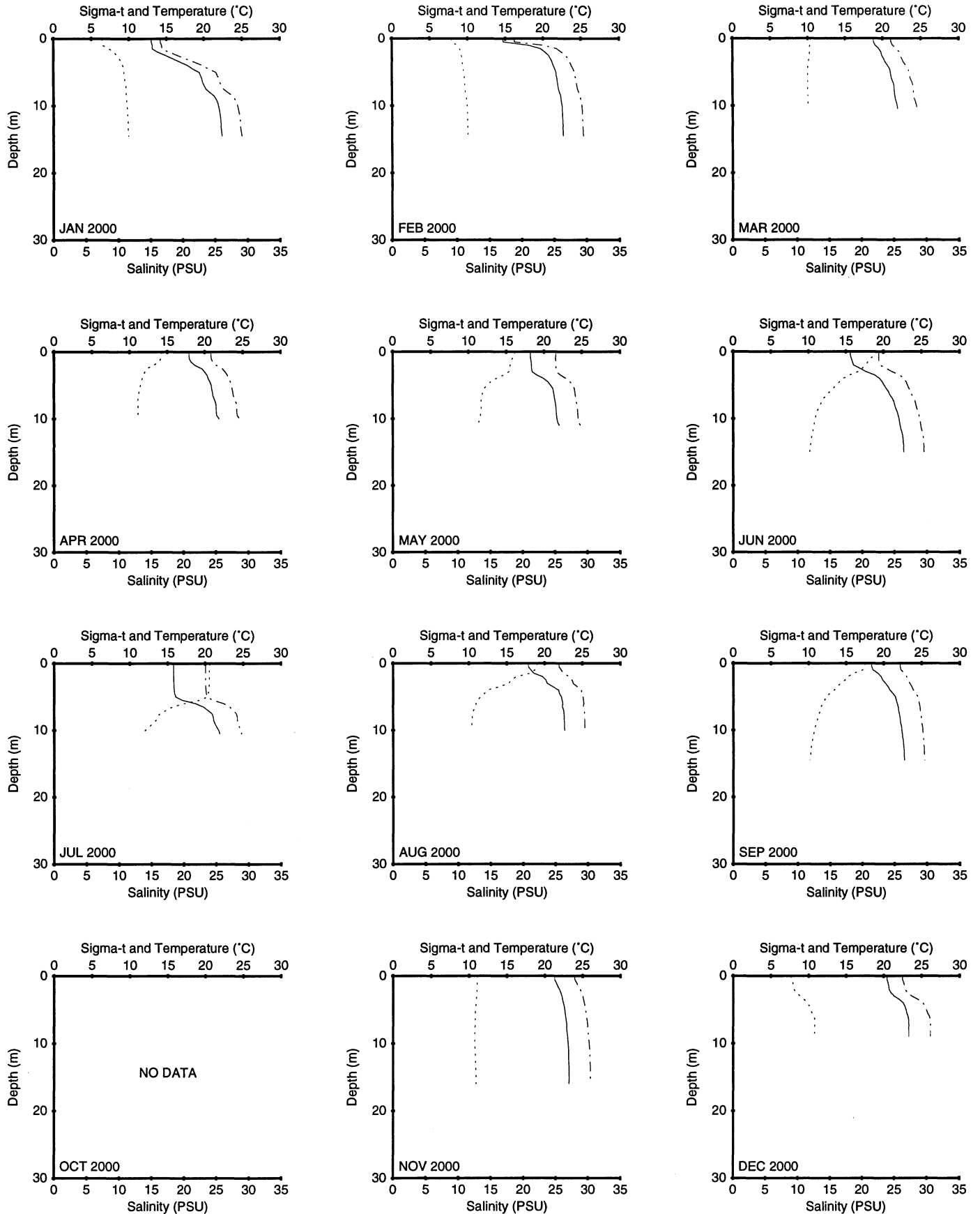
# HCB007 Hood Canal - Lynch Cove



**Legend: Temperature = Dotted Line Salinity = Dot-Dashed Line Sigma-t = Solid Line**

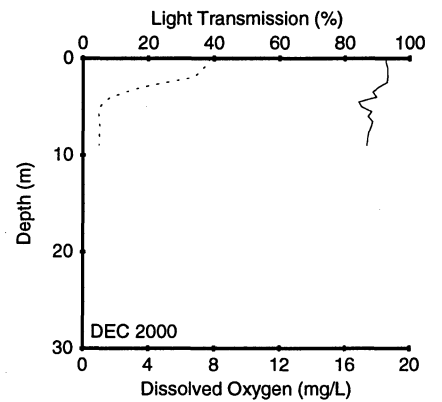
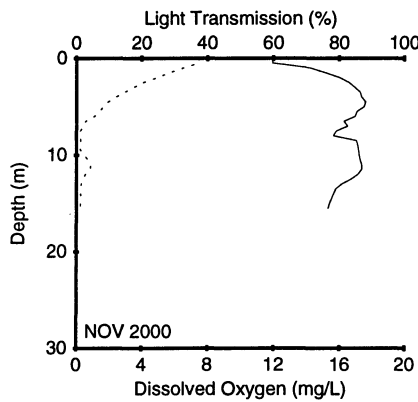
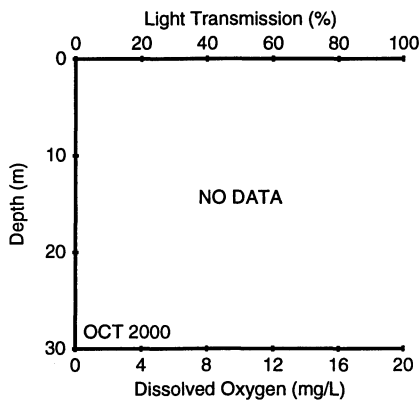
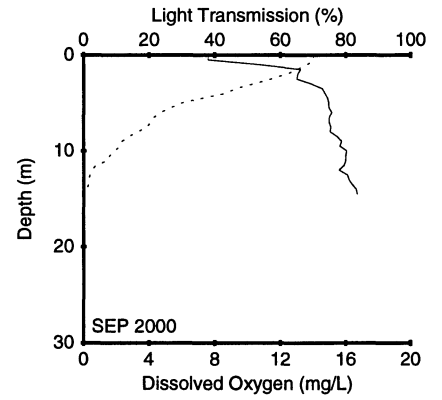
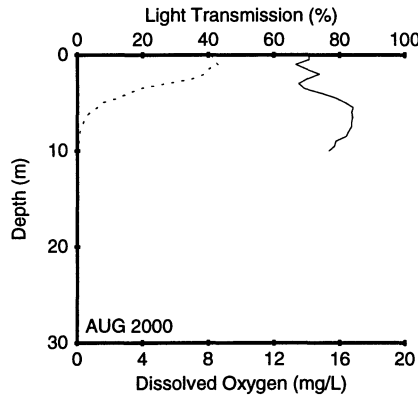
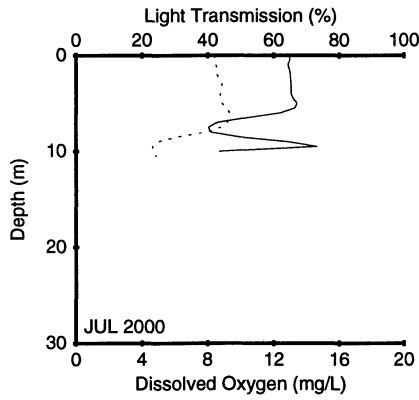
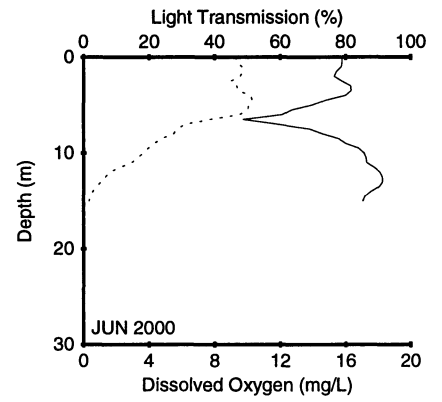
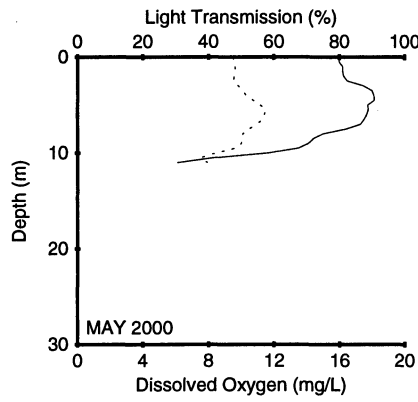
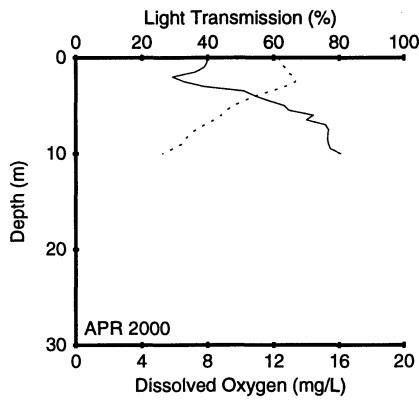
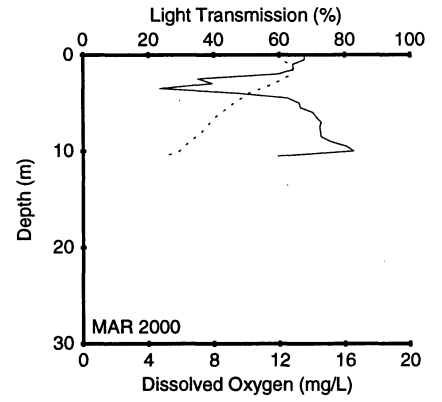
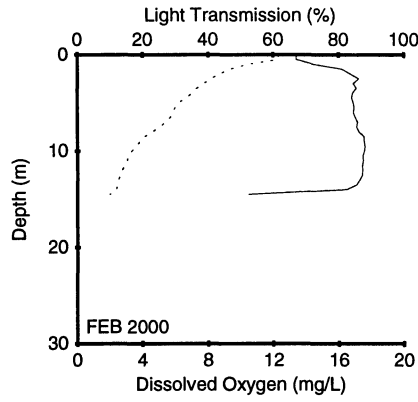
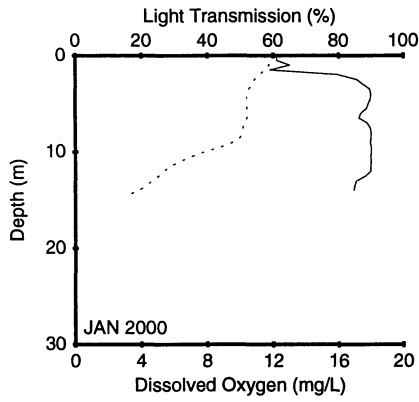


# HCB007 Hood Canal - Lynch Cove



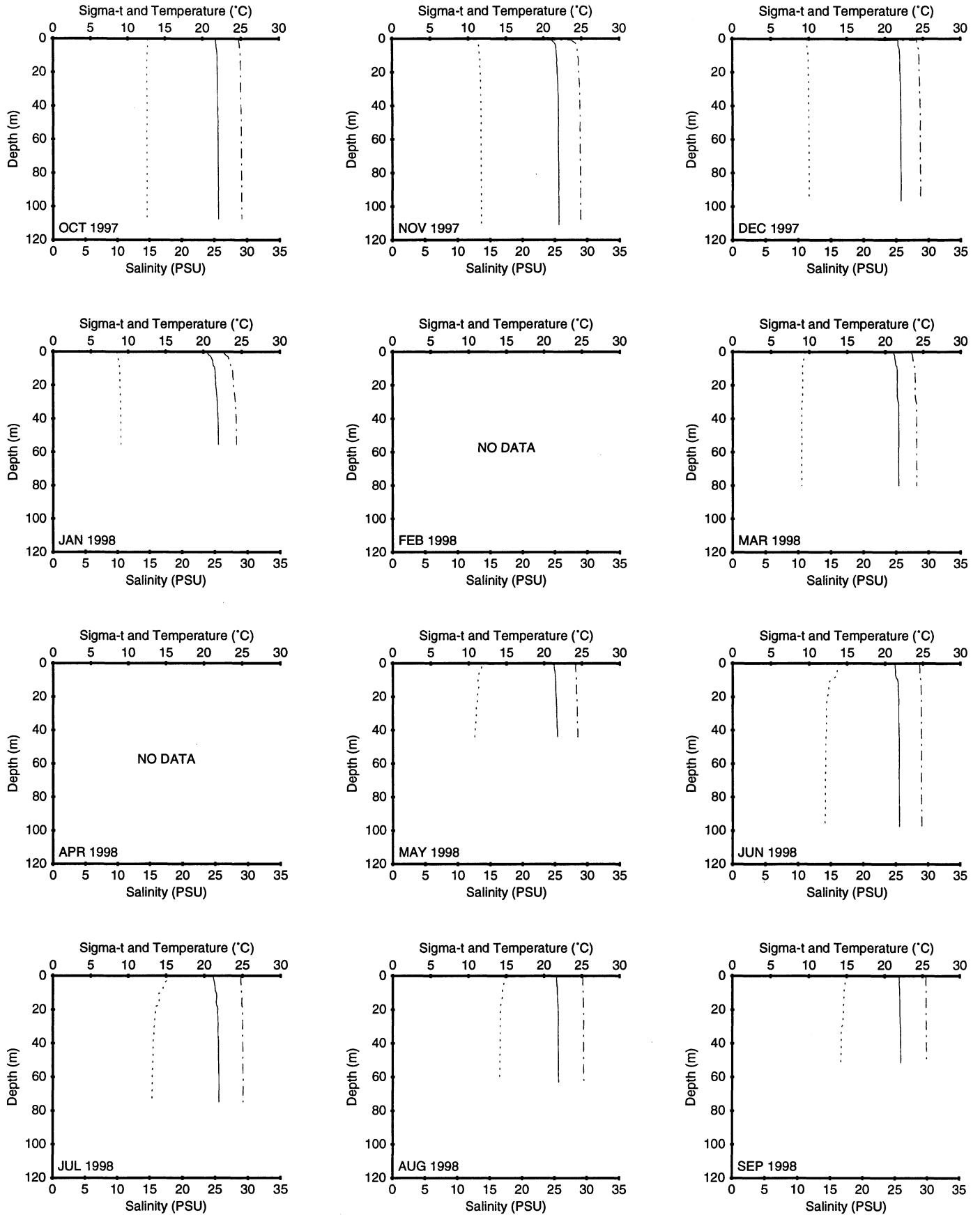
**Legend: Temperature = Dotted Line Salinity = Dot-Dashed Line Sigma-t = Solid Line**

# HCB007 Hood Canal - Lynch Cove



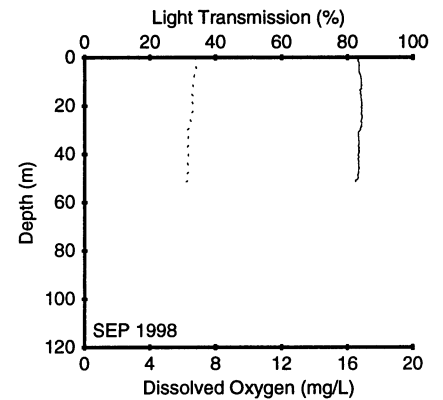
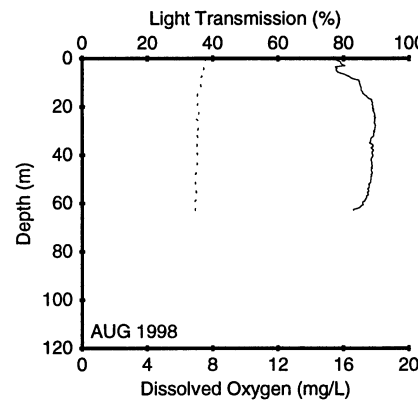
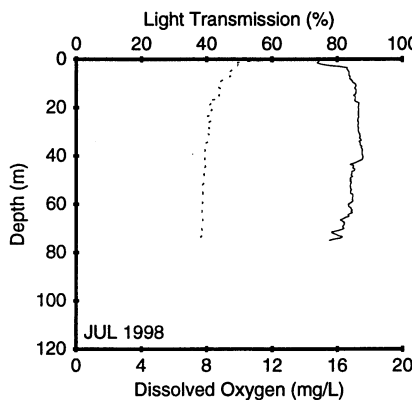
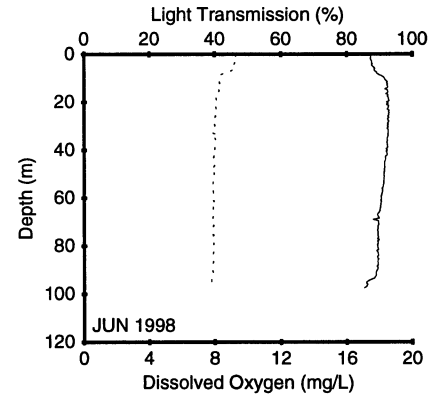
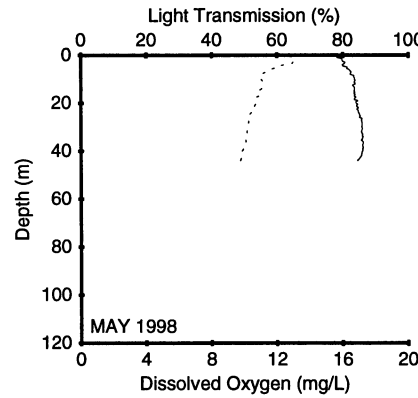
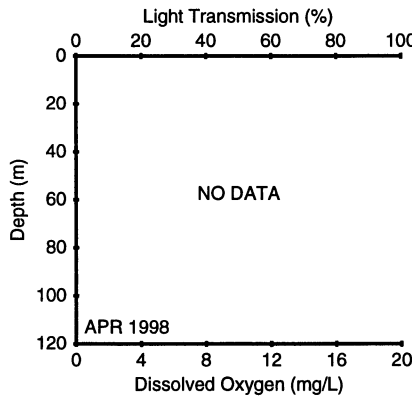
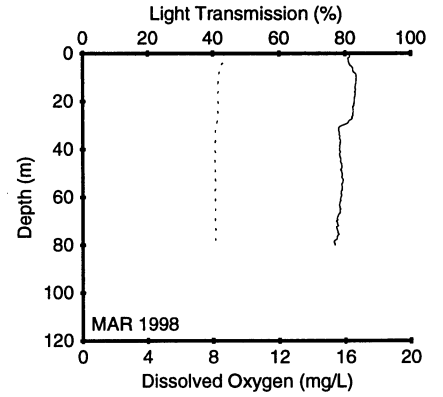
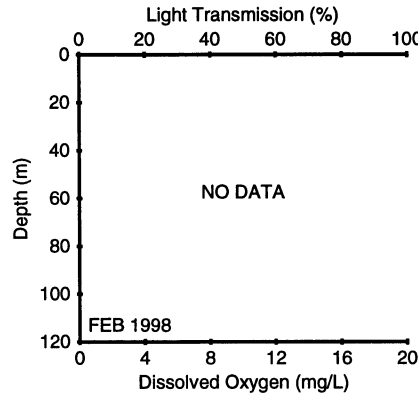
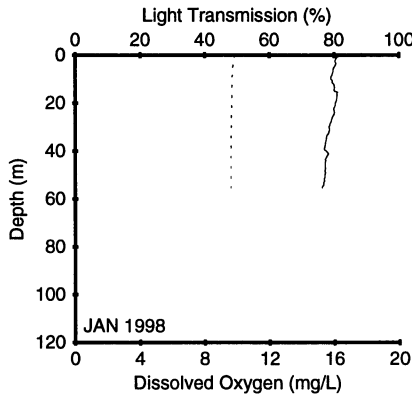
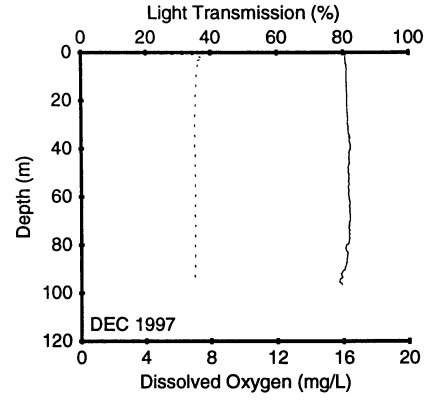
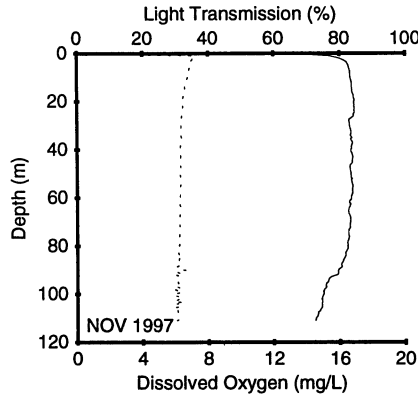
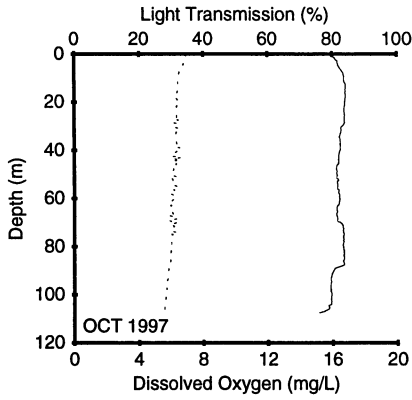
**Legend: Light Transmission = Solid Line Dissolved Oxygen = Dotted Line**

# NSQ002 Nisqually Reach - Devils Head



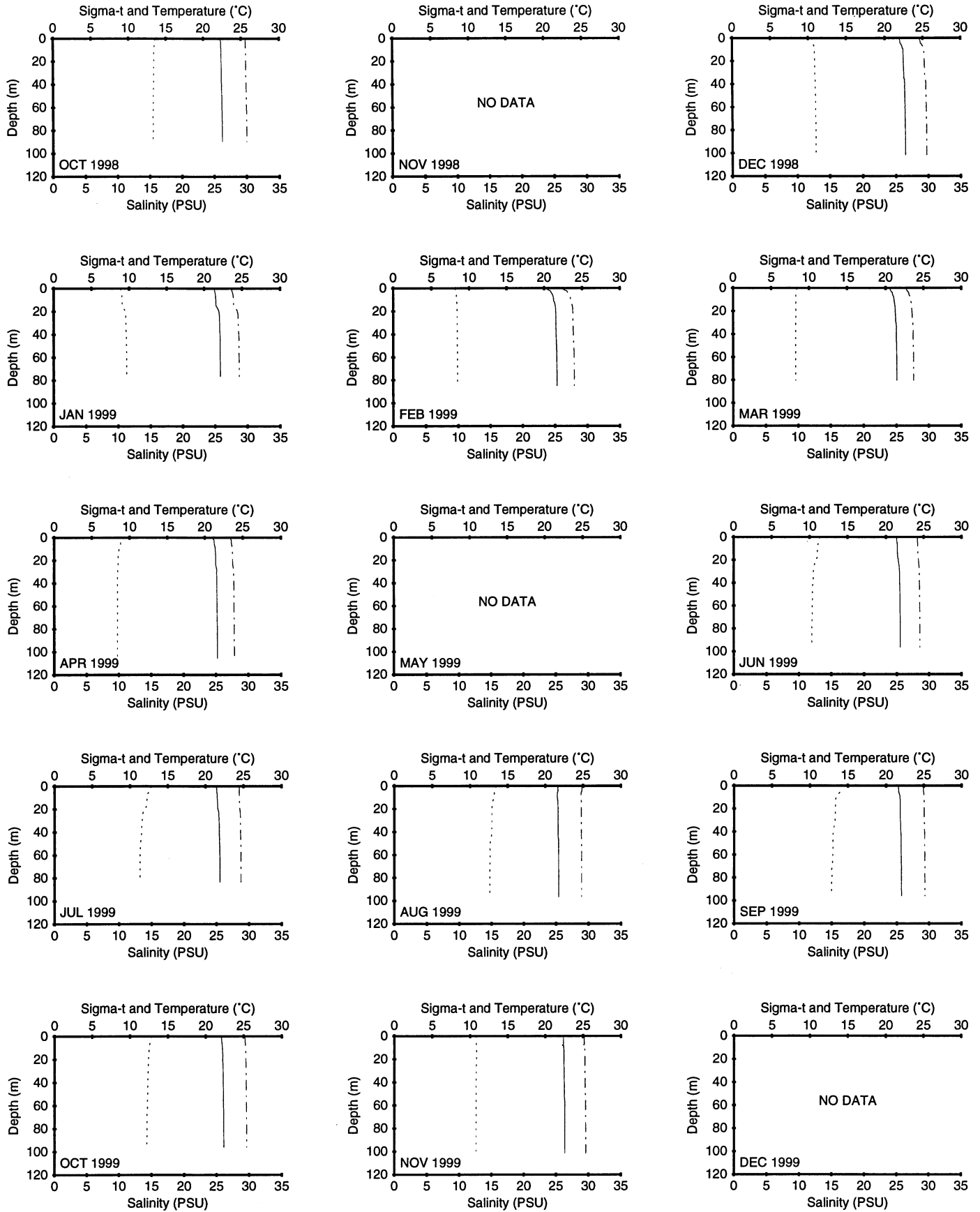
**Legend: Temperature = Dotted Line Salinity = Dot-Dashed Line Sigma-t = Solid Line**

NSQ002 Nisqually Reach - Devils Head



Legend: Light Transmission = Solid Line Dissolved Oxygen = Dotted Line

# NSQ002 Nisqually Reach - Devils Head

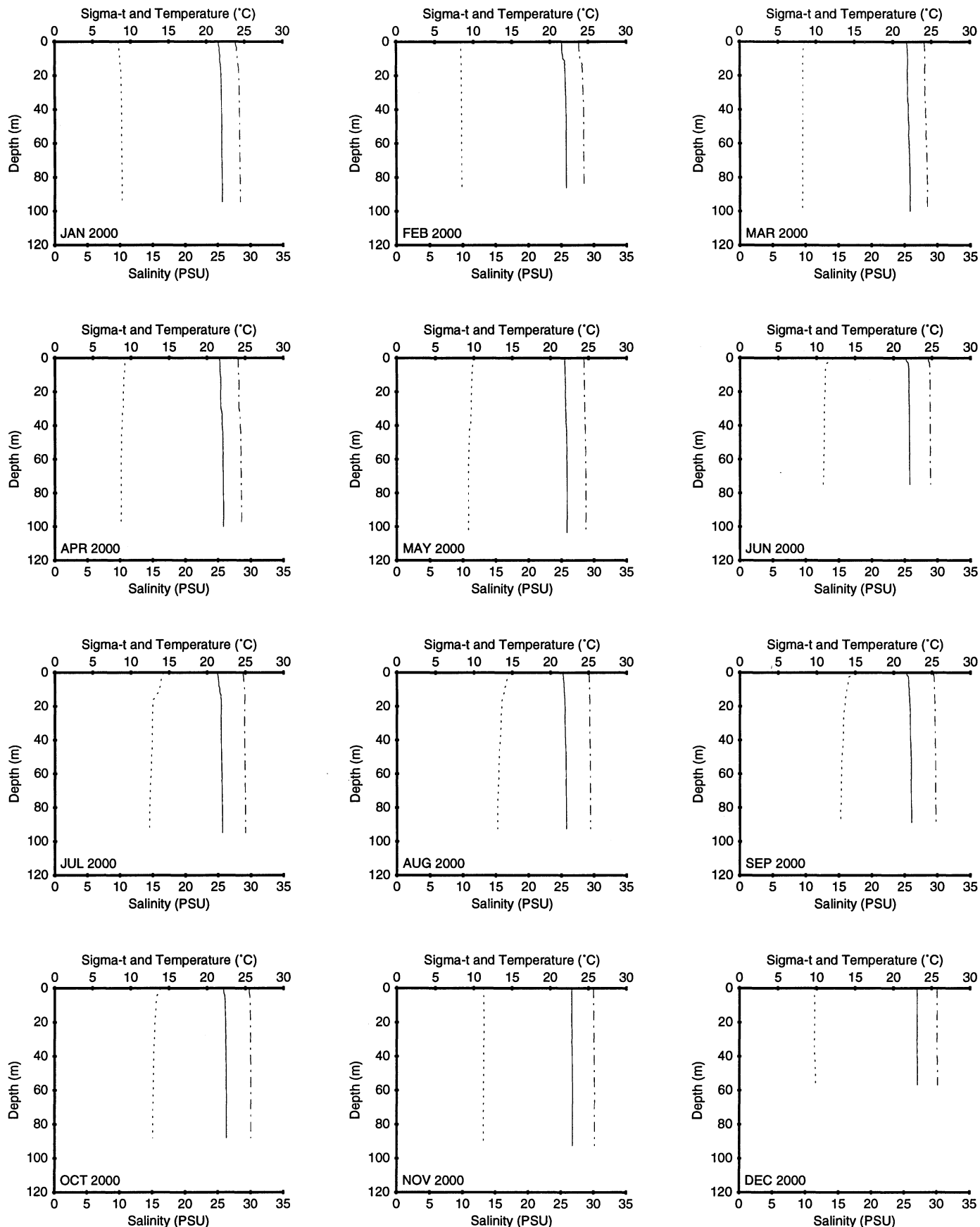


**Legend: Temperature = Dotted Line Salinity = Dot-Dashed Line Sigma-t = Solid Line**





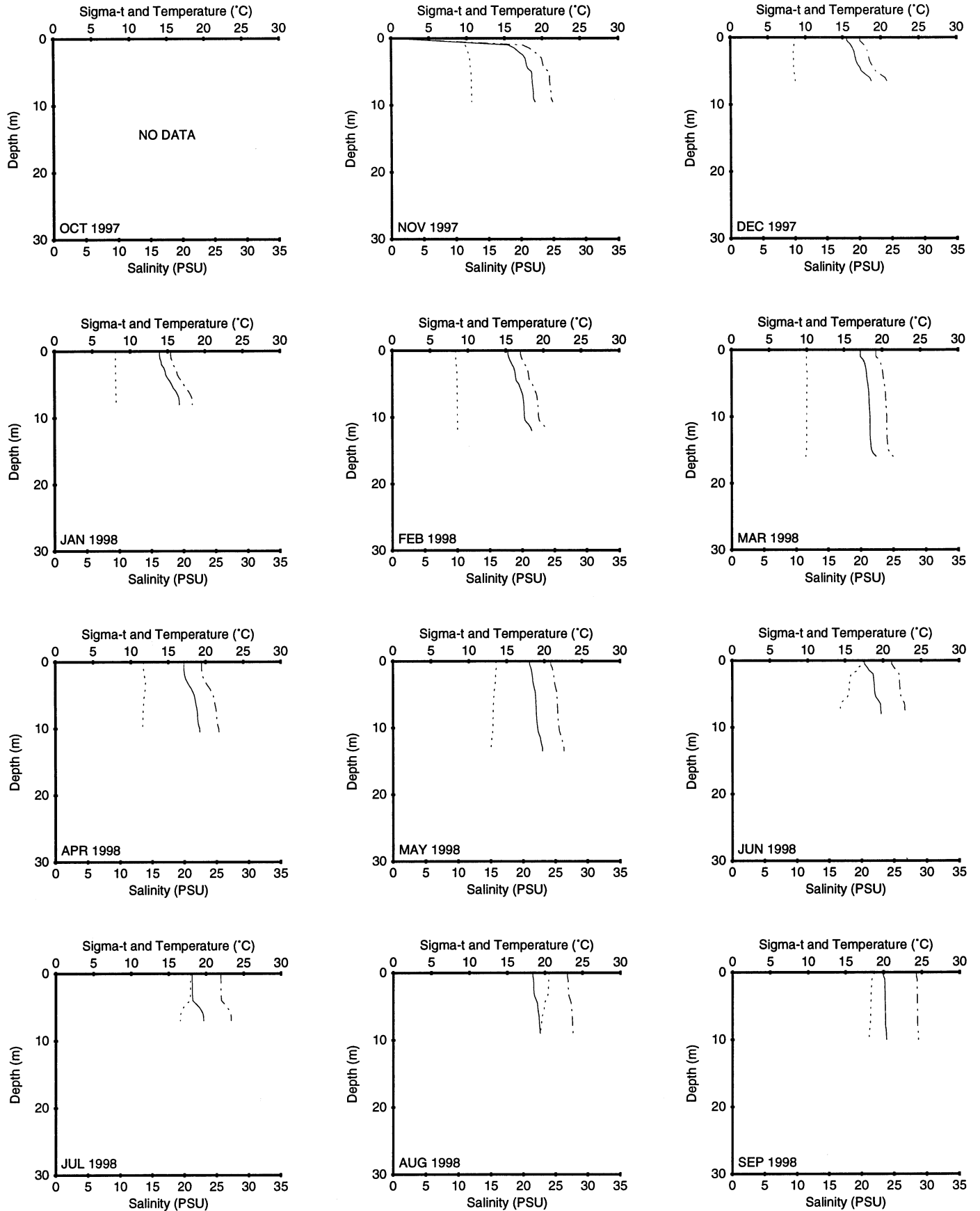
# NSQ002 Nisqually Reach - Devils Head



**Legend: Temperature = Dotted Line Salinity = Dot-Dashed Line Sigma-t = Solid Line**

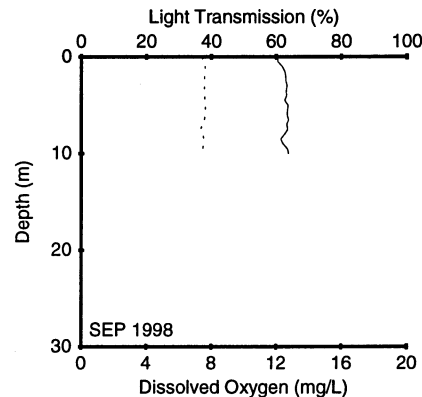
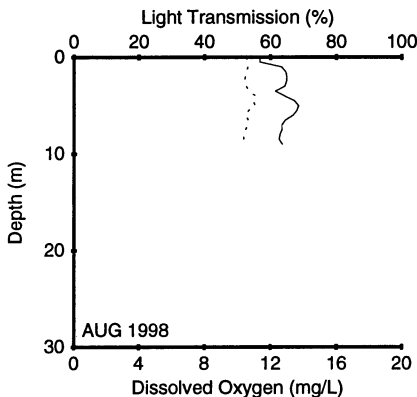
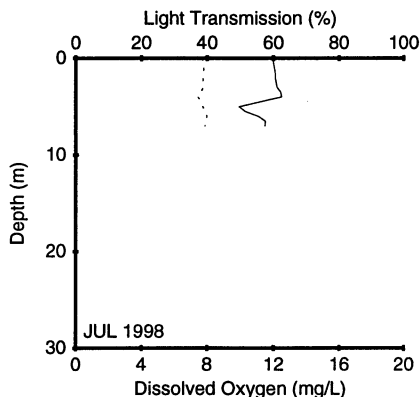
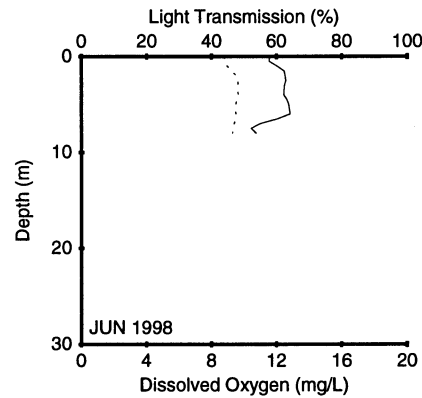
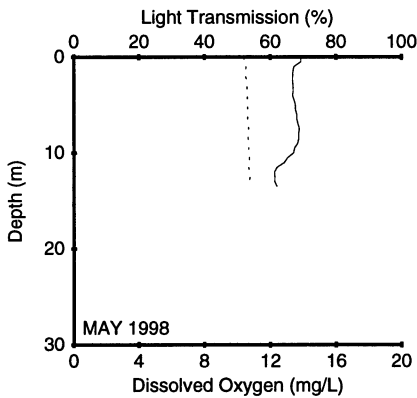
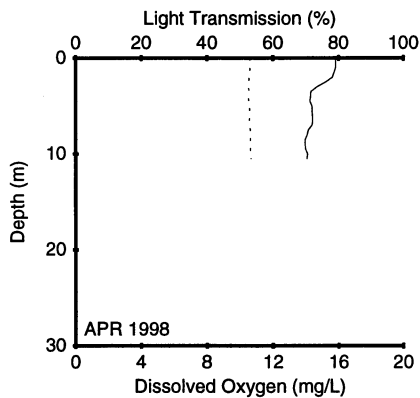
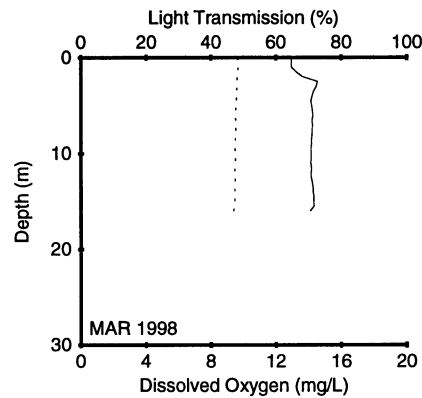
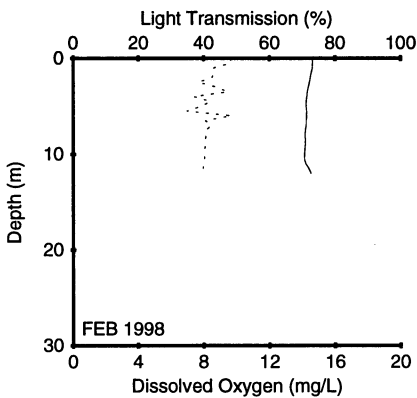
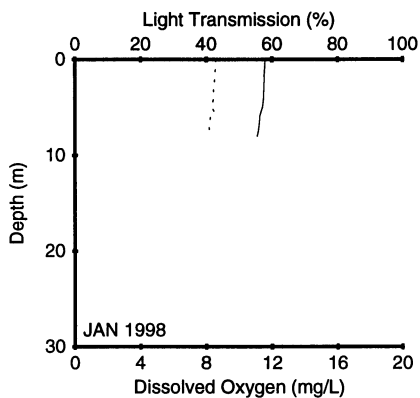
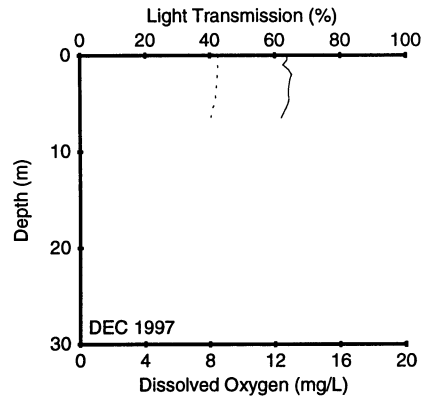
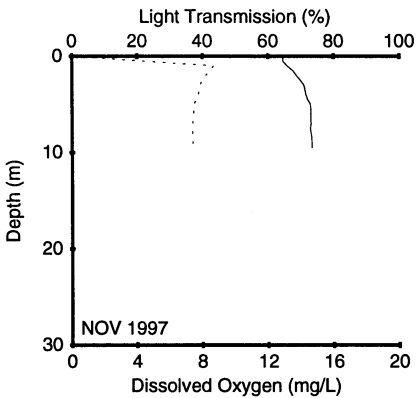
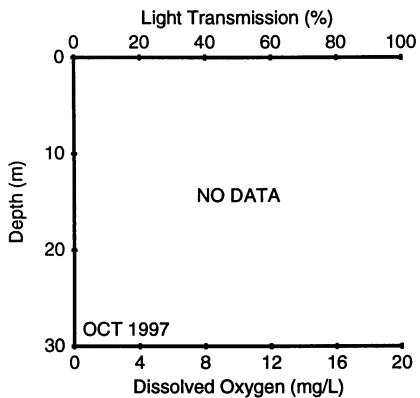


# OAK004 Oakland Bay - Near Eagle Point



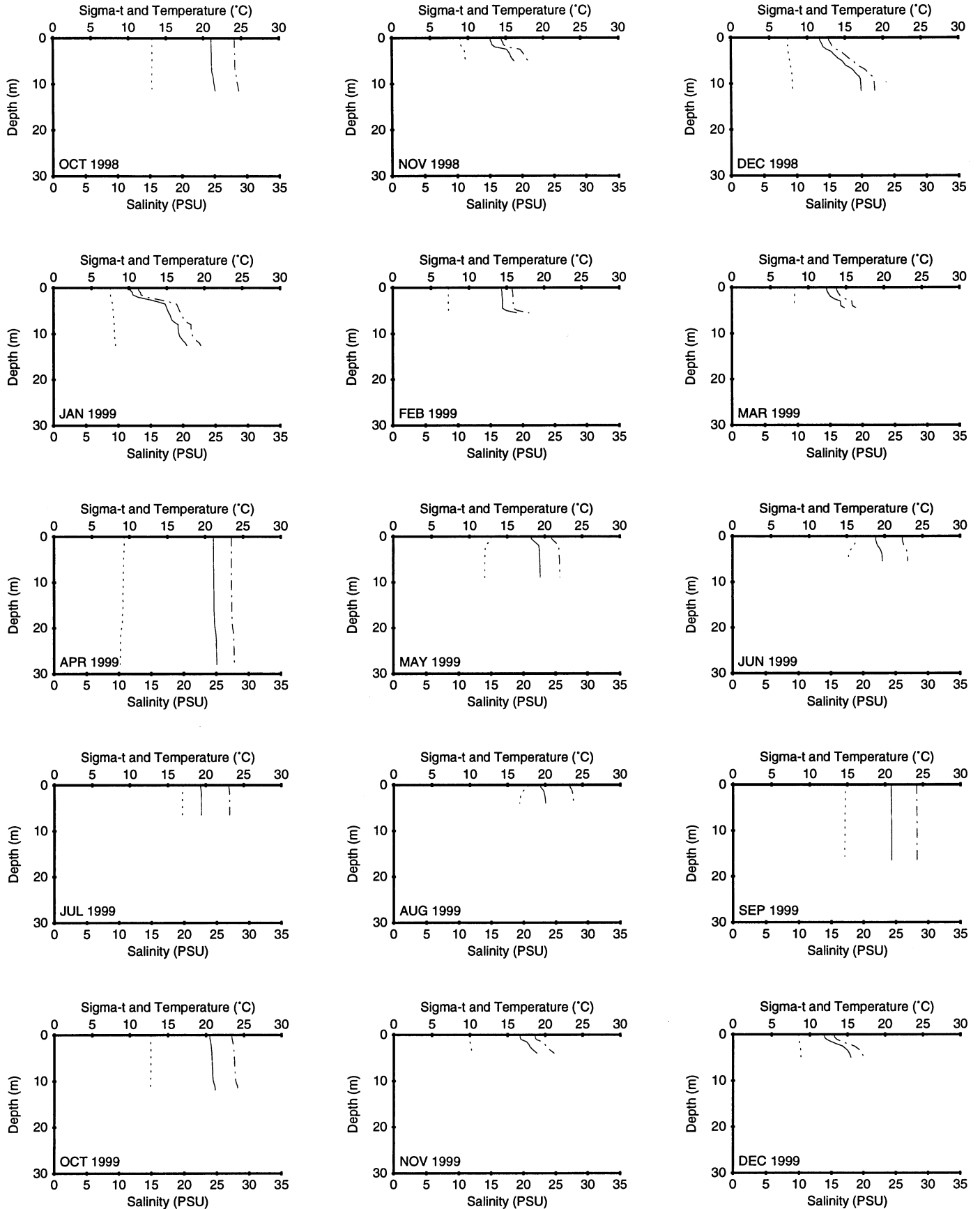
**Legend: Temperature = Dotted Line Salinity = Dot-Dashed Line Sigma-t = Solid Line**

OAK004 Oakland Bay - Near Eagle Point



Legend: Light Transmission = Solid Line Dissolved Oxygen = Dotted Line

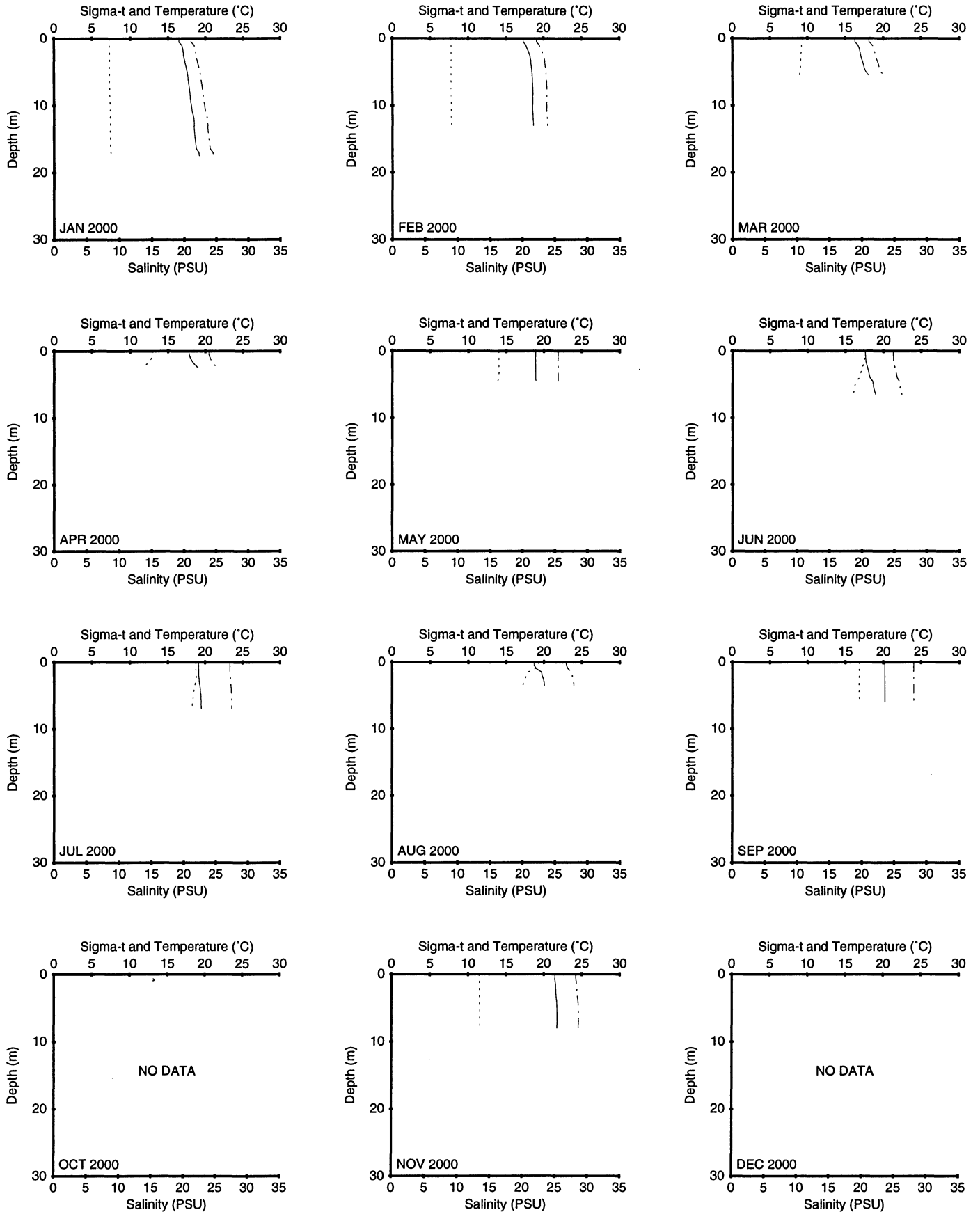
# OAK004 Oakland Bay - Near Eagle Point



**Legend: Temperature = Dotted Line Salinity = Dot-Dashed Line Sigma-t = Solid Line**



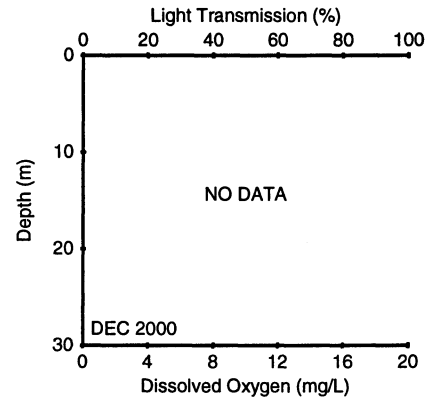
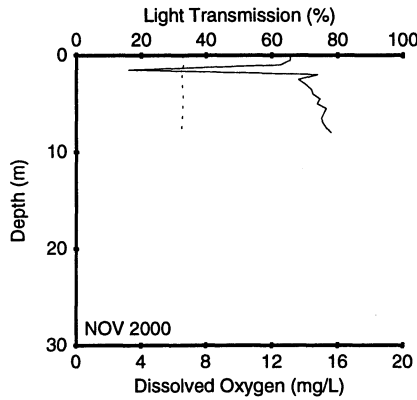
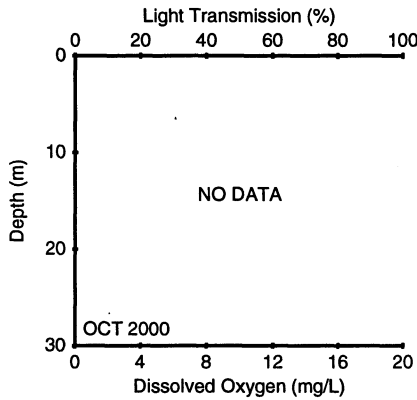
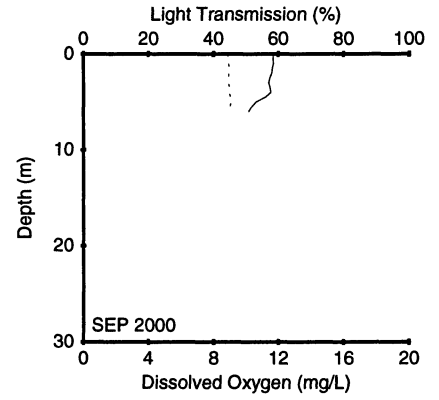
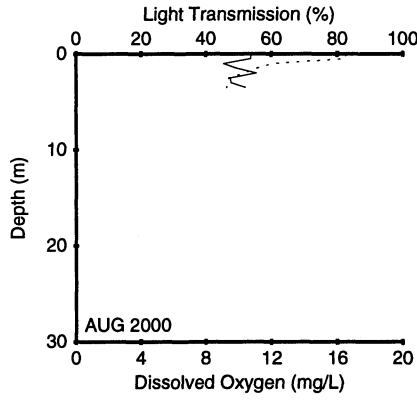
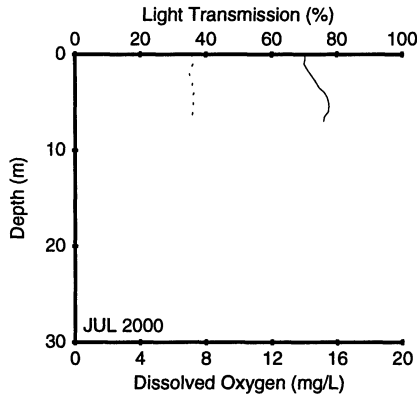
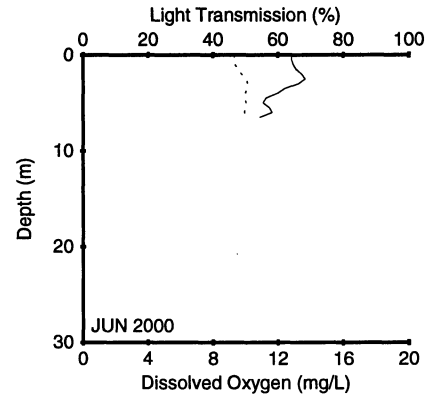
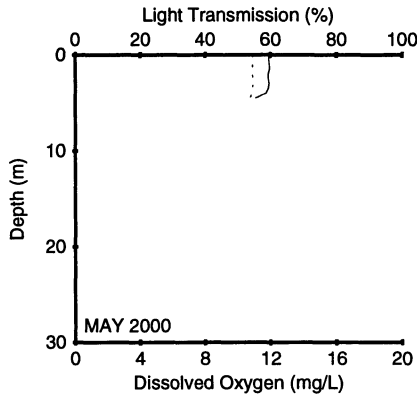
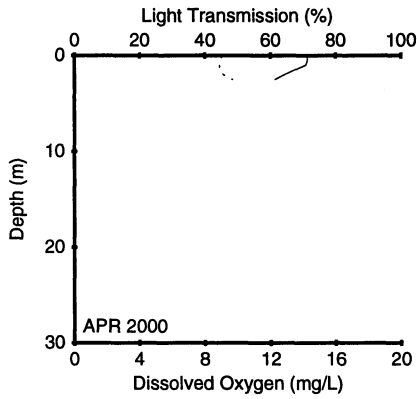
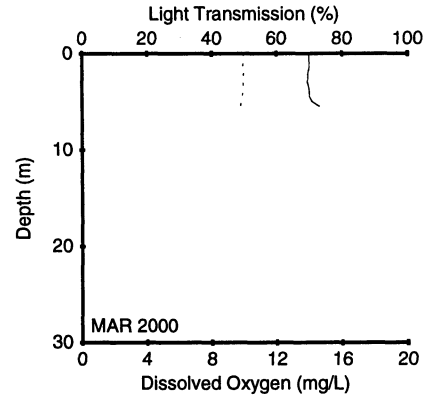
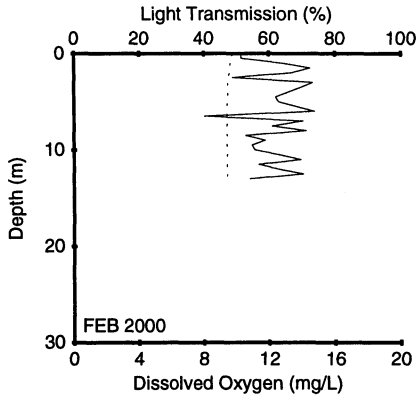
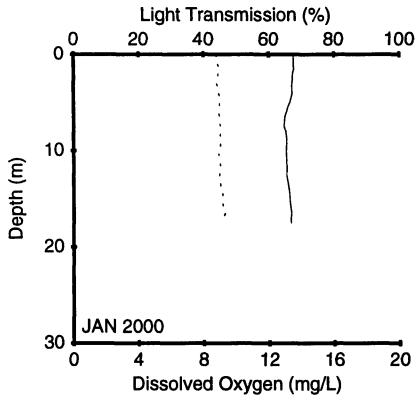
# OAK004 Oakland Bay - Near Eagle Point



**Legend: Temperature = Dotted Line Salinity = Dot-Dashed Line Sigma-t = Solid Line**

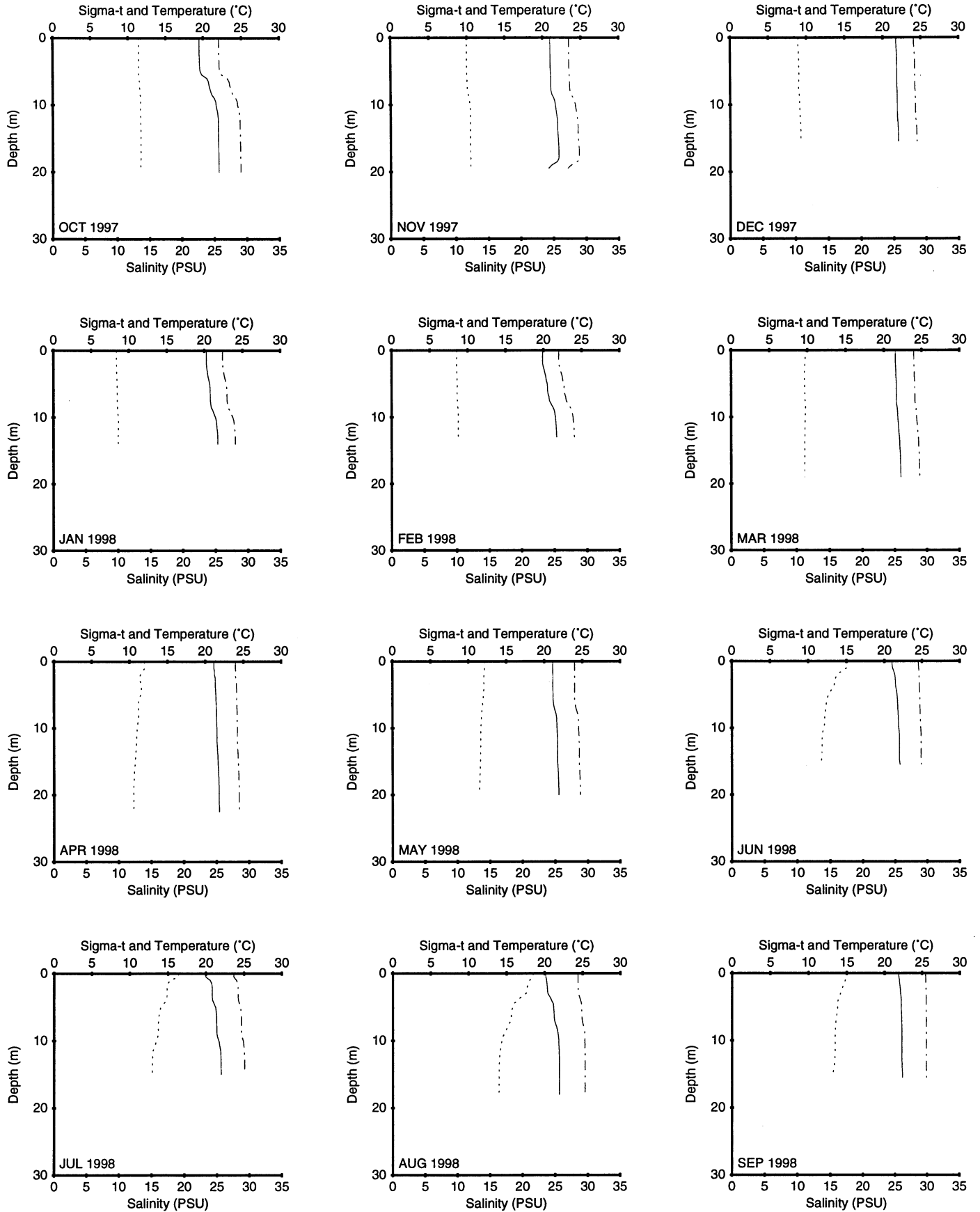


**OAK004 Oakland Bay - Near Eagle Point**



**Legend: Light Transmission = Solid Line Dissolved Oxygen = Dotted Line**

**PGA001 Port Gamble - Inner Harbor**

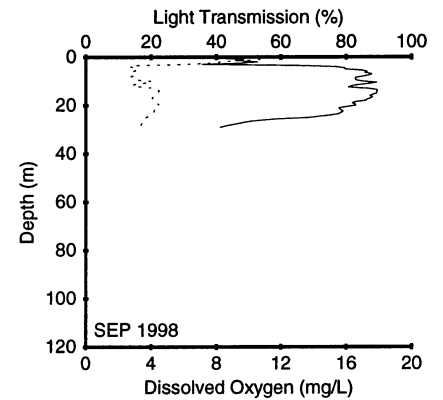
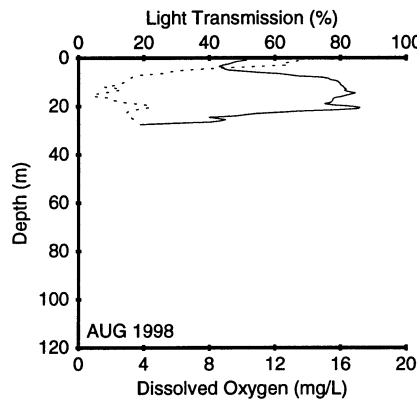
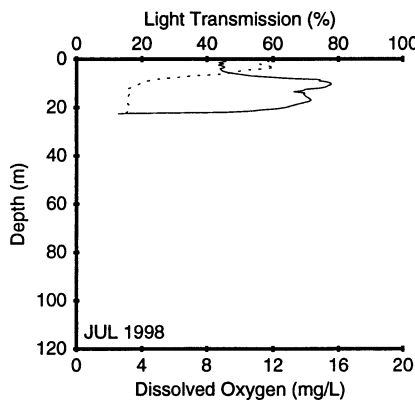
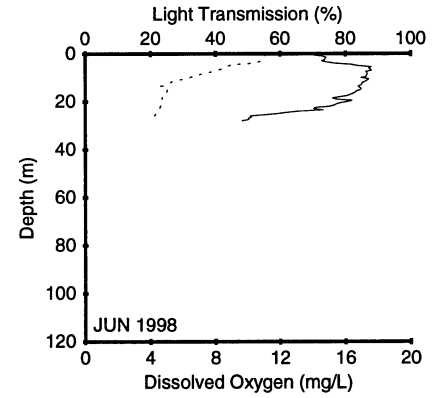
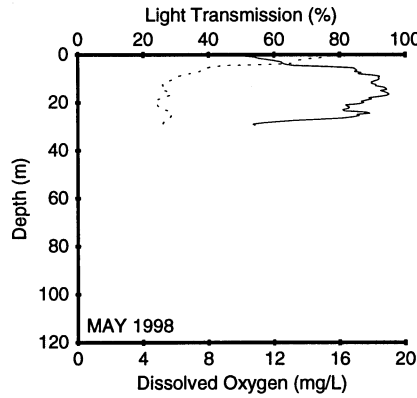
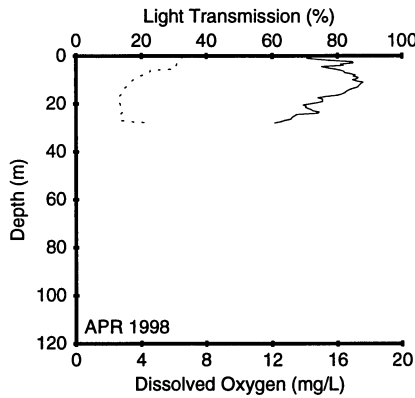
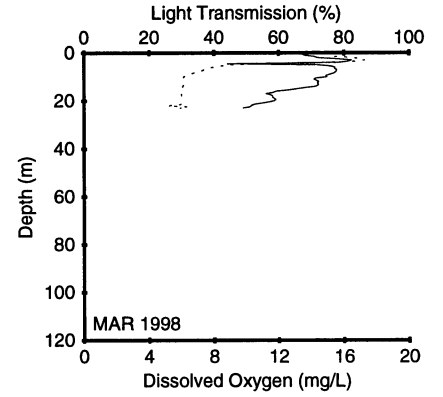
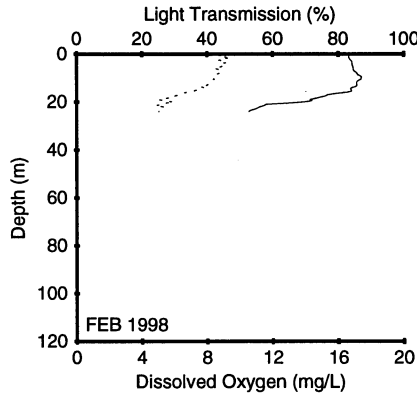
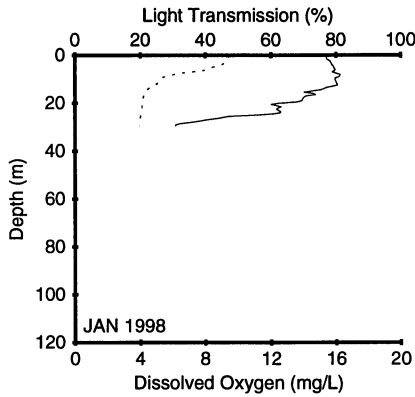
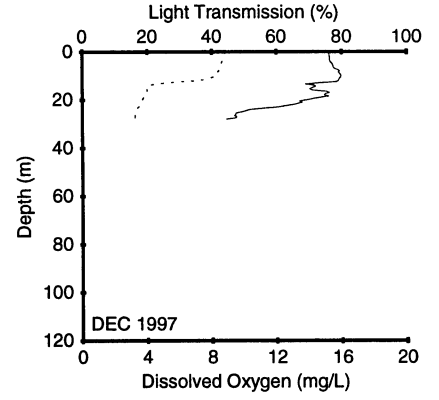
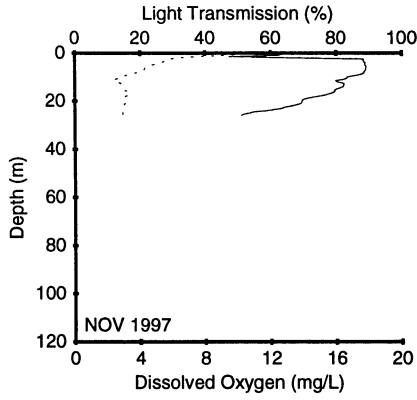
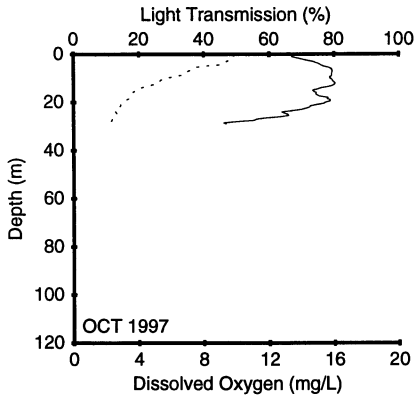


**Legend: Temperature = Dotted Line Salinity = Dot-Dashed Line Sigma-t = Solid Line**



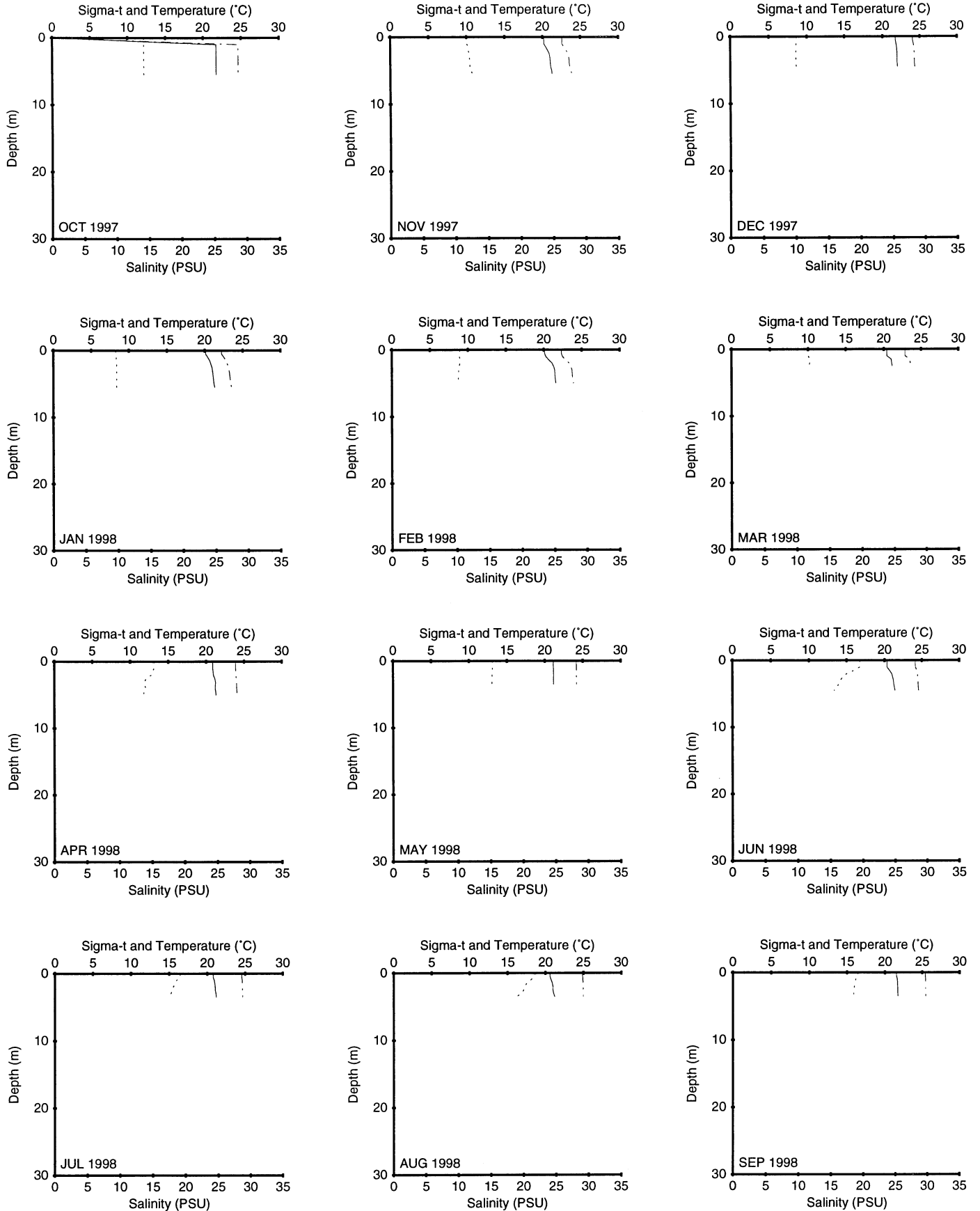


**PNN001 Penn Cove - Penn Cove Park**



**Legend: Light Transmission = Solid Line Dissolved Oxygen = Dotted Line**

**POD007 Port Orchard - Poulsbo, Inner Harbor**



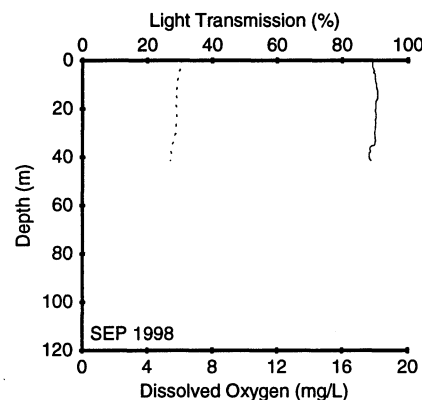
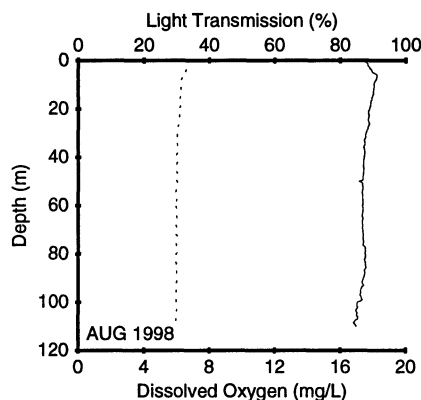
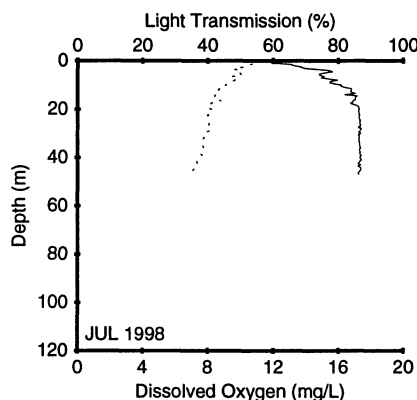
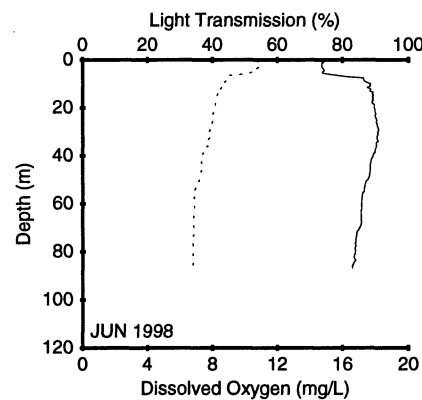
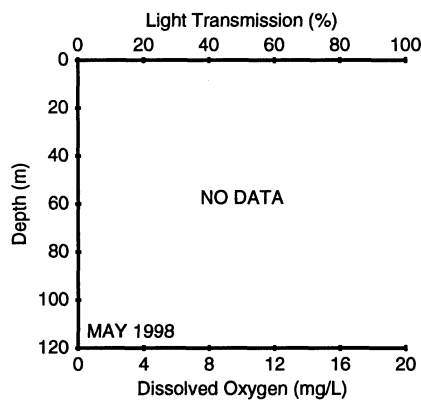
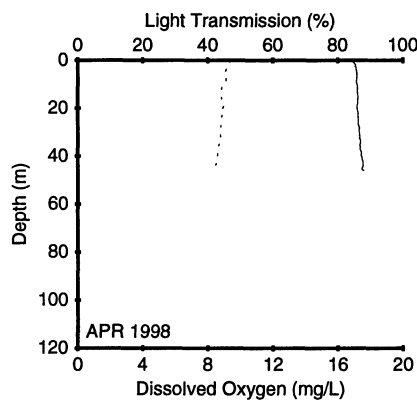
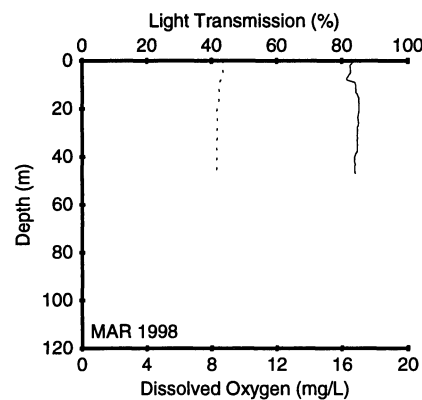
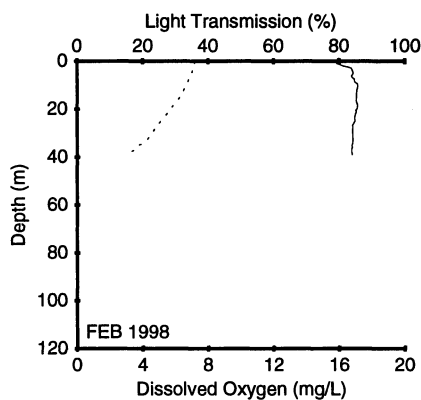
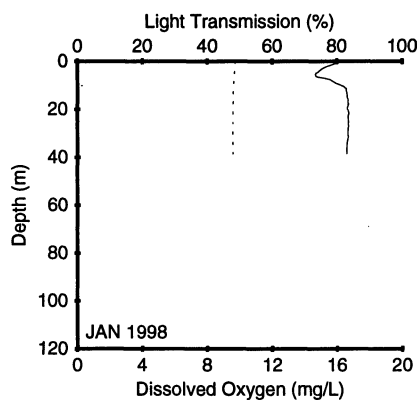
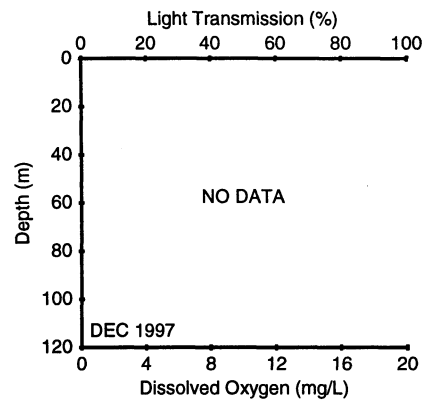
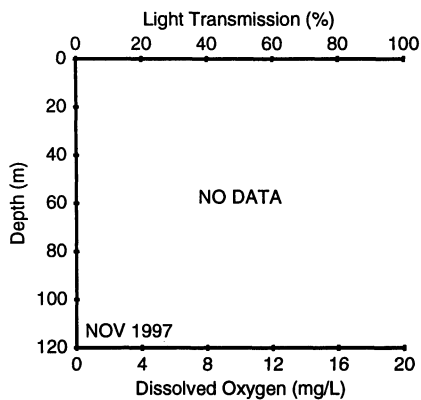
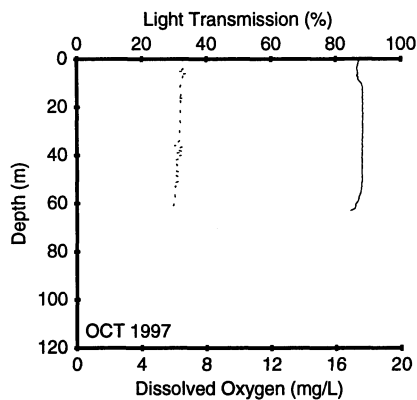
**Legend: Temperature = Dotted Line Salinity = Dot-Dashed Line Sigma-t = Solid Line**





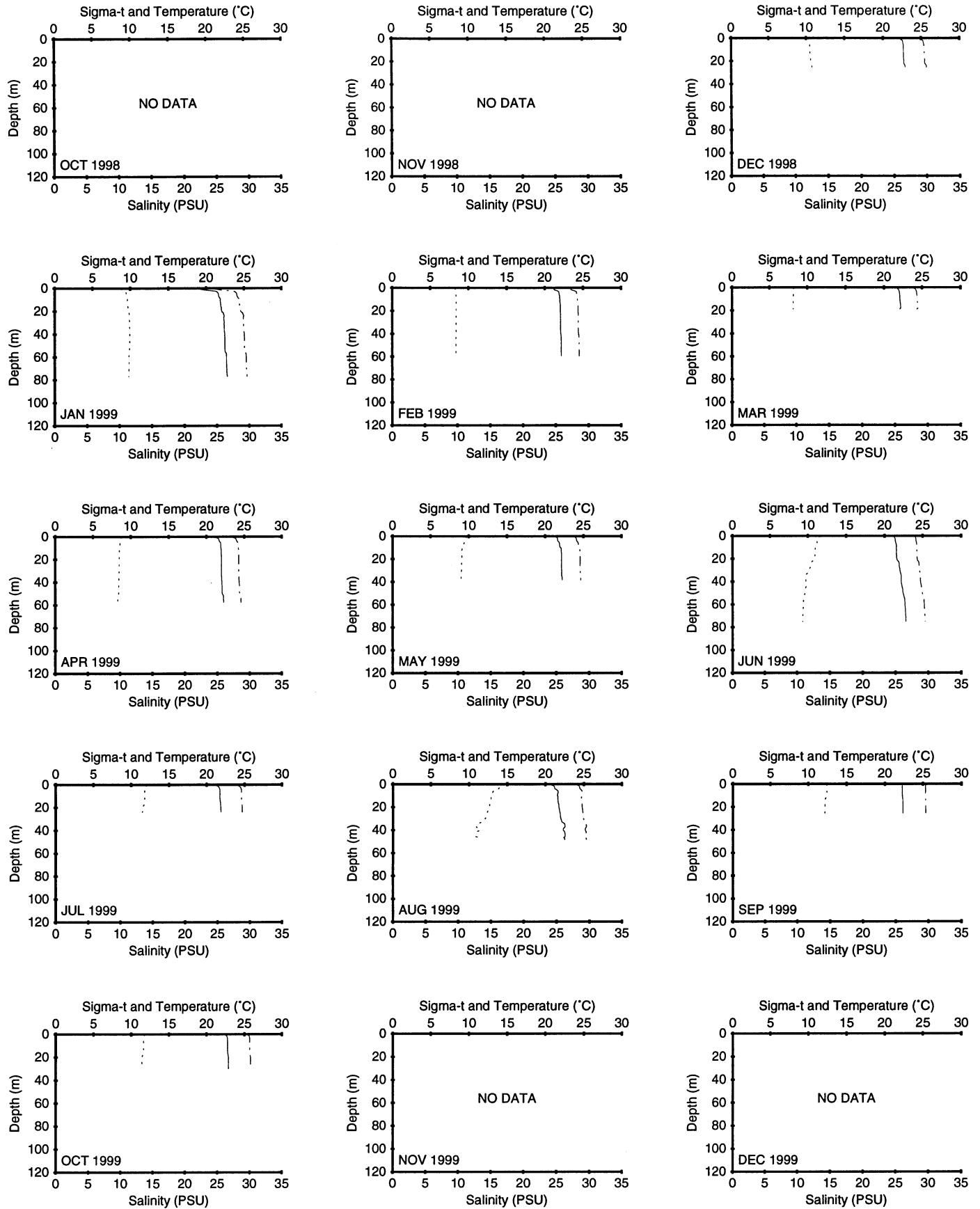


**PSB003 Puget Sound Main Basin - West Point**



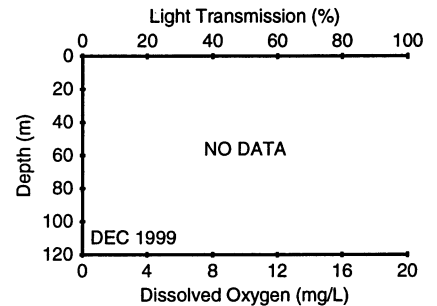
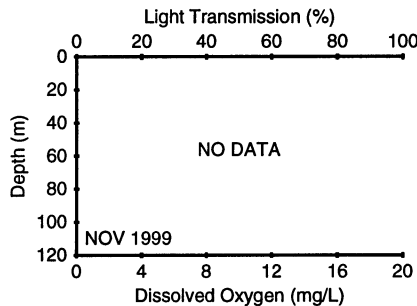
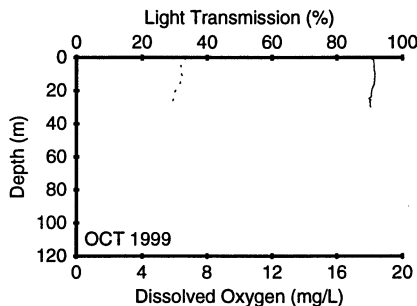
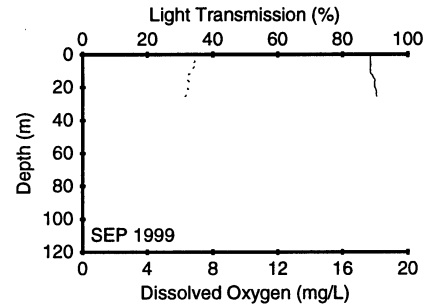
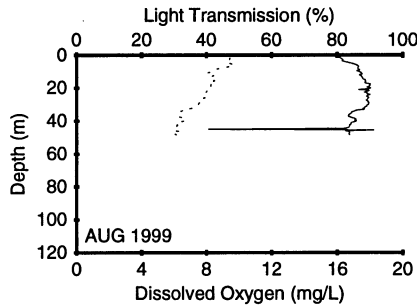
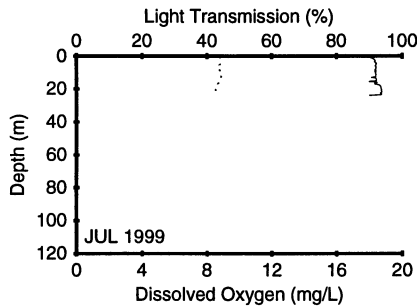
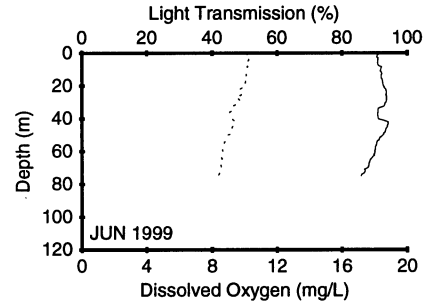
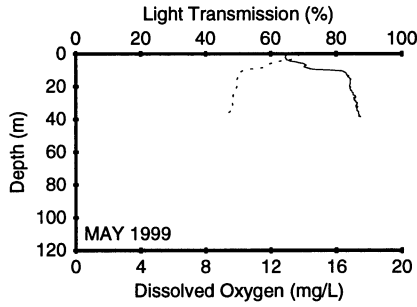
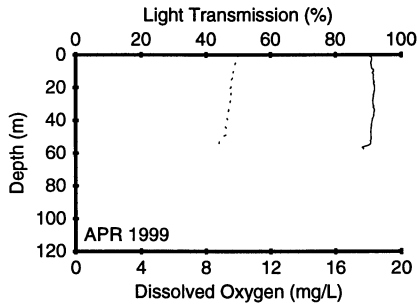
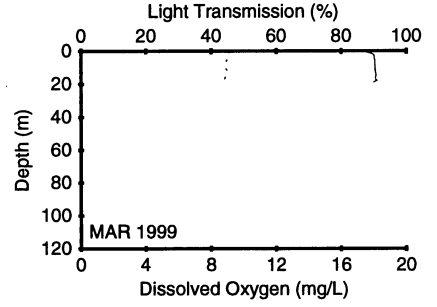
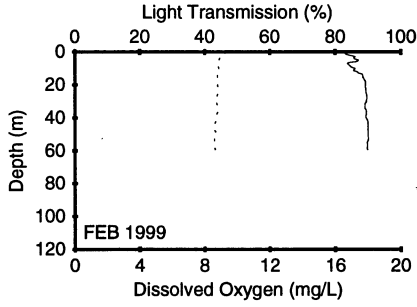
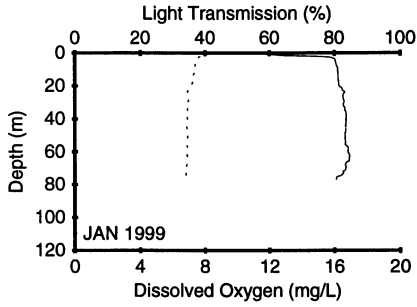
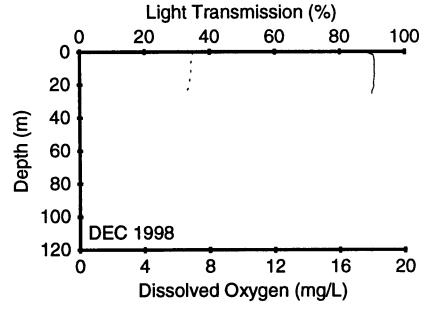
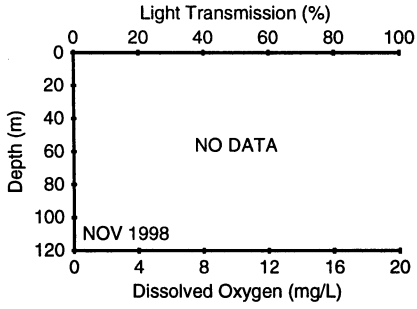
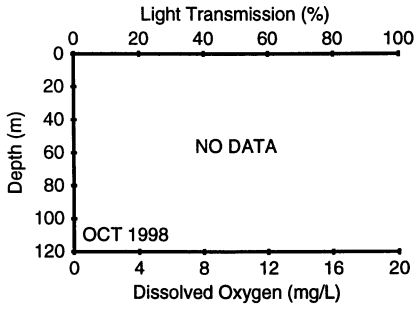
**Legend: Light Transmission = Solid Line Dissolved Oxygen = Dotted Line**

**PSB003 Puget Sound Main Basin - West Point**



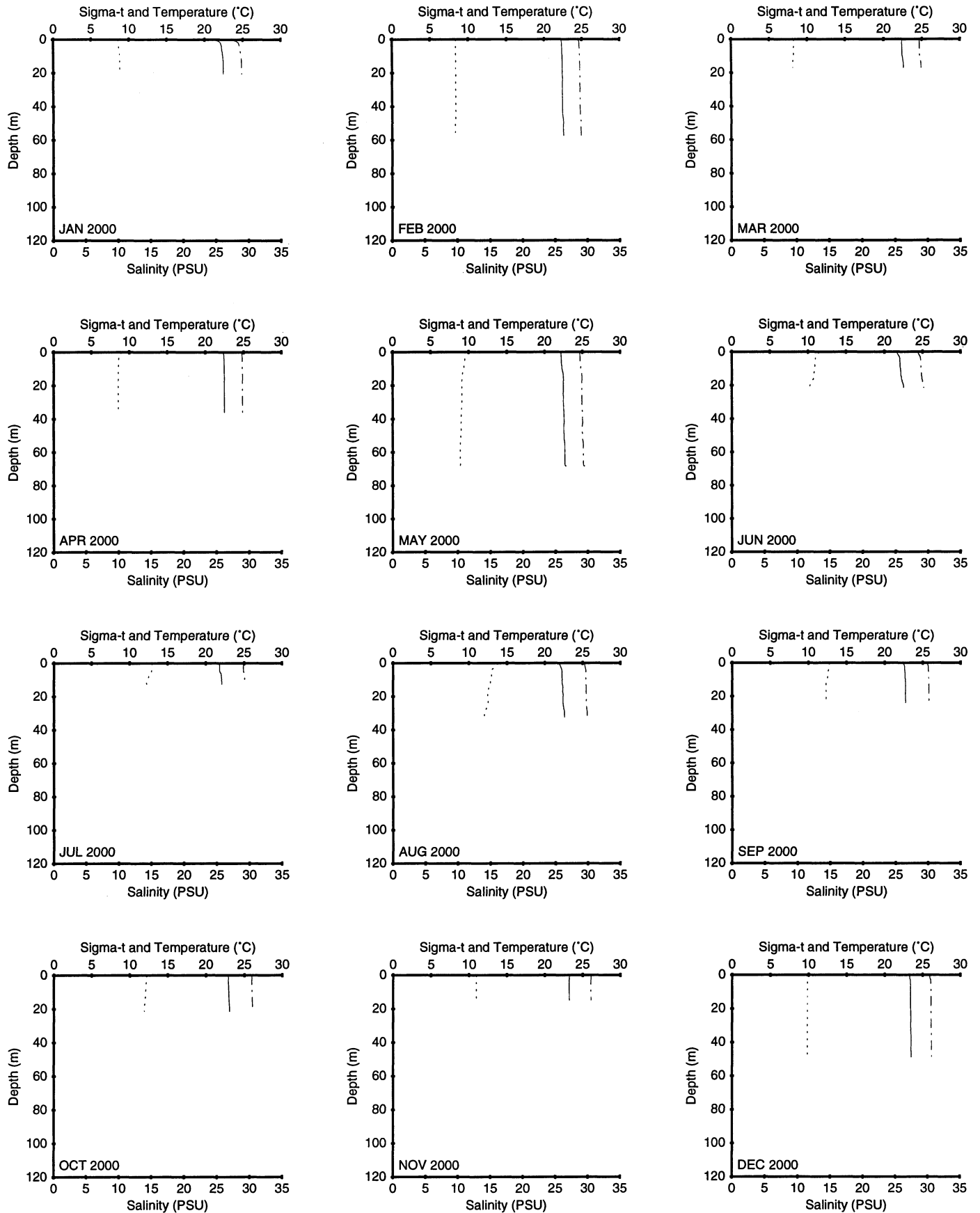
**Legend: Temperature = Dotted Line Salinity = Dot-Dashed Line Sigma-t = Solid Line**

PSB003 Puget Sound Main Basin - West Point



Legend: Light Transmission = Solid Line Dissolved Oxygen = Dotted Line

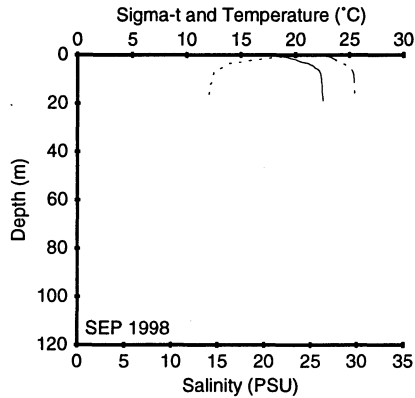
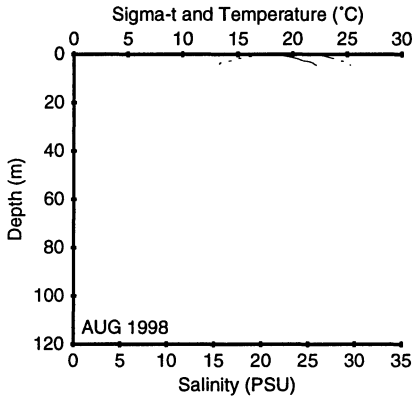
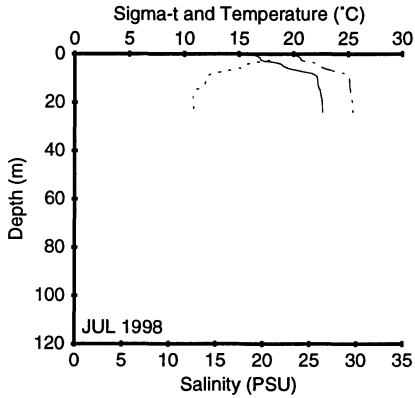
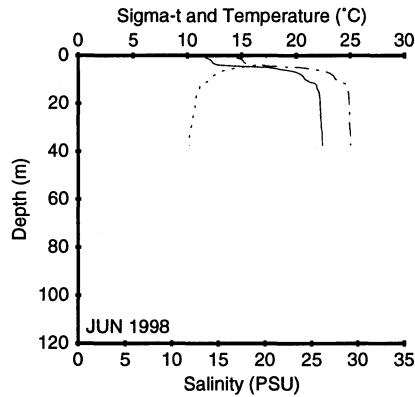
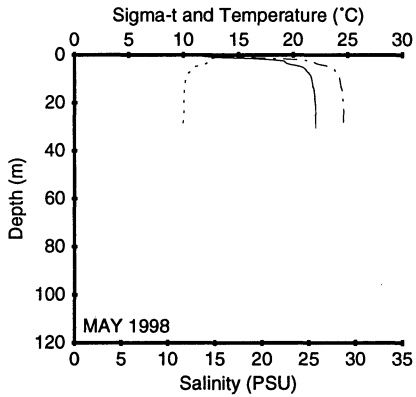
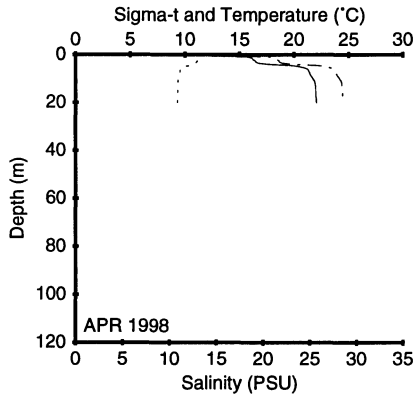
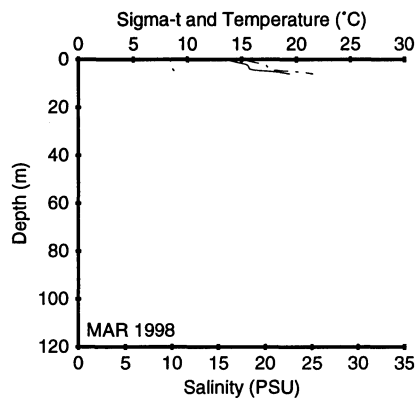
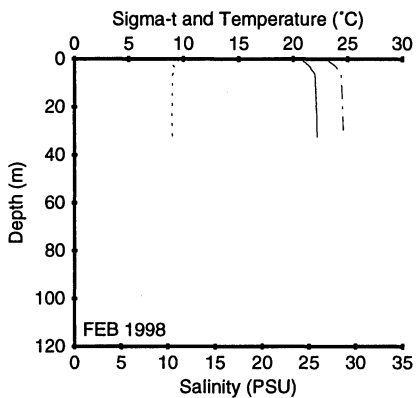
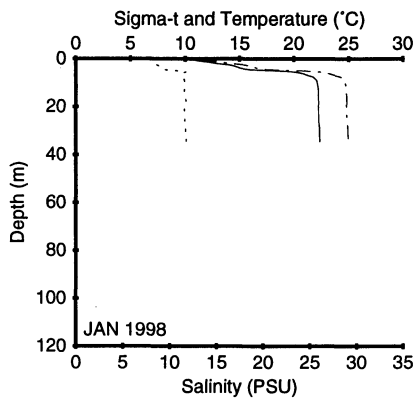
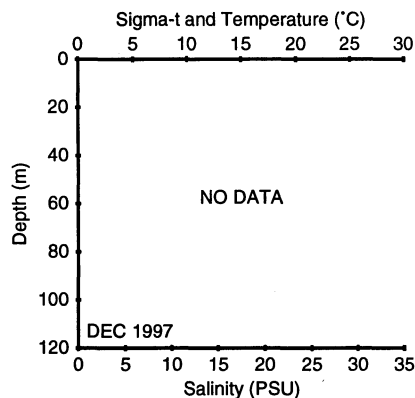
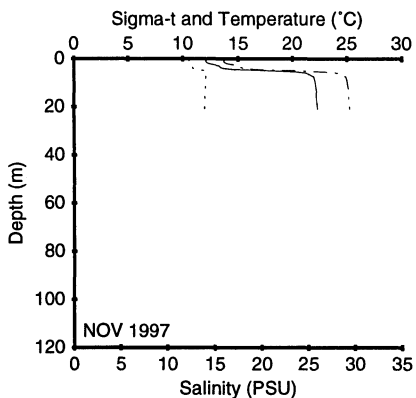
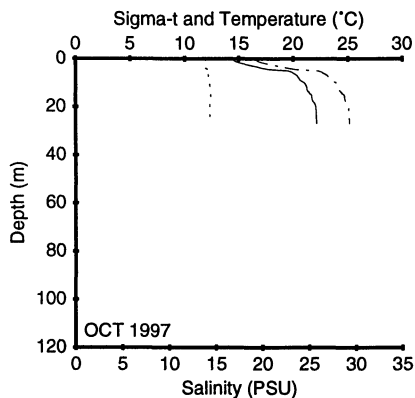
**PSB003 Puget Sound Main Basin - West Point**



**Legend: Temperature = Dotted Line Salinity = Dot-Dashed Line Sigma-t = Solid Line**

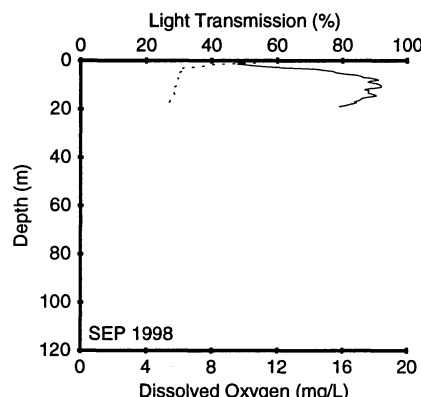
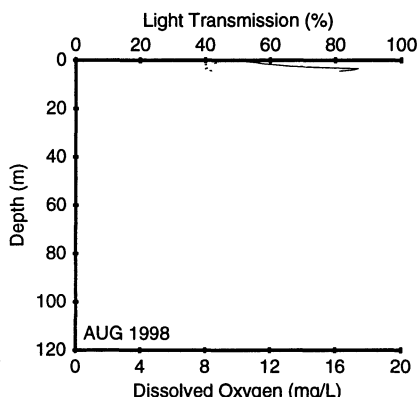
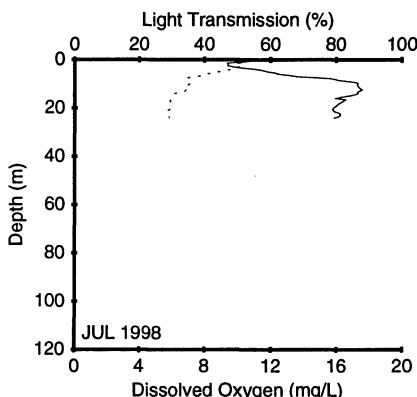
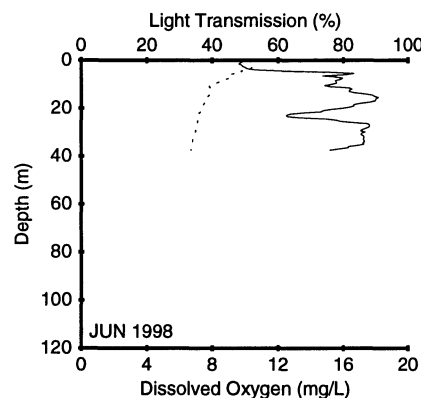
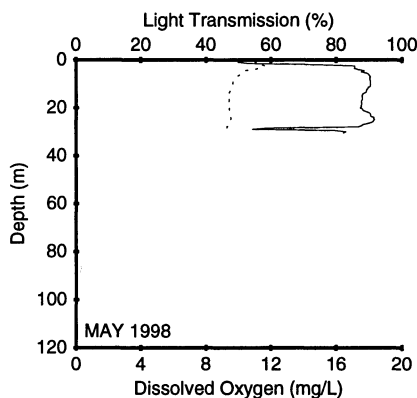
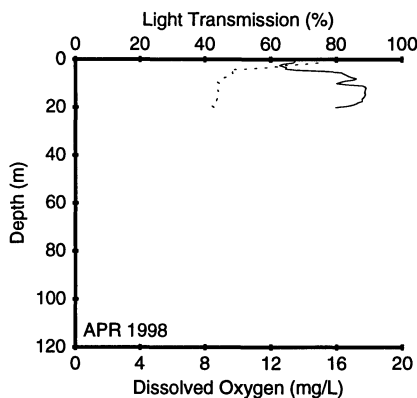
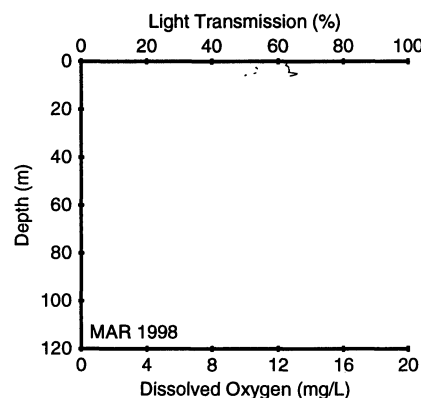
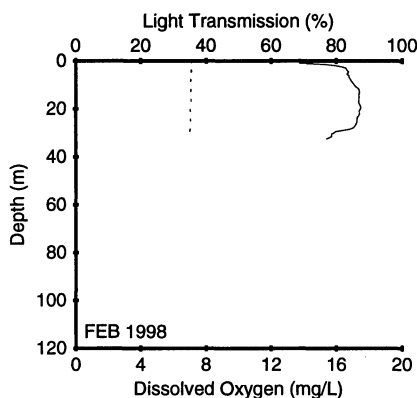
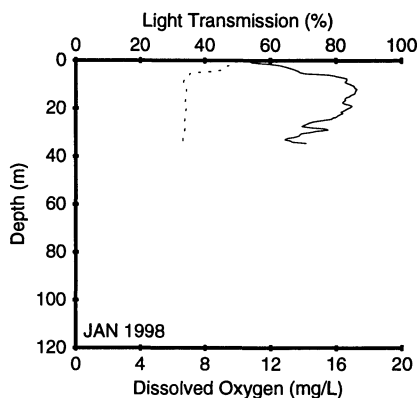
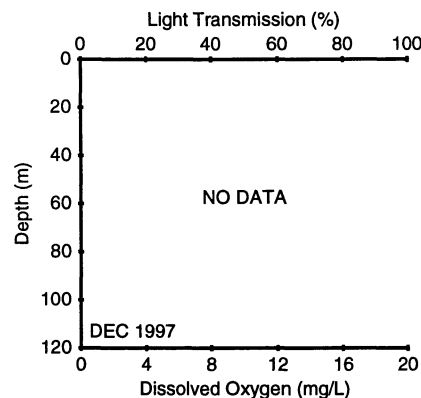
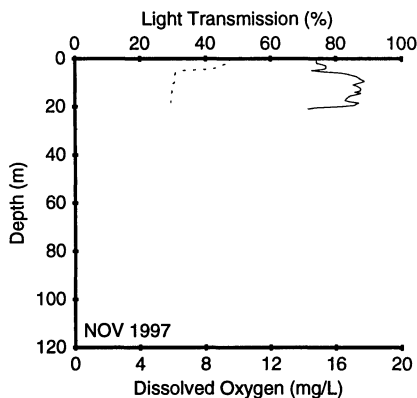
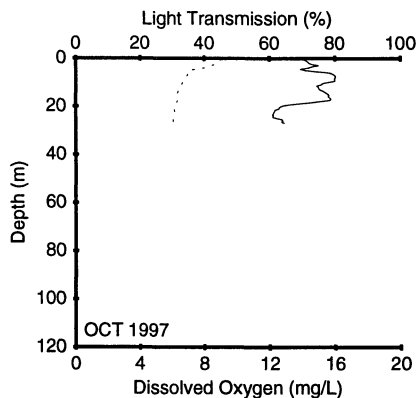


**PSS008 Possession Sound - PG Bay Pier 3**



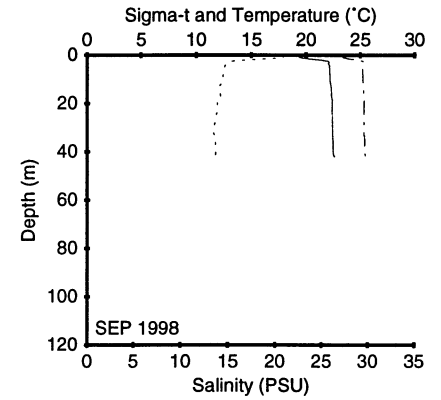
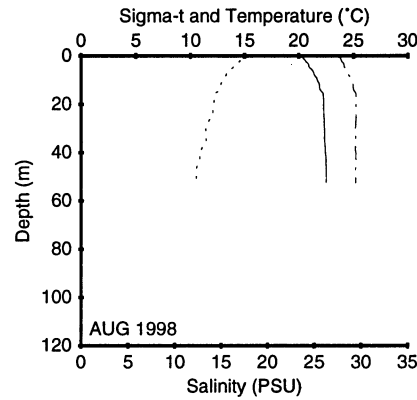
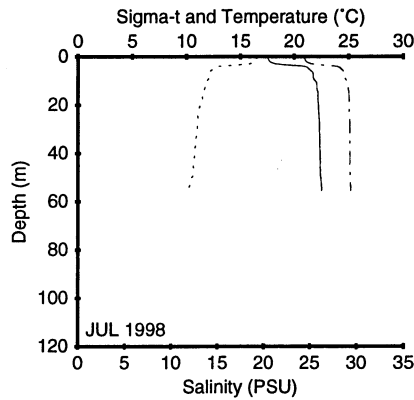
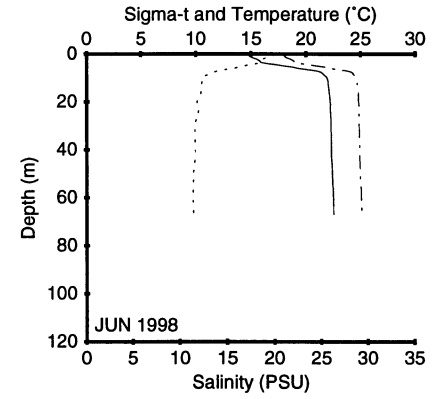
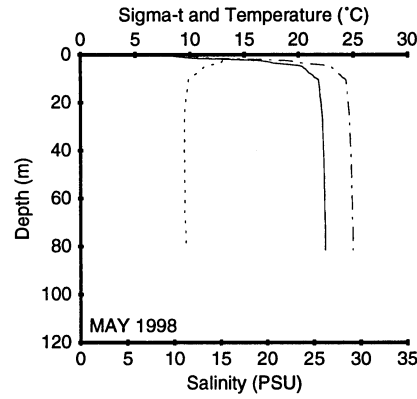
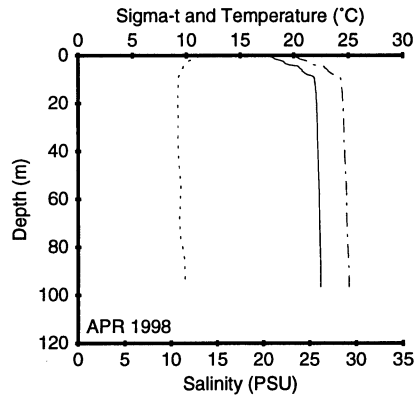
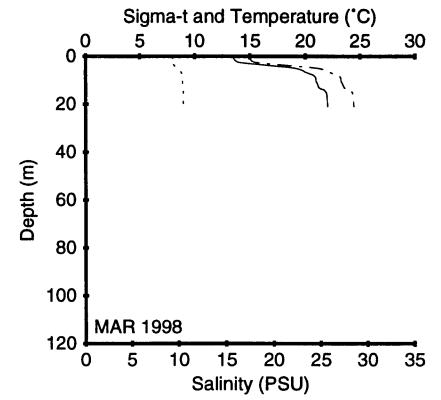
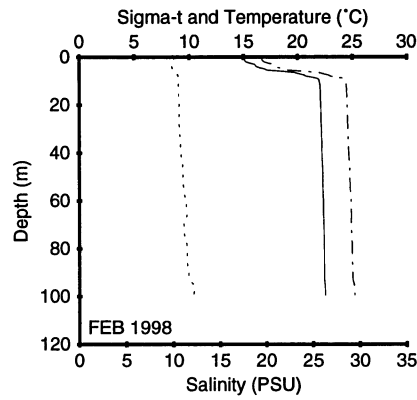
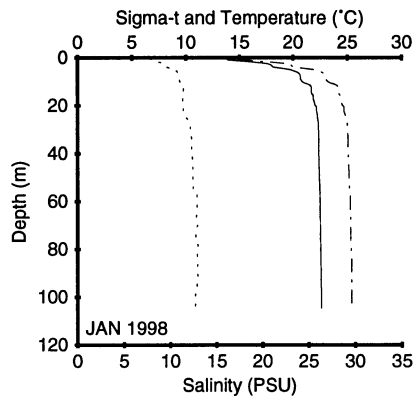
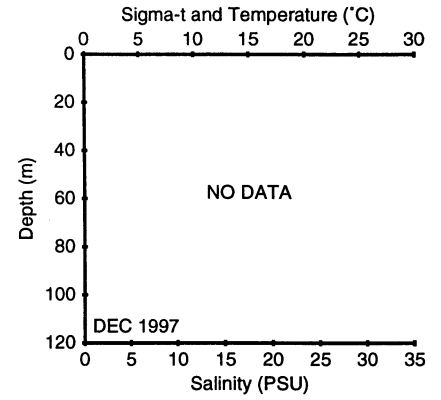
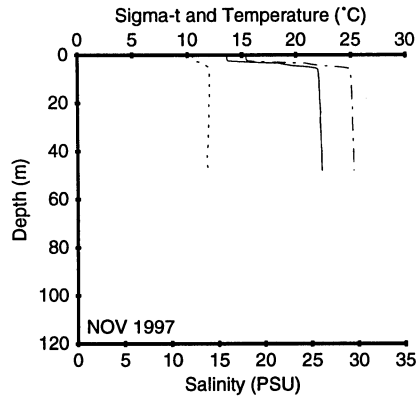
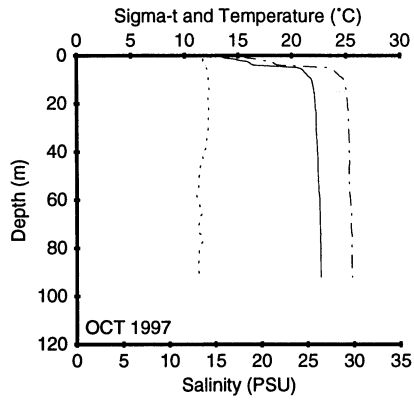
**Legend: Temperature = Dotted Line Salinity = Dot-Dashed Line Sigma-t = Solid Line**

PSS008 Possession Sound - PG Bay Pier 3



Legend: Light Transmission = Solid Line Dissolved Oxygen = Dotted Line

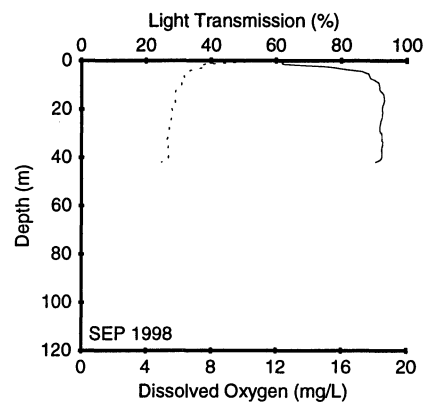
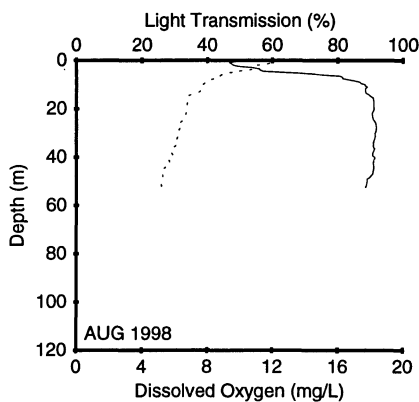
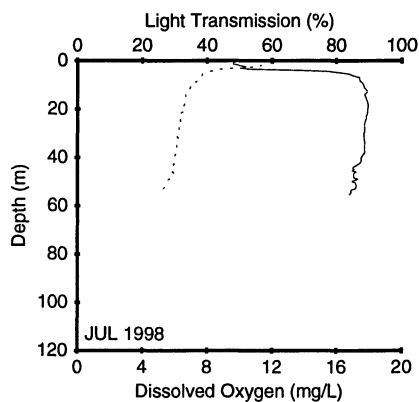
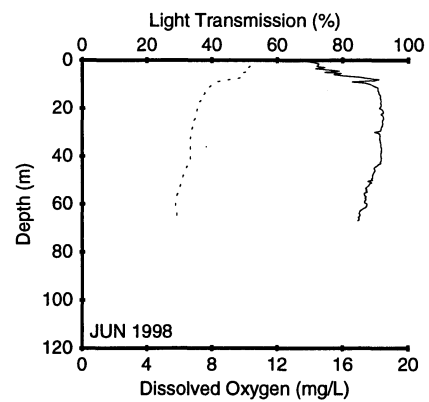
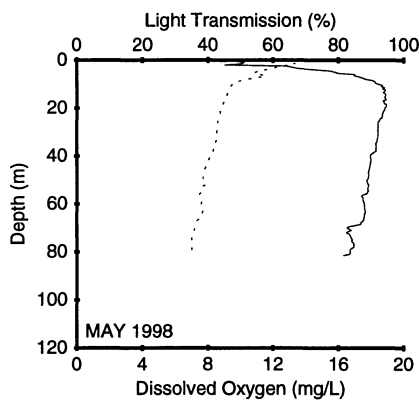
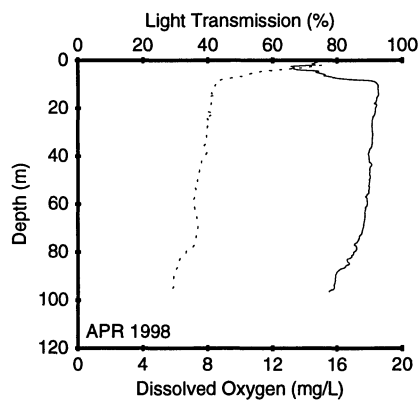
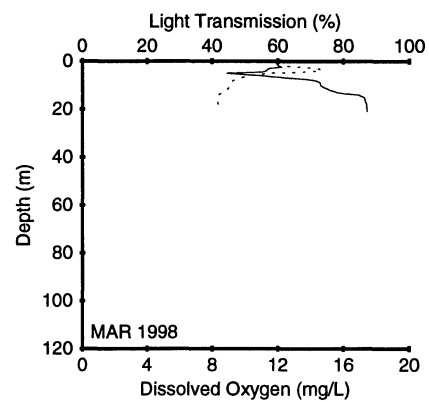
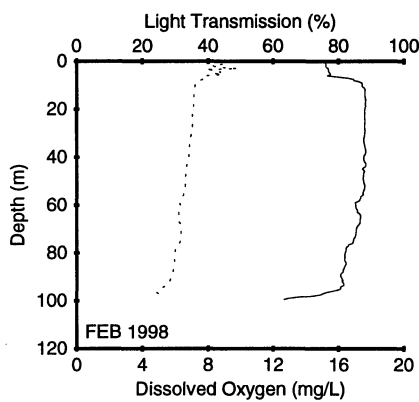
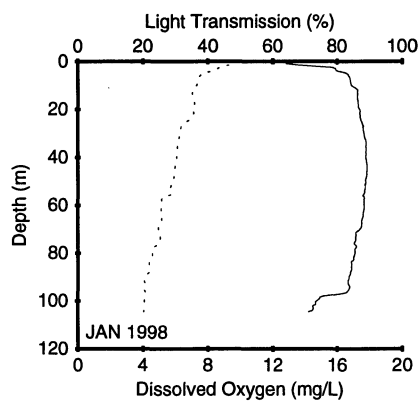
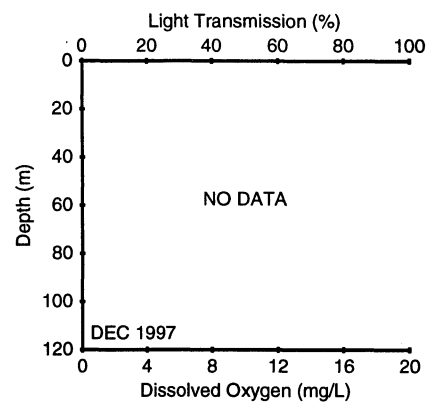
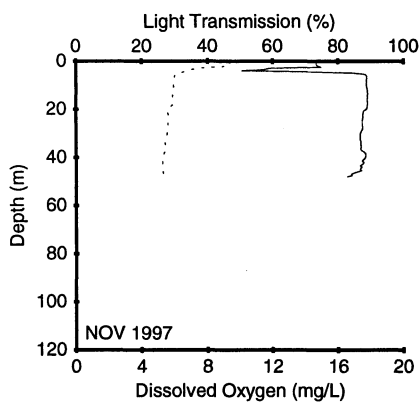
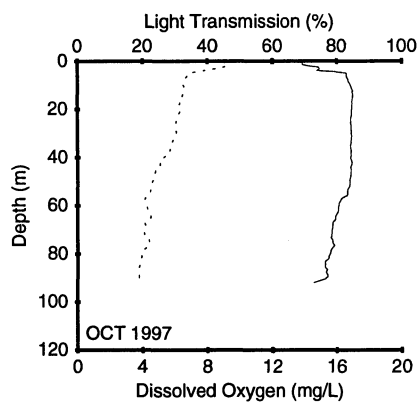
**PSS019 Possession Sound - Gedney Island**



**Legend: Temperature = Dotted Line Salinity = Dot-Dashed Line Sigma-t = Solid Line**

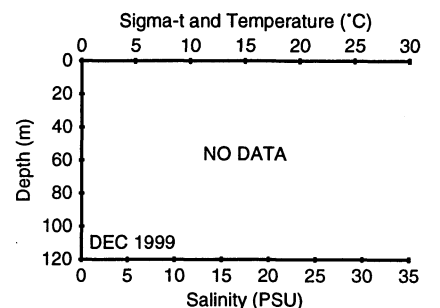
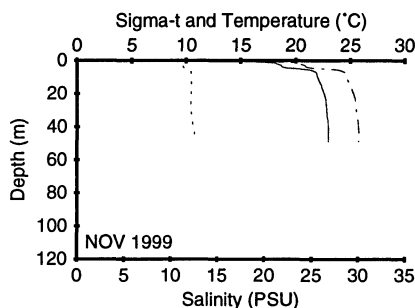
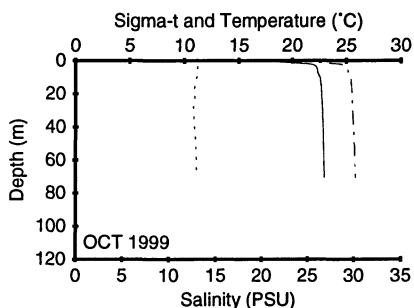
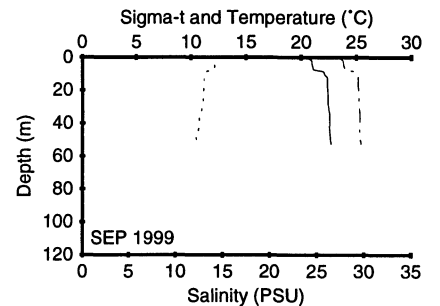
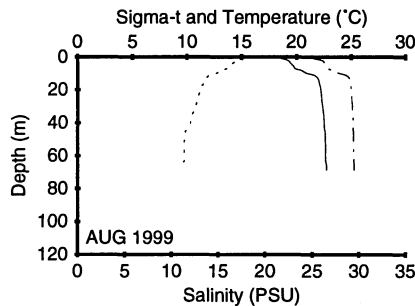
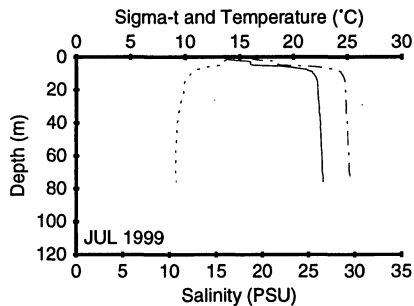
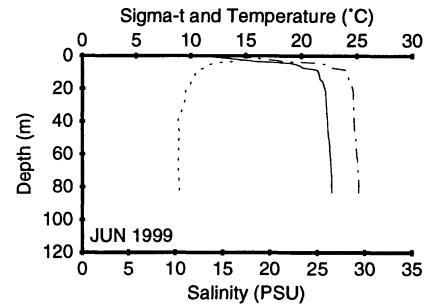
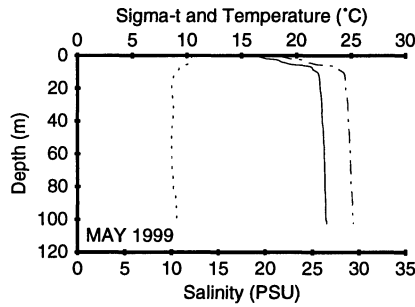
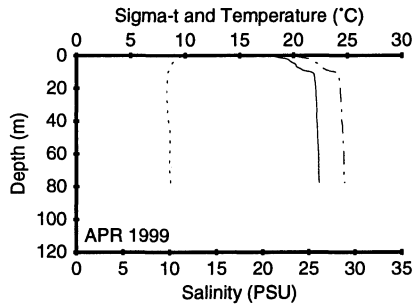
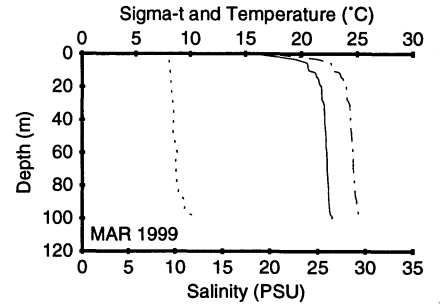
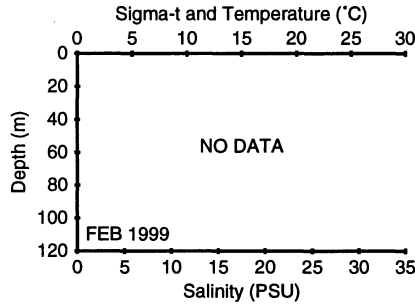
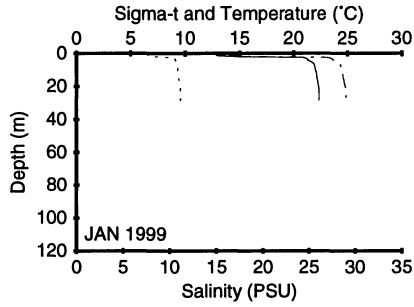
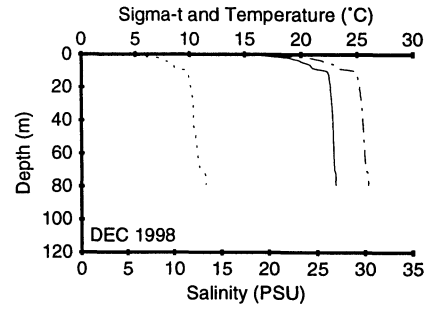
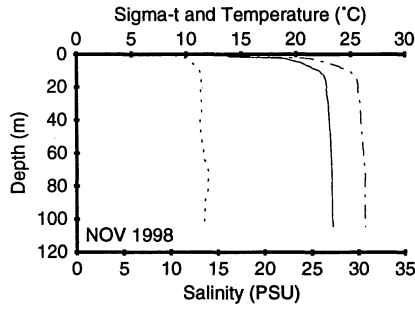
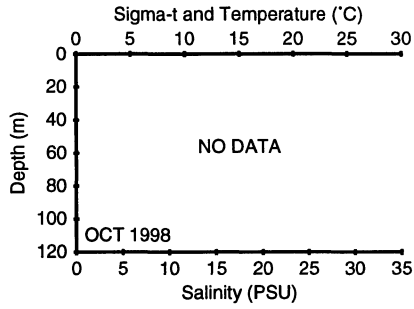


PSS019 Possession Sound - Gedney Island



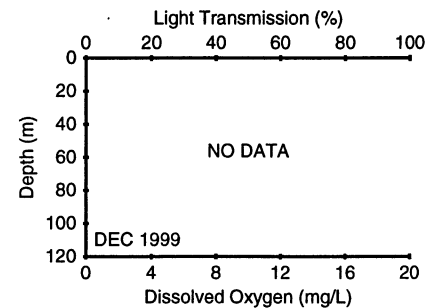
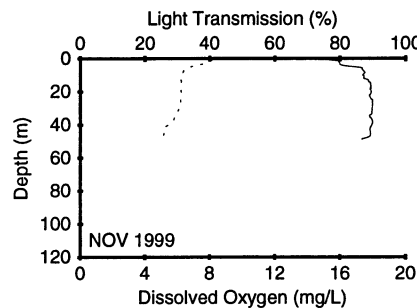
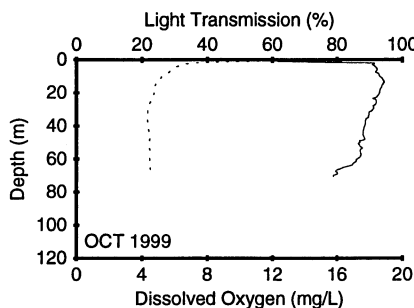
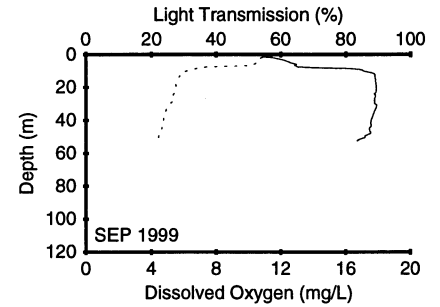
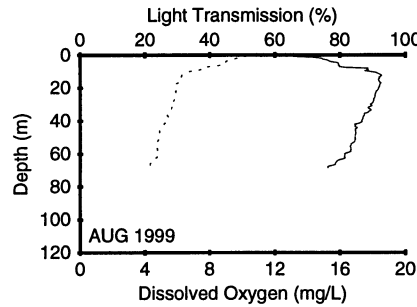
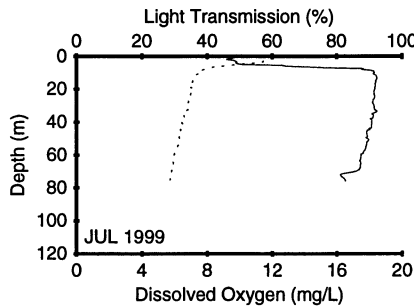
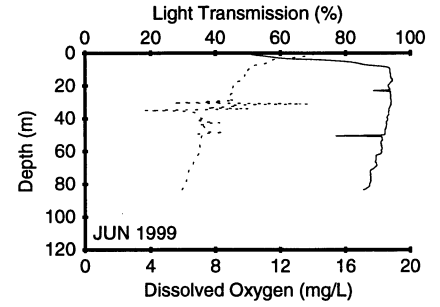
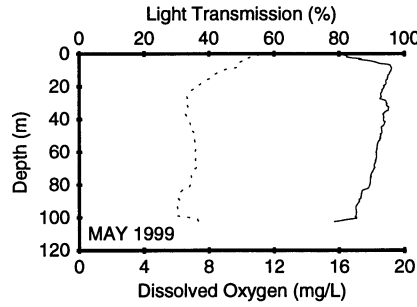
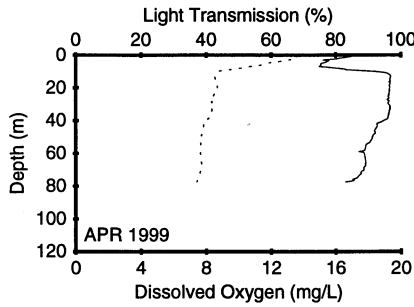
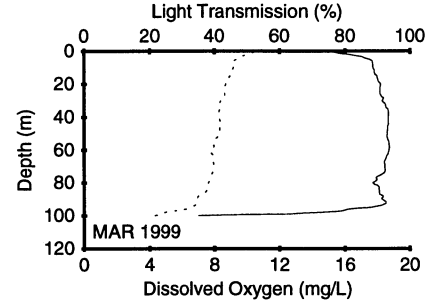
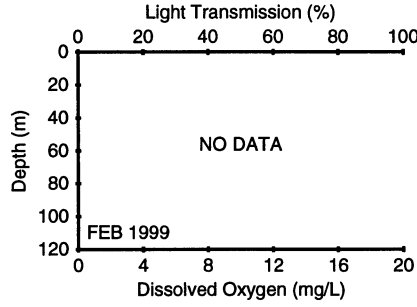
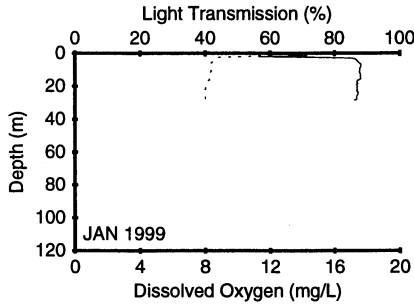
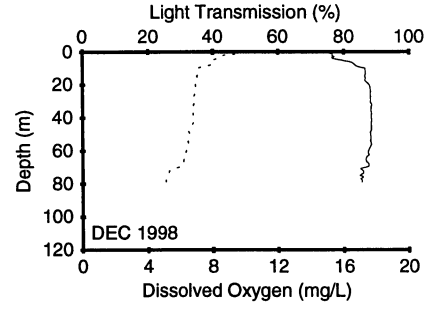
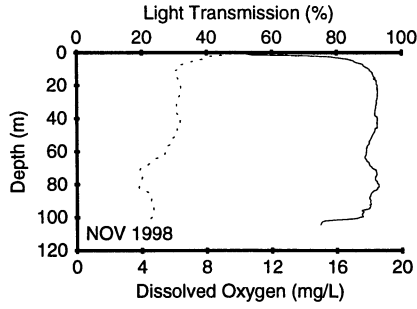
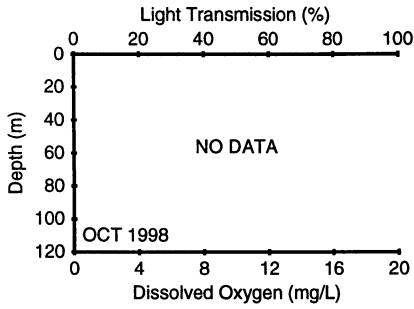
Legend: Light Transmission = Solid Line Dissolved Oxygen = Dotted Line

**PSS019 Possession Sound - Gedney Island**



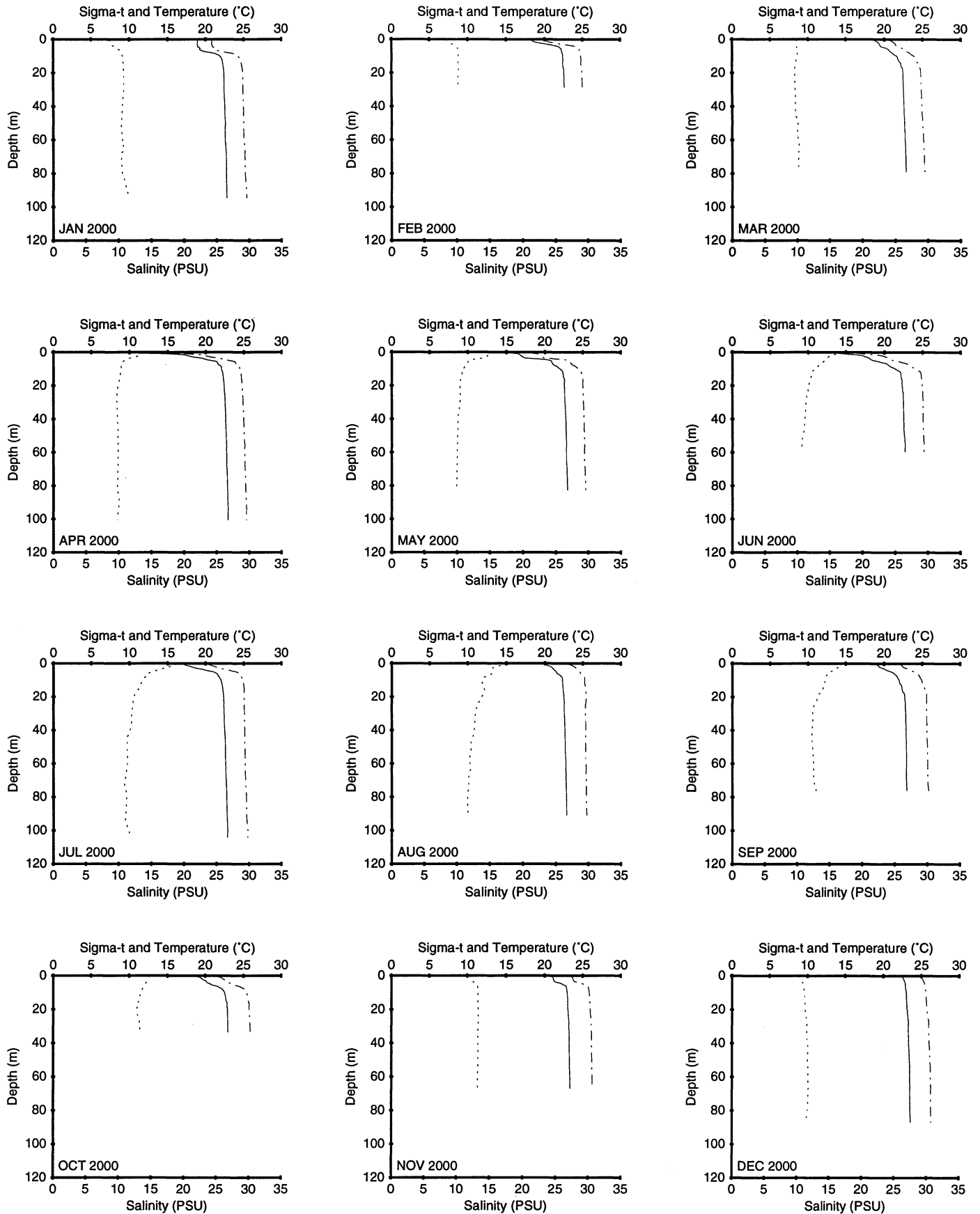
**Legend: Temperature = Dotted Line Salinity = Dot-Dashed Line Sigma-t = Solid Line**

PSS019 Possession Sound - Gedney Island



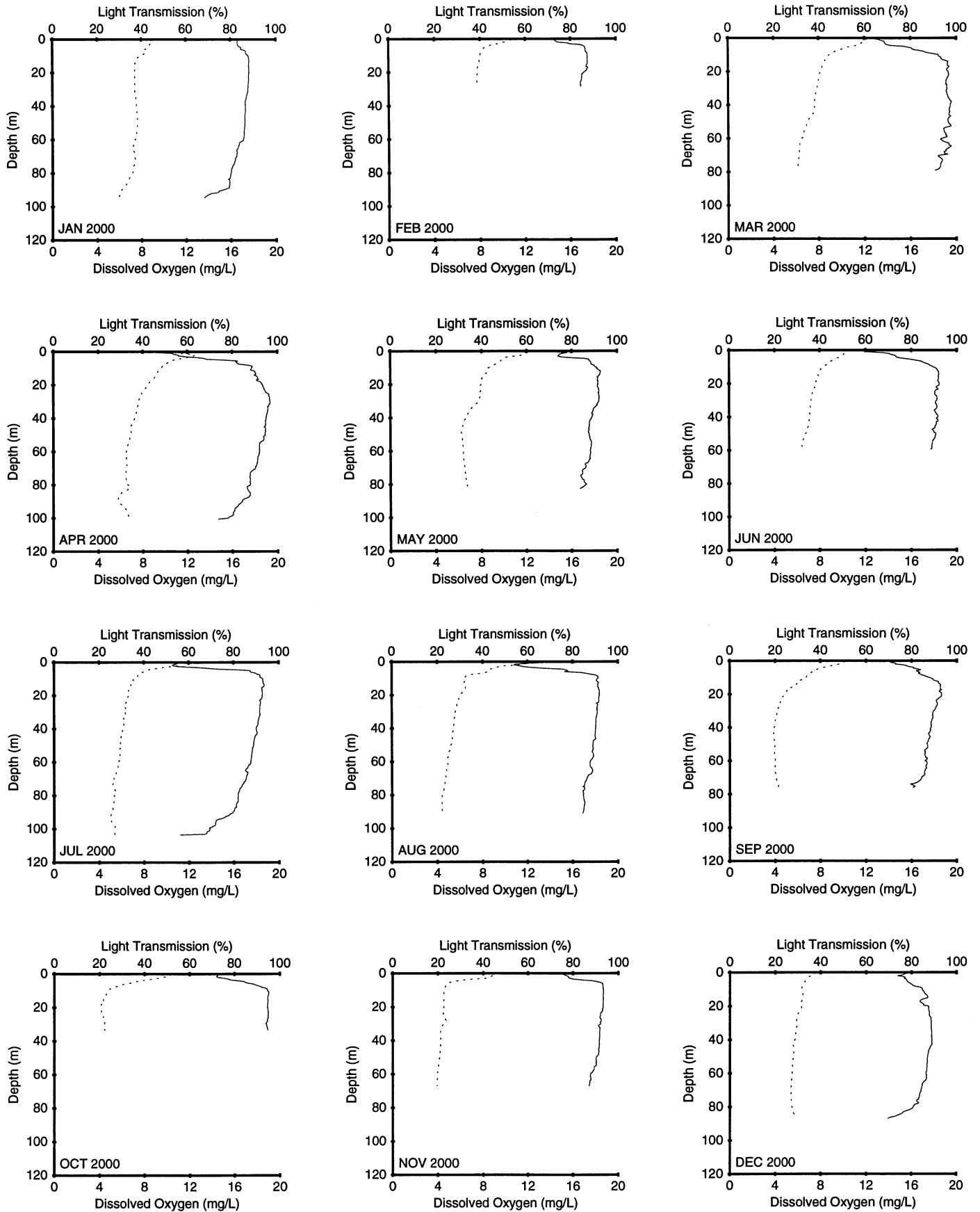
Legend: Light Transmission = Solid Line Dissolved Oxygen = Dotted Line

# PSS019 Possession Sound - Gedney Island



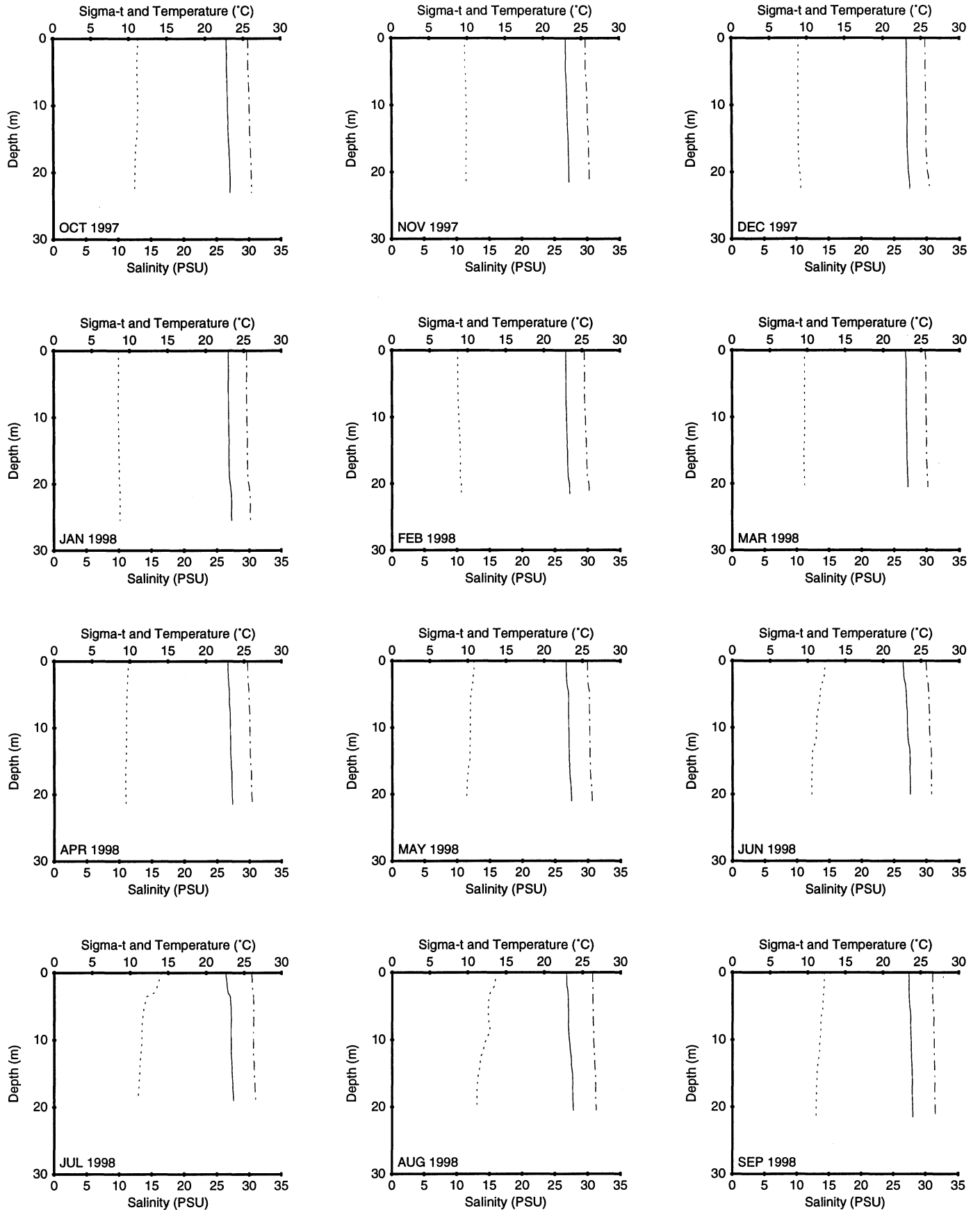
**Legend: Temperature = Dotted Line Salinity = Dot-Dashed Line Sigma-t = Solid Line**

# PSS019 Possession Sound - Gedney Island



**Legend: Light Transmission = Solid Line Dissolved Oxygen = Dotted Line**

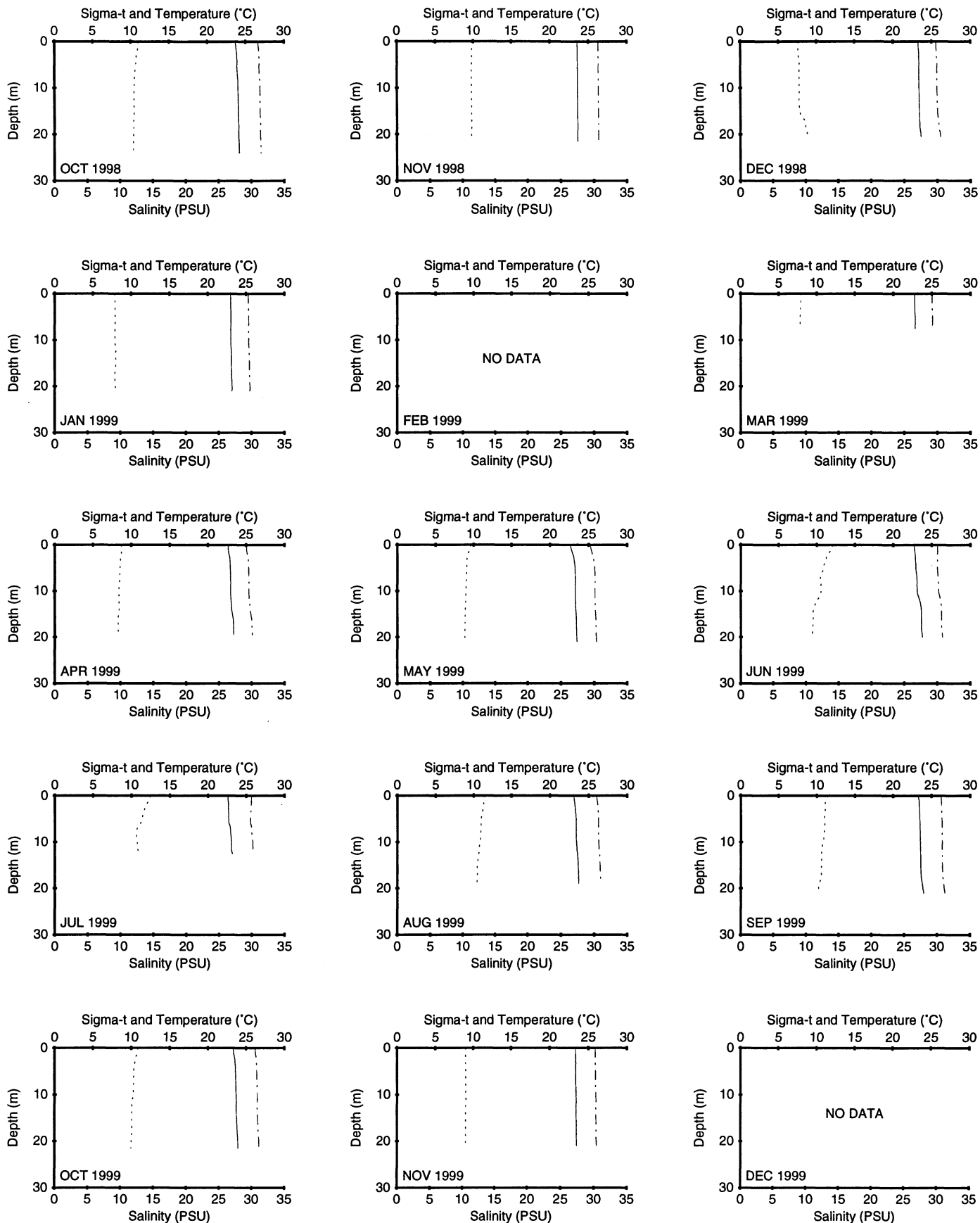
**PTH005 Port Townsend Harbor - Walan Point**



**Legend: Temperature = Dotted Line Salinity = Dot-Dashed Line Sigma-t = Solid Line**



**PTH005 Port Townsend Harbor - Walan Point**

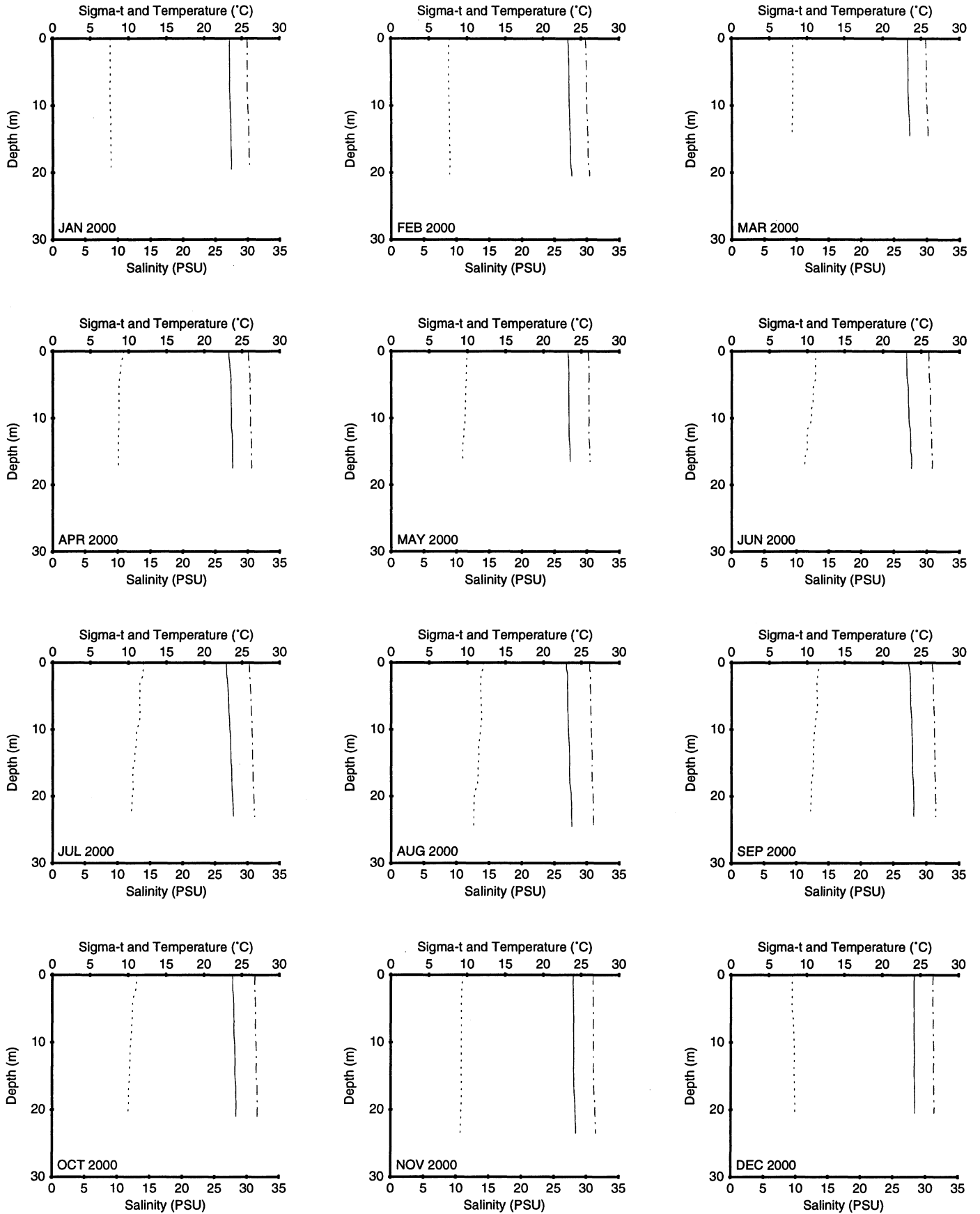


**Legend: Temperature = Dotted Line Salinity = Dot-Dashed Line Sigma-t = Solid Line**





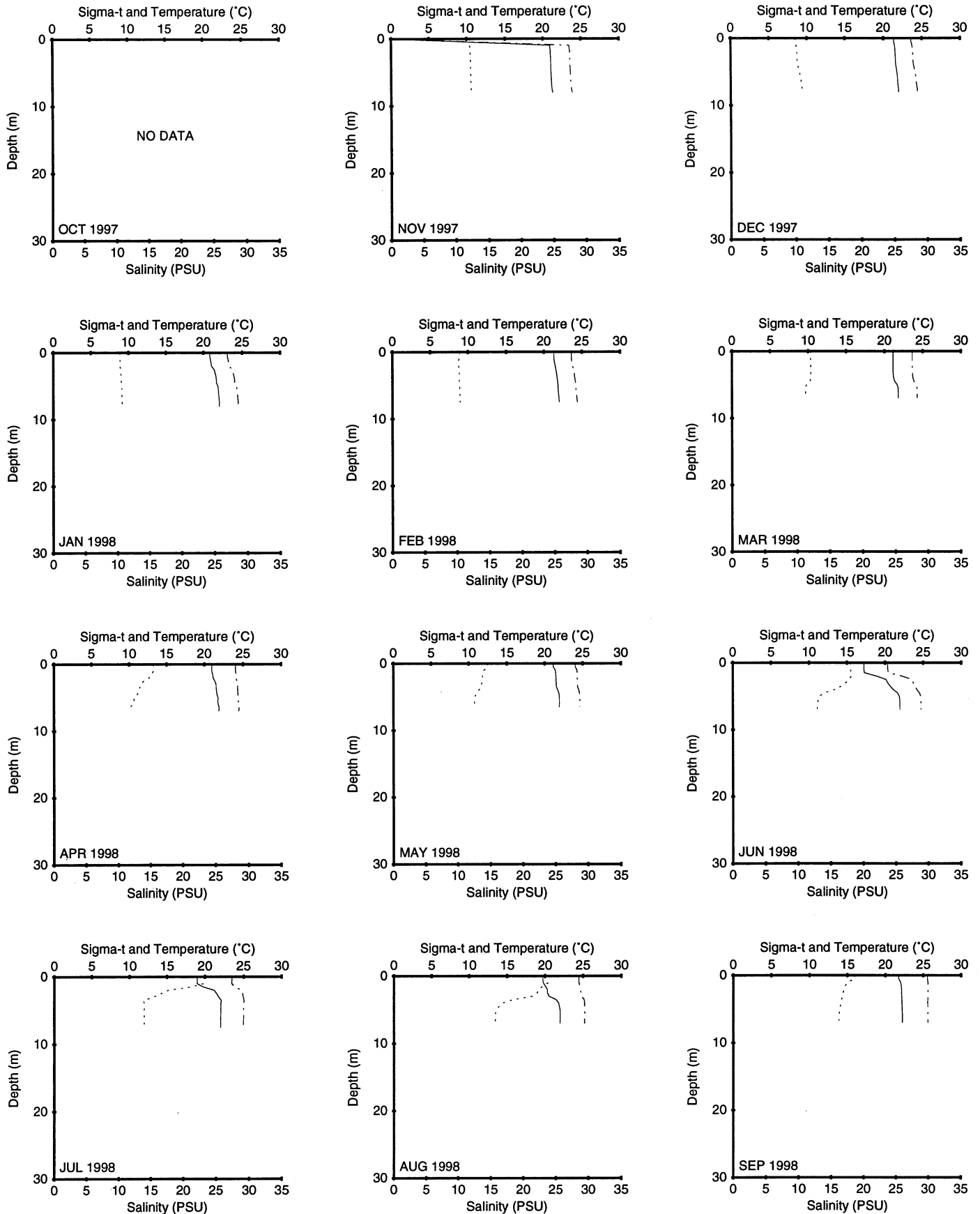
**PTH005 Port Townsend Harbor - Walan Point**



**Legend: Temperature = Dotted Line Salinity = Dot-Dashed Line Sigma-t = Solid Line**

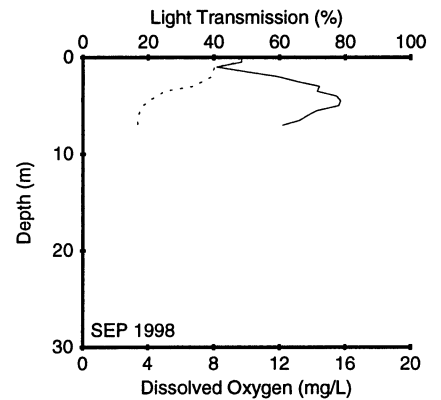
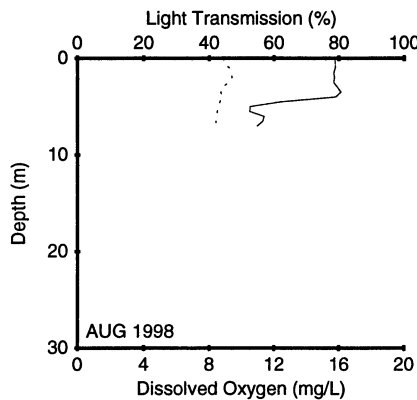
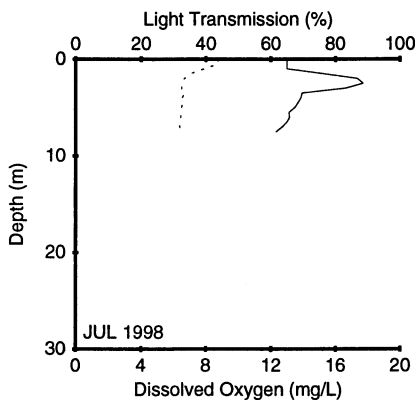
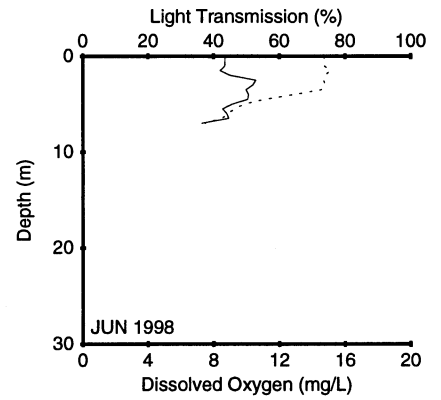
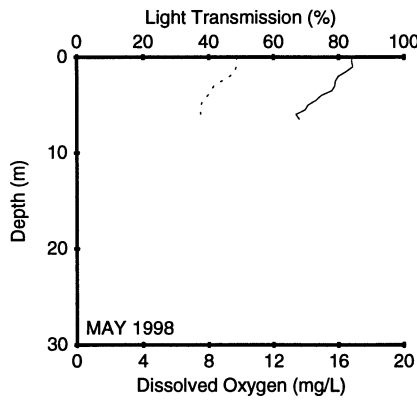
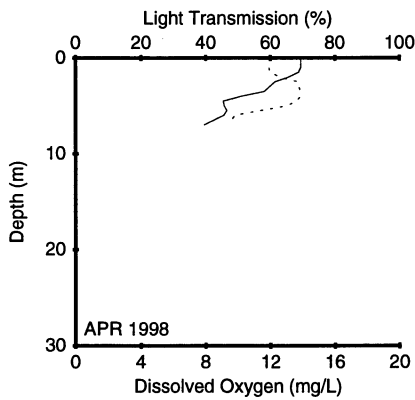
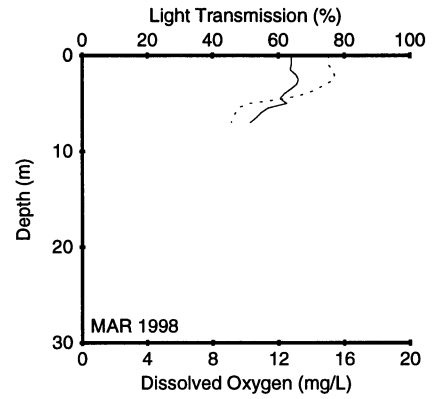
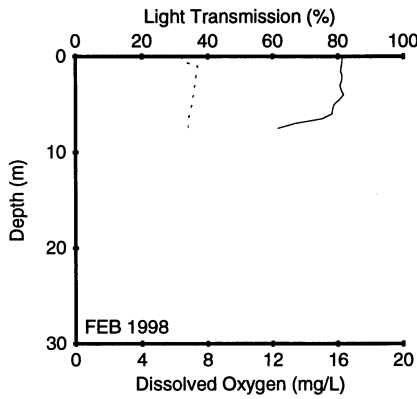
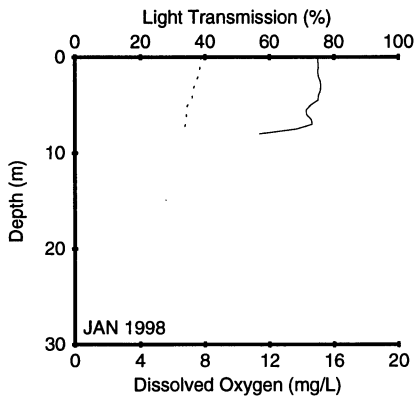
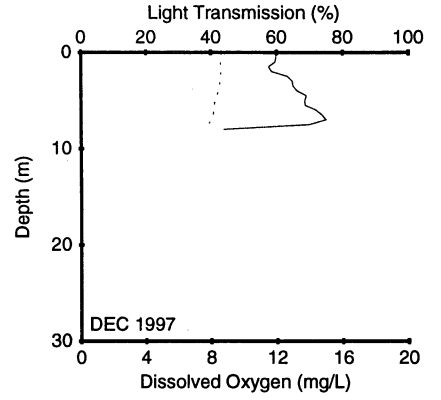
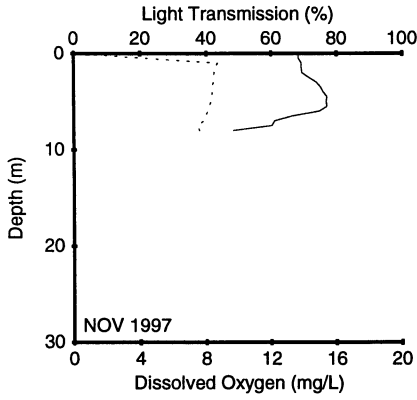
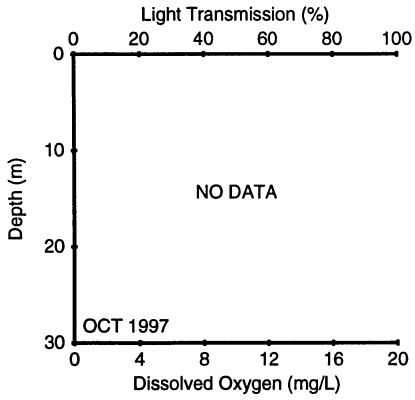


# QMH002 Quartermaster Harbor - Quartermaster, Inner



**Legend: Temperature = Dotted Line Salinity = Dot-Dashed Line Sigma-t = Solid Line**

# QM002 Quartermaster Harbor - Quartermaster, Inner

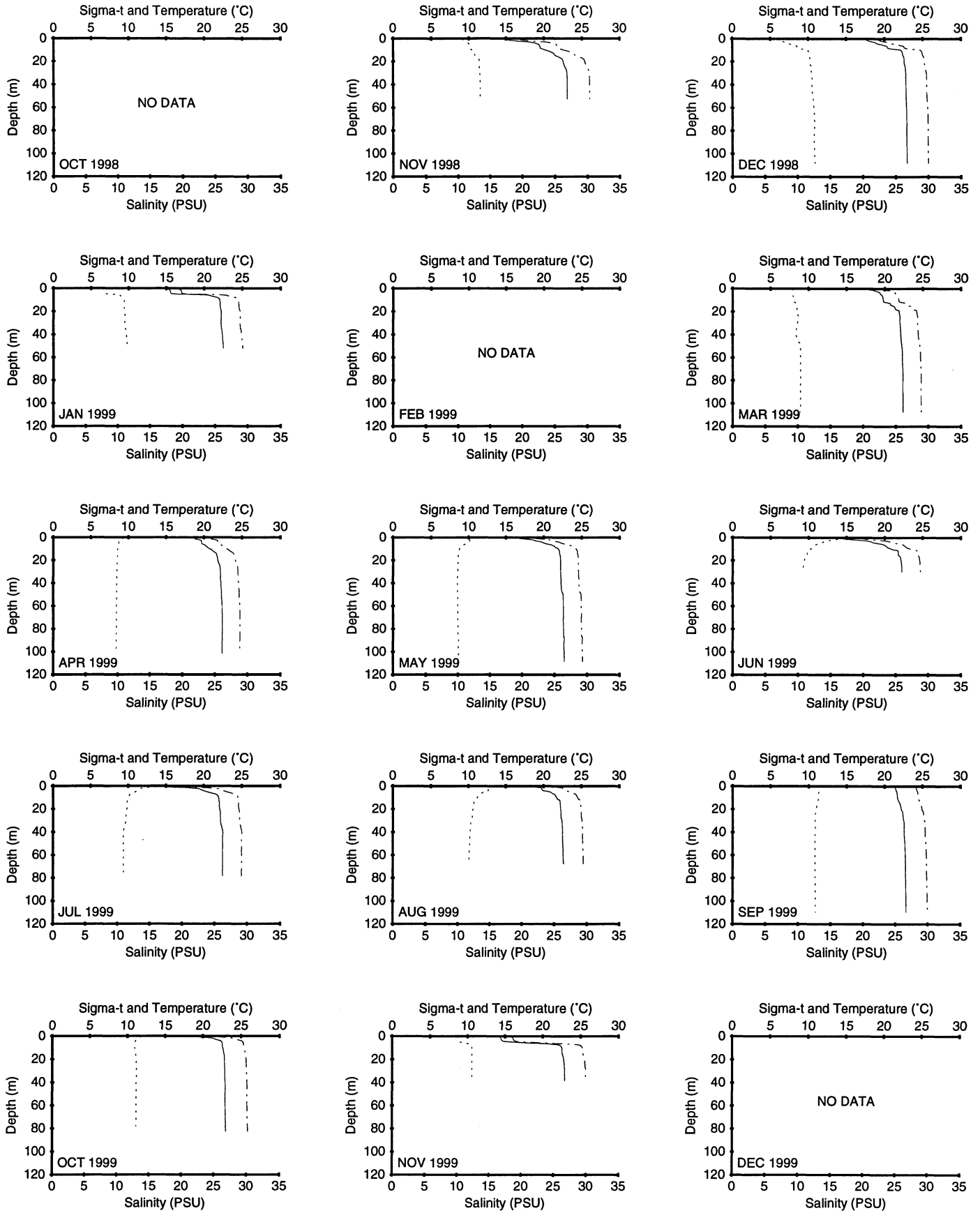


**Legend: Light Transmission = Solid Line Dissolved Oxygen = Dotted Line**





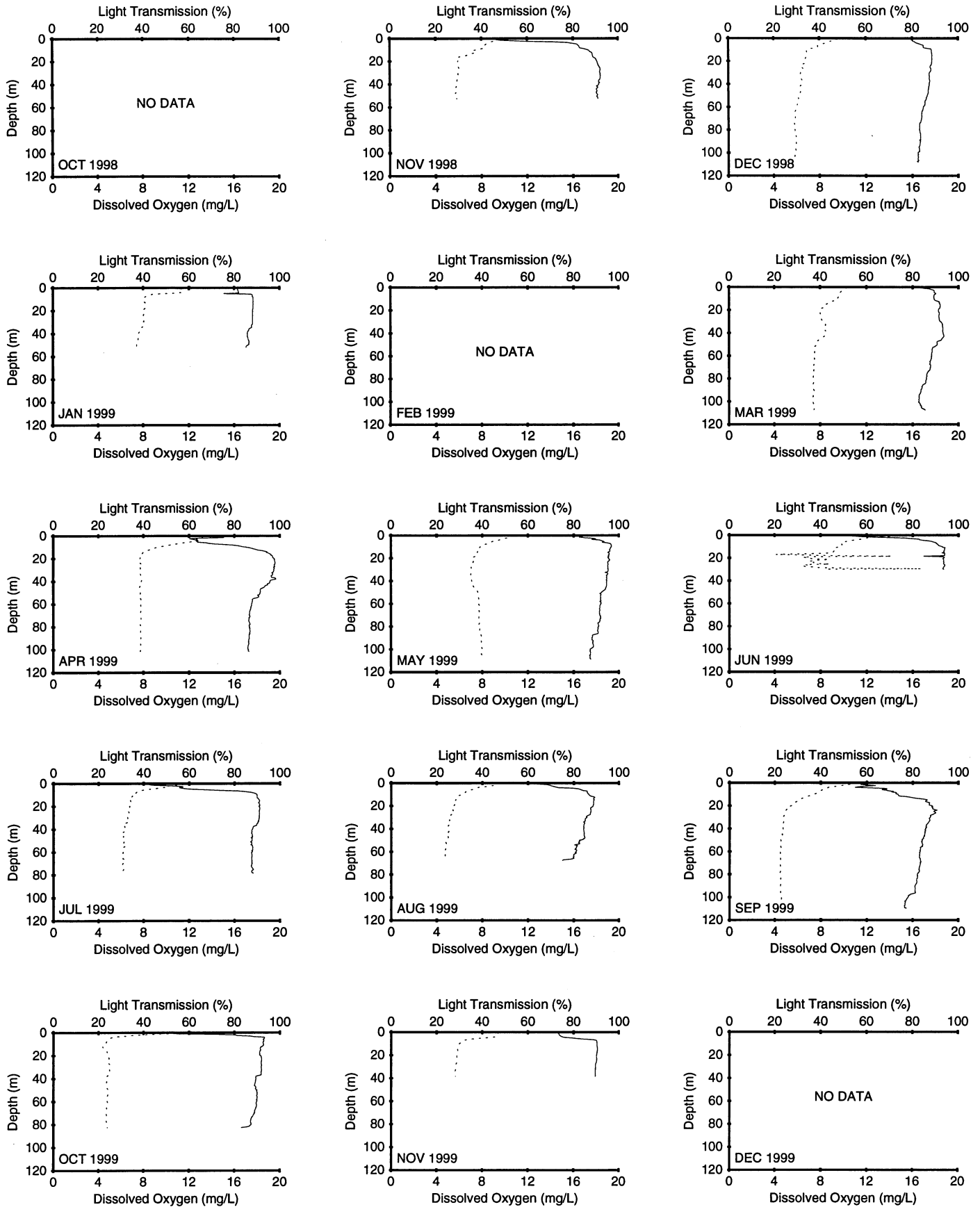
# SAR003 Saratoga Passage - East Point



**Legend: Temperature = Dotted Line Salinity = Dot-Dashed Line Sigma-t = Solid Line**

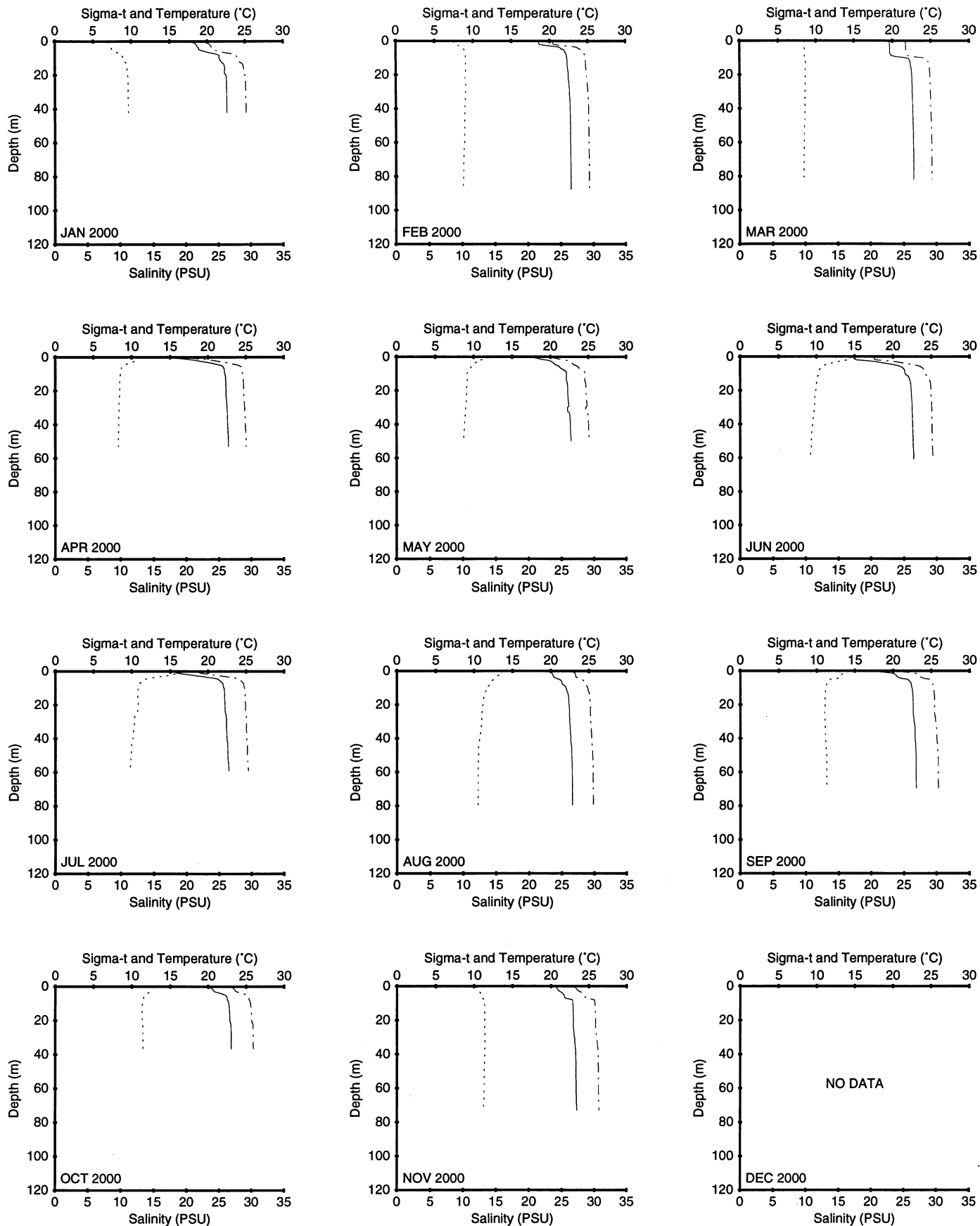


**SAR003 Saratoga Passage - East Point**



**Legend: Light Transmission = Solid Line Dissolved Oxygen = Dotted Line**

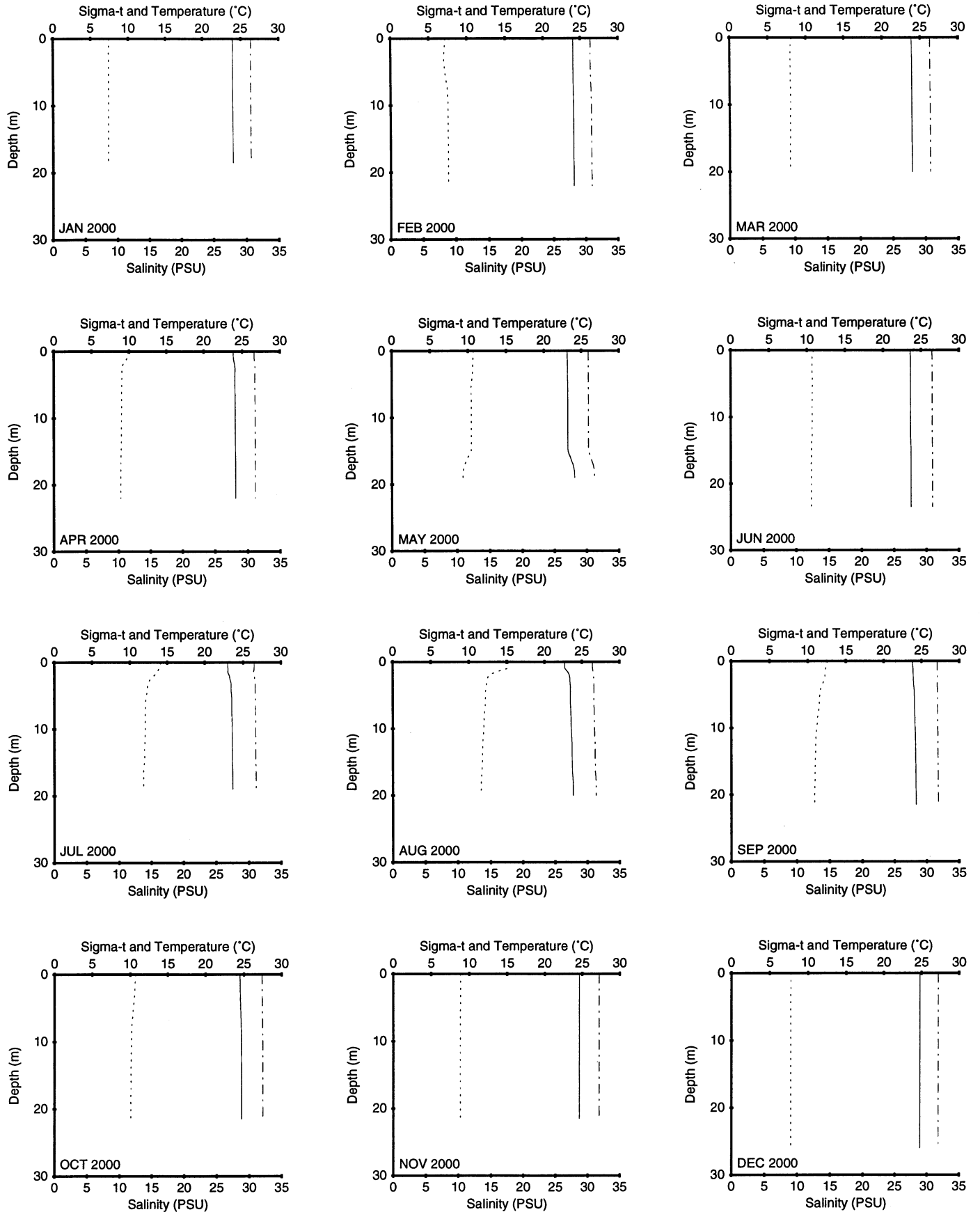
**SAR003 Saratoga Passage - East Point**



**Legend: Temperature = Dotted Line Salinity = Dot-Dashed Line Sigma-t = Solid Line**



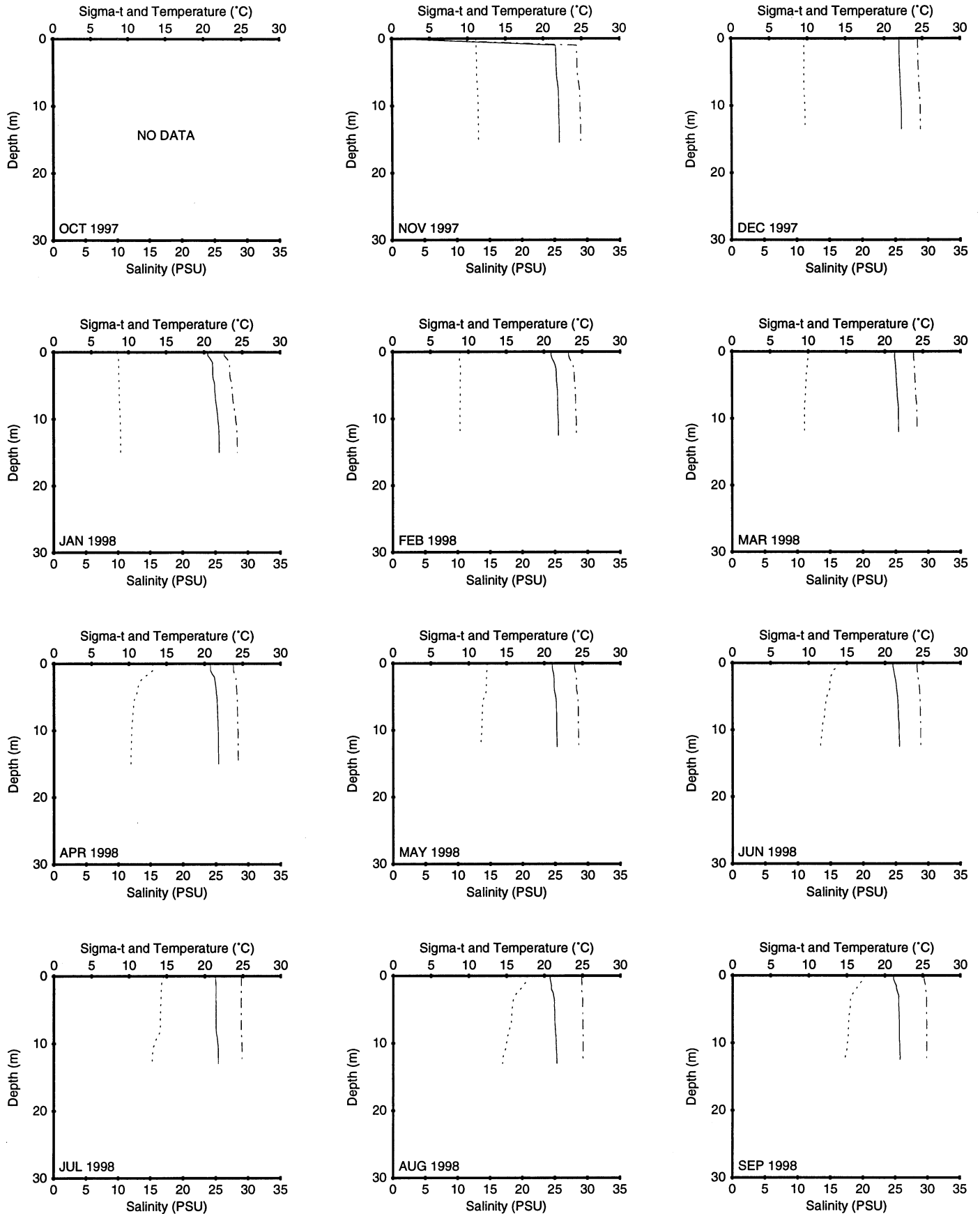
**SEQ002 Sequim Bay - Sequim Bay - North**



**Legend: Temperature = Dotted Line Salinity = Dot-Dashed Line Sigma-t = Solid Line**

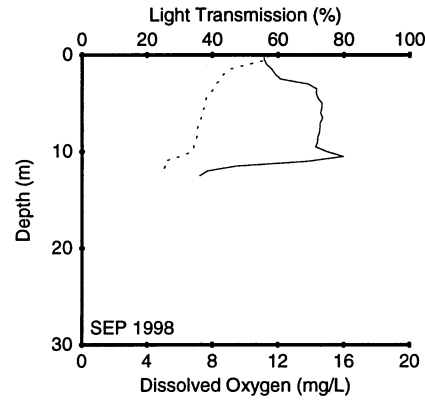
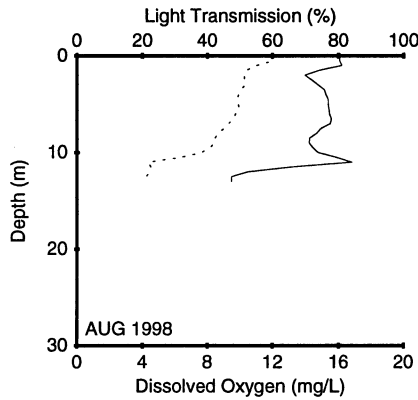
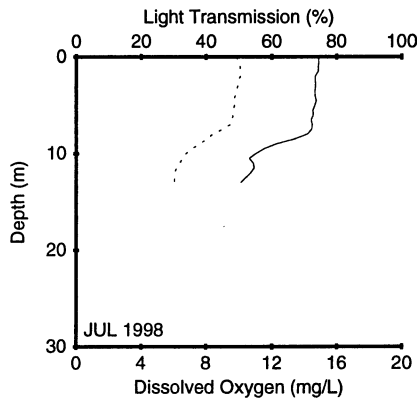
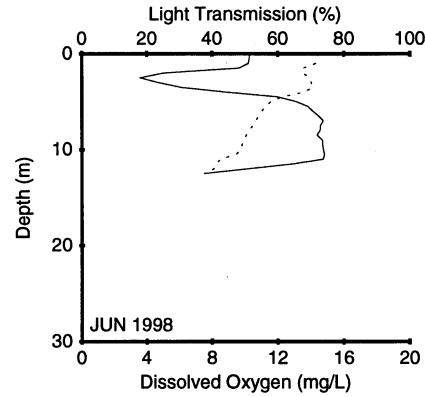
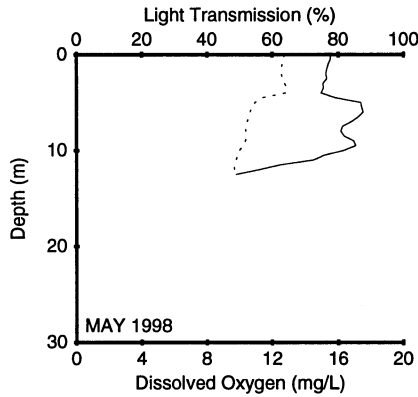
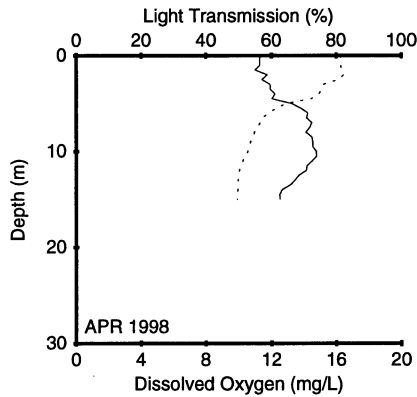
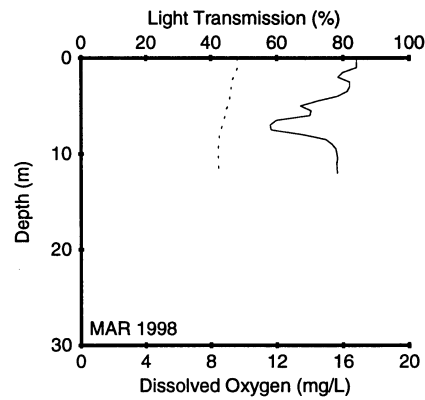
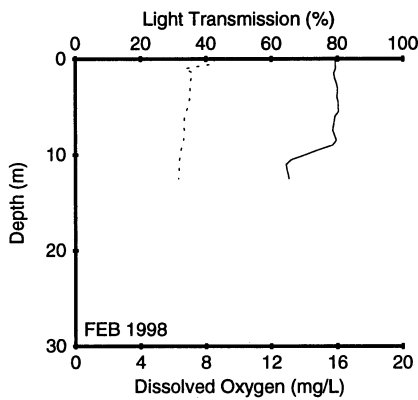
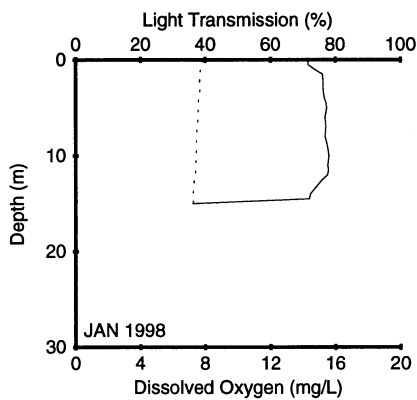
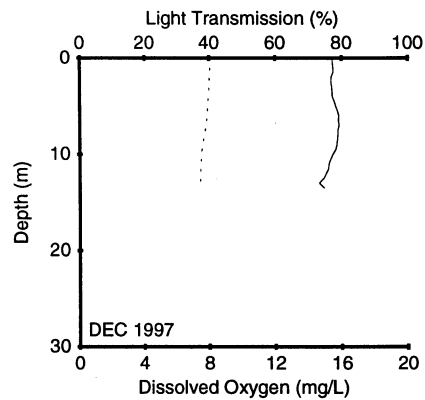
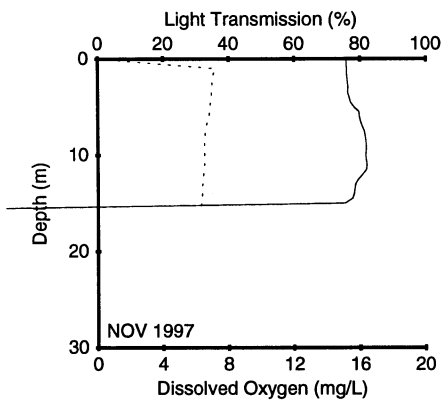
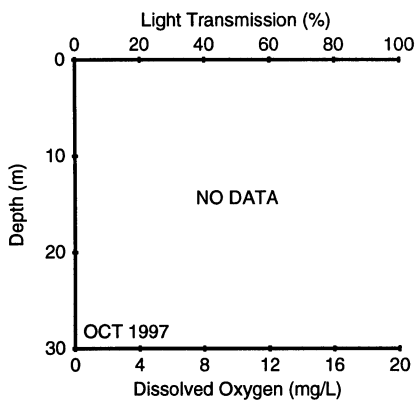


# SIN001 Sinclair Inlet - Naval Shipyards



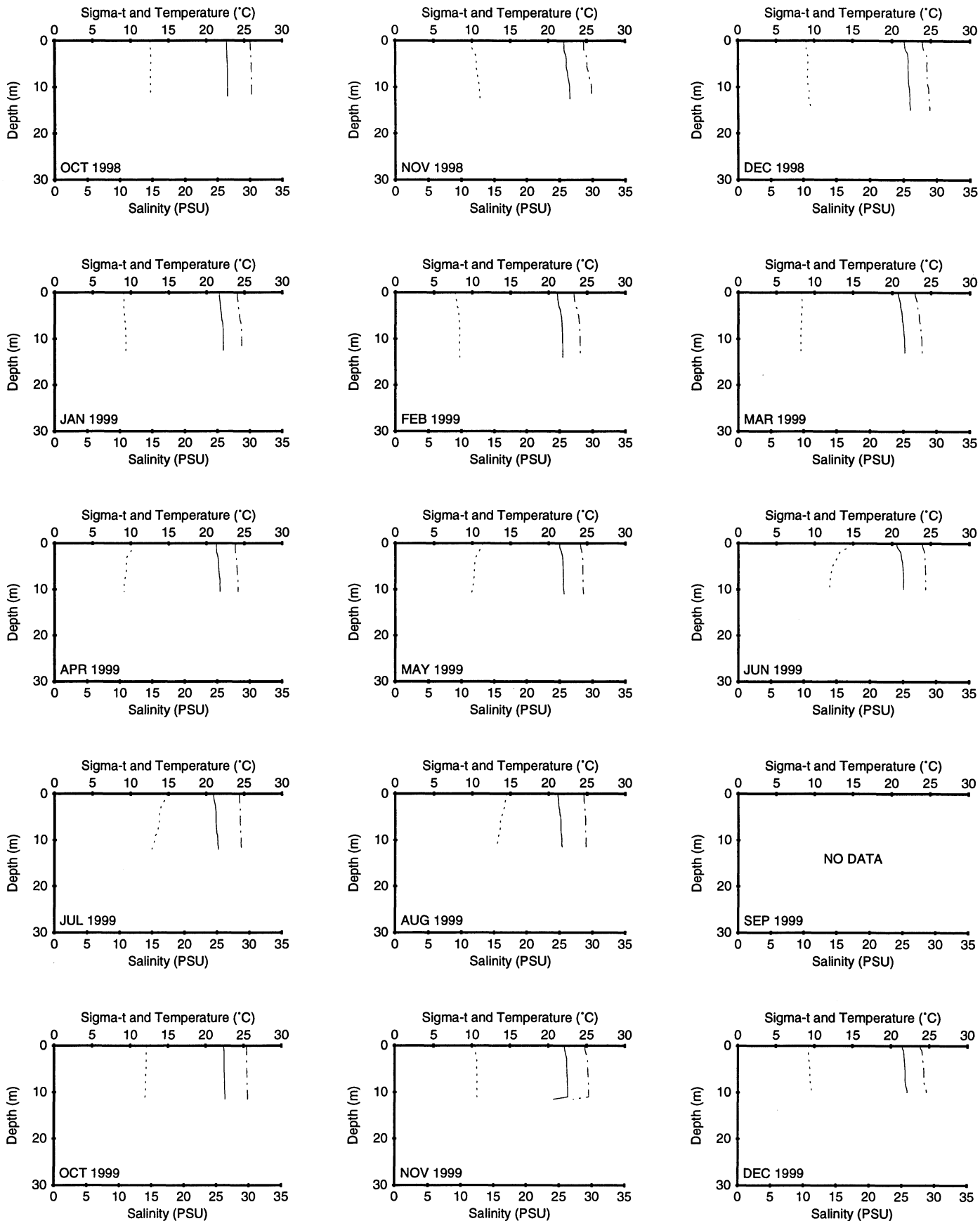
**Legend: Temperature = Dotted Line Salinity = Dot-Dashed Line Sigma-t = Solid Line**

**SIN001 Sinclair Inlet - Naval Shipyards**



**Legend: Light Transmission = Solid Line Dissolved Oxygen = Dotted Line**

**SIN001 Sinclair Inlet - Naval Shipyards**

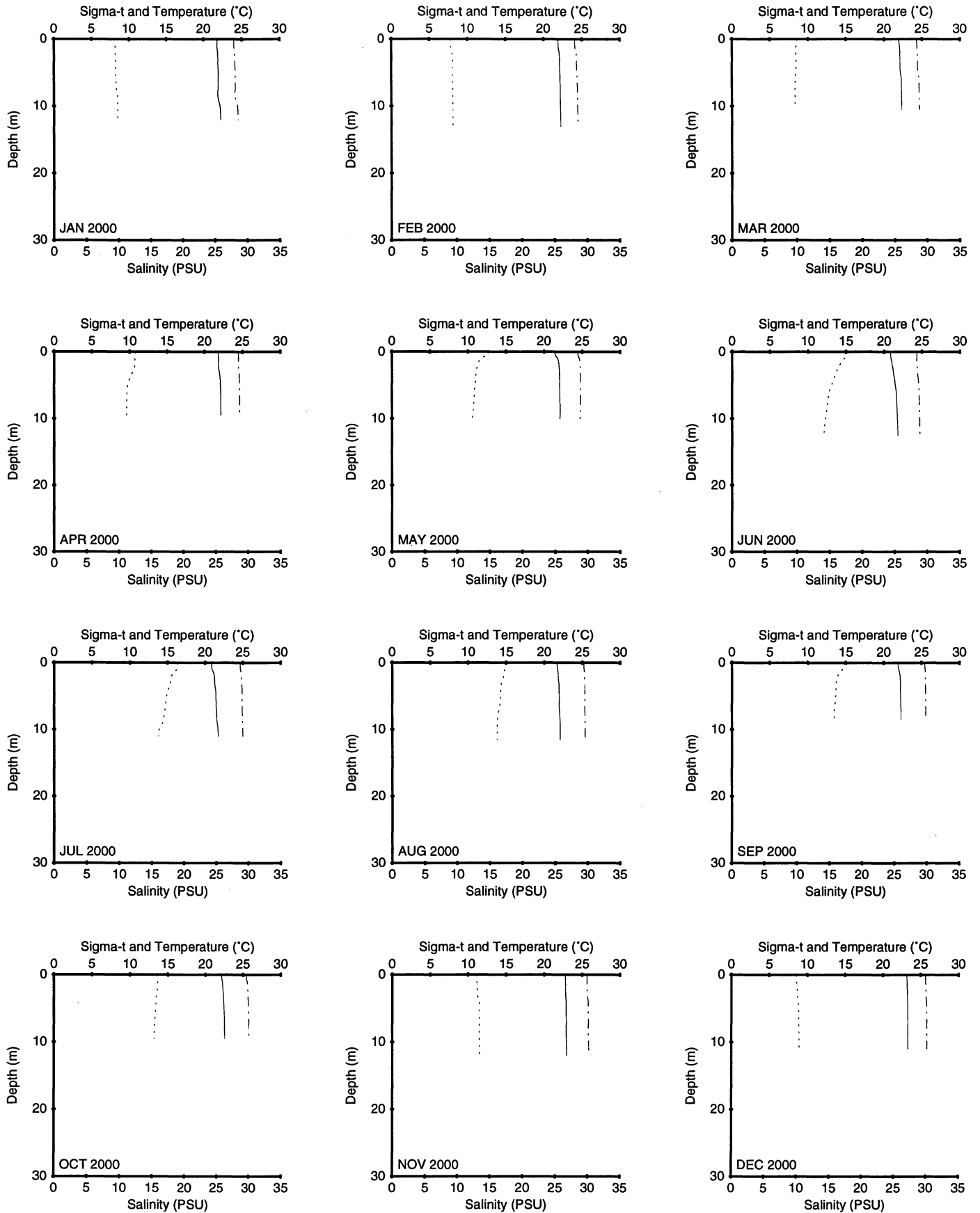


**Legend: Temperature = Dotted Line Salinity = Dot-Dashed Line Sigma-t = Solid Line**





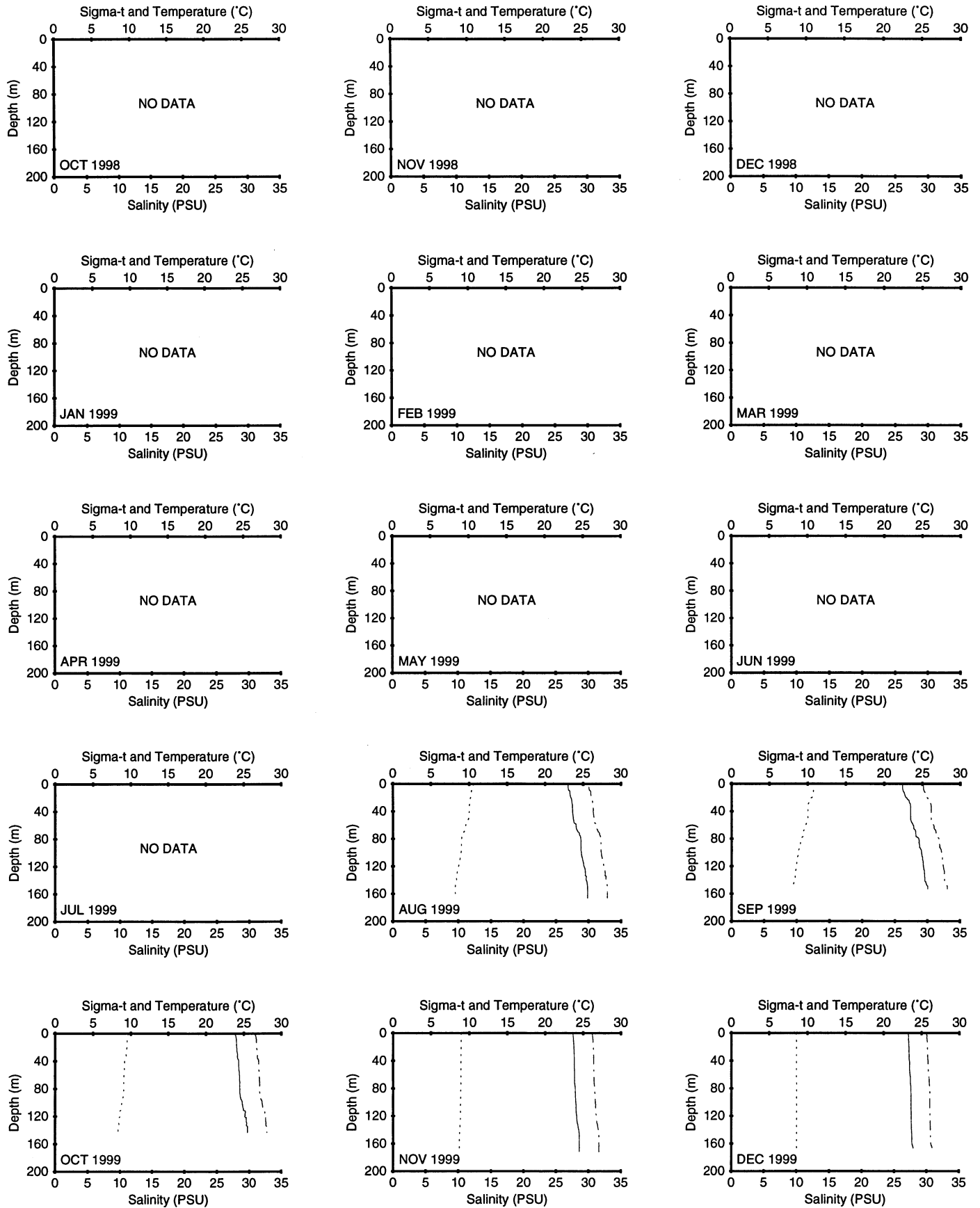
# SIN001 Sinclair Inlet - Naval Shipyards



**Legend: Temperature = Dotted Line Salinity = Dot-Dashed Line Sigma-t = Solid Line**

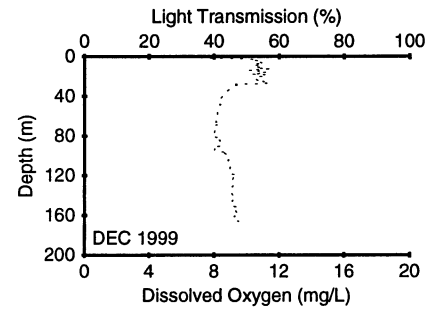
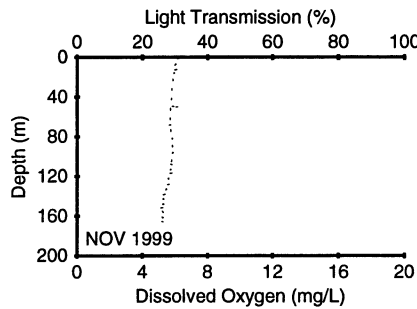
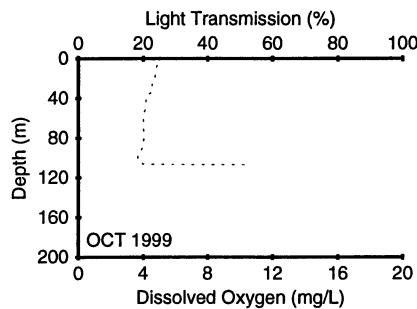
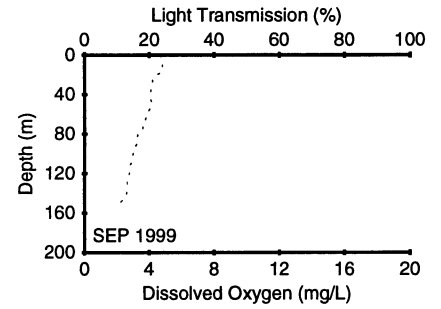
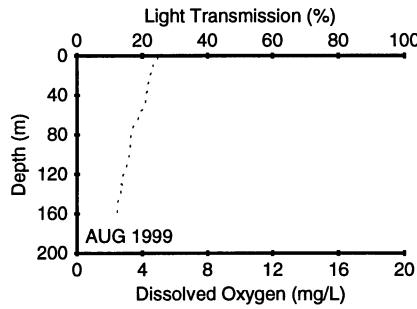
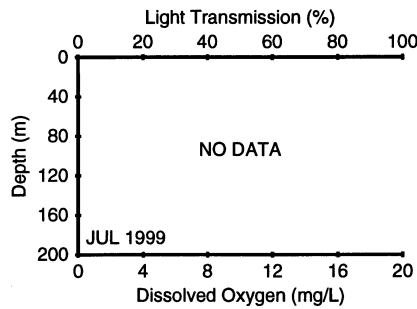
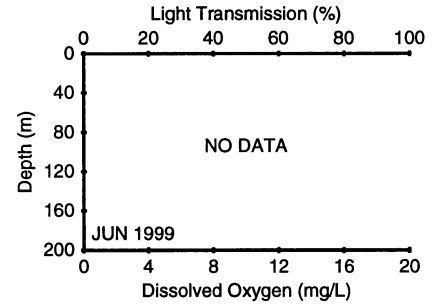
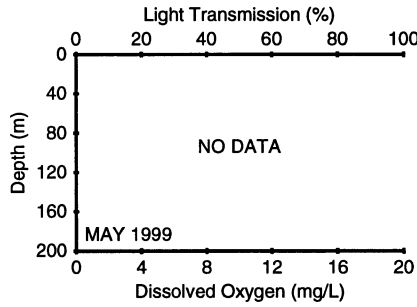
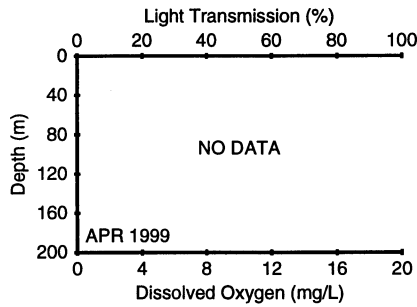
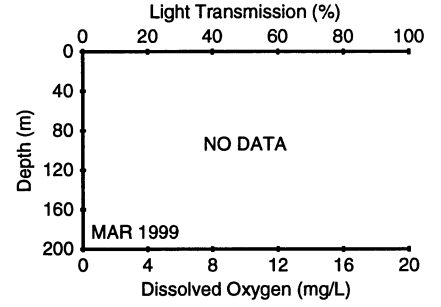
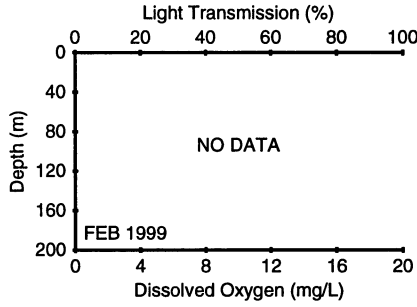
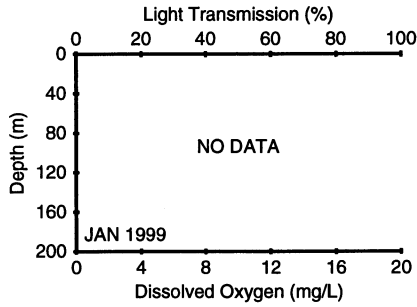
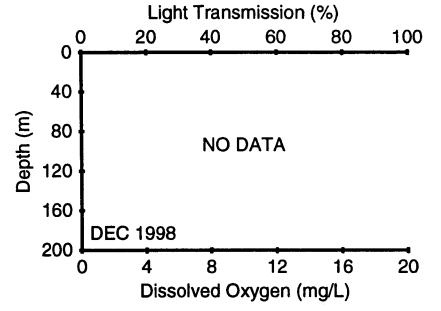
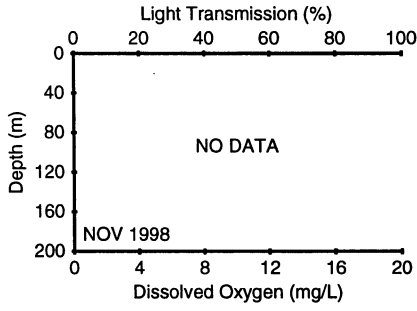
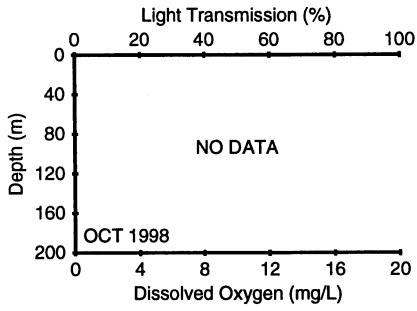


**SJF000 Strait of San Juan de Fuca (JEMS) - S. of Cattle Pt. - North**



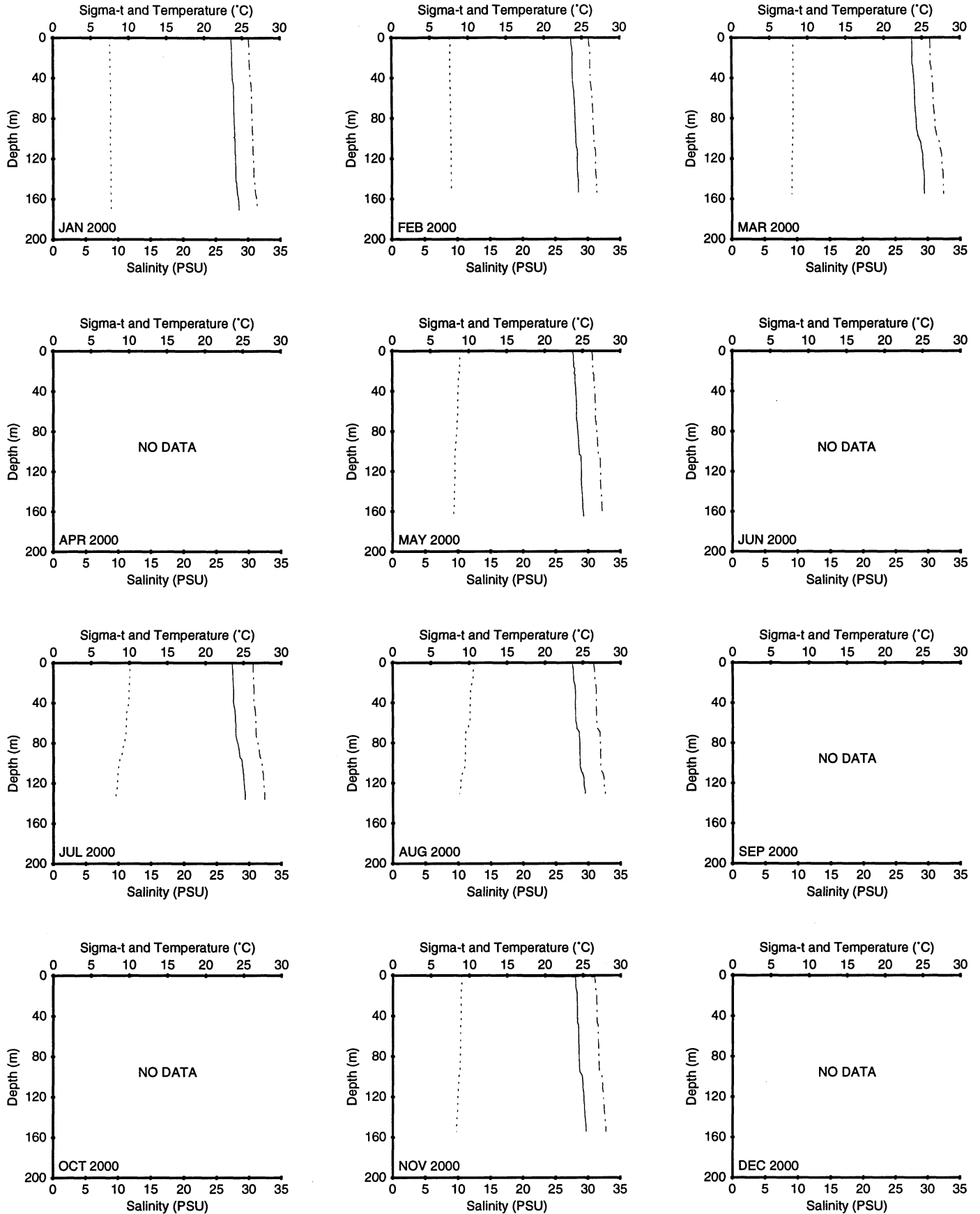
**Legend: Temperature = Dotted Line Salinity = Dot-Dashed Line Sigma-t = Solid Line**

**SJF000 Strait of San Juan de Fuca (JEMS) - S. of Cattle Pt. - North**



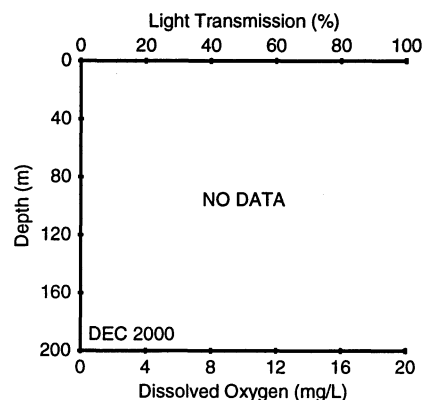
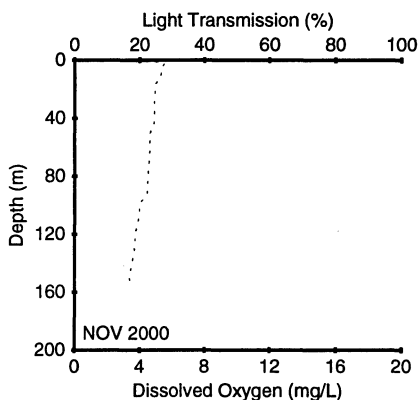
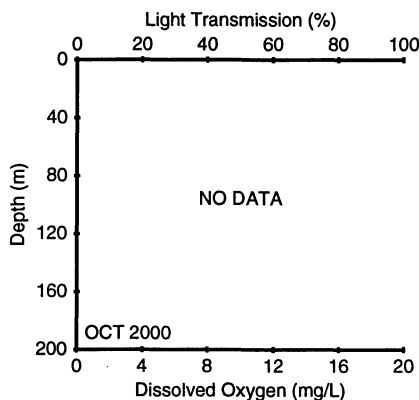
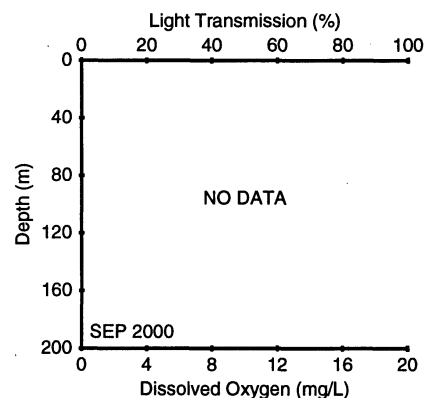
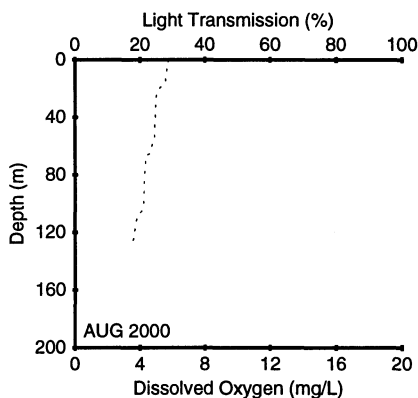
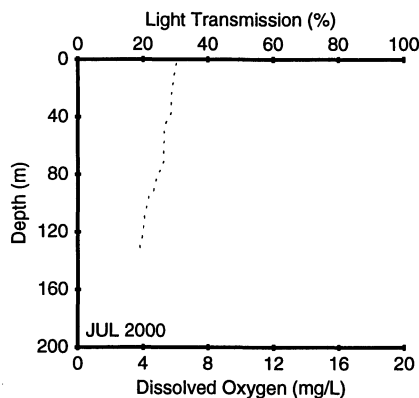
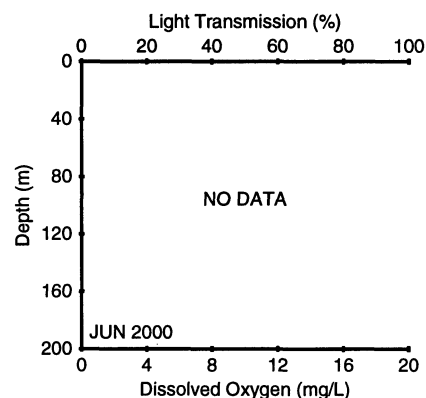
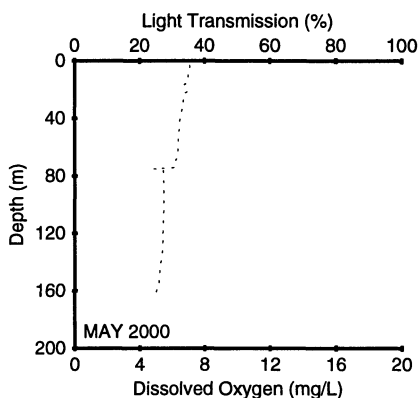
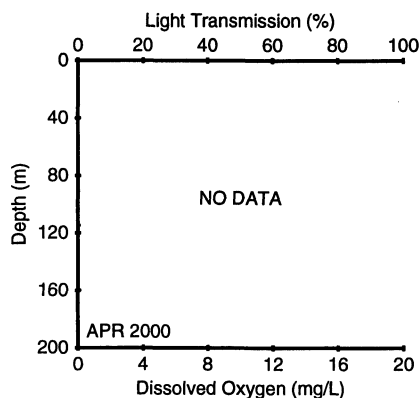
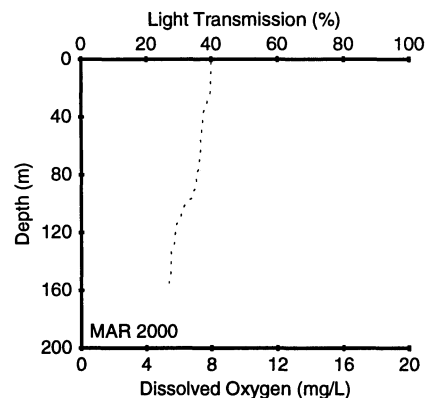
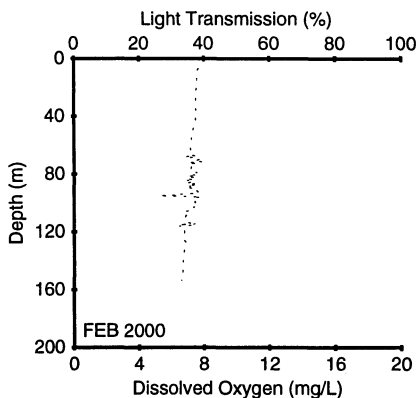
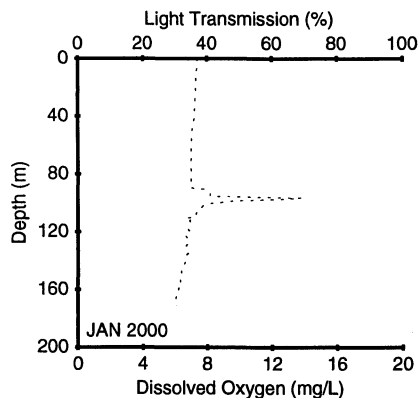
**Legend: Light Transmission = Solid Line Dissolved Oxygen = Dotted Line**

**SJF000 Strait of San Juan de Fuca (JEMS) - S. of Cattle Pt. - North**



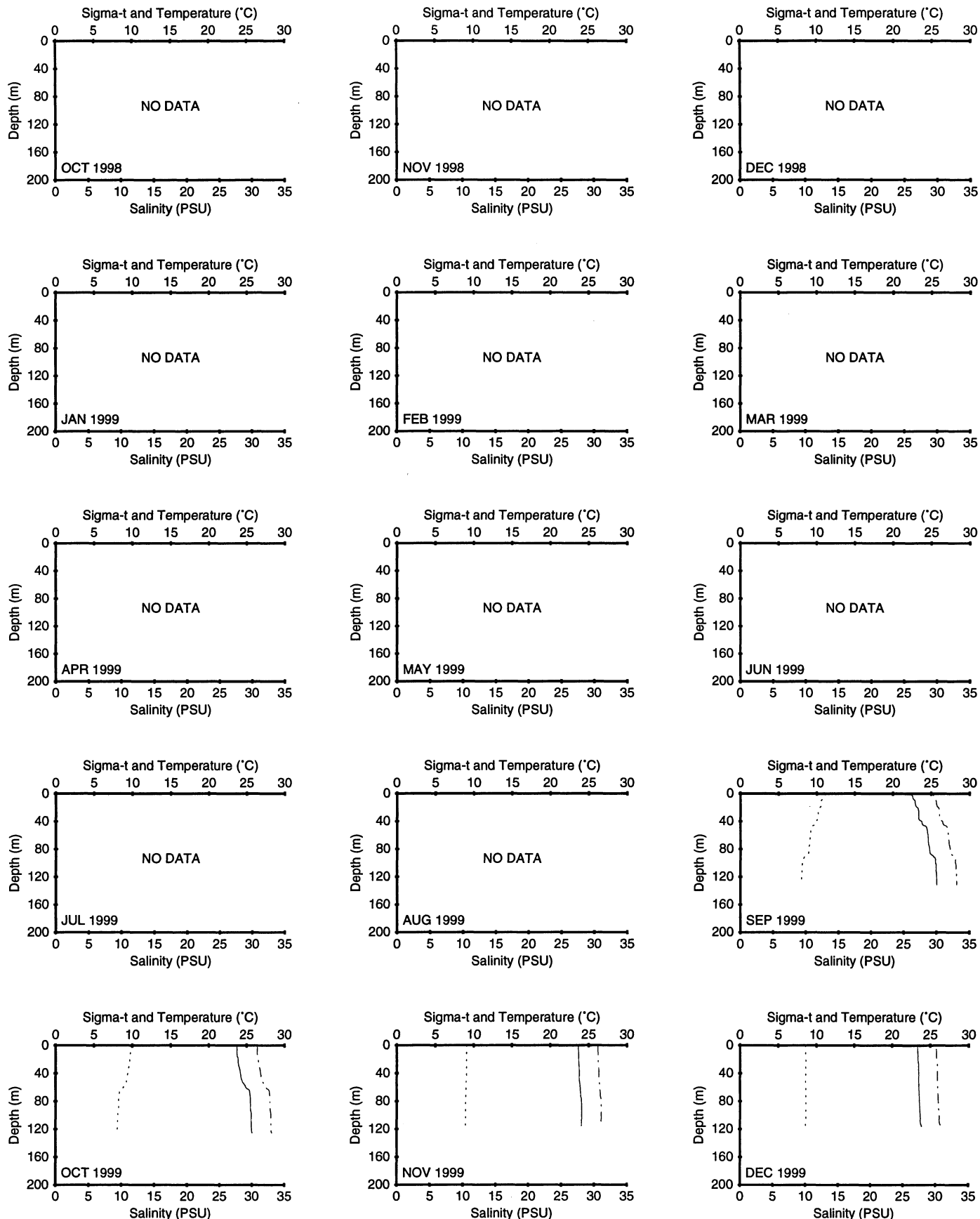
**Legend: Temperature = Dotted Line Salinity = Dot-Dashed Line Sigma-t = Solid Line**

### SJF000 Strait of San Juan de Fuca (JEMS) - S. of Cattle Pt. - North



**Legend: Light Transmission = Solid Line    Dissolved Oxygen = Dotted Line**

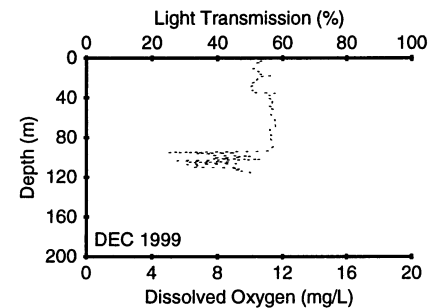
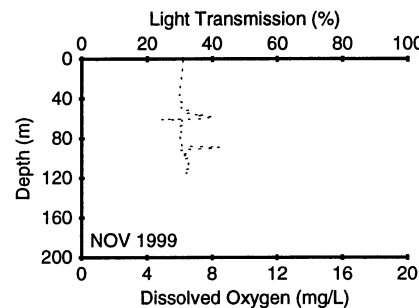
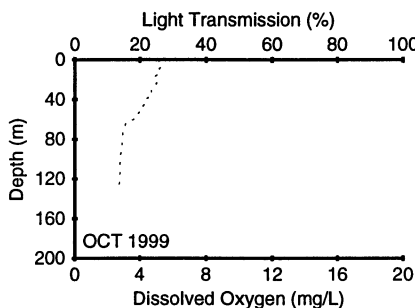
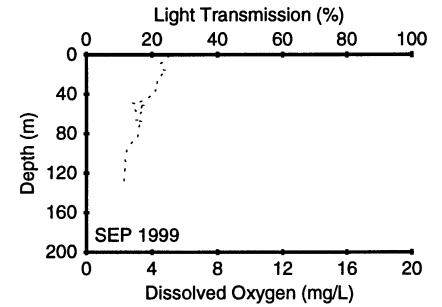
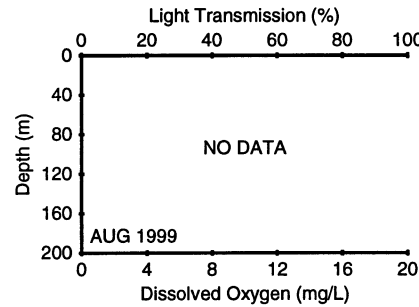
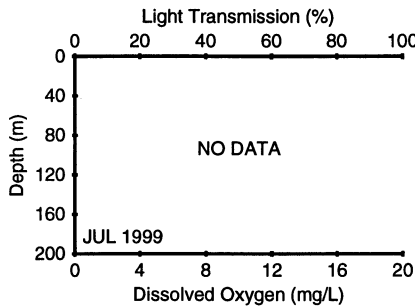
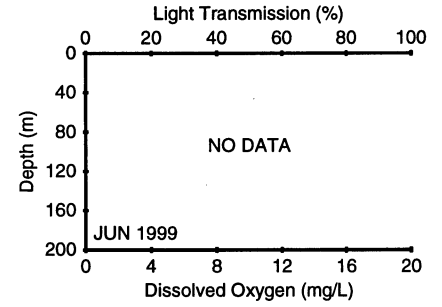
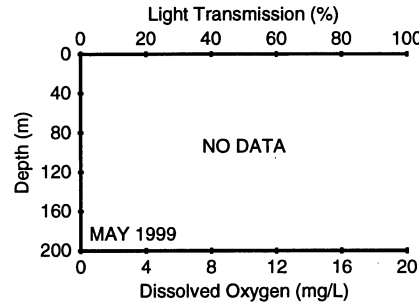
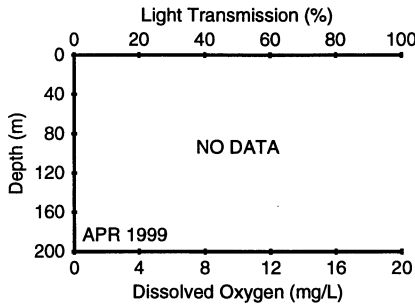
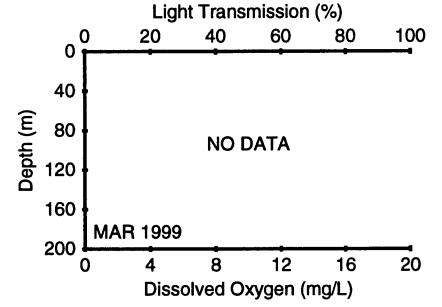
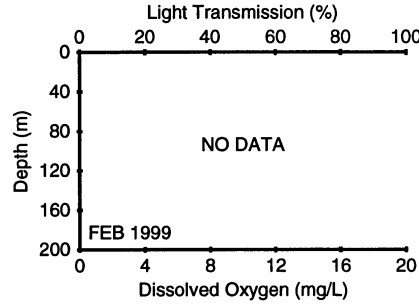
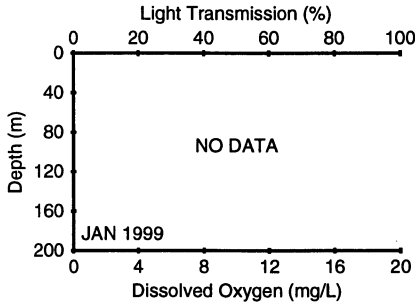
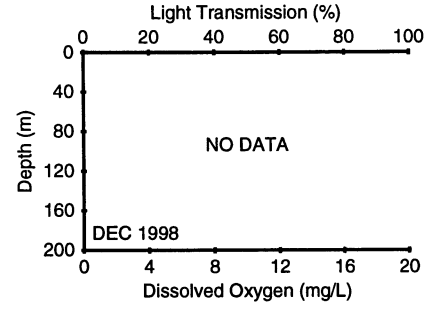
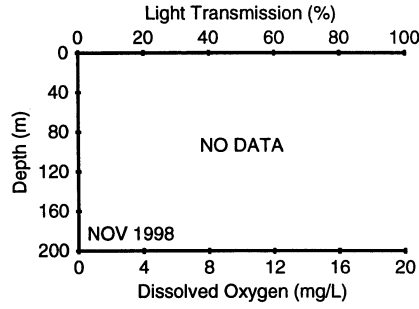
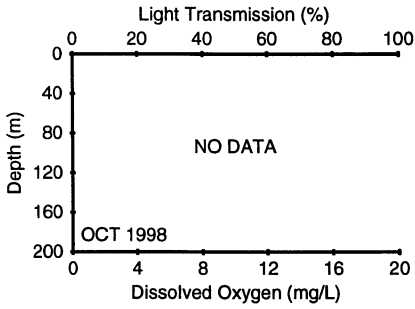
**SJF001 Strait of San Juan de Fuca (JEMS) - S. of Cattle Pt. Central**



**Legend: Temperature = Dotted Line Salinity = Dot-Dashed Line Sigma-t = Solid Line**

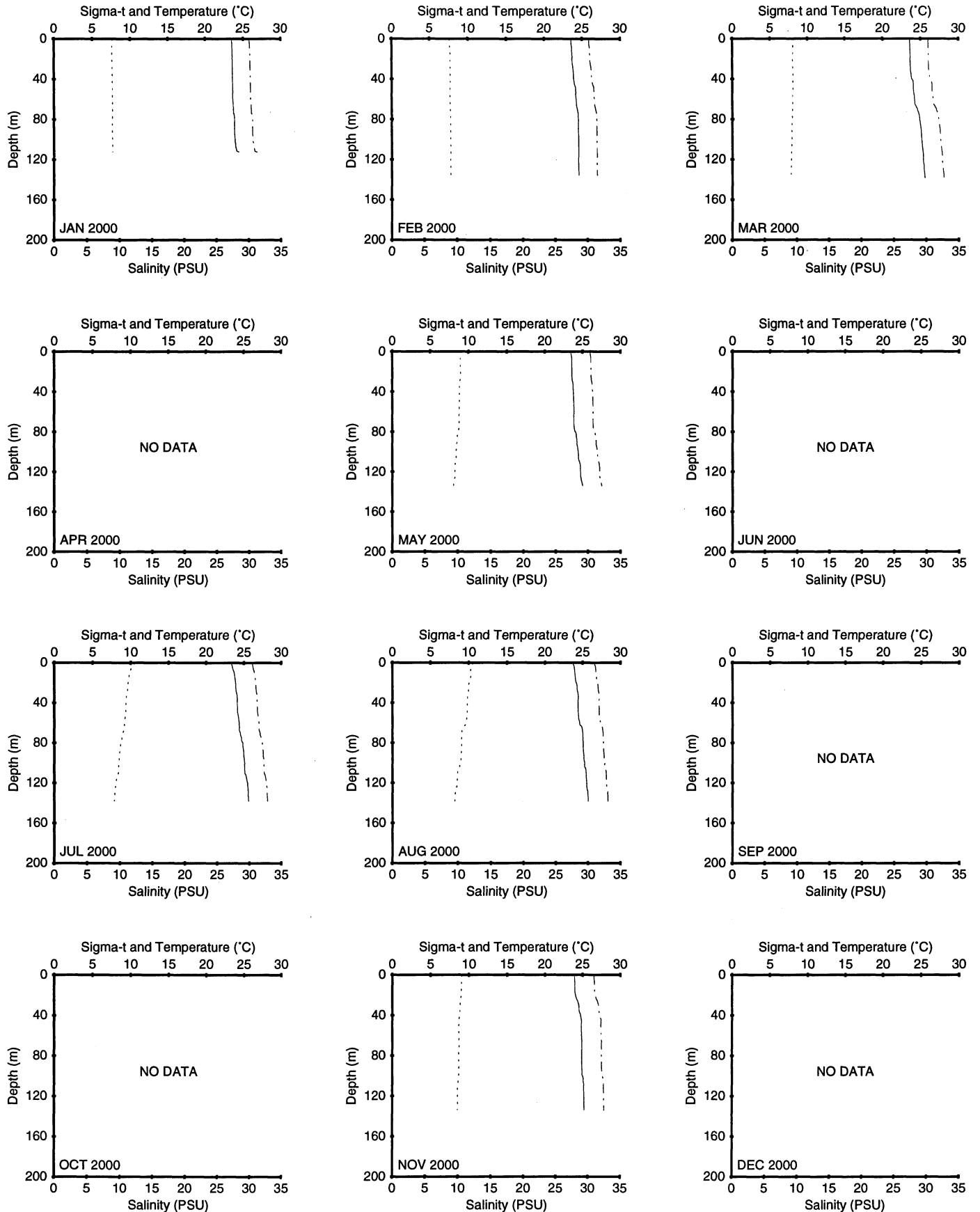


**SJF001 Strait of San Juan de Fuca (JEMS) - S. of Cattle Pt. Central**



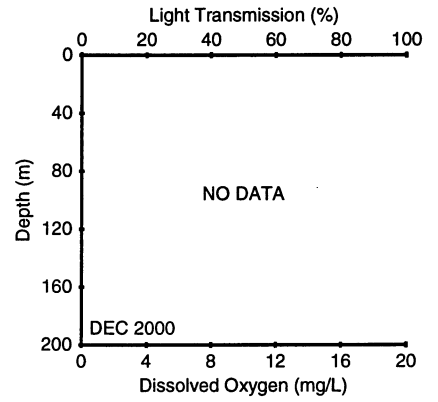
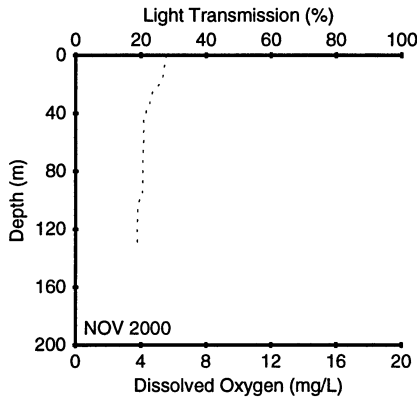
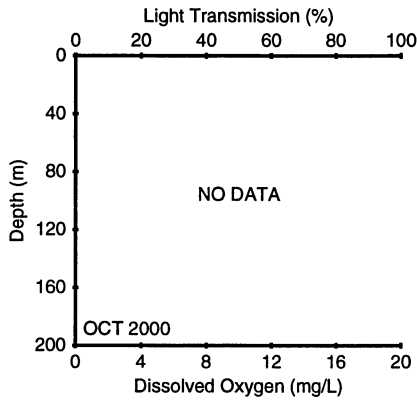
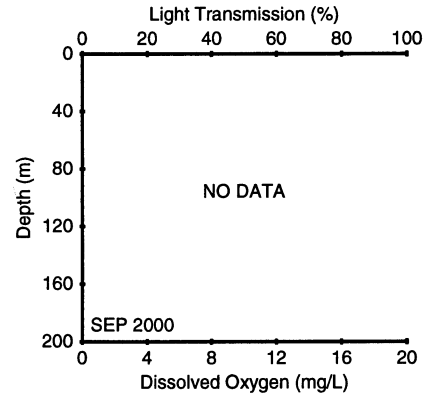
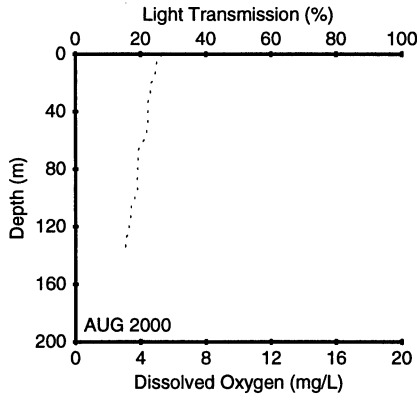
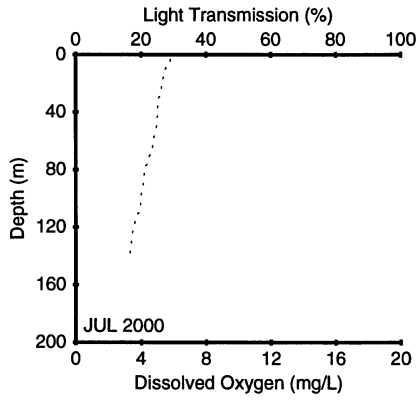
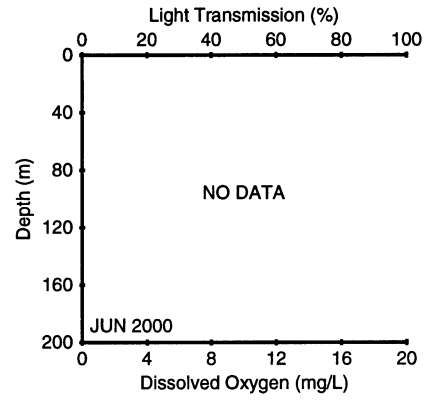
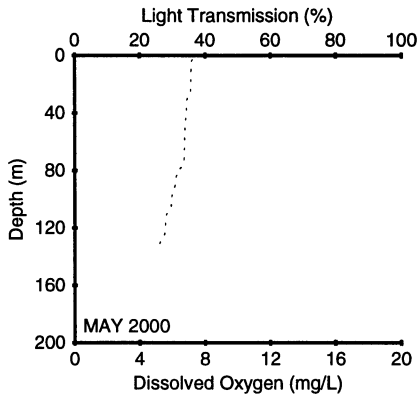
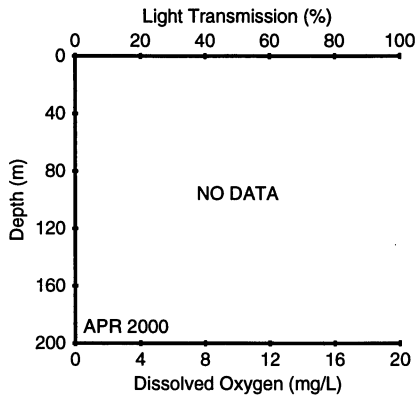
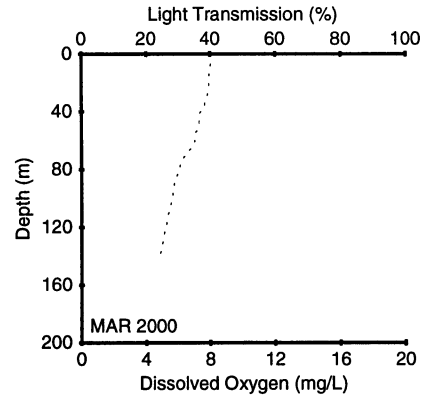
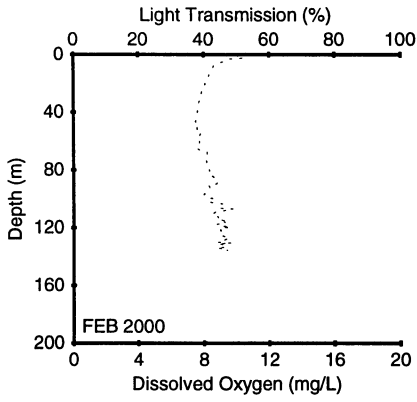
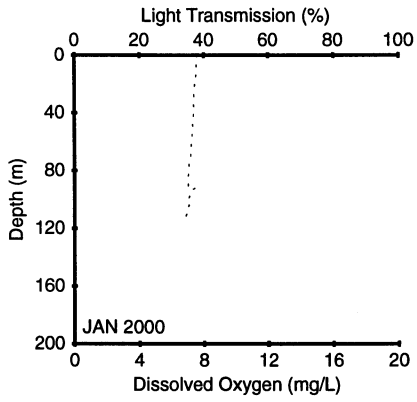
**Legend: Light Transmission = Solid Line Dissolved Oxygen = Dotted Line**

**SJF001 Strait of San Juan de Fuca (JEMS) - S. of Cattle Pt. Central**



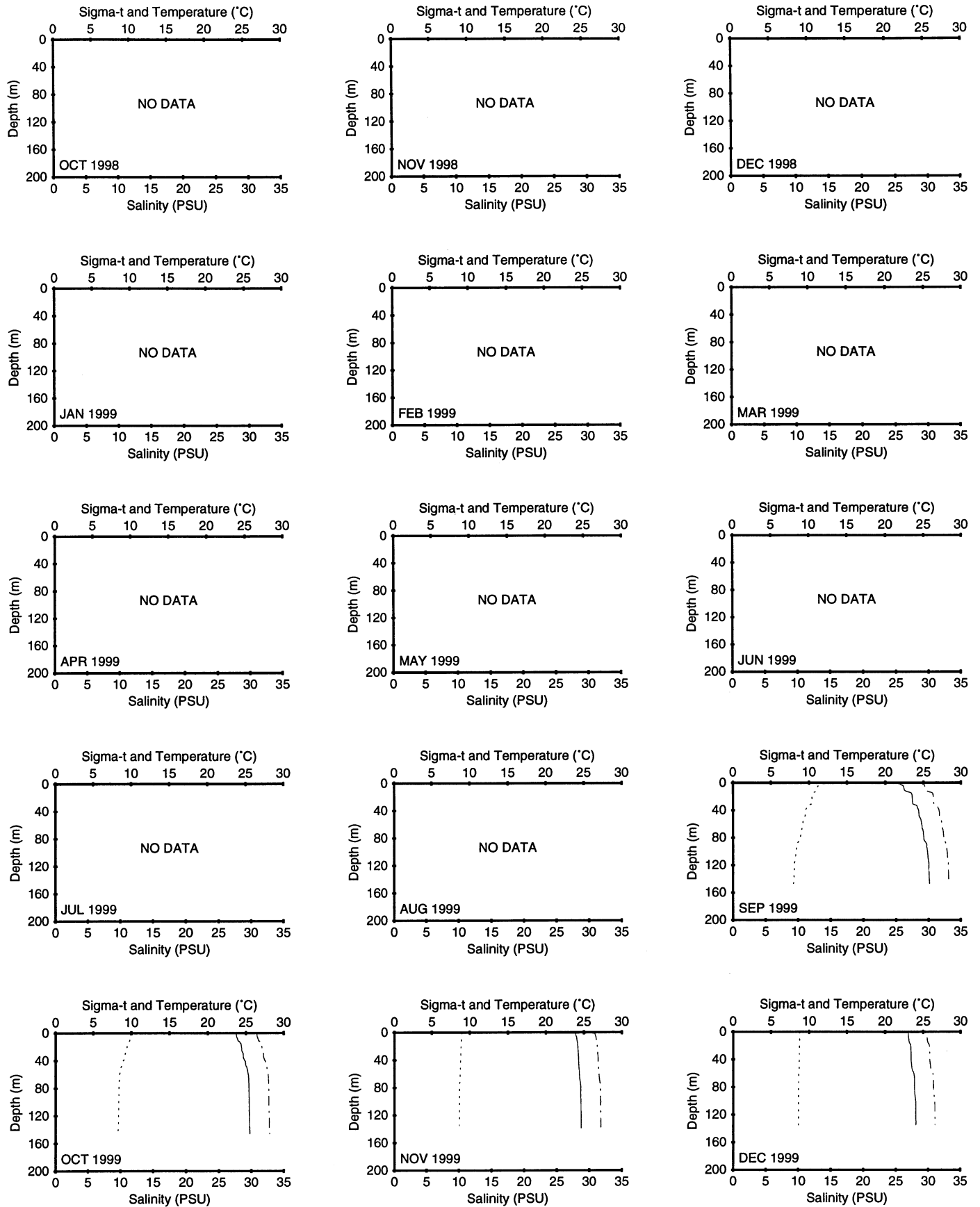
**Legend: Temperature = Dotted Line Salinity = Dot-Dashed Line Sigma-t = Solid Line**

**SJF001 Strait of San Juan de Fuca (JEMS) - S. of Cattle Pt. Central**



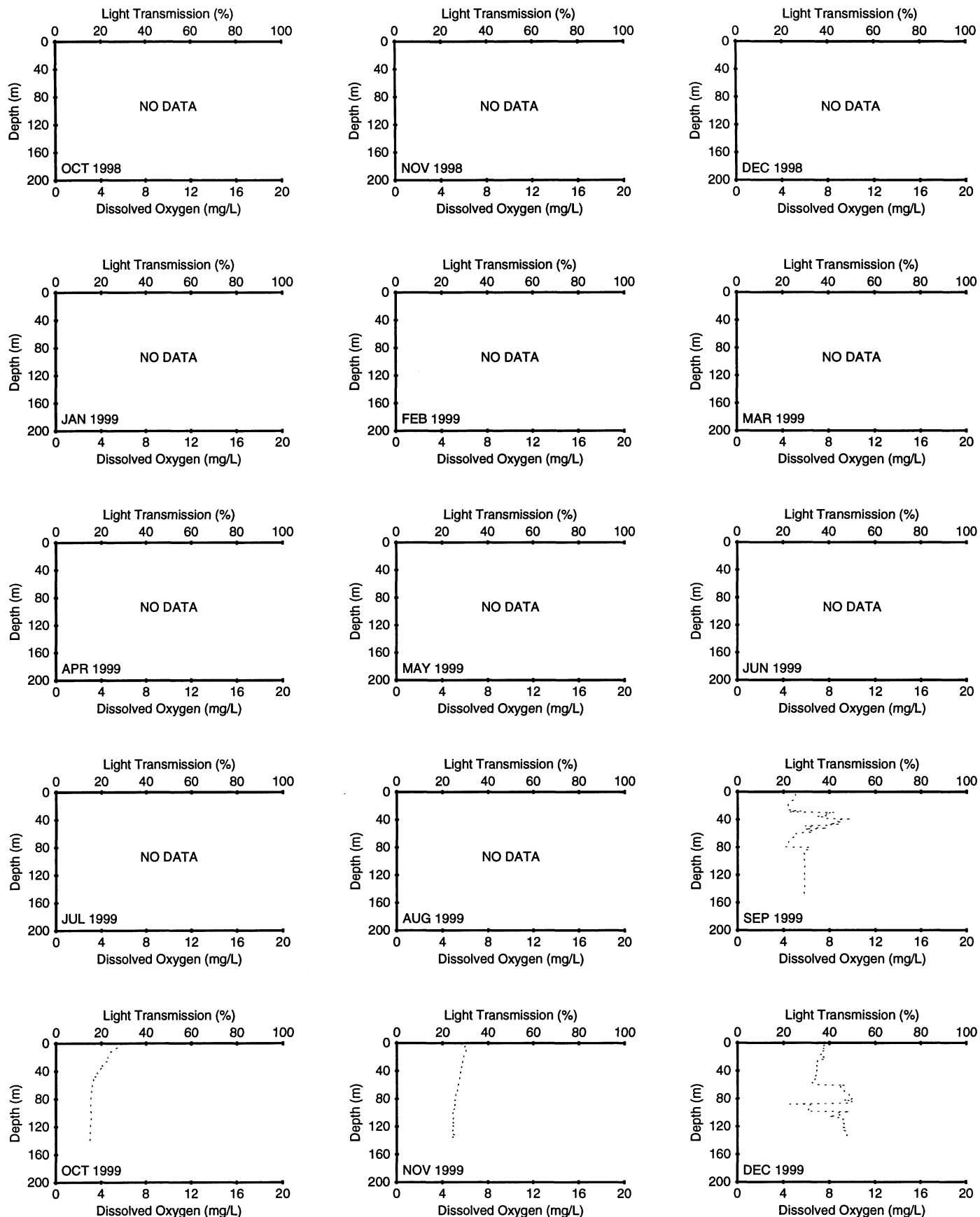
**Legend: Light Transmission = Solid Line Dissolved Oxygen = Dotted Line**

**SJF002 Strait of San Juan de Fuca (JEMS) - S. of Cattle Pt. - South**



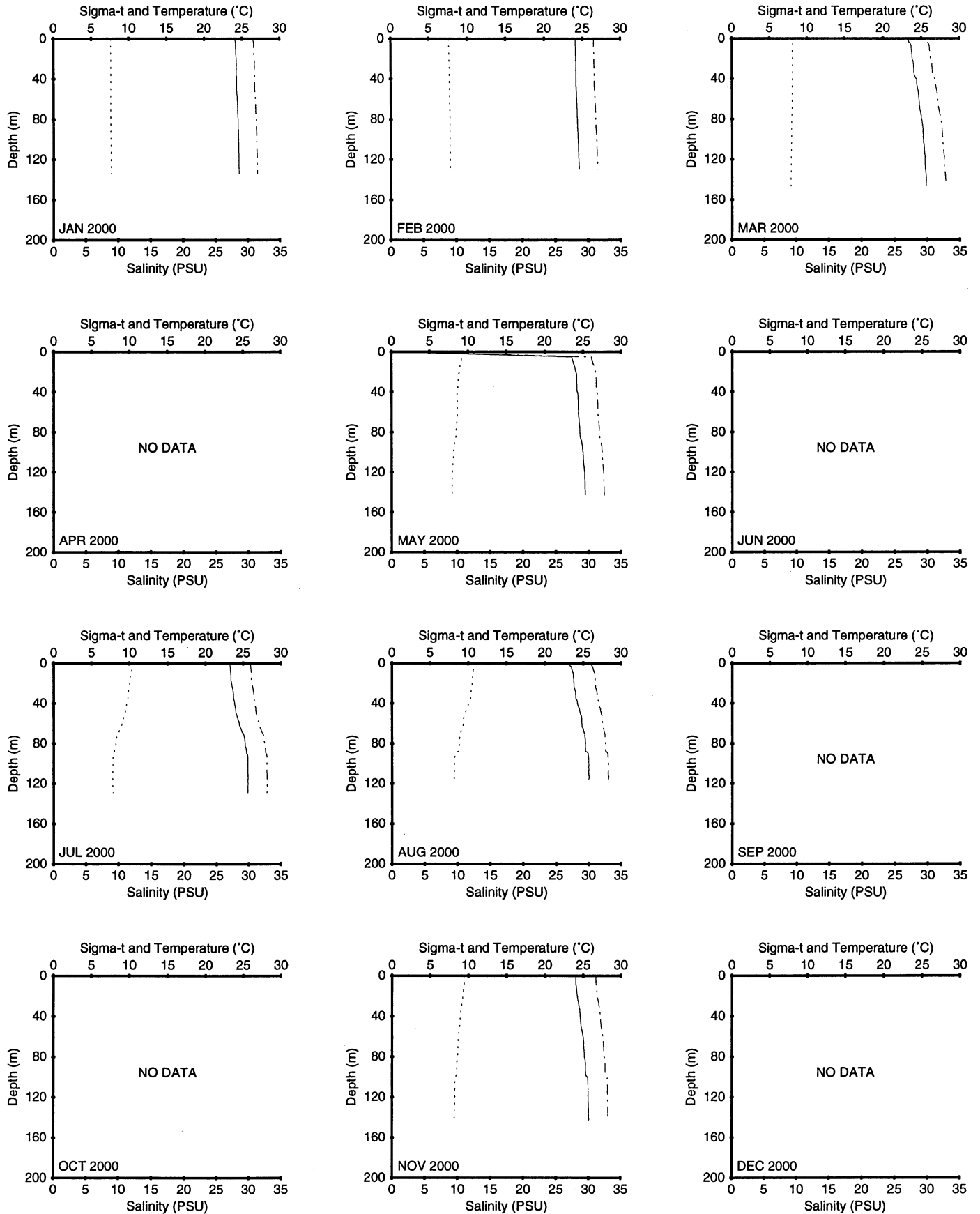
**Legend: Temperature = Dotted Line Salinity = Dot-Dashed Line Sigma-t = Solid Line**

### SJF002 Strait of San Juan de Fuca (JEMS) - S. of Cattle Pt. - South



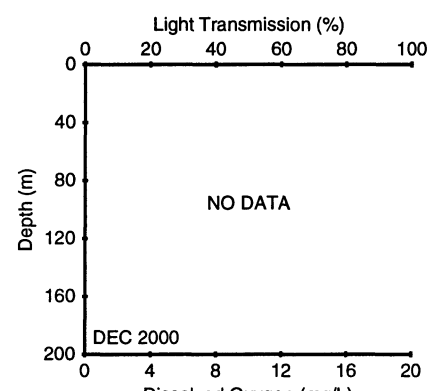
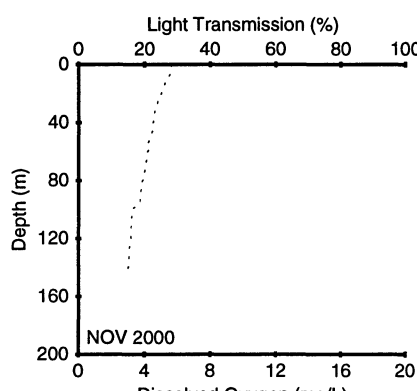
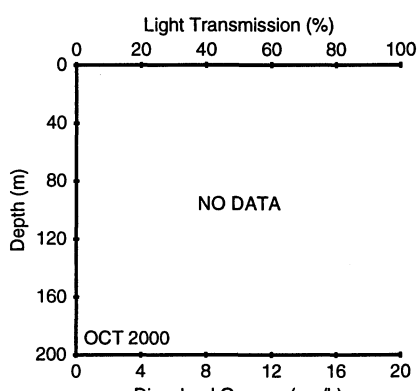
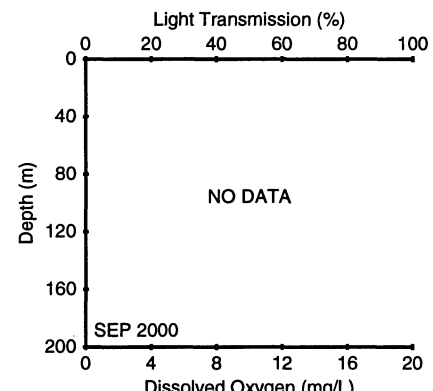
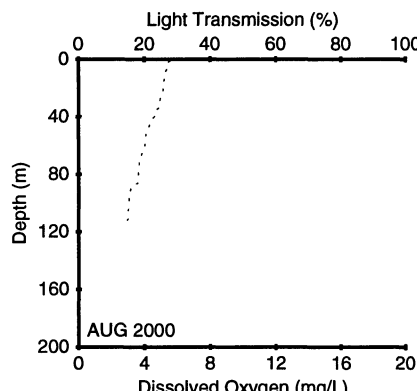
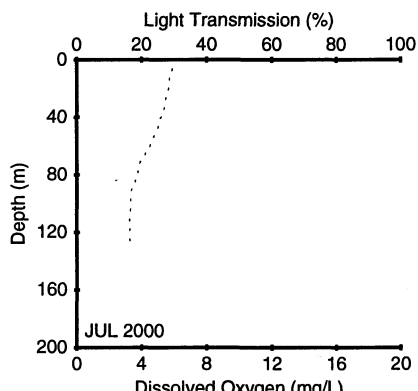
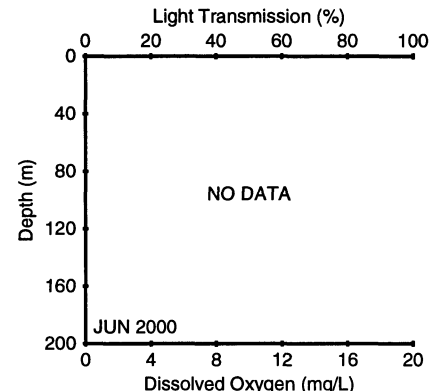
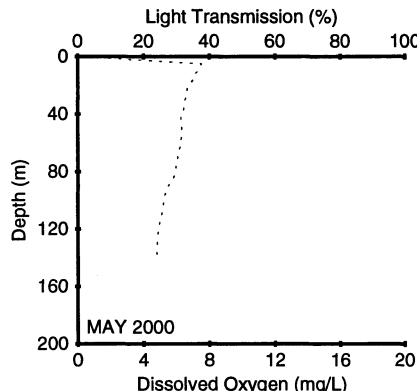
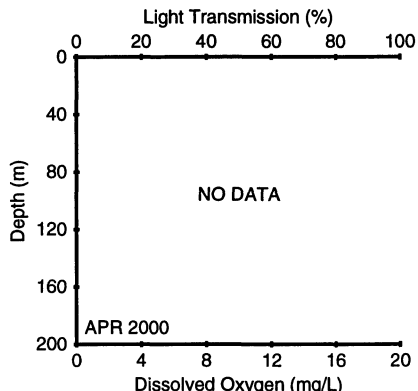
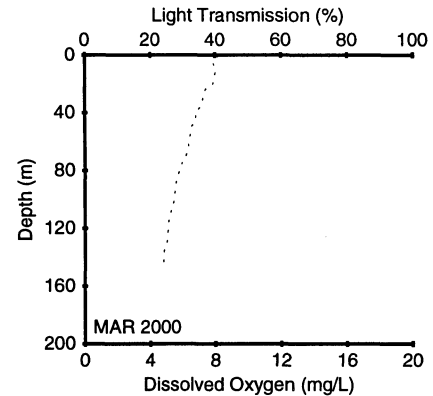
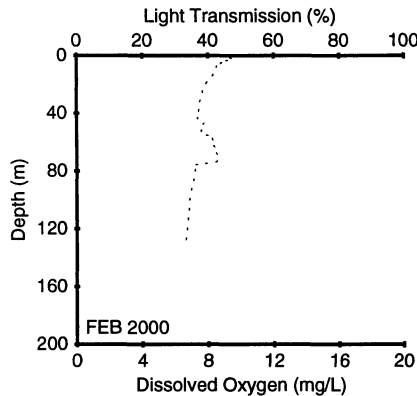
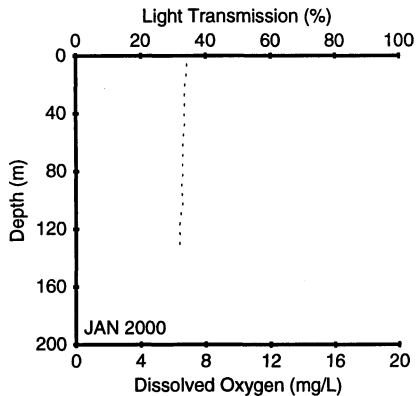
**Legend: Light Transmission = Solid Line    Dissolved Oxygen = Dotted Line**

**SJF002 Strait of San Juan de Fuca (JEMS) - S. of Cattle Pt. - South**



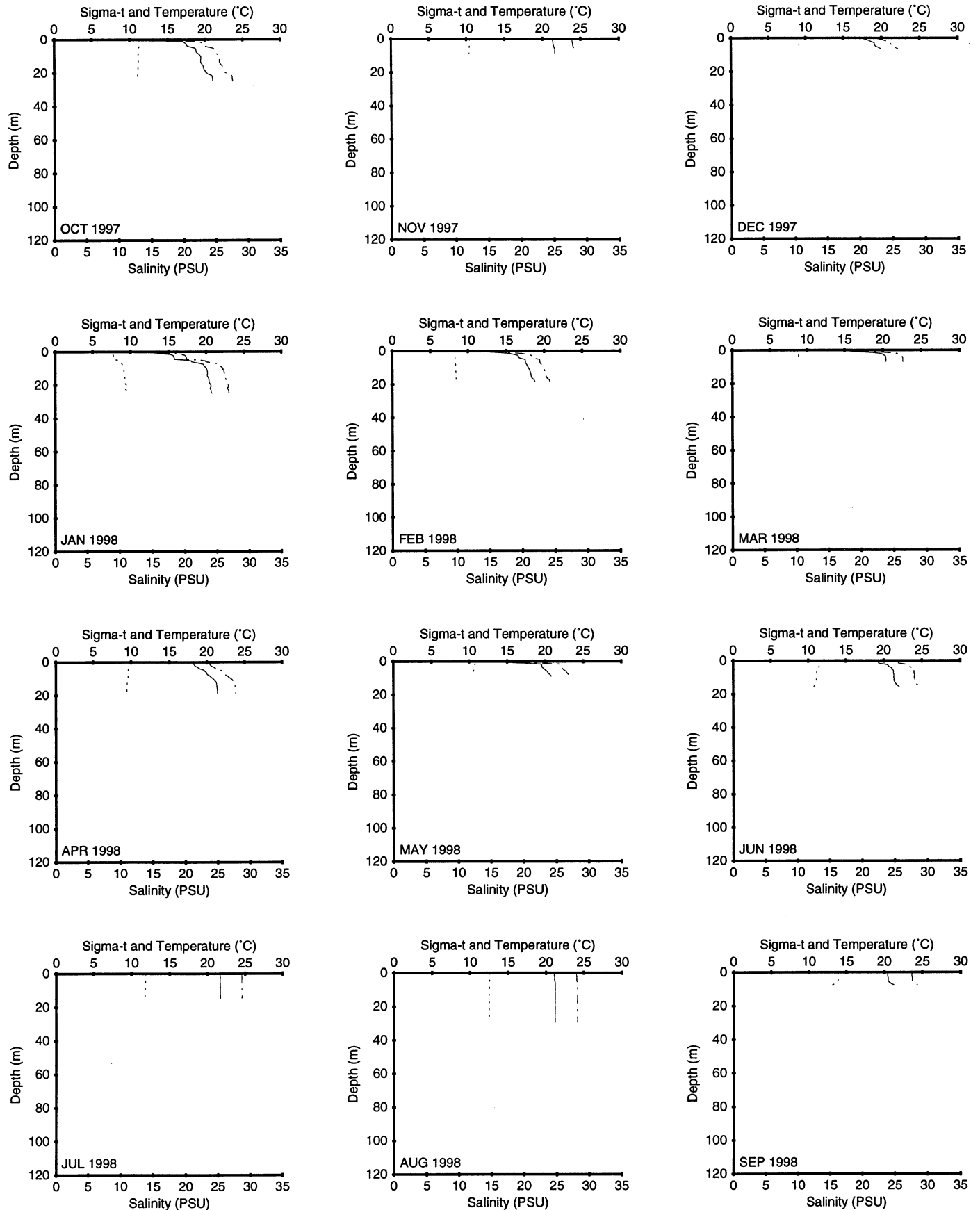
**Legend: Temperature = Dotted Line Salinity = Dot-Dashed Line Sigma-t = Solid Line**

**SJF002 Strait of San Juan de Fuca (JEMS) - S. of Cattle Pt. - South**



**Legend: Light Transmission = Solid Line Dissolved Oxygen = Dotted Line**

# SKG001 Skagit Bay - Hope Island

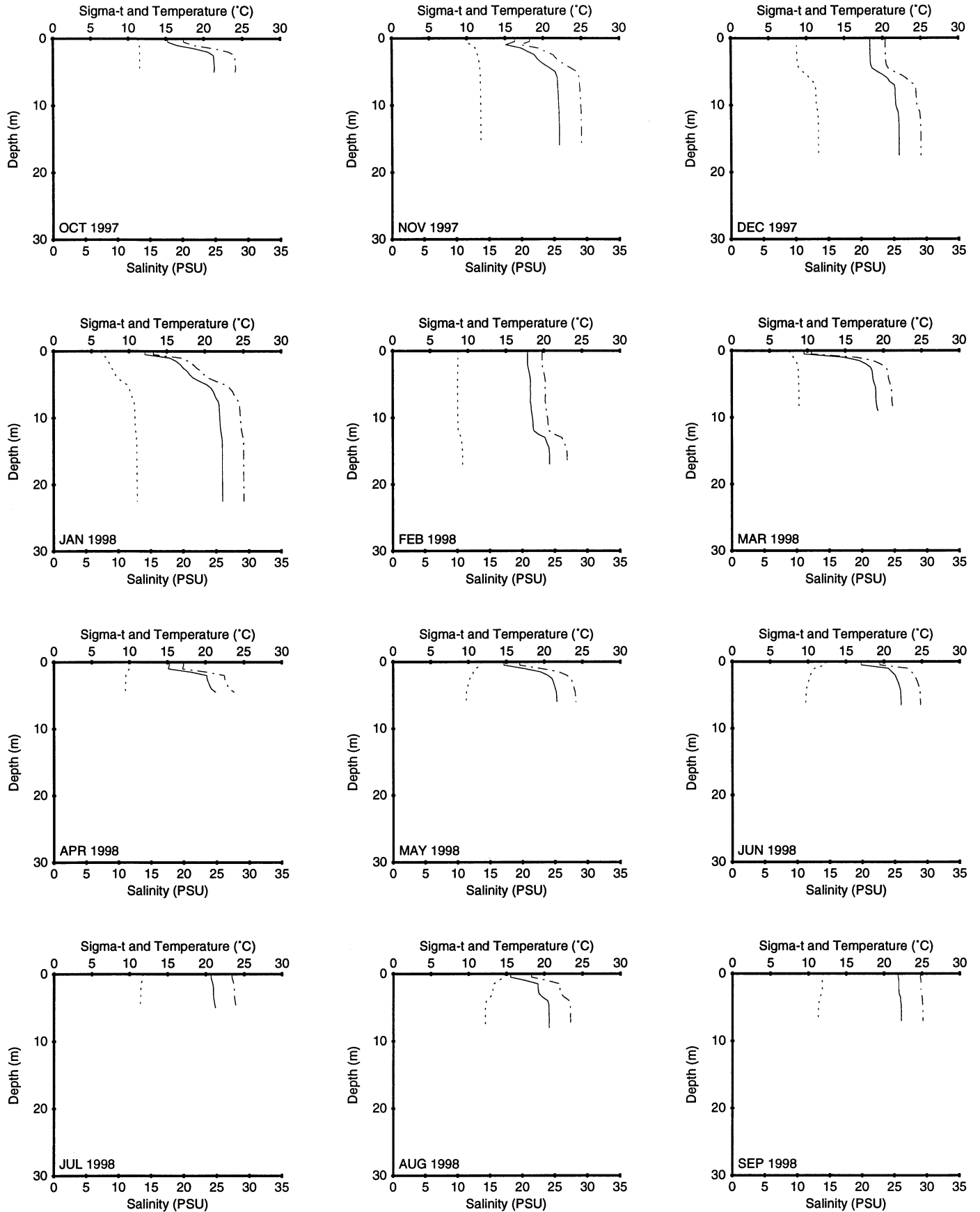


**Legend: Temperature = Dotted Line Salinity = Dot-Dashed Line Sigma-t = Solid Line**



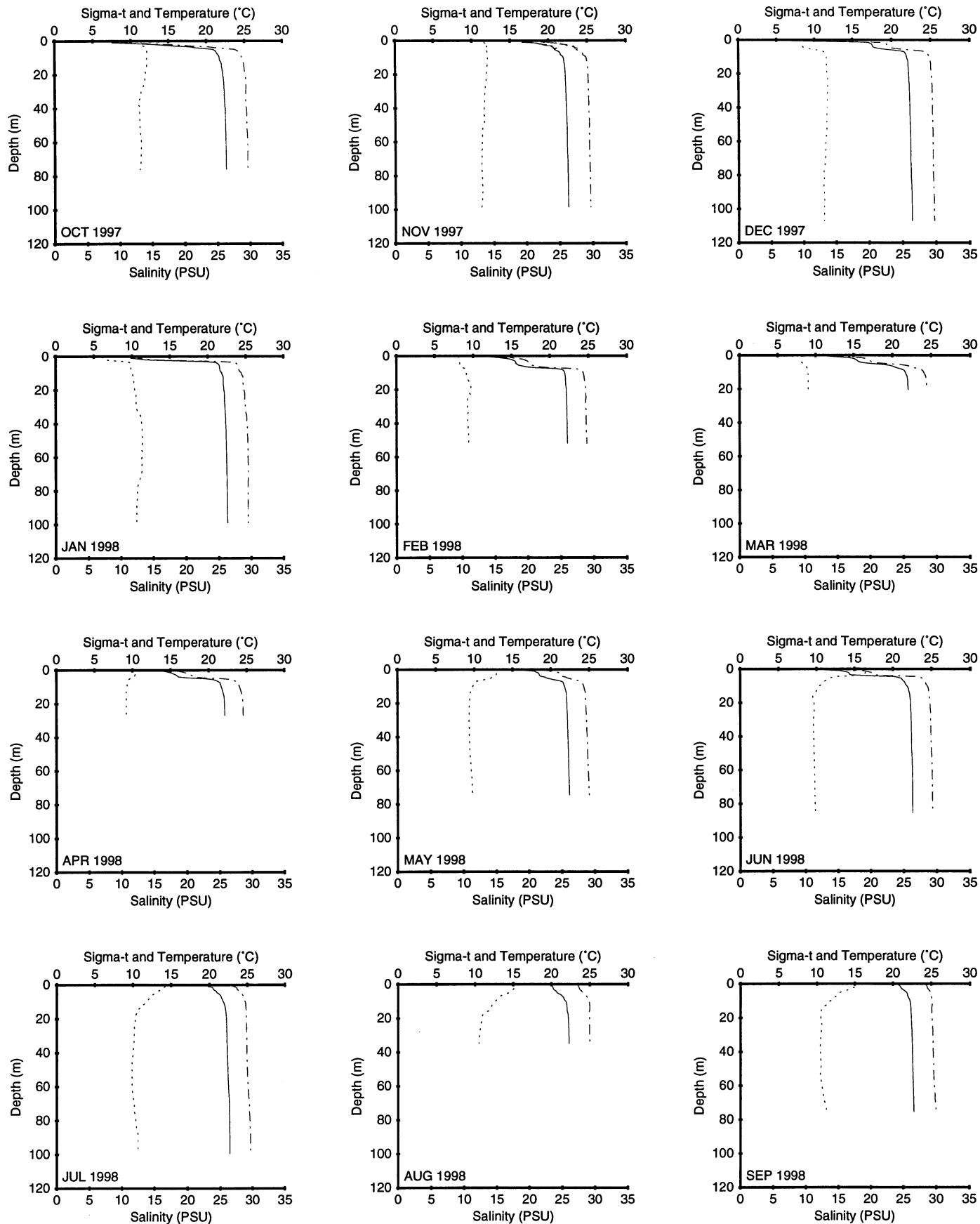


# SKG003 Skagit Bay - Str. Point Red Buoy



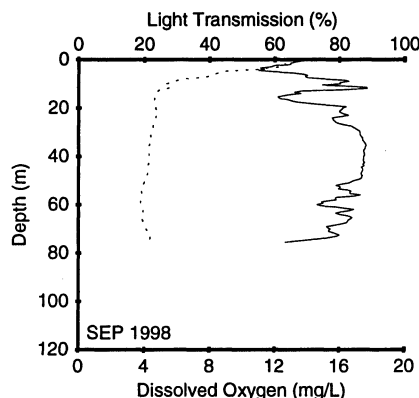
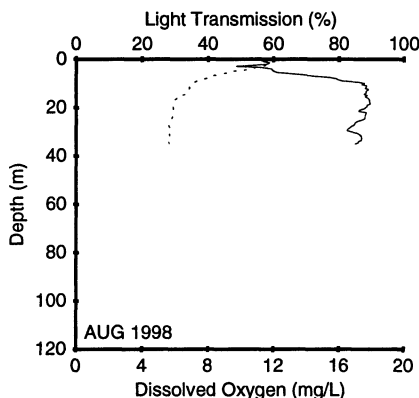
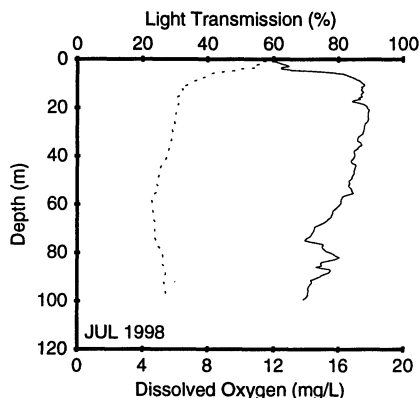
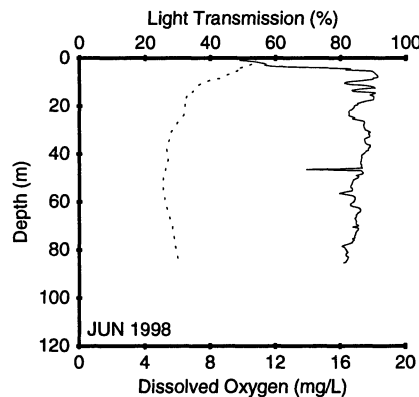
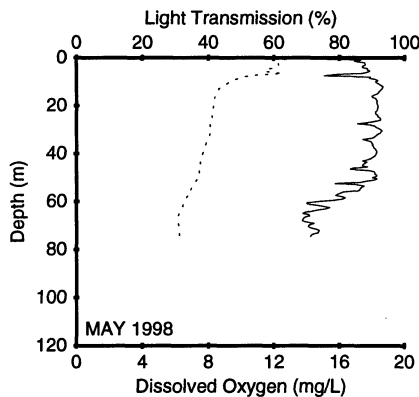
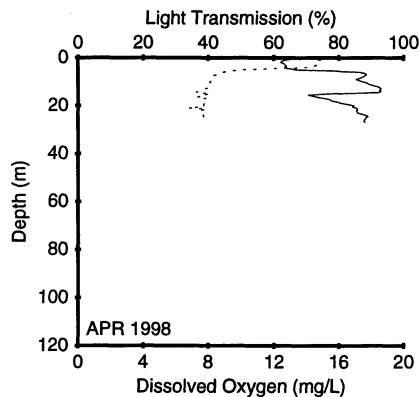
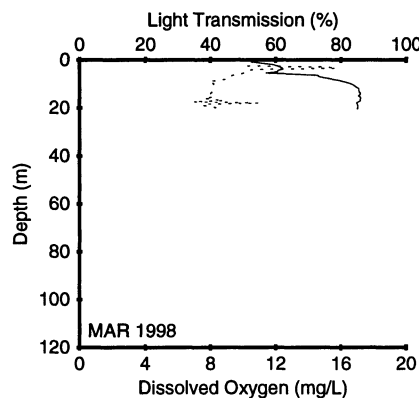
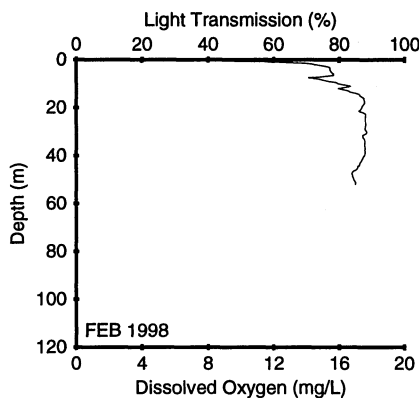
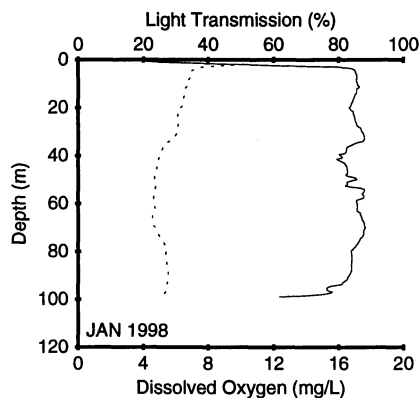
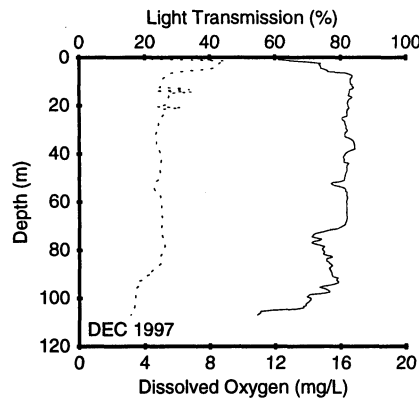
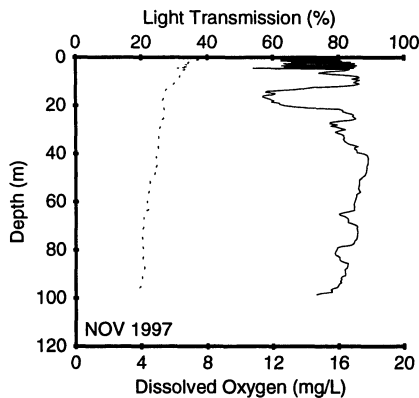
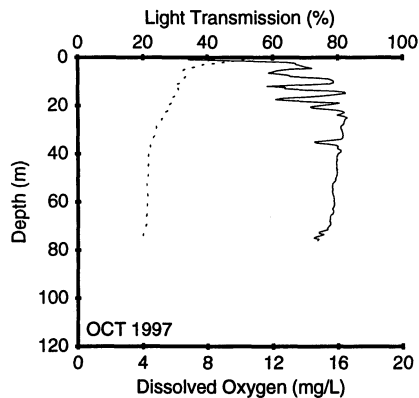


**SUZ001 Port Susan - Kayak Point**



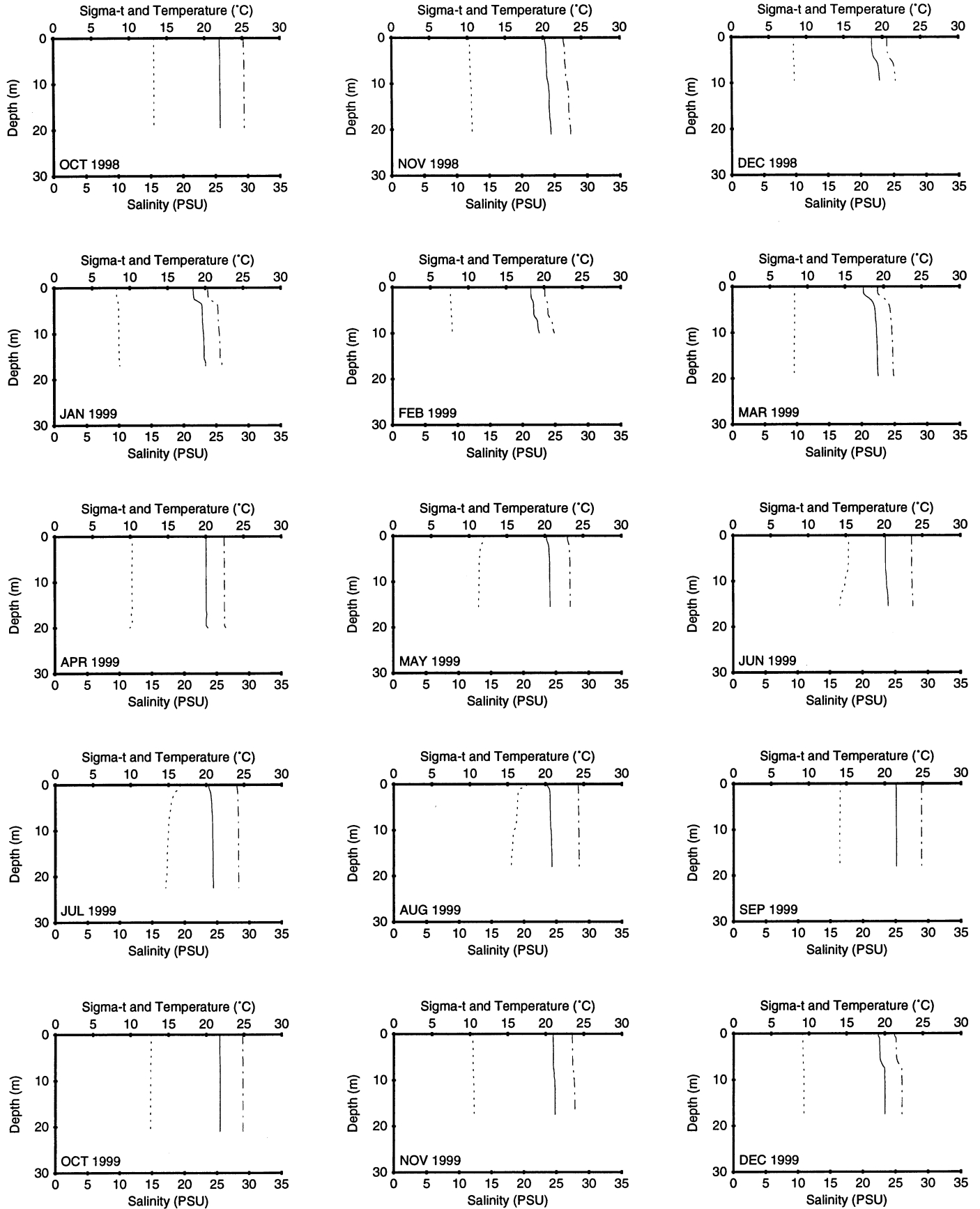
**Legend: Temperature = Dotted Line Salinity = Dot-Dashed Line Sigma-t = Solid Line**

**SUZ001 Port Susan - Kayak Point**



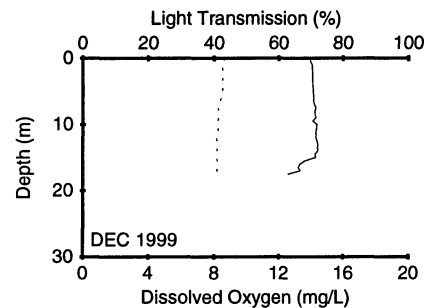
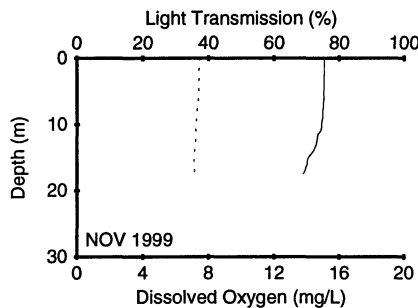
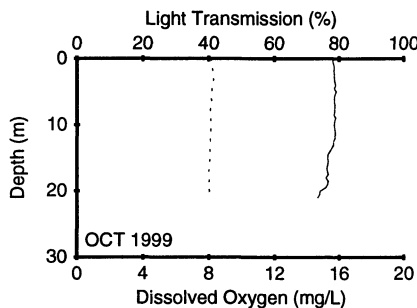
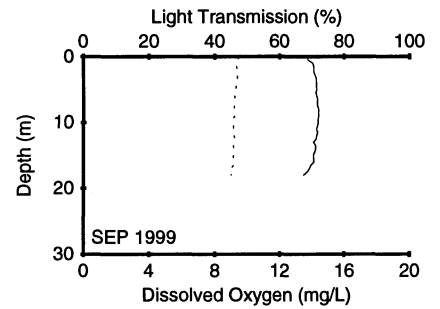
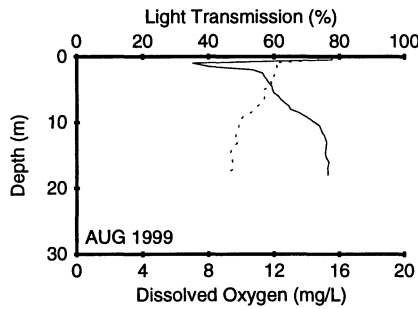
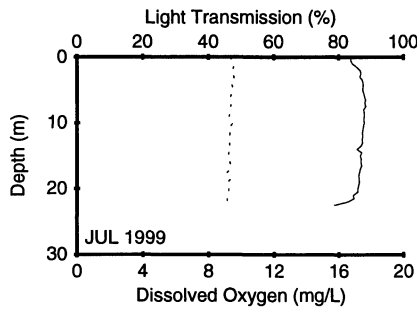
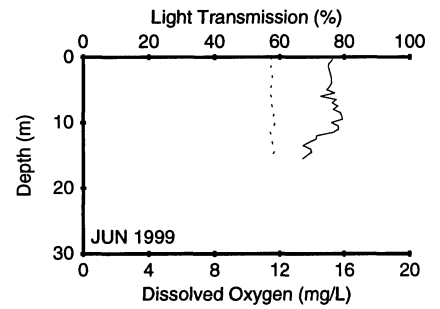
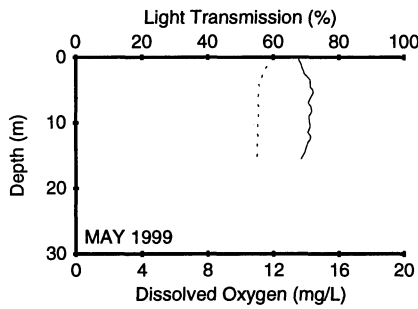
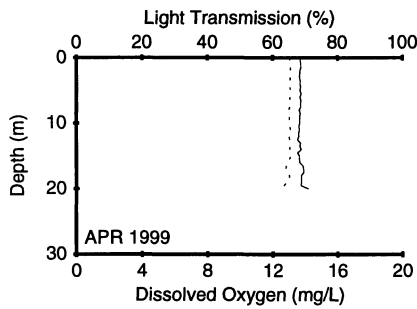
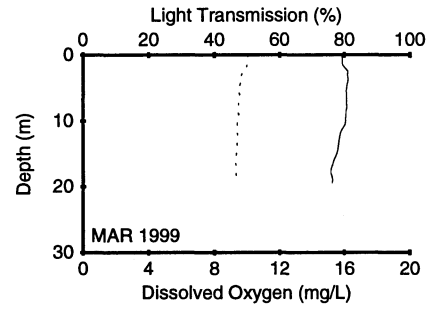
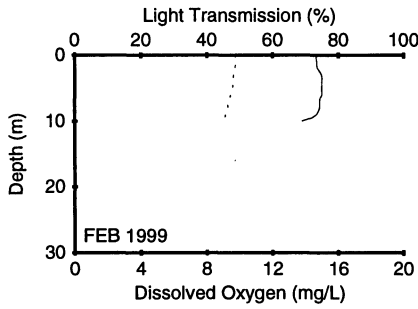
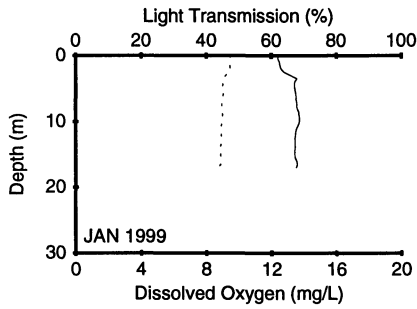
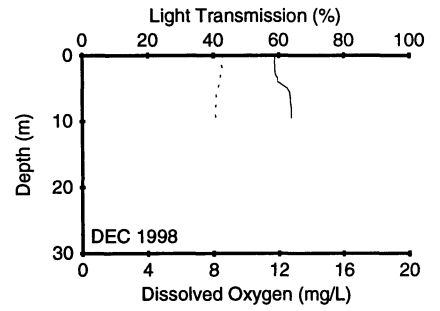
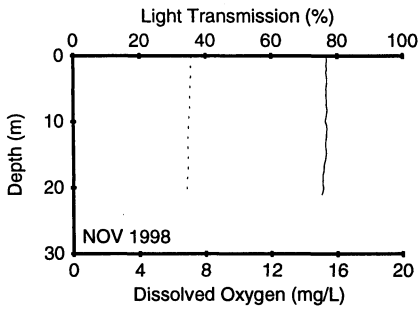
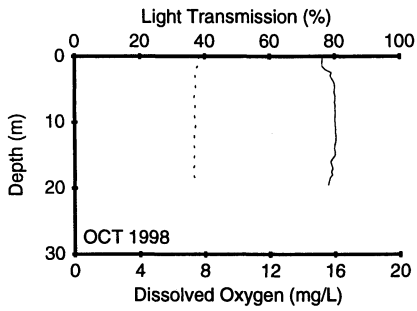
**Legend: Light Transmission = Solid Line Dissolved Oxygen = Dotted Line**

**TOT001 Totten Inlet - Windy Point**



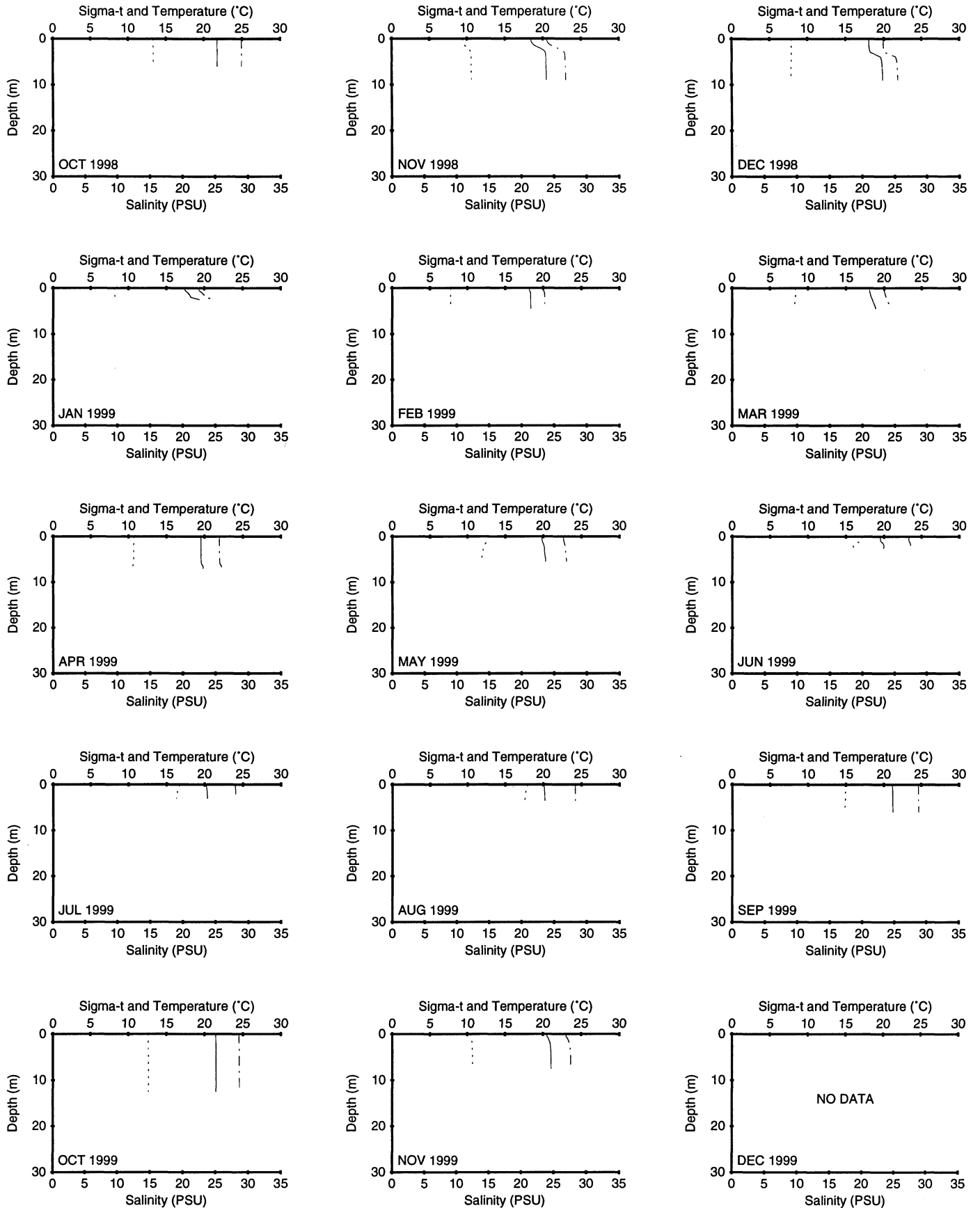
**Legend: Temperature = Dotted Line Salinity = Dot-Dashed Line Sigma-t = Solid Line**

**TOT001 Totten Inlet - Windy Point**



**Legend: Light Transmission = Solid Line Dissolved Oxygen = Dotted Line**

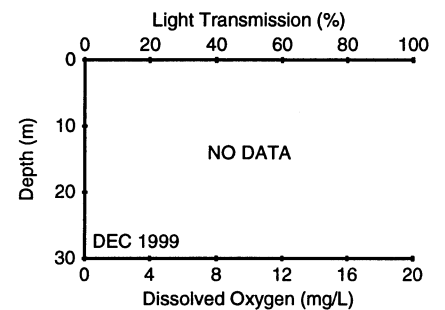
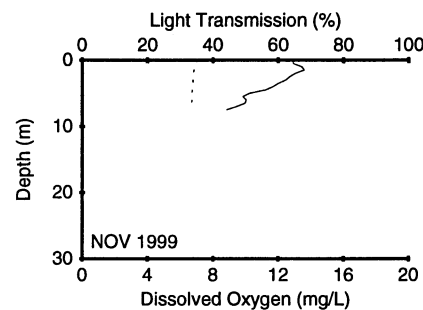
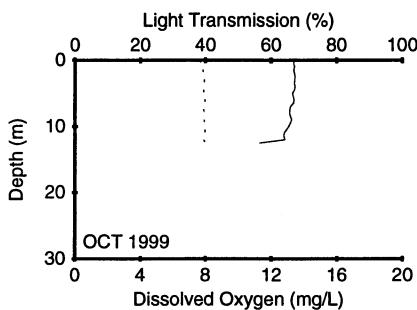
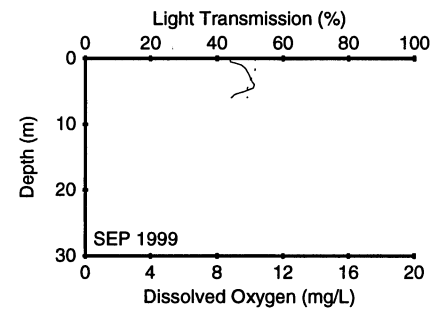
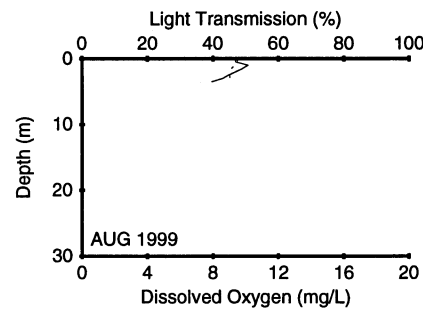
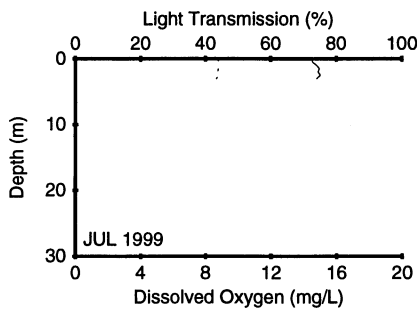
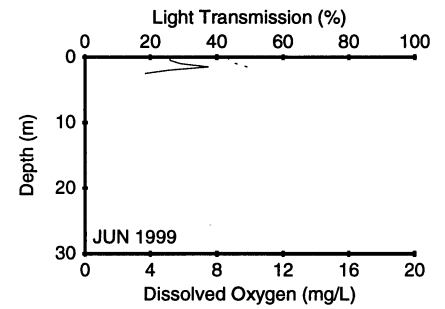
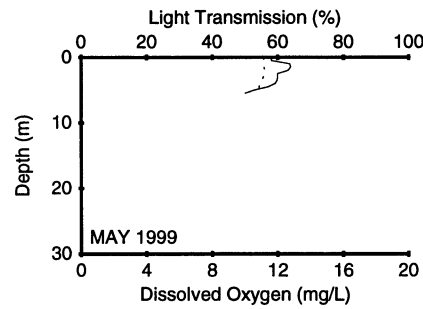
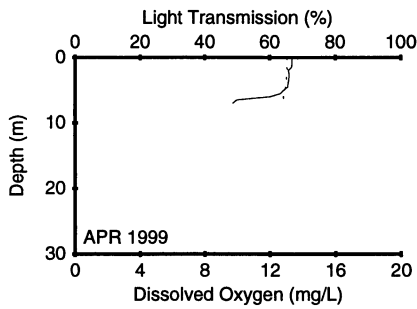
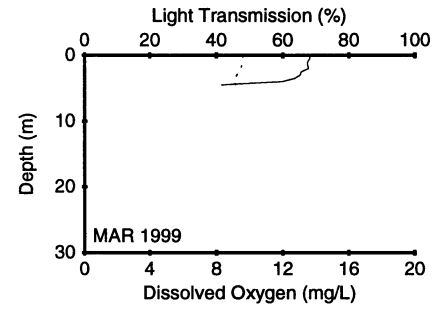
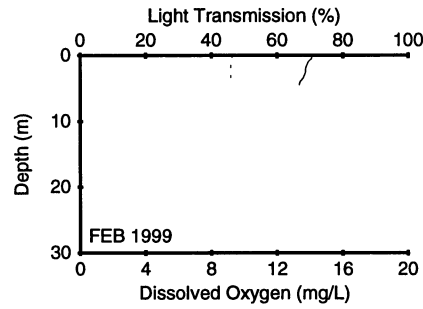
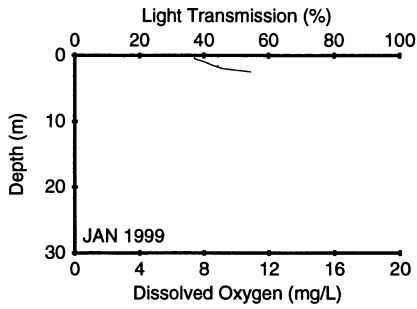
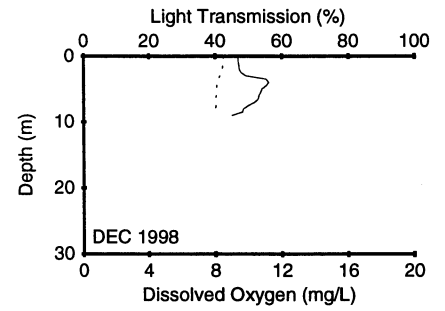
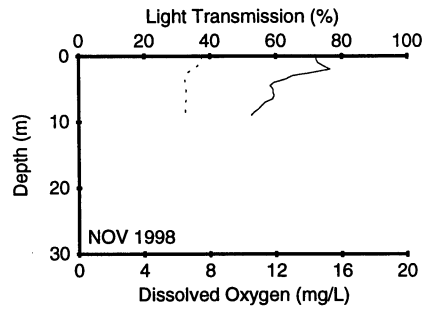
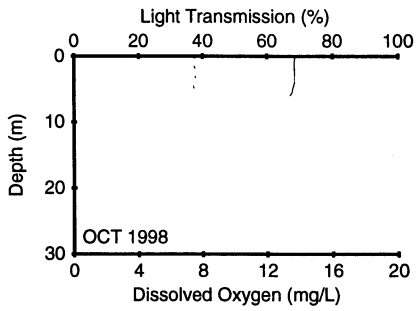
**TOT002 Totten Inlet - Totten, Inner Inlet**



**Legend: Temperature = Dotted Line Salinity = Dot-Dashed Line Sigma-t = Solid Line**

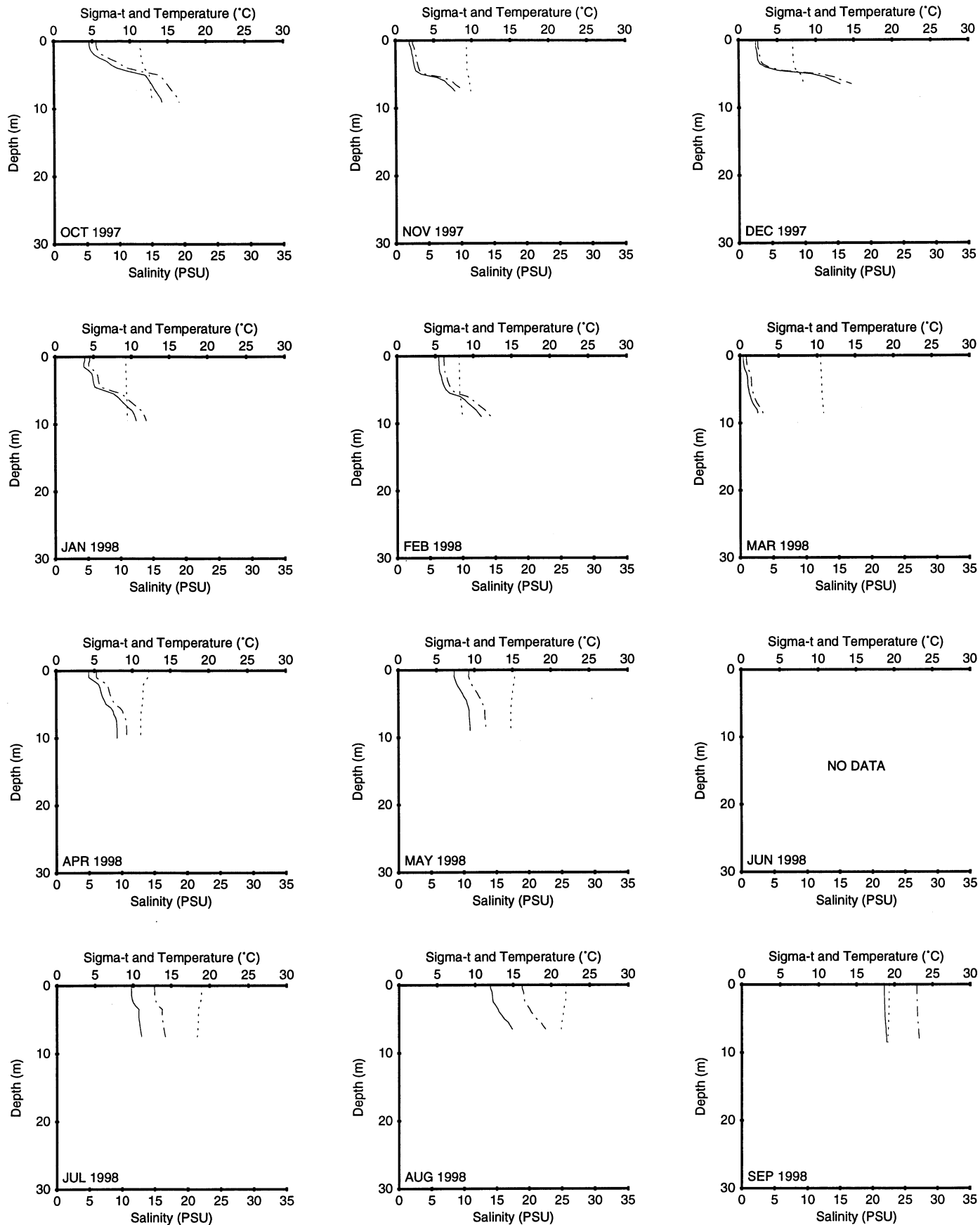


TOT002 Totten Inlet - Totten, Inner Inlet



Legend: Light Transmission = Solid Line Dissolved Oxygen = Dotted Line

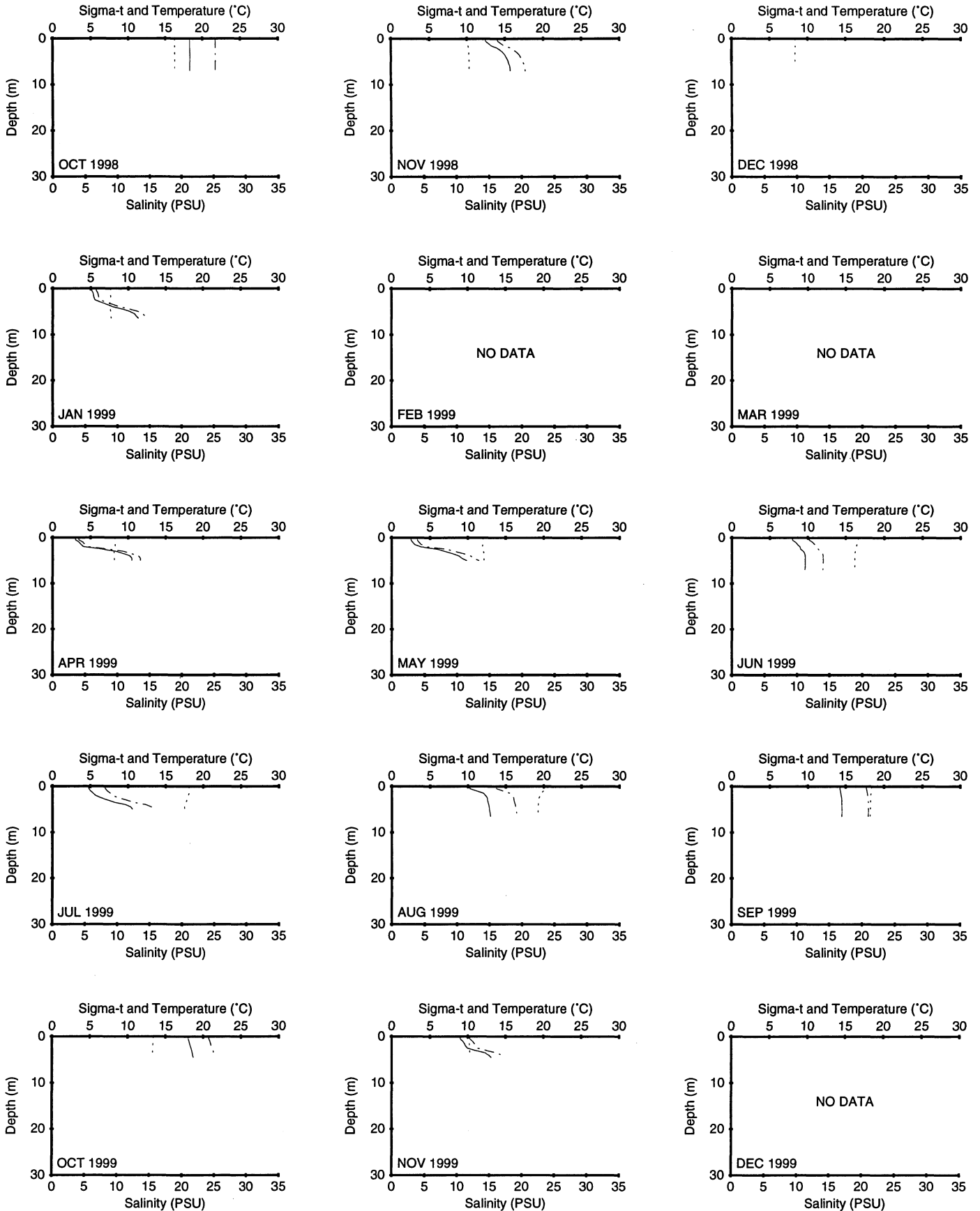
**WPA001 Willapa Bay - Willapa R., Raymond**



**Legend: Temperature = Dotted Line Salinity = Dot-Dashed Line Sigma-t = Solid Line**



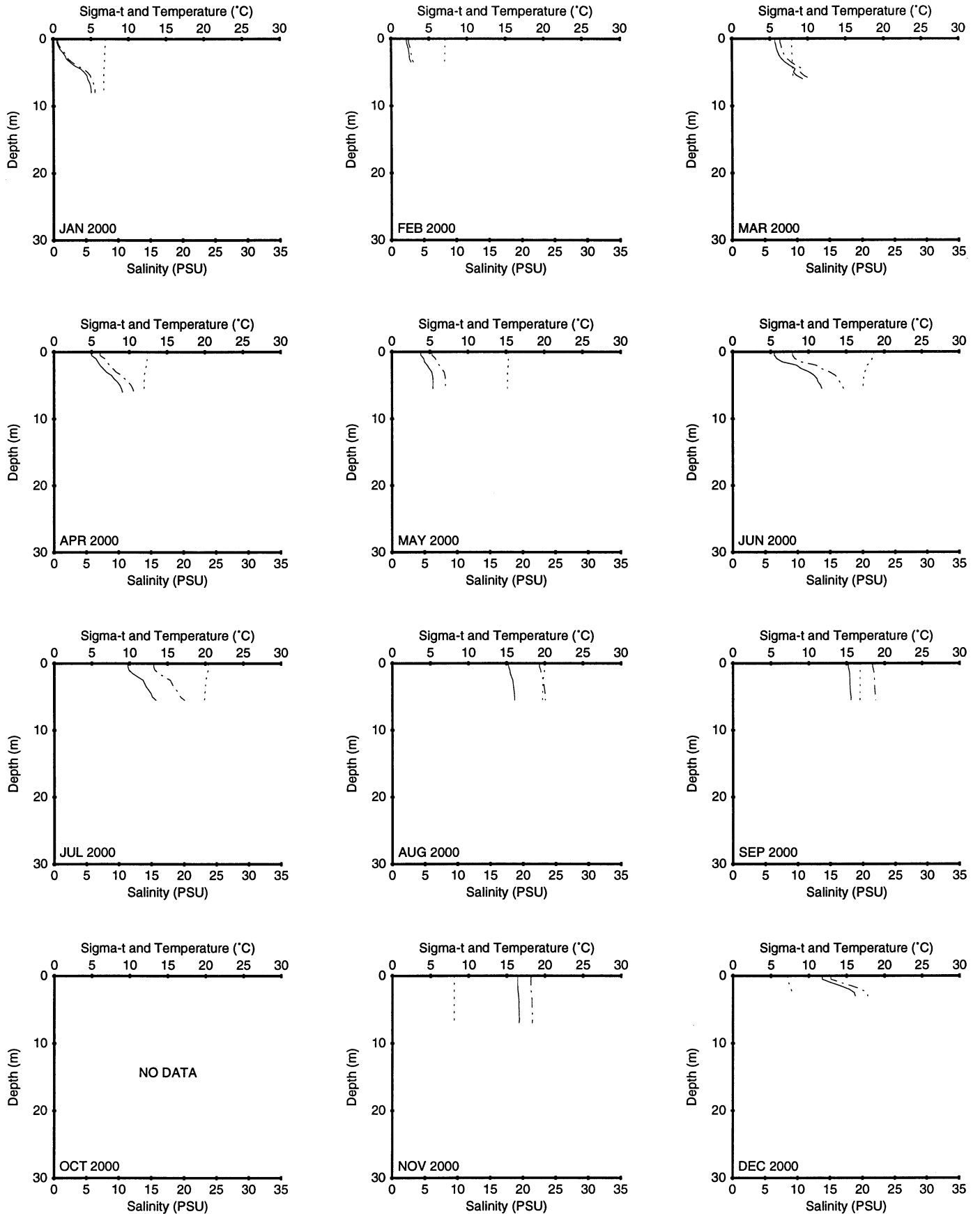
**WPA001 Willapa Bay - Willapa R., Raymond**



**Legend: Temperature = Dotted Line Salinity = Dot-Dashed Line Sigma-t = Solid Line**



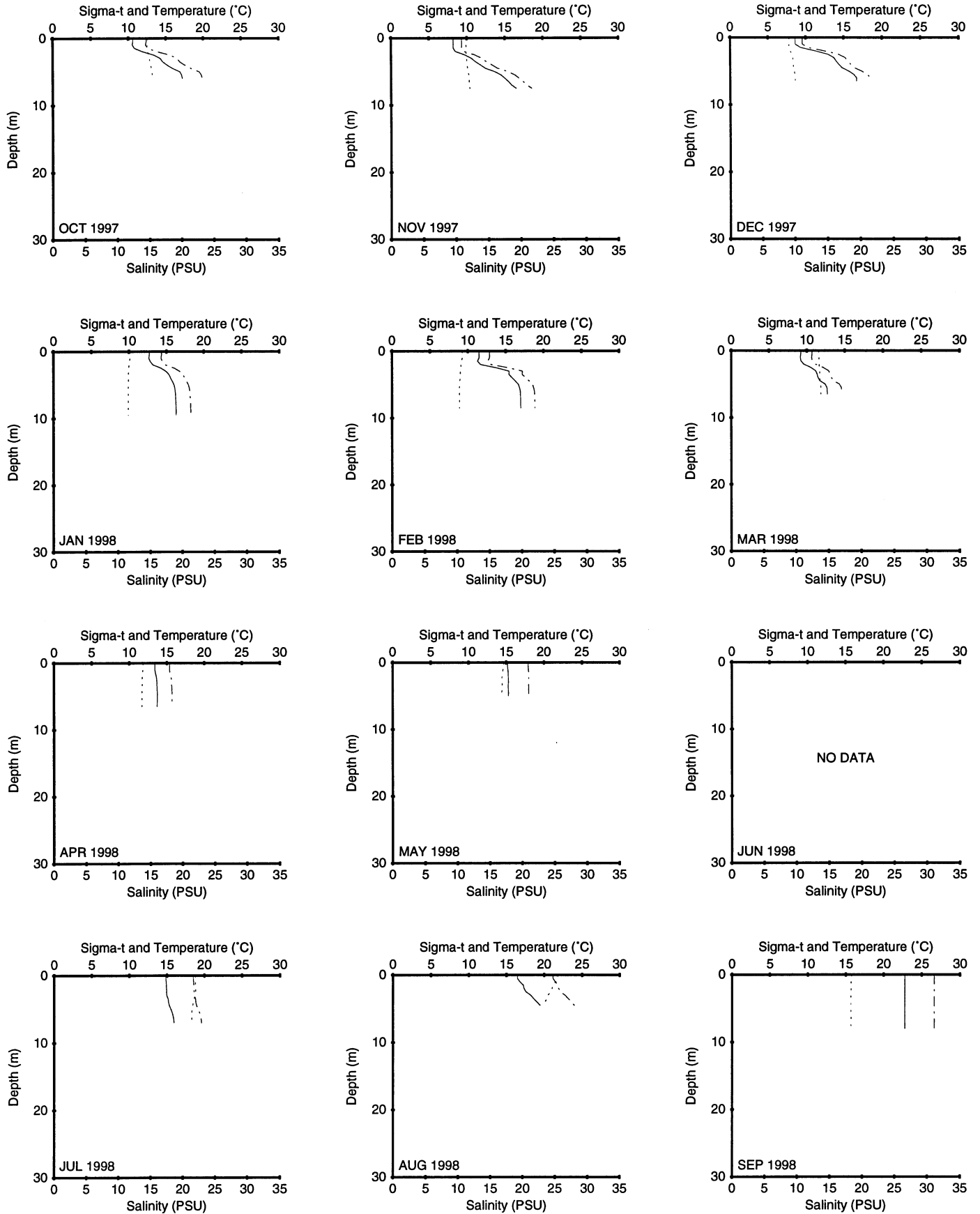
**WPA001 Willapa Bay - Willapa R., Raymond**



**Legend: Temperature = Dotted Line Salinity = Dot-Dashed Line Sigma-t = Solid Line**



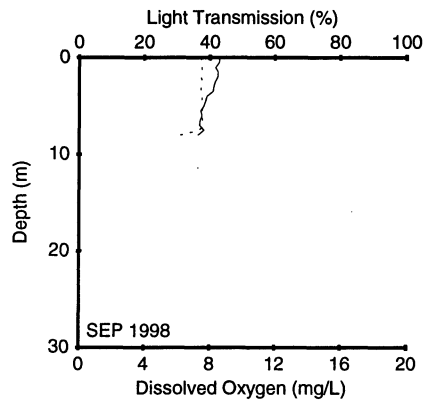
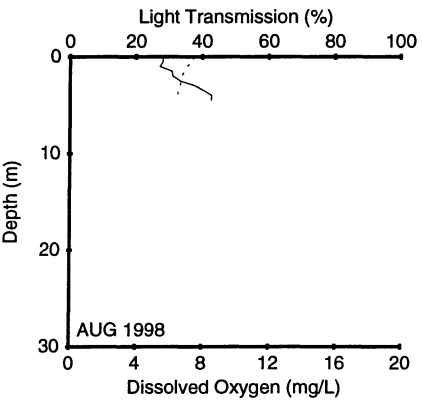
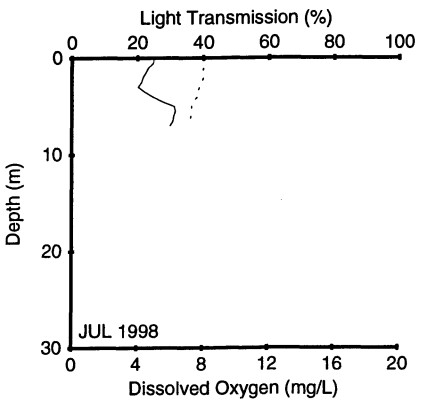
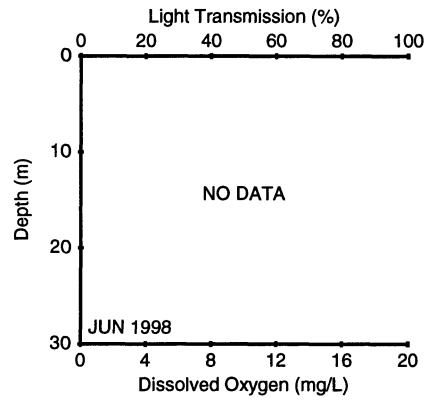
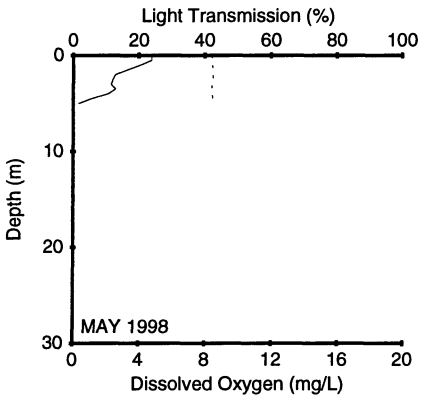
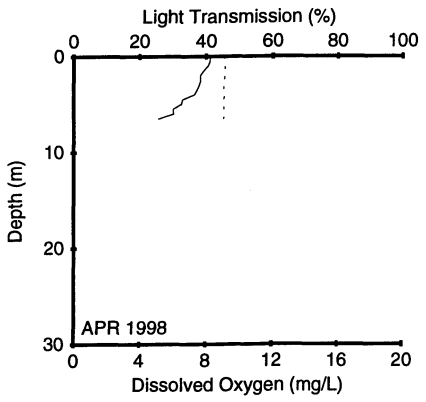
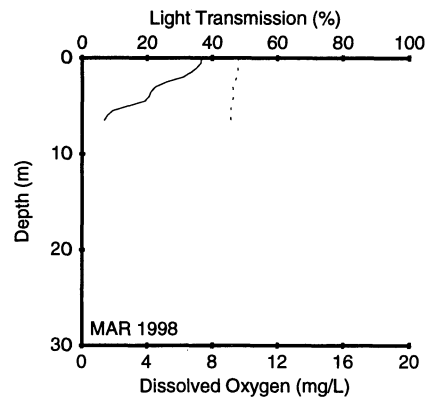
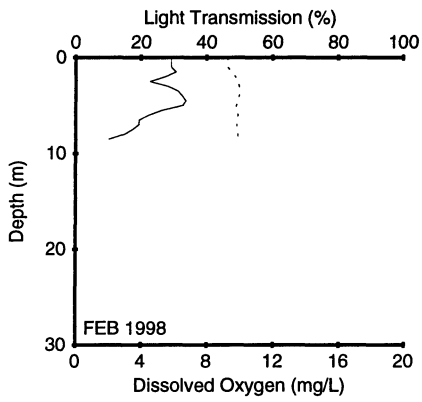
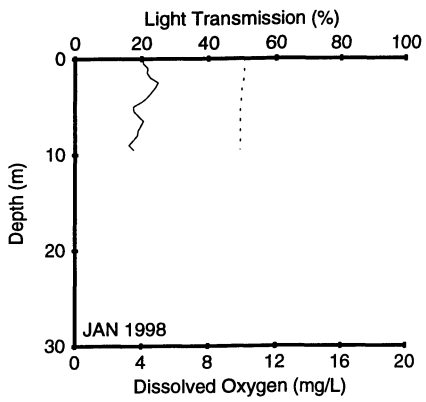
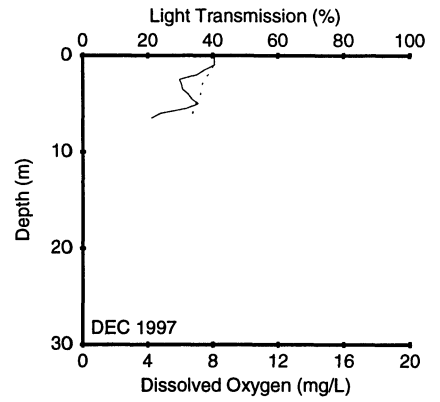
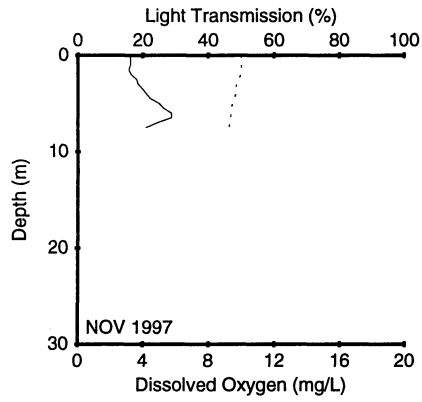
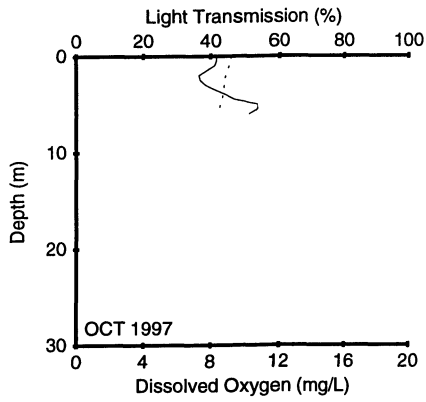
**WPA003 Willapa Bay - Willapa R., John. Slough**



**Legend: Temperature = Dotted Line Salinity = Dot-Dashed Line Sigma-t = Solid Line**

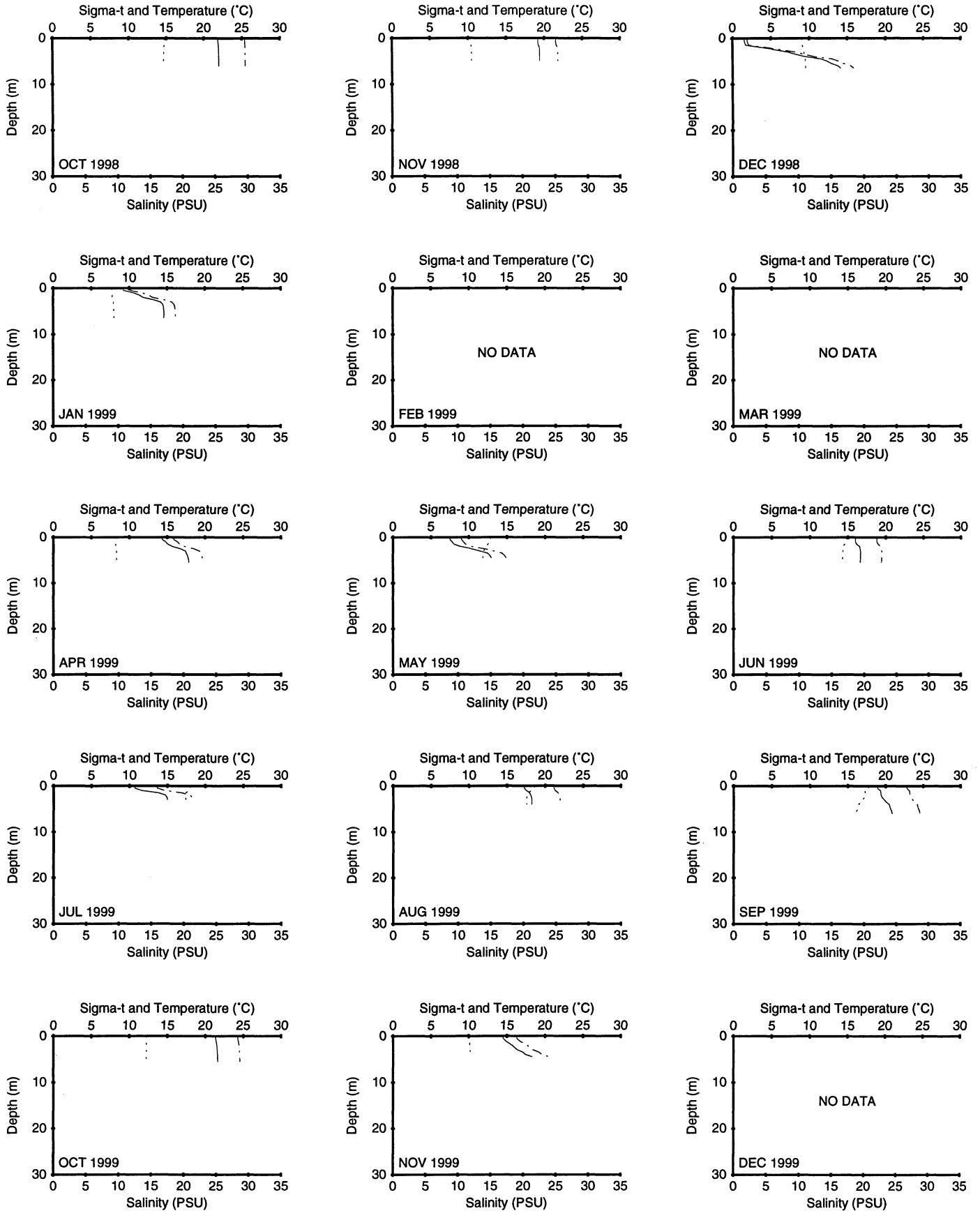


WPA003 Willapa Bay - Willapa R., John. Slough



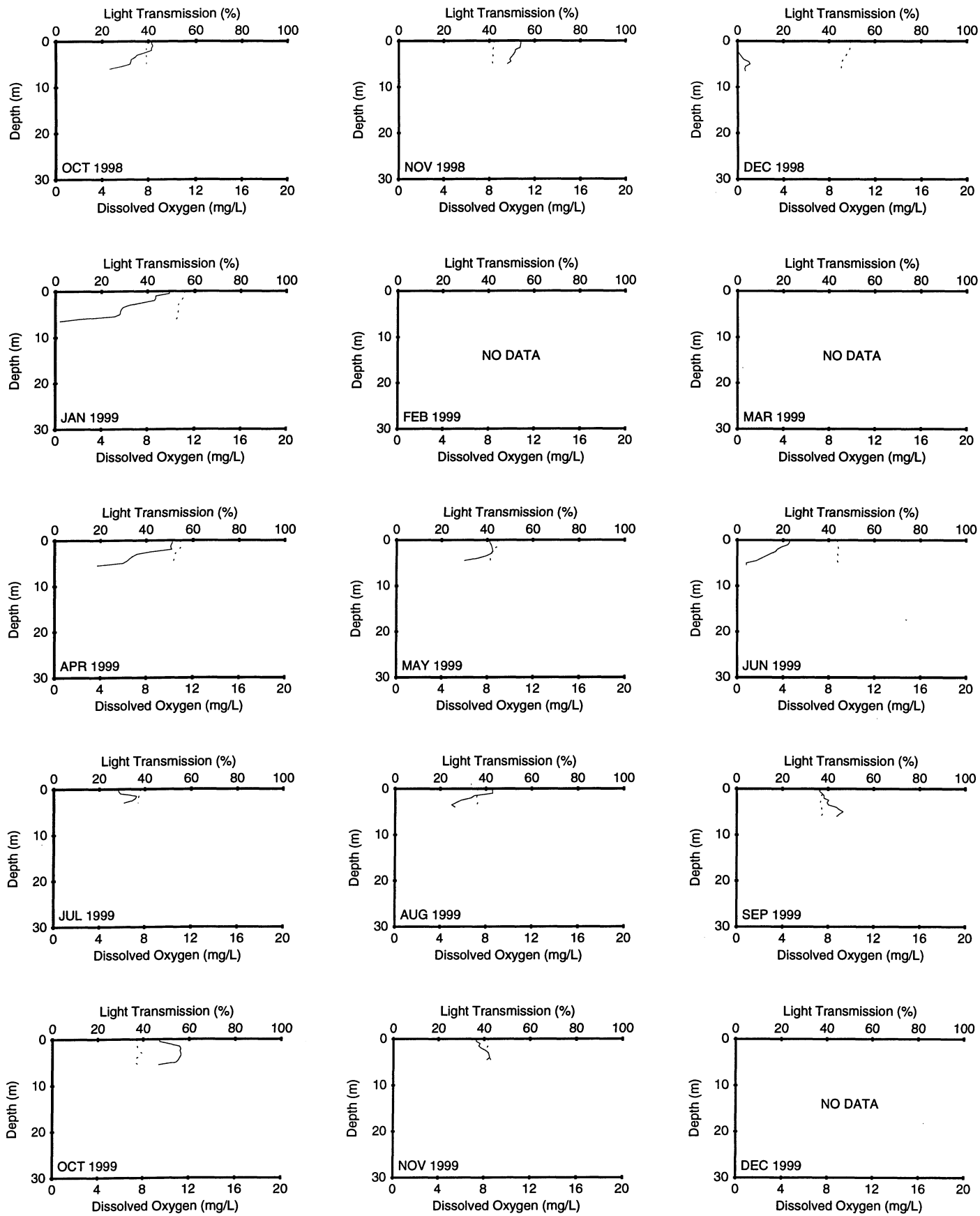
Legend: Light Transmission = Solid Line Dissolved Oxygen = Dotted Line

**WPA003 Willapa Bay - Willapa R., John. Slough**



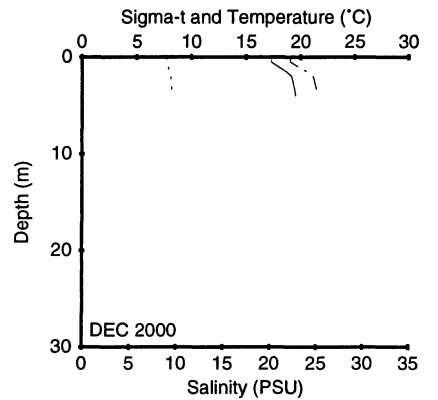
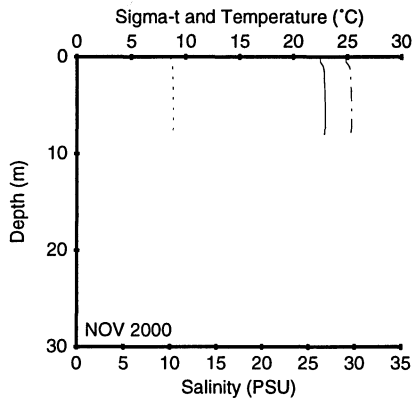
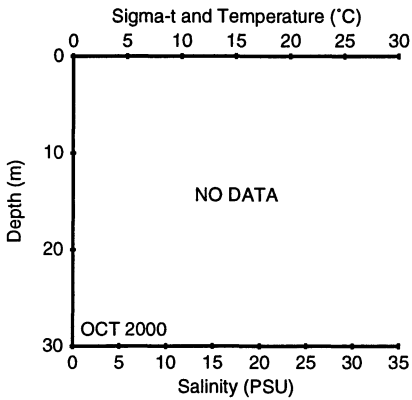
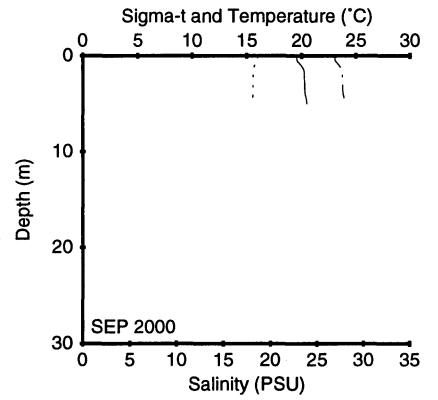
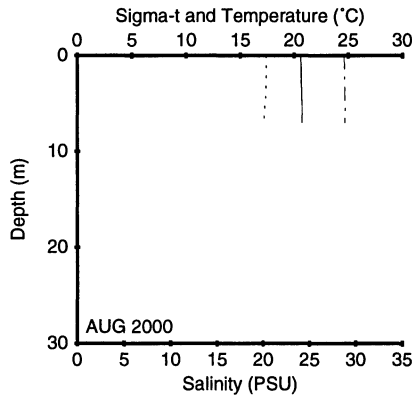
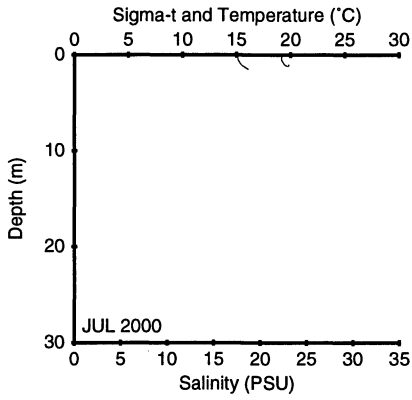
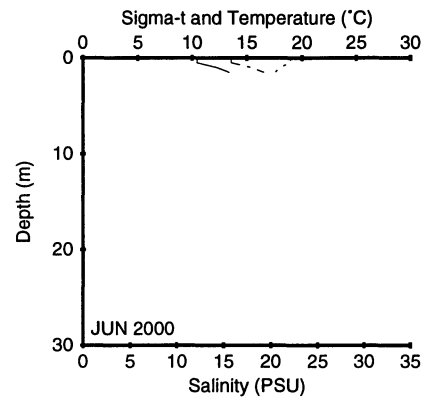
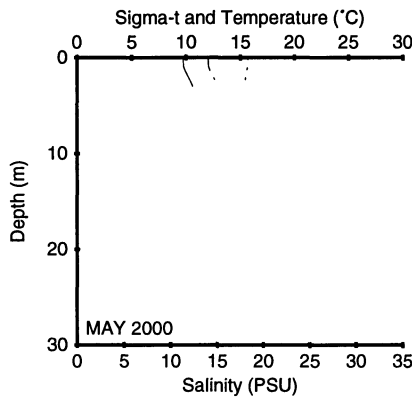
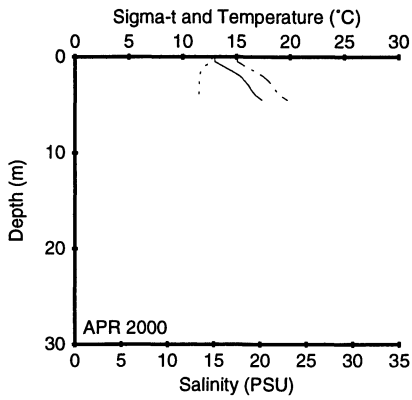
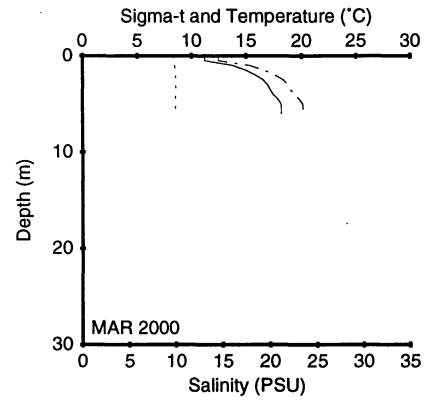
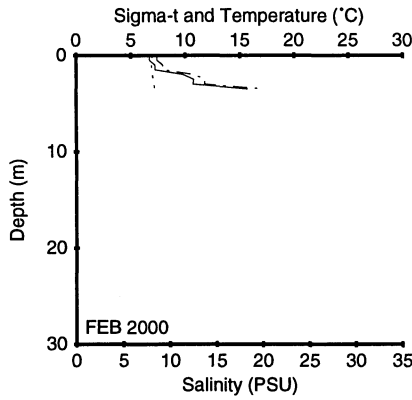
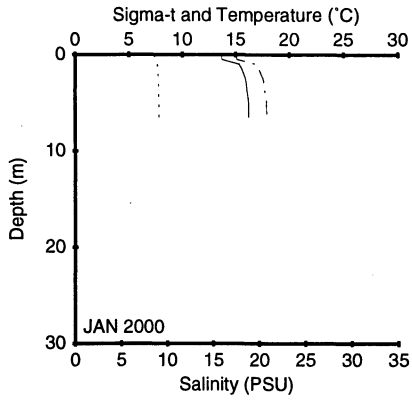
**Legend: Temperature = Dotted Line Salinity = Dot-Dashed Line Sigma-t = Solid Line**

**WPA003 Willapa Bay - Willapa R., John. Slough**



**Legend: Light Transmission = Solid Line Dissolved Oxygen = Dotted Line**

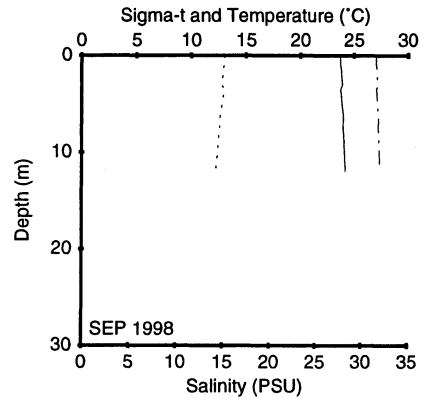
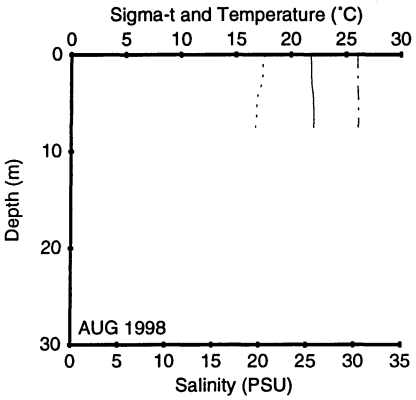
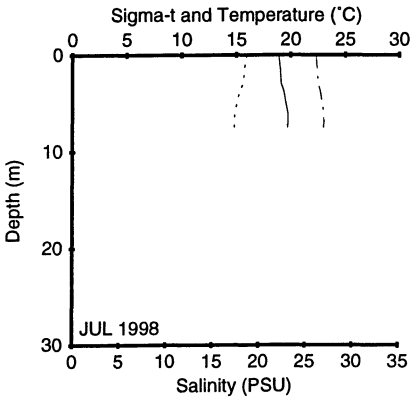
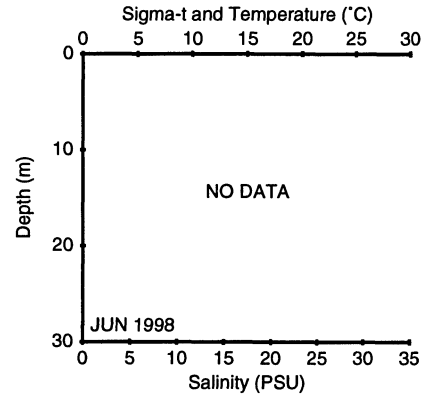
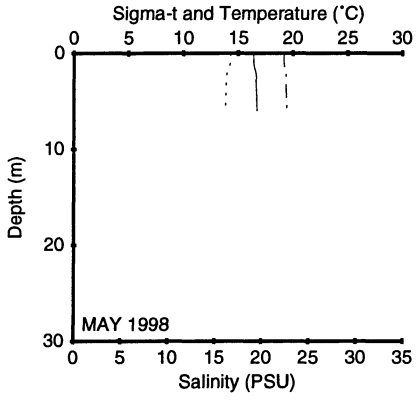
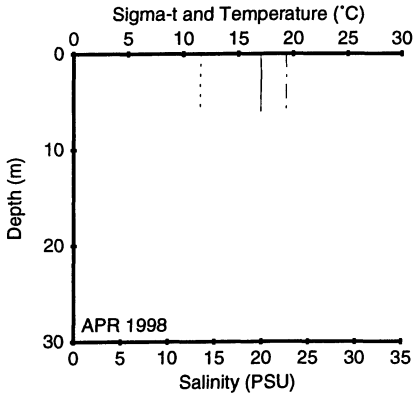
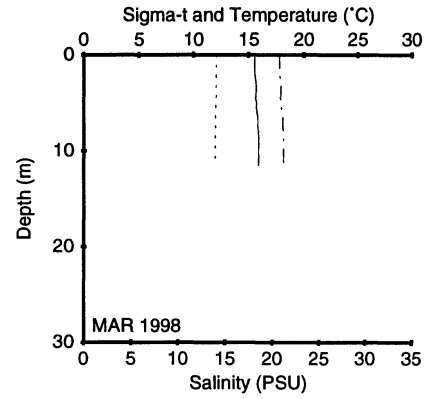
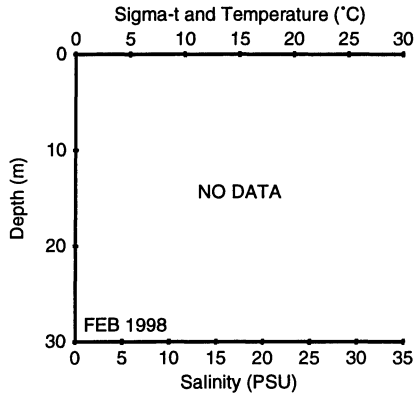
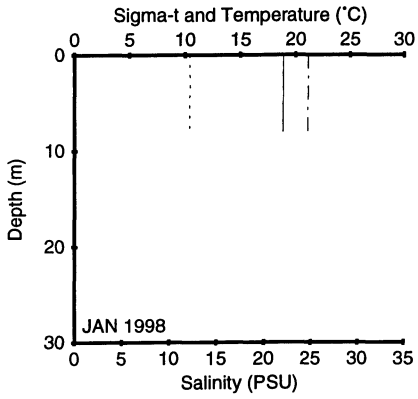
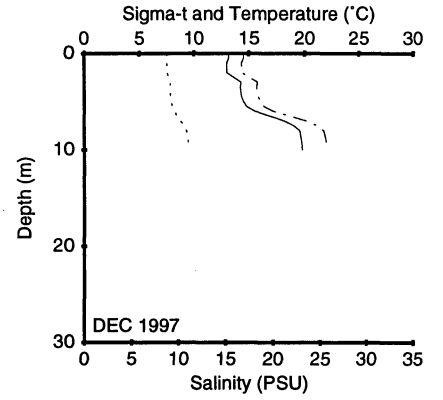
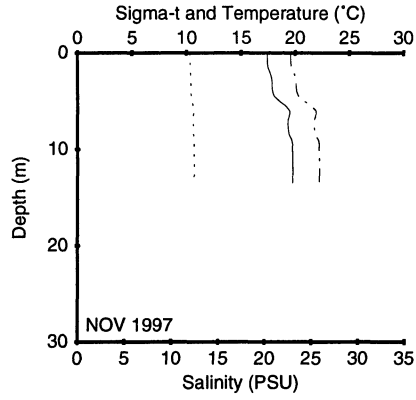
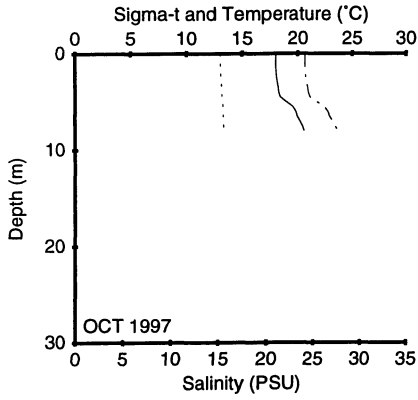
**WPA003 Willapa Bay - Willapa R., John. Slough**



**Legend: Temperature = Dotted Line Salinity = Dot-Dashed Line Sigma-t = Solid Line**

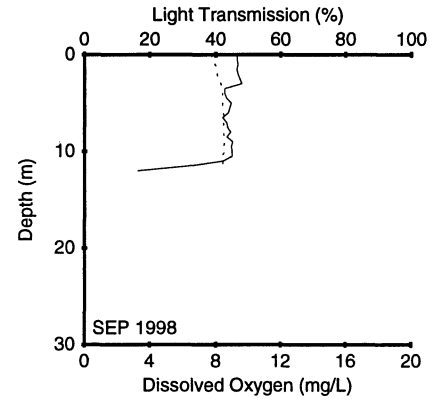
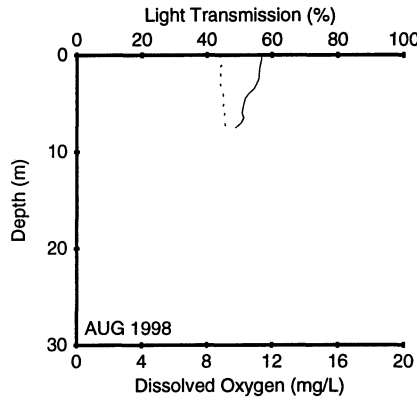
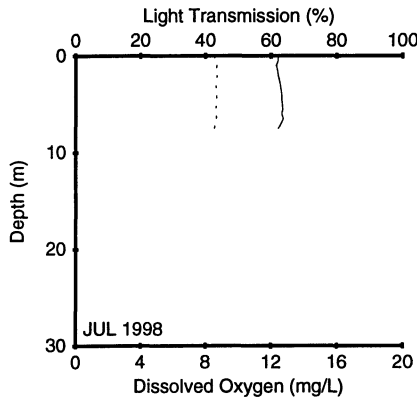
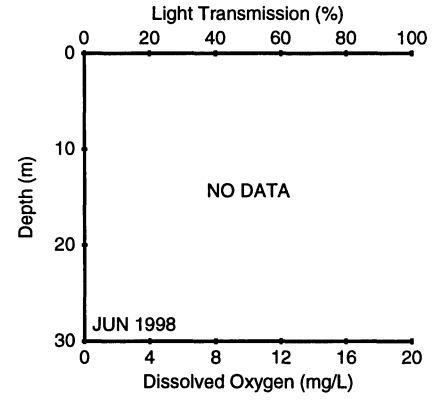
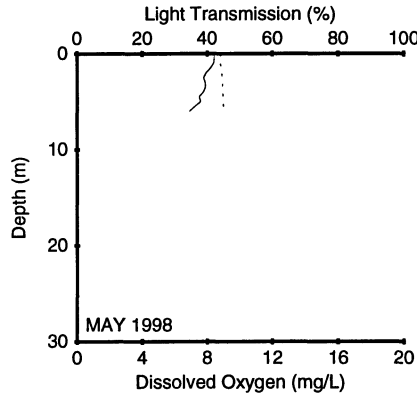
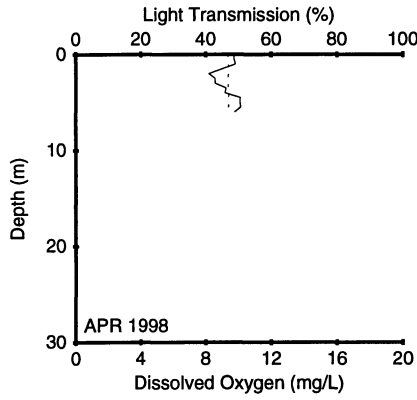
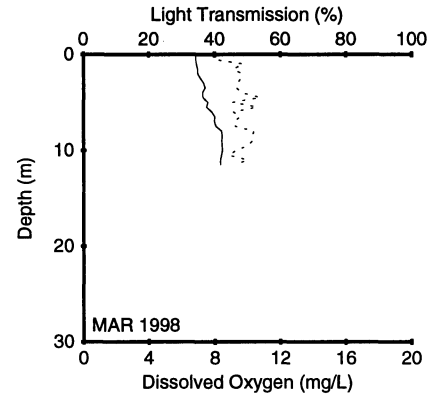
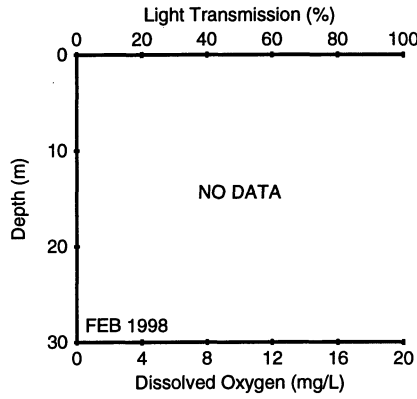
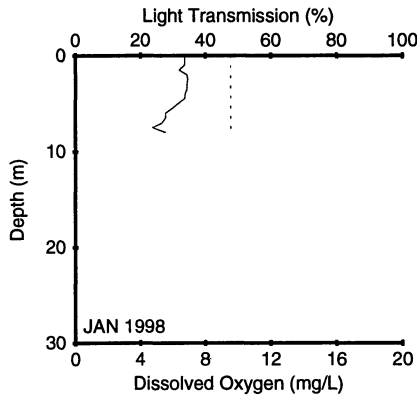
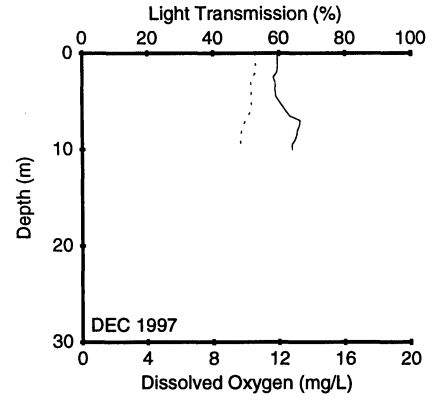
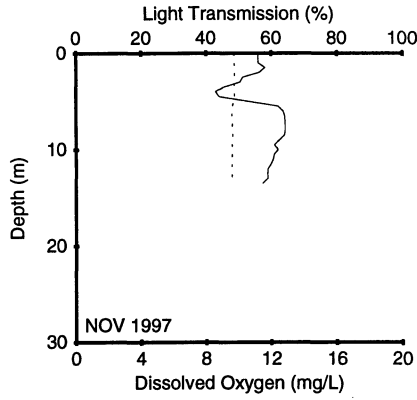
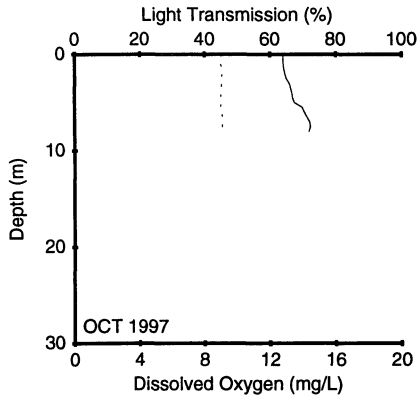


**WPA004 Willapa Bay - Toke Point**



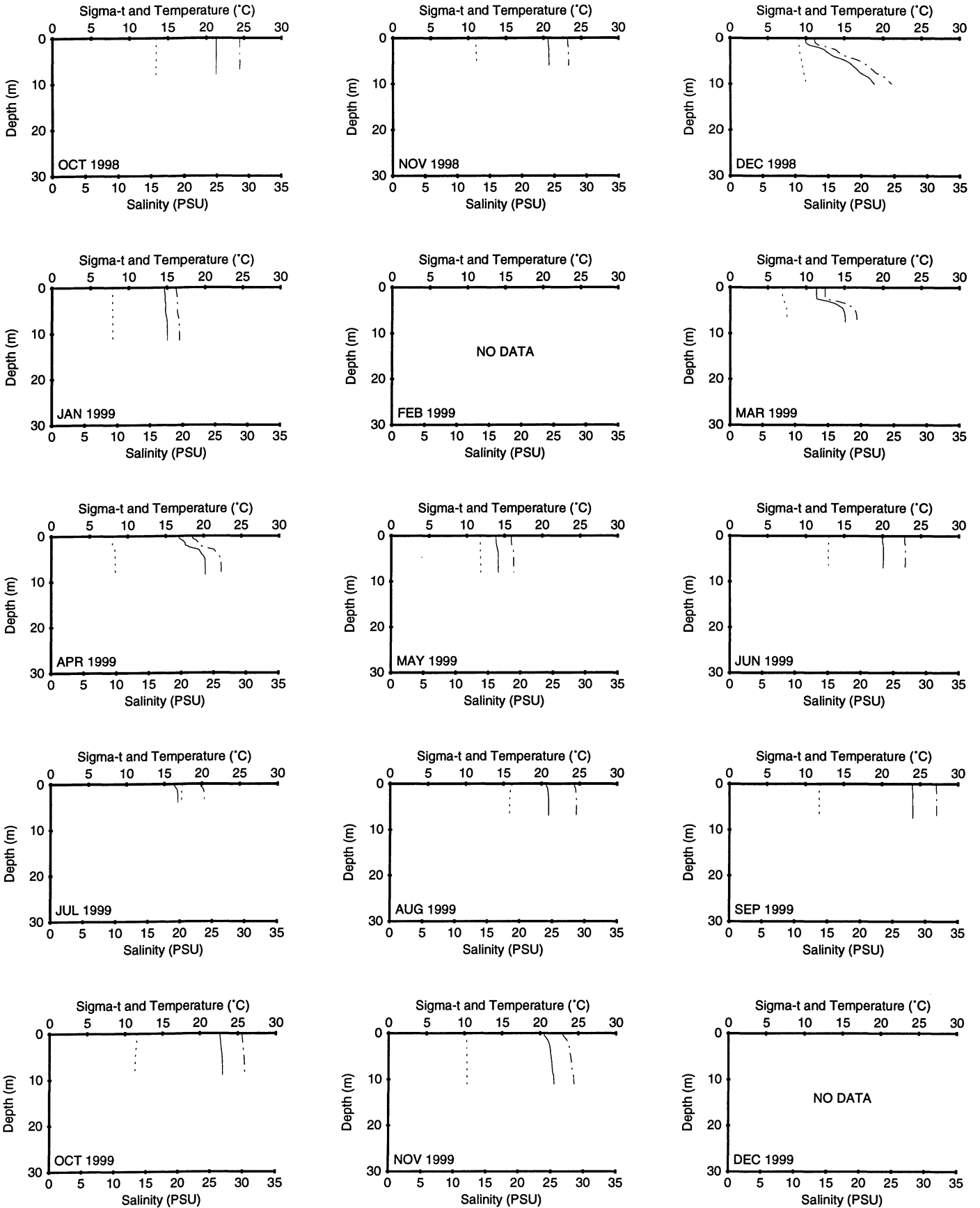
**Legend: Temperature = Dotted Line Salinity = Dot-Dashed Line Sigma-t = Solid Line**

**WPA004 Willapa Bay - Toke Point**



**Legend: Light Transmission = Solid Line Dissolved Oxygen = Dotted Line**

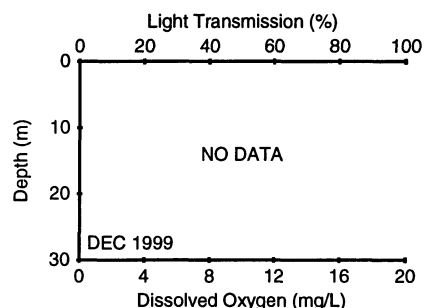
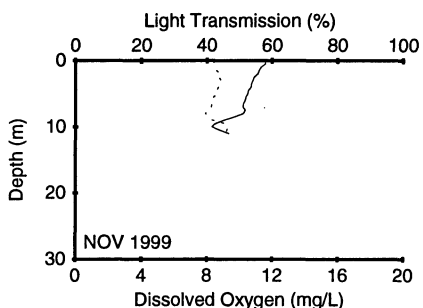
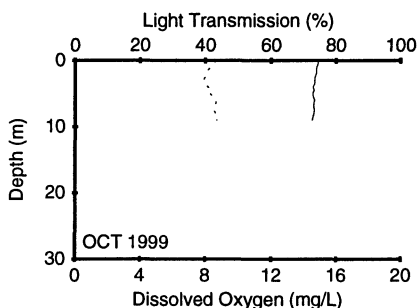
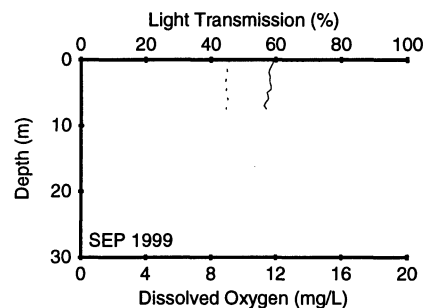
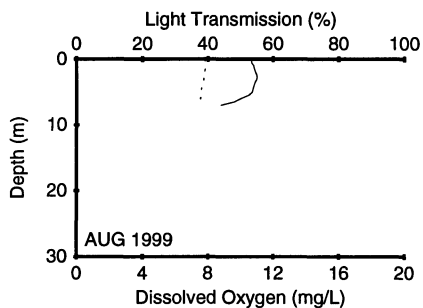
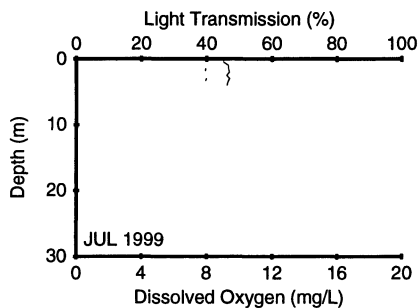
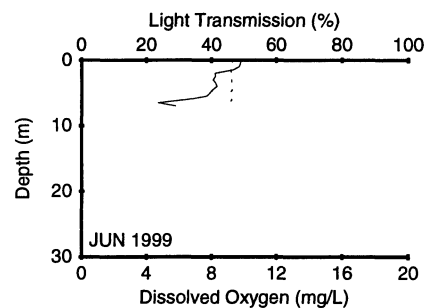
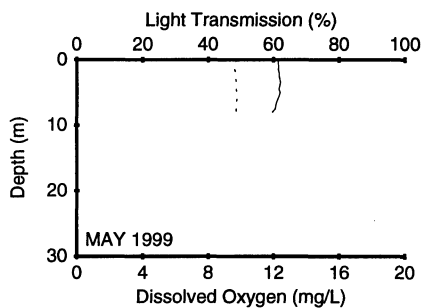
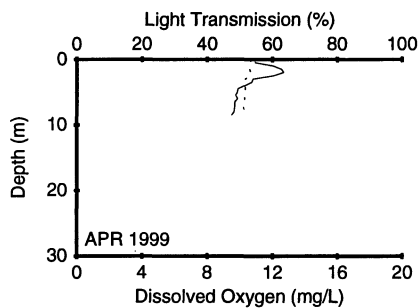
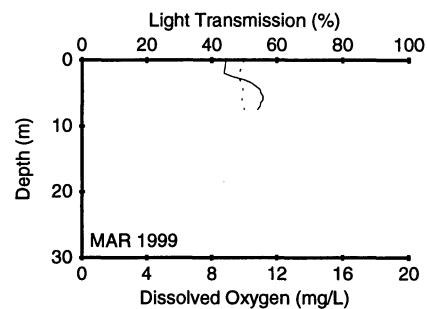
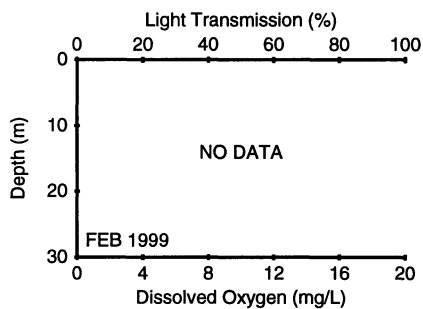
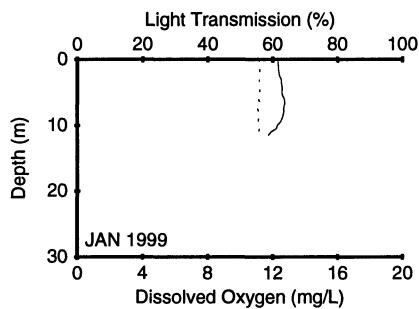
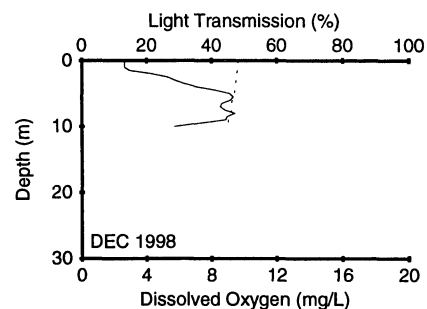
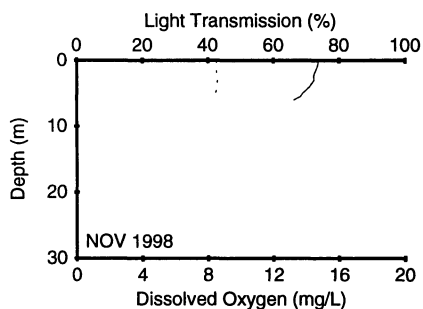
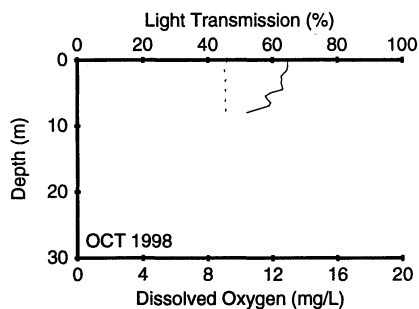
**WPA004 Willapa Bay - Toke Point**



**Legend: Temperature = Dotted Line Salinity = Dot-Dashed Line Sigma-t = Solid Line**

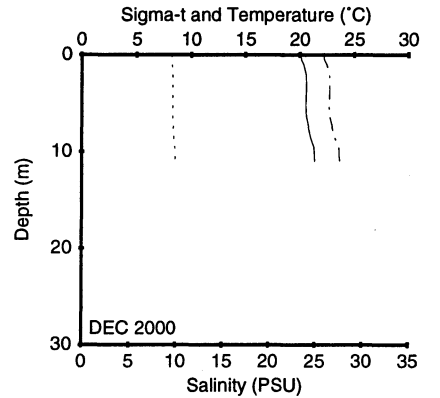
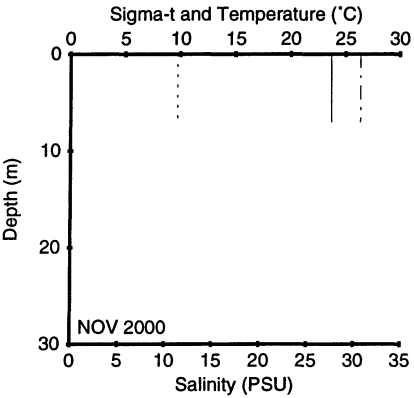
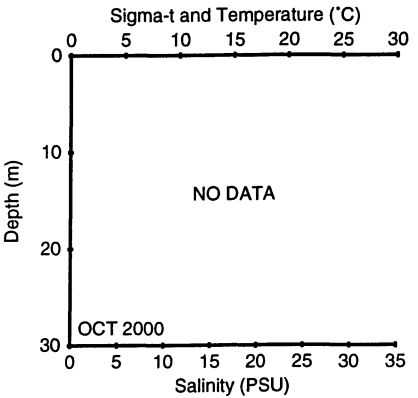
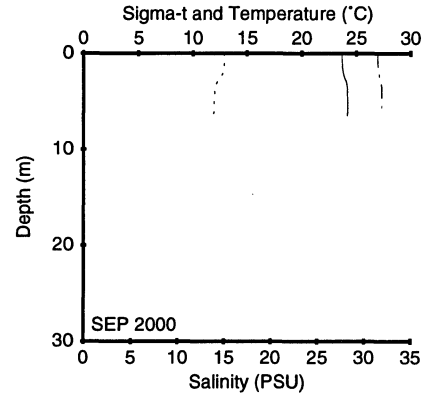
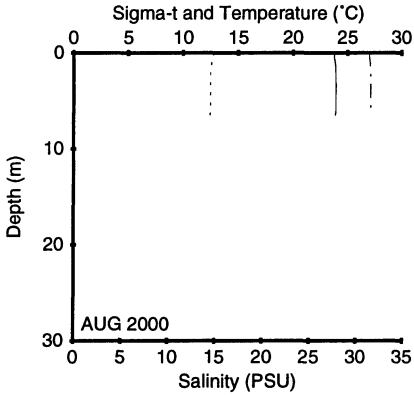
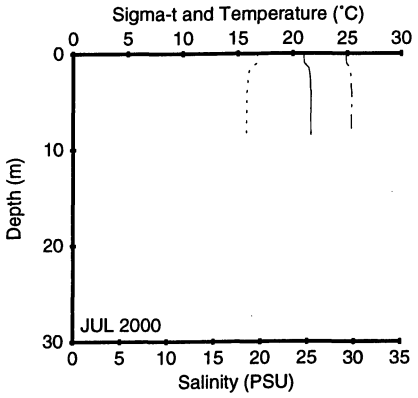
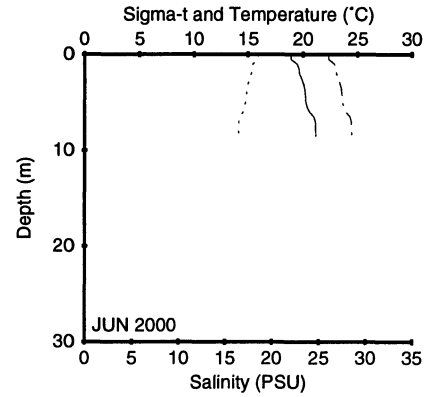
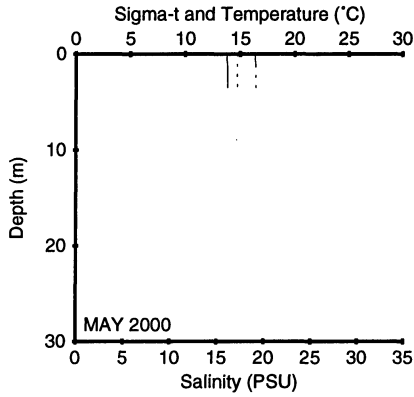
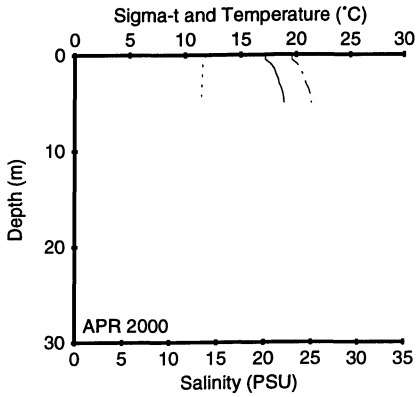
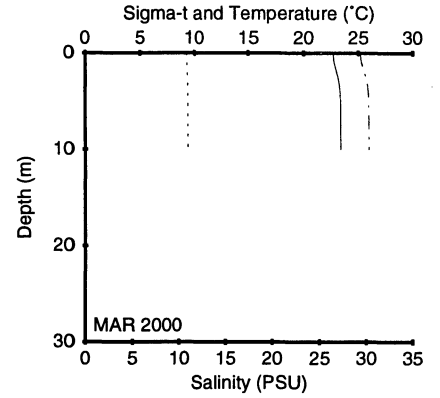
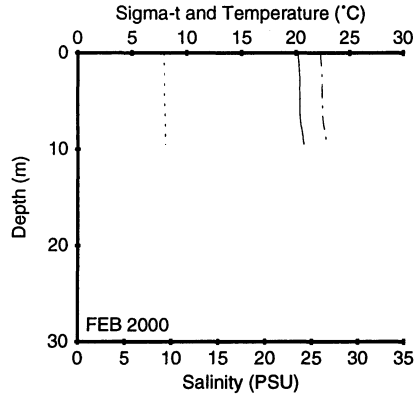
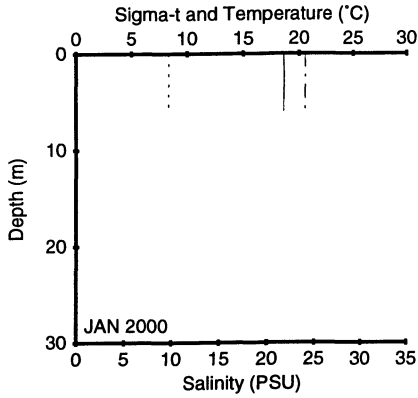


**WPA004 Willapa Bay - Toke Point**



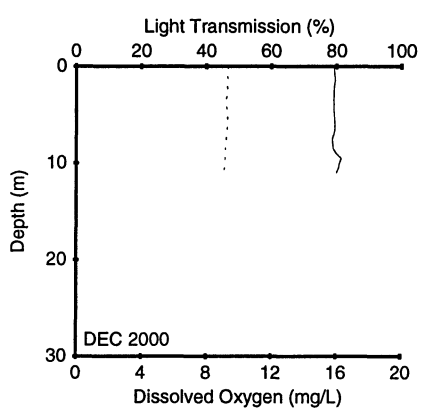
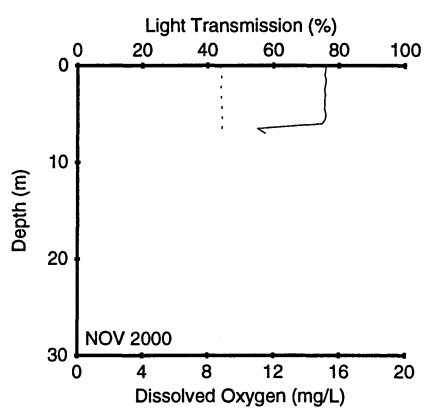
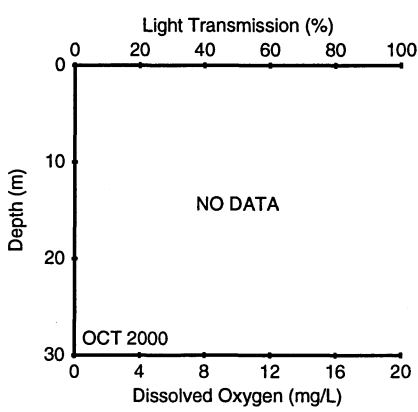
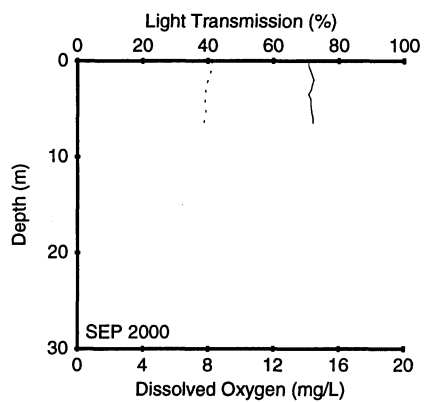
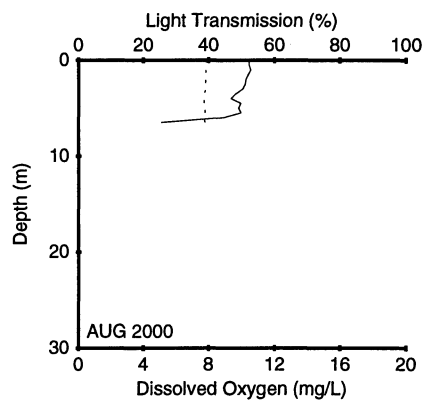
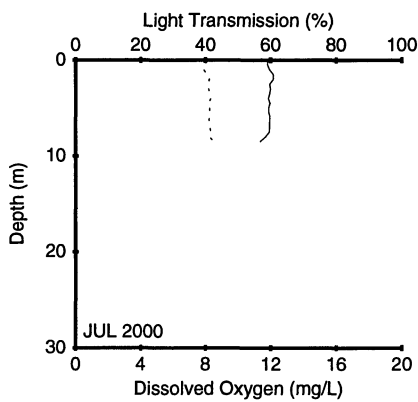
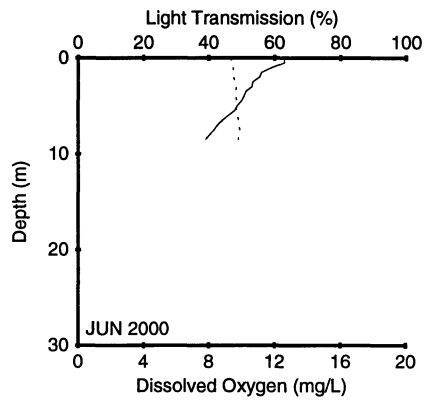
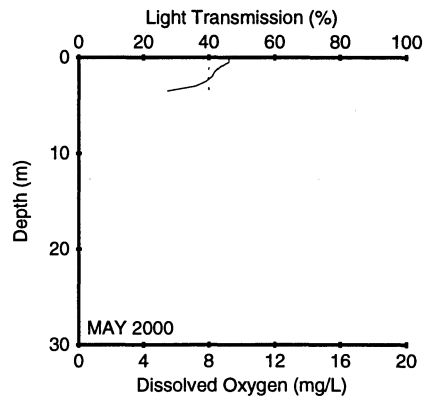
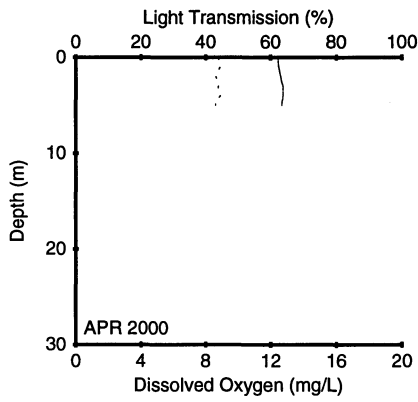
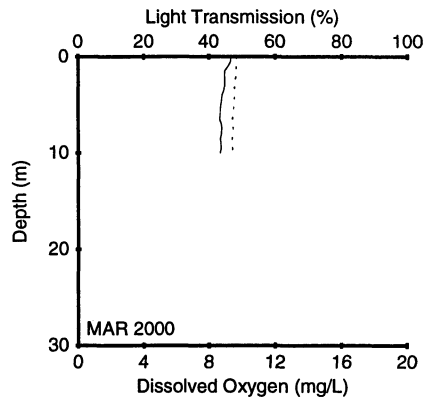
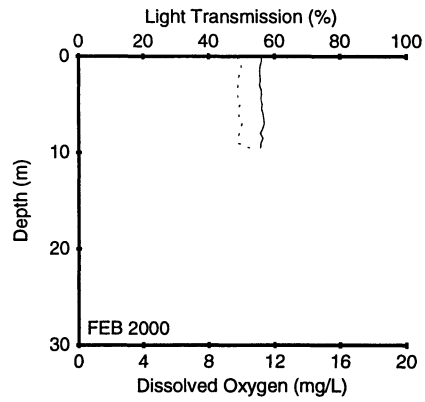
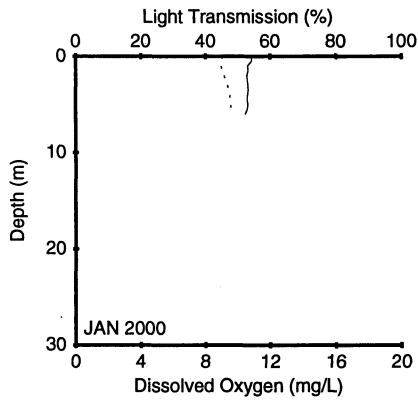
**Legend: Light Transmission = Solid Line Dissolved Oxygen = Dotted Line**

**WPA004 Willapa Bay - Toke Point**



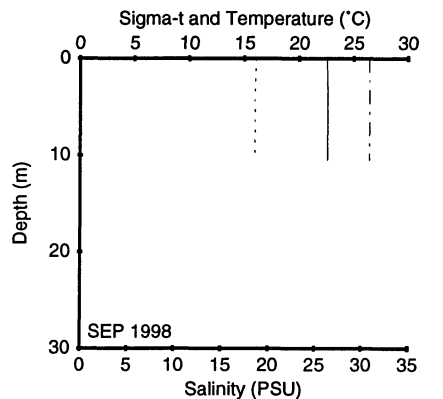
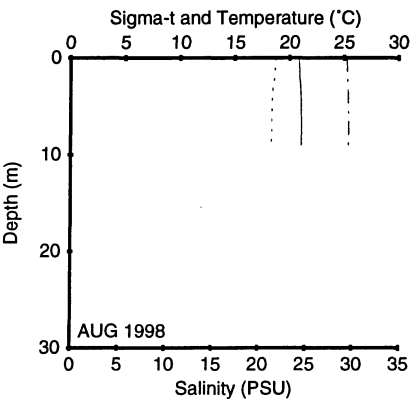
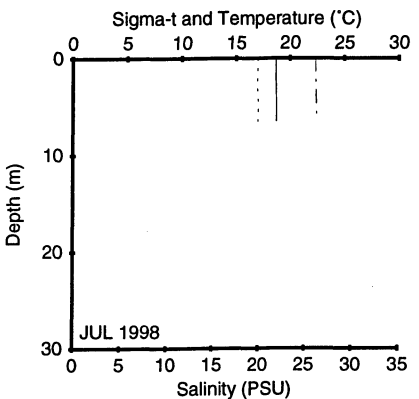
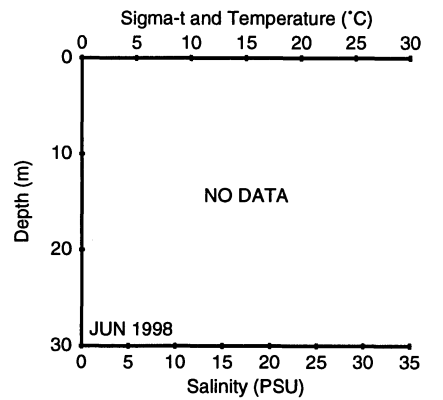
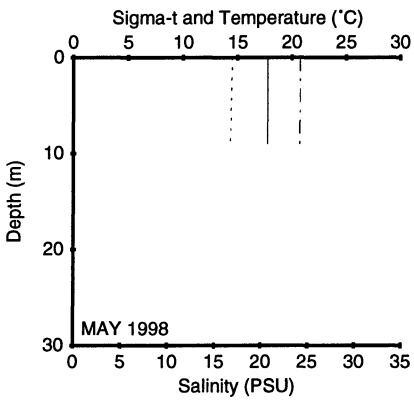
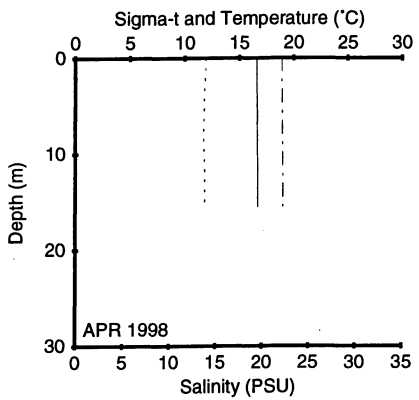
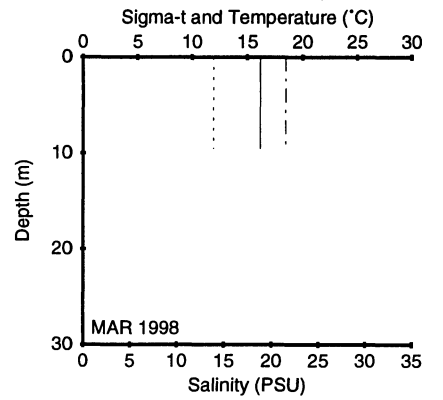
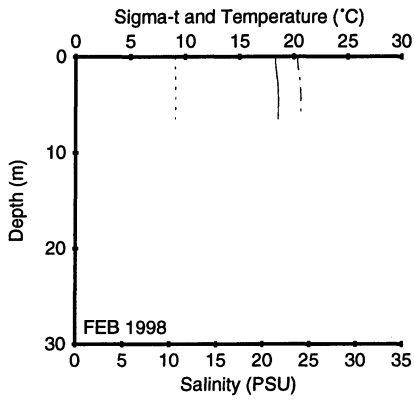
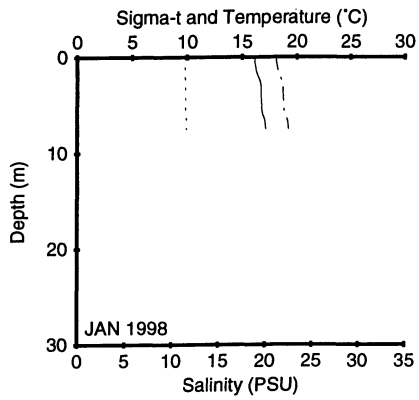
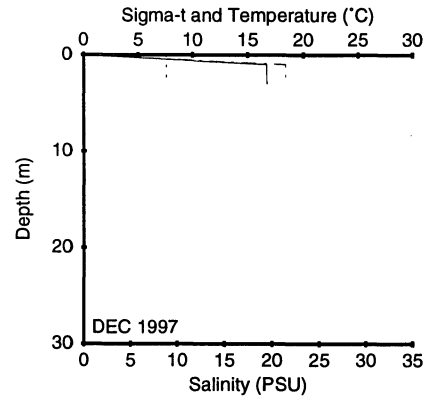
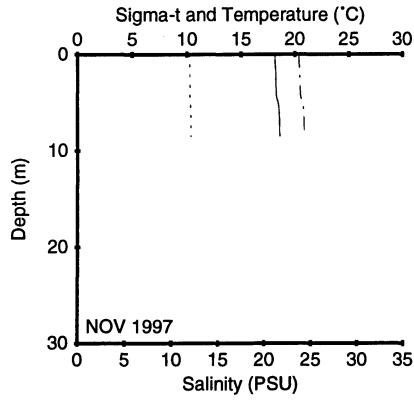
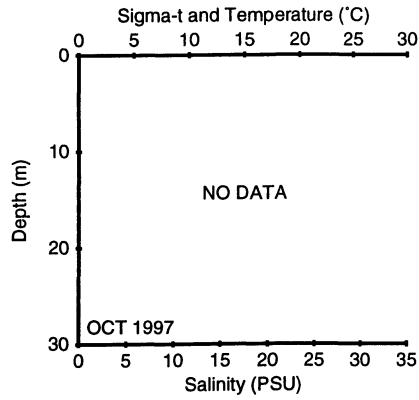
**Legend: Temperature = Dotted Line Salinity = Dot-Dashed Line Sigma-t = Solid Line**

**WPA004 Willapa Bay - Toke Point**



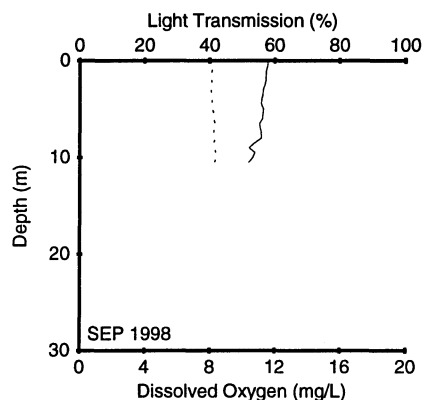
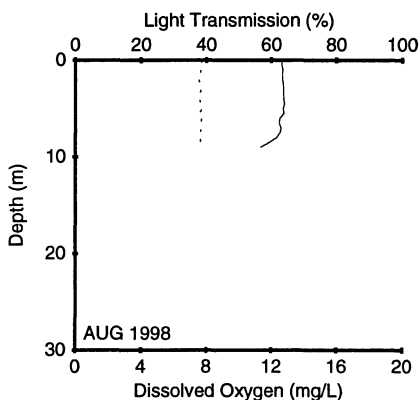
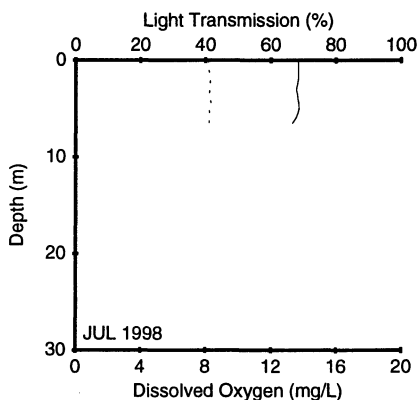
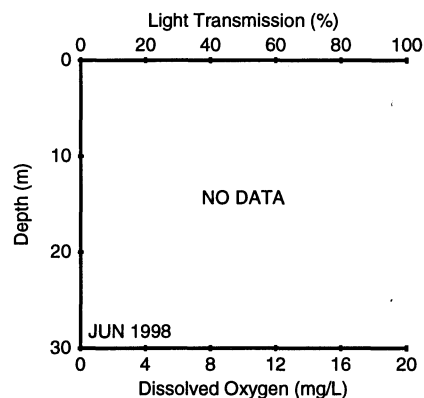
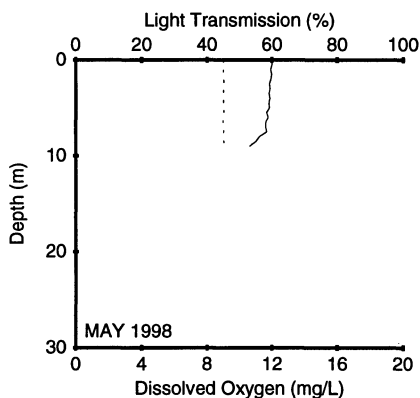
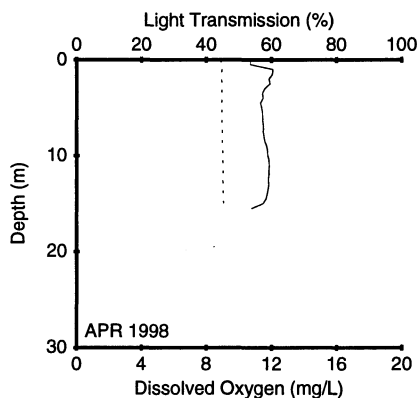
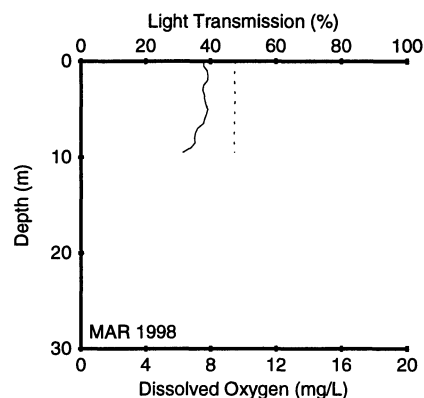
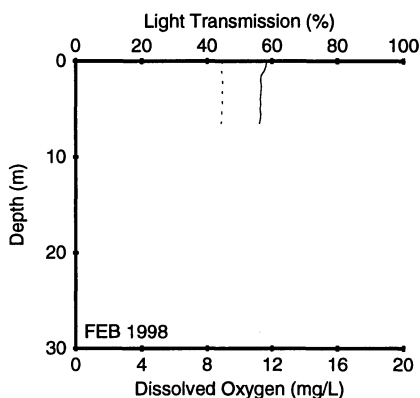
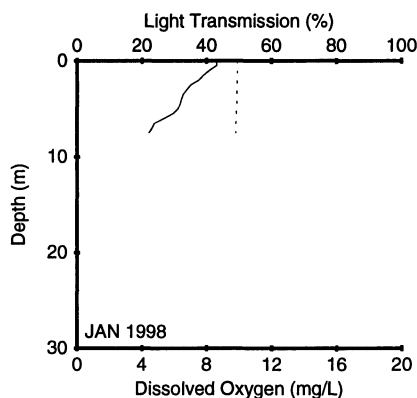
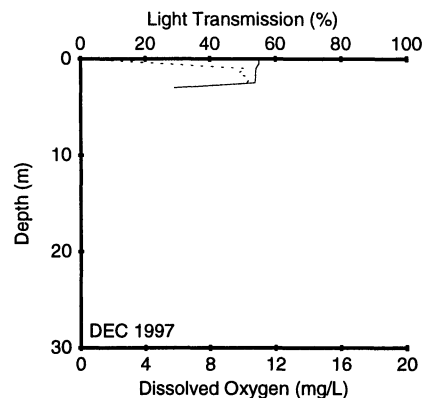
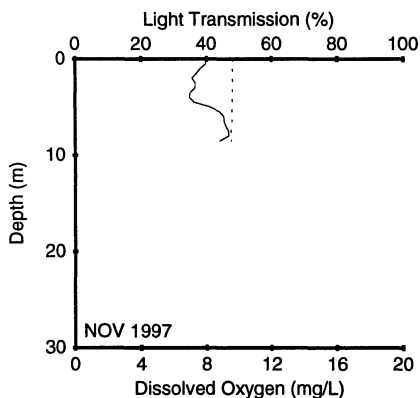
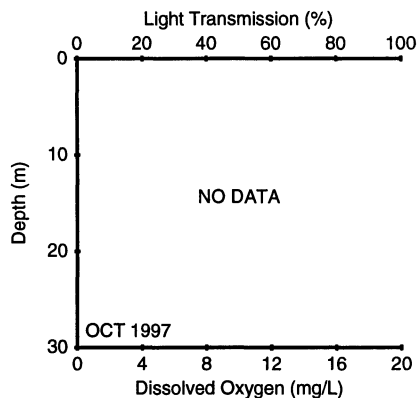
**Legend: Light Transmission = Solid Line Dissolved Oxygen = Dotted Line**

**WPA006 Willapa Bay - Nahcotta Channel**



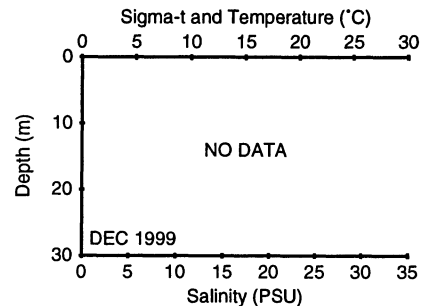
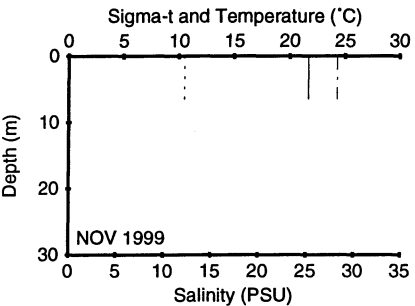
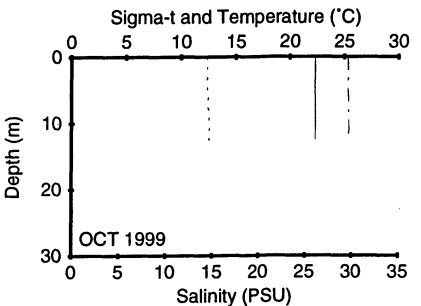
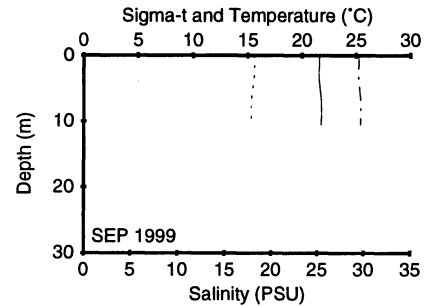
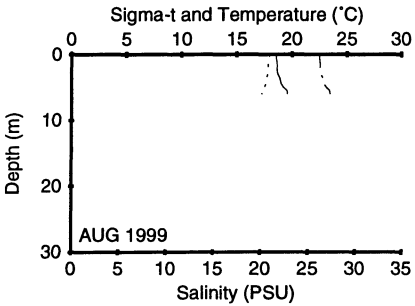
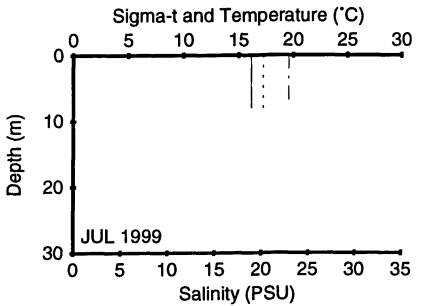
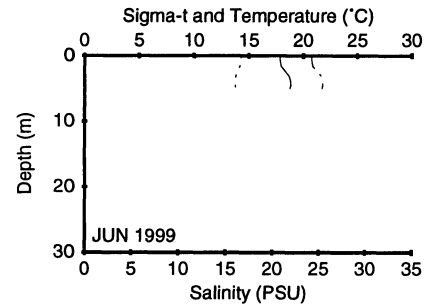
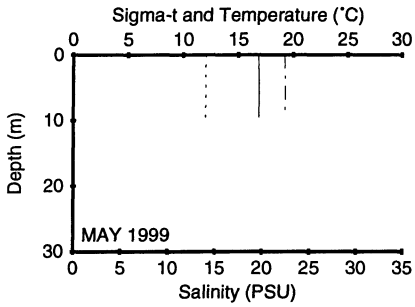
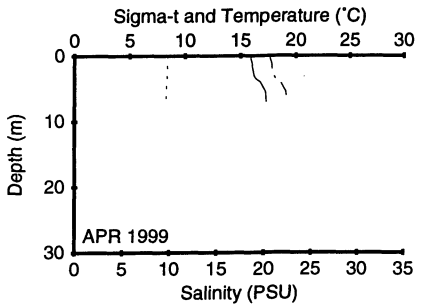
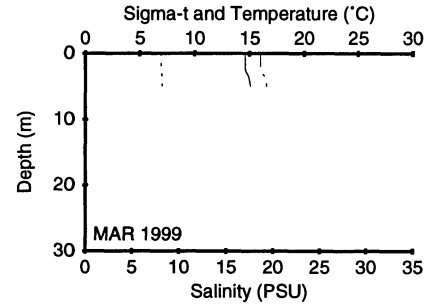
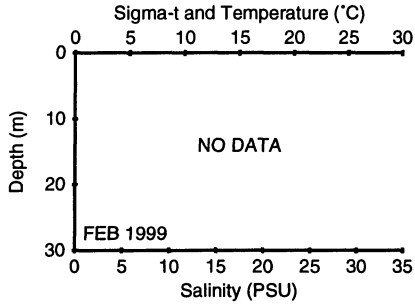
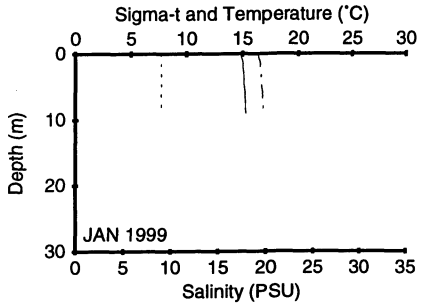
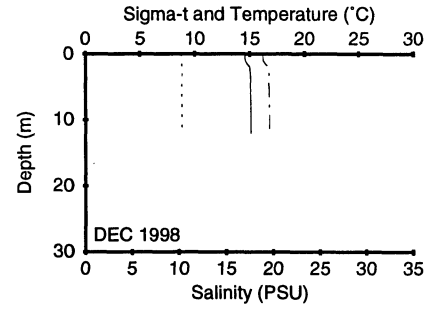
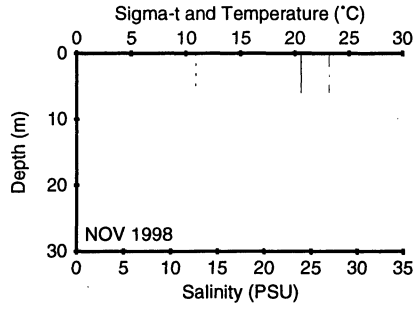
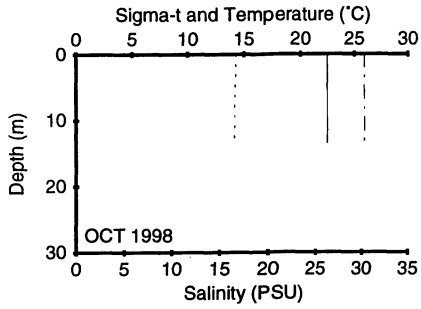
**Legend: Temperature = Dotted Line Salinity = Dot-Dashed Line Sigma-t = Solid Line**

**WPA006 Willapa Bay - Nahcotta Channel**



**Legend: Light Transmission = Solid Line Dissolved Oxygen = Dotted Line**

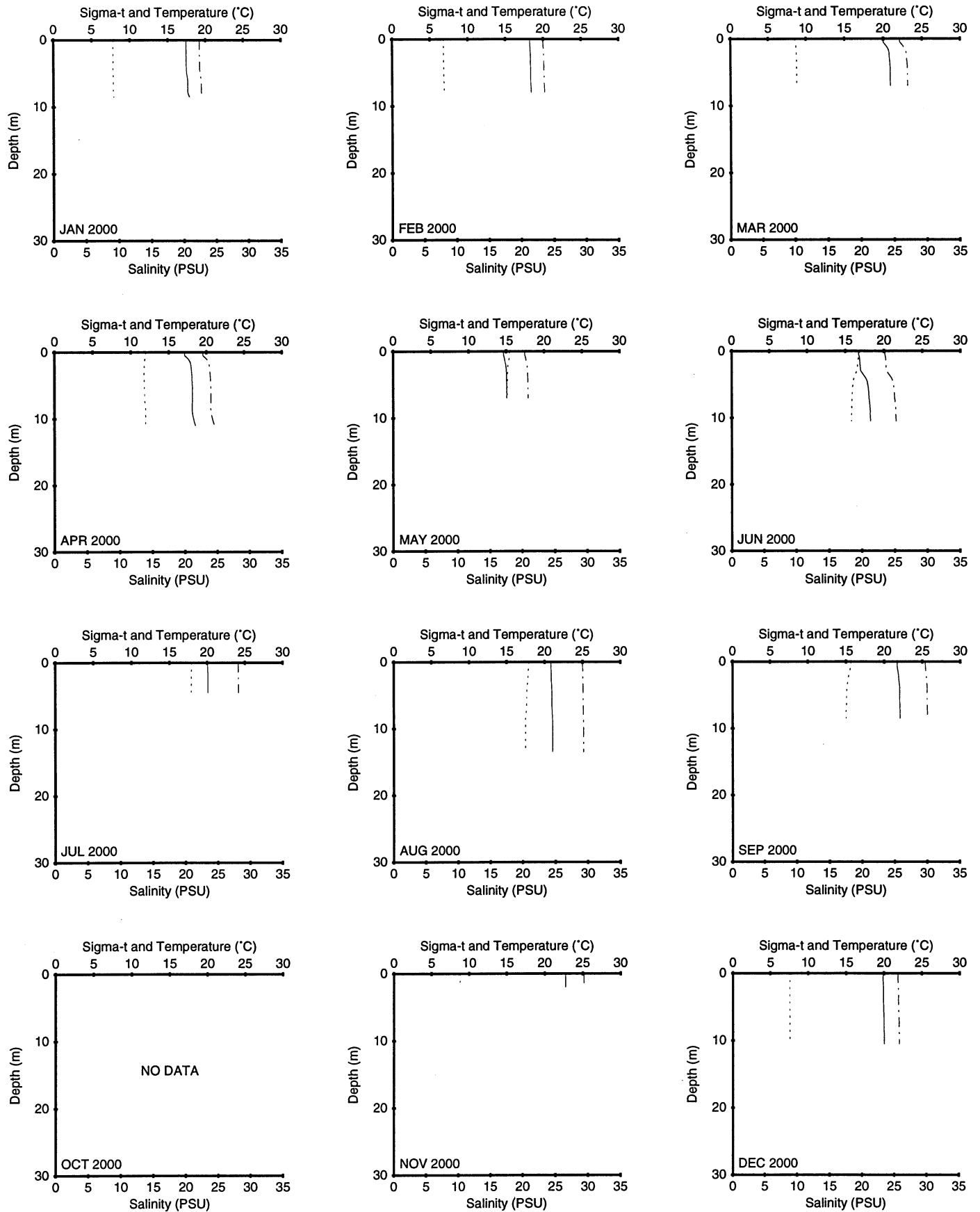
# WPA006 Willapa Bay - Nahcotta Channel



**Legend: Temperature = Dotted Line Salinity = Dot-Dashed Line Sigma-t = Solid Line**



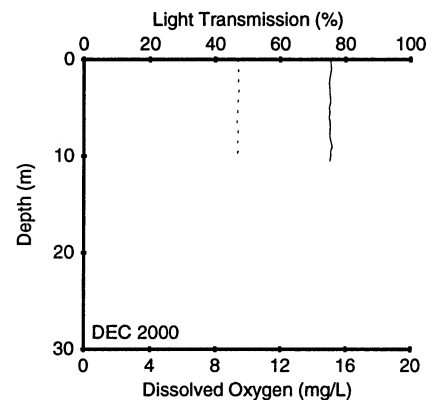
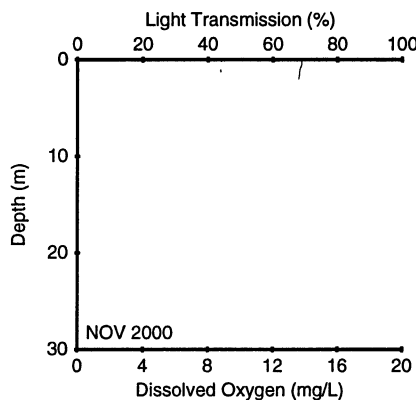
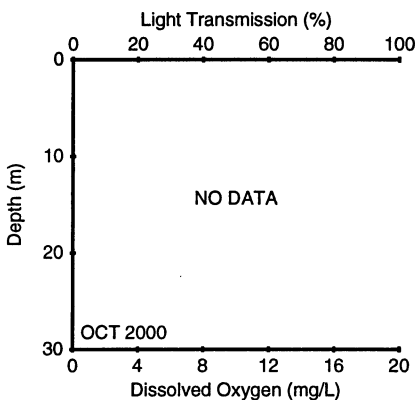
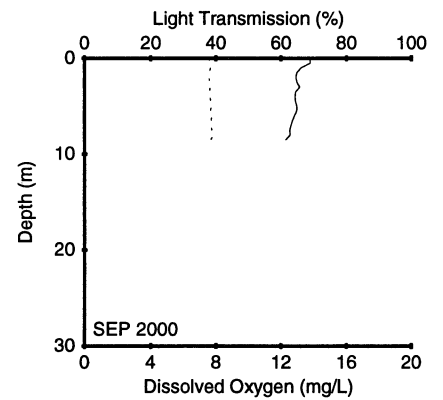
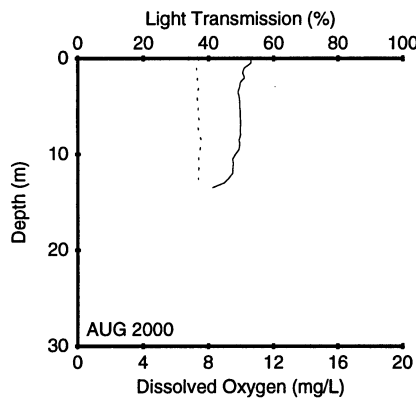
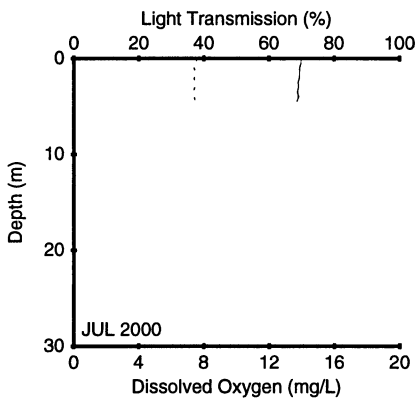
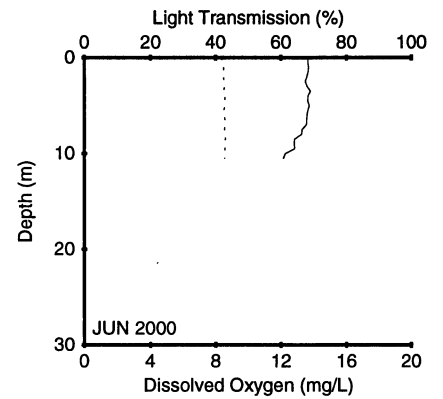
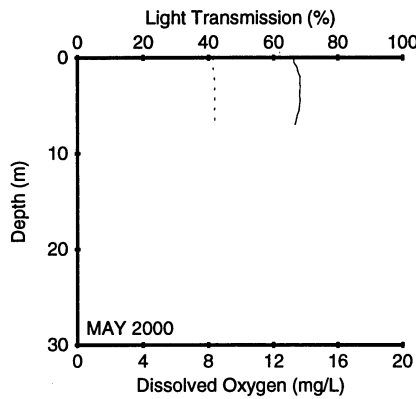
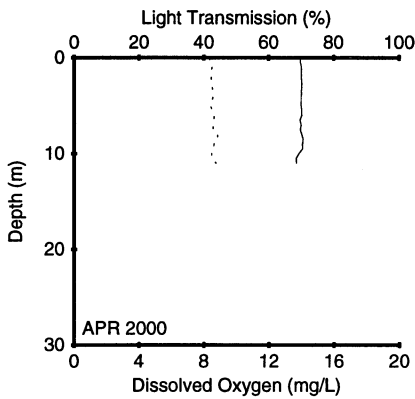
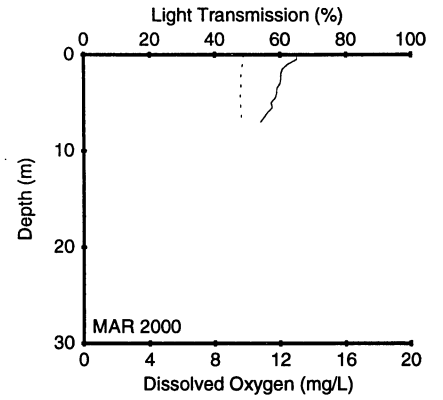
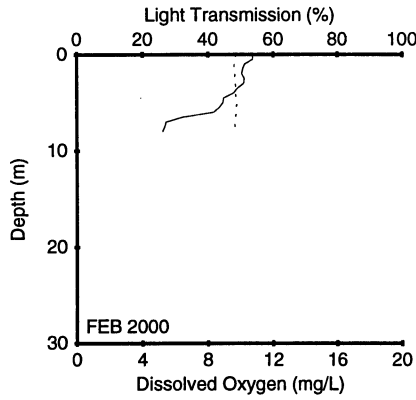
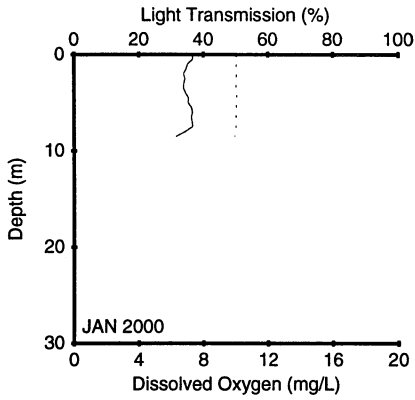
# WPA006 Willapa Bay - Nahcotta Channel



**Legend: Temperature = Dotted Line Salinity = Dot-Dashed Line Sigma-t = Solid Line**

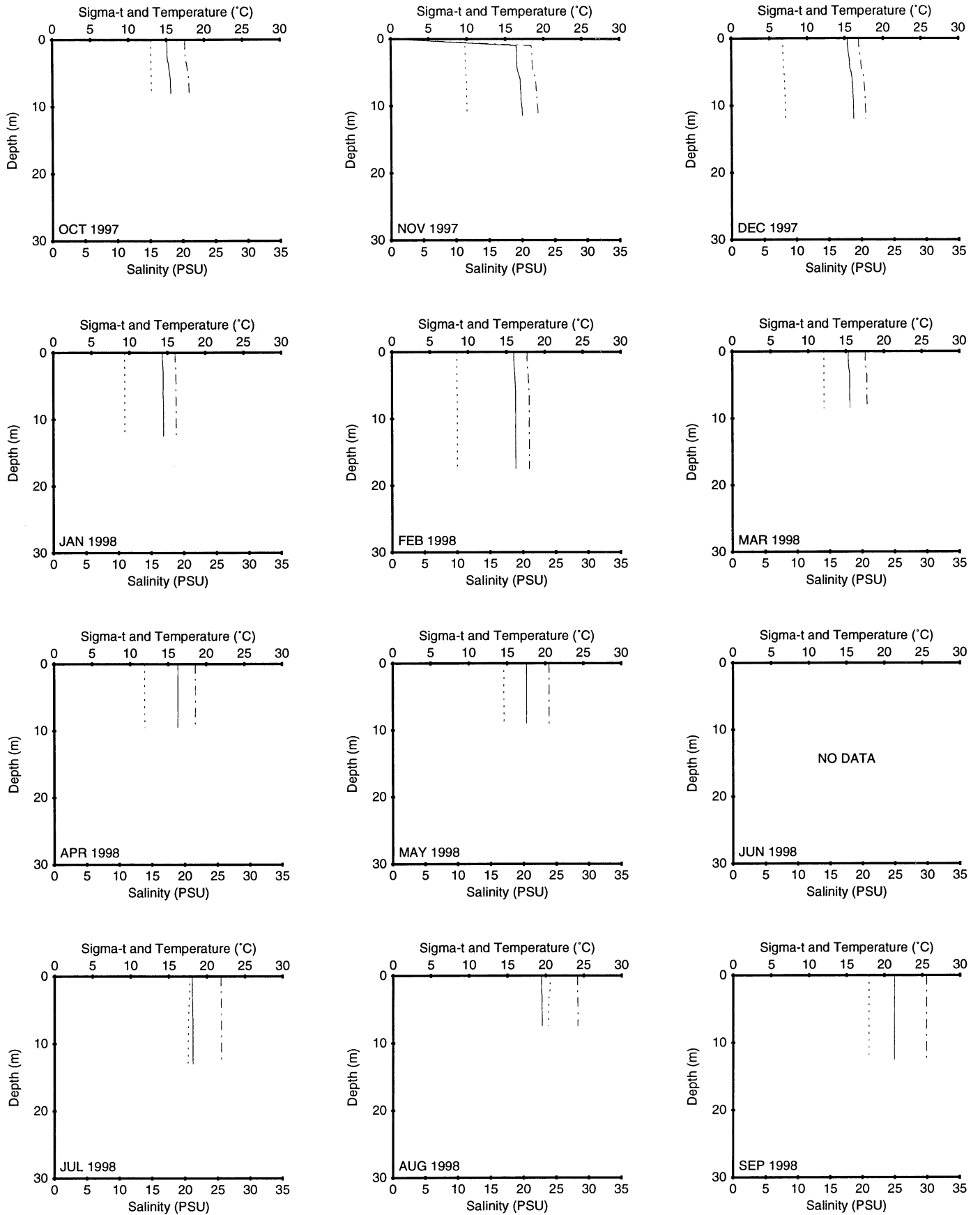


**WPA006 Willapa Bay - Nahcotta Channel**



**Legend: Light Transmission = Solid Line Dissolved Oxygen = Dotted Line**

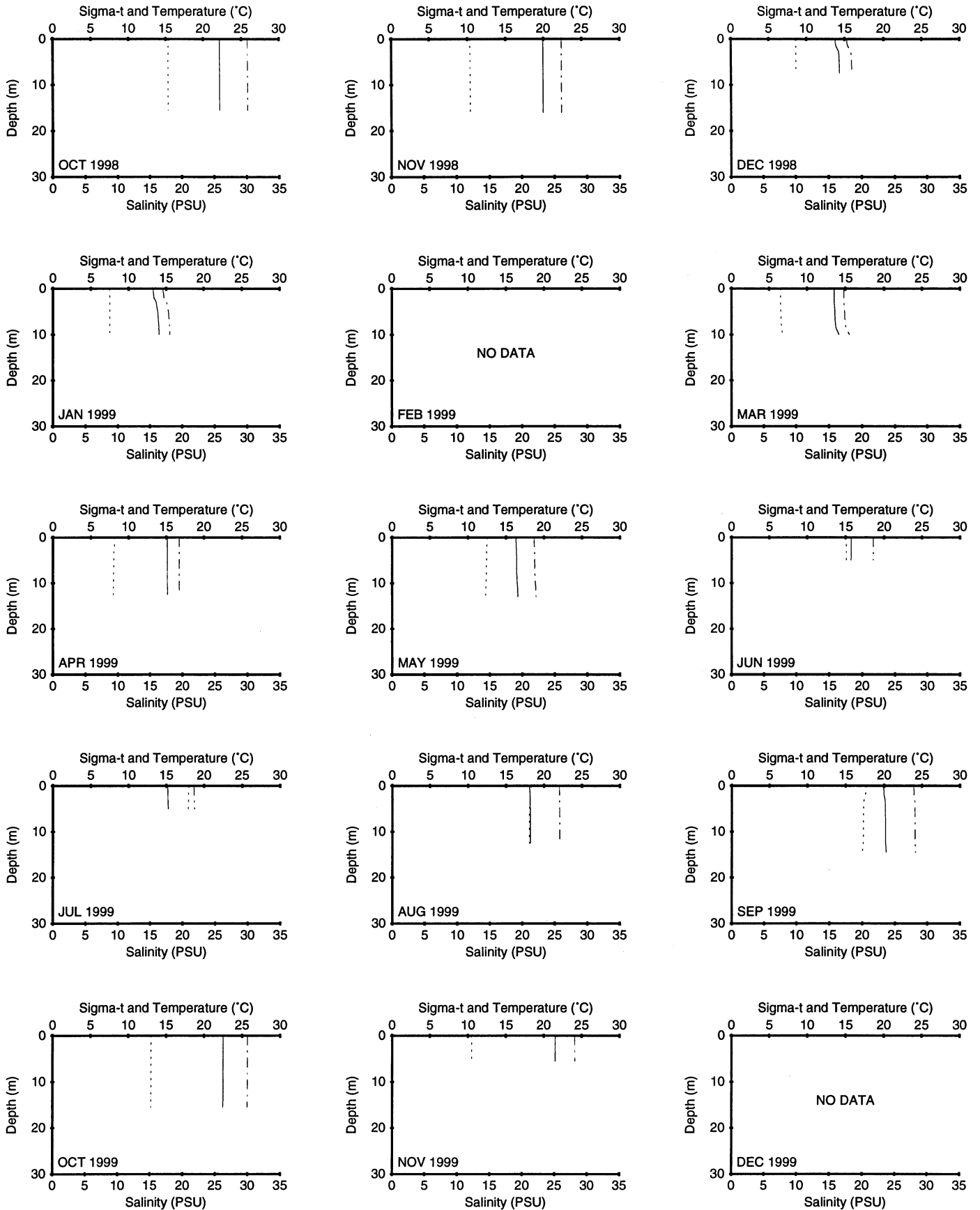
**WPA007 Willapa Bay - Long Isl., S. Jenson Point**



**Legend: Temperature = Dotted Line Salinity = Dot-Dashed Line Sigma-t = Solid Line**



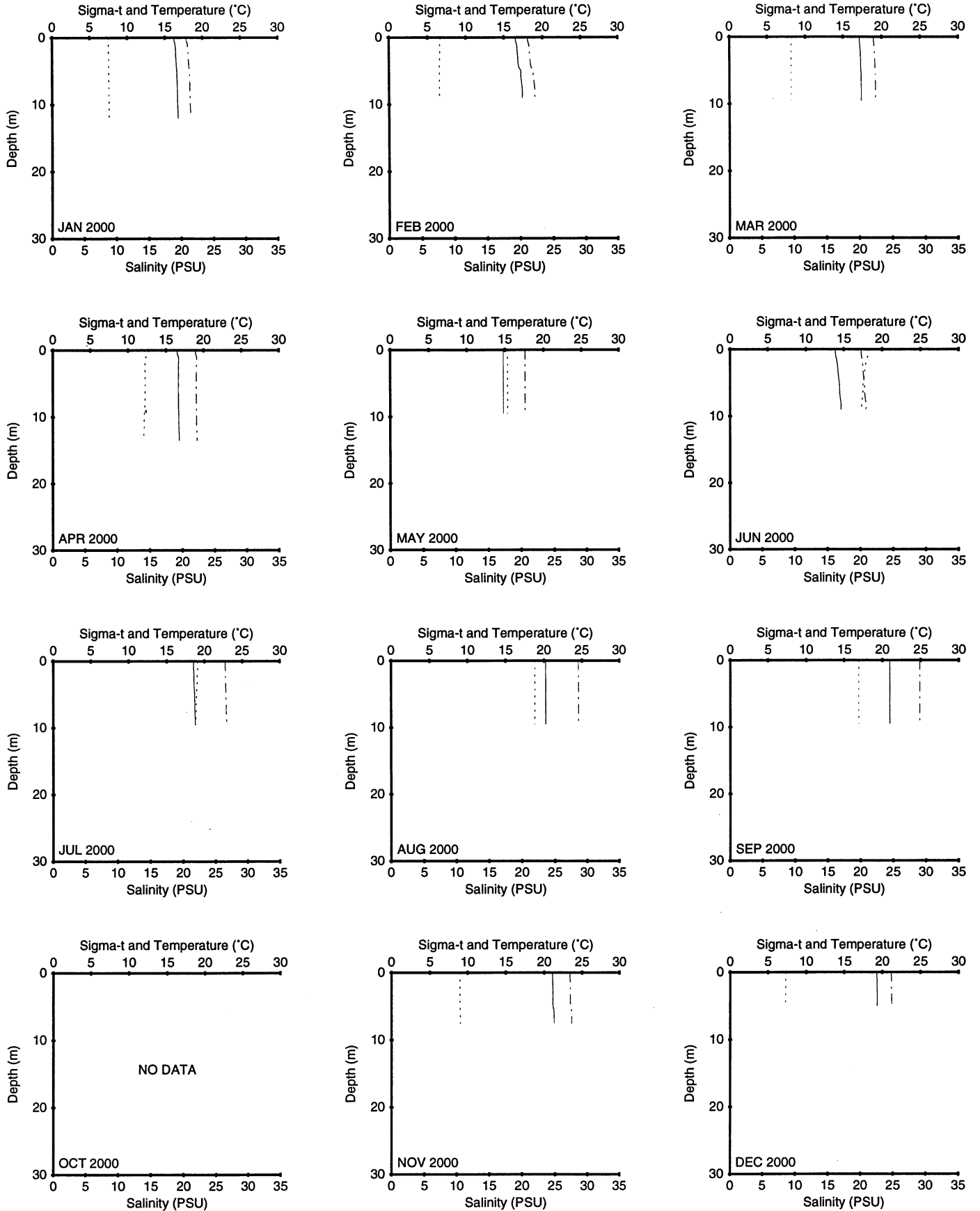
**WPA007 Willapa Bay - Long Isl., S. Jenson Point**



**Legend: Temperature = Dotted Line Salinity = Dot-Dashed Line Sigma-t = Solid Line**

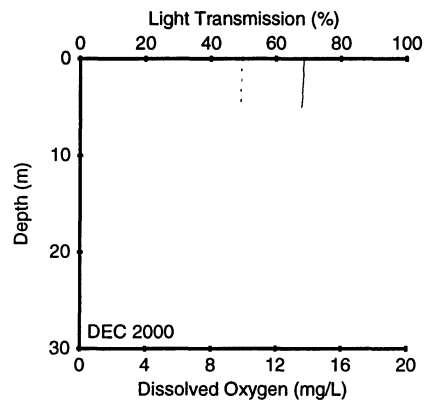
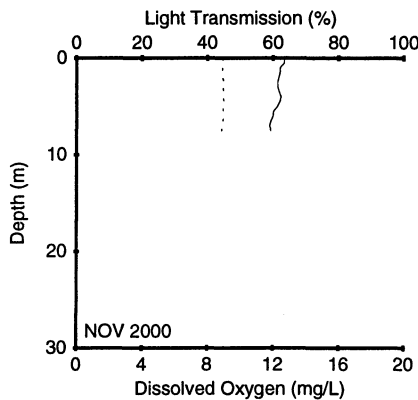
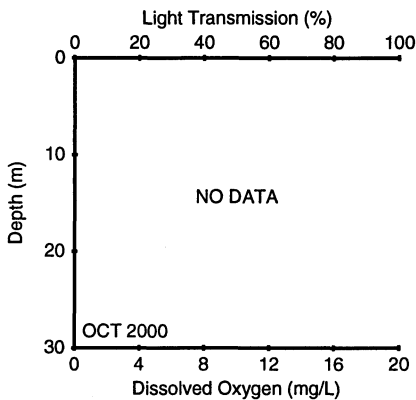
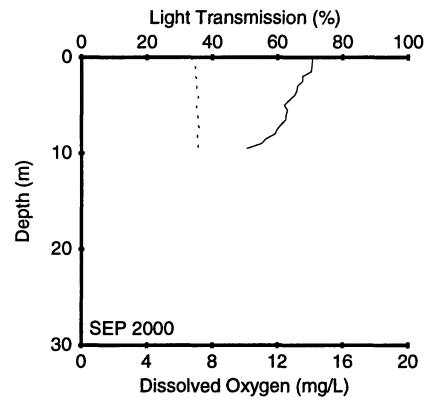
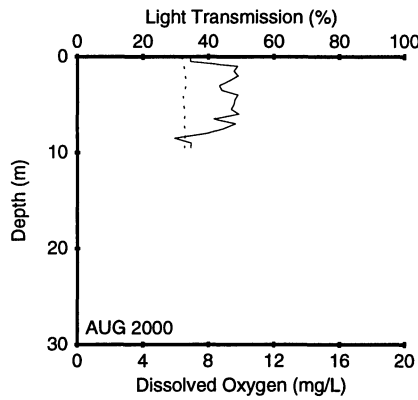
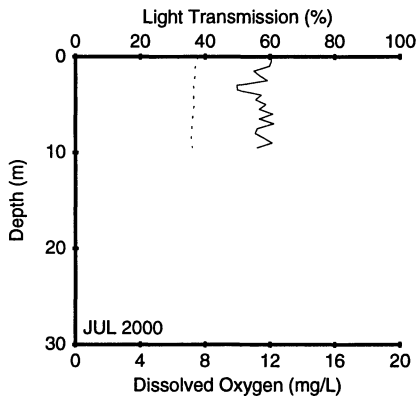
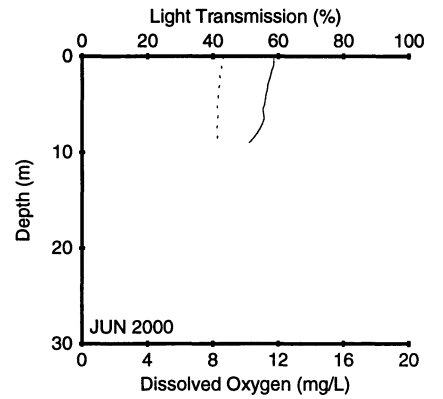
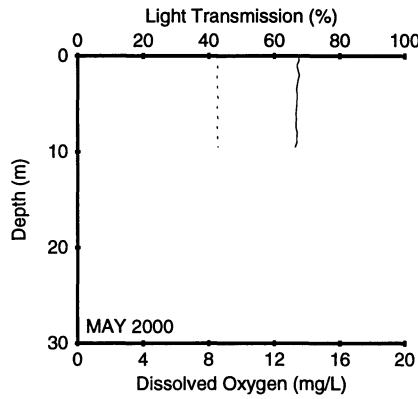
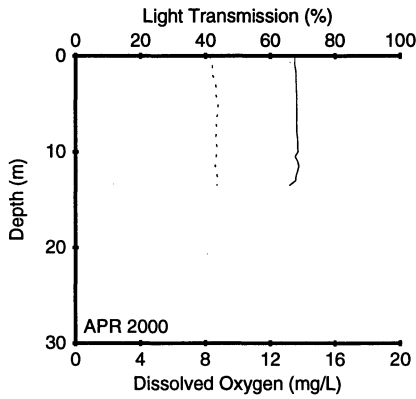
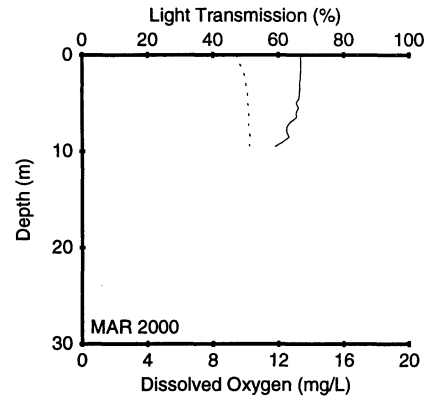
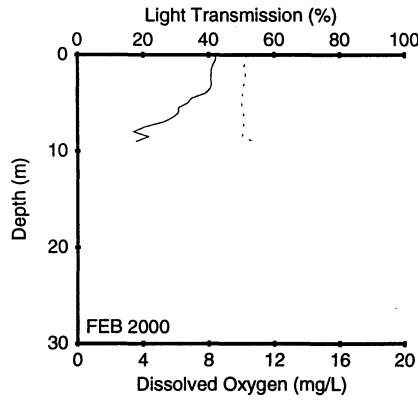
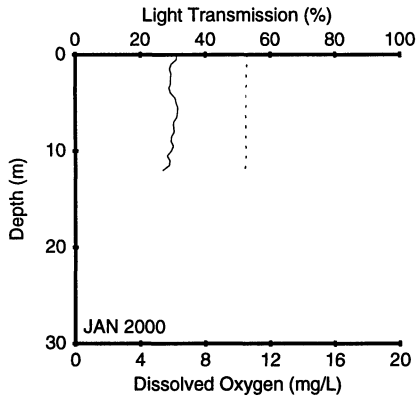


**WPA007 Willapa Bay - Long Isl., S. Jenson Point**



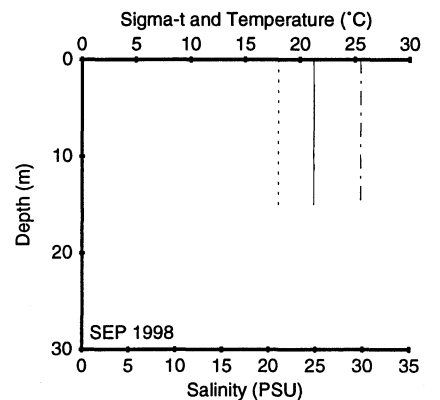
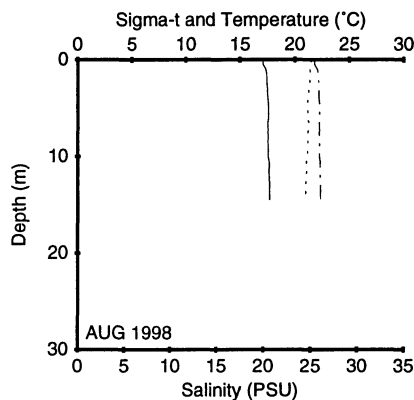
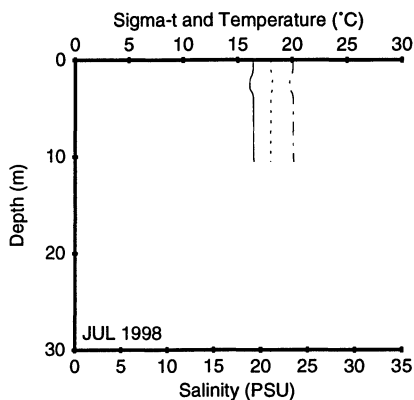
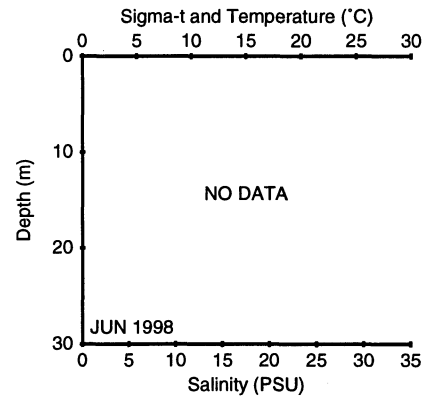
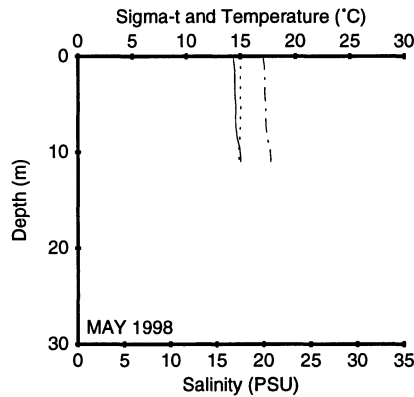
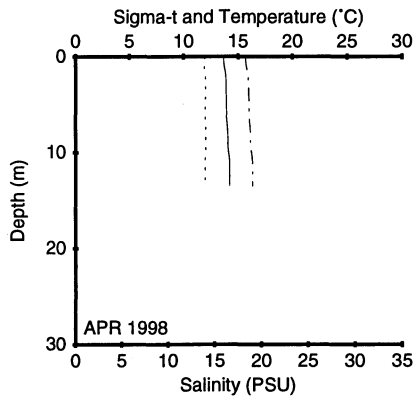
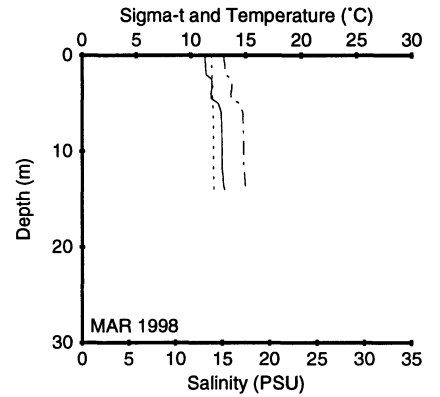
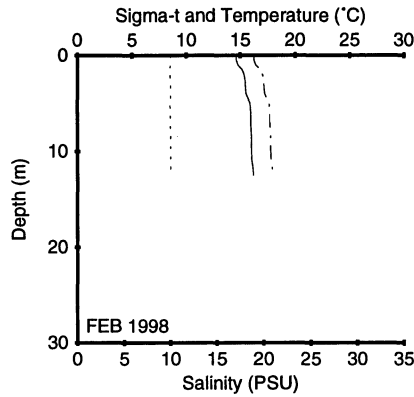
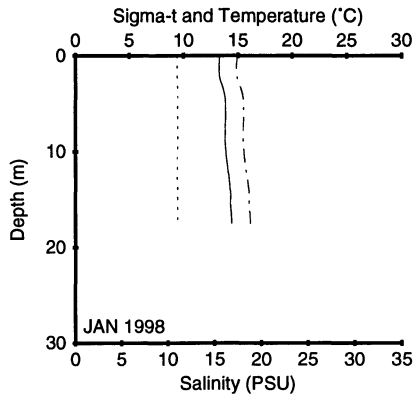
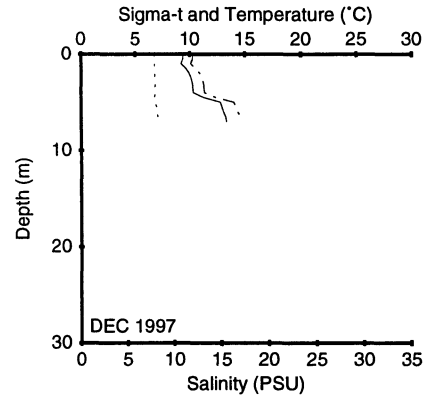
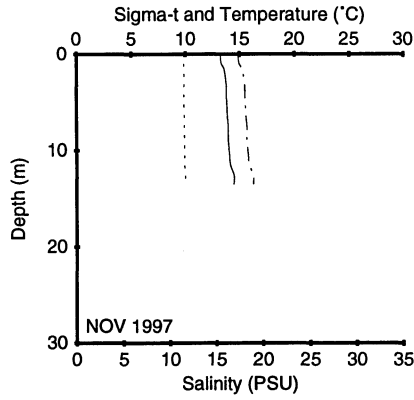
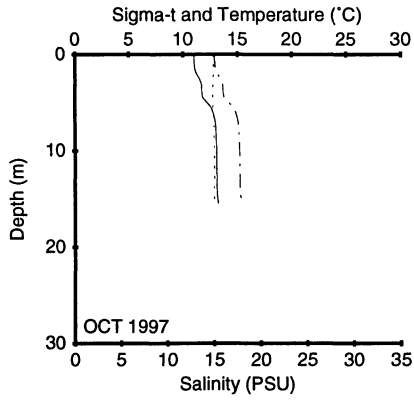
**Legend: Temperature = Dotted Line Salinity = Dot-Dashed Line Sigma-t = Solid Line**

WPA007 Willapa Bay - Long Isl., S. Jenson Point



Legend: Light Transmission = Solid Line Dissolved Oxygen = Dotted Line

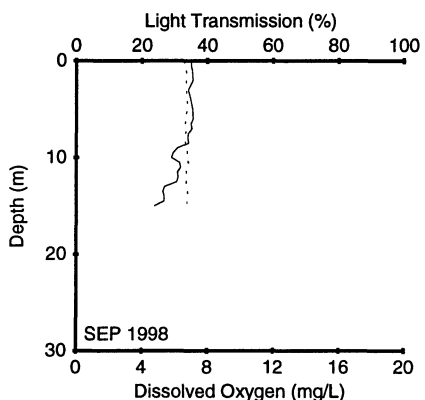
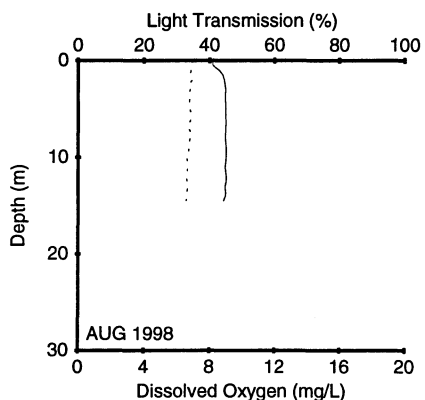
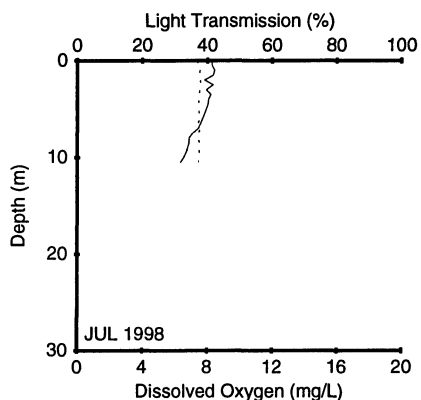
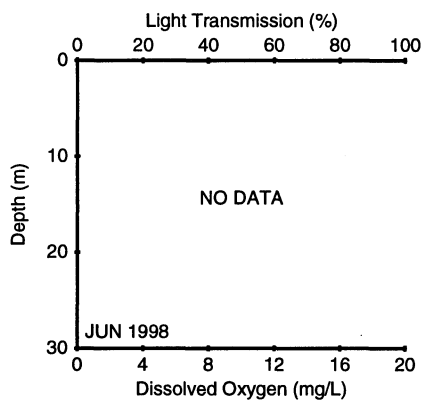
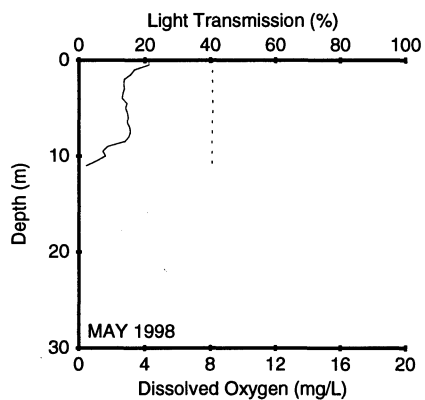
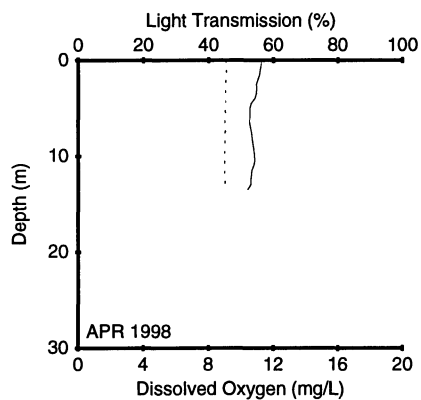
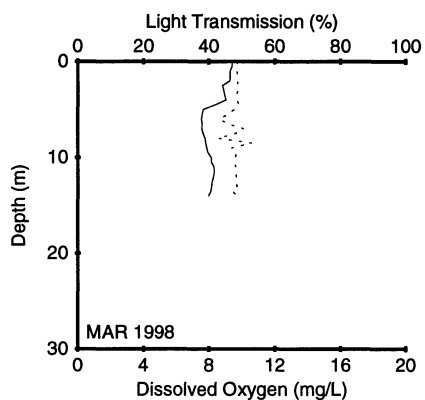
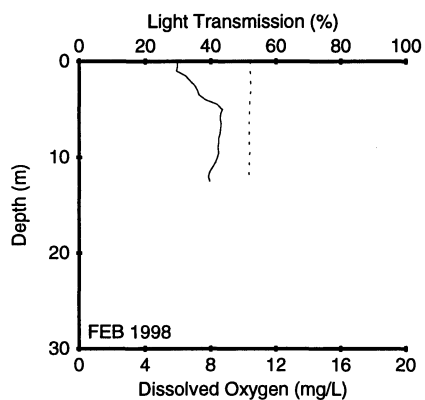
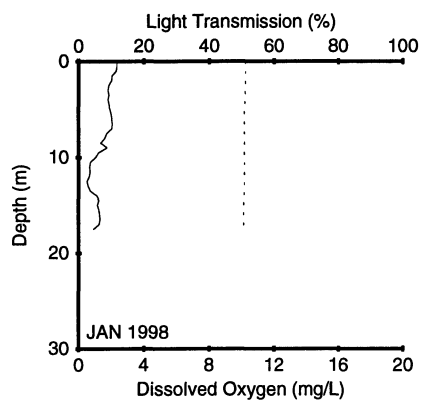
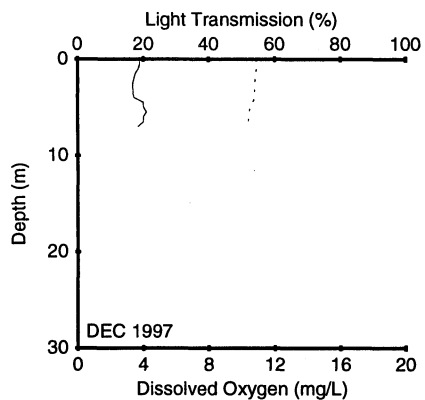
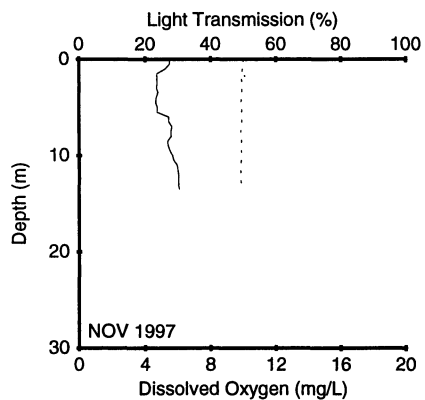
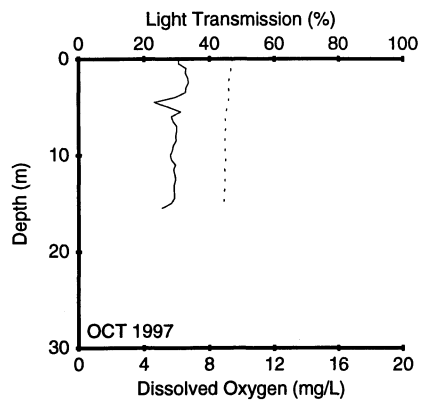
**WPA008 Willapa Bay - Naselle River Mouth**



**Legend: Temperature = Dotted Line Salinity = Dot-Dashed Line Sigma-t = Solid Line**

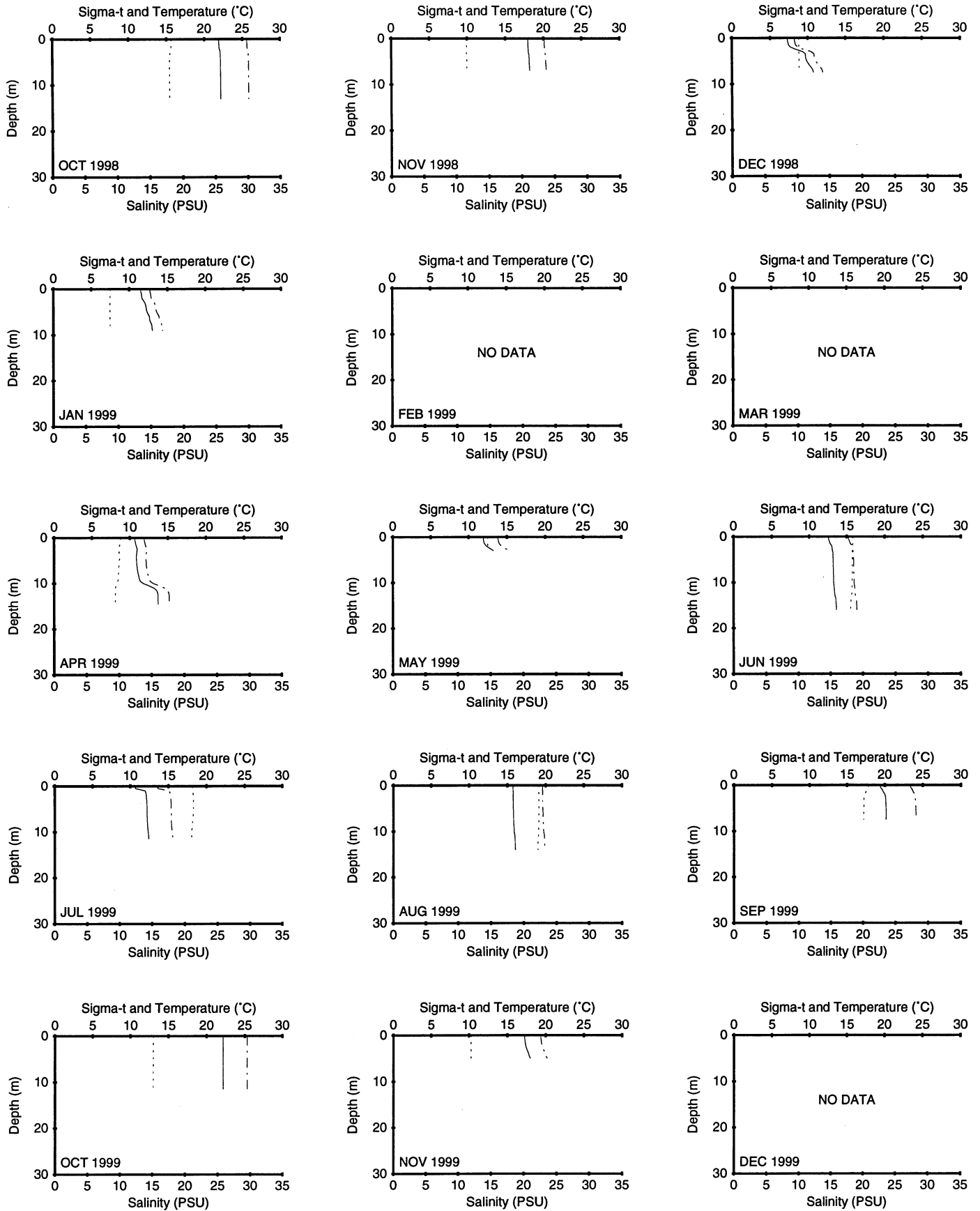


**WPA008 Willapa Bay - Naselle River Mouth**



**Legend: Light Transmission = Solid Line Dissolved Oxygen = Dotted Line**

**WPA008 Willapa Bay - Naselle River Mouth**

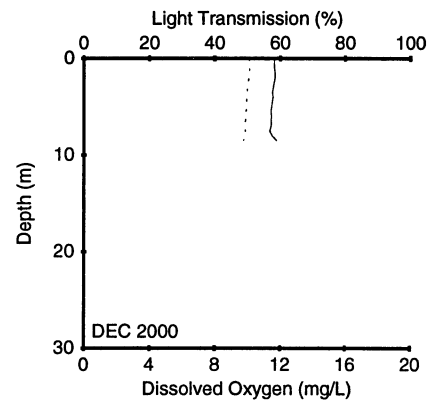
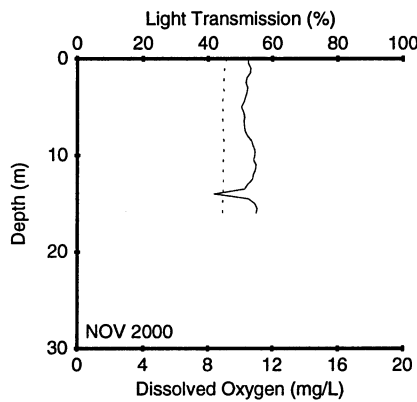
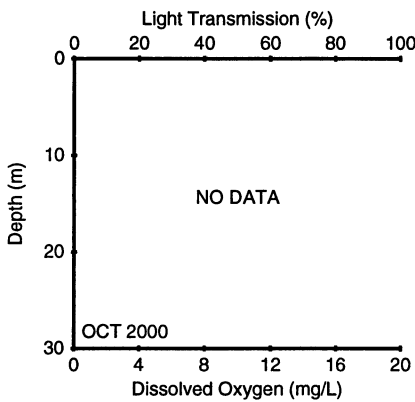
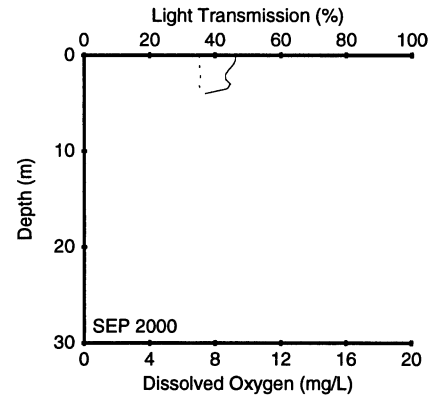
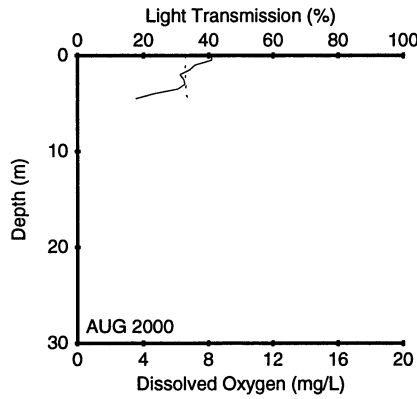
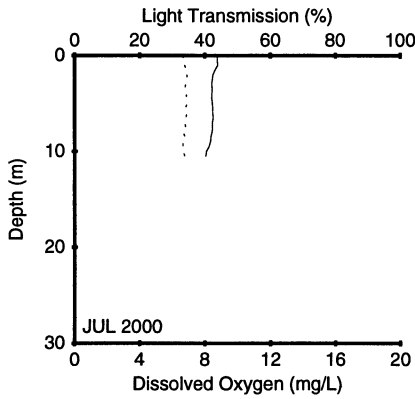
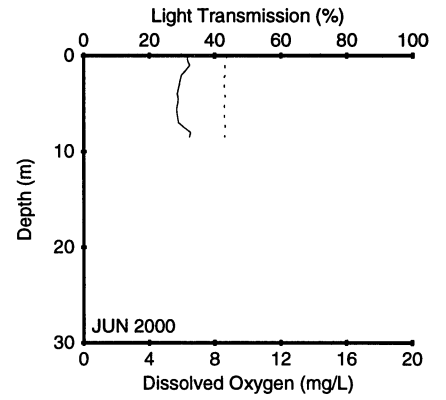
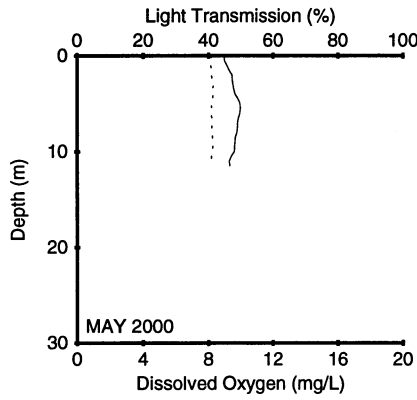
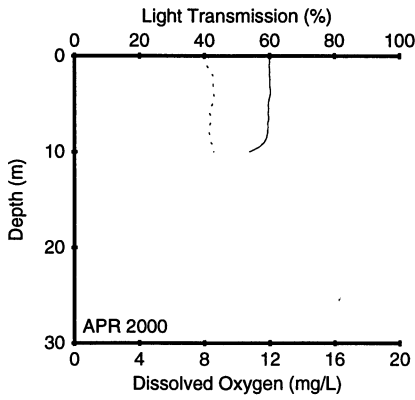
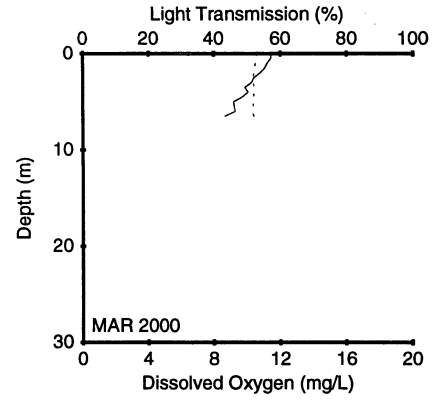
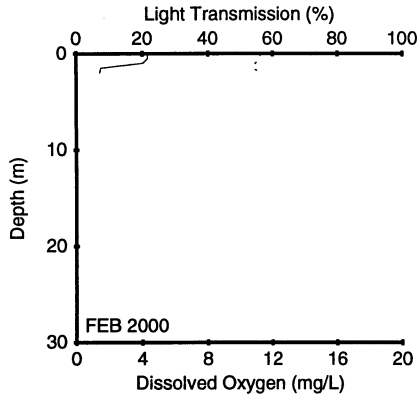
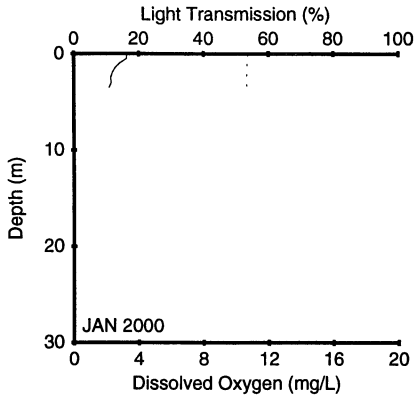


**Legend: Temperature = Dotted Line Salinity = Dot-Dashed Line Sigma-t = Solid Line**





**WPA008 Willapa Bay - Naselle River Mouth**



**Legend: Light Transmission = Solid Line Dissolved Oxygen = Dotted Line**



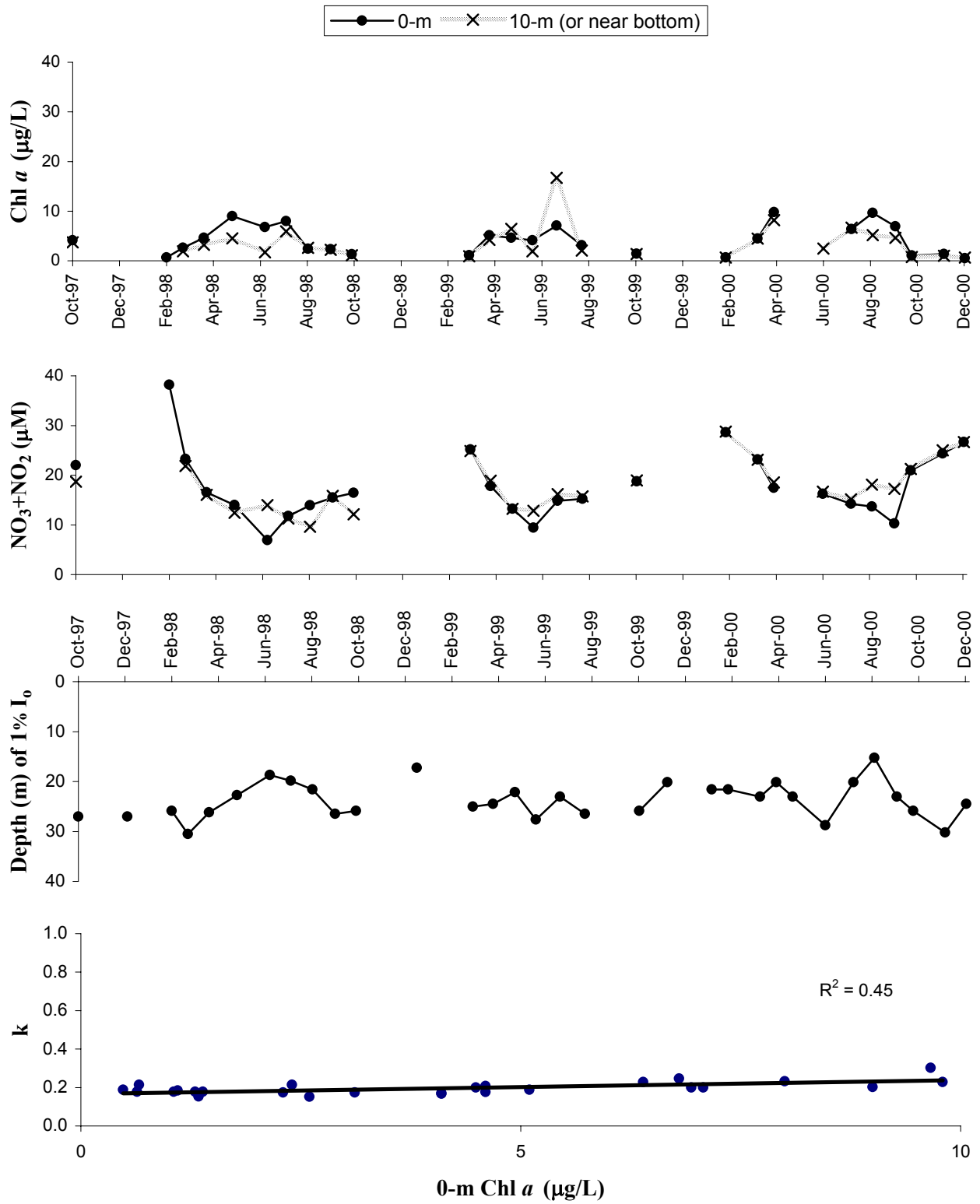
## **Appendix C**

**Seasonal plots of euphotic zone depth,  
chlorophyll *a*, nitrate+nitrite-N, and  
regressions of light extinction coefficient  
versus surface chlorophyll *a* concentration  
for WY 1998-2000 data**

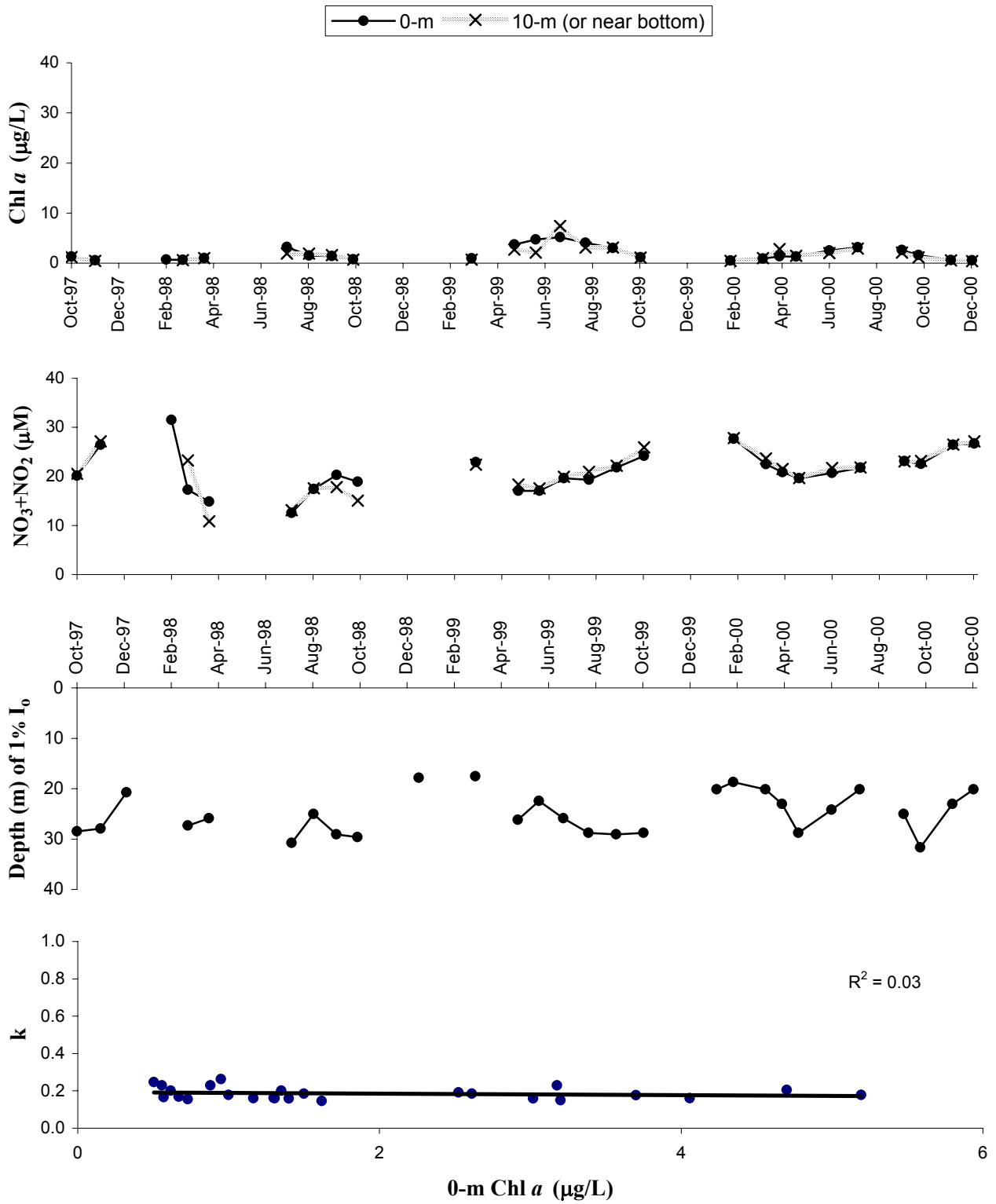




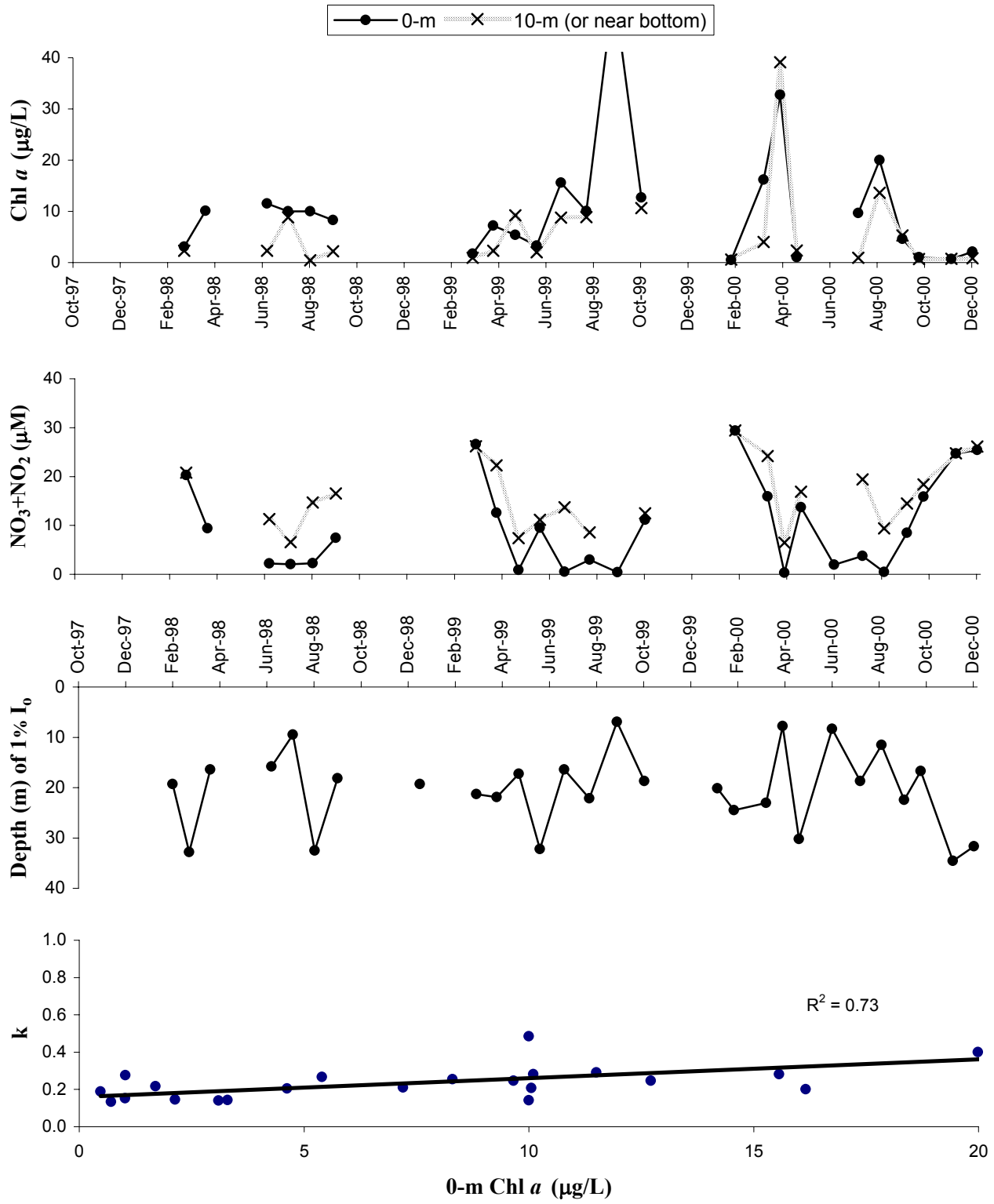
# ADM001



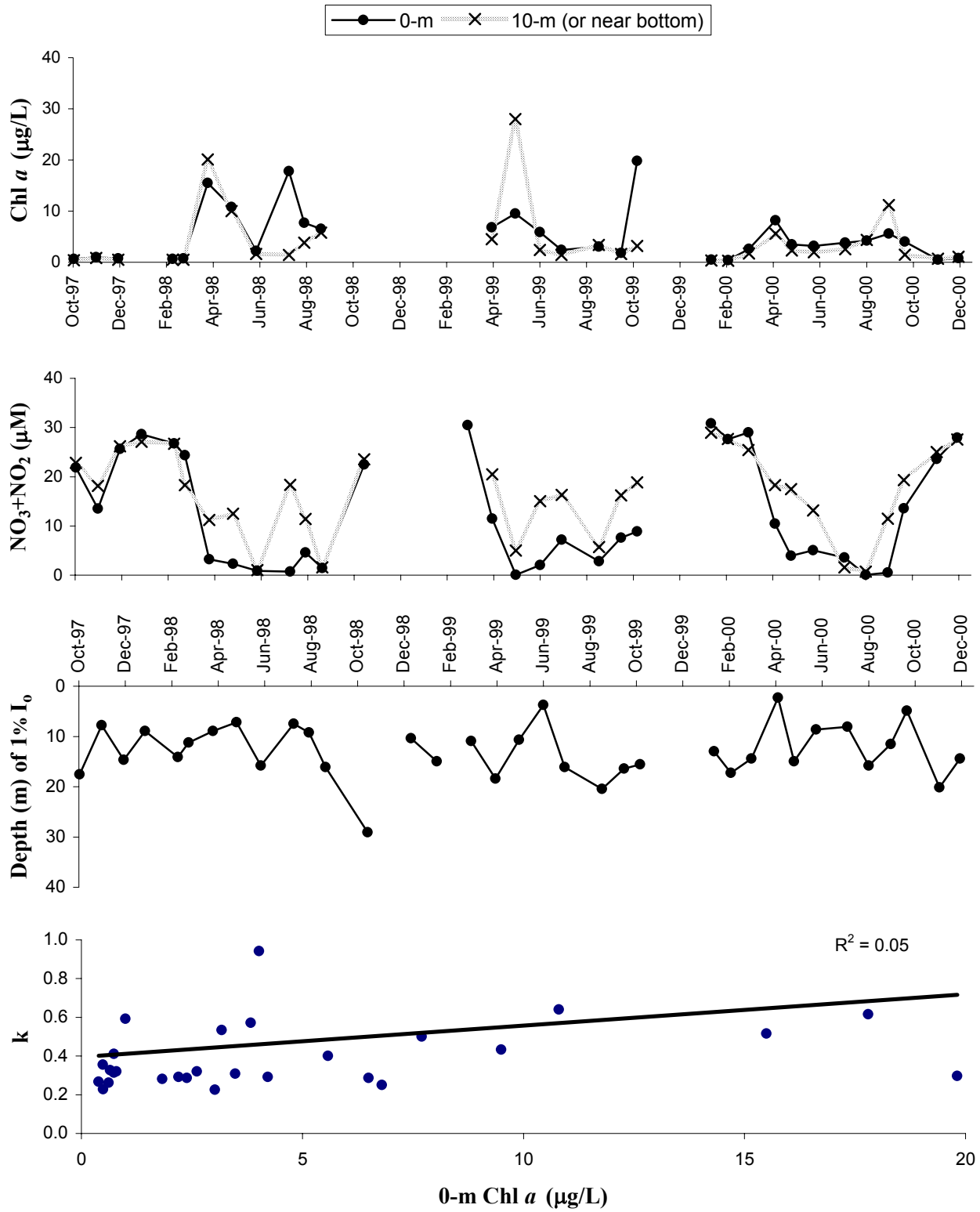
# ADM002



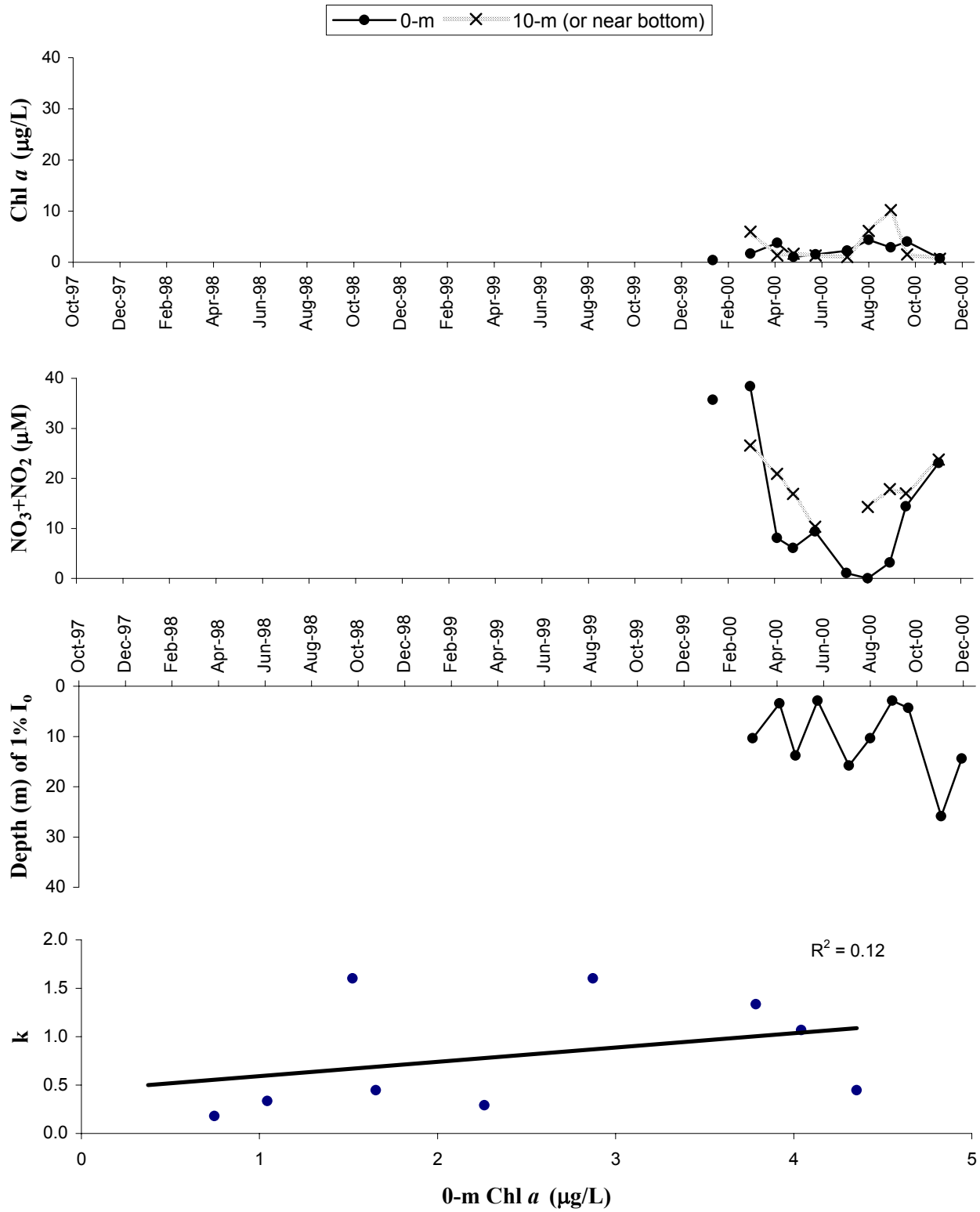
# ADM003



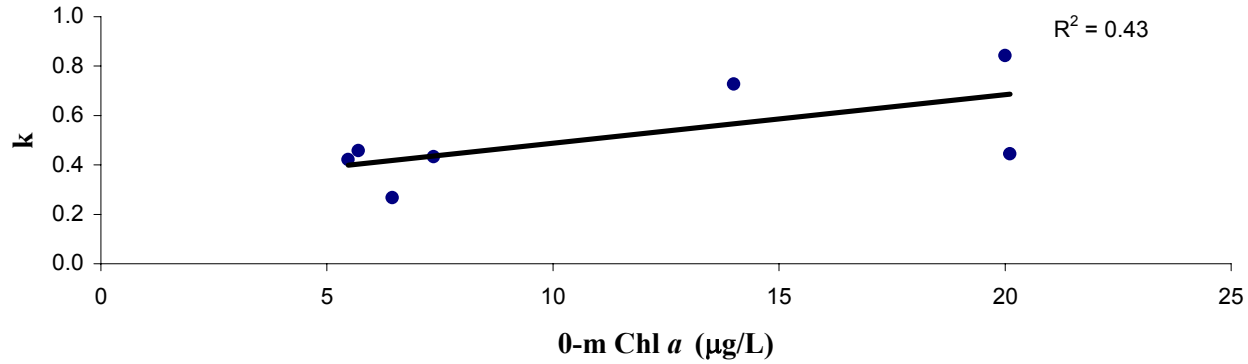
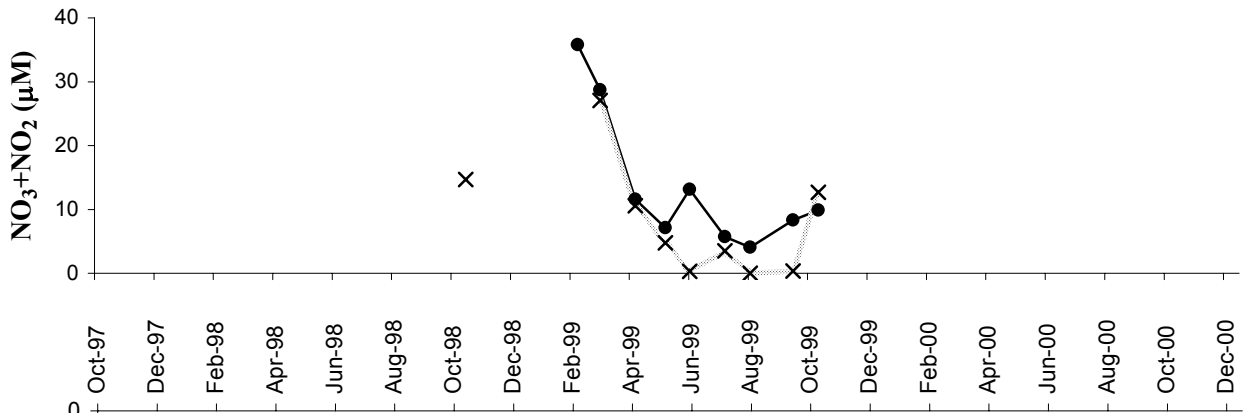
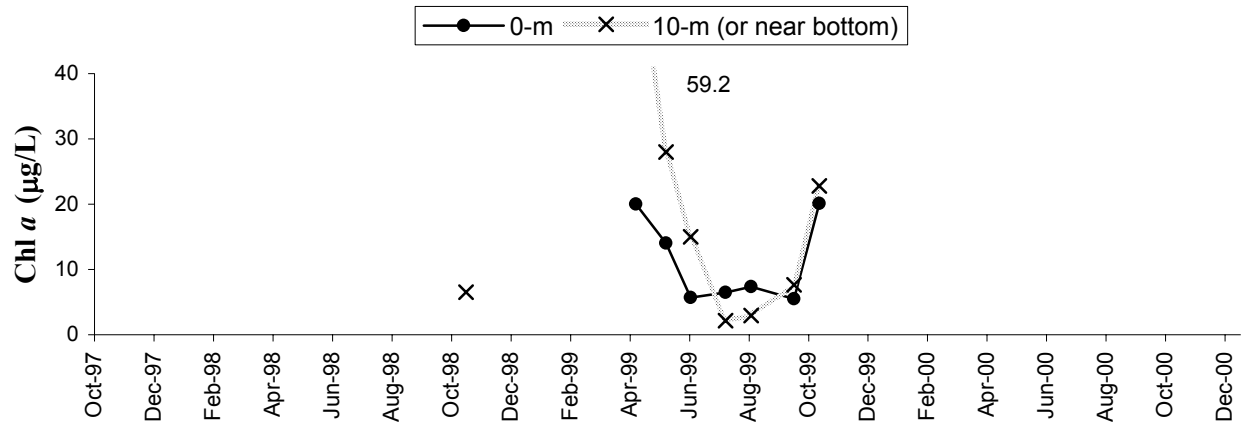
# BLL009



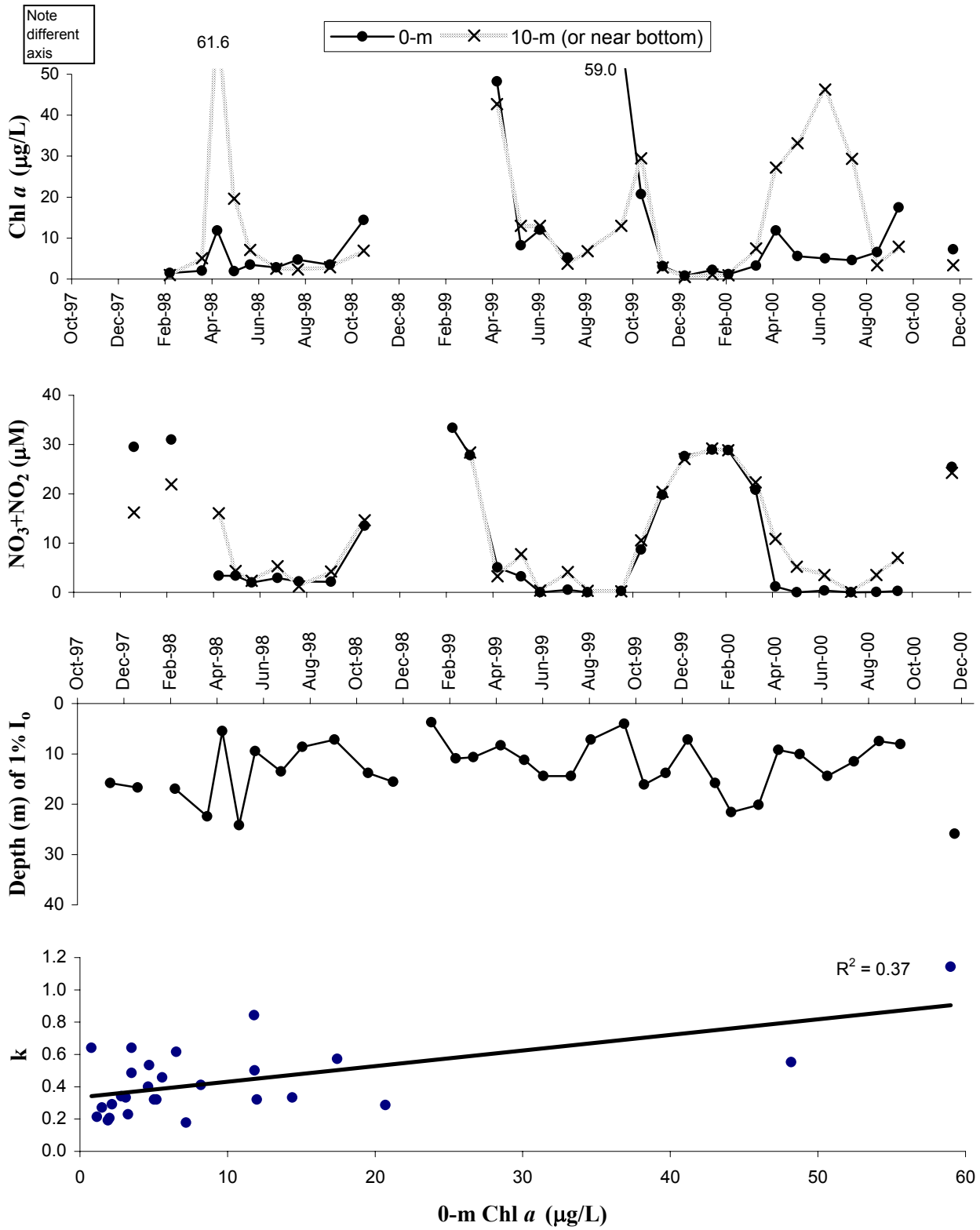
# BLL011



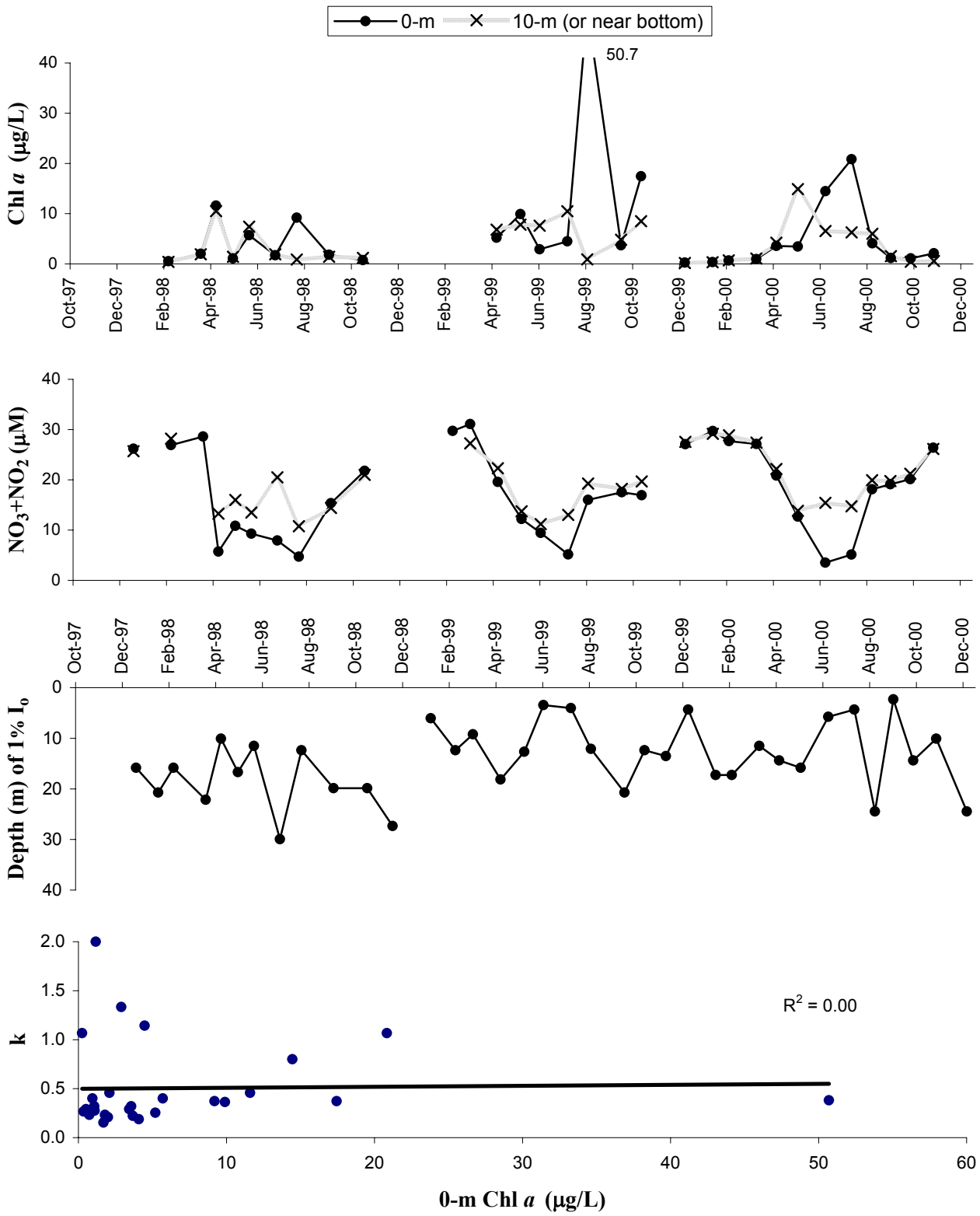
# BUD002



# BUD005

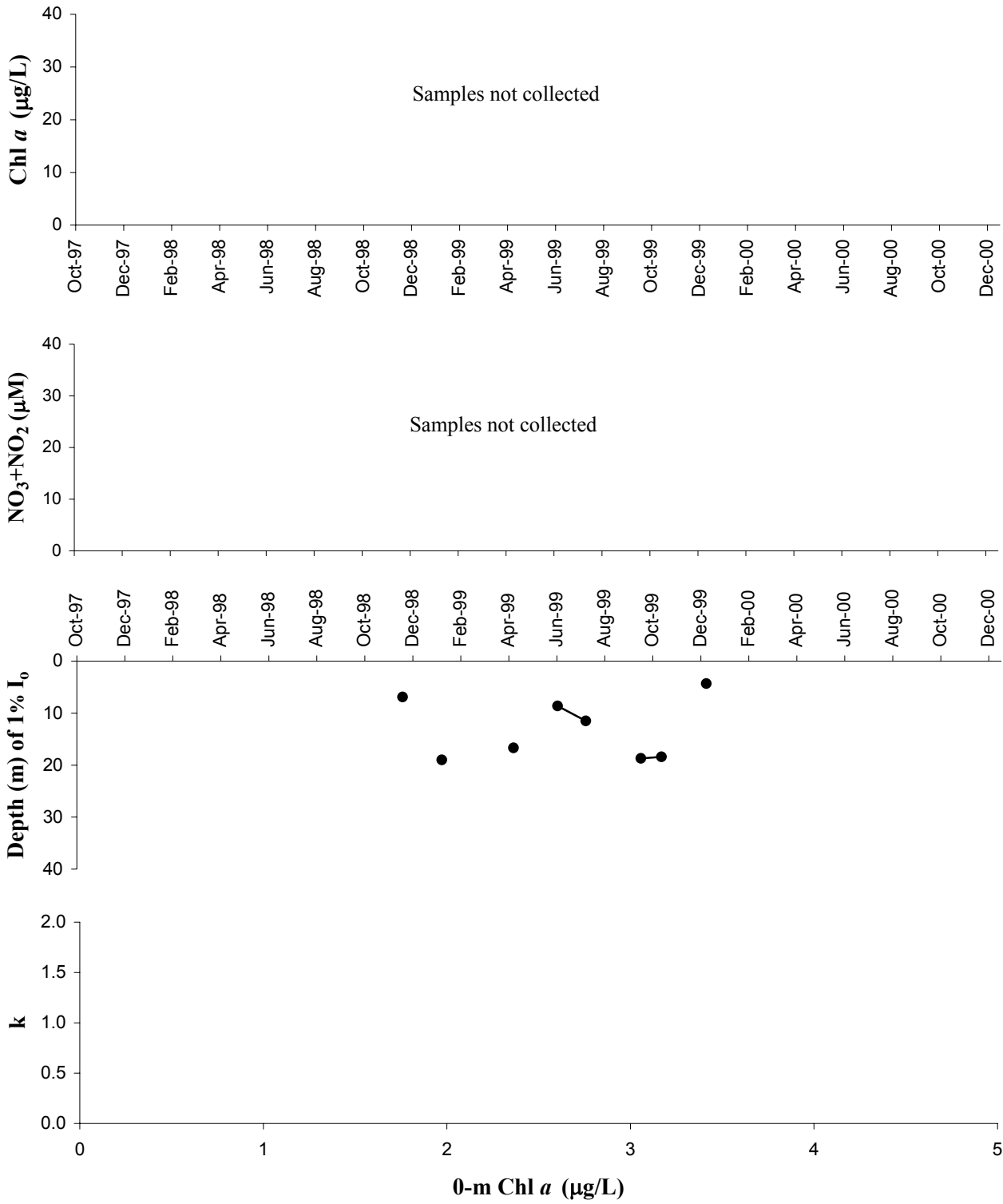


# CMB003

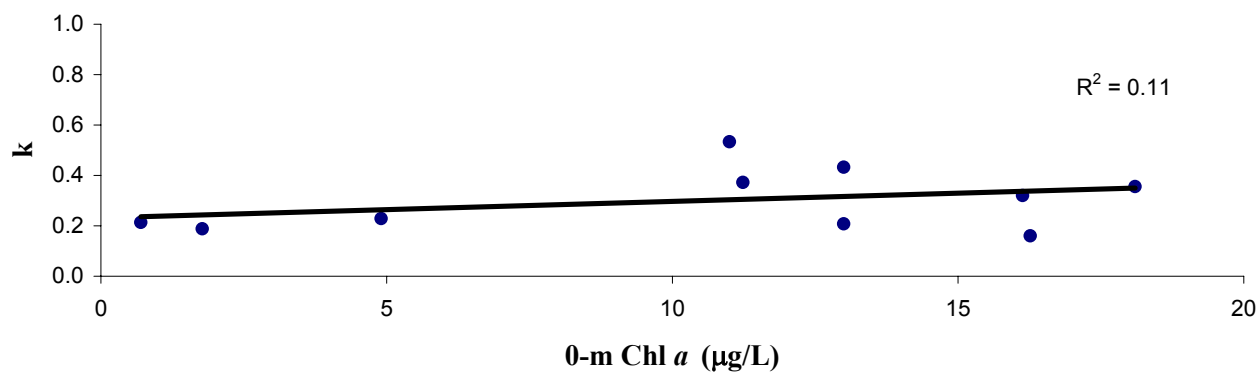
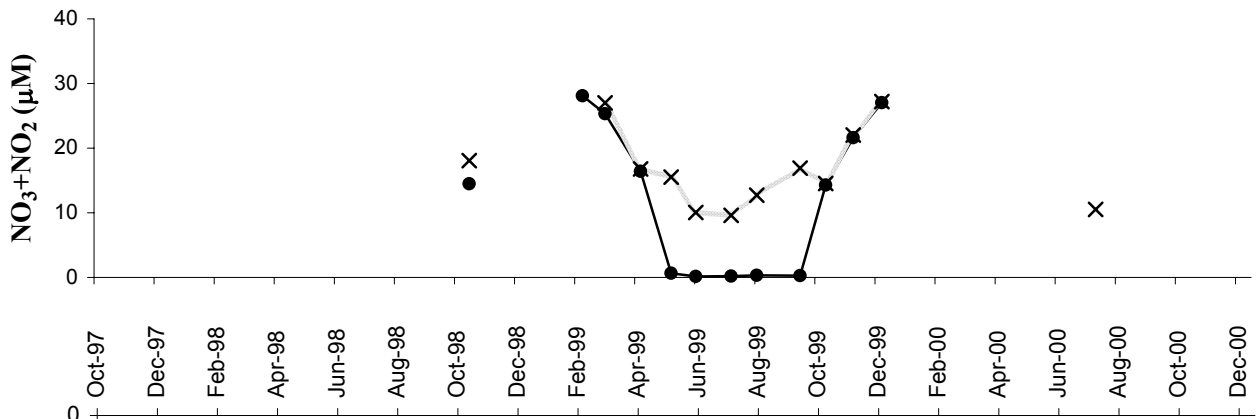
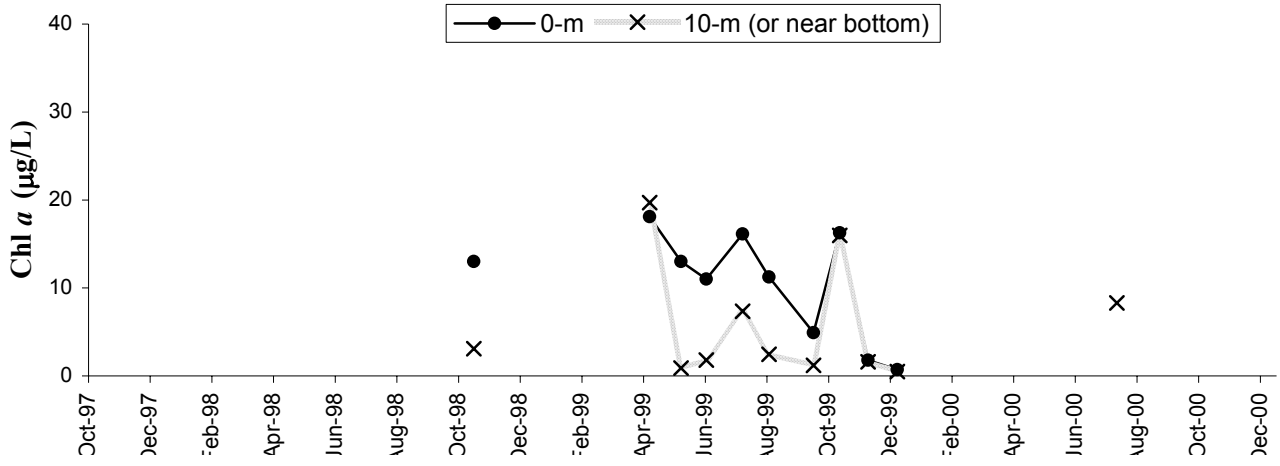




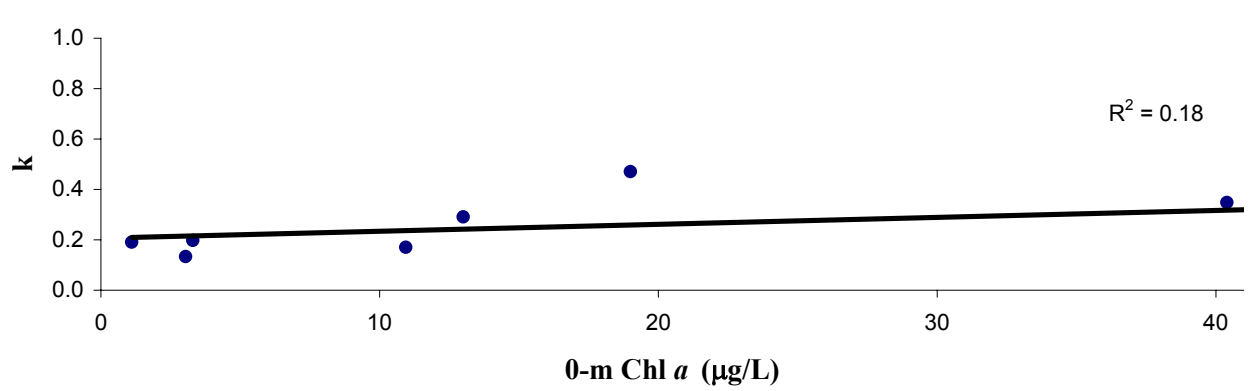
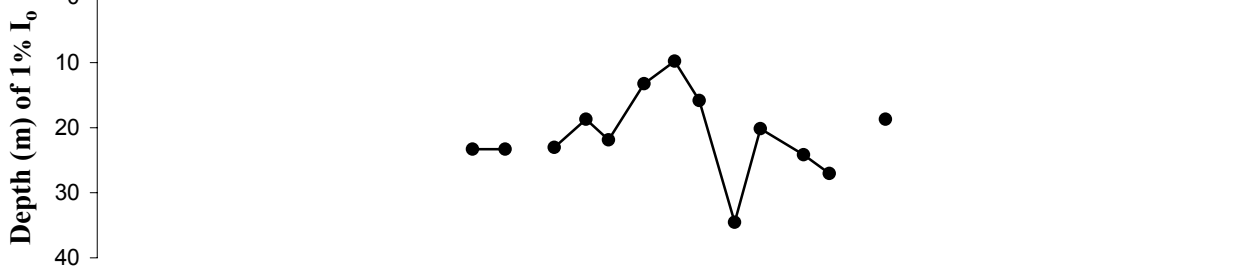
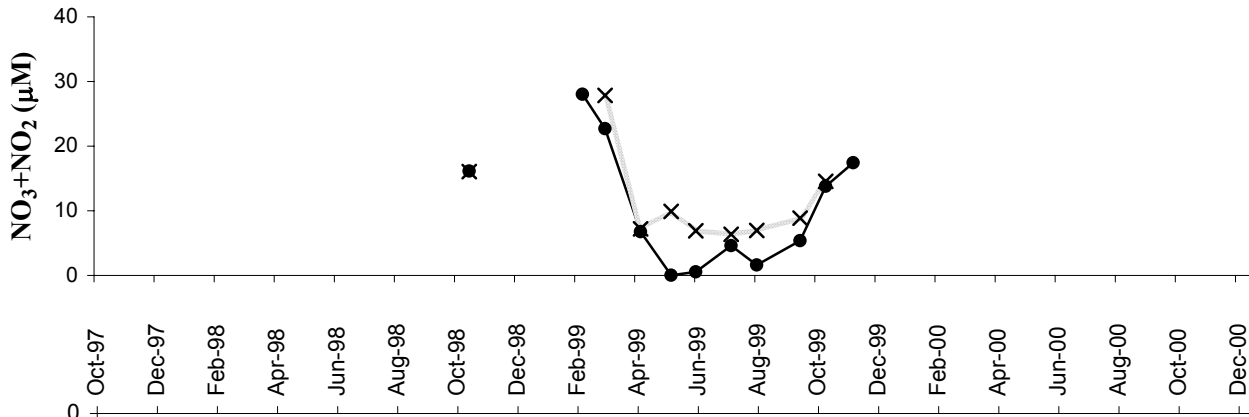
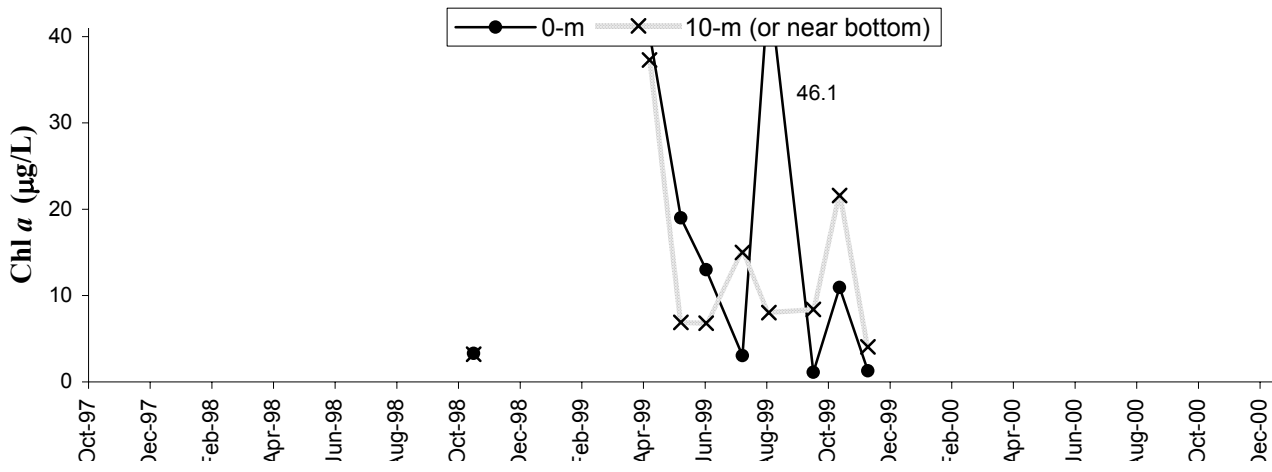
# CMB006



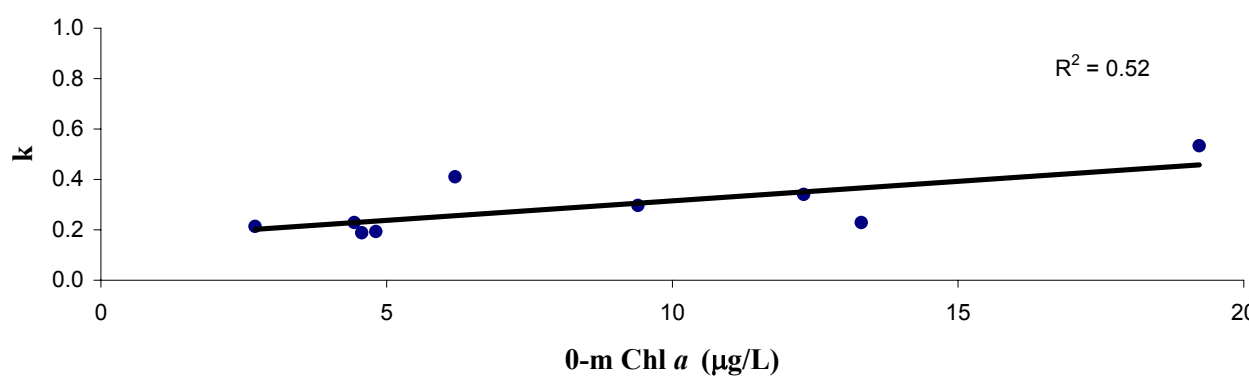
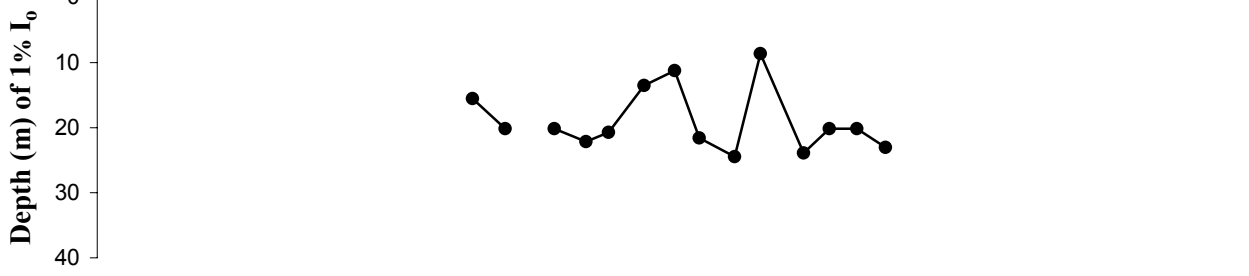
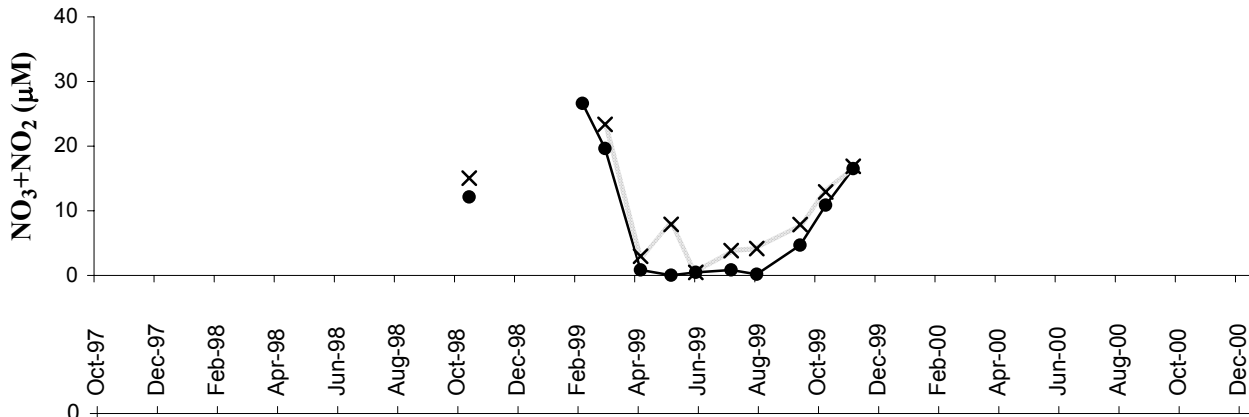
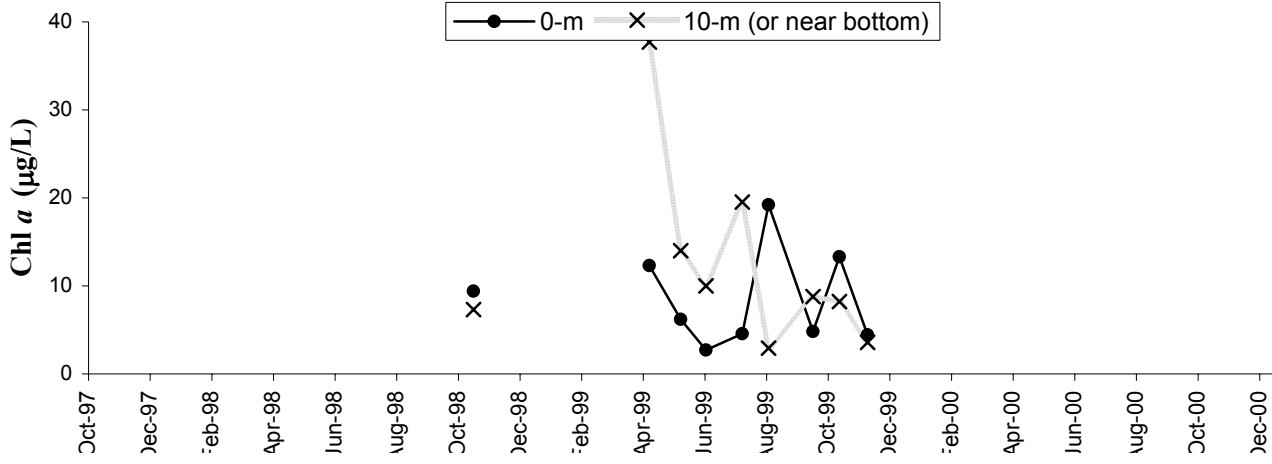
# CRR001



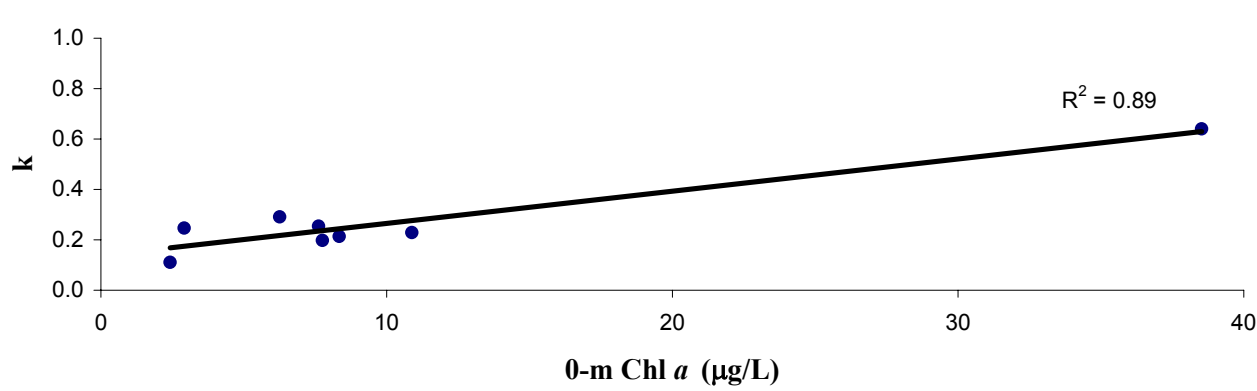
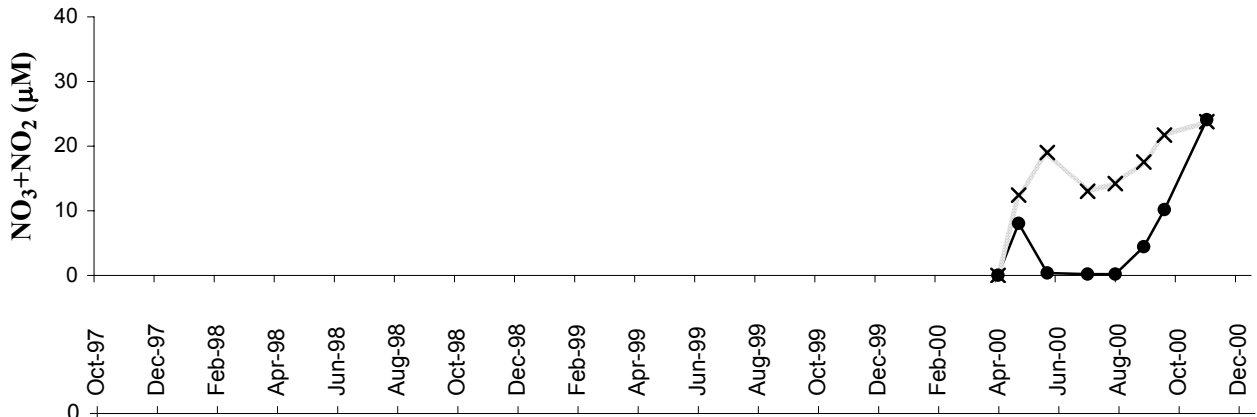
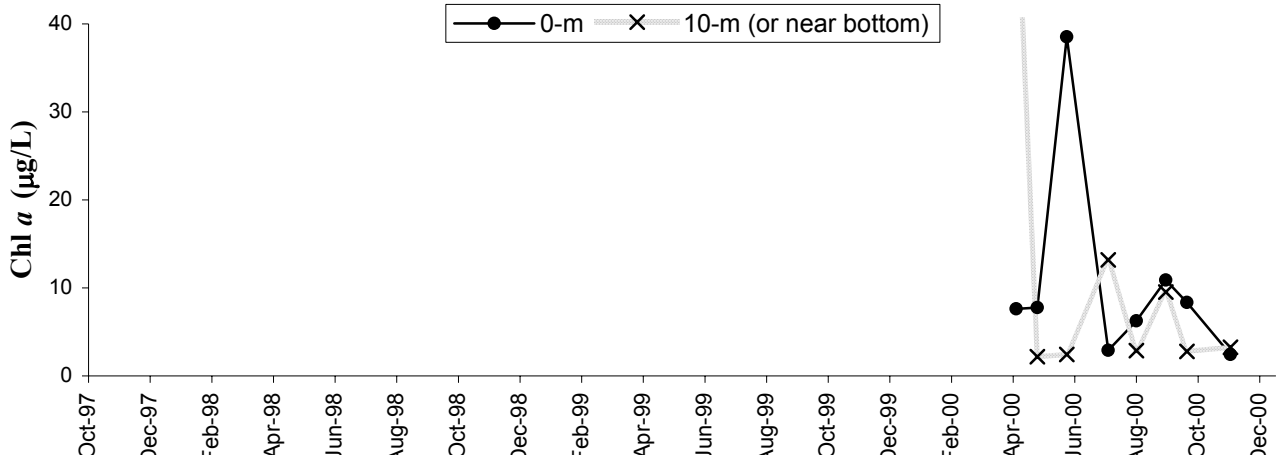
### CSE001



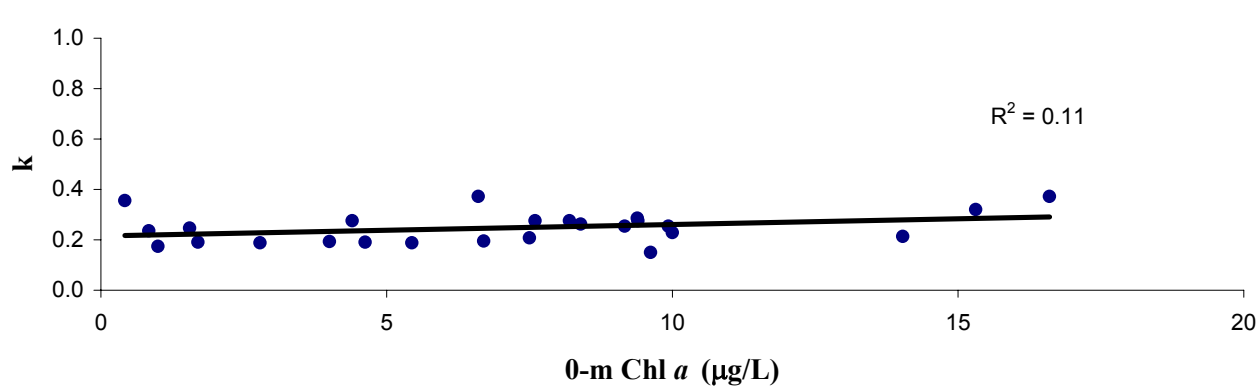
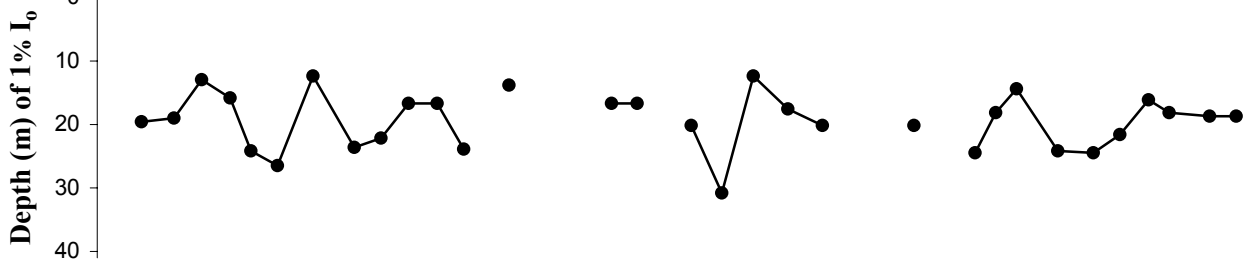
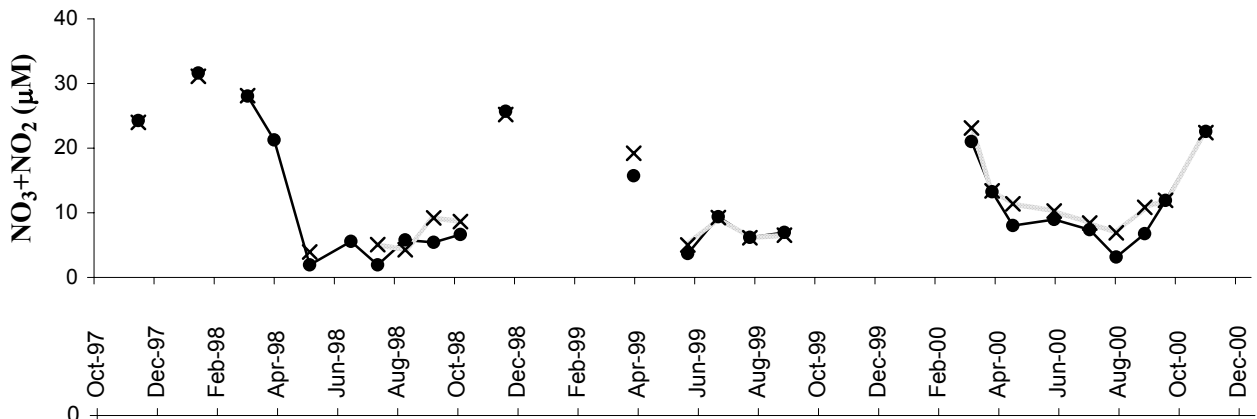
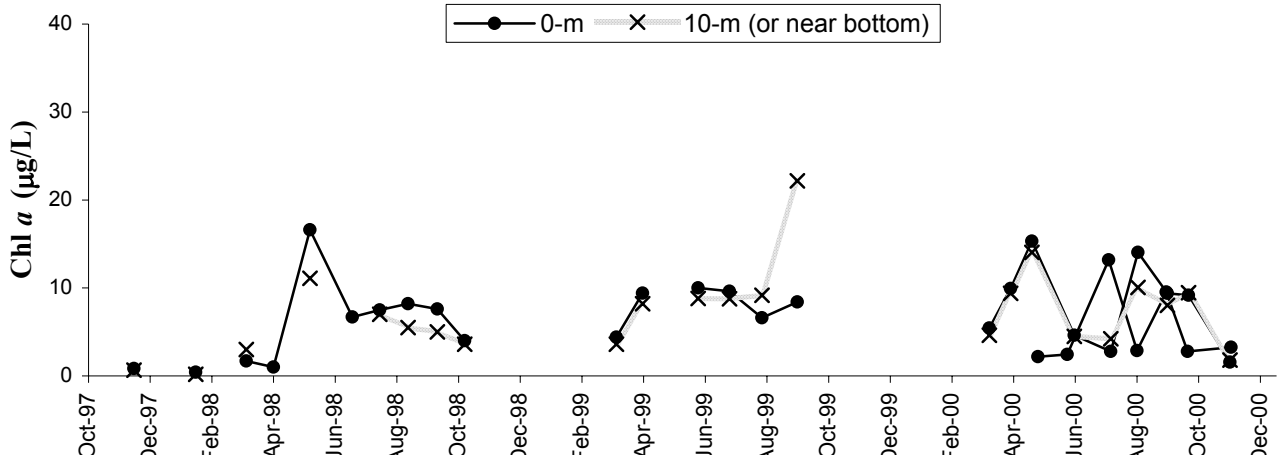
### CSE002



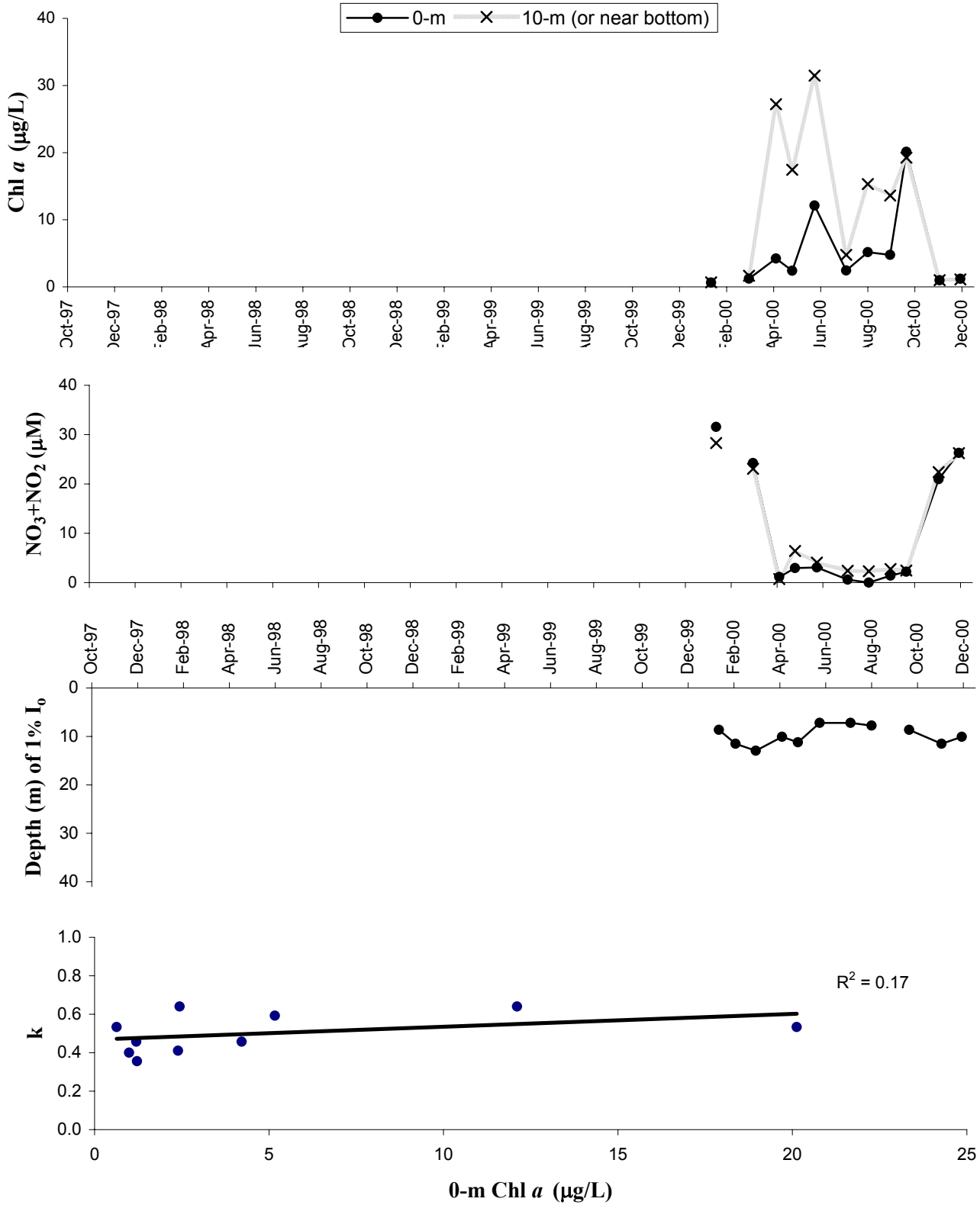
### DIS001



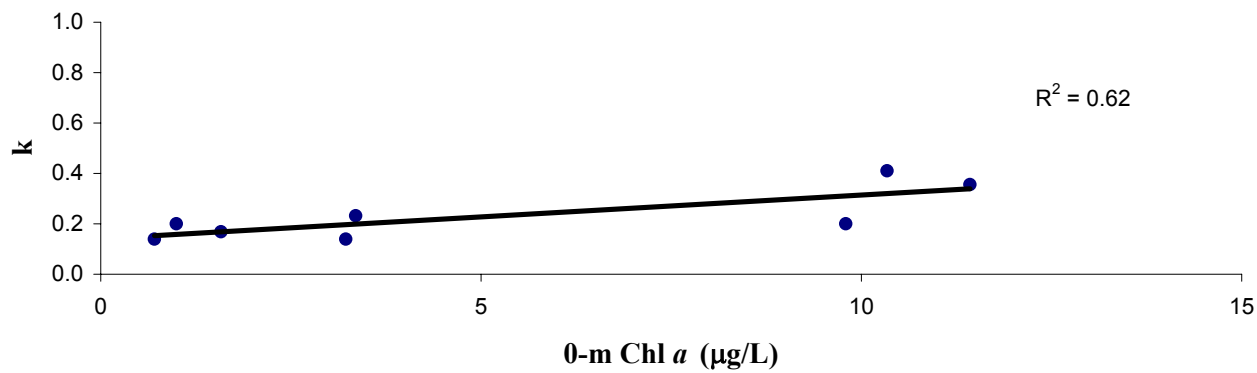
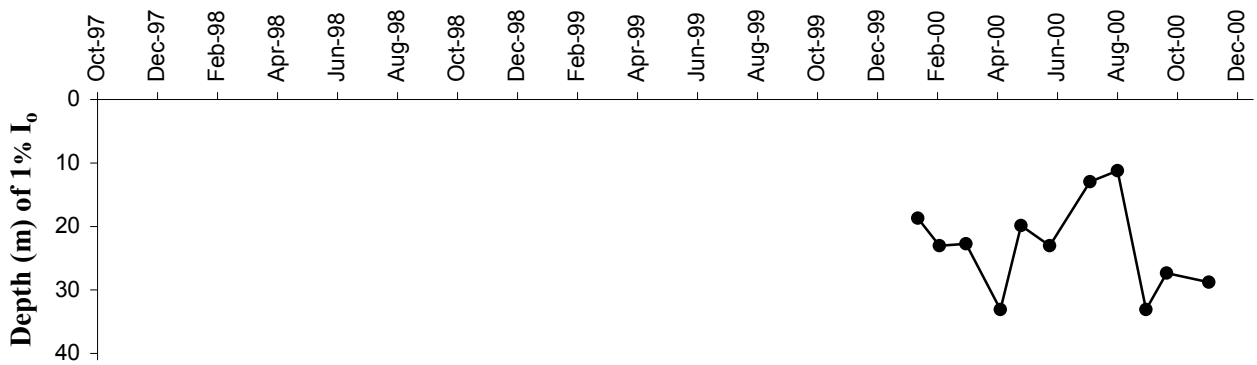
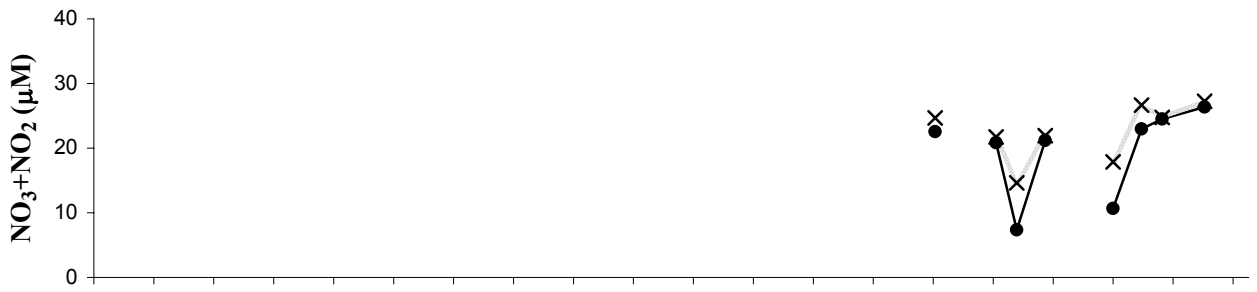
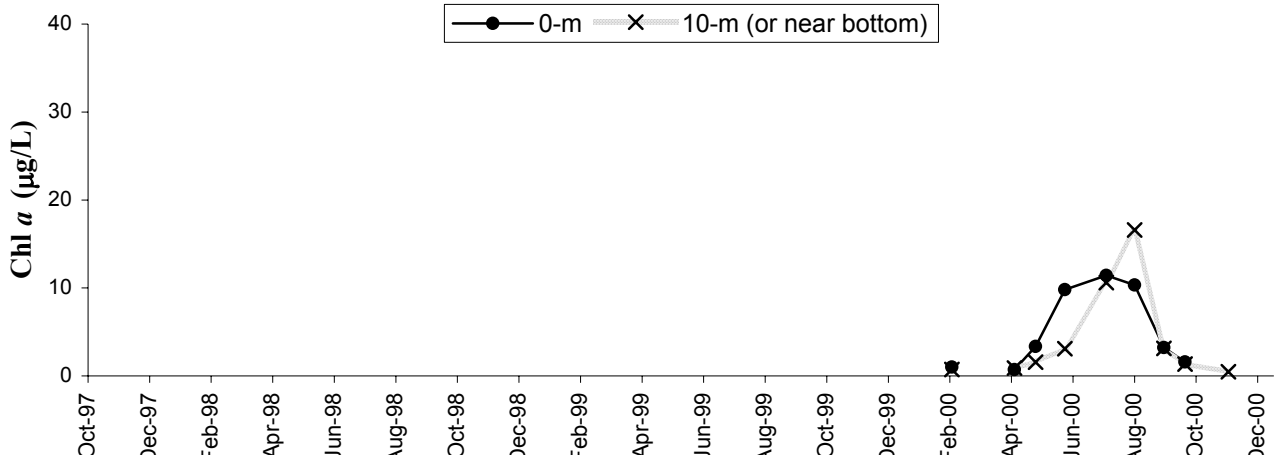
# DNA001



### DRA002

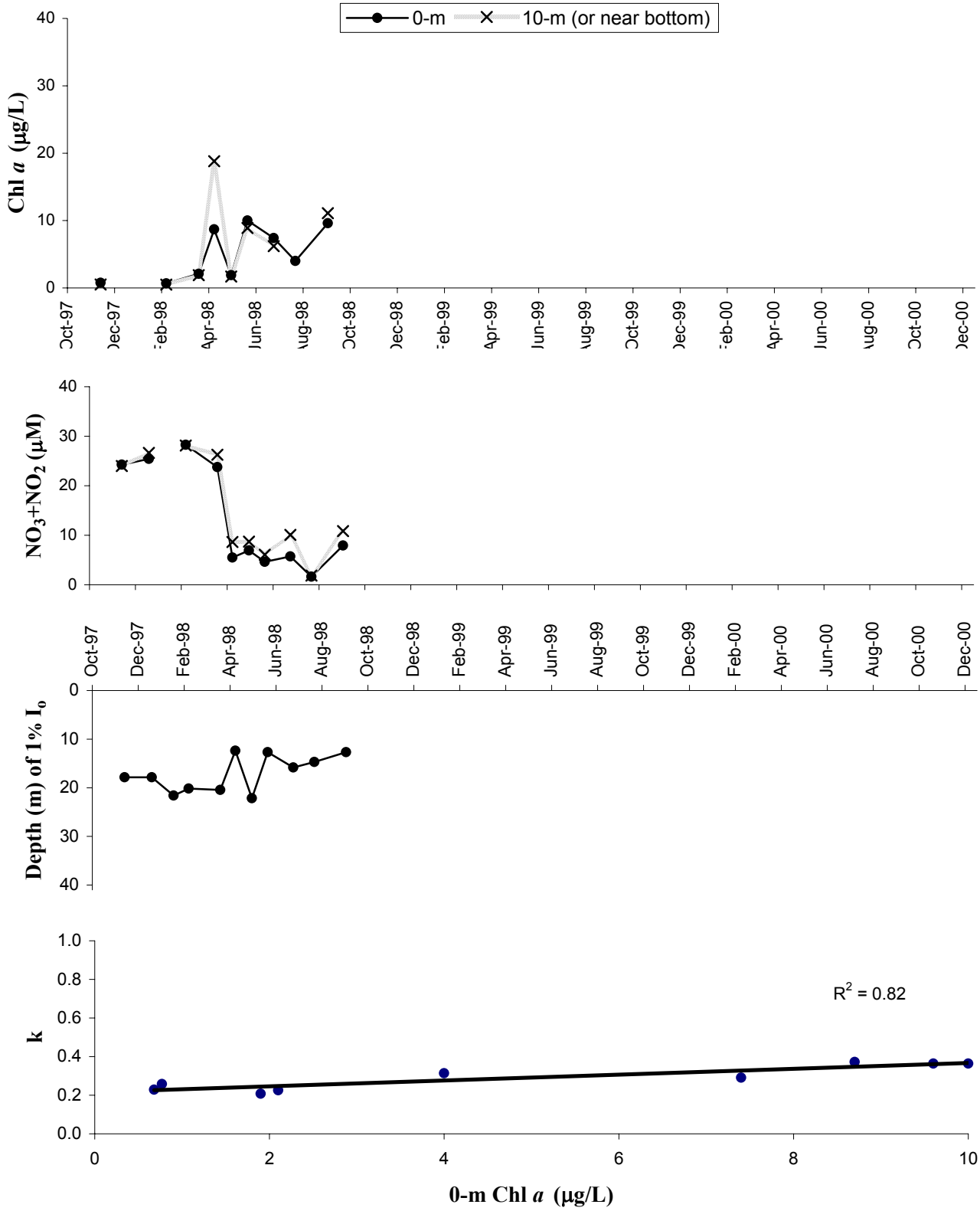


# DUN001

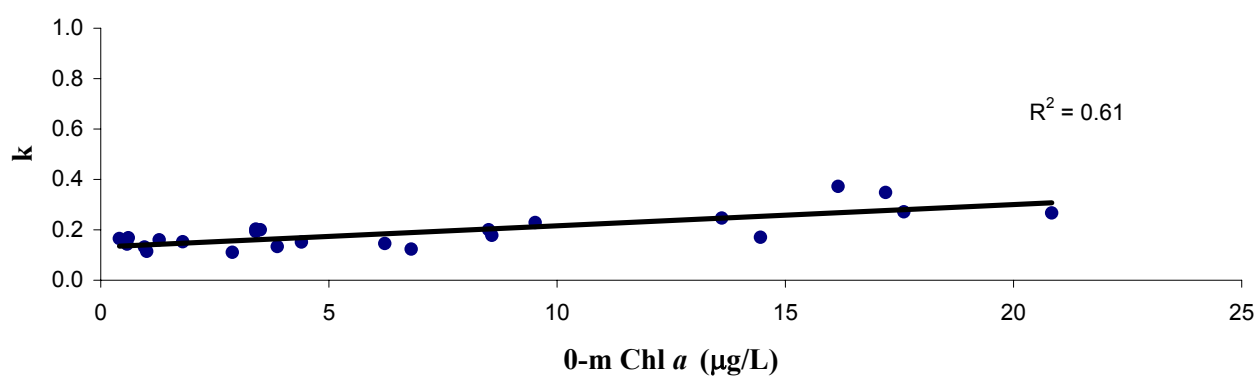
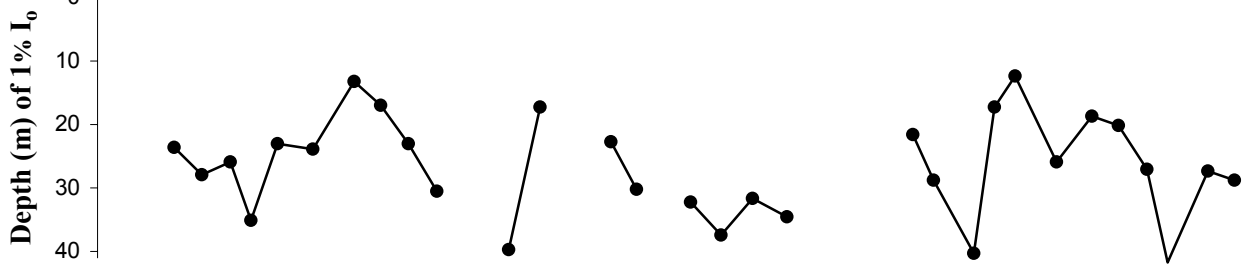
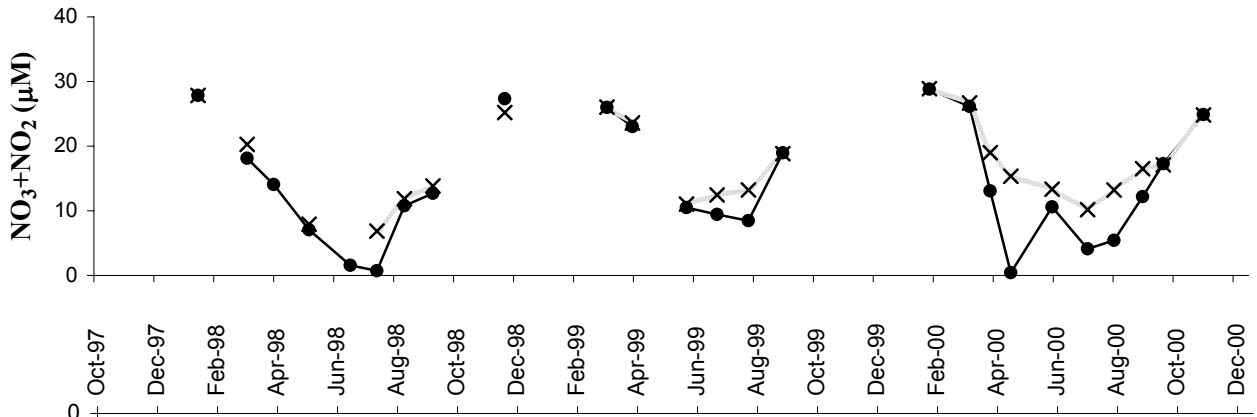
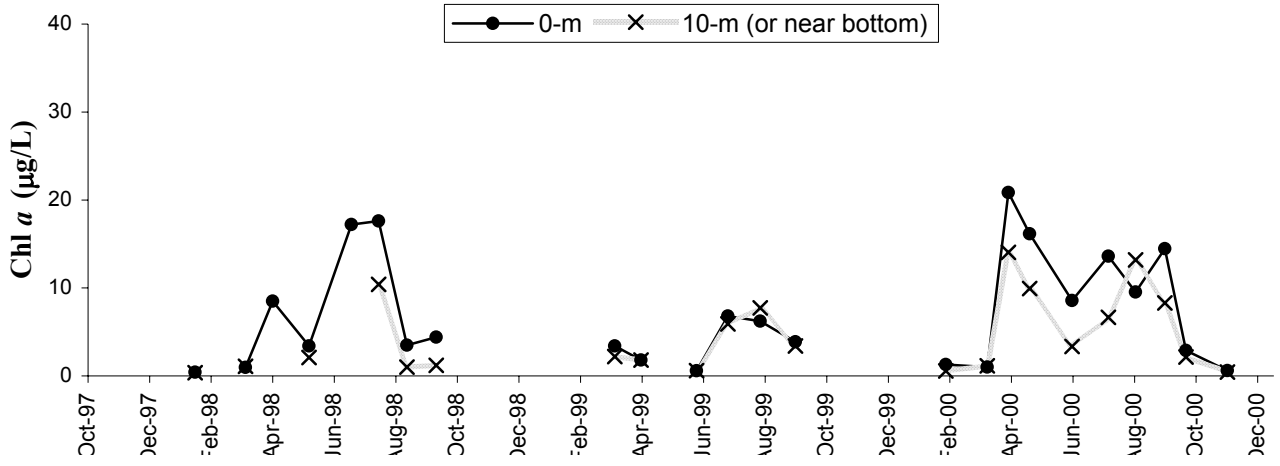




# EAG001

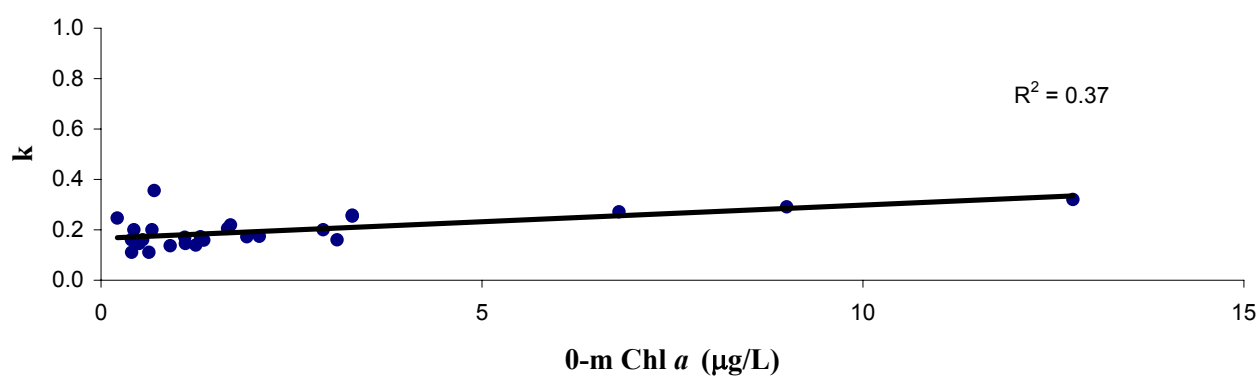
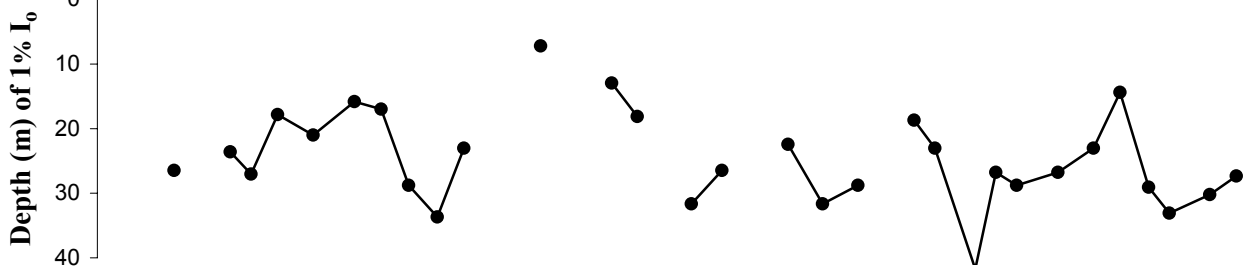
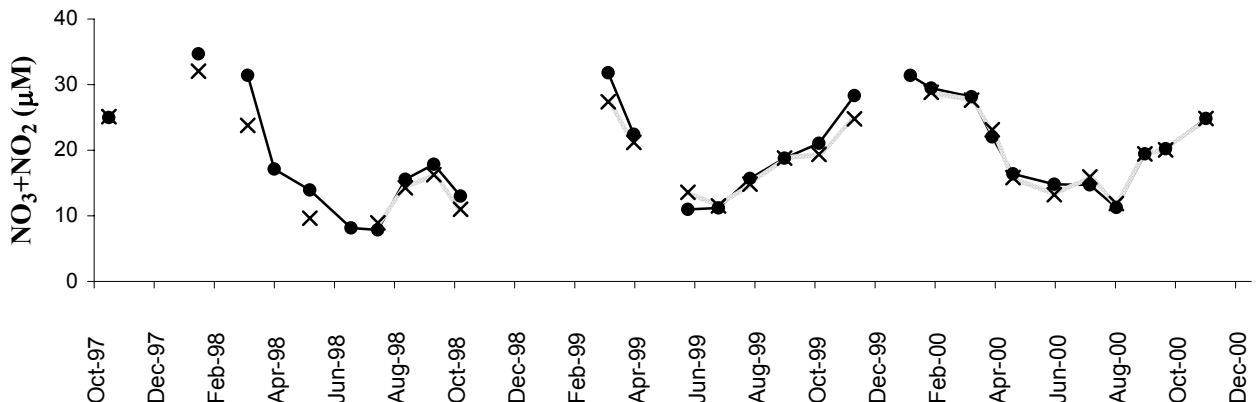
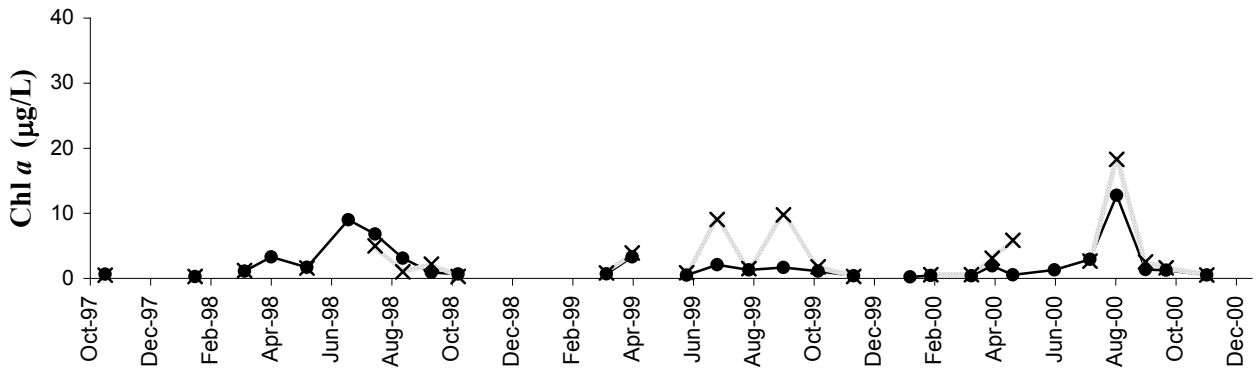


# EAP001

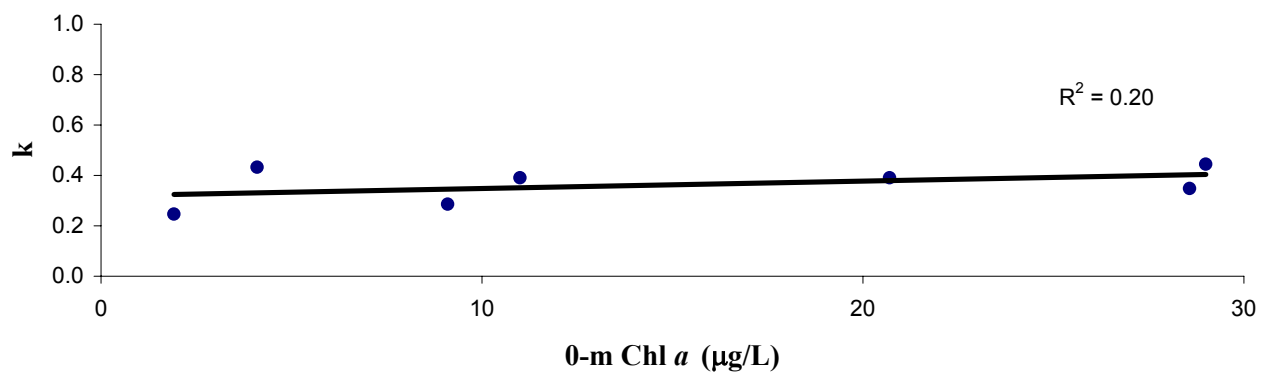
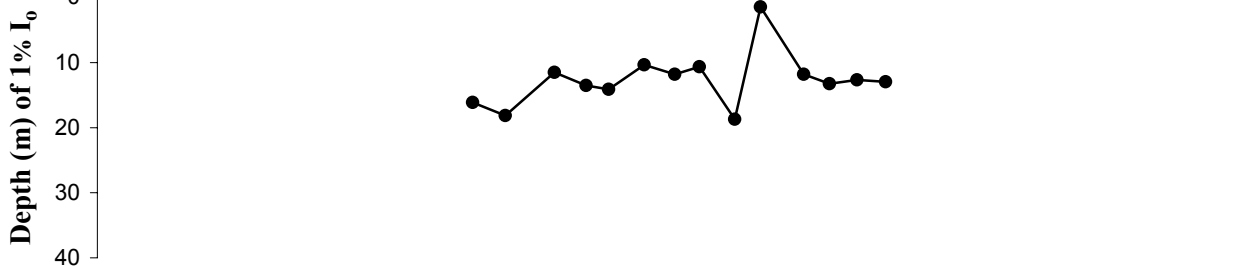
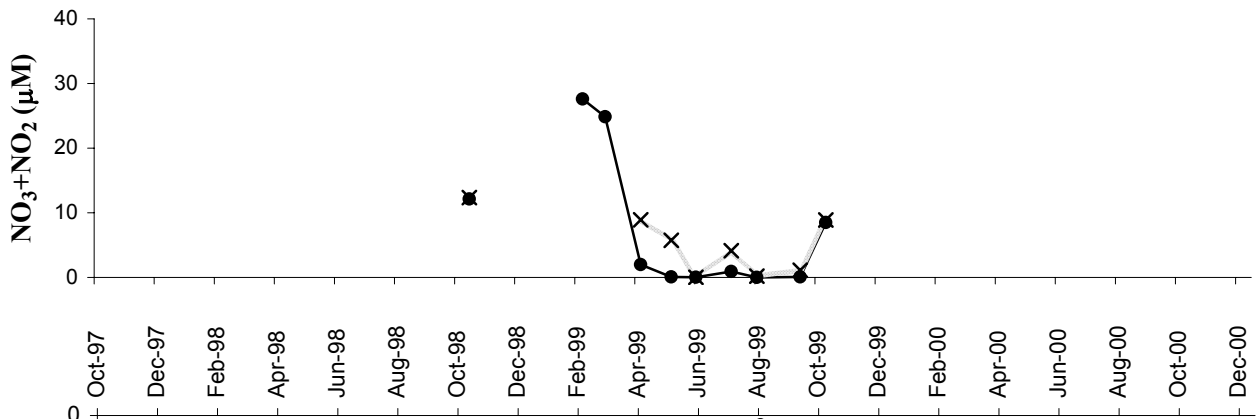
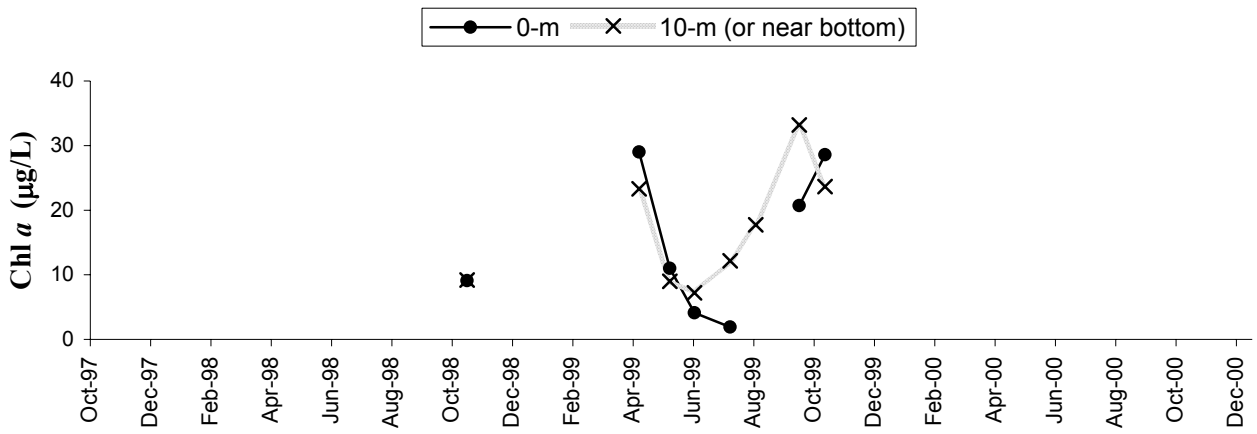


# ELB015

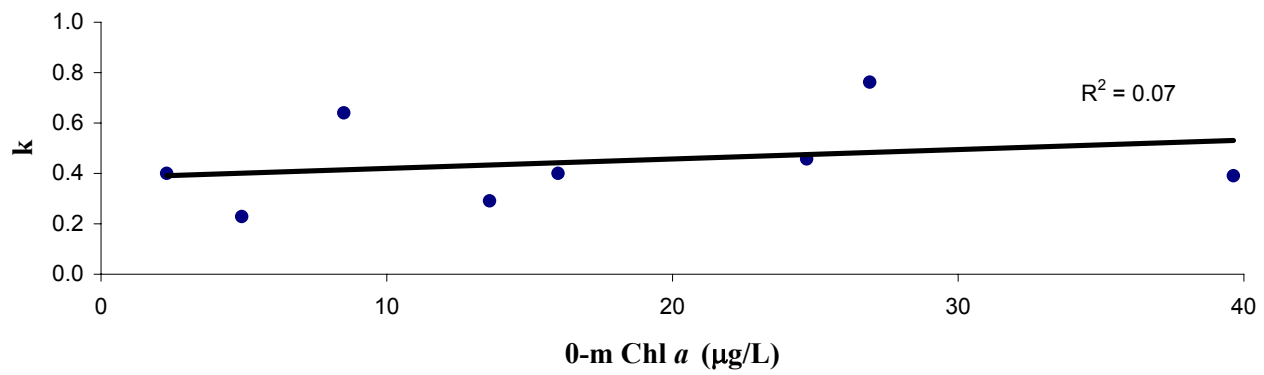
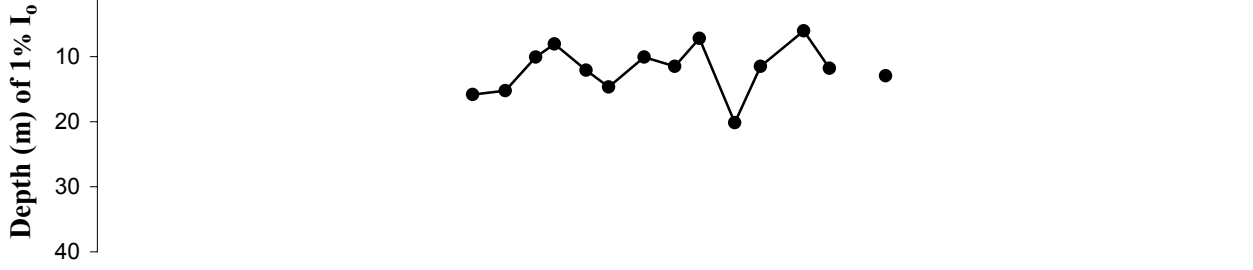
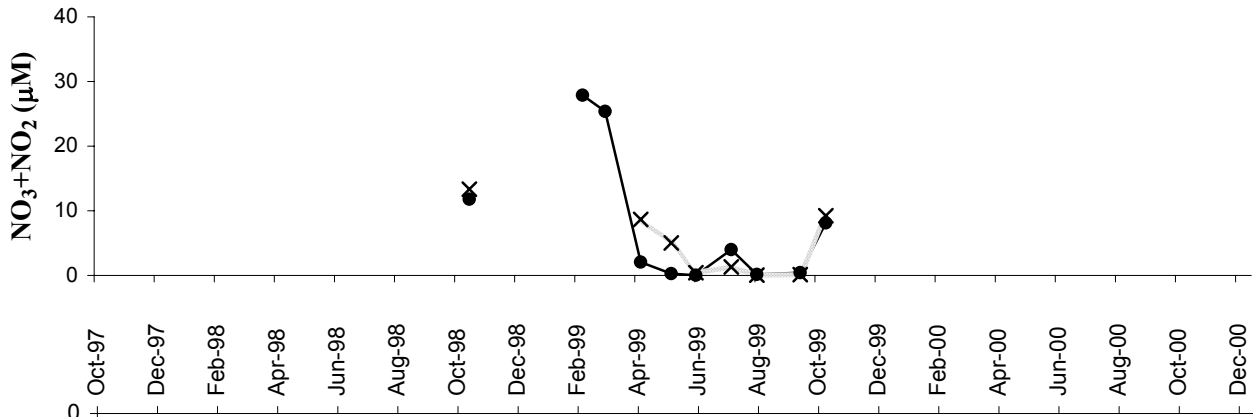
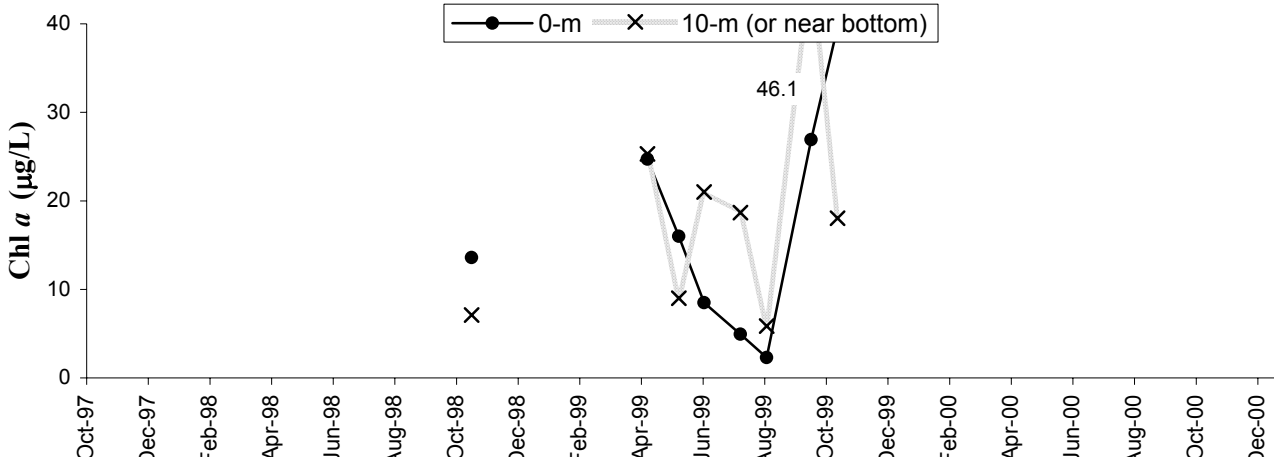
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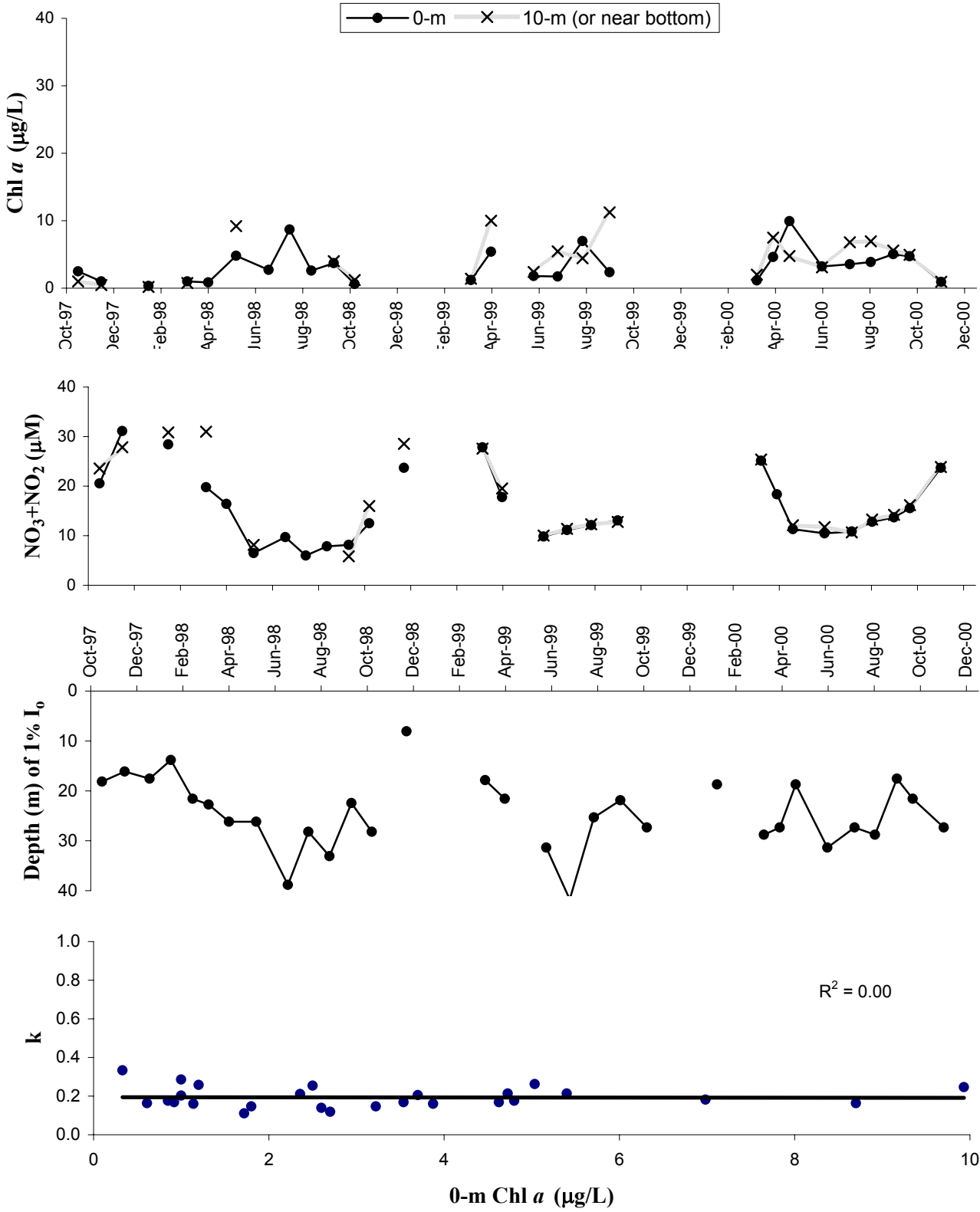
# ELD001



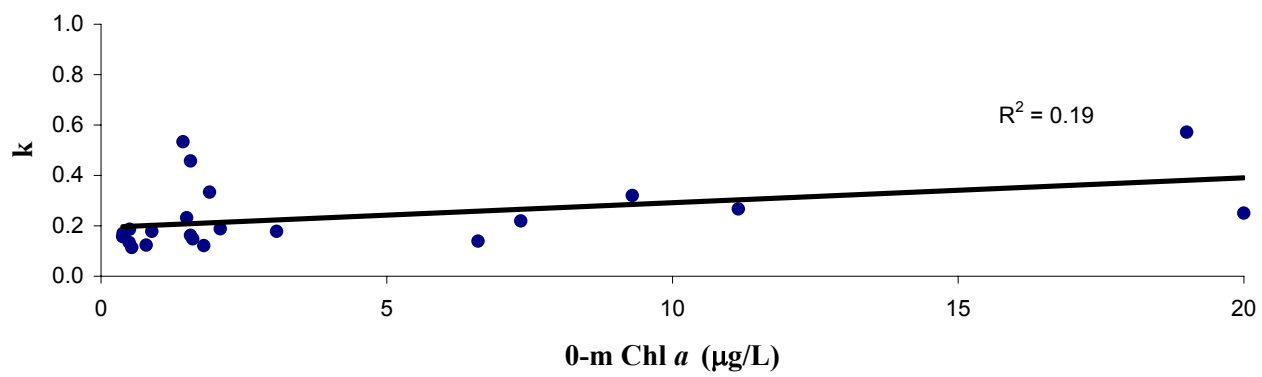
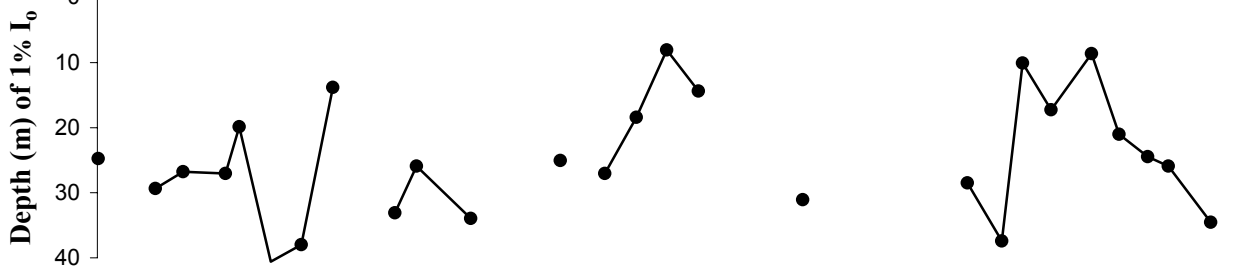
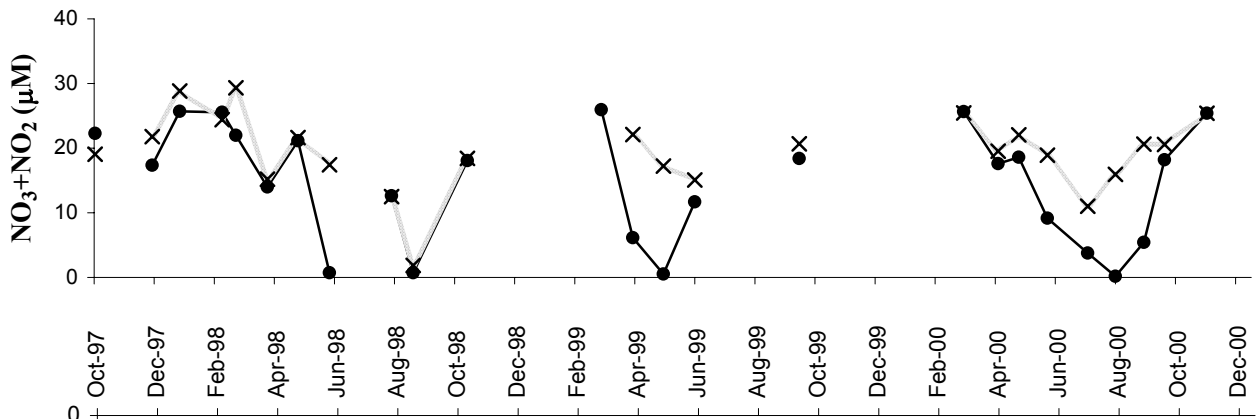
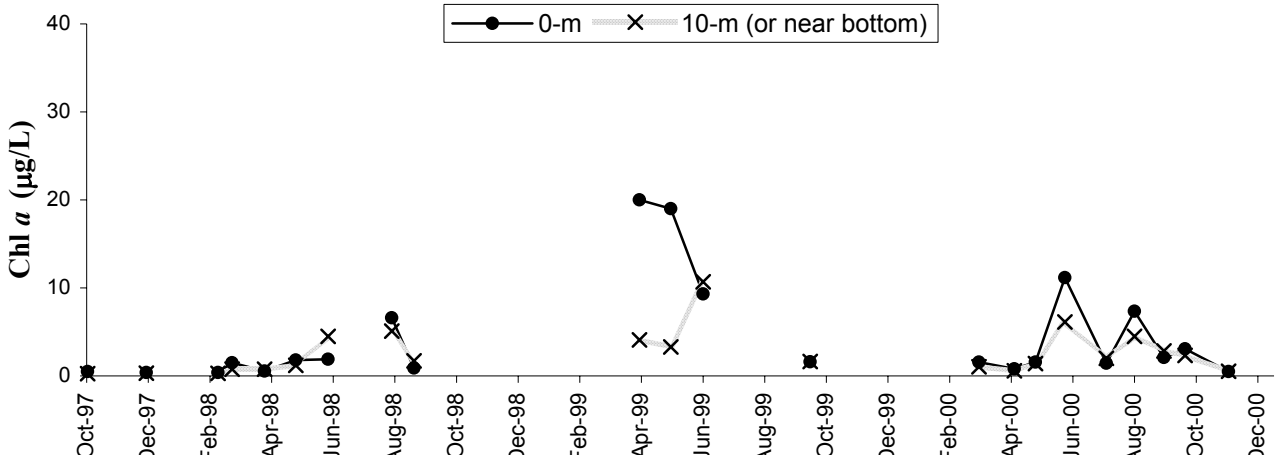
### ELD002



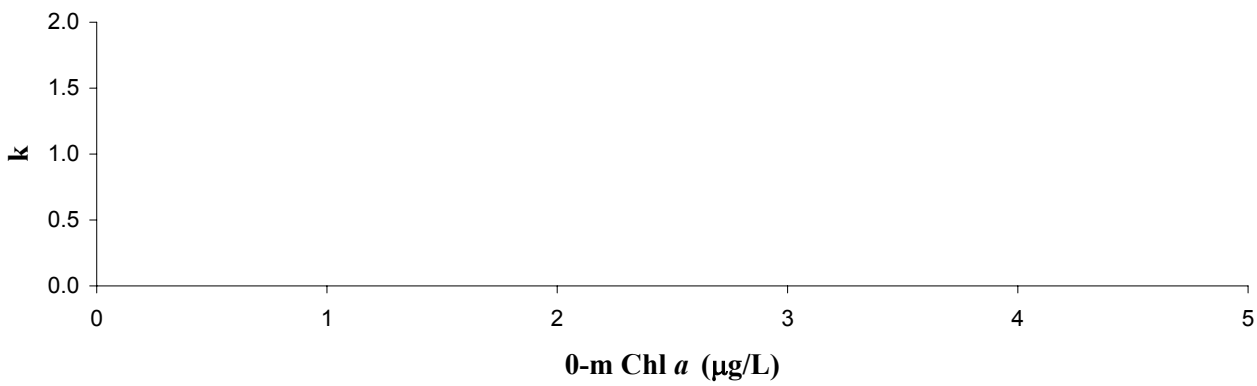
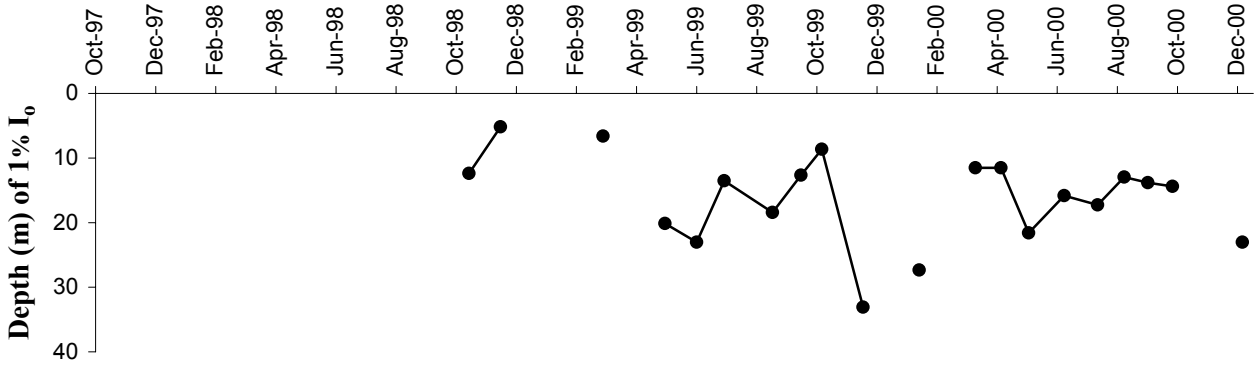
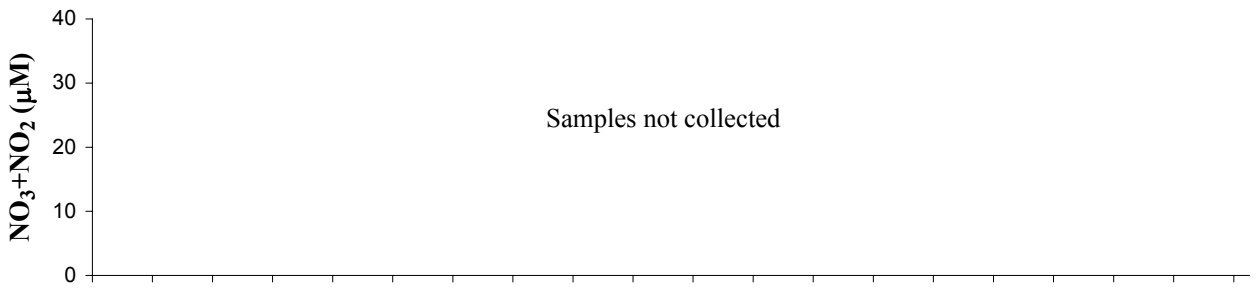
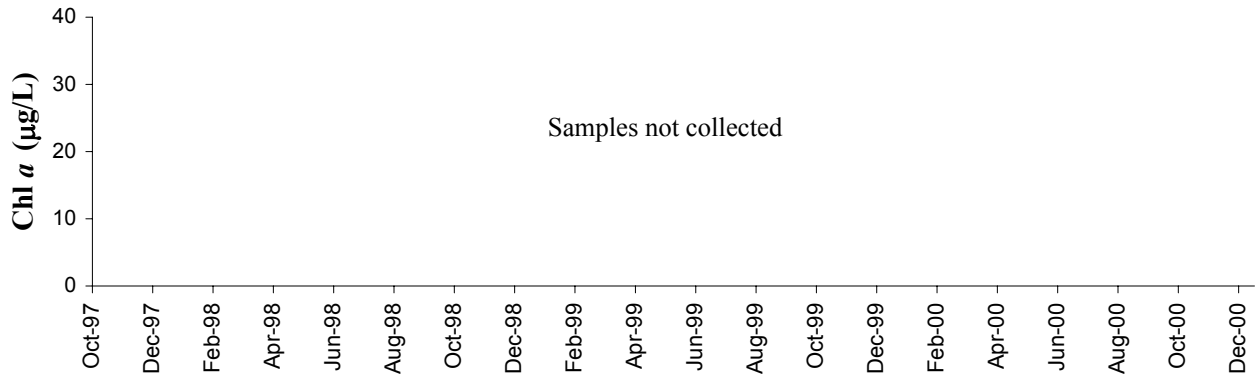
# GOR001



# GRG002

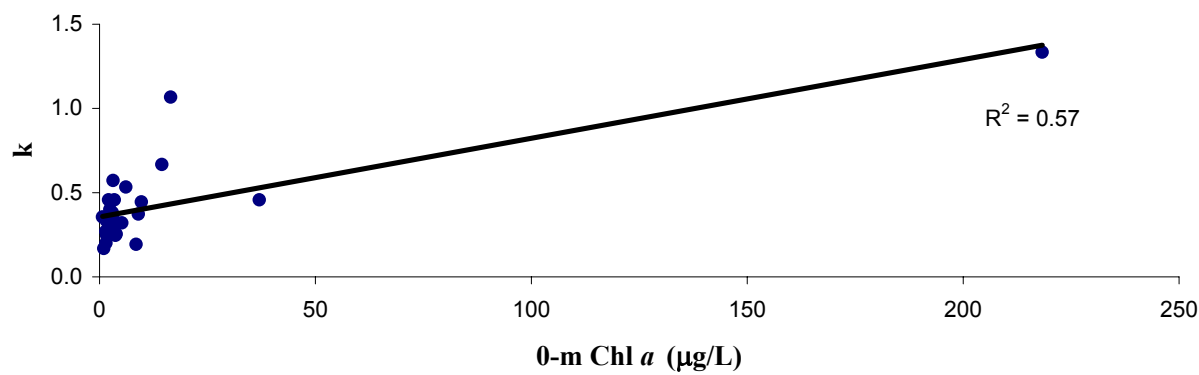
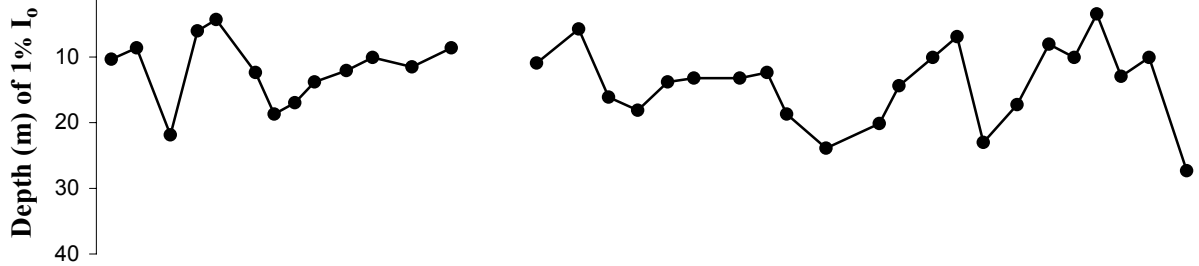
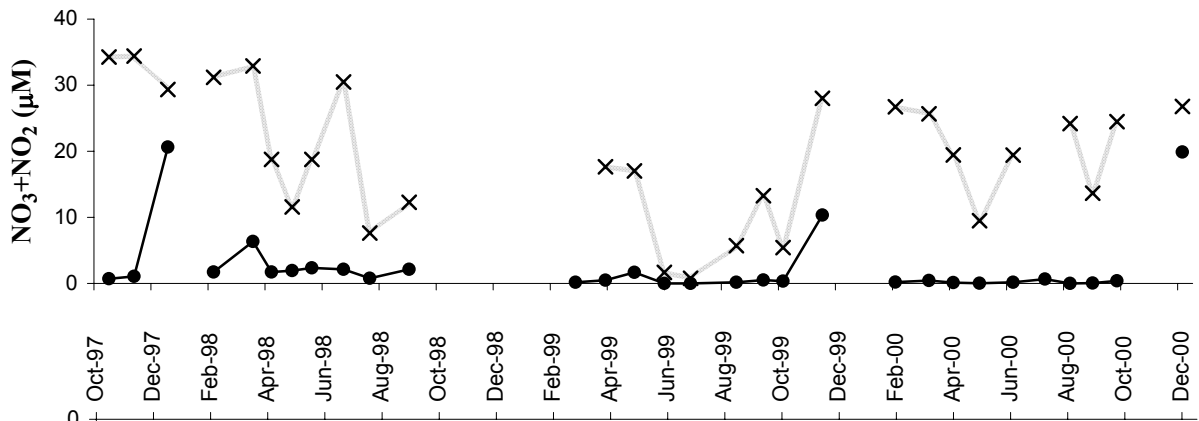
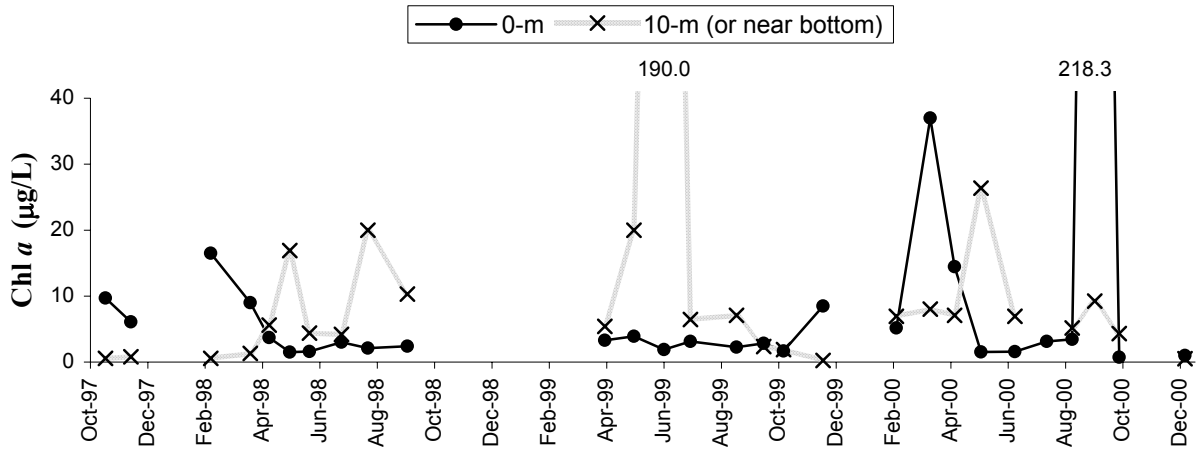


# HCB003

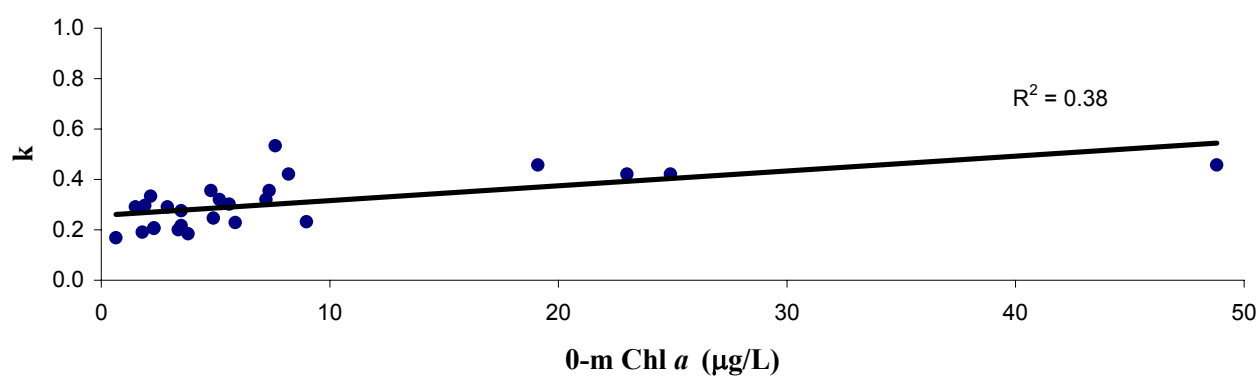
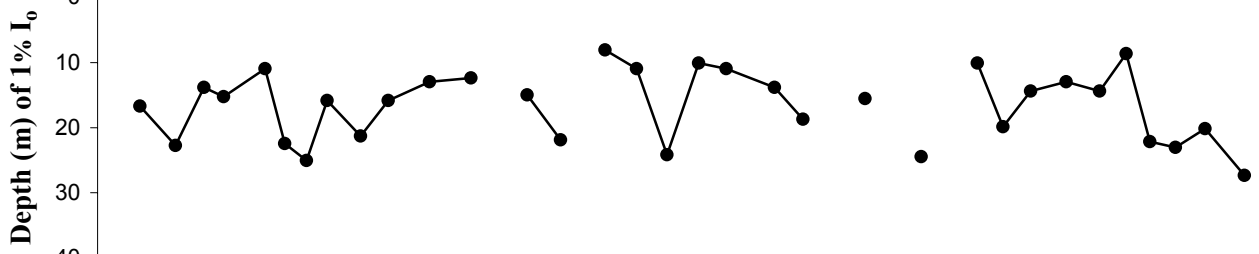
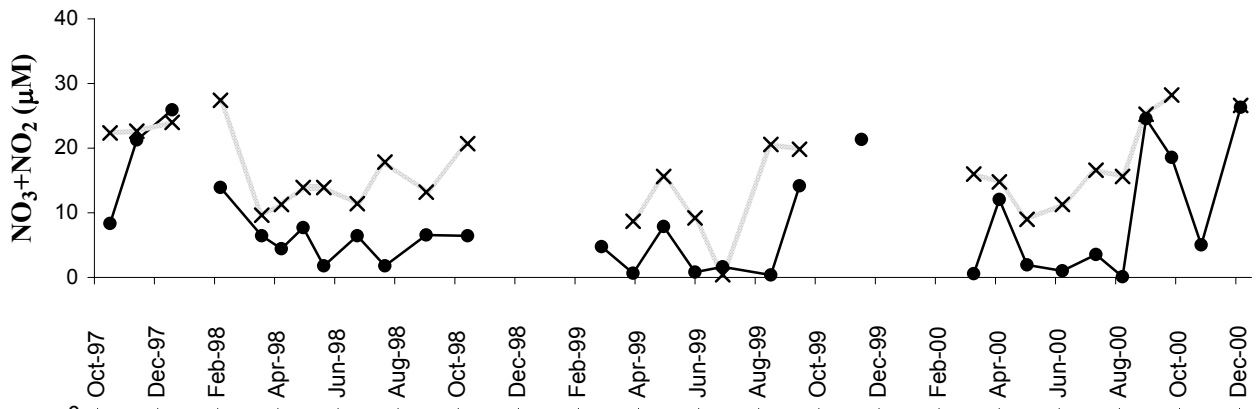
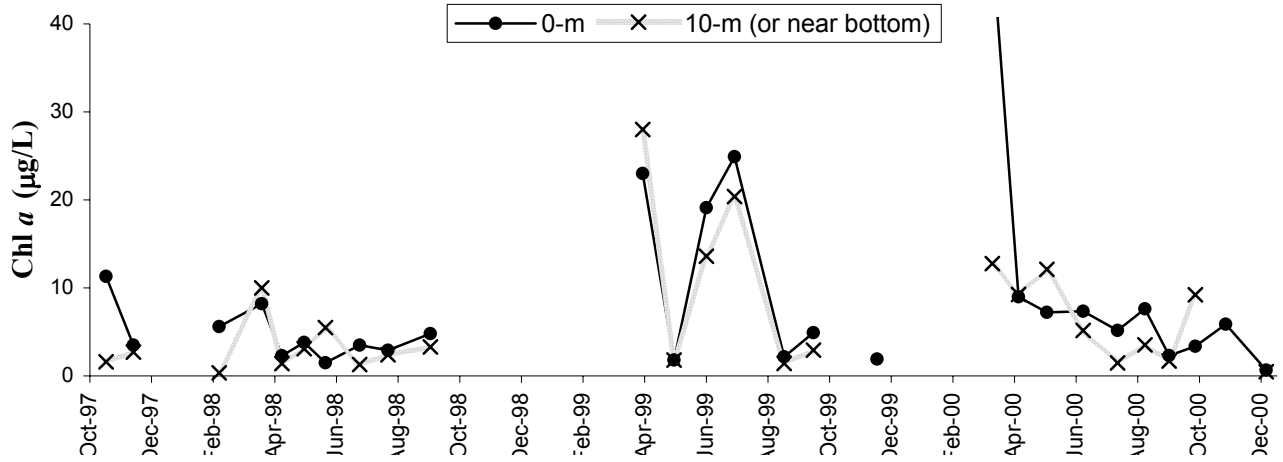




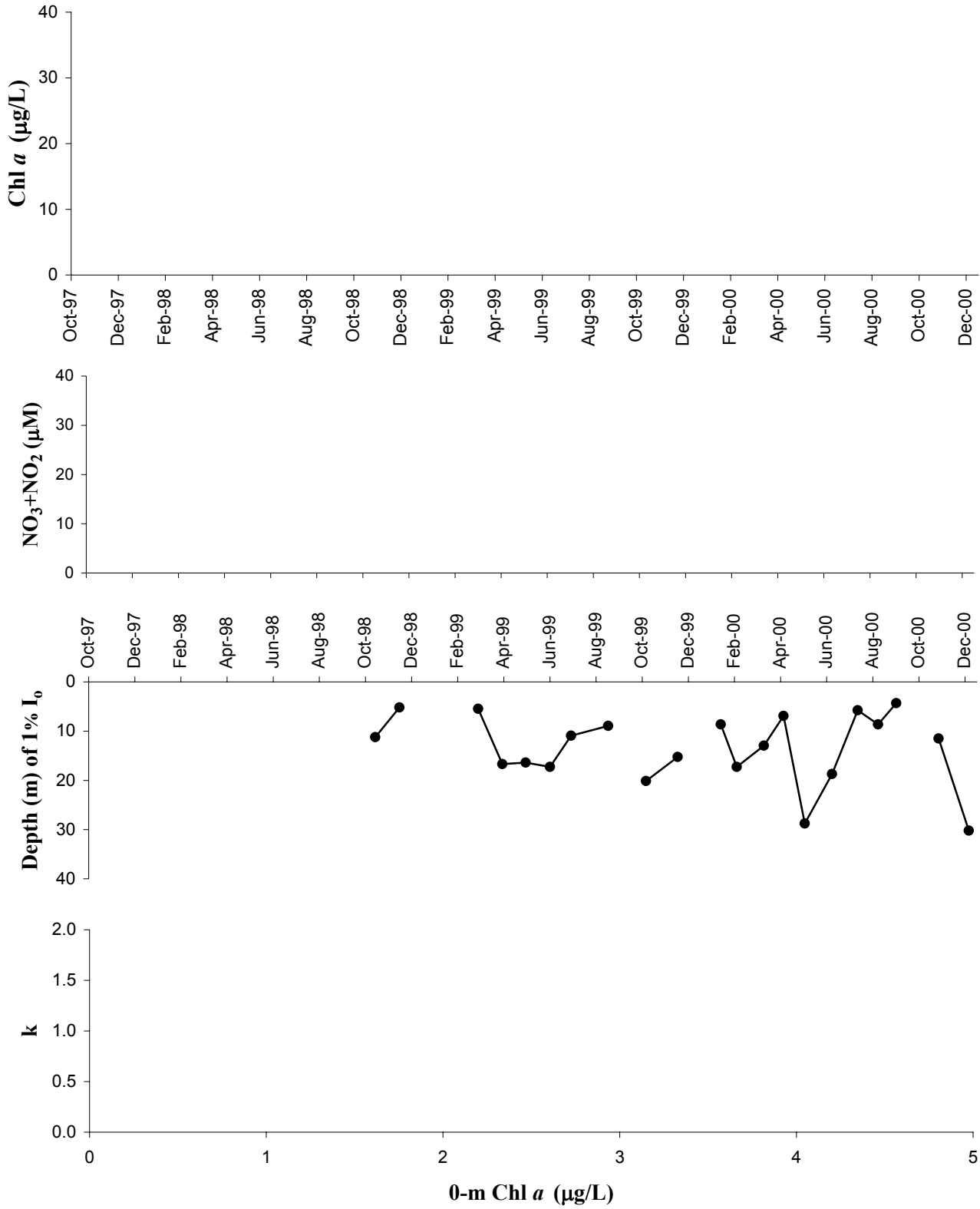
# HCB004



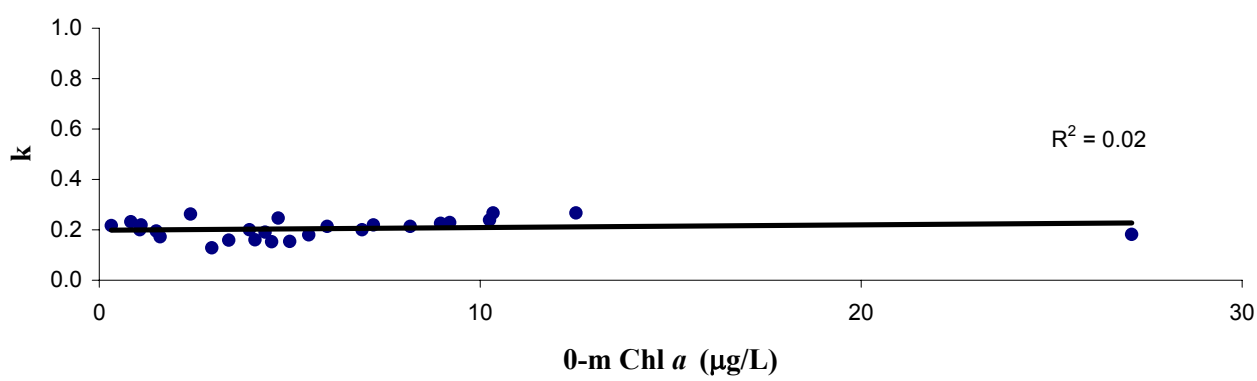
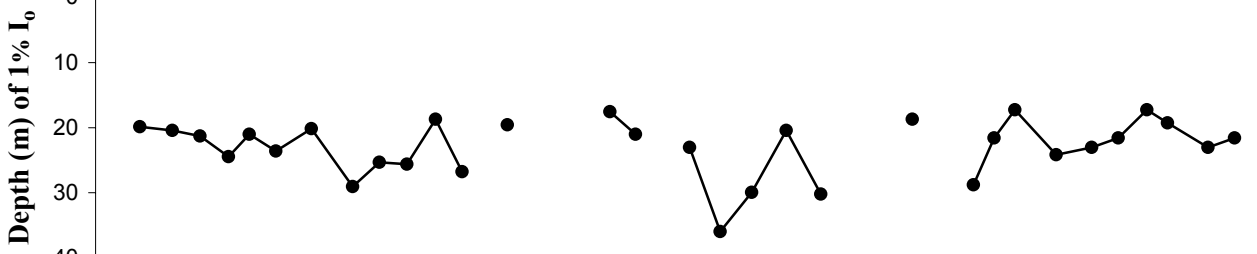
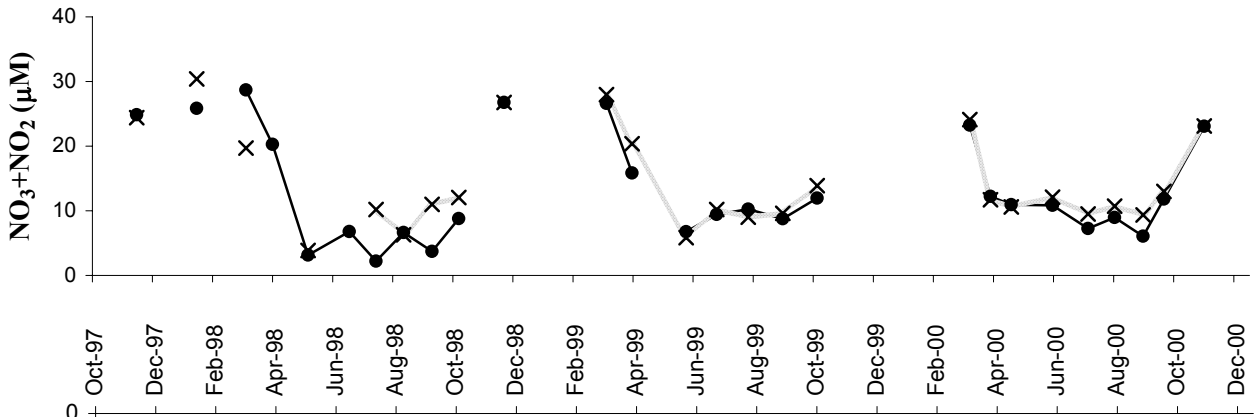
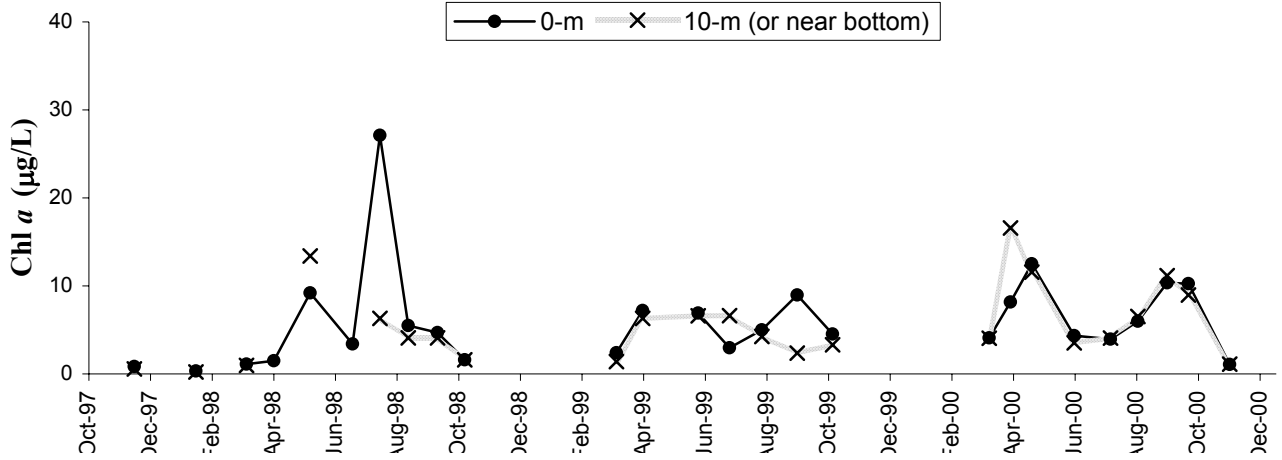
### HCB006



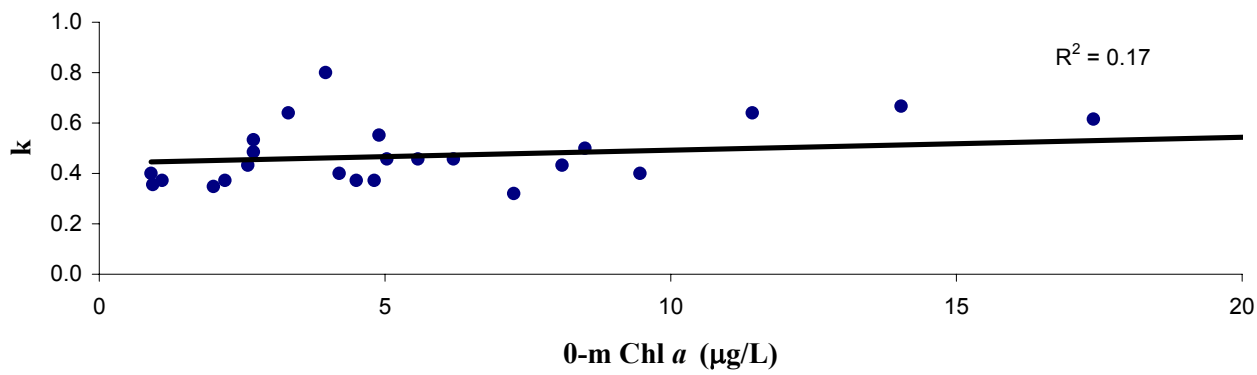
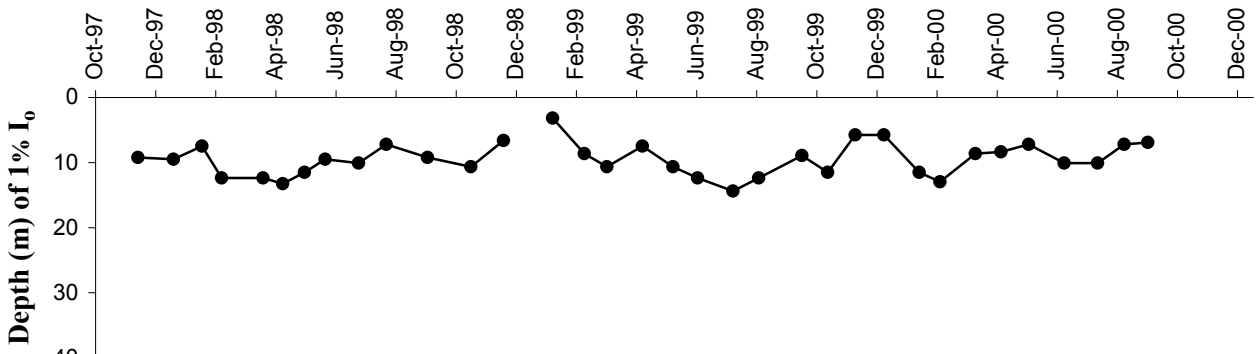
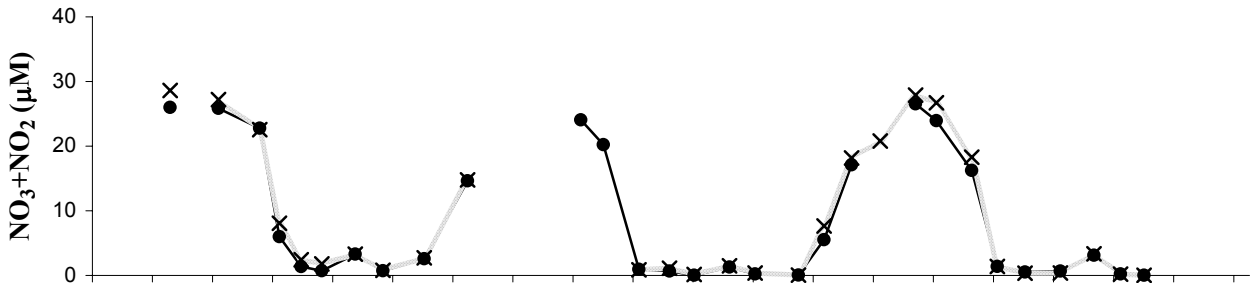
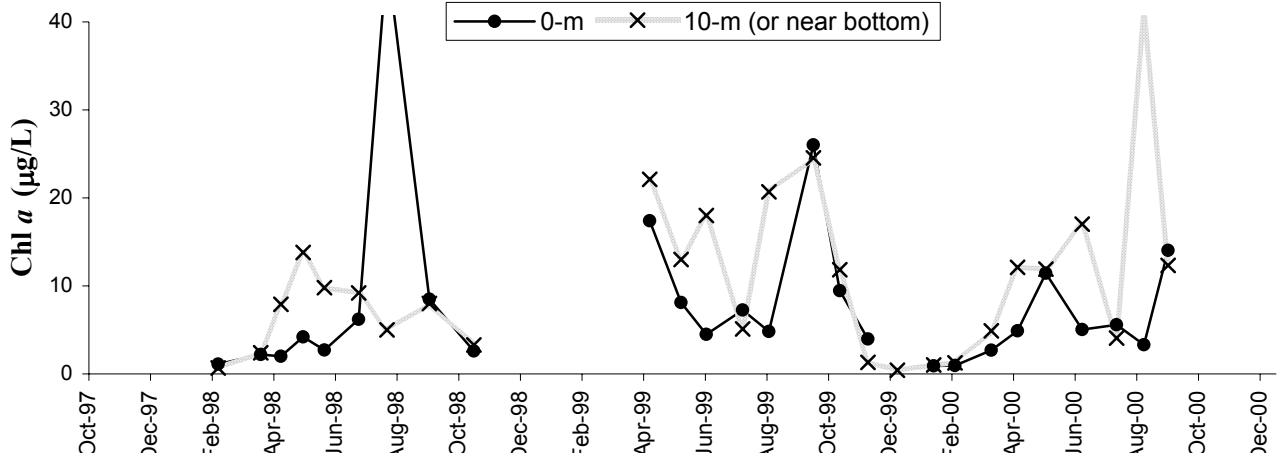
# HCB007



# NSQ002

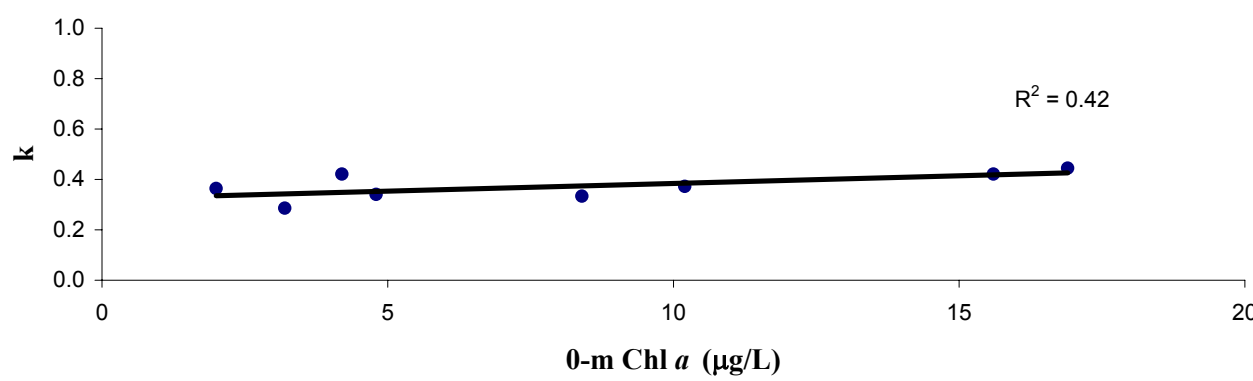
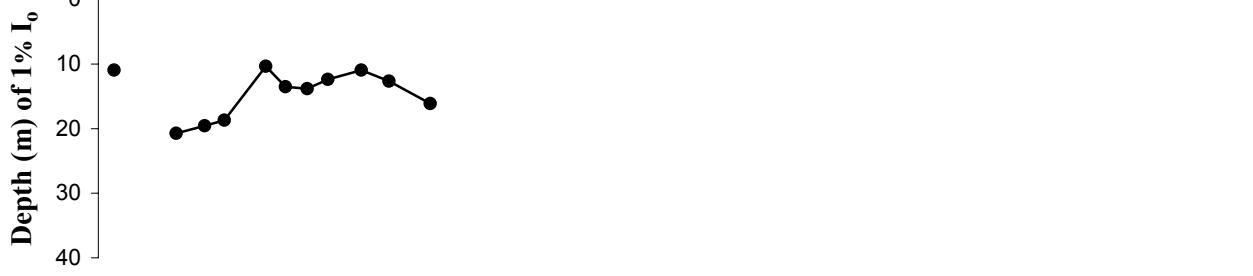
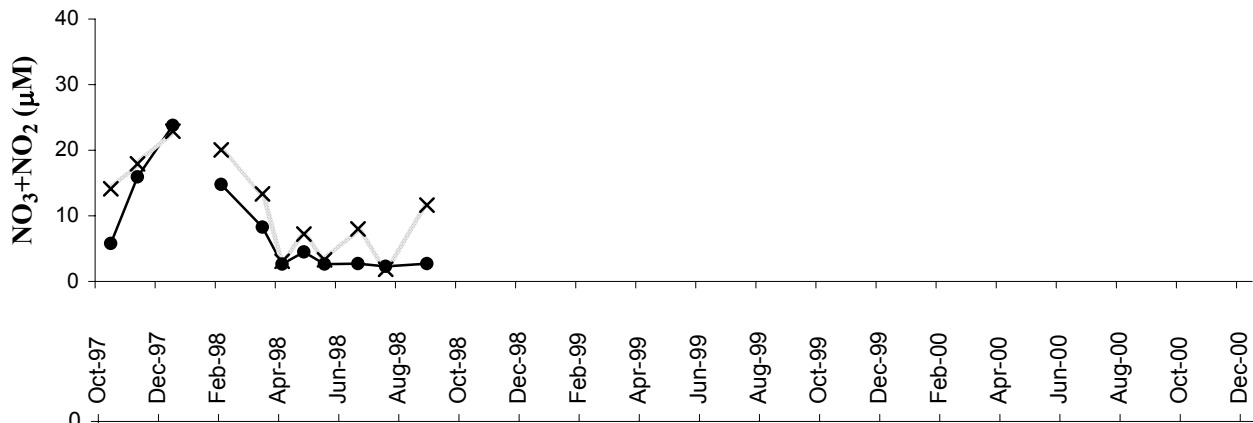
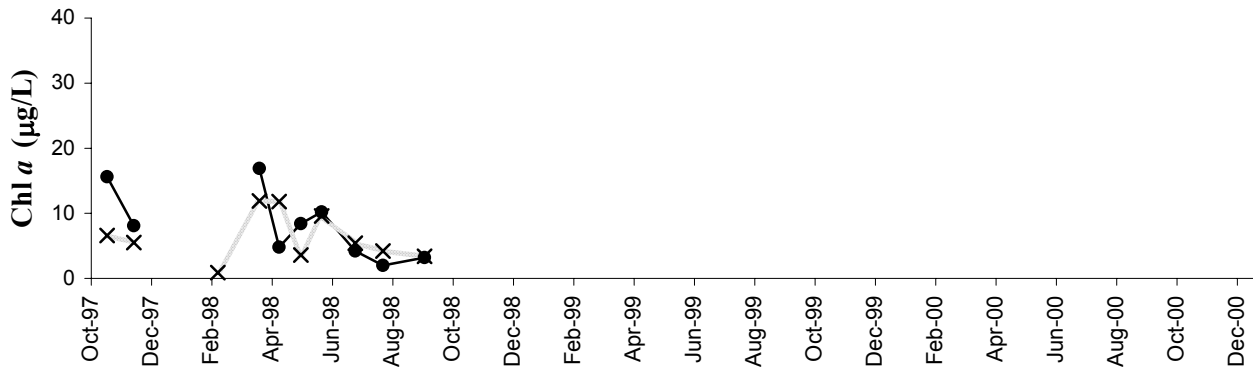


# OAK004



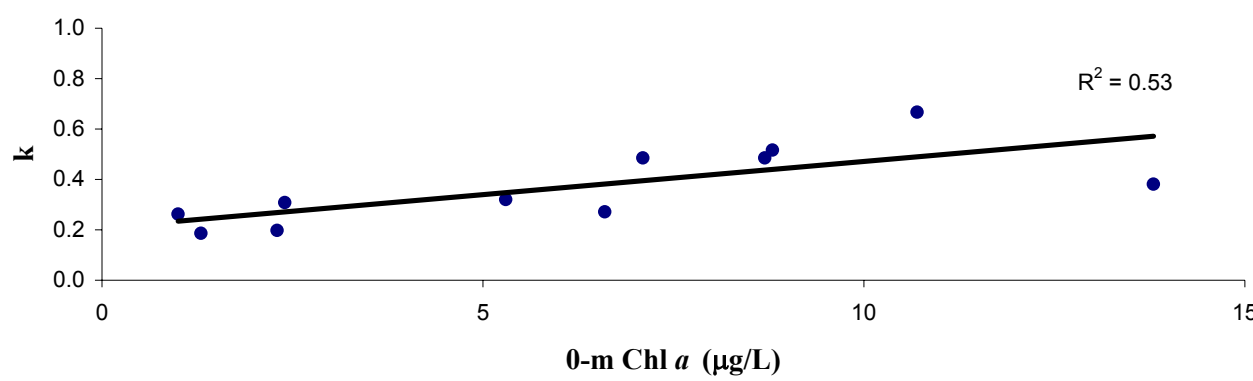
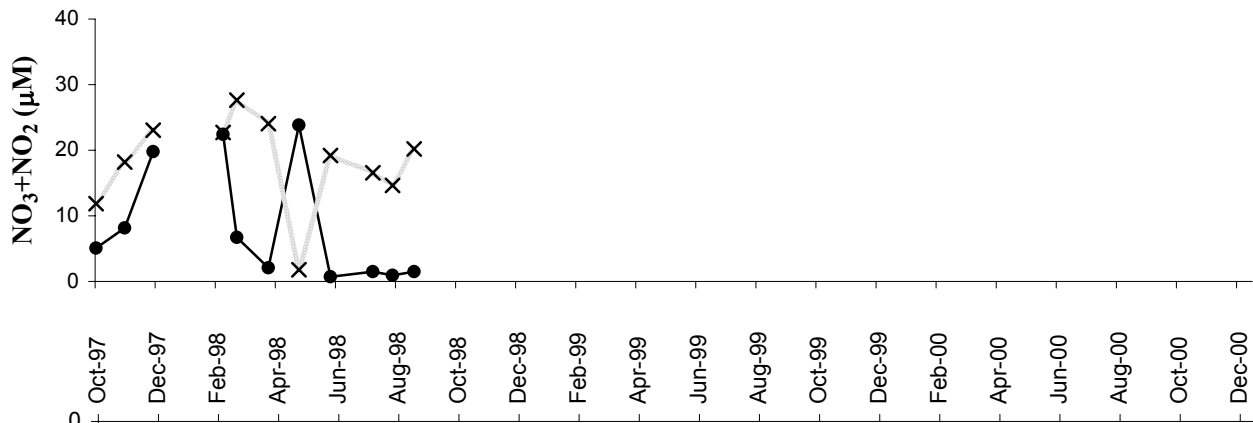
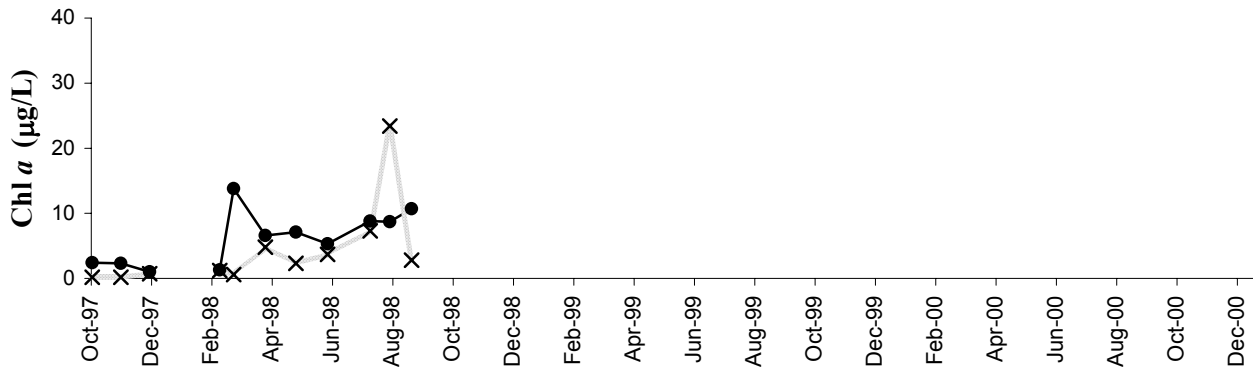
# PGA001

● 0-m    X 10-m (or near bottom)

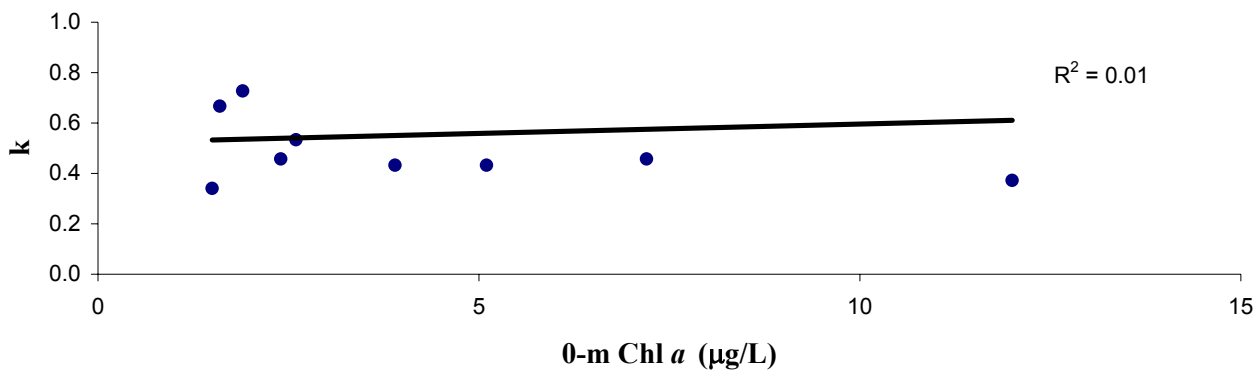
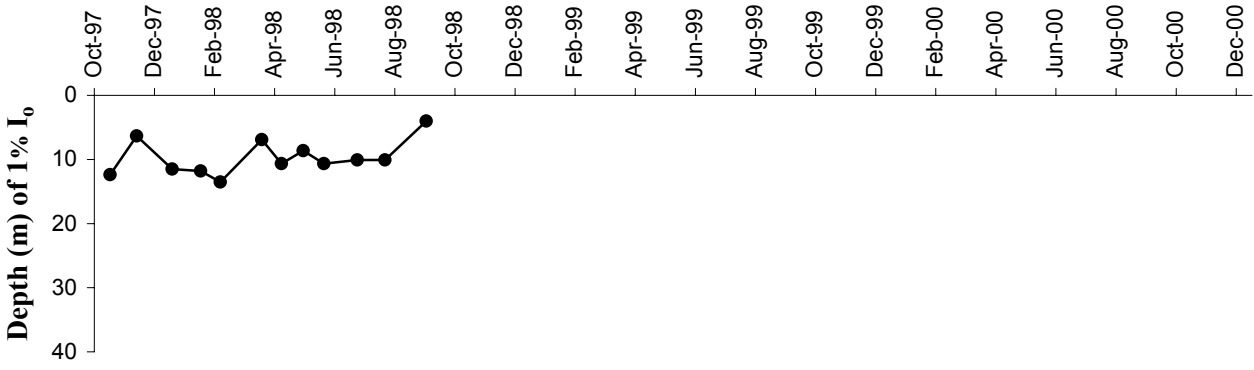
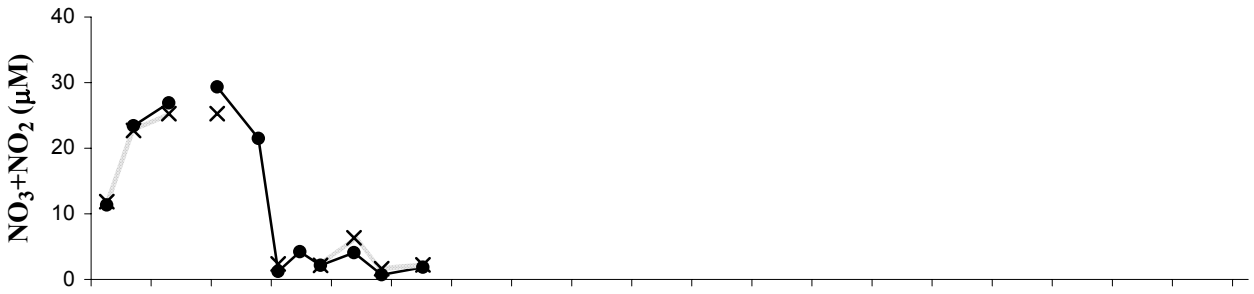
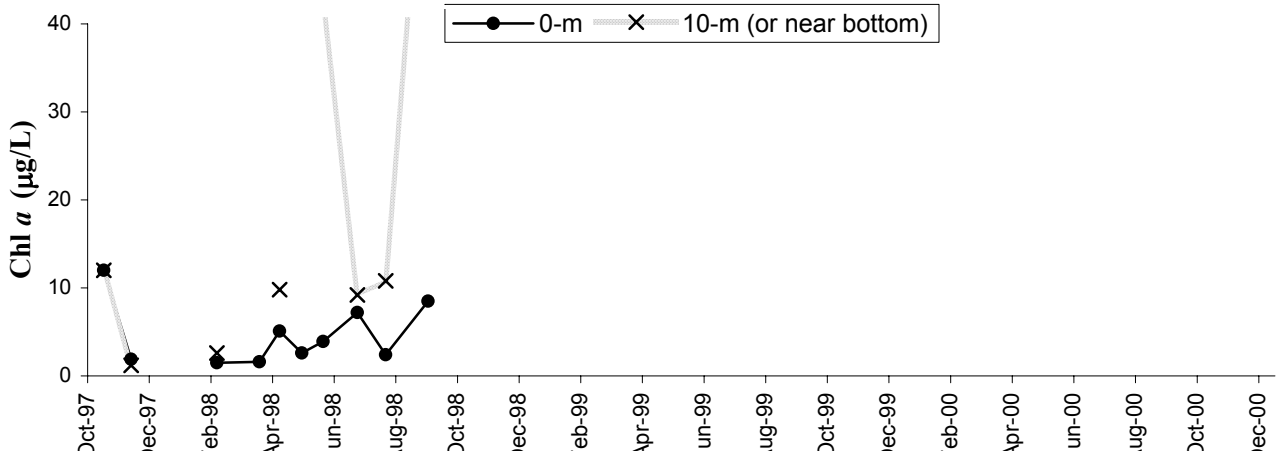


# PNN001

—●— 0-m —X— 10-m (or near bottom)

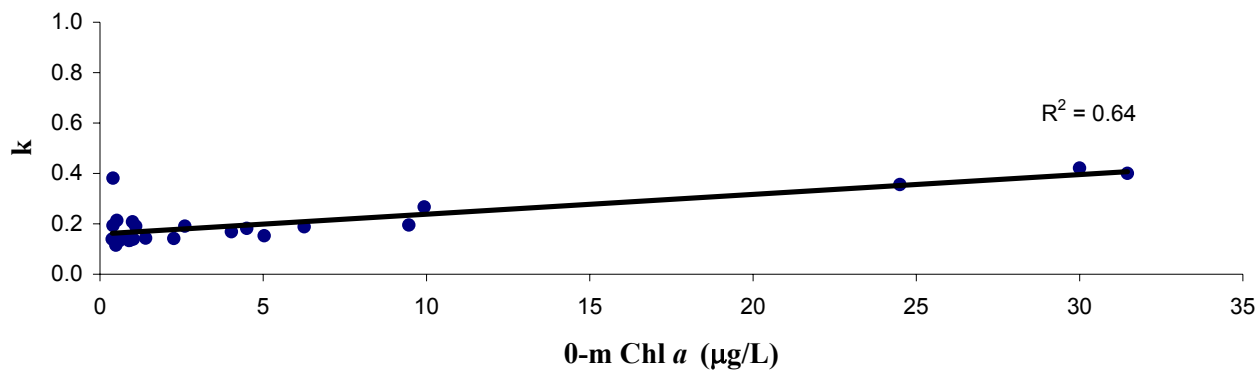
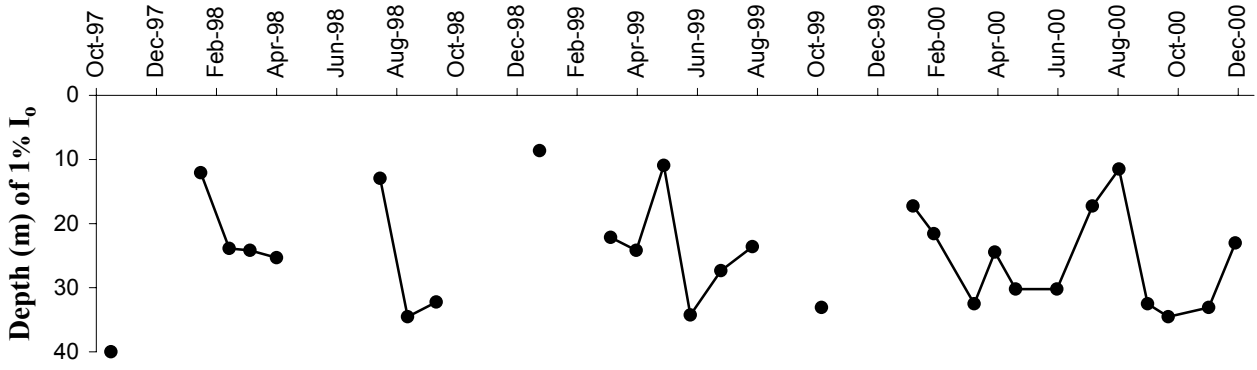
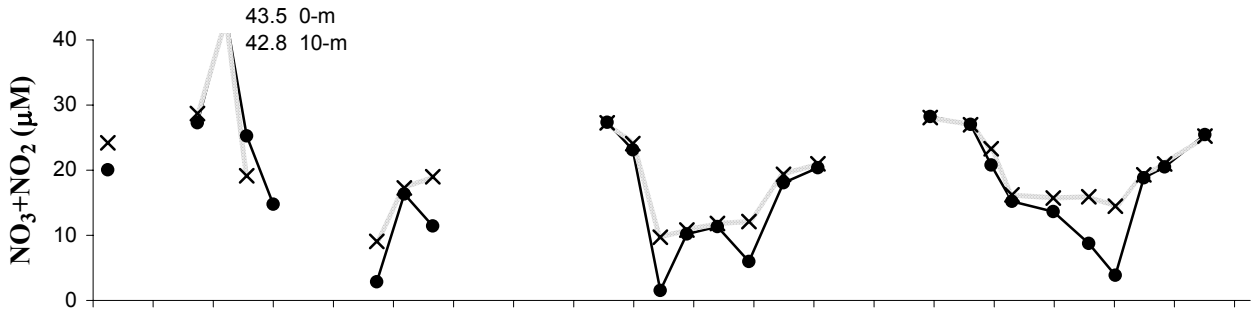
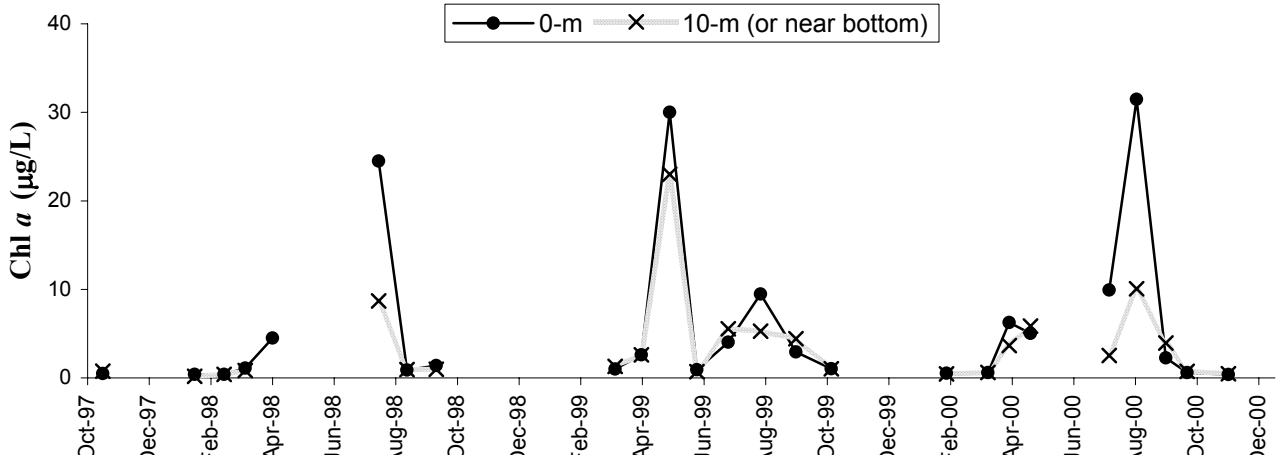


# POD007

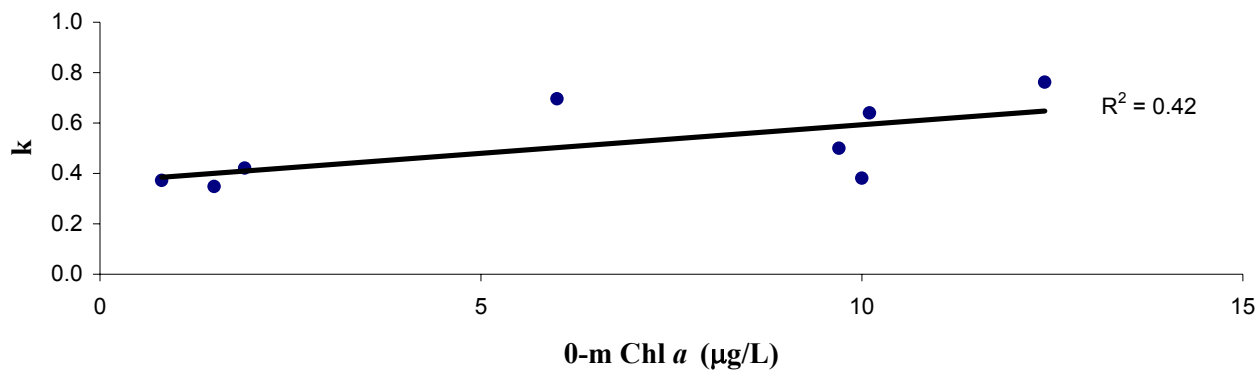
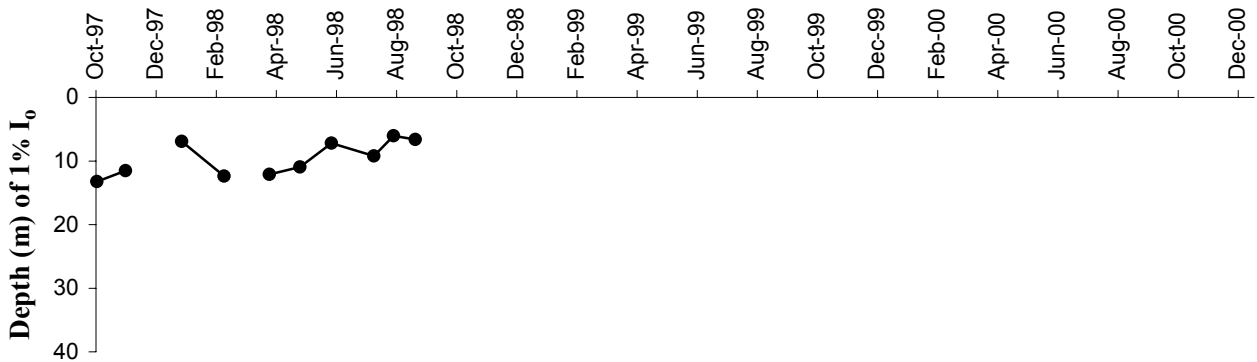
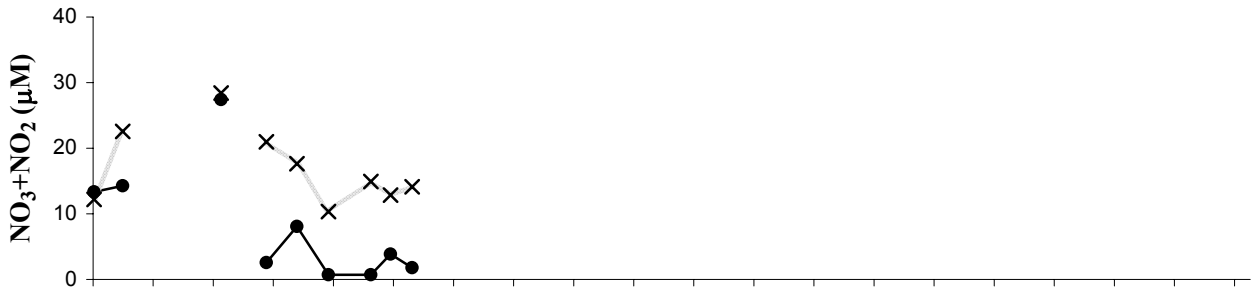
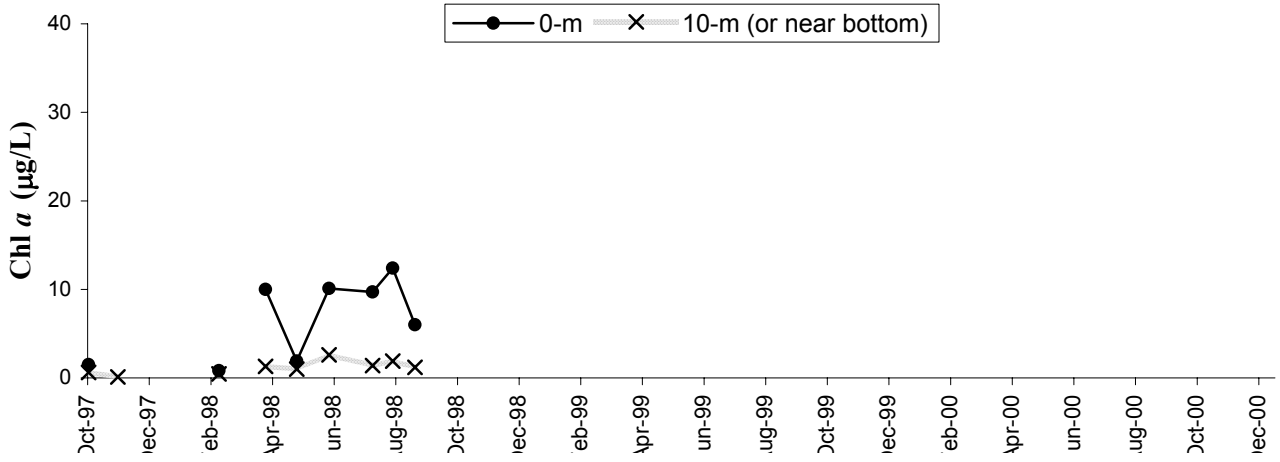




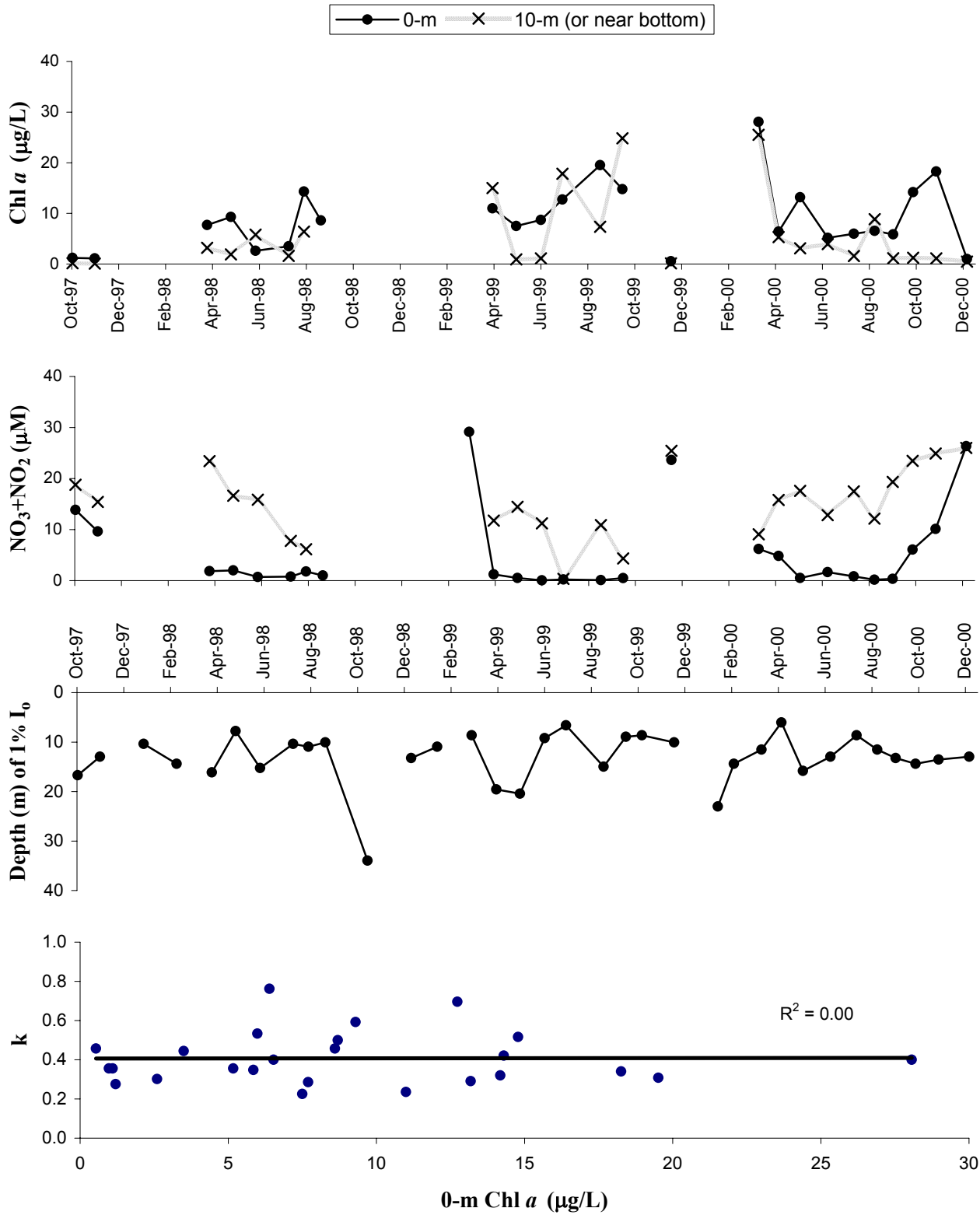
### PSB003



# PSS008

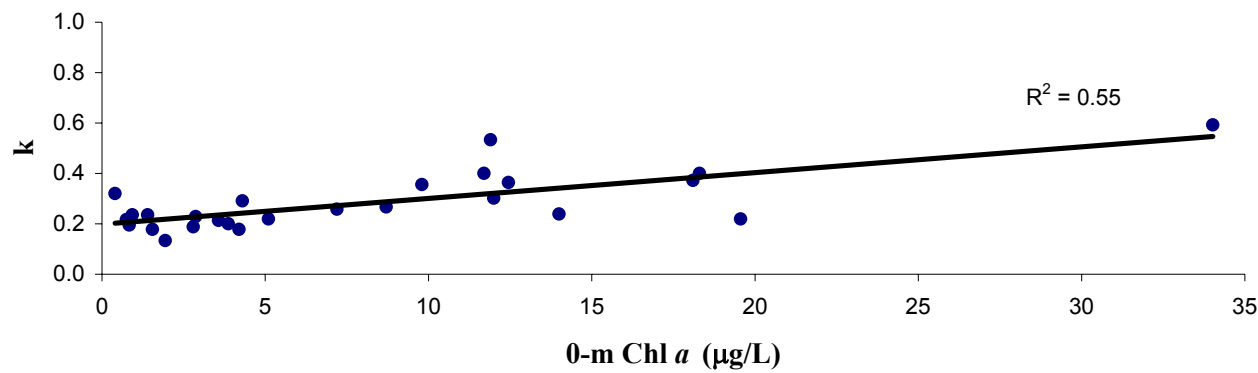
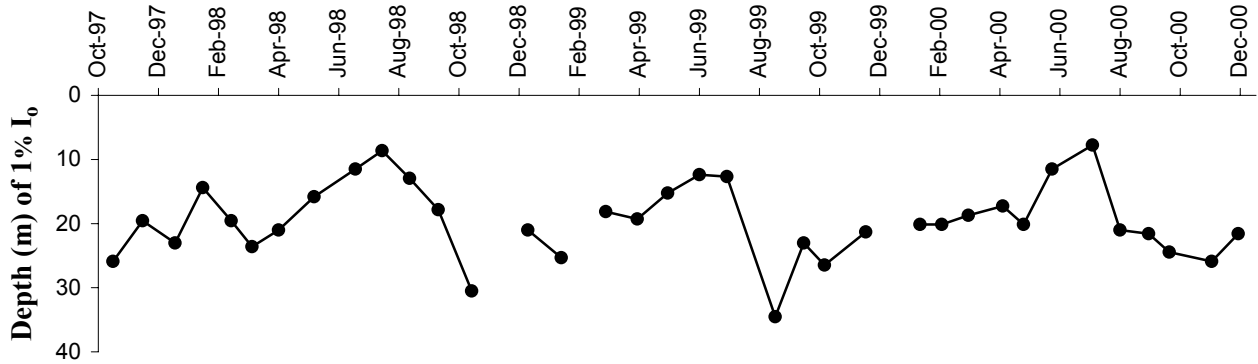
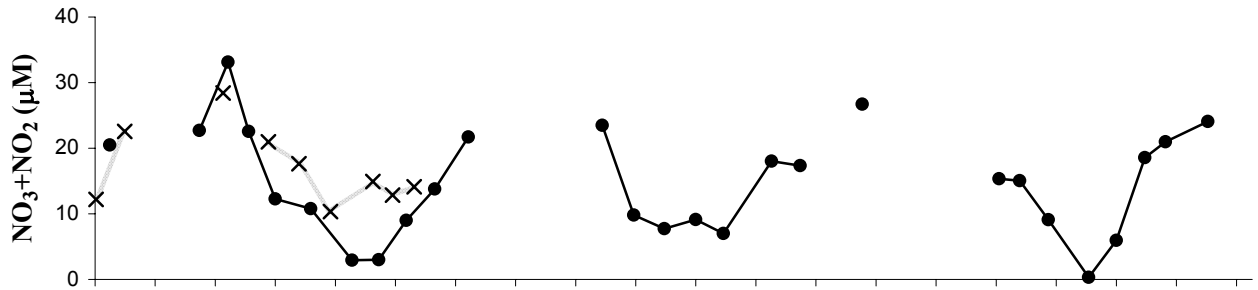
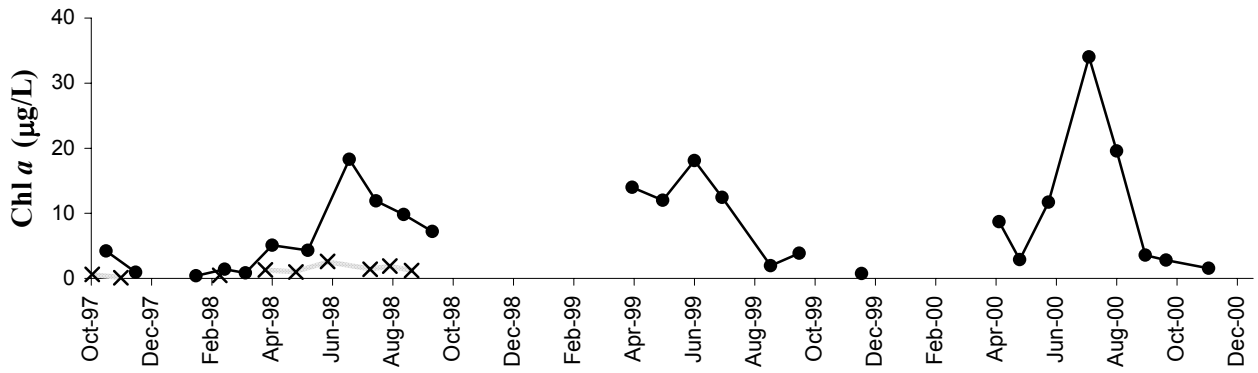


# PSS019

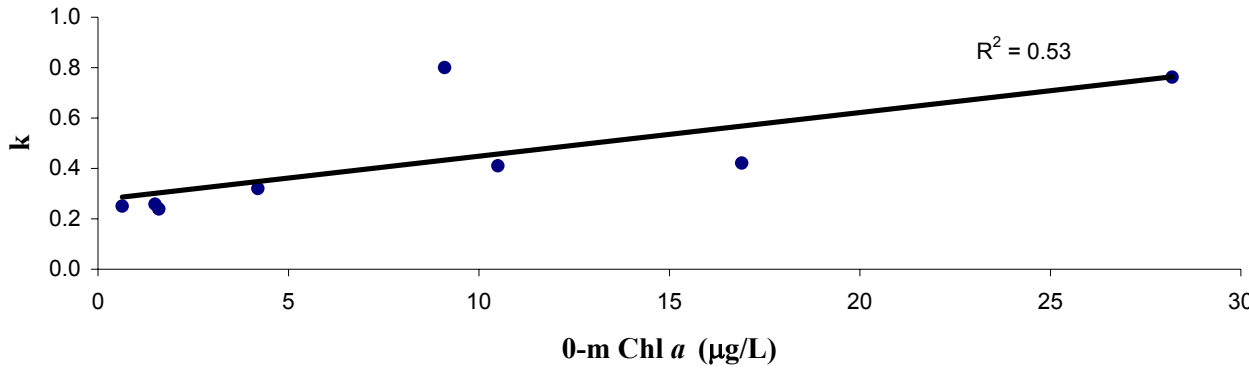
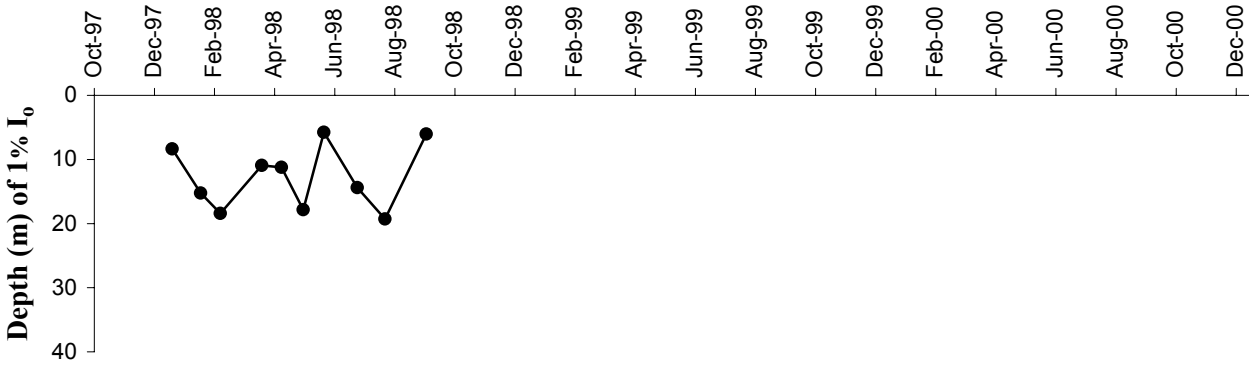
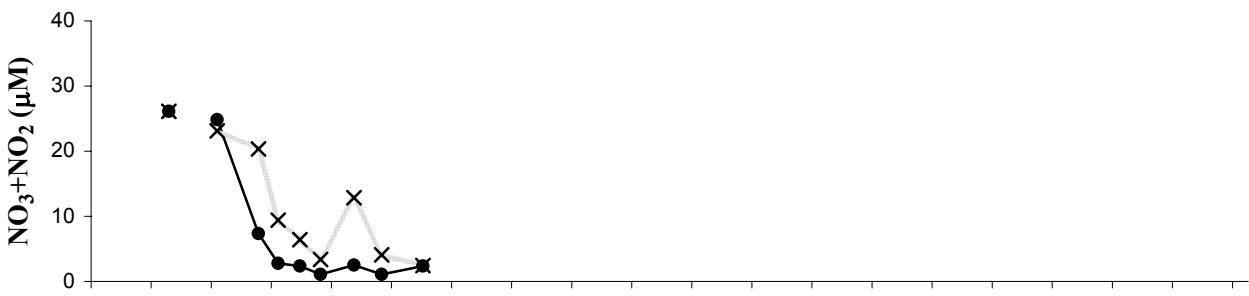
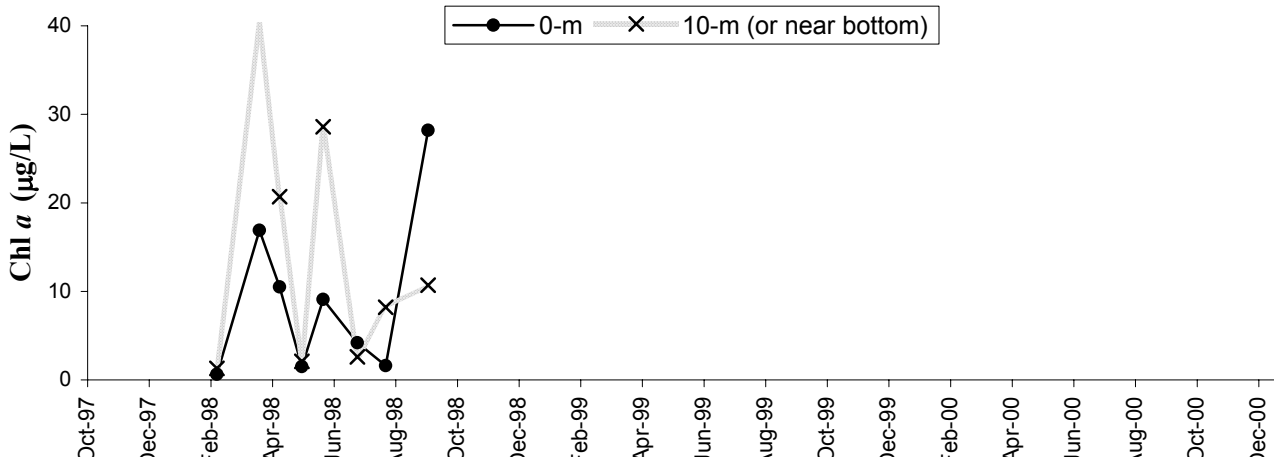


# PTH005

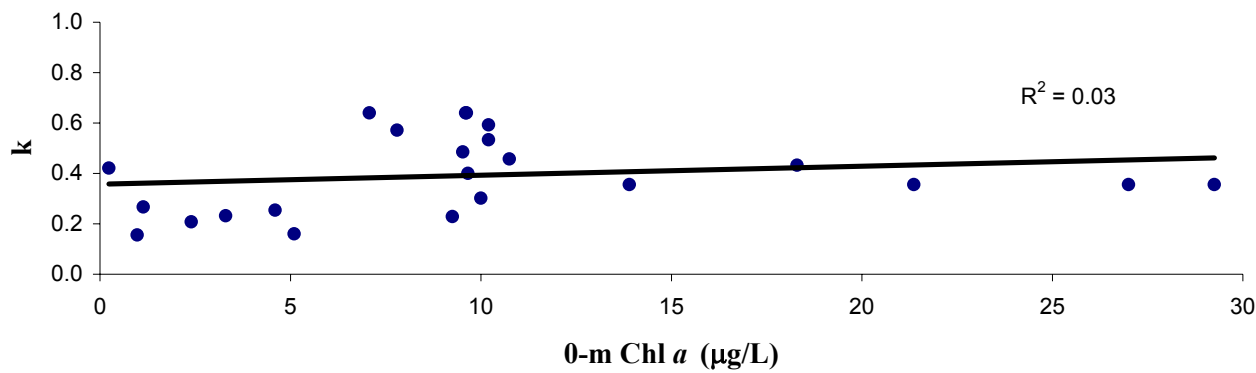
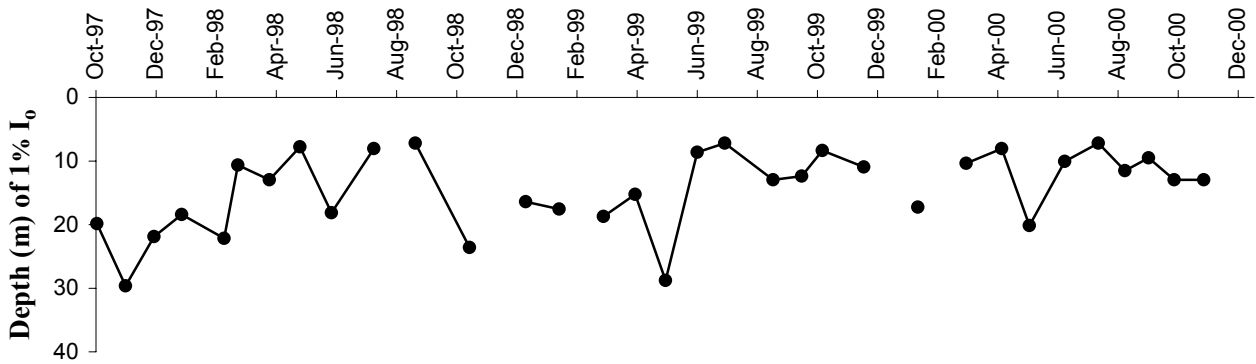
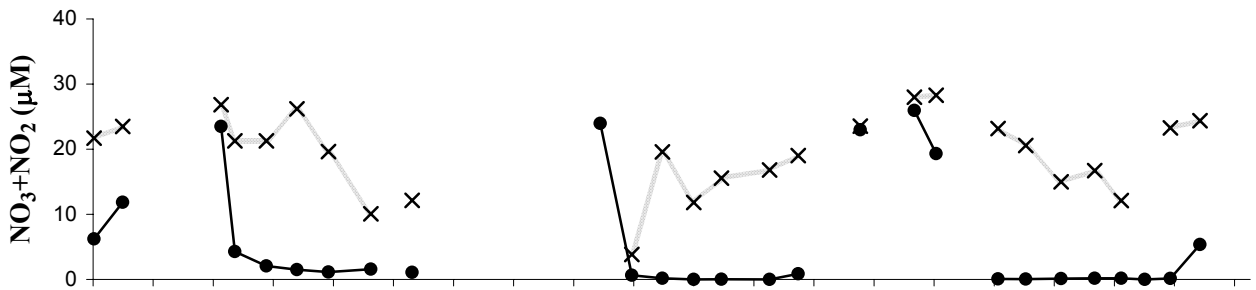
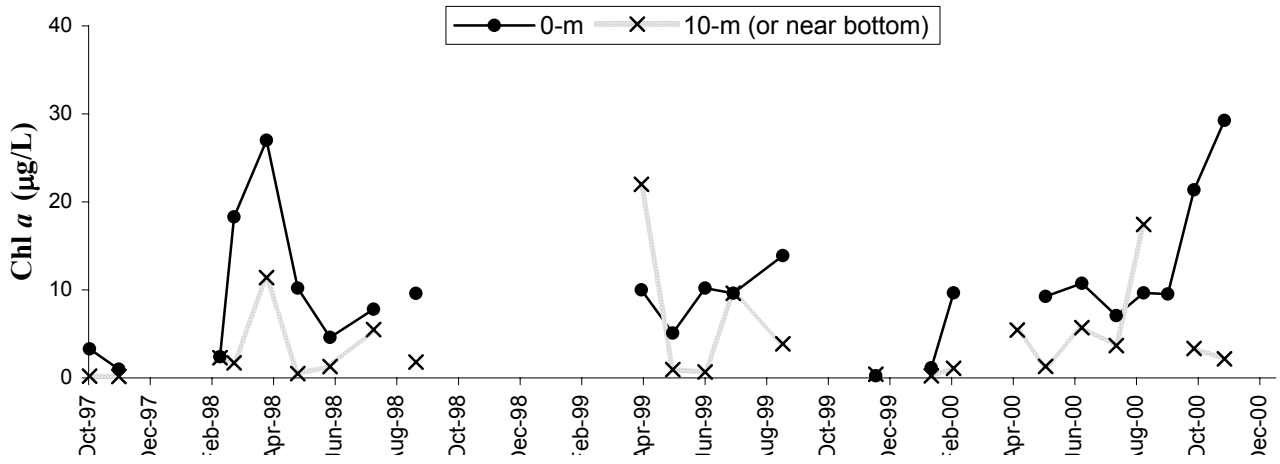
0-m
  X
  10-m (or near bottom)



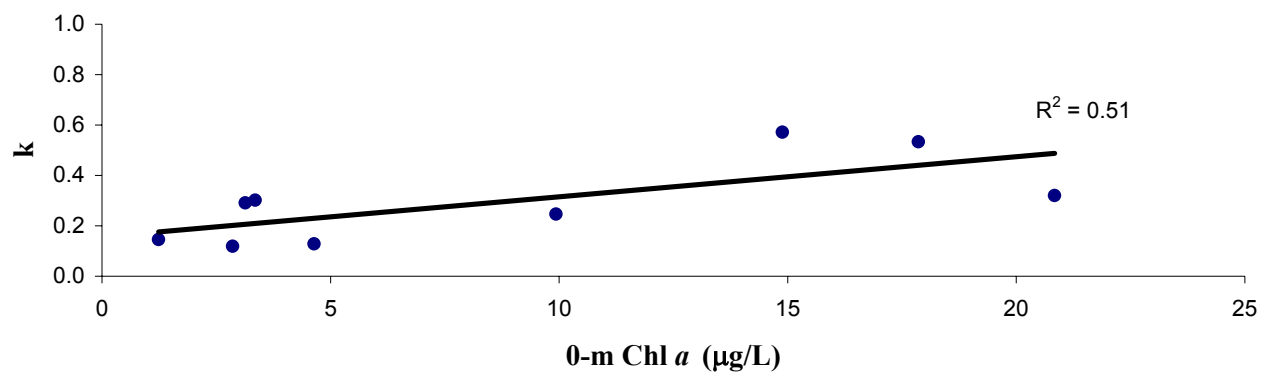
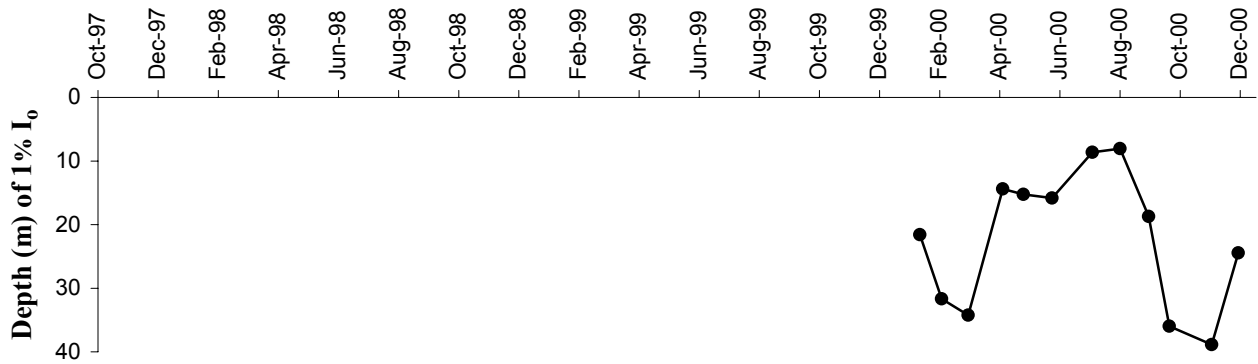
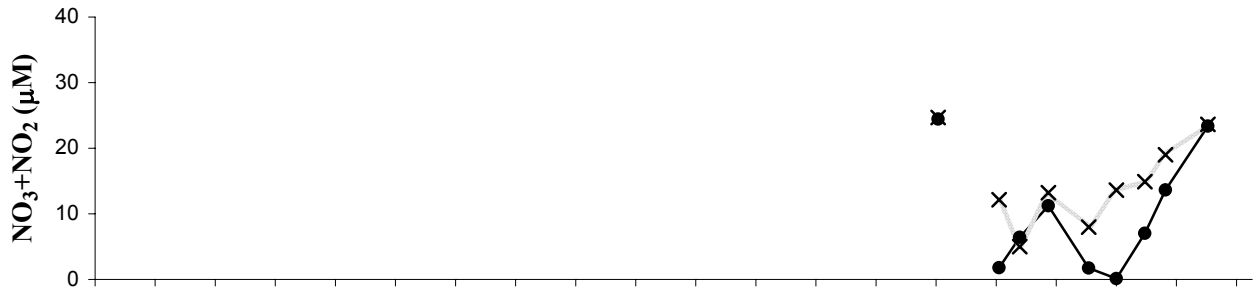
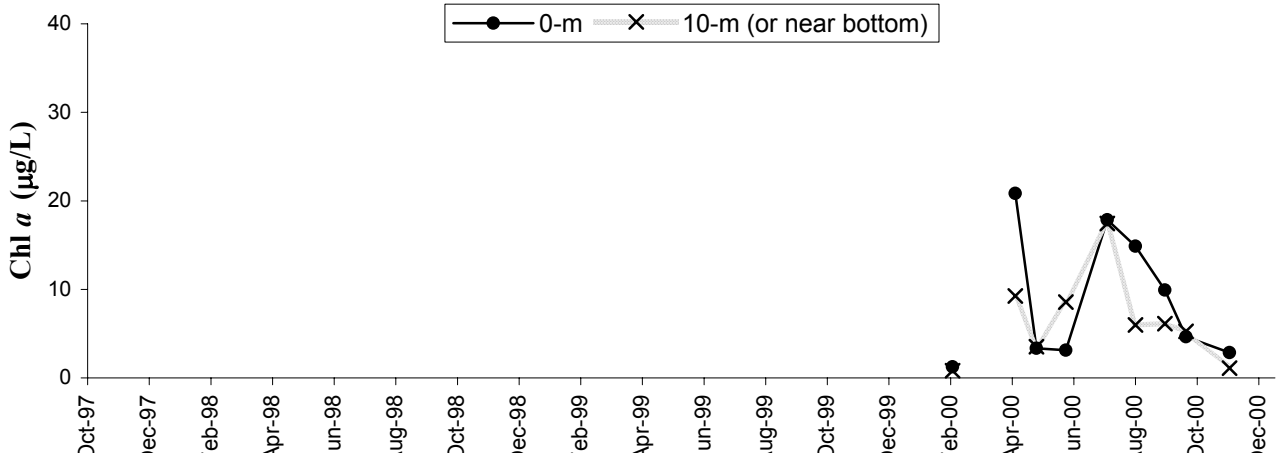
# QMH002



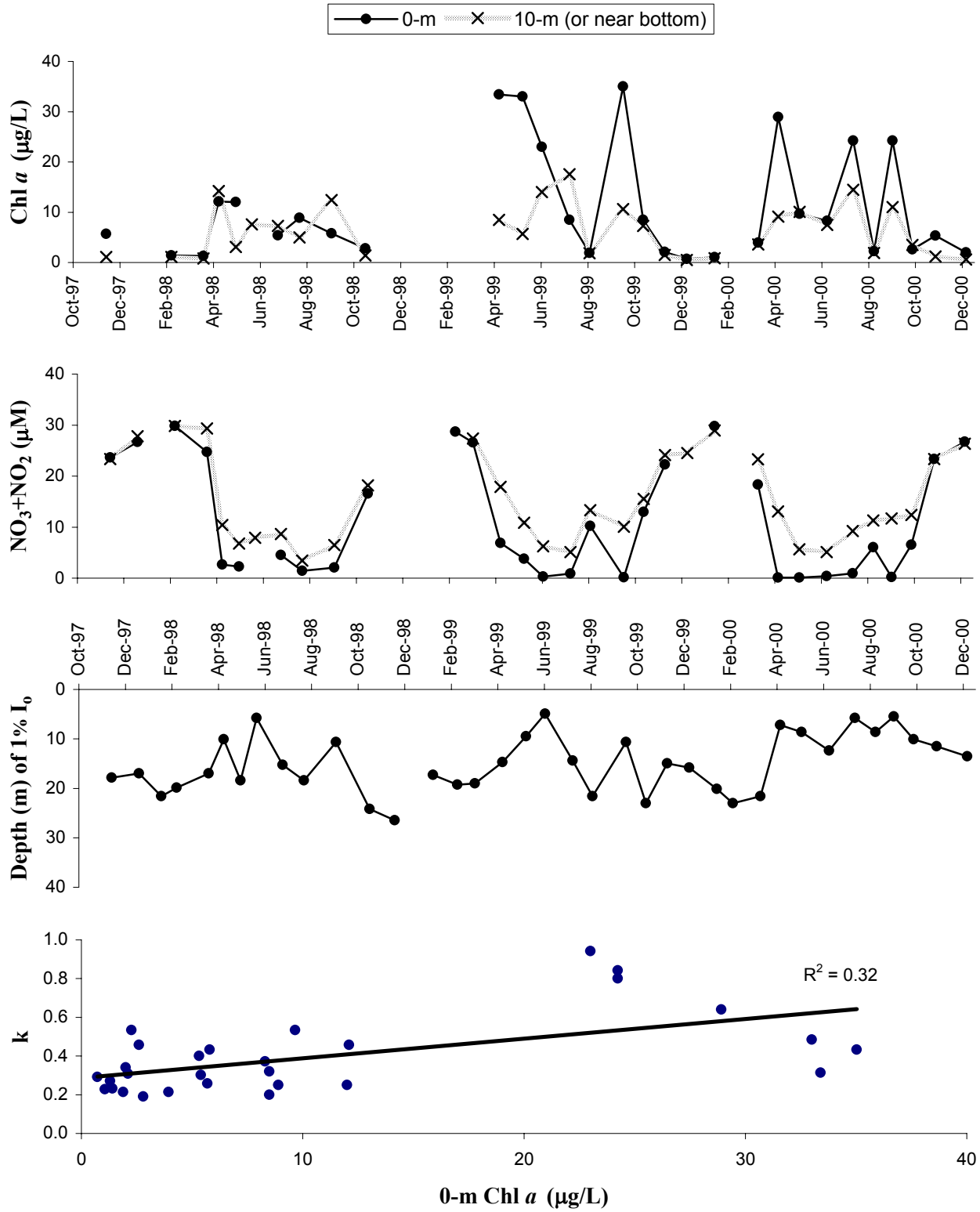
### SAR003



### SEQ002

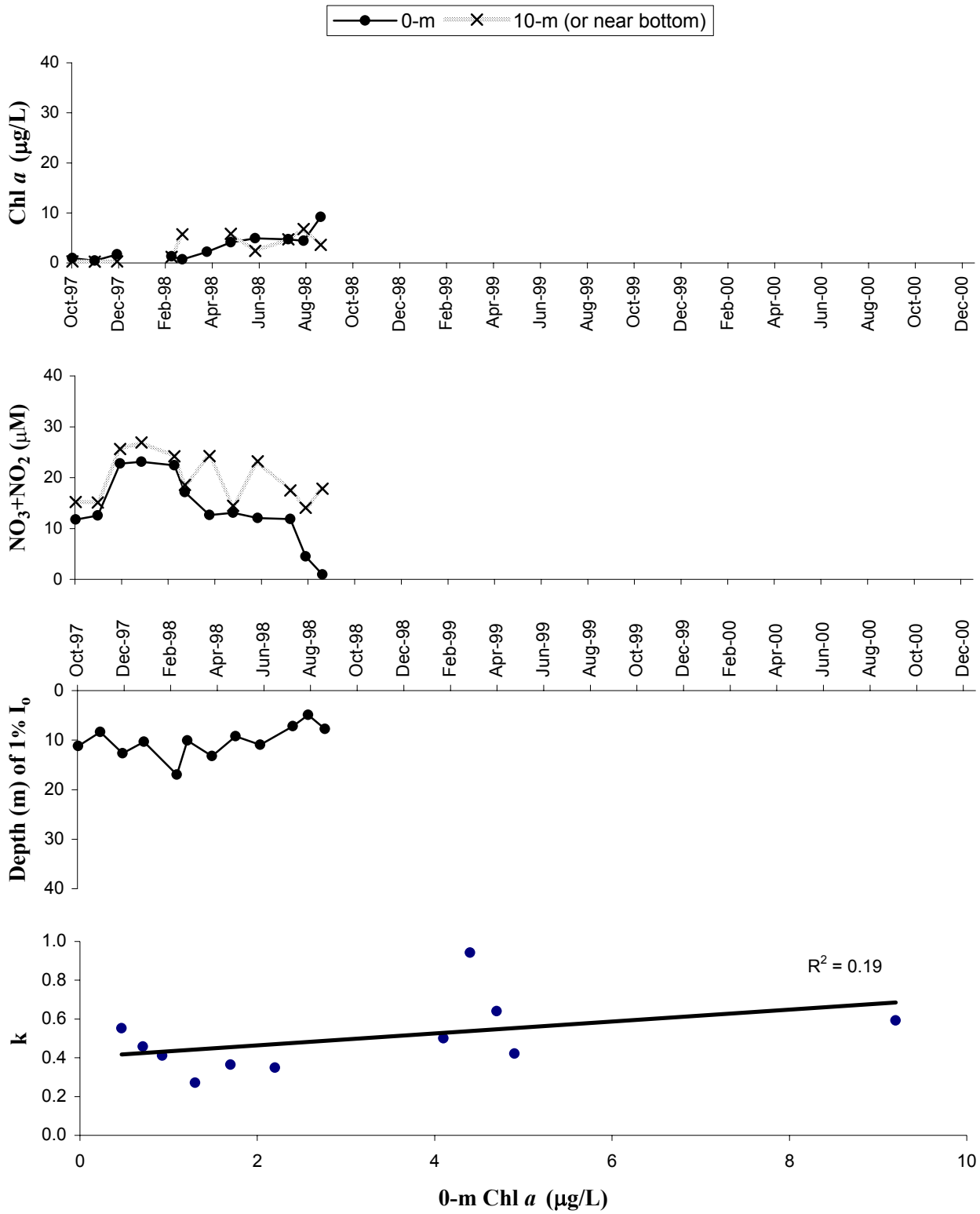


# SIN001

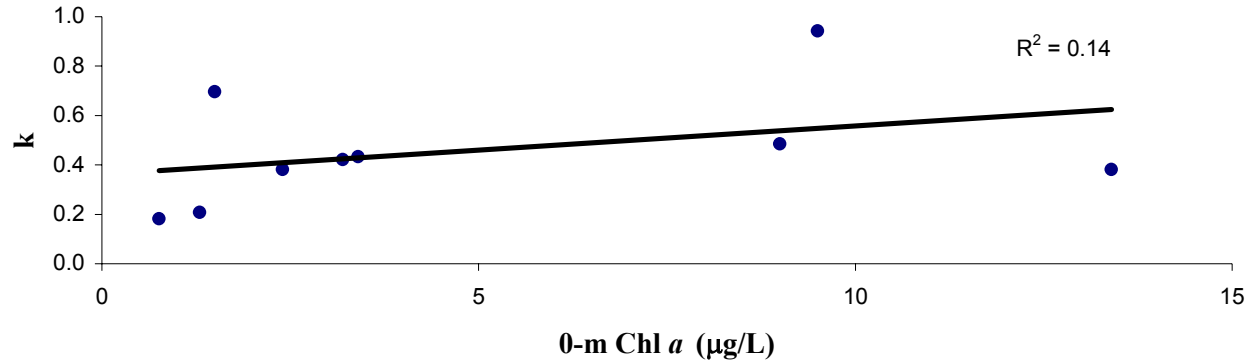
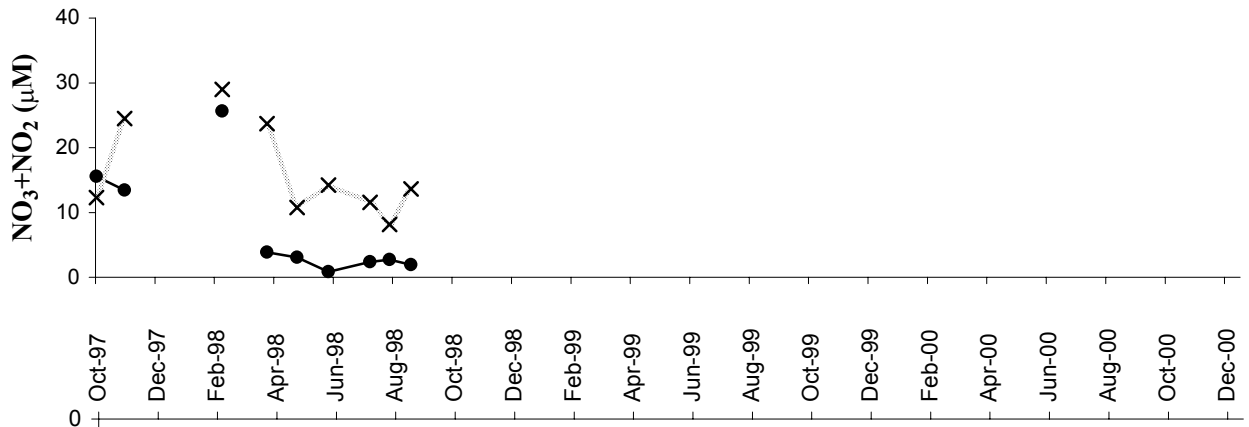
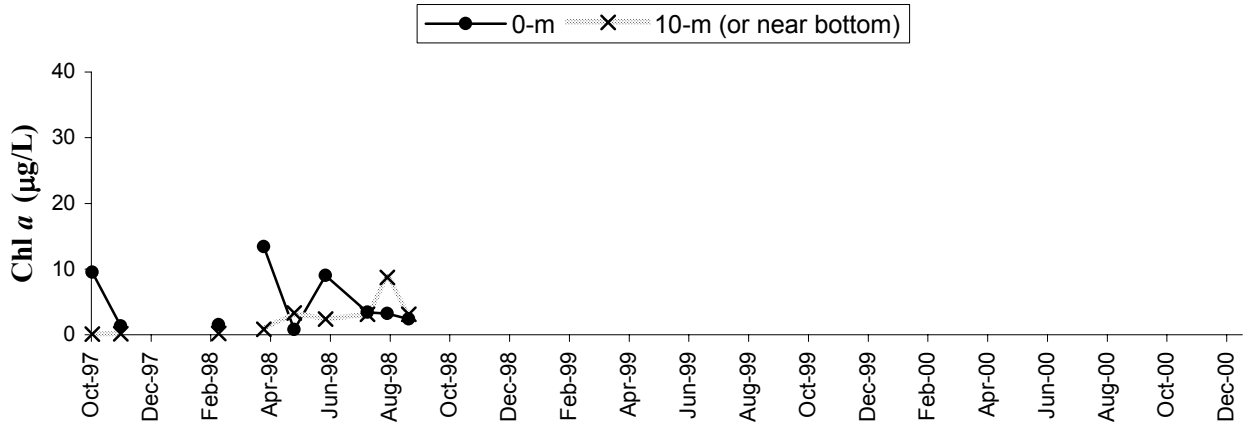




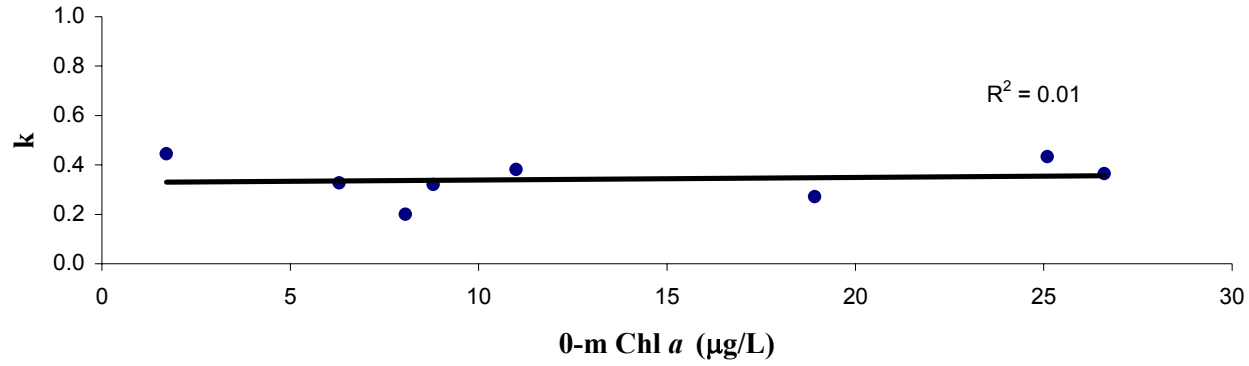
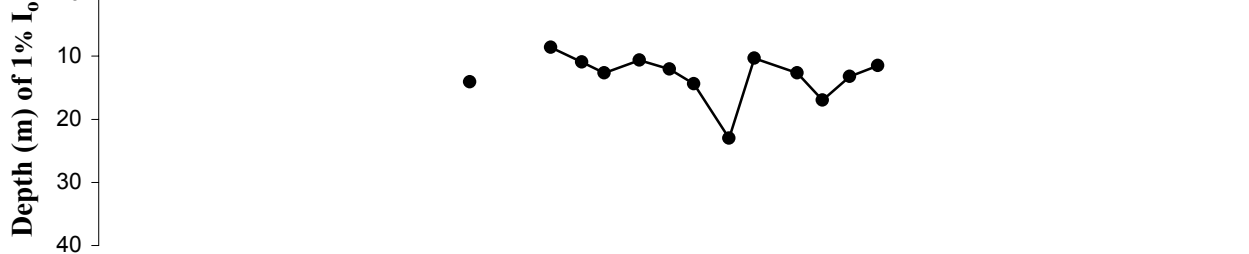
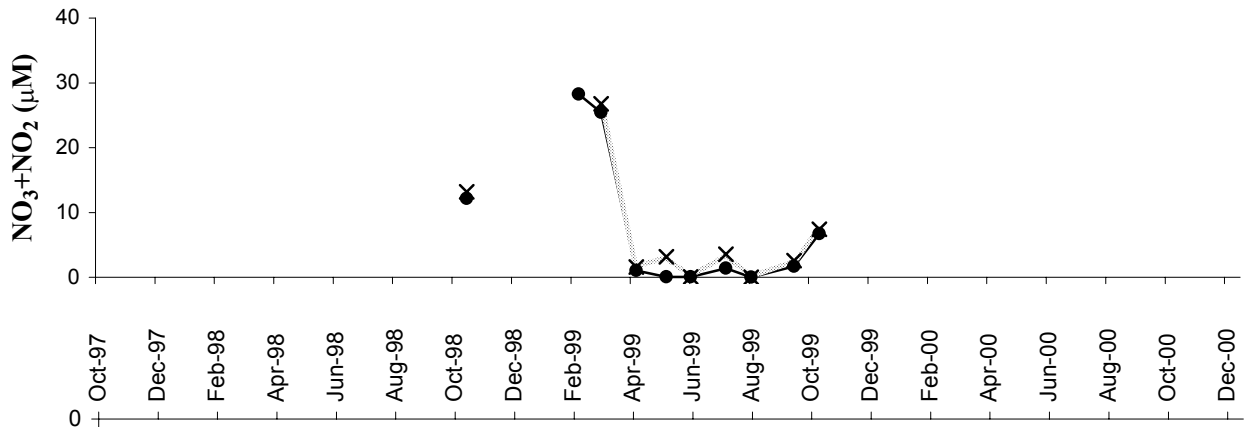
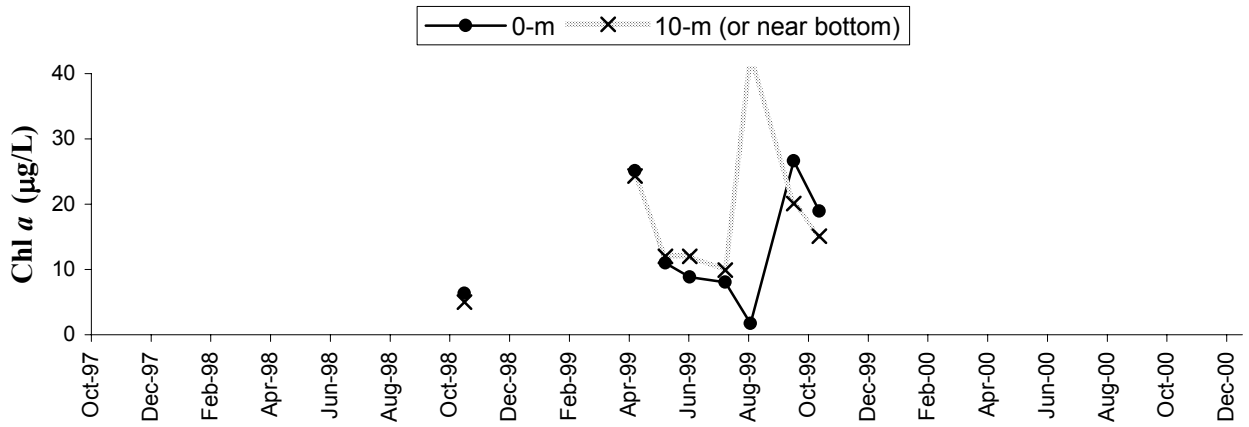
# SKG003



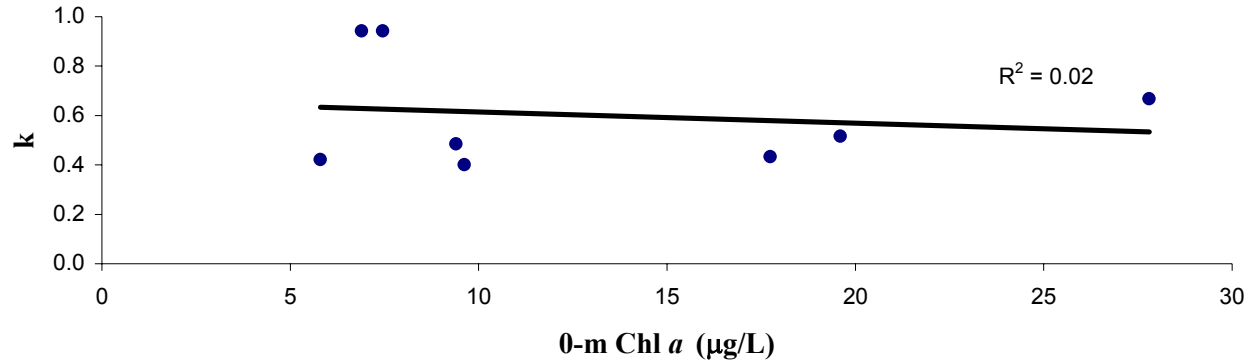
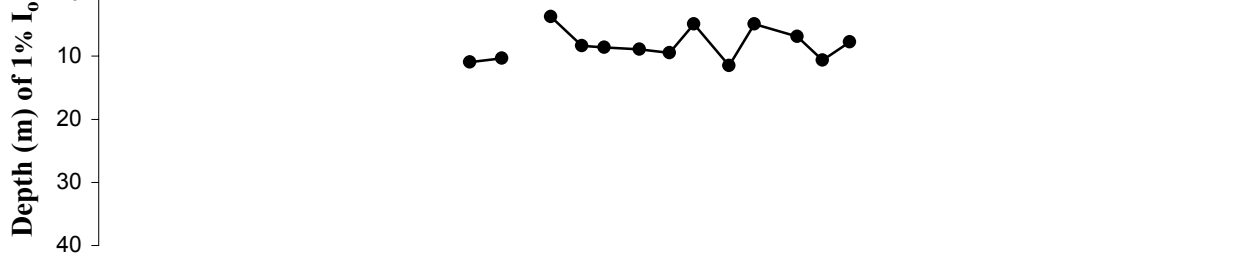
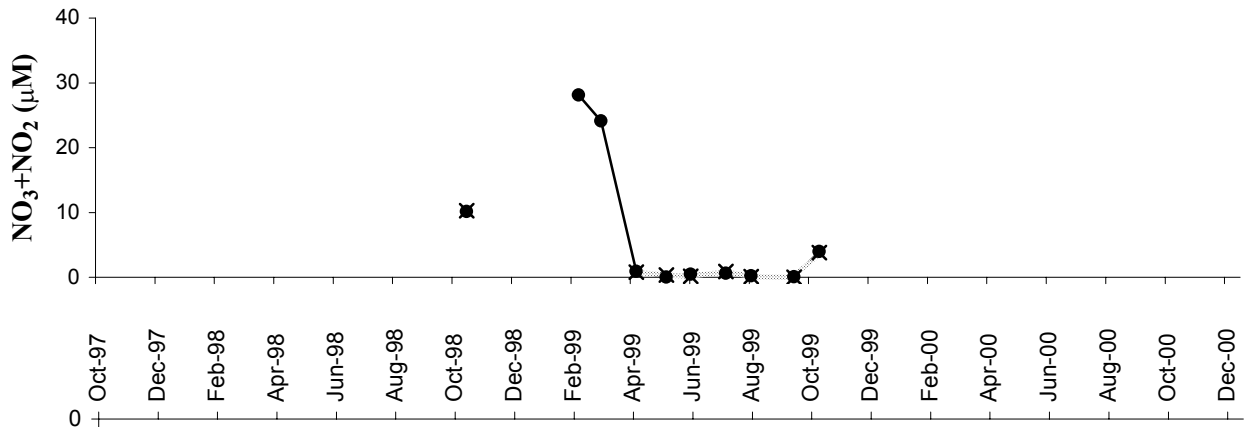
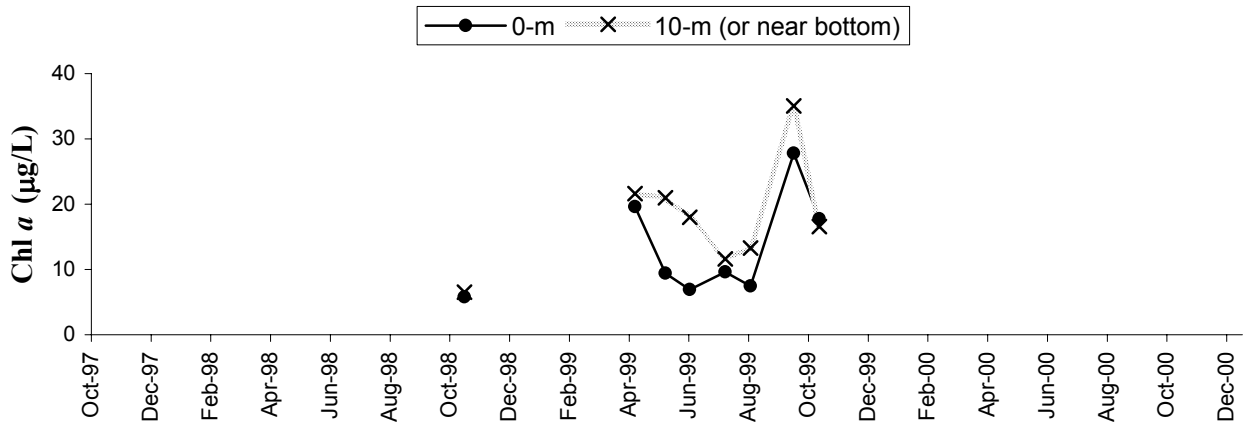
# SUZ001



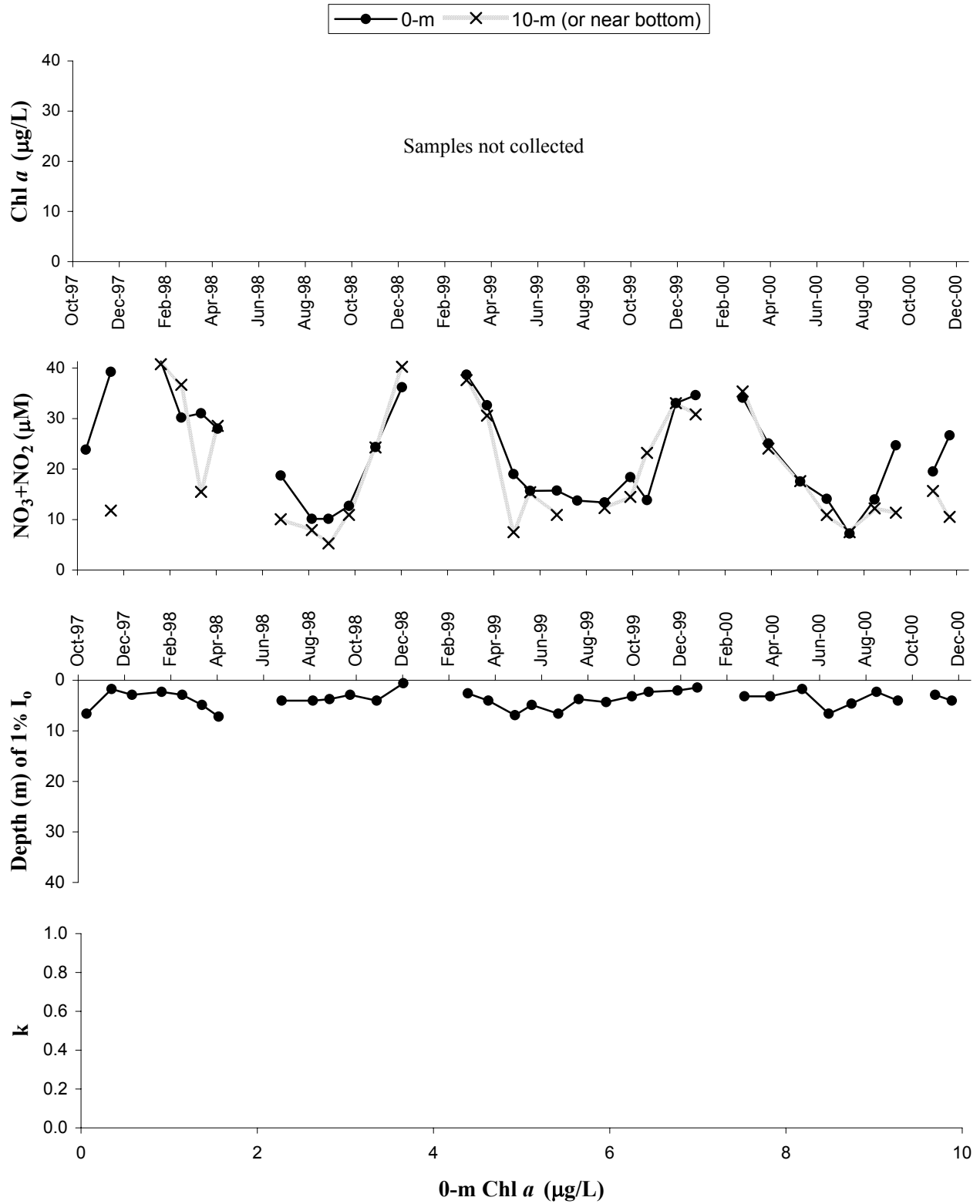
# TOT001



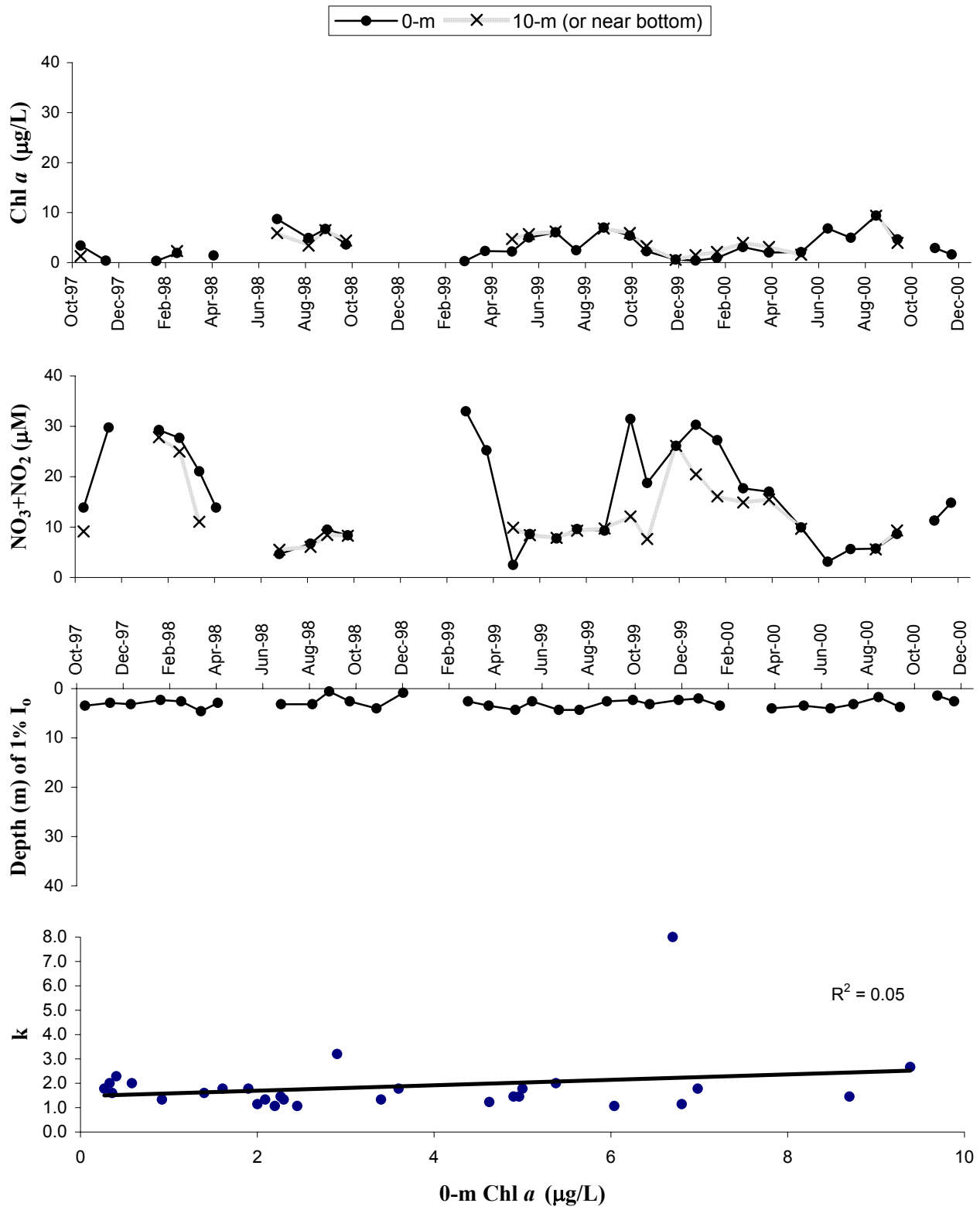
# TOT002



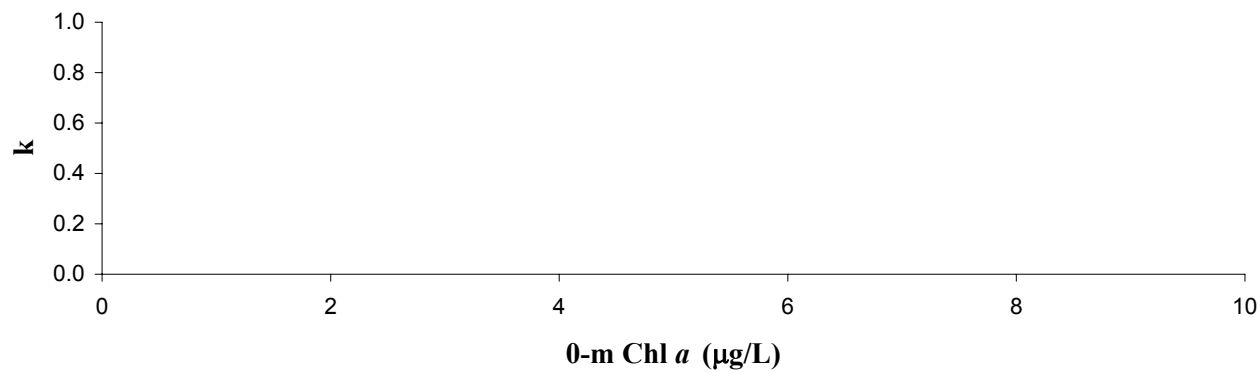
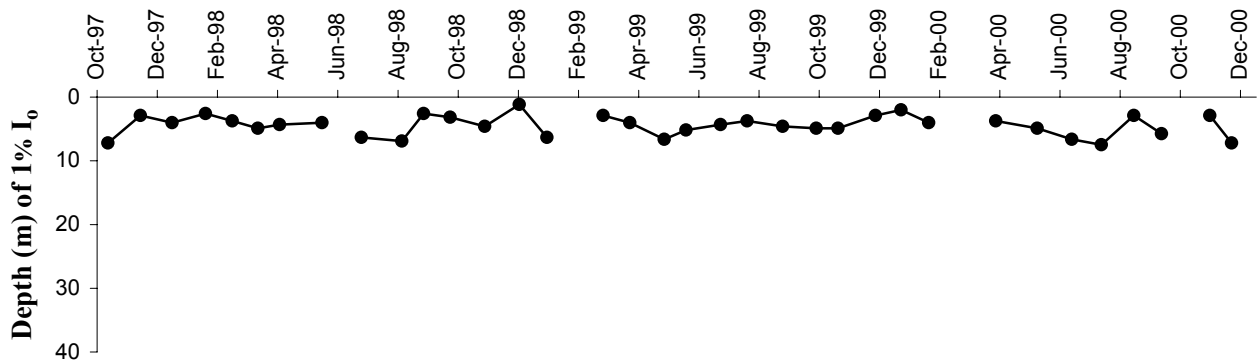
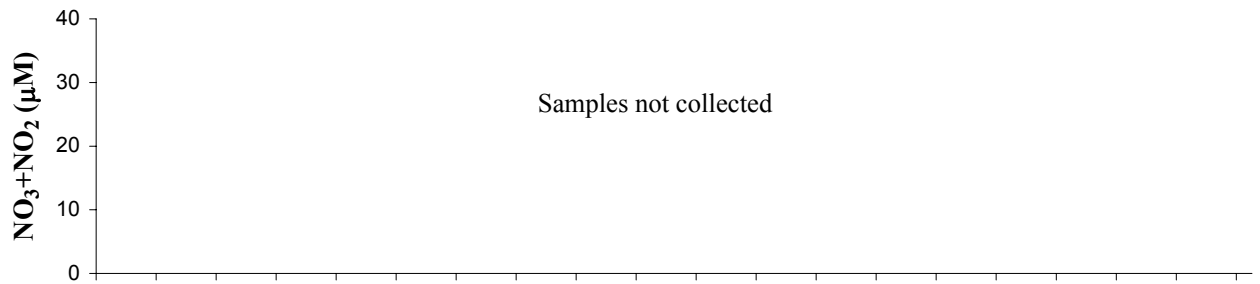
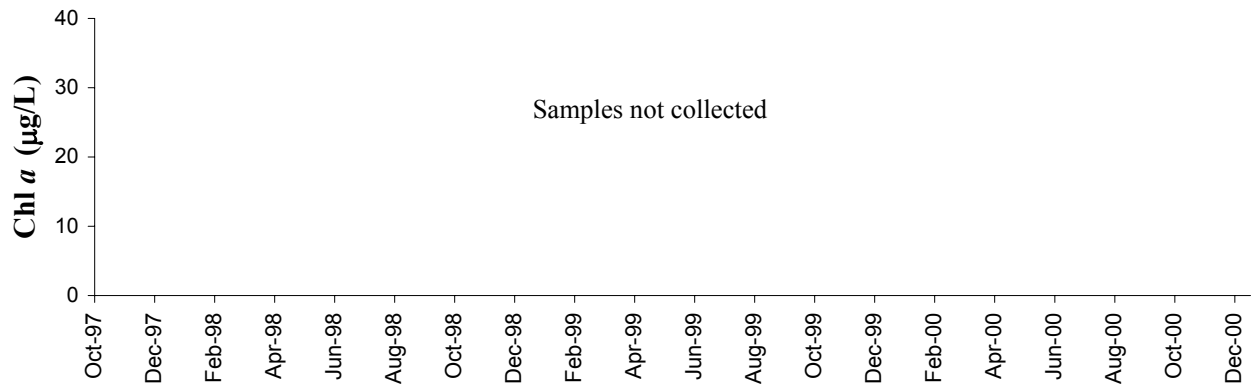
# GYS004



# GYS008

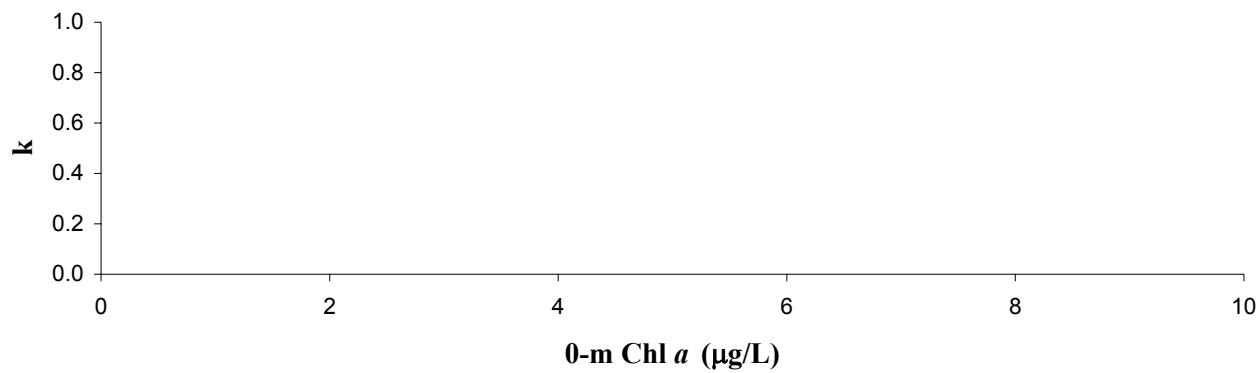
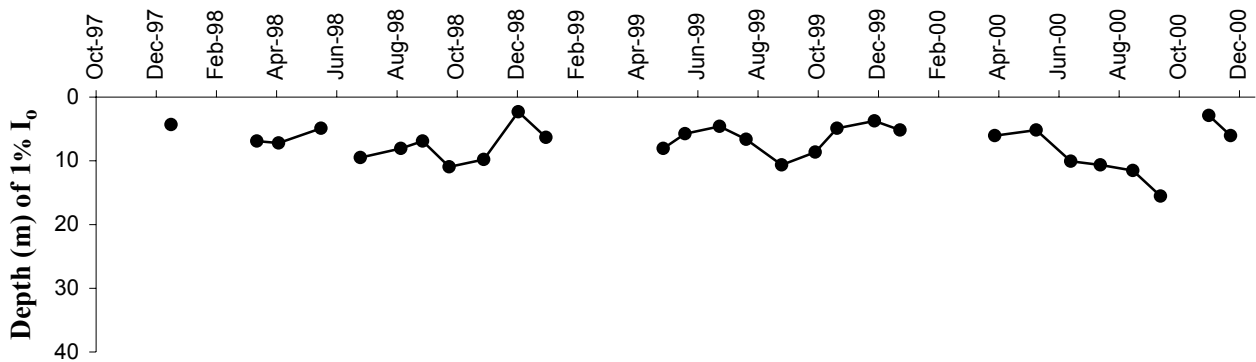
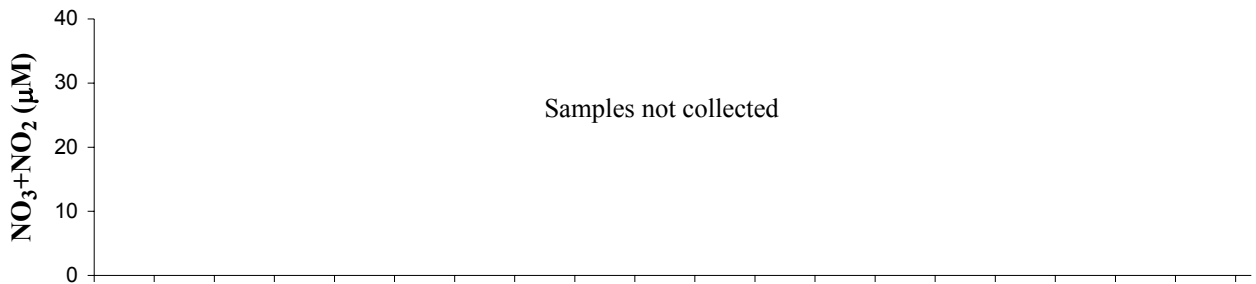
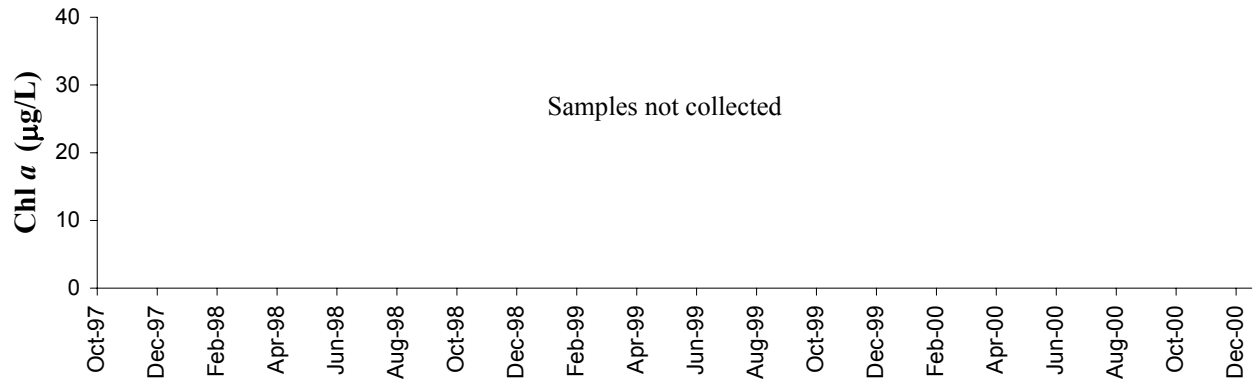


# GYS009



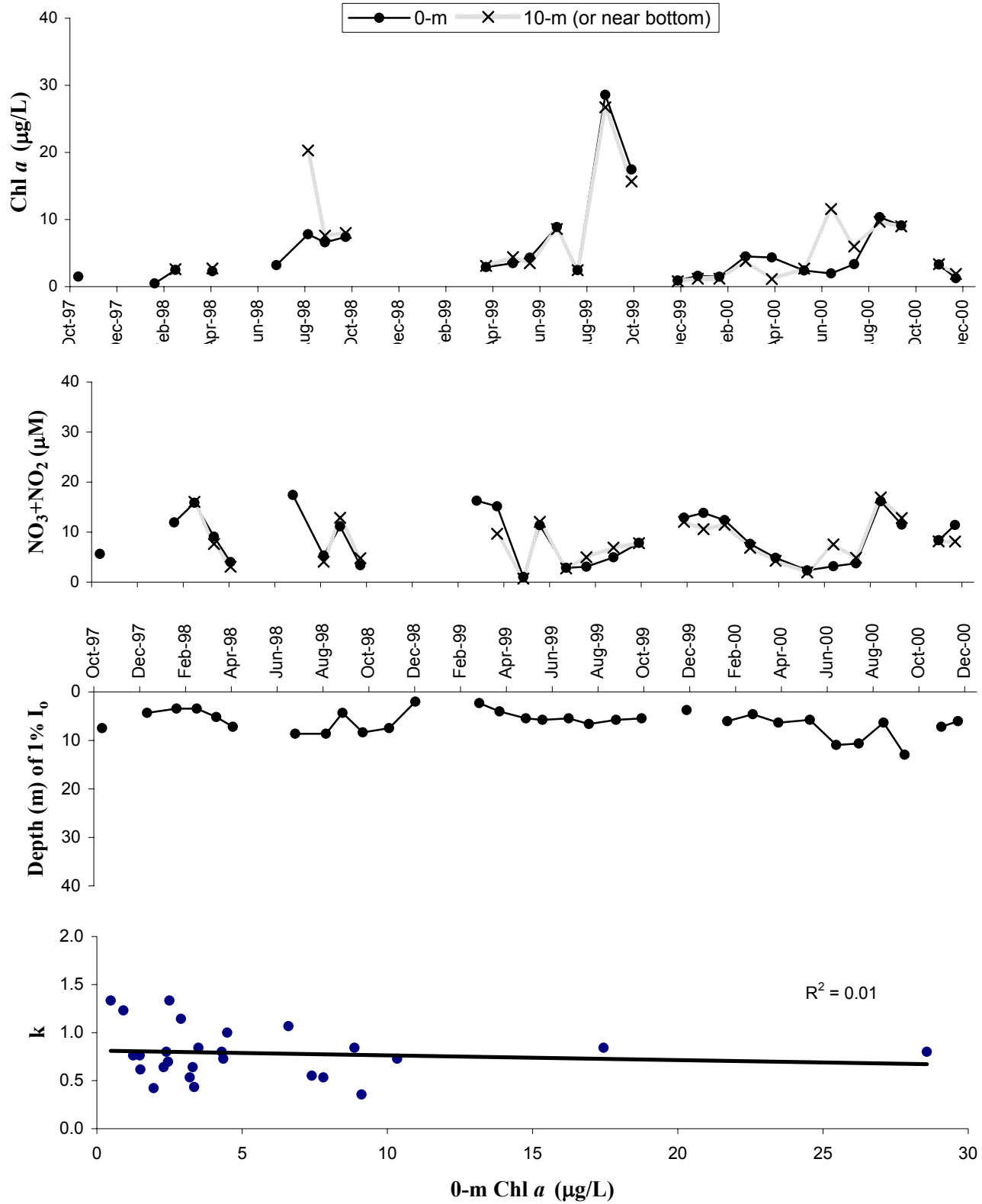
0-m Chl *a* ( $\mu\text{g/L}$ )

# GYS015

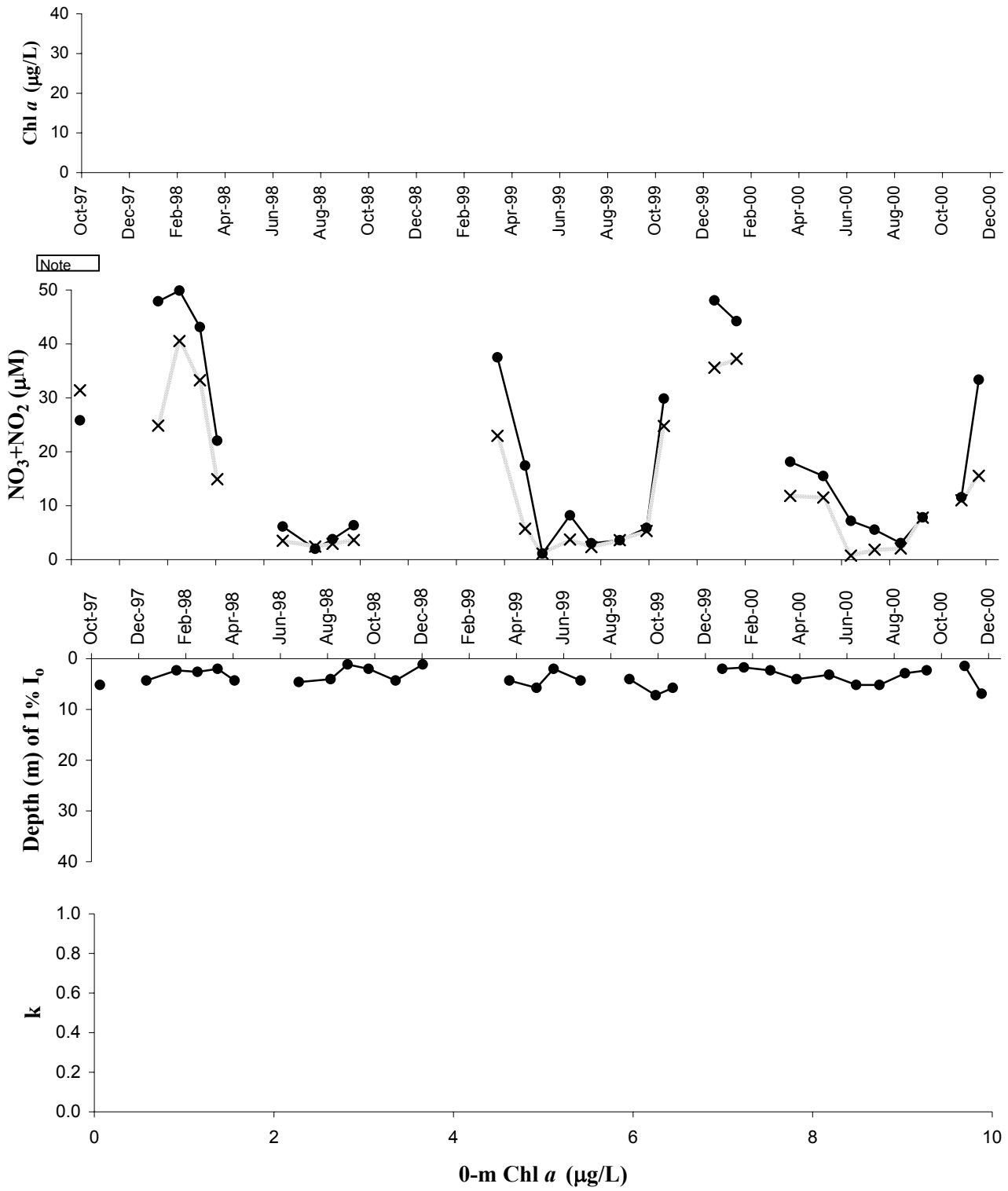




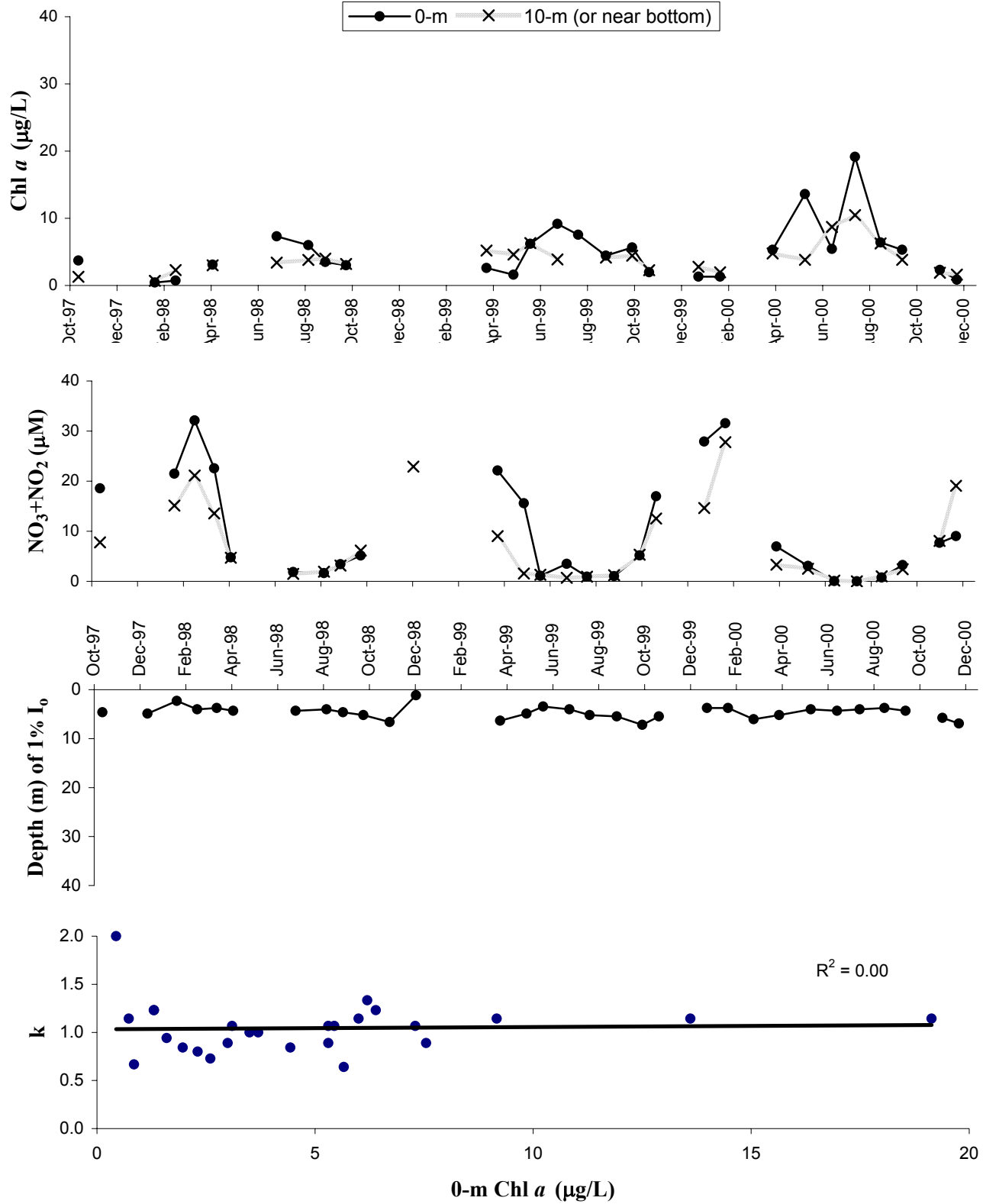
# GYS016



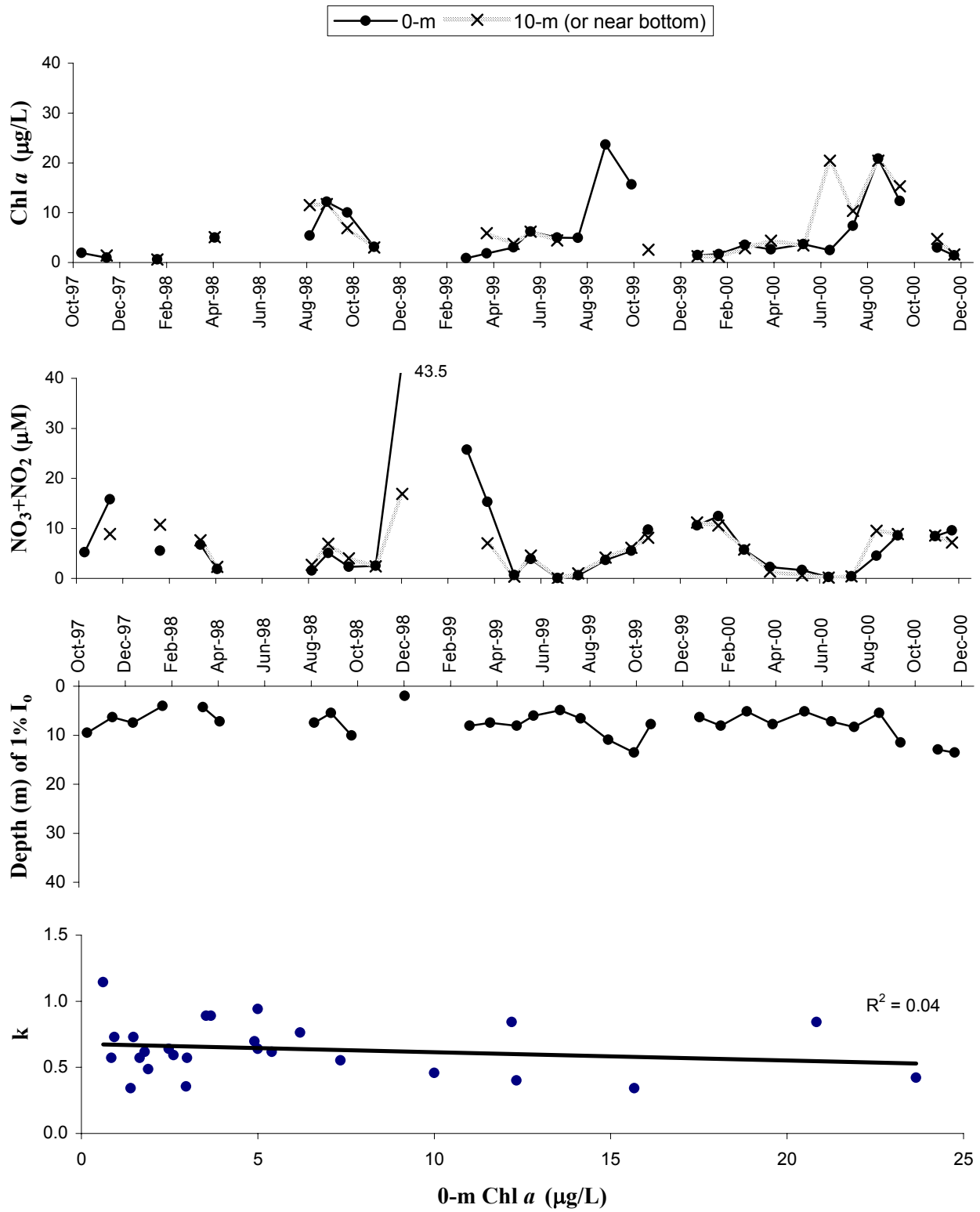
# WPA001



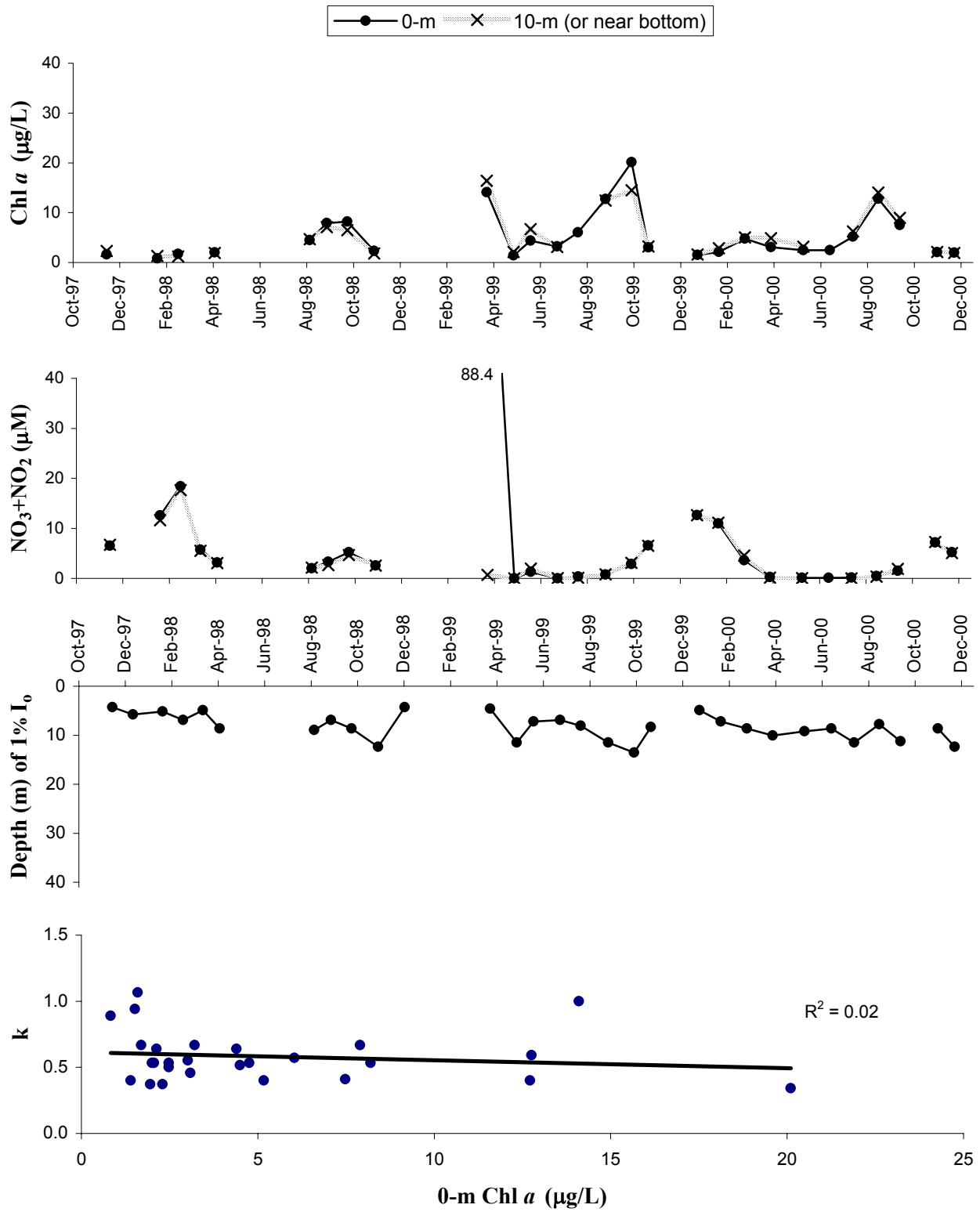
# WPA003



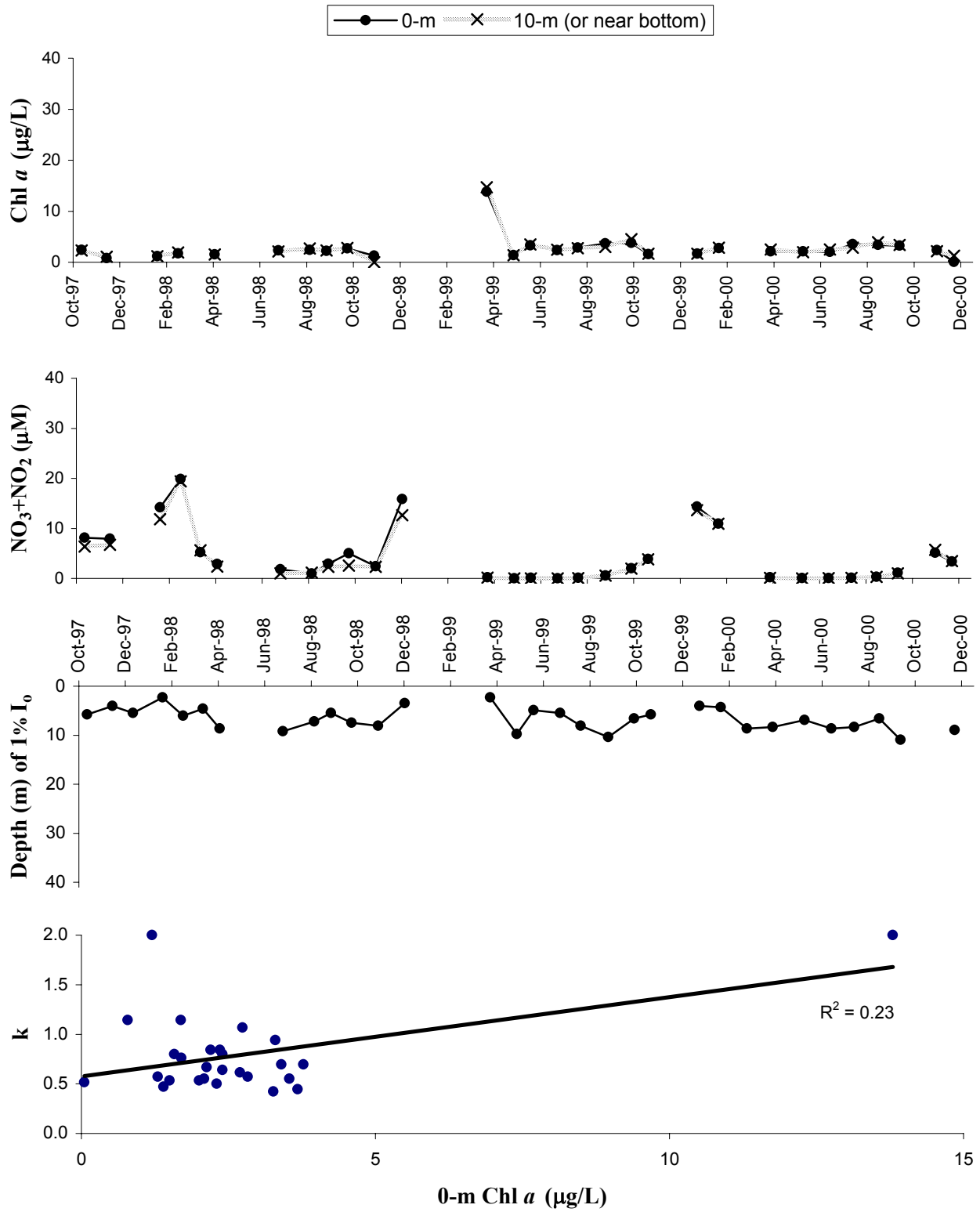
# WPA004



# WPA006



# WPA007



# WPA008

