

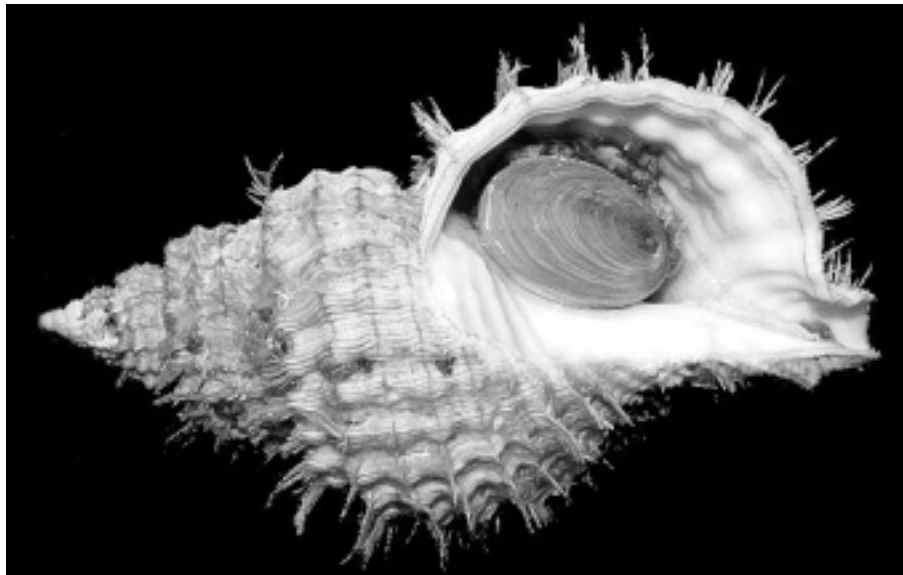


HAIRY OREGON SHELL COMES FROM A FAMOUS FAMILY

By John Bragg

In 1848 shell expert J. H. Redfield found a new species of marine snail that belonged to the family known as tritons.

Tritons are well known for their intricately knobbed and ridged, whorled shells; some varieties can grow to 20 inches or longer. Tritons come in many species and are found world wide. Redfield named his new specimen the Oregon triton, *Fusitriton*



oregonensis, after the newly created Oregon Territory.

Commonly called the hairy triton or Oregon hairy triton, the creature's shell is one of the largest found on Oregon beaches, reaching lengths of up to five inches. In 1991 the Oregon Legislature named the Oregon hairy triton the state shell.

The Oregon hairy triton is native to the northwestern coast of North America. The shells are found from Alaska to California, as well as in northern Japan. They often wash up on the coast at high tide. The shells grow from three to five inches long. The shell is light brown in color and is covered with gray-brown bristle-like structures called periostracum, hence the name "hairy." The shell is an elongate cone with six whorls (or turns) around a central axis.

Scientists don't know how long the snails live.

Nor do they know much about their feeding habits, but they believe the hairy triton, like other tritons, feeds on mollusks, ascidians (sea squirts), and more

rarely, sea urchins. In general, sexual maturity in marine snails occurs from 6 months to 2 years, but slow growth can continue beyond that.

Throughout history coastal peoples have used the shells of large tritons as trumpets. The shell of one species in

particular, the trumpet-triton, grows to about 20 inches and has been used for centuries as a trumpet, by boring a tiny hole in the narrow end and blowing through the wide end. The shell was named for Triton, a watery Greek god. Triton blew his shell trumpet to calm the stormy seas.

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WITH SPRING, CHANGE IS HERE

By Mike Graybill, Manager

These days there is a lot of discussion about change – climate change, economic change, social change, political change, seasonal change. Even spare change is becoming more important for all of us who are trying to make ends that are suddenly farther apart than we might have thought, meet. Yet with its wandering tides, the silence of its forests, the constancy of its revealing fog, one could be excused for thinking that a quiet backwater like the South Slough Reserve might be exempt from too much change. After all, the South Slough was set up a long time ago to protect a natural area, in part from too much change. The language in the Coastal Zone Management Act that created places like the South Slough Reserve directs the National Oceanic and Atmospheric Administration and coastal states to find places where things seemingly don't change – places to give some stability for meaningful research and education about estuaries.

Yet even at South Slough things do change, sometimes very quickly, like with the changing of the tides. Or else less quickly – the seasonal wanderings of coho salmon as they make their ways from their spawning grounds on upper Winchester Creek, through the estuary and down to ocean, and then back again two years later. Other changes occur, but may be as imperceptible as a new ring of growth on an 80-year old fir tree. Mud flats grow by one tiny grain of sediment at a time. Given the full scale of natural change that we expect at South Slough, how should we prepare the Reserve for some of the unanticipated changes occurring all around us?

One welcome change: the economic stimulus package recently signed into law by President Barack Obama provides federal funding for habitat restoration on the coast at an unprecedented scale. The opportunity to use some of the stimulus money has South Slough Reserve staff working at top speed to develop proposals to restore native oysters in Coos Bay, and to develop old growth forest habitats in the



Skunk Cabbage

South Slough watershed.

As another example of change, a few years ago the South Slough Reserve received a substantial bequest from Chalmer Gustafson, a long-time Coos Bay resident. Chalmer limited Oregon's use of his money to buying property to enlarge the South Slough Reserve. Since accepting his gift, the state has been holding the Gustafson funds in an interest-bearing account while awaiting the right opportunity to add to the Reserve's holdings. Until recently, the Gustafson account had been growing at a welcome pace, reflecting the trend of climbing property values, but with the collapse of the real estate market, it's likely that the fund's purchasing

power has diminished, at least temporarily. The huge change in real estate values nationally has affected many kinds of properties, and changed the rules of the game for both buyers and sellers. The dizzying growth of the real estate market, while welcome to sellers, was less welcome for buyers; but the change on Wall Street has eroded the values of many kinds of financial accounts, and buyers are now at a better advantage.

While the rate of growth of the Gustafson account is less than it was, the market losses have not yet eroded its principal. The current balance of \$2,281,407.66 continues to earn interest, and the fund has not suffered any loss.

Of course, the kind of change that everyone seems to be talking most about is climate change. That's an especially compelling question in coastal zones, given the vulnerability of these regions. Nationally, more than 50 percent of the population lives in a coastal region. In March many of the

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A FOND FAREWELL

By Terry Huffman

A celebration of the life of **Myrna Rose Loades** was held at the South Slough Interpretive Center on Monday, April 13, 2009.

Myrna Rose Garibaldi Loades, 89, passed away quietly in Coos Bay, Oregon on March 24, 2009. She was born in Stockton, CA on August 28, 1919 to Adolf and Adeline Garibaldi. She spent the early years of her life employed as a cook at St. Gertrude's Catholic School in California, and later she did bookkeeping for a

California trucking company.

Beyond volunteering over 800 hours as a Friends of South Slough, Inc. board member and receiving the honor of being voted "Friend of the Year" two years in a row, Myrna donated time and energy to a number of local non profit groups.

Her last act as a volunteer was to donate her body to the University of Oregon for research purposes.

Follow Myrna's advice, and enjoy each day to the fullest.



FRIENDS ELECT OFFICERS AND CELEBRATE OREGON'S 150TH ANNIVERSARY

Staff report

The Friends of South Slough held their annual meeting Feb. 21, electing new board members and honoring volunteers for their service in 2008. The board reported on 2008's budget and financial impacts of upcoming projects for 2009.

The festivities at the Interpretive Center began with fiddle playing by special guest and musician Jim Hockenhull of Sheridan. Local historian and long time Friend Melody Caldera narrated a presentation of South Slough history covering the past 150 years while guests snacked on beverages and a birthday cake to celebrate Oregon's 150th year of statehood.

Forty five guests attended. Lucky guests won raffle and door prizes, including native and ornamental plants. The Friends named Bob Sleeth as volunteer of the year. Ivonne Gekas was chosen to be Friend of the year. The Friend awarded long-time member Norma Van Natta for her contributions, most recently as FOSS treasurer. Norma received a painting by Katherine Andreasen, a local artist who also works at South Slough. Norma also received a gift certificate from Chuck's Seafood.

New board members were elected at a meeting following the festivities. They included Valerie Cooley, a volunteer who assists with South Slough paddle tours; Nunzio Lagattuta, an art instructor

at North Bend High School; and Suzan Brawnlyn, who assists with South Slough education programs and is a FOSS member. Board president Jason Randolph said the Friends will work on a number of continuing projects as detailed in the 2008 FOSS work plan, as well as two additional projects scheduled to begin in 2009.

Of the new projects, the first is to fund the purchase of a multiple passenger canoe or kayak for use in guided paddle trips in the South Slough. Paddling is one of the most popular ways to explore South Slough, but paddlers generally must provide their own boats. The second new project will fund preliminary steps necessary to build a traditional *Continued on page 4*

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- 15 % discount at the Friends' Bookstore & More Senior.....\$15
- Voting privileges Life.....\$250
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Call (541) 888-5558 for more information.

www.friendsofsouthslough.org

With Spring continued from page 2

knowledgeable climate change experts met at the University of Copenhagen in Denmark to review the 2004 report of the Intergovernmental Panel on Climate Change. It turns out that the panelists meeting in Denmark, who were already pretty certain that the changes predicted in the 2004 report were far too modest, had some new information to add to the report. These scientists now suggest that coastal communities ought to plan for at least a three-foot increase in sea levels during the next 100 years.

A change of that magnitude will change many things for coastal-dependent species, including humans, throughout the world. Here on the Southern Oregon Coast, the coastal shore is uplifting, though not as fast as the sea level is rising. This means that sea level rise may not be as dramatic in Southern Oregon as it will be in Northern Oregon or elsewhere in the world. Does this mean we should relax and allow others to address this change? Certainly not! In some ways the South Coast may be more at risk from rising sea level than other areas. Sea level rise will impact all coasts.... The serious challenges posed by changing sea level may manifest themselves in other places before they do here. This might also mean that the resources available to respond to these changes may be used up by others for needs outside of our area. A prudent strategy for communities in Southern Oregon's is to prepare for and respond to the changes that are coming to our area. Sea level Rise is one change that requires a huge response. It's probably best not to rely on outside resources for help for this change.

The scale of the changes we face borders on bewildering. Being aware of and concerned about these changes is an important first step, but there is no point being aware if this leads us to a point of depression and paralysis. We live in exciting changing times and we need to think about the changes that we face. While we deeply consider the changes that none of us bargained for, let's get out and enjoy the changes we all count on and that make our lives richer.



Trillium

Friends continued from page 3
float house somewhere in the reserve for use in education programs.

Board officers for 2009 include: Jason Randolph, president, Suzan Brawnlyn, vice president, Valerie Cooley, treasurer, Charlis Meador, memberships and contributions officer, and Patricia McKillip, secretary. David Lunde will continue as book store manager. John Kidley and Nunzio Lagattuta were voted in as two new board members. Former treasurer Norma Van Natta has retired from her office but remains a board member.

"The FOSS board and its officers provide an extremely valuable resource of ideas, energy and enthusiasm," said Public Involvement Coordinator Deborah Rudd. "Our staff and our volunteers are very grateful for the time and dedication these individuals give."

SOUTH SLOUGH WELCOMES NEW STAFF

By Deborah Rudd

South Slough welcomed new bio-monitoring specialist, Alix Laferriere to our staff this spring. Alix is originally from Grand Isle, Vermont but has lived in Oregon for the past three years.

Alix earned a B.S. in Biology from Simmons College and an MA through the East/West Marine Biology Program at Northeastern University, both in Boston, Massachusetts. She recently obtained an M.S. in Marine Biology from the Oregon Institute of Marine Biology at the University of Oregon.

As a bio-monitoring specialist at South Slough, Alix's work will be focused on a small non-native snail known as *Assiminea parasitologica* that was recently discovered in the upper reaches of the Coos estuary. Alix is working to provide an initial snapshot description of the distribution of this new invader to Oregon's estuaries. The AP project will involve time in the lab in identifying these tiny creatures and studying their larvae and reproduction.

Alix particularly likes designing experiments, getting out in the field, and following larval development. She also enjoys being a part of the Estuarine Coastal Ocean Science (ECOS) lab team here at South Slough.

Alix comes from a large family; she has six siblings who live in various parts of the country.

Here in Oregon Alix has her partner Jed Corliss, a black lab; Benguela (named after the upwelling current on the African coast) and three cats, Berlin, Belacoos and Humboldt.

Something unique about Alix is that she has gone swimming with a fin whale!

PUTTING NATURE BACK INTO CHILDHOOD

By Joy Tally

No Child Left Inside legislation as well as books and lectures on Nature Deficit Disorder have recently made headlines highlighting the lack of connection that children today have to the natural world. One way South Slough is attempting to alleviate some of that stress in our youth is by offering summer science camps. From age 5 to 14, campers come to South Slough for 4 days of discovering the magic of estuaries.

We hike down through the watershed to the water's edge and back up again. We taste pickleweed. Venture beyond the water's edge or where the water will be at high tide onto the tideflats where inevitably a boot or two will become mired in sloppy mud. Along the way we discover the plants, animals and everything in between that makes this place special. At the end of a week of activities held mostly outdoors, campers test their boundaries even further by

returning to explore the forest by night. Last year one of the most popular activities with our Senior Campers was



Summer Campers learning about the salt marsh

a silent/solo hike along the Middle Creek trail.

Campers are encouraged to explore the natural world in which they live and extend their explorations beyond their time at South Slough. Parents share in their children's learning by participating in special events on the last day of camp. By involving the whole family and allowing campers to share what they've learned, we try to encourage this attitude beyond the confines of summer camp.

Time spent outdoors is now well documented. Stephen Kellert high-

lights this in his book *Nature and Childhood Development*, "Play in nature, particularly during the critical period of middle childhood, appears to be an especially important time for developing the capacities for creativity, problem-solving, and emotional and intellectual development." (1)

Parents of children who have attended South Slough's summer camp agree. "It's great to learn more about where you live and then be able to share that info. It all becomes more meaningful when you are in the field." Campers agree as well. "I'm wiped out with kindergarten. I want to go to science camp again."

Recently the Oxford Junior Dictionary removed nature words from its most recent edition to make room for words such as blog and chatroom. South Slough summer science camps help campers understand words such as estuary, habitat, tideflat, and salt marsh. Along the way we have lots of fun and get to know our natural world a little better.

EXPLORE YOUR ESTUARY

Throughout the winter and spring, we have had several successful Explore Your Estuary programs using the newly created Explorer Packs. Below are images of South Slough captured by participants in our Natural Photoframes program. Participants used the cameras from the Explorer Packs and took home one of their pictures inside a photo frame created with natural materials



Skunk cabbage marsh by Taylor



Trail Tunnel by William

HIGH SPEED INTERNET COMING TO SOUTH SLOUGH

by John Bragg

Last fall a sharp-eyed observer might have noticed a change had taken place in the South Slough skyline. You had to know just where to look, but if you did know (just to the left of the Joe Ney construction materials landfill, as seen from the observation deck at the South Slough Interpretive Center) you would have been able to pick out a slim, silvery tower 30 feet tall. When construction and equipment installation are completed, the tower will wirelessly link the computer network at the Interpretive Center on Seven Devils Road with the network at the South Slough science offices in Charleston, and eventually with computer-equipped researchers in the field. All would be included in a wireless network, called a bubble, that is designed to provide high speed Internet capacity across a large geographic area.

The rugged Coast Range topography surrounding the slough makes Internet communication difficult. South Slough often suffers from lapses in Internet service due to technical difficulties in providing a signal to the remote Interpretive Center. Currently, the Interpretive Center connects to the Internet via satellite, while the Estuarine and Coastal

Science Laboratory (ECOS Lab) in Charleston is connected via the Oregon Institute of Marine Biology's wide area network.

"There are other field-based research natural areas of similar size and topography to the South Slough NERR that have successfully deployed wireless wide area networks. The major difference and complicating factor is our



Wireless tower

landscape." said South Slough's Chief Technologist Tom Elledge. Elledge modeled South Slough's new wireless network on the similar Real-time Ecological Monitoring Observatory which is in operation at the Santa Margarita Ecological Reserve, and the High

Performance Wireless Research and Education Network operated by San Diego State University.

A construction and acquisition grant from NOAA's Estuarine Reserves Division funded the work, which established the high-speed wireless backbone connecting the Interpretive Center to the Internet at the ECOS Lab by way of a relay tower. South Slough has applied for additional funding in 2009 for three tasks to complete the network. The first task is to connect the Reserve's maintenance shop and Spruce Ranch visiting investigator house to the high speed backbone. Second is to provide additional Internet capacity at the ECOS Lab to accommodate the increased load that will be placed on the network due to the construction of the high speed backbone.

"The final task is to establish a series of autonomous solar-, wind- and line-powered mobile telecommunications sites to expand the wireless bubble to remote areas of the Reserve." Elledge said. "This will allow data collection using real-time acquisition sensors, permit voice communications, and enable Internet streaming of education programs, and high speed Internet access throughout the Reserve."



Rough skinned newt

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 and follow the instructions to subscribe.

SHARE YOUR ESTUARY OPPORTUNITIES

By Deborah Rudd

Would you like to know how to interpret and lead participants in an investigation of the mind-boggling diversity of life found below the docks in Charleston? Do you have a desire to learn to teach about the amazing life cycles of crabs, how to explore the estuary for various species of crabs and learn proper harvesting methods? Then join us for the Share Your Estuary Trainings offered this summer. (See Calendar for details)

VOLUNTEER SERVICE AWARDS

South Slough NERR would like to thank the following individuals for their volunteer contributions. **10 or more hours of service** during 2008: *Jillian Alexander, Rheannon Arvidson, Kevin Cellura, Curt Clay, Tyler Duvall, Ivonne Gekas, Ashley Hansen, Judy Hamilton, Jenna Kulluson, Dayna Lamb, Stephen Lebssek, Evelyn Leach, Sharon Morse, Emma Newman, and Sarita Southgate.* **More than one year** of service; *Suzan Brawnlyn, Judy Brown, Eric Clough, Glenda DeJong, Patricia McKillip, Ann*

McMann, Charlis Meador, Joe Neill, Jennifer Prichard, Heather Randolph, Jason Randolph, Brenda Rioux, Nina Rudd, Amanda Rudd, Dixie Sheldon, Bob Sleeth, Bill Wehner, and Lora Wehner. **More than three years of service;** *Anterra, George Boehlert, Valerie Cooley, Robert Emmet, James Fereday, Richard Hamel, Terry Huffman, Mark Ingersoll, Dan Krossman, Jan Long, David Lunde, Joe Neill, Dennis Phillips, Mary Ann Sherlock, Karen Sparks, Ron Stuntzner, Norma Van Natta, Paul Van Natta, Dick Vigue, Louise Whitehead, and Craig Young.*

South Slough NERR would especially like to thank the following volunteers who have made unique and significant contributions in 2008 as recommended by the Reserve staff; *Jillian Alexander* for her work with the ECOS lab team, *Rich Hamel* for years of service on the FOSS Board as President and SSNERR Commission, *Jody Hamel* for years of service on the FOSS Board as Secretary, *Sharon Morse* for leading and teaching staff to lead

both Interpretive and Education programs, *Bob Sleeth* for trails and grounds work as well as work with the ECOS lab staff, and *Norma Van Natta* for her years of service as FOSS Treasurer.

COMINGS AND GOINGS

Our Experience Works Volunteer, Ivonne Gekas was stationed with South Slough NERR from July 2008-February 2009. Ivonne took individual interest in each visitor that came through the door, willingly accepted any task assigned to her no matter how challenging and gave special attention to the FOSS book store and its customers. Ivonne has been placed with the local Red Cross to complete her job-training.

In March, South Slough was assigned another Experience Works Volunteer, Lois Christensen. Lois is dedicated, cheerful and enjoys working at the Interpretive Center. Her work at the front desk, especially on Saturdays, allows Reserve staff to provide more programs and to increase our participation in local events.

SOUTH SLOUGH AT FARMER'S MARKET WEDNESDAYS FROM 9AM-3PM

Come Visit the South Slough National Estuarine Research Reserve (SSNERR) & Cape Arago Audubon Society (CAAS) information booth* at the Coos Bay Farmer's Market on Wednesdays.

CAAS and SSNERR staff & volunteers will be available to answer questions about the Reserve, local birds and to accept memberships for either CAAS or SSNERR. Guest Interpreters will be on hand to communicate the following themed messages:

May 27: Salmonberries & Song birds

June 3: Harbor Seals & Gulls

June 24: Backyard Birds & Local Hikes-Special Guest and Author, Tom Baake will be on hand to answer hiking questions and to sell autographed copies of his books, "Out Our Back Door" and "Canoe & Kayak Guide"

July 1: South Slough and Cape Arago Audubon history

July 8: Eelgrass & Shiner Surf Perch

July 22: Salt Marsh Plants & Birds

July 29: Wild Berries: A food source for birds & people

August 5: Herons & Flounder

August 12: Seabirds and Sea Food

August 19: Shorebirds & their habitats

*The CAAS/SSNERR booth will not be available on June 10, 17, July 15 and August 26.



South Slough National Estuarine Research Reserve
PO Box 5417
Charleston, OR 97420

23RD OREGON SHOREBIRD FESTIVAL PLUS!

Experience the wonder of shorebird migration along the scenic Oregon coast at the 23rd annual Oregon Shorebird Festival to be held August 28-30, 2009. The U.S. Fish & Wildlife Service, Cape Arago Audubon Society, Oregon Field Ornithologists, South Slough NERR and many other sponsors will have a full weekend of activities planned for birders of all skill levels. The festival is headquartered at the Oregon Institute of Marine Biology in Charleston, OR. Activities include expertly guided land based field trips to Bandon Marsh National Wildlife Refuge, New River and the Coos Bay area. And for those who want to experience birding on the water, The Bird Guide, Inc. will offer two pelagic trips: a day and a short five hour trip include albatross, jaeger, and more. Evening programs Keller "My Most Memorable" and Jim Danzenbaker "A Shorebird Identification."

Bring your best pair of binoculars as Bandon Marsh and Coos Bay are renowned for shorebird watching and delighted festival attendees. Regular migrants include Black-bellied plover, Semi-palmated plover, Western sandpiper, Least sandpiper, Dunlin, Whimbrel, Surf-bird and Wandering tattler. Please join us on the southern coast of Oregon for a weekend of birding fun and challenges. To register for the festival or for more information please visit our website at www.fws.gov/oregoncoast/shorebirdfestival.htm or contact Dawn Grafe at 541-867-4550.



Western Sandpiper

Expected seabirds shearwater, phalarope, auklets, on birds will feature Geoff Field Recording Experiences" Workshop on the Nuances of

binoculars as Bandon Marsh for shorebird watching and delighted festival attendees. Black-bellied plover, Semi-sandpiper, Least sandpiper,