



SeaFest returns on June 22-23

Climate change is theme of 2007 event

The fourth weekend in June sees the return of HMSC's popular SeaFest celebration, starting with an evening lecture and reception on Friday, June 22, and a full day open house on Saturday, June 23.

SeaFest offers entertaining and educational activities for visitors of all ages, with hands-on exhibits, lectures and interactive displays that celebrate the ocean's bounty and Oregon's coastal heritage, while seeking to increase public understanding of the marine environment and human impacts.

"Thanks to the generous financial support of the Confederated Tribes of Siletz Indians, Georgia Pacific, and Starbucks, we are once again able to provide tents and display space for dozens of community exhibitors at this year's event," said Anjanette Baker, the SeaFest 2007 coordinator.



Tours during SeaFest include a behind-the-scenes look at HMSC's unique seawater distribution system that allows the center to conduct research and maintain a diverse population of ocean fishes, crabs, sea stars, and other invertebrates, including the giant Pacific octopus. Visitors can also tour the "fish hospital" and quarantine facility where veterinary care and holding tanks and for

continued on page 7

SeaFest featured speakers

Friday, June 22 at 7pm

Stephen Hammond
Acting Director, NOAA
Ocean Exploration Program

"Exploring the Deep
Ocean: New Discoveries
and Implications for Our
Warming Planet"



with introduction by

Gail Achterman
Director, Institute for
Natural Resources, OSU



*Friday evening lecture followed by dessert
reception in HMSC lounge, with cake cutting
in recognition of NOAA's 200th anniversary.*

Saturday, June 23

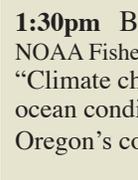
10:15am SeaFest Opening Ceremony

11:00am Bill Bradbury
Oregon Secretary of State

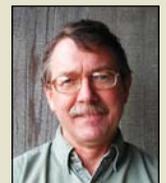
"Oregon's response to
global climate change
projections"



1:00pm Jack Barth
OSU College of Oceanic
and Atmospheric Sciences
"The Changing Rhythms
of Oregon's Coastal
Ocean"



1:30pm Bill Peterson
NOAA Fisheries
"Climate change and
ocean conditions in
Oregon's coastal waters"



2:00pm Michael Harte
OSU College of Oceanic
and Atmospheric Sciences
"Impacts on Oregon's
Ocean Ecosystems
and Salmon"

2:30pm Panel Discussion

Inside this Issue:

- *Director's Message* p. 2
- *Markham Symposium set for June 13* p. 3
- *HMSC in the news* p. 3
- *Academic Programs Update* p. 4
- *HMSC in the Community: supporting the arts* p. 5
- *Research briefs* p. 6
- *HMSC Happenings* p. 7
- *Friends of HMSC Membership Appeal* p. 8

Summer Courses at HMSC

Half a dozen courses are being taught at the HMSC this summer, offering college credit, professional development or personal enrichment. In addition to providing access to wet labs, classrooms, and resources in the Guin library and Visitor Center, summer classes take advantage of HMSC's prime location for field sites visits to coastal and estuarine habitats that are the focus of various courses.

Classes begin the week of June 25, with "Introduction to Marine Biology" (2-week short course) and "Writing with the Tides", a creative writing workshop, on June 29-30. Full course descriptions are listed below. All courses (except Z565) will be available as workshops to the public and professional development credit for professionals.

To register or get more information, visit hmsc.oregonstate.edu/classes/2007summer

continued on pg. 4



Notes from the Director

HMSC is in full swing preparing for the summer. Aside from the typically busy field seasons for many of our research programs, the educational and outreach programs are operating at full throttle. The resident Marine Biology class is just finishing up its final week, and the Markham Symposium highlights the excellent work done by graduate students supported by donors. HMSC's summer interns arrive soon, starting their summer research program. Ken Hall and the organizing committee have developed a very exciting SeaFest on June 23 -- and the following Monday is the start of our summer course program in marine and environmental sciences.



Several things have changed here since our last newsletter. HMSC's Strategic Plan has finally been approved at the University level, and it will be available on our web page. Bruce Mate's program has been elevated to a formal "Marine Mammal Institute" within the University, giving it the recognition it deserves to match its ambitious growth plans. Itchung Cheung, HMSC's Academic Program Coordinator, and Nancee Hunter, Assistant Director for Education in the Sea Grant Program, are moving their respective programs forward. Stop in to meet them, as well as the new octopus, Wecoma, who replaces Reuben, recently released to a great deal of fanfare in the national press.

We hope to see you at SeaFest -- come join the fun.

Upwelling is produced and distributed 3 times a year to the Friends of HMSC membership. Your feedback is welcomed.
- Ken Hall, Editor (email: ken.hall@oregonstate.edu)

13th Annual Markham Marine Science Research Symposium

The 13th annual Markham Marine Science Research Symposium takes place on Wednesday, June 13th starting at 9 AM in the Hennings Auditorium. Students who have received awards in the past two years at HMSC will be presenting results of their current research, made possible through the support of HMSC scholarships and awards. In addition, this year's newly awarded recipients will be presenting posters of their proposed research at the symposium.

2007 HMSC Scholarships, Fellowships and Awards

Several students received financial support and recognition for their research.

Markham First Year Student Award:

- Erin Kunisch (faculty advisor: Markus Horning)

Holt Marine Education Fund Award:

- Christine Smith (Department of Science & Mathematics Education – MS, faculty advisor: Shawn Rowe): Exhibit Redesign Using a collaboration of Ideas from the Local Community

Walter G. Jones Fisheries Development Award:

- Joo Dong Park (Food Science and Technology – PhD, faculty advisor: Jae W. Park): Utilization of Pacific sardines for food applications by recovering functional proteins.

Cecil and Martha MacGregor Scholarship in Marine Science:

- Tricia Ratliff (F&W)

Mamie Markham Research Award:

- Pamela Archer (Marine Resource Management Program – MSc, Jessica Miller & Tony D'Andrea): Re-establishment of the native Olympia Oyster, *Ostrea Conchaphila*, in Netarts Bay, Oregon.
- Katelyn Cassidy (Department of Fisheries and Wildlife – MSc, Chris Langdon & Brett Dumbauld): Age determination and assessment of *Neotrypaea californiensis* using extractable lipofuscin as an age biomarker.
- Dafne Eerkes-Medrano (Department of Zoology – PhD, Bruce Menge & Jane Lubchenco): The influence of coastal productivity and hypoxia on larval condition and recruitment of barnacles and mussels.
- Donald Hawkyard (Department of Fisheries and Wildlife – MSc, Chris Langdon): Development and analysis of a novel microparticle type (Wax spray beads) for use in marine and freshwater larviculture.
- Paul Lang (Department of Fisheries and Wildlife – PhD, Chris Langdon & Mark Camara): Can Gene Expression Predict performance of Farmed Pacific Oyster *Crassostrea gigas* Families?
- Marisa Litz (Department of Fisheries and Wildlife – MSc, Selina Heppell, Bob Emmett & Ric Brodeur): Analysis of total lipid content and fatty acid signatures for forage fish in the northeastern Pacific.
- Alena Pribyl (Department of Fisheries and Wildlife – PhD, Steve Parker & Carl Schreck): Recovery from Catastrophic Decompression in Marine Rockfish (*Sebastes* spp.).

Lylian Brucefield Reynolds Scholarship:

- Mattias Johansson (F & W – PhD, faculty advisor: Michael Banks)

Bill Wick Marine Fisheries Award:

- Mattias Johansson (Department of Fisheries and Wildlife – PhD, faculty advisor: Michale Banks): Examining olfactory and pheromone receptor gene sequence and expression differences in closely related species of rockfishes.
- Amanda M. Kaltenberg (College of Oceanic & Atmospheric Sciences – PhD, faculty advisors: Kelly Benoit-Bird & Doug Biggs -Texas A&M): Address the relationship between the wind-driven upwelling plume and small pelagic schooling fish in the northern California Current System.

HMSC in the news

Marine Mammal Institute called upon to help solve puzzle of wayward whales

As recently reported in the media, a humpback whale cow and calf (*Megaptera novaeangliae*) swam into San Francisco Bay and up the Sacramento River on May 10, ending up at the Port of Sacramento on May 16, some 90 miles from the ocean. Several attempts were made to coax the whales, unofficially named “Delta” and “Dawn”, back to the open ocean, using a variety of techniques, including playback of whale song, banging pipes underwater and spraying fire hoses. The whales began moving slowly back down the river and were last seen in San Francisco Bay on the May 29. It is believed that they returned to the ocean on the night of the 29th.

Before leaving the river, a small biopsy sample was taken from both the mother and calf by John Calambokidis of Cascadia Research. Sub-samples of this tissue were sent to Dr. Scott Baker and Debbie Steel of the Marine Mammal Institute at HMSC for genetic analysis. The analysis will identify the sex of the calf and provide information on the likely feeding herd or regional population to which the whales belong. This could be important in judging whether the pair entered the Bay by mistake during migration, or whether they were simply exploring part of their former habitat and became disoriented as they traveled up the river mouth.

A fragment of the maternally inherited mitochondrial control region was sequenced and compared to a dataset of approximately 1300 samples previously collected from across the North Pacific as part of the Structure of Populations, Levels



Humpback mother and calf pair, “Delta” and “Dawn”, surfacing in the Sacramento River. Photo (courtesy California Department of Fish & Game) reveals an injury of unknown cause near the dorsal fin of one of the whales.

of Abundance and Status of Humpbacks (SPLASH) program, and from previous work by Dr. Baker and collaborators at Cascadia Research. The cow was found to be an E1 haplotype, which is common in the California feeding population but virtually absent from the British Columbia/Southeast Alaska feeding populations.

From the initial analysis, it seems likely that the cow and calf are part of the California feeding population, rather than lost members of another feeding herd. Interestingly, genetic analysis of a sample collected by Dr. Baker from “Humphrey”, a male humpback whale that swam up the same river in 1985, showed that he, too, was part of the California feeding population, although not likely related to the recent pair.

Also in the news recently was an adult gray whale that washed ashore on Sunday, May 31, near Seal Rock, south of Newport. Jim Rice, coordinator of the Marine Mammal Stranding Network,

part of the MMI, reports that this was a 41-foot-long, adult female gray whale, estimated to be between 5 and 10 years old. The whale weighed between 20 and 30 tons, and based on the level of decomposition, is thought to have been dead for about three days before washing ashore. Rice was at the beach during the holiday weekend taking numerous samples, which were then sent to OSU’s Veterinary Medicine department for analysis.

In 2006, the Stranding Network received 793 calls, with 539 marine mammal responses. Fifteen species of marine mammals were represented in these responses; 56 animals were sampled; 44 animals were necropsied; and two taken to the Oregon Coast Aquarium for rehabilitation.



Jim Rice and Marine Mammal Stranding Network volunteers collect tissue samples from the beached whale that washed ashore near Seal Rock.

Reuben’s release generates media blitz



Bill Hanshumaker releases “Reuben”, the 45-pound giant Pacific octopus that was HMSC’s resident mascot for the past year, into the waters of Yaquina Bay. Media coverage of the May 24 octopus release generated headlines and aired on radio and television news broadcasts across the country.

HMSC Visitor Center Summer 2007 Volunteer Training Opportunities

Monday, June 25
11:00 – 12:30 Estuary Walk training
3:00-5:30 Facility tour and research overview (with Bill Hanshumaker)

Tuesday, June 26
11:00 – 12:30 Estuary Walk training
2:30-5:30 Fisheries training (with Kaety Hildebrand)

Wednesday, June 27 (low tide@5:15 a.m.)
5:00-7:00 Sea Rock Intertidal Zone (meet at the front of HMSC)
11:00-12:00 Estuary Walk training

Thursday, June 28 (low tide@5:54a.m.)
6:00-8:00 Rocky Tidepools at Yaquina Hd
11:00-12:00 Estuary Walk training

Friday, June 29 (low tide@6:33 a.m.)
6:30-10:00 Yaquina Bay mudflats with Dr. John Chapman

For more information, please contact Marine Public Education Specialist Bill Hanshumaker at 541-867-0167

Academic Programs Update

Marine biology immersion course offers unforgettable experience

Twenty OSU undergraduate students who descended upon the Hatfield Marine Science Center this past April for a 16-credit (full load) Marine Biology course are about to complete their intensive academic term in residence at HMSC. Students have divided their time between lectures in the classroom, laboratory learning in wet labs, and field study at numerous sites along the coast, including Cascade Head, Boiler Bay, Strawberry Hill, Seal Rock and Yaquina Bay.

The course is divided into 7 topics or sections that include 1) coastal geology and oceanography, 2) marine invertebrate biology and natural history, 3) marine algae and natural history, 4) marine fish biology and natural history, 5) marine

community ecology, 6) marine conservation and policy, and 7) small group research projects.

Students have had guest lectures from John Chapman, Sylvia Yamada, and others. They have toured the docks, met with the Newport Fishermen's Wives, visited Foulweather Trawl's net making operation and the Ten mile creek restoration project. They have collected seaweeds, invertebrates, trawled for fish on the Elakah and have gotten stuck in the mudflats. The students have become a regular part of our community, often seen in the library,



Instructor Scott Heppell (Fisheries & Wildlife) shows students how to use a purse seine net in a biological sampling exercise in Yaquina Bay.

having coffee and donuts with faculty, staff and graduate students, working late into the night in the lab and rising early in the morning for field trips along the coast.

HMSC expands summer research internship program

This summer marks the fourth year of the Research Experience for Undergraduates (REU) program at HMSC, which received additional funding from the National Science Foundation in 2007 to expand the program and accommodate twice as many students as in previous years.

In June, Oregon State University will welcome 20 students from all over the country into the program, which will operate jointly between HMSC and the

College of Oceanic and Atmospheric Sciences (COAS). Half of the students will be located in Corvallis and the other half in Newport for the duration of the 10-week mentored research experience.

"We had an overwhelming number of applicants for the 20 available slots," said HMSC's Academic Program Coordinator Itchung Cheung, who is overseeing the program.

As a prelude to developing their own summer research projects, the student

interns will attend the Markham Marine Science Research Symposium, where they will get a glimpse of graduate level research at HMSC. The interns will also participate in SeaFest, attend Da Vinci Days in Corvallis, tour the H.S. Hinsdale Wave Research Lab, and spend a weekend at the H.J. Andrews Experimental Forest. Also new to the program this summer will be a research ethics component to the current REU program.

Summer 2007 course offerings in Marine and Environmental Studies

Writing with the Tides: A creative writing workshop (WR 406/WR 506)

A creative writing workshop for poets and prose writers. Students should be interested in writing about the natural world, including, but not limited to, the coasts and oceans. We will examine what has now become a sub genre: writing about oceans, sea travel, estuaries, wetlands, and coastal life, and discuss the particular challenges of writing poetry and creative nonfiction in this area. Class time will include lecture, critique, writing in and out of class, and outdoor exploration with a notebook in hand.

Instructor: Judith Barrington, Creative Writing Teacher, Award Winning Poet/Memoirist
1 credit June 29 – 30, 2007

Introduction to Marine Biology (BI 299)

This class is designed to introduce students to the fascinating creatures that live in the sea, from plankton to whales. You will discover their unique adaptations, the functionality of their morphology, their incredible diversity and the importance of their ecological roles. As you visit their natural environments, you will learn what organisms live where and why. Field trips will begin by exploring the fascinating unseen world of plankton, then hiking into tide pools to discover which animals live in each zone, followed by mudflat grubbing in the estuary to learn about clams, shrimp and worms, then a visit to a seabird rookery to identify the birds and interpret their unique courting behaviors, and culminating with a boat ride to view our magnificent summer resident gray whales. This hands-on course will further ingrain the material with discovery labs and inquiry-based mini projects. The projects will be a team effort, presented the last day.

Instructor: Carrie Newell,
Lane Community College
4 credits June 25 – July 6, 2007



Understanding Free Choice Learning for Education and Outreach (SED 431/SED 531)

This course seeks answers to questions about what and how they learn in these kinds of settings by reviewing research and practice in what has been called free-choice learning: the learning that occurs when people believe that they have choices over what they learn, how they learn, how much time they spend learning, and their sources of information. We will examine research on learning in and from museums, aquariums, zoos, botanical gardens and interactive science centers, as well as after-school programs, magazines, newspapers, television and apprenticeships.

Instructor: Shawn Rowe,
Dept. of Science and Education, OSU
3 credits July 9-20, 2007

Summer course offerings at HMSC *continued from previous page*

Biology and Conservation of Marine Mammals (FW 302/BI 302)

Examine the biology of whales, pinnipeds, and other marine mammals and their conservation. Topics include systematics and biogeography of marine mammals, reproduction, energetics and physiology of swimming and diving, vocal communication and echolocation, feeding and migratory behavior, and marine mammal/human interactions. A necropsy of beach-stranded marine mammals and field studies of harbor seals, sea lions, and gray whales of the Oregon Coast will be conducted.

Instructor: Jim Sumich,
Author of "Introduction to the
Biology of Marine Life" textbook
4 credits July 9-20, 2007

Scientific Methods in Conservation Biology (FW 499/BI 499)

This course is designed as an experiential course that introduces students to the scientific methods used in conservation biology. We combine lecture, class discussion, computer lab exercises and a weekend field excursion to cover the ecological principles that apply to conservation at all levels of biological organization. Our focus will be on "evidence-based" conservation science with an emphasis on marine species and ecosystems, but with examples from terrestrial and freshwater systems as well. Students should have basic familiarity with ecology; course will include some basic statistics and spreadsheet modeling.

Instructors: Selina and Scott Heppell,
Dept of Fisheries and Wildlife, OSU
3 credits July 23 -31, 2007

Marine Conservation Science and Policy (Z 565)

This course will introduce students to the science-policy interface as it affects ocean policies at the national and state levels. We will focus on the role of science in the formulation and execution of marine policy. Through lectures, discussions, group projects, and role playing exercises, students will learn how policy is made, what the role of science is in that process and how scientific information can be used most effectively. The course will emphasize current topics in marine policy.

Instructor: Jane Lubchenco,
Department of Zoology, OSU
3 credits Sept 12 - 21, 2007

HMSC in the community: *supporting the arts*

Highlighting contributions that individuals at HMSC make to the local community as volunteers and supporters of the arts, education, and philanthropic efforts, this issue of *Upwelling* features an interview with Tom Hurst, a Fisheries Biologist in NOAA's Alaska Fisheries Science Center.



Tom's research focuses on various behavioral and physiological aspects of Pacific cod, including effects of temperature on growth rate of juvenile fish and the predatory effect of cod on walleye pollock in the Bering Sea. He serves on the HMSC seminar committee and has mentored several OSU students and research interns.

Outside of work, Tom is a patron of the local arts community, and currently serves as President of the Board of the Newport Symphony Orchestra, a highly regarded orchestra which recently completed a two-year long national search for a new resident conductor. *Upwelling* editor Ken Hall asked Tom how he came to be involved with the Newport Symphony.

TH: It is a family affair. When we moved to Newport we were still finding our way and niche in the community. My wife Nancy, who is an amateur musician, was invited onto the Board, and so I started volunteering as well. Initially I did things like selling tickets in the box office and moving pianos. After a few months, I was invited onto the board, serving two years as Treasurer before becoming the President in August 2005.

KH: To what do you attribute your interest/appreciation of classical music?

TH: I have always enjoyed a wide variety of music but didn't learn to play any instruments when I was young. I became more aware of classical music and a regular concert-goer in graduate school when my wife joined a community orchestra where we lived on Long Island.

KH: What have been the benefits of your involvement with the Newport Symphony?

TH: To me the most rewarding things are interacting with so many different people in the community and the pride I feel in making Newport a wonderful place to live. HMSC provides a natural "community" which I feel very tied to, but my work with the Symphony has introduced me to many other people that I probably wouldn't have come into contact with. Many wonderful friendships have resulted.

Like many other people who come here, we were excited and surprised about the quality and diversity of artistic offerings in available in Newport. Being directly

involved with the Symphony has made me realize that these things don't happen on their own, they happen because of many dedicated volunteers, and I am glad that I can play a role in making Newport what it is.

KH: Do you see any connections between the research and education world of HMSC and the local arts community?

TH: I think that both provide immeasurable benefits to our local schools and to the community in general, through partnerships and special programming. As an example, the Symphony's Fourth of July concert this year will be held at Newport High School at 4pm on July 4. Thanks to sponsorship from Mo's Restaurants and Oregon Coast Bank, the concert is free and it is a great opportunity for everyone to see the Symphony perform in a family-friendly atmosphere. I hope to see lots of HMSC friends there. If people can't make it to the concert, they can listen to the live broadcast on KYTE 102.7 FM.

KH: Anything else you would like to add?

TH: If people are interested in learning more about the Symphony's programs, or would be interested in volunteering in any way, I would be happy to talk with them about their interest and the many opportunities.



Port Liaison partners receive training for key role in salmon genetics research

Representatives from five Oregon ports gathered at the Hatfield Marine Science Center on May 24 for a training session led by staff from the Collaborative Research on Oregon Ocean Salmon project, also known as “Project CROOS”.

Port liaisons are key partners in the research effort, since they are the first point of contact for commercial fishermen returning with tissue samples and data from fish caught at sea.

The tissue samples are relayed by port liaisons to the Marine Fisheries Genetics Lab at HMSC, where researchers perform genetic analysis to determine the origin of the fish, and distinguish between healthy and weakened runs of Chinook salmon.

Data collected by fishermen includes

information on ocean conditions at the location where the fish was caught.

“The program is designed to identify and avoid weak stocks in the ocean in near real time while allowing the fleet to actively fish healthy stocks,” says Gil Sylvia, Superintendent of the Coastal Oregon Marine Experiment Station (COMES), based at HMSC.

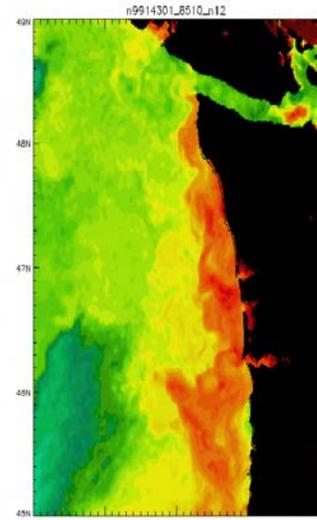
The training session was organized and led by Renee Bellinger of COMES, Jeff Feldner of Oregon Sea Grant, and

Nancy Fitzpatrick of the Oregon Salmon Commission, and was funded by the Oregon Watershed Enhancement Board.



Renee Bellinger (seated, at laptop) shows port liaisons how to upload and process the data collected from fishermen participating in Project CROOS.

Columbia River Plume ecosystem research yields data on seabird and marine mammal distributions



Among the many research initiatives supported by the OSU-NOAA Collaborative Institute for Marine Resources Studies (CIMRS), the Columbia River plume ecosystem is the focus of interest to a wide range of fisheries scientists, oceanographers, and marine biologists.

On board the NOAA ship McArthur II during a cruise to investigate the winter range of the endangered southern resident killer whales, CIMRS faculty research assistant Troy Guy collected seabird distribution and abundance, as well as oceanographic data from over 1000 miles of transect.

“We spotted three endangered leatherback turtles that are believed to migrate to the area from Indonesia to feast on sea nettle jellyfish,” reports Guy in an email. He also shared some great photos from the cruise, including this shot of an Orca mother and calf,

The killer whale shots were taken by the NOAA team during an encounter with two groups of transient killer whales (i.e. marine mammal eaters) socializing during a Steller Sea Lion kill off Tatoosh Island near Cape Flattery, WA.

“The group we observed included one of the last two US-captured killer whales,” says Guy, referring to a capture that occurred in 1976 at Budd Inlet near Olympia Washington.

Legislation passed that year resulted in the release of both whales.

Recent southern resident killer whale observations off the west coast have led to the hypothesis that the whales are utilizing the Columbia River plume in the winter and early Spring before heading to the San Juan Islands and Puget Sound for the summer to feed on Chinook salmon. This research is reported in a soon to be published journal article:

Zamon J. E., Guy T. J., Balcomb, K., Ellifrit, D. Winter observations of southern resident killer whales (*Orcinus orca*) near the Columbia River plume during the 2005 spring Chinook salmon (*Oncorhynchus tshawytscha*) spawning migration. In Press. *Northwestern Naturalist*



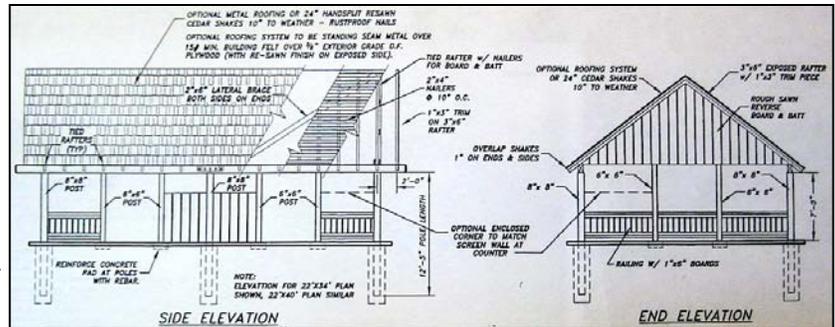
Photo courtesy of Brad Hanson, NOAA Fisheries, Northwest Fisheries Science Center

Residents in HMSC housing welcome improvements

Students, visiting scientists, and others spending time in residence at HMSC will notice some improvements being made in the housing facilities and grounds. Over the winter, the HMSC facilities department re-located the sand volleyball court to the southern end of the housing complex, to make room for a new covered picnic shelter to be installed adjacent to the dining hall.

In addition, 12 sets of beautiful new loveseats and chairs were purchased this spring to replace the old living room furniture in all 12 of the Winton apartments.

Our sincere thanks to contributors to the Harriet M. Winton Fund, which paid for most of the new furniture.



Science on display and myriad activities planned for SeaFest

continued from page 1

these marine organisms are located, as well as the nursery for one of nation's premier oyster breeding and stocking programs.

At the OSU dock, visitors can step aboard the research vessel Elakha, where OSU oceanographer Kipp Shearman and colleagues will show one of the undersea gliders used in ongoing research off the Oregon coast. The gliders can be programmed to run for three weeks at a time, collecting various oceanic measurements, and surfacing to "phone" the results to HMSC and OSU laboratories via satellite. Also on display will be the 84-foot converted fishing vessel Pacific Storm, now a Marine Mammal Institute research vessel used for tracking whales.

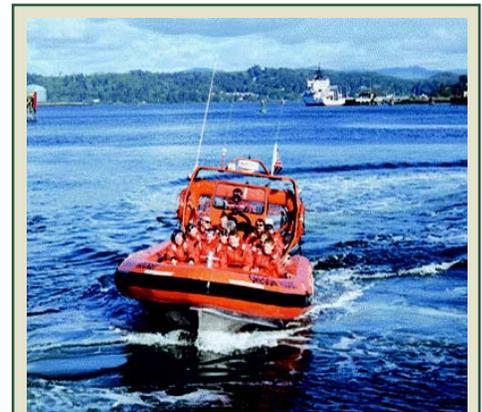
In keeping with the theme of this year's event, there will be displays by OSU and community partners highlighting wave energy research and other initiatives by the university and HMSC that promote sustainability and support the state's commitment to drastically reducing greenhouse gas emissions.

Other highlights of this year's SeaFest include:

- Dozens of crafts, games, and other programs specially designed for kids, including a "Passport to the Ocean" activity which gives kids a passport to be stamped at different exhibits. Earn at least 11 stamps, and kids will win a prize;
- A U.S. Coast Guard boat and helicopter search-and-rescue exercise demonstration in Yaquina Bay
- The Artisans Marketplace, with works of art by coastal artists, inspired by marine and coastal subjects;
- Awards for the SeaFest poster contest winners and a special award presented by Secretary of State Bill Bradbury to Lincoln and Benton County high school students who represented Oregon at the National Student Oceans Summit in Washington, DC.
- Entertainment provided by local musicians Paul van den Bogaard, and the bands "Chuck Roast and the Hot Potatoes" and "Clean Slate" and delicious food offerings from Local Ocean Seafood, Mo's, Café Mundo, Bayfront Pizza, and Ray's Kettle Corn

For additional information about SeaFest events and activities, please call Anjanette Baker at 541-867-0219 or check out the web page:

www.hmsc.oregonstate.edu/seafest



Just announced!

Marine Discovery Tours will be operating the "Oregon Rocket", its 18-foot rigid hull inflatable, as a free water taxi service between the OSU dock and Newport's historic bayfront for visitors to SeaFest.





Hatfield Marine Science Center

2030 SE Marine Science Drive
Newport, OR 97365

www.hmsc.oregonstate.edu/friends

Parting Glances



The OSU Marine Mammal Institute leads an annual natural history expedition in the early spring to Baja California's San Ignacio Lagoon, a prime breeding and calving area for gray whales. This year's expedition was an extraordinary experience replete with wildlife sightings, naturalist-led hikes, desert islands, and stargazing. The group of 33, led by MMI Director Dr. Bruce Mate, witnessed six species of whales and dolphins, four kinds of pinnipeds, 70 species of birds, six types of lizards, plants too numerous to count, an unending sky full of constellations, and the calmest seas in 18 years of such trips.

Friends of HMSC Membership Appeal



It's that time of year! Please consider making a contribution of \$25 or more to keep your membership active or become a new member of the *Friends of HMSC*. Your contribution extends the reach of Hatfield Center's research and education initiatives through special programs geared towards the general public, with the goal of increasing ocean literacy and inspiring new citizen stewards of the marine environment.

Members receive the Friends newsletter 3 times a year, a discount on purchases in the Visitor Center book store / gift shop, and invitations to attend special events at the HMSC.

Please make checks payable to **OSU Foundation**, write "Friends of HMSC" on the memo line, and mail to:

Friends of HMSC / OSU Foundation
850 SW 35th Street
Corvallis, OR 97333

If you wish to use a credit card for your contribution, you can call the OSU Foundation directly at 1-800-354-7281.