

# Padilla Bay Newsletter

A Joint Publication of the Padilla Bay Foundation and Padilla Bay National Estuarine Research Reserve

Winter 2015-2016



**Padilla Bay**

National Estuarine Research Reserve

Padilla Bay National Estuarine Research Reserve is managed by the Washington State Department of Ecology under the National Estuarine Research Reserve System established by NOAA.

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**PADILLA BAY  
FOUNDATION**

The Padilla Bay Foundation is a membership-based non-profit organization formed in 1987. Its mission is to help preserve the Padilla Bay estuary in Skagit County, Washington, through support of Padilla Bay National Estuarine Research Reserve.

Padilla Bay Foundation  
[www.padillabayfoundation.org](http://www.padillabayfoundation.org)  
PO Box 1305  
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For more news, research updates, program details, see our website at [www.padillabay.gov](http://www.padillabay.gov).

To request materials in a format for the visually impaired, call the Reserve at 360-428-1558, Relay Service 711, or TTY 877-833-6341.

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## Focusing on Climate Change

You'll find a lot happening at Padilla Bay these days on the Climate Change front. We're creating new exhibits. We're focusing research on predicted changes like sea level rise. We're watching our energy efficiency and trying to be more sustainable in our operations. We're charging electric cars and converting solar rays into electricity. But what is it really all about? Mitigation, adaptation, ocean acidification, sea level rise, carbon footprint, drought - no - floods, el Niño, glaciers. . . It's no wonder the person on the street is confused. Why are both the US Environmental Protection Agency and Washington State putting limits on carbon pollution from power plants? Why *are* we working to be more responsible about what we put in the air?

We know that humans have been very busy burning fossil fuels like gas, oil, and coal. We burn more and more each year. This pumps extra carbon dioxide into the atmosphere where it acts like a heat trapping blanket, holding in the earth's heat and warming things up. A warmer earth means a warmer ocean, too. That changes the currents and winds that influence our weather patterns, and makes the sea level rise, causing problems for shoreline businesses, ports, property owners, and shoreline habitats.

About a fourth of the extra carbon dioxide has dissolved into the ocean, where it has been changing the ocean's chemistry. Animals that build shells, like oysters, snails, and tiny plankton (think base of the food chain), are having a hard time growing in water that is more acidic. Like osteoporosis that causes weak, brittle bones in humans, this "osteoporosis of the sea" causes thin, irregular shells in some animals.

So even though the picture gets more complicated the closer we look, it all comes back to us. We all want to be responsible with our ocean and our natural resources and solve this problem before it gets worse. We need to work together to use energy wisely, burn fewer fossil fuels, and find innovative, smarter ways to get the energy we need. It's the only way to protect the habitats and ecosystems we depend on.

Two Padilla Bay educators, Chandler Colahan and Susan Wood have been participating in a national initiative to improve communication about climate change and related ocean issues. It's called the National Network for Ocean and Climate Change Interpretation. They'll be using their new skills and knowledge to bring these issues to students and visitors at the reserve, and to insure the messages in Padilla Bay exhibits and programs are clear, effective, and solution-oriented.

Stop by this winter, and check out our new exhibits.





### How You Can Help

Grassroots involvement is the core of Padilla Bay Foundation's commitment to protecting our estuaries and supporting the Padilla Bay National Estuarine Research Reserve. Members of the Padilla Bay Foundation contribute directly to environmental education and research at Washington State's only Estuarine Research Reserve.

Memberships can be for multiple years. Please consider payment of 2 or 3 years at a time, as this will save the Foundation considerable labor and mailing costs and insure that your dues work harder supporting the programs you care about.

Categories of membership are:

Senior/Student	\$25
Individual	\$35
Family	\$50
School/Organization	\$50+
Supporting	\$75
Sustaining	\$100+
Small Business	\$100+
Sponsor	\$250
Patron	\$500
Steward	\$1000

Send your contribution to:  
 Padilla Bay Foundation  
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 (360) 757-3234  
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## Presentations for December, January and February 2015-2016

### Winter Botany

Learn to identify trees and shrubs in the woods by studying their bark, buds and needles. Some ethnobotany will be included so bring a vegetable snack to toss in with those wild winter edible greens. Instructors: Marlee Osterbauer and Jerome Janson. **Saturday, December 5, 2:00-4:00PM.** Please call the Interpretive Center to register.

### Introduction to Hawks of the Skagit

Learn to recognize the most common species in our area with raptor biologist and falcon aficionado, Bud Anderson. A slide presentation from 9:00-11:00AM will introduce you to raptor biology, field characteristics, and common behaviors. The afternoon field trip runs until around 2:00PM and is limited to 15 participants. **Saturday, January 2, 9:00-11:00AM.** Register by phone. There is a separate registration for the field trip.

### Winter Birding

Don't let the short, cool days of winter keep you inside! Libby Mills will lead beginners and experts alike, listening and watching for winter's birds. We'll find tough little songbirds who stay through the worst of weather and the "big guys"— the raptors and waterfowl who know that winter is the best time to be here. Bring warm and dry layers, a snack, and maybe a hot thermos. Scopes are handy. Binoculars are available for those who need them. We'll meet at the Interpretive Center and carpool. **Saturday, January 9, 8:30AM-12:00 noon and Sunday, February 21, 8:30AM-12:30PM.** Please call the Interpretive Center to register.

### Storming the Sound for Educators

Environmental Educators, teachers, and college students from the North Puget Sound region are welcome to join us for a day of workshops, networking, and information sharing. **Thursday, January 28, 9:00AM-4:30PM** at Maple Hall in LaConner. Padilla Bay staff are helping to organize and sponsor this event for classroom teachers, agency staff, and educators from non-profit groups. Teachers—there is money available for substitutes. Check our website at [www.padillabay.gov/storming](http://www.padillabay.gov/storming) for more information.

### Aquarium Tour and Fish Feeding

Come and see what's new and exciting in our aquariums. Join aquarist, Mark Olson for a behind-the-tanks view of the system, and a close-up look at the amazing critters in the tanks. **Saturday, January 30, 11:00AM.** No need to register. Just join us in the aquarium room at 11:00AM.

The Breazeale Interpretive Center is open to the public

Wednesday-Sunday, 10:00AM-5:00PM

Staff are available 7 days a week.

Closed December 25 and January 1

Register online or by phone.

[www.padillabay.gov](http://www.padillabay.gov)

(360) 428-1558



### Meet the Stars - and Fish - and - Snails. . .

Join marine biologist and educator, Chandler Colahan for an in-depth look at the animals that live in Padilla Bay's aquarium. This presentation and aquarium encounter will answer all your questions about the amazing creatures that call Padilla Bay home. Well, maybe not all your questions. Call to register. **Saturday, February 27, 1:00PM**

### Friends of Skagit Beaches Lecture Series

Coming up this winter at the Northwest Educational Service District 189 Building, 1601 R Ave, Anacortes, these lectures are free and open to the public.

**January 15, 7:00PM. The Entire IPCC Report in 19 Haiku Verses**, with Gregory Johnson, Ph. D, School of Oceanography at the University of Washington.

**February 12, 7:00PM. Recent NE Pacific Warming or, How I Learned to Stop Worrying and Love the Blob.** Nick Bond, Ph. D Washington State Climatologist and Senior Research Scientist at the University of Washington. Check the Friends of Skagit Beaches website for more information: [www.skagitbeaches.org](http://www.skagitbeaches.org).

### Raptor Class

The Skagit Flats are nationally recognized for their hundreds of wintering birds of prey. This in-depth class focuses on NW Washington's raptors, emphasizing field identification and the particularly fascinating element of winter behavior. Instructor, Bud Anderson won't admit to how many years he's been studying raptors. He has an incredible knowledge of local populations and peregrine falcons. This 5 week class meets Tuesdays from 7:00-9:00PM beginning January 5, with a Saturday field trip. The class fee is \$175 per person. To register, send check or money order to the Falcon Research Group, PO Box 248, Bow, WA 98232.

## Monthly Youth Programs Offer Fun Learning



Mini Explorers are the 3-5 year old learners. We look at a new topic each month, with stories, games, hands-on observations, art projects, and plenty of action. Call the Interpretive Center to register or register online.

### December 16 & 17, 10:00AM & 1:00PM

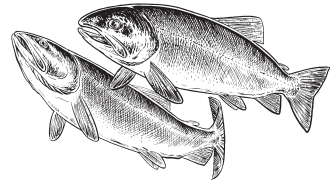
Wrack and Wreath—*Come and sift through treasures left by the waves and create wonderful holiday decorations.*

### January 13 & 14, 10:00AM & 1:00PM

Mammals—*Furry and warm blooded, lots of mammals make their home around the estuary.*

### February 10 & 11, 10:00AM & 1:00PM

Songs and Stories—*Join us for the best of our wonderful estuary songs and stories. This will be an action-filled program.*



Junior Ecologists are 6-9 year olds who have fun exploring the estuary. Excursions to the beach, science experiments, games, art projects, and studying life in the bay—this program is guaranteed fun! Call the Interpretive Center or register online.

### December 18 & 19, 10:30AM-12:00 noon

Wrack and Wreath – *Awaken your inner artist and create wonderful holiday decorations using natural treasures from Padilla Bay.*

### January 22 & 23, 10:30AM-12:00 noon

Wild about Water—*Wet, wonderful, wild water. We'll experiment and play and see how to take care of the water we can't live without.*

### February 19 & 20, 10:30AM-12:00 noon

Marine Mammals—*Living in the water but breathing air, these amazing creatures have all the tricks for survival.*



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