

Winter  
2009

# SOUTH SLOUGH News

The Newsletter of South Slough  
National Estuarine  
Research  
Reserve  
and the  
Friends of  
South Slough  
Reserve, Inc.



Charleston, Oregon

## Looking ahead in 2009

By Mike Graybill

It is a remarkable human enterprise to note, track, and celebrate the passage of time. It is understandable that living things are cued to the meter of the cycles of the sun and moon, but the list of living things that track timespans longer than one year is a short one. Tracking the passage of time is an essential part of being human. We keep track of anniversaries as they pass and anticipate them as they come.



*Miluk Coos Native plank house*

This year marks two significant anniversaries that highlight the relationship between the state of Oregon and the United States of America. On Feb. 14<sup>th</sup> Oregon will celebrate the 150<sup>th</sup> anniversary of its entry into the Union. Also, on June 30<sup>th</sup> Oregon will celebrate the 35<sup>th</sup> anniversary of the Commerce Department's award of funding to support designation of the South Slough as the first estuarine sanctuary in the United States. It is hard to believe that the South Slough Reserve has been in existence for almost one quarter of the time that Oregon has been a state!

The landscape and the culture of the South Slough valley have changed in many ways since February of 1859. It is interesting to imagine what it was like to



*Flanagan house on South Slough*

live in the South Slough valley 83 years after the founding fathers signed the Declaration of Independence. Travel was by foot, horse, and boat. Lighting was with candles and oil lamps. "Instant messaging" version 1.0 was accomplished by talking to the person next to you.

Six years before Oregon was declared a state, Euroamerican settlers arrived on the shores of the Coos estuary to found the

city of Empire. Life and times in the South Slough valley began to change dramatically around that time.



*Working logging train*

The lumber markets and mills built in Empire created an opportunity to transform South Slough's giant spruce and cedar trees into a variety of products that were part of the global economic expansion tied to the Industrial Revolution.

Now, 150 years into Oregon's history as a state, and 35 years after the designation of the South Slough as the nation's first National Estuarine Research Reserve, we are taking a fresh look at the South Slough valley and considering how this productive land will help us shape the next chapter of Oregon's history.

Sounds like it's getting to be time for a party!

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# EDUCATION NEWS

## WITH PACKS, ESTUARY EXPLORERS MAY BECOME DISCOVERERS

By Tom Gaskill

As the fall's warm, sunny days and cool nights give way to a dark and rainy winter season, I am reminded of how important this time of year is for so many creatures, including people. Wildlife seems particularly active as flocks of birds head south, many seeking the shelter of Oregon's relatively mild coastal climate as they migrate. Deer, elk, bobcat, and bear have all been seen recently at various locations around South Slough, perhaps using up the last of the warm days to feed and find a good spot to hunker down before winter storms bring quiet, dark solitude to the forest. Douglas squirrels are busy collecting spruce cones right in the parking lot at the Interpretive Center, where they neatly separate these sticky green bombshells from the branch and toss

them to ground, occasionally bonking the hood of my car. They are planning for winter.

We should be, too, and a part of that planning might include getting



*FOSS board members Pat McKillip and Dave Lunde with the new "Explore Your Estuary" packs.*

ready to hike out and explore the estuary.

A recent well-attended mushroom identification class led by naturalist Chuck Holbert reminded me of how much people like to get out and

discover the wild treasures that the rainy northwest woods offer. Planning for winter, to these visitors, meant gathering a bounty of wild fungi to dry and eat or learning to identify a few from the myriad kinds of mushrooms found here on the Reserve.

Now, through the generous support of Trust Management Services, a non-profit benefactor, and the Friends of South Slough, new equipment has been acquired for the Explore Your Estuary program at South Slough. Explorer packs equipped with digital cameras, field guides, trail maps and activity guides provide the tools for visitors to make discoveries and record them as they enjoy a visit to the Reserve. Individuals and families, students and teachers will use these packs to contribute to our understanding of this beautiful and ever changing place we know as the estuary.

## EMPIRE SHORES – PAST, PRESENT, AND FUTURE

By Tom Gaskill

For the past two years, South Slough has worked with staff at Sunset Middle School in Empire to develop an outdoor school program with a local theme designed to help 7<sup>th</sup> grade students understand the connections between the watershed, estuary, and ocean. The program has typically involved approximately 60



*Sunset Middle School students dig to discover and document the life of the mudflats near their school.*

students and 4 faculty members in 3 days of activities, including trips to the mudflats, marshes, and forests of

South Slough and Coos Bay. Many of the activities are based on curriculum developed by South Slough for middle school classes to gain greater understanding of estuaries.

The results of those investigations have expanded the students' and their teachers' understanding of the place where they live in ways that have been at times

exciting, muddy, confused, and ultimately rewarding. For some, the

trip into the rising tide covering the mudflats was the first time they had

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# RESEARCH AND STEWARDSHIP NEWS

## SECRETS IN THE MARSH

By Deborah Rudd

“No doubt he enjoys life after his own fashion, but his notions of happiness are peculiar. He prefers solitude, and leads the eccentric life of a recluse, ‘forgetting the world, and by the world forgot.’ To see him at his ordinary occupation, one might fancy him shouldering some heavy responsibility, oppressed with a secret, or laboring a problem of vital consequence...”

While this passage from *Birds of the Northwest* may seem to describe one of South Slough’s staff members, author Elliott Coues in 1874 was referring instead to a secretive marsh bird called the American bittern. The author was lucky enough to see a bittern after hours of careful and quiet observation. Many marsh birds hide among the grasses and are often more easily heard than seen, which creates difficulty when monitoring these species.

Over the past few years, attempts have been made by several groups to standardize marsh bird survey methods using taped playback responses. At the 2006 Marsh Bird Workshop at the Patxent Wildlife Research Center, researchers are trying to develop a monitoring program for marsh birds to help them understand the distribution, abundance and population trends of secretive marsh birds.

The program focuses on secretive marsh bird species that typically will respond to taped calls, including grebes, bitterns, rails, moorhens, gallinules, snipes and coots.

Data from the surveys should be useful for determining when conservation action is needed and adapting management strategies.

The program assesses marsh birds both locally, for example, at South Slough Reserve, and across North

America.

In spring of 2007, South Slough volunteers and Cape Arago Audubon Society board members Eric Clough and Russ Namitz, and South Slough staff member Craig Cornu, attended the Secretive Marsh Bird Monitoring Workshop in Yuma, Ariz., then trained Reserve staff members and volunteers in the techniques they had learned.

Participants learned to recognize calls of local marsh birds, as well as how to enter the data into marsh bird monitoring records.

The second session took place in the field at the south end of South Slough Reserve. Eric and Russ demonstrated the CD playback method for listening to and recording data. At the first site, volunteer marsh bird monitors were rewarded by the response of a Virginia rail when they played their recording.

Planning and scheduling for secretive marsh bird surveys are currently underway. The marsh birds likely to occur near South Slough include the Virginia rail, sora, American bittern and pied-billed grebe. Surveys follow a protocol being used throughout the U.S., and are conducted in early mornings or late evenings. The calling technique consists of broadcasting recorded calls and documenting responses. The spring surveys of South Slough wetlands revealed several Virginia rails. Unofficial accounts of American bitterns have been noted.

Next spring it will be time to monitor secretive marsh birds again. Three or four sessions at about two hours each are all it takes to get the necessary data. If you think you would enjoy being a part of the Secretive Marsh Bird Task Force, please call (541) 888-5558, ext. 58, for more information.

## WHAT METHODS DO RESEARCHERS USE TO MONITOR VEGETATION COMMUNITIES?

*Condensed from SSNERR Management Commission Reports*

As part of a monitoring project designed to provide restoration professionals with information they can use to plan and evaluate restoration projects, SSNERR staff members Alicia Helms, Adam DeMarzo, and Craig Cornu, with the assistance of volunteers Dennis Phillips, Karen Sparks, Valerie Cooley, Steve Lebeck and Rheannon Arvidson, completed vegetation sampling at two sites in the South Slough Reserve last July.

In a \$75,000, three-year project funded by the NOAA Restoration



Center, they are monitoring two pairs of restoration projects and reference sites in the South Slough and at Yaquina Bay. For example, at South Slough, a native marsh at Danger Point provides a reference for restoration work at nearby Kunz marsh.

The team completed the vegetation sampling at the Yaquina Bay sites in August.

They tested a new “point-intercept” sampling method, which involves recording the number and species of plants touched by a vertical

*Continued on page 4*

*Methods continued from page 3*

rod located in a one-meter square sampling area. Previously researchers estimated the vegetation visually. The new method helps to reduce errors between the varying estimates that can be made by different field observers.

The visual method was developed as a quick way to obtain detailed information about the vegetation in an area. It provides qualitative information; that is, it allows researchers to estimate the extent to which various species cover the sample area. It also provides a complete list of species occurring in the sampling area.

When the researchers compared percent the estimates of plant cover of the same plots using both visual estimates and the point-intercept method, they found that almost 28 percent of the visual estimates disagreed with the estimates using the point-intercept method.

The estimates that relied on using visual cover consistently overestimated the extent of vegetation cover, compared with results of the

point-intercept estimates.

The point-intercept method appears to be preferable for reserve staff and volunteers, because it appears to eliminate the sampling error introduced by multiple observers.

The point-intercept method also enables researchers to detect finer-scale changes in marsh vegetation communities than they could previously using the visual estimate method. The point intercept method requires considerable time and effort to collect the data in marshes with highly diverse vegetation communities.

In the Yaquina reference site, it took an entire day to collect vegetation data using the point-intercept method along a single transect. Normally collecting vegetation data at that site would take about two hours.

South Slough could use more plant monitoring volunteers and will be having training at a future date. Call (541) 888-5281 ext. 301, or email [craig.cornu@state.or.us](mailto:craig.cornu@state.or.us) for more information.



*Shores continued from page 2*

ever actually walked out into the bay.

Posters developed by the students revealed what was important to them. As they stood by and explained their work, it was apparent that outdoor school had found a home right in their local community.

This year, the 7<sup>th</sup> grade teachers at Sunset have agreed to try to blend outdoor school into their curriculum throughout the year and to work with the entire class of 250 students. They have chosen to focus their efforts on the local Empire area, one of the oldest parts of Coos Bay which once acted as the county seat for the area.

Community service has been identified as an important outcome of the project. Discovery of the rich cultural and natural history of the area will also serve to enrich the student's knowledge. While the exact nature of the activities is still being determined some preliminary ideas include historical reenactments, watershed studies, creation of maps, and habitat restoration. This exciting project will take students out into the local community to learn about the place where they go to school. As they seek connections between historic Empire and the present day area, they will be challenged to define a vision for the future.

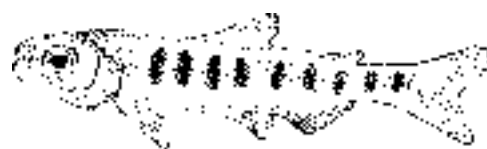
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## READ THE SOUTH SLOUGH NEWS ON THE WEB

The South Slough Newsletter is also available on the World Wide Web in a digital format. To download a copy, log onto [www.oregon.gov/DSL/SSNERR/newsletters.shtml](http://www.oregon.gov/DSL/SSNERR/newsletters.shtml) and follow the instructions to subscribe.

“This will help us to conserve paper and save postage,” said newsletter co-editor Deborah Rudd.

“Currently the newsletter is sent to over 3,000 people. You can help us protect our natural resources by subscribing on line.”



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## MARSH BIRD TRIVIA ANSWERS

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# FOSS NEWS

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## THE FRIENDS LAUNCH THEIR NEW WEBSITE

By, Deborah Rudd

The Friends of South Slough (FOSS) have a new website, [www.friendsofsouthslough.org](http://www.friendsofsouthslough.org).

Currently there are six subject tabs available, *Welcome*, *FOSS Board*, *Bookstore*, *Volunteer*, *Memberships & Donations*, and *Events*. Soon FOSS will have the capability for users to make online contributions, but for now the site contains information about types of memberships and where to mail forms and dues.

Eventually more specifics will be added to the *Volunteer* and *Events* sections. Bookstore inventory lists and pictures of currently-available items will be updated regularly.

In addition to the website, FOSS has been busy with other projects. On Sept. 10<sup>th</sup> FOSS held an advisory meeting to explore ideas for future

fundraising and project goals.

The group met at the Charleston Marina RV Park and had about 16 people in attendance. Wide arrays of ideas were presented and the FOSS board is taking into account some for current projects and others for future goals of the organization.

FOSS' mission is to promote and assist the Reserve in education and research activities and to raise funds.

Why not consider becoming a part of this group? The FOSS Board meets once a month and supports the Reserve in a number of ways. In the past, for example, FOSS raised money to construct the Interpretive Center auditorium and classroom; helped fund construction of new trails through a rowboat raffle and silent auction; raised at least \$86,000 to support South Slough programs; wrote and managed grants, and logged more than 511 hours of labor on behalf of South Slough Reserve.

During last year's holiday season, FOSS and the Reserve staff held a gathering for a local youth shelter whose clients provided hours of community service towards the removal of invasive weeds. FOSS hosted a community-wide dedication of the Reserve's new interpretive exhibits. The Friends of South Slough Bookstore & More has increased its inventory with a wider variety of books and educational items. As a result of their combined efforts, FOSS won the Oregon State Land Board's 2008 Community Partnership Award.

FOSS board members were invited to Salem to receive the award from Gov. Theodore Kulongowski.

For more information about FOSS, or to learn about opportunities to participate in the FOSS board of directors, contact Jason Randolph, FOSS board president at [jason@tidelink.net](mailto:jason@tidelink.net) or (541) 297-7726.

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## MARSH BIRD TRIVIA

Match the Secretive Marsh Bird to the appropriate sound-

1. "punk-er-lunk" a. Pied-billed grebe
2. "keep, keep" b. Virginia Rail
3. "ow-whoop" c. SORA
4. "tick-et, tick-et" d. American bittern

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## BE A FRIEND OF SOUTH SLOUGH!

### Friends of South Slough earn exciting benefits!\*

- |  |                     |
|--|---------------------|
| • Newsletter subscription                        | Individual.....\$20 |
| • Reduced admission to special Friends' events   | Family.....\$30     |
| • 15 % discount at the Friends' Bookstore & More | Senior.....\$15     |
| • Voting privileges                              | Life.....\$250      |
| • A chance to make a difference                  | Corporate.....\$500 |

**Annual memberships are tax deductible.**

**Call (541) 888-5558 for more information.**

**[www.friendsofsouthslough.org](http://www.friendsofsouthslough.org)**

# MISCELLANEOUS NEWS

## NERR'S GRADUATE RESEARCH FELLOWS INVESTIGATE ISOPODS AND MACROALGAE

*Condensed from SSNERR Management Commission reports*

Tim Davidson, a doctoral student at Portland State University, and Margot Hessing-Lewis, who are pursuing a doctorate from Oregon State University, is currently working with South Slough researchers as participants in the National Estuarine Reserve's Graduate Research Fellowship program.

Davidson's research focuses on the invasive Australasian burrowing isopod, *Sphaeroma quoianum*, in the

South Slough and other Oregon coast estuaries.

Davidson collected information to describe how extensively the isopod burrows into a variety of different substrata in Coos Bay, including dikes, pilings and even styrofoam. In addition, Davidson measured rates of sediment erosion at various locations within the South Slough and Coos Bay.

Hessing-Lewis is studying the interactions between eelgrass and macroalgae in estuaries that are influenced by upwelling.

Hessing-Lewis continued her seasonal monitoring of eelgrass habitats over the summer and fall at four study sites in the South Slough. Her field work included monthly

assessments of total amounts of eelgrass and macroalgae biomass, density, and percent cover. In addition, she profiled the water column conditions in the sampling areas, including temperature, salinity, dissolved oxygen, and nutrients.

The NERRS Graduate Research Fellowship program offers qualified master's and doctoral students an opportunity to work at a national estuarine research reserve to address scientific questions of local, regional or national significance. The result is high-quality research to improve understanding of estuaries and coastal waterways and help manage coastal resources.



## PETER DONALDSON'S SALMONPEOPLE - AN EXQUISITE THEATRICAL EXPERIENCE

Marshfield Auditorium - January 17 at 7:30 PM

Tickets: [www.brownpapertickets.com](http://www.brownpapertickets.com)

Peter Donaldson is bringing his wonderful one-man touring production, *Salmonpeople*, to the Coos Bay area this January. The production, supported by a collaboration of more than 20 organizations, is sponsored by the Coquille Indian Tribe, Coos Watershed Association, and Sol Coast Consulting.

*Salmonpeople* is theater so sly, so real, so razor-sharp funny, it's like going out to dinner with Robin Williams, Garrison Keillor and Johnny Appleseed, everybody talking with their mouths full. The show is a humorous, heartfelt, homespun tapestry of character insight, good science, and astounding freehand cartography. At one point Donaldson's on-stage persona, Cyrus Jackson, draws the map of the entire northwest, naming over 100 rivers, from memory.



*Peter Donaldson's Salmonpeople*

Audacious story-telling, *Salmonpeople* is richly trimmed with beautiful sound and special lighting effects.

Known as the Bioregional Bard of Salmon Nation, Donaldson has given

34 performances in 23 towns, garnering spontaneous standing ovations every time.

*Salmonpeople* is a one-man show with everybody in it. Bring your teenager; bring your fifth grader, your grandma, your boss, farmers, fishers, foresters, preachers and teachers. *Salmonpeople* reaches all ages, everybody's bottom line, and one big landscape. *Salmonpeople* is recommended for family audiences, but the complexity of the story is best for ages 10 and up.

Tickets are available online at [www.brownpapertickets.com](http://www.brownpapertickets.com). Make reservations early because, with so many organizations co-hosting, tickets are expected to sell out early.

When ordering tickets online, remember to select "Friends of South Slough" in the check-out survey and the Friends of South Slough, Inc. will receive 50 percent of the proceeds from the sale of your ticket.

## 2009 WORKSHOP SERIES

By Deborah Rudd

Several training opportunities are available this winter and spring at the South Slough Reserve:

**Docent training.** This course for new or potential volunteers covers basic questions about South Slough, front desk procedures, exhibits, programs and trail opportunities, or provides a refresher for experienced volunteers.

Basic tree and plant identification.

Basic information about the trees and plants of the South Slough. Helpful to anyone who like to guide

hikes and assist with education programs.

**Leading and working with school groups.** Designed for those who help with education programs or would like to.

Advanced volunteer paddle training.

Available for those currently assisting with paddle trips who have paddle experience. Navigation of South Slough, safety techniques and group leadership skills.

**Secretive marsh bird monitoring.** Classroom workshop followed by field training to monitor

secretive marsh birds. Please see the newsletter article on Page 3 for more information.

**Mudflat navigation.** This May workshop is for anyone who would like to experience or volunteer for projects that take place on the mud, or for those who want to explore the mudflats and would like to know various methods and what gear is needed to move across this unique environment.

Contact South Slough's Public Involvement Coordinator for more details, [Deborah.rudd@state.or.us](mailto:Deborah.rudd@state.or.us), 541-888-5558 ext. 58.

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## THE VALUE OF A WALK IN THE PARK

By Mike Graybill

Need a break? Short days and dull weather got you down? Do the holiday plans and economic news have you distracted and feeling overwhelmed? Research information shows that a simple answer to all these feelings might be to take a 20 minute hike each day.

It's true! Carefully designed behavioral research is demonstrating the value of a "daily dose" of nature. One recent study lead by Andrea Faber Taylor and Frances E. Kuo in the Journal of Behavioral disorders

focused on children with attention deficit disorders. The study and found that in the general population, attention is reliably enhanced after exposure to certain physical environments, particularly natural environments. This study examined the impacts of environments on attention in 17 children with Attention Deficit Hyperactivity Disorder (ADHD). Children 7 to 12 years old professionally diagnosed with ADHD experienced each of three environments—a city park and two other well-kept urban settings—via individually guided 20-minute walks. After each walk, concentration was measured. The researchers found that

children with ADHD concentrated better after the walk in the park than after the downtown walk or the neighborhood walk. The Authors concluded that twenty minutes in a park setting was sufficient to elevate attention performance relative to the same amount of time in other settings. These findings indicate that environments can enhance attention not only in the general population but also in ADHD populations. "Doses of nature" might serve as a safe, inexpensive, widely accessible new tool in the tool kit for managing ADHD symptoms.

Stressed out? Take a hike!

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## RUMRILL AND SOWERS PUBLISH MANUSCRIPT

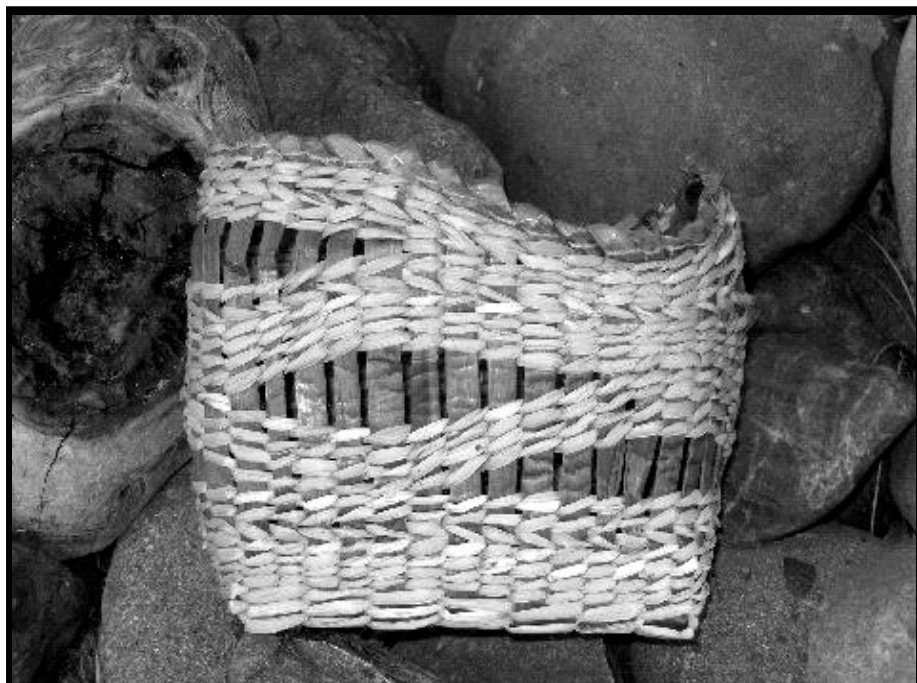
Condensed from SSNERR Management Commission reports

Steve Rumrill and former SSNERR staff member Derek Sowers published a manuscript titled "*Concurrent assessment of eelgrassbeds (Zostera marina) and salt marshes along the estuarine*

*gradient of the South Slough, Oregon*" in the Journal of Coastal Research. The manuscript describes seasonal changes and spatial variability in the eelgrass and salt marsh communities in a series of study sites located in the marine-dominated, polyhaline, and riverine regions of the estuary. The manuscript also summarizes differences in physical parameters and water

column nutrients along the estuarine gradient. The research was completed in 2006 as one of several NERR SWMP Bio-monitoring pilot projects that explored application of standardized operation procedures for the characterization and monitoring of submerged aquatic vegetation and emergent vegetation within the NERRS.

# *South Slough 2009 Winter ~ Spring Calendar*



Special Thanks to Shelia Trasker for her beautiful Cedar & Sweet Scripus Sedge Grass Basket

## Winter Basketry classes

Nan McDonald will lead 2 winter basket weaving classes, using traditional indigenous coast materials and techniques. Both classes will meet from 9 am to 4 pm on the last Saturday of January and February at the South Slough Interpretive Center. Cost for each class is \$45 per person. Pre- registration is required, with payment due at time of class. Class fee will include all materials and tools needed for each project. No experience is needed, but hand dexterity is helpful. Children under 10 must be accompanied by an adult helper. Class enrollment is limited to 12 people with a class minimum of 5. Please bring your own lunch and snacks.

Ocean Waves Basket ~ January 31. Since ancient times, the indigenous people of the Northwest Coast have used Western Red Cedar and Sweet Scripus Sedge Grass to weave beautiful baskets of function and form. Our basket project will use locally collected native materials from the South Slough area to weave a basket inspired by indigenous artistry, coastal tide pools and ocean waves. In addition, Nan will provide Black Sea Grass, Wild Cherry Bark, and other natural materials for students to embellish and individualize their own weaving project.  
(See example photo above.)

Wild Winter Willow Clam Basket ~ February 28. Based on the traditional weaving technologies of Pacific Northwest south coast indigenous people, (Northern California to Southern Oregon) workshop students will learn simple 2 rod twining techniques, using wild Rogue river winter willow to weave a small coastal "clam" gathering basket.

The South Slough Interpretive Center is located 4 miles south of Charleston on Seven Devils Road.  
**REGISTRATION IS REQUIRED FOR ALL PROGRAMS, PLEASE CALL US AT (541) 888-5558**

Visit us at [www.southsloughestuary.org](http://www.southsloughestuary.org)

## WHAT'S TO DO AT SOUTH SLOUGH?

Explore your estuary in 2009! We have many activities designed to teach the importance of estuaries. From adult naturalists to toddlers, we have activities for the whole family. Many South Slough activities are offered free of charge. Any activity fees and donations cover materials and are used by the Friends of South Slough in support of the Reserve.

### **Interpretive Center**

Exciting exhibits, trail information, bookstore and staff assistance. **Tuesday - Saturday 10 am to 4:30 pm.**

### **Art Displays**

New exhibits seasonally in the lecture hall.

### **Birding on the Bay**

Join a South Slough interpreter to tour some of the bay's best birding locations. Binoculars and spotting scopes provided.

*Meet at the Charleston Visitors Center. \$1/birder*

### **Creature Feature**

You may wonder what sort of critters climb, swim, slither, fly or burrow through the estuary. Come help us unlock the mysteries of their lives.

### **Estuary Explorers**

For children 6-12 years old, hands-on learning experiences that change theme with each visit. \$3/child

### **Explore Your Estuary Hikes**

An explorer pack equipped with a digital camera, field guides, a trail map and activity guide will provide the tools for participants to make discoveries and record them.

### **Films**

Join us to view natural history themed movies on South Slough's big screen. We'll provide the popcorn.

### **Hiking Trails and Waterways**

Open daily from dawn until dusk.

### **Lunch and Learn**

Join us at the Interpretive Center for lectures coinciding with volunteer trainings. Bring a bag lunch.

### **Paddling the Estuary**

Tours for ages 16 and up, younger passengers may be accompanied by and adult. Provide your own kayak or canoe, paddles, & life jackets. We provide the interpretation. All trips begin at the Interpretive Center. Trips may be canceled up until the launch time due to hazardous conditions. There is an 8 boat limit per trip. \$15/boat

### **South Slough Birding**

Join a South Slough interpreter and venture into the Reserve in search of winged wildlife. We will provide binoculars, spotting scopes, and field guides. \$1/birder

### **Tide of the Toddlers**

For wee ones ages 1-5, where we play, sing songs, tell stories, make crafts, and explore the estuary. \$1/toddler

### **Volunteer Trainings**

We offer a wide variety of trainings for our current volunteers as well as those interested in becoming a volunteer. Programs are designed to be informative as well as practical for field use.

### **Registration**

Please call (541) 888-5558 to register and confirm all programs.  
Programs may be cancelled due to low enrollment.



## EXPLORE YOUR ESTUARY SPRING BREAK PASSPORT'S

Visit South Slough beginning March 21 to pick up your passport full of fun activities for the week. Participate in South Slough programs to earn a stamp or visit one of the other participating organizations to earn a stamp.

Return your passport to the Interpretive Center with 5 stamps by March 28 to receive a prize.

Visit [www.southsloughestuary.org](http://www.southsloughestuary.org) for details.



# South Slough Winter ~ Spring Activity Calendar



## ~January~

### JANUARY 3

- South Slough Birding** 8-10 am  
Join an interpreter in search of winged wildlife. Binoculars provided. (\$1/birder)
- Creature Feature - Fish** 11 am - 12 pm  
Learn about the life, habitat and types of fish found in South Slough. (free)
- Film - "The Blue Planet"** 1 pm & 3 pm  
View this episode of the "Blue Planet" documentary on the big screen. Popcorn provided. (free)

### JANUARY 10

- Tide of the Toddlers - Fish** 10- 11 am  
Bring your wee ones, ages 1-5, to explore the natural world through song, story, and craft. (\$1/toddler)
- Mike Holm Art Opening** 1 - 3 pm  
Welcome Mike's nature photography to the walls of South Slough's auditorium. (free)
- Estuary Arts & Crafts** 1-2 pm  
Children, 4- 10 years old, use their artistic side to explore the estuary. (\$1/artist)

### JANUARY 17

- "Miracle of the Scarlet Salmon"** 12 pm & 3 pm  
View this film about the life cycle of the sockeye salmon. Popcorn provided. (free)
- Explore Your Estuary Hike - Salmon** 1 - 3 pm  
Learn about salmon at South Slough. All participants will be added to a drawing for a family 4 pack of tickets to see "Salmonpeople". (free)
- Salmonpeople** 7:30 pm  
A theatre production at Marshfield High School Auditorium. Buy tickets online at: [www.brownpapertickets.com/event/48368](http://www.brownpapertickets.com/event/48368)

### JANUARY 24

- South Slough Docent Training** 9:30 am - 12 pm  
Volunteer to teach at the Interpretive Center. (free)
- Lunch-n-Learn - Tides** 12-1 pm  
Bring your lunch and learn how the tides influence our world. (free)
- In the Field - Evidence of the Tides** 1-3 pm  
Venture along the shores of South Slough to search for evidence of the tides. Weather appropriate clothes and shoes recommended. (free)

### JANUARY 31

- Ocean Waves Basket** 9 am - 4 pm  
Our basket project will use locally collected native materials from the South Slough area to weave a basket inspired by indigenous artistry, coastal tide pools and ocean waves. Pre-registration is required and limited to 12. (\$45/person)
- Explore Your Estuary - Wetland Walk** 10:30 am to 12 pm & 1 - 2:30 pm  
In honor of World Wetlands Day, come out and explore the wetlands of South Slough with an interpreter and explorer pack. (free)

## ~February~

### FEBRUARY 7

- Birds on the Estuary** 8-10 am  
Join fellow birders to explore the shores of our area. Binoculars provided. Meet at the Charleston Visitors Center. (\$1/birder)
- Photographing Nature** 1-4 pm  
Bring a camera or borrow ours (limited availability) and improve your skills at photographing wildlife and natural settings. Dress for the weather. (free)

### FEBRUARY 12

- Lunch-n-Learn - Birds** 12- 1pm  
Bring your lunch and learn how to identify some of our most common birds. (free)
- South Slough Docent Training** 1 - 3 pm  
Volunteer to teach at the Interpretive Center. (free)

### FEBRUARY 14

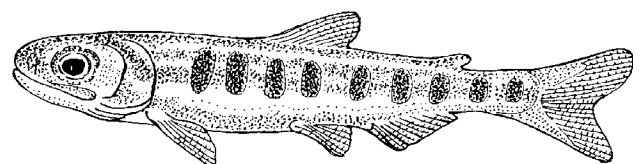
- Tide of the Toddlers - Crustaceans** 10 -11 am  
Bring your wee ones, 1-5 years old, to explore the natural world through song, story, and craft. (\$1/toddler)
- Creature Feature - Crabs** 1 - 2 pm  
Discover the exciting world of crabs. (free)
- Film - "Coasts"** 2 - 3 pm  
View this episode of the "Blue Planet" documentary on the big screen. Popcorn provided. (free)

### FEBRUARY 21

- Build a Birdhouse** 9:30 am - 12 pm  
Before the swallows begin to nest, come build a birdhouse to encourage them to live in your backyard! We'll provide the supplies and tools. Work on your own or bring a partner. Please pre-register so we have enough for everyone! (\$10/birdhouse)
- FOSS Annual Members Gathering** 12 - 3 pm  
Hear about all FOSS has done in 2008 and plans for 2009! We will have honored guests sharing their Oregon Stories in celebration of Oregon's 150th birthday. (free)

### FEBRUARY 28

- Wild Winter Willow Clam Basket** 9 am - 4 pm  
Students will learn simple 2 rod twining techniques, using wild Rogue River Winter Willow to weave a small coastal "clam" gathering basket. Pre-registration is required and limited to 12. (\$45/person)
- Estuary Explorers** 10 am - 12 pm  
Children, 6 - 12 years old, are invited to come discover the estuary. Please bring a lunch and dress for the weather. (\$3/child)





# South Slough Winter ~ Spring Activity Calendar



## ~March~

### MARCH 5

#### **Lunch -n- Learn - Interpretation Skills 12 - 1 pm**

Bring your lunch and learn interpretive techniques to enhance your volunteer experience. (free)

#### **“Working with School Programs” Training 1 - 3 pm**

Volunteer to help with a variety of school programs from pre-k to high school students. (free)

### MARCH 7

#### **South Slough Birding 8-10 am**

Join an interpreter in search of winged wildlife. Binoculars provided. (\$1/birder)

#### **Tide of the Toddlers - Wild Things 10 - 11 am**

Bring your wee ones, 1-5 years old, to explore the natural world through song, story, and craft. (\$1/toddler)

#### **Jason Randolph Art Opening 1 - 3 pm**

Jason Randolph is happy to present several of his black and white and color fine art photographs and artistic prints. (free)

### MARCH 14

#### **Native Plantings in Your Backyard 1 - 3 pm**

Learn the benefits of using native plants in landscaping. Take home a native plant for your yard. (free)

### MARCH 21

#### **Estuary Fun & Games 10:30 am - 12 pm**

Start spring break with a round of fun activities for children, 6 -12 years old. Pick up your Explore Your Estuary Spring Break Passport of fun activities to fill the whole week! (\$2/child)

#### **Film - Bill Nye the Science Guy 12:30 - 1 pm**

View the antics of Bill Nye on the big screen. Popcorn provided. (free)

#### **Estuary Hike 1 - 3 pm**

Come out and discover spring in the estuary. (free)

### MARCH 28

#### **Paddling the Estuary - SOLV 9 am - 2pm**

Participate in the Great Oregon Beach Clean-Up with SOLV as we paddle the slough collecting debris that has accumulated over the winter. Bring your own kayak or canoe, life jacket, lunch and water. (free)

#### **Explore Your Estuary Passport 10 am - 4:30 pm**

Return your Spring Break Activity Passport with 5 stamps and receive a prize. (free)



## ~April~

### APRIL 4

#### **Birds on the Estuary 8 - 10 am**

Join fellow birders to explore the shores of our area. Binoculars provided. **Meet at the Charleston Visitors Center.**

(\$1/birder)

#### **Lunch -n- Learn - Games & Stories 12 - 1 pm**

Bring your lunch and learn useful games and stories to use while working with children. (free)

#### **“Working with School Programs Training” 1 - 3 pm**

Volunteer to help with a variety of school programs from pre-k to high school students. (free)

### APRIL 10

#### **Tree & Plant ID for Volunteers 10 am - 12pm**

Learn the basics of tree and plant identification to improve your interpretation skills. (free)

### APRIL 11

#### **Tide of the Toddlers - Frogs & Salamanders 10 - 11 am**

Bring your wee ones, 1 to 5 years old, to explore the natural world through song, story, and craft.

(\$1/toddler)

#### **Natural Photoframes 1 - 3 pm**

Children, 6 - 12 years old, photograph the estuary and then take your picture home in a photoframe of your own creation. (\$3/child)

### APRIL 14

#### **Mudflat Training 10 am - 12 pm**

Volunteers, come learn how to safely navigate the mudflats, as we prepare you to help out with field work. (free)

### APRIL 18

#### **Salty to Fresh 9 am to 3 pm**

Explore the Coos River Estuary from its salty mouth to its fresh water sources. Dr. Steve Rumrill will lead this field day for adults. (\$5/participant)

#### **Creature Feature - Worms 1 - 2 pm**

Learn about the life, habitat, and types of worms found in South Slough. (free)

### APRIL 23

#### **Secretive Marsh Bird Training 6 - 7:30 pm**

Participate in this important bird survey. Field practice will follow this volunteer meeting. **Meet in the Community Room at Milner Crest Education Center.**

(1255 Hemlock Ave. CB) (free)

### APRIL 25

#### **Paddling the Estuary 9 am - 2 pm**

Explore South Slough with an interpreter on a trail that flows with the tides. Bring your own kayak or canoe, life jacket, lunch and water. 8 boat limit. (\$15/boat)

#### **Film - “Seasonal Seas” 1 pm & 3 pm**

View this episode of the “Blue Planet” documentary on the big screen. Popcorn provided. (free)



# South Slough Winter ~ Spring Activity Calendar



~May~

MAY 1

**Estuary Live**

Check [www.estuaries.gov](http://www.estuaries.gov) for details. (free)

MAY 2

**South Slough Birding 8-10 am**

Join an interpreter in search of winged wildlife. Binoculars provided. (\$1/birder)

**Explore Your Estuary Hike: Tidal Channels 1 - 4 pm**

Using a habitat backpack explore the tidal channels of South Slough with an interpreter. (free)

MAY 9

**Tide of the Toddlers - Birds 10 - 11 am**

Bring your wee ones, 1 to 5 years old, to the estuary. Explore the natural world through song, story, and craft. (\$1/toddler)

**At Play in the Watershed 1 - 3 pm**

Using watershed models discover how we can influence waterflow. (free)

MAY 16

**Explore Your Estuary Poster Celebration**

Celebrate the artwork of local elementary school students by attending the awards ceremony. We will have fun, games, treats and prizes for the winners provided by FOSS. (free)

MAY 23

**Paddling the Estuary 9 am - 2pm**

Explore South Slough with an interpreter on a trail that flows with the tides. Bring your own kayak or canoe, life jacket, lunch and water. 8 boat limit. (\$15/boat)

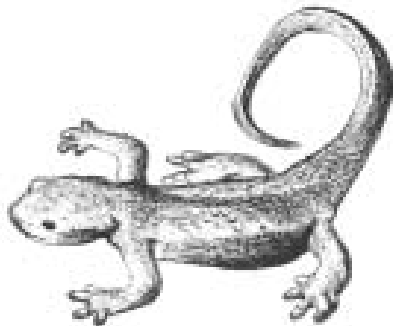
**Film - "Tidal Seas" 1 pm & 3 pm**

Come view this episode of the "Blue Planet" nature documentary on the big screen. Popcorn provided. (free)

MAY 30

**Cultural History Walk 1 - 3 pm**

Travel the trails of South Slough to learn about the history of the people who inhabited South Slough. (free)



WE'LL SEE YOU AT SOUTH SLOUGH!

All programs are held at the Interpretive Center unless otherwise noted. Located 4 miles south of Charleston on Seven Devils Road, we are open Tuesday through Saturday, 10 am to 4:30 pm.

**Please register in advance for all programs by calling (541) 888-5558.** Activity fees and donations cover materials and are used by the Friends of South Slough in support of the Reserve.

[www.southsloughestuary.org](http://www.southsloughestuary.org)

*South Slough National Estuarine Research Reserve's mission is to improve the understanding and stewardship of Pacific Northwest estuaries and coastal watersheds.*

