



## Upcoming Events

*HMSC Distinguished Guest Lecture*

**Tuesday, October 24th**

10:00 AM in the Visitor Center Auditorium



**Dr. Bob Petit**  
Regents' Professor  
Arizona State University

"Discovery and Clinical Development of Naturally Occurring Anti-Cancer Drugs"  
*(Medicines from the Sea)*

## Annual earthquake / tsunami evacuation drill set for October 17

HMSC's annual evacuation drill is scheduled to begin at 10AM on Tuesday, Oct. 17th. After the drill there will be an information session in the Visitor Center auditorium with members of Newport's Community Emergency Response Teams (CERT) and local emergency management officials. For mor information, contact HMSC Facilities Manager Randy Walker.

## New Millennium Observatory (NeMO) cruise to Endeavour Segment and Axial Volcano returns with new images and data

Contributed by Susan G. Merle, Senior Research Assistant, CIMRS OSU / NOAA Vents Program

The first NeMO expedition to Axial Volcano on the Juan de Fuca Ridge took place in 1998 shortly after the volcano erupted. The most recent was from August 23 to September 6th of this year, aboard the R/V Thomas G. Thompson.

The 2006 expedition was the eighth year that the volcano has been visited by scientists from Oregon State University, University of Washington, NOAA Vents Program, and various other institutions including the University of Victoria,

Canada. This group of scientists has had the privilege of observing the volcano as it goes through this cycle between eruptions, similar to the observations that have taken place at Mount St. Helens since it erupted in 1980.

On each expedition time-series experiments are conducted and samples are taken, so that any changes in the volcano can be documented. The hydrothermal plume is sampled in the water column using the CTD. On the seafloor vent water, geology, and biology are sampled with the ROPOS ROV. The volcano has been heavily instrumented over the years. Presently there are three BPRs (bottom pressure recorders), four OBHs



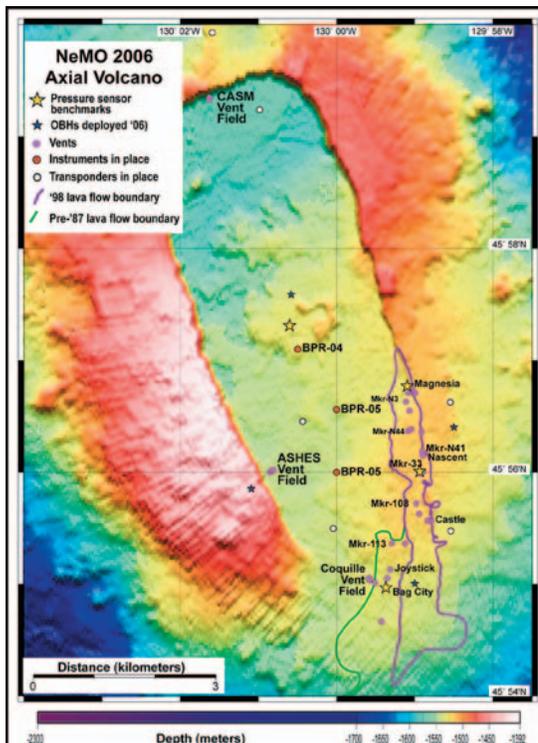
This sulfide chimney, named El Guapo, was discovered on this year's cruise. It is over 12 meters high and was venting fluid at the boiling point.

(ocean bottom hydrophones), and numerous temperature recorders on the seafloor collecting data. A long-term fluid sampler will collect 48 samples before it is recovered next year.

A few highlights from the cruise this year:

- 1) Axial is still inflating. Repeated pressure measurements showed the seafloor uplifted 21 cm since 2004.
- 2) Haru Matsumoto successfully tested his prototype QUEphone (a combination hydrophone & autonomous glider).
- 3) During the ROPOS dives, several new vent sites were found and sampled, including one with sulfide chimneys up to 12 meters tall (see image above).

*continued on next page*



## NeMo Expedition report *(continued from front page)*

4) A group from MBARI was on board and between ROPOS dives they used their state-of-the-art mapping AUV to collect ultra-high resolution bathymetry in and around Axial caldera. This was a very successful collaboration and it enhanced the dives with ROPOS.

Another large, active sulfide chimney discovered this year, was named escargot because its top resembles a snail. Much of the top section of the chimney is covered in white, bacterial mat.



The group of scientists from Hatfield that participated in the expedition this year include: Bill Chadwick, Leigh Evans, Haru



Matsumoto and Susan Merle. Andra Bobbitt assisted from shore by assembling the text and images sent from sea and posting them on the NeMO website. More information and images from the cruise can be found at:

<http://www.pmel.noaa.gov/vents/nemo/bigcalendar.html>

## NOAA Vents Program researchers contribute to *Oceans for Life Virtual Teacher Workshop Series*

NOAA's Ocean Exploration Program and National Geographic invite educators and others to explore these special places of America's little-known ocean realm during the upcoming Classroom Exploration of the Ocean Virtual Teacher Workshop Series. This professional development program is offered free to anyone who has access to the World-wide Web. Register Free at: <http://www.coexploration.org/ceo2006>

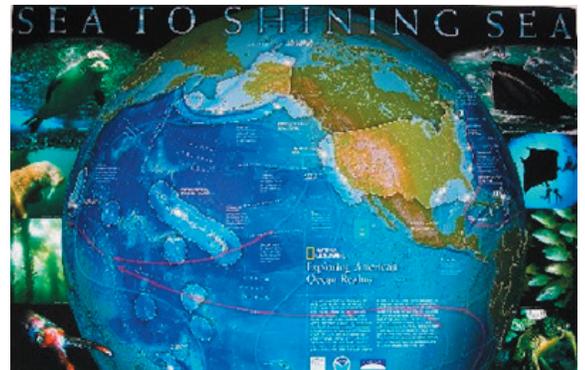
**Embley**, Senior Research Scientist of the NOAA Pacific Marine Environmental Laboratory at HMSC. His presentation is entitled "Exploring Submarine Volcanoes: Taking the Pulse of the Earth", and will cover research on hydrothermal vent systems associated with submarine volcanoes, hosts of some of Earth's most extreme ecosystems.



Leading and emerging scientists will present their research, explorations and discoveries in these unique ocean areas to viewers online through engaging keynotes which will be followed by opportunities for participants to ask the scientists questions online about their work. The workshop also provides links to educational resources that can extend this exciting research into the classroom. All registered participants will receive a free copy of the newest National Geographic map, *From Sea to Shining Sea, Exploring America's Ocean Realms*. Lastly, the workshop acts as a network for educators to discuss how this information and materials can be used in the classroom and how to promote ocean literacy everywhere. Graduate credit is also available.

The Classroom Exploration of the Oceans Virtual Teacher Workshop series consists of the four weeks of programming. Week 3 will be live from November 6-10 and features **Dr. Robert W.**

This project is funded by a grant from the National Marine Sanctuary Foundation to the National Geographic Society. This project also benefits from support and partnership between NOAA's Ocean Exploration Program, the National Geographic Education Foundation, The College of Exploration, the University of Southern California Sea Grant and California State University at Fullerton.



## Events scheduled for October/November calendar

### Watershed Weeks:

The Stream Table (on loan from the Lincoln County Soil and Water District) will be here until October 19th. Come in and discover how structures can be used to alter erosion patterns.

### Oregon Shores/CoastWatch: October 21st in the Hennings Auditorium

Speaking at 2 p.m. will be internationally renowned nature photographer Gary Braasch on "Viewing Climate Change: A Tour of Global Impacts in Words and Pictures." Braasch will take the audience on a planetary slide tour, surveying current and future im-



acts of global warming on a wide range of landscapes and habitats, with special emphasis on coasts and on Oregon. Using images and information gathered during his years of preparation for his forthcoming book on the topic, Braasch will present a highly visual interpretation of the effects of climate change.

At 3:15 p.m., coastal geologist Roger Hart will speak on "Where Has All the Sand Gone?: Oregon's Beaches, Dunes and Buried Forests." Hart's slide talk explores beach formation and erosion and the natural processes affecting Oregon's shoreline, with a special focus on the possible impacts of climate change with its accompanying sea level rise and intensified storms.

### Public invited to observe dissection on No- vember 11th in the Visitor Center

Bill Hanshumaker will be conducting a necropsy on a three-foot wide Ocean Sunfish (*Mola mola*). These are rare visitors to our Oregon coast, unwillingly brought up by ocean currents. Typically found in warmer tropical waters, these fish are often ridden with parasites, making for an interesting (and sometimes surprising) dissection. The *Mola mola* dissection begins at 1:30 p.m.



## Las Olas program hosts family night for Spanish-speaking community on Friday, October 20th

*Outreach effort to focus on tsunami awareness  
and emergency information*

### ¡Bienvenidos!

LAS OLAS

*Ocean Learning Activities in Spanish*

Les da la mas cordial bienvenida a la  
NOCHE FAMILIAR

Aprenderemos sobre:

Tsunamis/Que hacer en una emergencia

¿Dónde? Centro de Ciencias Marinas Hatfield

¿Cuándo? Viernes 20 de octubre

¿A que hora? De 6:00pm a 8:00pm

CUPO LIMITADO. Favor de registrarse  
con Ana Maria Esparza ( 541) 264 00 70



## OSU Marine Extension to offer sea safety class in Newport

A one-day sea safety class for at-sea researchers and students will be offered on Monday, October 23rd from 8:30am to 5pm in Newport. The cost is \$50 per person. For more information or to register, please contact:

Kaety Hildenbrand  
Marine Fisheries Extension Faculty  
OSU Extension Service Lincoln County  
29 SE 2nd St.  
Newport, OR 97365-4496  
Phone: (541) 574-6537 ext. 27

## Guin Library orientation packets now available

Guin Library offers customized library information packets to students, faculty, staff and all HMSC agency employees. These folders are provided to help library users find resources and request materials easily. Information about using databases such as ASFA and Web of Science is included, as well as various subject guides, tips sheets and FAQ's. You can find out how to sign up for ONID, Ingenta, Interlibrary Loan Service or OSU's new ScholarsArchives.

If you would like one of these packets for yourself or as orientation material for a new employee, just call or email staff at Guin Library. Phone: 541-867-0249  
Email: HMSC.Library@oregonstate.edu



## Recent publications by HMSC authors

Listed below are some recent (since the last newsletter) publications from HMSC authors. *A comment on the article by Jim Kaldy and Peter Eldridge: they elected to make it Open Access in MEPS meaning it is available to all to read and not just subscribers to the journal. Good move! -Janet*

Title: Hydrothermal vent geology and biology at earth's fastest spreading rates  
Authors: Hey, RN; Massoth, GJ; Vrijenhoek, RC; Rona, PA; Lupton, J; Butterfield, DA  
Source: MARINE GEOPHYSICAL RESEARCHES 27 (2): 137-153 JUN 2006

Title: Utilization of DOC from seagrass rhizomes by sediment bacteria: C-13-tracer experiments and modeling  
Authors: Kaldy, JE; Eldridge, PM; Cifuentes, LA; Jones, WB  
Source: MARINE ECOLOGY-PROGRESS SERIES 317: 41-55 2006

Title: Characterization of the Physiological Stress Response in Lingcod  
Authors: Milston, Ruth H.//Davis, Michael W.//Parker, Steven J.//Olla, Bori L.//Clements, S.//Schreck, C.B.  
Source: Transactions of the American Fisheries Society 2006 135(5):1165-1174

Title: Density-dependent impacts of mud shrimp (*Upogebia pugettensis*) bioirrigation on carbon remineralization in Yaquina Bay, Oregon, USA  
Authors: D'Andrea, AF; DeWitt, TH

Source: ABSTRACTS OF PAPERS OF THE AMERICAN CHEMICAL SOCIETY 231: - 39-GEOC MAR 26 2006

Title: Discovery of a ciliate parasitoid of euphausiids off Oregon, USA: *Collinia oregonensis* n. sp (Apostomatida : Colliniidae)  
Authors: Gomez-Gutierrez, J; Peterson, WT; Morado, JF  
Source: DISEASES OF AQUATIC ORGANISMS 71 (1): 33-49 JUL 11 2006

Title: In vitro self-assembly of silver-line grunt type I collagen: Effects of collagen concentrations, pH and temperatures on collagen self-assembly  
Authors: Noitup, P; Morrissey, MT; Garnjanagoonchorn, W  
Source: JOURNAL OF FOOD BIOCHEMISTRY 30 (5): 547-555 OCT 2006

Title: Effect of dietary restriction during juvenile development on adult performance of Pacific oysters (*Crassostrea gigas*)  
Authors: Evans, S; Langdon, C  
Source: AQUACULTURE 259 (1-4): 124-137 SEP 8 2006

Title: Hunger, light level and body size affect refuge use by post-settlement lingcod *Ophiodon elongatus*  
Authors: Petrie, ME; Ryer, CH  
Source: JOURNAL OF FISH BIOLOGY 69 (4): 957-969 OCT 2006

Title: A conceptual model of fish functional relationships in marine ecosystems and its application for fisheries stock assessment  
Authors: Gertseva, VV; Gertsev, VI  
Source: FISHERIES RESEARCH 81 (1): 9-14 OCT 2006

Title: Tissue-specific response of delta N-15 in adult Pacific herring (*Clupea pallasii*) following an isotopic shift in diet  
Authors: Miller, TW  
Source: ENVIRONMENTAL BIOLOGY OF FISHES 76 (2-4): 177-189 AUG 2006

Title: Submarine volcanoes and high-temperature hydrothermal venting on the Tonga arc, southwest Pacific  
Authors: Stoffers, P; Worthington, TJ; Schwarz-Schampera, U; Hannington, MD; Massoth, GJ; Hekinian, R; Schmidt, M; Lundsten, LJ; Evans, LJ; Vaiomo'unga, R; Kerby, T  
Source: GEOLOGY 34 (6): 453-456 JUN 2006

Title: A more cost-effective emap benthic macrofaunal sampling protocol  
Authors: Ferraro, SP; Cole, FA; Olsen, AR  
Source: ENVIRONMENTAL MONITORING AND ASSESSMENT 116 (1-3): 275-290 MAY 2006

## HMSC welcomes OSU Fisheries and Wildlife class for Fall term course



Leading this year's Coastal Ecology and Resource Management class is Professor Dave Sampson (bottom, left) and other Fisheries and Wildlife faculty (not pictured), with the assistance of TAs Brett Gallagher and John Scordino (bottom right). This year's students are (standing, left to right): Tom Kearney, Arn Aarreberg, Patrick Luke, Bill Freese, Josh Togsstad, Jacob Godfrey, Darci Connor, Matt Morris, Haley van Weemen van Noord, Thomas Litwin, Jamie Nicole Crafton, Tyler Reid, Micah Bennet

## Student Research Opportunity

**Description:** Opportunity for graduate or upper level undergraduate student to conduct research on a proposed estuarine shoreline stabilization project at the Hatfield Marine Science Center. Ideal project for student with interest in Marine Resource Management, Bioresource / Ecological / Water Resource Engineering, Coastal Processes, Estuarine Ecology, Land Use Planning, or related interests.

**Background:** Erosion of sand along a stretch of the Yaquina Bay shoreline at HMSC has caused damage to part of the estuary nature trail and threatens other infrastructure at the marine lab. A proposal to create a "dynamic revetment", composed of small rounded gravel and cobble, as a form of non-structural shoreline stabilization at the site has been proposed and is in the process of being reviewed by local, state, and federal permitting authorities.

**Research needs:** Monitoring and analysis of effectiveness of shoreline stabilization measures during first year of implementation. Research project design would be developed in consultation with faculty mentor at HMSC. Possible focus areas include geomorphologic changes and response of beach to daily tides, currents, and storm surges; environmental impacts, etc.

**Timing:** Begin any time during Fall 2006 term and continue for one year. Ideally, student will be able to visit project site before project work begins (scheduled for November, 2006). For more information, please contact HMSC Program Manager Ken Hall at (541) 867-0234 or by email: ken.hall@oregonstate.edu

## Personnel News and Notes

**Lorissa Gibson** is the newest member Michael Banks' fisheries genetics lab, working on Chinook salmon genetics. She is helping out with Project CROOS and also another project that has recently been added to the table. She studied Biology and History at Alberston College of Idaho in Caldwell, graduating in 2006. She hopes to take the experience she gains from working in the lab and apply it to her graduate studies. "I love fish!" says Lorissa.



Lorissa is originally from Toledo, Oregon, and spent most of her life in Siletz, where she was raised on a farm. Among her interests outside of work are hiking and enjoying the great outdoors with her new husband, Alan Fujishin. She says she also loves Scuba diving and travel, especially when she manages to combine both the two activities.

## Research notes

Rebecca Baldwin (left) and Kym Jacobson, researchers in the Cooperative Institute for Marine Resources Studies at HMSC, traveled to Scotland this summer to present at the International Congress of Parasitology Meeting in Glasgow.



Their research is focused on Pacific sardine populations in the Northern California Current, which have seen a dramatic increase since the late 1990s, and are being managed as a single stock spanning from southern California to British Columbia. Kym and Becca are investigating whether parasites found in sardines can serve as biological tags to differentiate between different stocks of the fish.

Becca's research and participation in the conference was supported in part by a Markham scholarship award which she received last spring.

# HMSC Happenings

HMSC had a very successful picnic on Saturday, September 9th at Moonshine Park -- great weather, participation, food, and activities. I'd like to express thanks to the organizing committee (Ken Hall, Andra Bobbitt, Kym Jacobson, and Abby McCarthy) for doing a great job of putting it together, with able assistance from Carol Ksycynski, Laura Todd, Lori Parker, and Heather Stout. Cliff Ryer, assisted by Mitch Vance, Ted DeWitt, and Ben Noble kept up the excellent tradition of superb barbecuing. Thanks to them all for contributing their time and efforts to make a great HMSC community event.

- George Boehlert

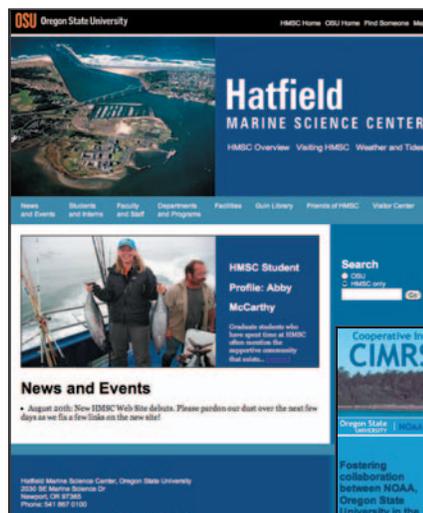


## HMSC welcomes new COMES faculty



New COMES faculty members Scott Baker (top, center) and Markus Horning (left) were introduced to the HMSC community at a welcoming reception in the staff lounge. Scott Baker fills the Marine Mammal Program's new Cetacean Biologist position and will serve as the MMP's new Associate Director. Markus Horning is the program's new Pinniped Ecologist. Welcome!

## HMSC and CIMRS launch new websites



For the HMSC page, forward comments to Dann Cutter: [dann.cutter@oregonstate.edu](mailto:dann.cutter@oregonstate.edu)

For the CIMRS page, forward comments to Jessica Waddell: [jessica.waddell@oregonstate.edu](mailto:jessica.waddell@oregonstate.edu)

Take a look at the newly designed websites that both HMCS and CIMRS have launched in the past month, and offer your feedback on how the pages work for you.

