

TO: John Bernhardt

FROM: Scott Jeane

SUBJECT: Investigation of Crab Mortality at March Point,  
Fidalgo Bay, Anacortes, WA

DATE: April 16, 1973

State of  
 Washington  
 Department  
 of Ecology



Underwater surveys were conducted at the docks of Shell and Texaco. The Scuba surveys were completed by Darrel Anderson and myself, and consisted of a review of piling communities, benthic communities and a 100 foot semicircular transect around each outfall. The investigation took place on the thirteenth of April between 1000 hours and 1300 hours. Texaco was the only industry discharging.

The sea floor around Shell's outfall was covered by 1/2 inch of fine silt, while the sea floor at the Texaco dock was characteristicly calcareous shell fragments. Abundant populations of *C. magister*, *C. productus*, *Loxorhynchus crispatus*, rock scallops (*H. multirugosus*), geoducks (*P. generosa*), Jingles (*Pododesmus macroschisma*), tunicates, hydroids, and anemomies (*Metridium senile*) were observed at both sites. One dead crab was observed (*C. oregonensis*). It was not a recent kill. No other dead or distressed organisms were observed.

The variety and quantity of life indicate that this area has not undergone a recent broad spectrum mortality. If an industrial effluent caused the reported crab mortality (February 2, 1973, W.S. Fisheries Department) then a similar mortality would have taken place among the local piling communities. The piling communities of both docks were normal, therefore, the earlier crab mortality was not due to an industrial discharge. A possible cause may have been a disease specific for the crabs.

GSJ:bj

cc: Bruce Johnson

*E.P.A. - Bellingham*

TO: Ron Pine

FROM: John Bernhardt *JB*

SUBJECT: Dungeness Crab Kill; March Point, Skagit County

DATE: March 15, 1973

State of  
Washington  
Department  
of Ecology



On Friday, February 2, 1973, I received a telephone call from Washington Department of Fisheries biologist, Emanuel LeMier, reporting that a scuba diver, Mr. Don Walermarson of Seattle had observed dead dungeness crabs in about 30 feet of water off March Point near Anacortes, Washington. Each of the dead crabs observed by the diver had recently undergone the seasonal molting process. Mr. LeMier went on to say that WDF personnel would survey the area in several weeks, then decide whether or not further investigation into the problem would be needed.

Mr. LeMier reported on March 4, 1973, that dead dungeness crabs had been observed in the March Point area by WDF divers earlier in the week. The carcasses examined were in various stages of decomposition, indicating the kill is a continuing, if not periodic process. All of the dead crabs had recently undergone the molting process. No additional kills other than one spider crab were observed.

Since the dead crabs were located near the outfalls of two major oil refineries, Texaco, Inc., and Shell Oil Company, Mr. LeMier requested that the Department of Ecology conduct an investigation to determine whether or not a pollutant is responsible for the ongoing crab kill. He had carcass samples collected during the WDF survey forwarded to the DOE Southwest Regional Office for analysis. Since the Investigation Section is frequently involved in the type of survey work required for this crab kill, I am forwarding Mr. LeMier's request to you for action.

JB:rh

cc: Scott Jeane  
Harry Tracy