SeaFest celebrates 40 years of discovery

Thousands of visitors helped celebrate the Hatfield Marine Science Center’s 40th anniversary by taking part in the fourth annual SeaFest on June 24-25. This year’s open house and festival was expanded to include a kick-off event on Friday night, featuring a lecture by famed undersea explorer Don Walsh, who captivated the full house audience with his personal accounts of record-setting dives to the deepest known points in the world’s oceans.

NOAA Fisheries scientist Ric Brodeur introduced the evening’s featured speaker, noting the many expeditions that Don Walsh has led over the past half century, to the poles of the earth and to the ocean’s greatest depths, earning him international recognition as one of the world’s great explorers. Walsh’s presentation was videotaped, and can be borrowed for viewing for anyone who was unable to attend.

Training the next generation

For the second summer in a row, HMSC is hosting a group of undergraduates from around the country, selected through a competitive application process to participate in a 10-week research internship program. The Research Experience for Undergraduates (REU) program, funded by the National Science Foundation, pairs each student with a faculty mentor to work on a research project for the summer, often in collaboration with other members of a lab.

The interns live in HMSC housing, attend weekly seminars and brown bag lunches, and generally get a taste of what it’s like to do research at a marine lab. Some will have the opportunity to go to sea or other locations for field research experience. Stop by the staff lounge on Tuesdays at lunchtime to meet our summer interns and find out what they are doing working on.

Summer 2005 REU interns (left to right): Christie Singbusch, Raquel Sosa, Natalie Roman, Clara Lampi, Andrew Smith, Katie Schultz, Matt Campbell, Heather Hunsperger, Stephen Levas, Joy Smith
Exploration of submarine volcanoes north of New Zealand: New Zealand American Submarine Ring of Fire 2005 Program

NOAA/PMEL and OSU scientists participated in an exciting submersible dive program north of New Zealand in April and May 2005. The New Zealand American Submarine Ring of Fire 05 Program was jointly funded by NOAA’s Office of Ocean Exploration, the New Zealand Institute of Geological and Nuclear Science, and the National Institute of Water and Atmospheres (New Zealand).

Seventeen submersible dives were made on nine submarine volcanoes over a 6 week period.

This is the third in a series of expeditions funded by NOAA’s Office of Ocean Exploration to map, explore and sample the virtually unknown submarine volcanic arcs of the western Pacific. The dives were made with the University of Hawaii’s Hawaii Undersea Research Laboratory’s Pisces V submersible which is based on the vessel Ka’imikai-o-Kanaloa.

HMSC personnel involved in the expedition included Bill Chadwick, Ron Greene, and Leigh Evans (all OSU-CIMRS) and Bob Embley and John Lupton (NOAA/PMEL). Susan Merle (OSU-CIMRS) served as the excellent webmaster for the NZASRoF expedition (http://www.oceanexplorer.noaa.gov/explorations/05fire/welcome.html).

Eight of nine submarine volcanoes were explored for the first time during this expedition. Some of the most exciting discoveries included super-charged gas vents, very extensive chemosynthetic biological communities, overlapping of chemosynthesis and photosynthesis, and new sites of hydrothermal mineral deposits. Detailed maps, images, and video clips from the dives and other information about the expedition are posted on the website.

Article contributed by Bob Embley

Interest in Northwest algae survives!

The 19th Northwest Algal Symposium was held at the Walla Walla College Marine Station at Rosario Beach, Washington, on April 22-24. This series was founded in 1984 by Gayle Hansen to promote interest in marine and freshwater algae in the northwest and to provide an economical weekend meeting where faculty, students, researchers, and environmentalists could come together to discuss all aspects of pure and applied algal research. This year 20 talks and 8 posters were presented on a variety of macro and microalgal subjects including phylogeny, physiology, ecology, and biotechnical applications.

Nearly 70 people attended with 7 coming from Oregon. Our Oregon presentations included:

Cruz-Uribe, Octavio & Gregory Rorrer. Metabolism of trinitrotoluene by microplantlet cultures of the tropical marine red macroalgae Portieria hornemannii. OSU

Hansen, Gayle. The Nature Conservancy’s preliminary target list for the Northwest Ecoregion’s rare and endangered marine algal species. HMSC/OSU

Jeffries, Claton, Tian Qin, Shu-hong Liu, Chih-hung Chang, Tim Gutu, Jun Jiao, & Gregory Rorrer. Silicon and germanium uptake by the marine diatom Nitzschia frustulum creates novel photoluminescent nanomaterials. OSU

Delesseria decipiens continued on next page
Kidder, Kerri, John Young, & Andrew Ohana-Richards. Evaluating the effect of harvest on five species of algae on the Oregon coast. OIMB/UO

Trowbridge, Cynthia, Yoshiaki Hirano, & Yayoi Hirano. Green macroalgal-sea slug associations on west-coast shores of Okinawajima, Japan. HMSC/OSU

Bonus events were a wonderful banquet and a field trip to Shannon Point, the Marine Lab of Western Washington University. The meeting T-shirts were beautifully ornamented with Delesseria decipiens (shown on previous page), a red alga drawn by June Mohler, one of our own HMSC/OSU products.

Article contributed by Gayle Hansen

Northwest algae continued from p. 2

Northwest algae

Oregon Sea Grant rated “excellent” throughout

A national panel of experts spent four days in Newport and Corvallis reviewing the Oregon Sea Grant Program based at Oregon State University, and gave the program its highest rating, “excellent.”

“Oregon Sea Grant is excellent throughout, and the program assessment team was extremely impressed,” said Robin Alden, chair of the team and a member of the national Sea Grant Review Panel.

The OSU-based Oregon Sea Grant conducts programs of research, education, extension, and communications relating to marine and coastal resources.

Rich Holdren, OSU’s senior associate vice president for research, noted that Oregon Sea Grant “received the highest rating throughout, and the program assessment team was extremely impressed.”

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The Oregon Sea Grant Youth Education Coordinator Jesica Haxel (left) and Jay Rasmussen, Associate Director of Oregon Sea Grant accept a grant award from Alice Rampton of the Oregon Community Foundation. Standing to her right are HMSC Director George Boehlert and Mike Goodwin, CEO, Oregon State University Foundation. Training the next generation

REU interns hear from program mentor Michael Banks about the use of DNA sampling and analysis equipment in his marine fisheries genetics lab.

Las OLAS – Ocean Learning Activities in Spanish

A grant from the Oregon Community Foundation will help educators at HMSC provide instruction in Spanish to a growing segment of Oregon’s population. Latino students represent approximately 12% of the K-12 population in Oregon public schools.

The $16,000 grant to the Oregon Sea Grant Youth Education Program “will help develop new opportunities for Spanish-speaking students and families,” said Jon Luke, Sea Grant Marine Education Program associate.

“Our goals are to stimulate interest in science, the ocean, and learning by serving three groups -- Spanish-speaking students visiting HSMC on class field trips; teachers of English as a Second Language and their students throughout Oregon; and Spanish-speaking families in the Newport area,” said Luke.

More than 12,000 students a year participate in the hands-on Youth Education Programs at the Hatfield Marine Science Center. Through the new Las OLAS (Ocean Learning Activities in Spanish) program, the OSU center will offer three popular classes - Animal Adaptations, Estuary Investigations, and Squid Dissection - in Spanish on an on-demand basis.

Not only will classes be delivered in Spanish, Luke said, the pre-visit and classroom handout materials will also be translated into Spanish through the grant’s funding.

To encourage Lincoln County families to participate in Las OLAS, Sea Grant will hire a bilingual/bicultural community liaison who will help the education program fit the needs of the local Latino community.

The foundation funding will support start-up efforts through December 2006, when the program is expected to become self-sustaining.

“I’m looking forward to seeing our programming ideas become a reality,” said Jesica Haxel, Oregon Sea Grant Youth Marine Education Program coordinator and lead educator. “We certainly thank the Oregon Community Foundation for their support.”

continued on pg. 4
“Excellent” continued from pg. 3

score that any program has received since these reviews were initiated.” There are 30 state Sea Grant programs - one in every coastal state.

The review scored program management and planning but gave its main emphasis to Sea Grant’s success in connecting with users of information, such as the fishing industry, adult education teachers, and the research community. In those connections, Alden said, Oregon Sea Grant is “exemplary - extremely strong.”

And in each category of contribution to science and technology, to extension, public communications, and education, the reviewers rated the program as demonstrating the “highest performance.”

After considering documentation and hearing throughout their visit from those who benefited from Sea Grant initiatives such as the Groundfish Disaster Outreach Project and the program’s management of the OSU Hatfield Marine Science Visitor Center, the assessment team gave the program highest marks for delivering significant results relating to society, the economy, and the environment.

Mandated by Congress, the review of state Sea Grant programs occurs approximately every four to five years. The last review, in which Oregon emerged as one of the two best programs among 30 in the nation, was conducted in 2000. The team of six reviewers included senior individuals from academia, government, and the private sector.

If it’s late spring, it must be... field trip season!

Spring is one of the busiest times of year for marine educators at the HMSC, with school buses unloading hundreds of students to take classes each day. Picture below and right are students from Smith Elementary participating in an Animal Adaptations class led by Marine Educator Fawn Custer.

When the opportunity comes to do some sampling out on the Yaquina Bay tidal flats, students from Kate Worster’s marine biology class at Newport High School aren’t afraid to get a little muddy!
Outreach in action

A group of 40 Adult Education Student from Chemeketa Community College visited the Hatfield Marine Science Center April 27th and explored the Visitor Center and the estuary. Some of these students had never been to the Coast or a Science Center before and the group had both Spanish and Russian speaking students.

The field trip was organized by Annie Thorpe who was one of the Adult Education Instructors who participated in a year long Ocean Science Institute put on by Oregon Sea Grant, COAS, Oregon Community College and Workforce Development, and the National Institute for Literacy. The three part Institutes were held on campus and at HMSC.

Visitor Center News

Interns gain marine education experience on the front lines

With support from OSU-HMSC and the Crebbin Fund, three wonderful college students have been hired to work as summer interns in the Visitor Center, under the mentorship of Bill Hanshumaker. The interns started on June 20 and are working through the Labor Day weekend. Please welcome them and take the opportunity to share some of your experience with them. They are sure to appreciate it.

Colin Jones is a senior in the Biology department at OSU and intends to go to graduate school next year. Colin will be in the public wing Saturday through Wednesday each week this summer.

Tricia Ratliff is a sophomore in Fisheries and Wildlife at OSU and is scheduled to be in the Visitor Center Wednesday through Sunday.

Tamara Rosser is a student in the Aquarium Science program at Oregon Coast Community College and will be working Monday through Friday.

Got family or friends visiting from out of town? Be sure to let them know about the special educational opportunities offered in the Visitor Center throughout summer.

Daily at 11:00, tours of the Yaquina estuary are provided by Sea Grant educators and interns. The one-and-a-quarter mile trail is paved and wheel chair accessible. OceanQuest 2005 is our daily multimedia auditorium program, which focuses on the process and results of current marine research. This year’s program begins at 1:30p.m. daily and is titled “Submarine Ring of Fire: Mariana Arc” and includes stunning videos of undersea eruptions and exotic deep-sea life captured during the 2004 NOAA expedition.

Aquariums, touch tanks and interactive exhibits entertain and educate from 10:00 a.m. until 5:00 p.m. daily. Admission is by donation.
International Migratory Bird Day brings bird enthusiasts to HMSC

The first annual INTERNATIONAL MIGRATORY BIRD DAY was held on Saturday, May 14th at the HMSC Visitor Center. Auditorium programs included “The Mystery of the Marbled Murrelet”, presented by Kim Nelson of OSU. Roy Lowe of the U.S. Fish and Wildlife spoke about bird research on the Oregon Coast Refuges. Rob Suryan presented an interesting program on the natural history, conservation efforts, and his current research on the Short-Tailed Albatrosses.

Other demonstrations and family activities included a public dissection of a Great Blue Heron by Bill Hanshumaker, a bird walk on the Yaquina Estuary conducted by Laimons Osis, and a special family program titled “Birds’ Beaks and Behavior” by Fawn Custer.

This educational and fun-filled event will be repeated next year on May 13th.

Exposed:
Caught in the Intertidal Zone and Caught on Film!

New photos by Donna McCoy, local macro-photographer and lover of all things intertidal, are currently on exhibit at the Hatfield Marine Science Center’s Guin Library through August 15th. Guin Library, a specialized marine library, is a fitting venue for these intriguing close-ups of intertidal creatures photographed during Donna’s recent excursion to Kodiak Island, Alaska.

During this trip, Donna joined a team of scientists as guest artist/photographer for a shore mapping project. Along with aerial mapping, the team performed ground surveys by boat. “In order to gather as much data as possible during those negative spring tides, we literally raced by boat from location to location,” Ms. McCoy said. “Most days we were able to hit three different beaches during one low tide.” At each beach, Donna feverishly snapped photos of the amazing array of Alaskan intertidal animals.

Although the variety and abundance of intertidal life “wowed” Donna, her access to the scientists and their abundant knowledge turned out to be the real highlight of her trip. Experts on such subjects as intertidal plants, animals and geology were available and eager to share information with her.

If you come to Guin Library to view Donna’s exhibit, you’ll quickly realize that these photos are no ordinary travel pictures. Donna used special “macro” lenses that produced close-ups having such amazing detail that science turned into art—reality turned into whimsey. It’s guaranteed these shots will ignite your curiosity, scientific and otherwise.

Donna’s exhibit will be on display from 8:00am-5:00pm weekdays only, through August 15th. Phone for more information: 541-867-0249. Donna’s photo’s can also be viewed online at: http://www.mccoyphoto.com/
to attend the lecture in person.

Following the talk, guests mingled over coffee and enjoyed a slice of HMSC “birthday” cake in honor of the 40th anniversary. Less than 12 hours later, the Visitor Center was once again abuzz with activity, as SeaFest organizers, exhibitors, vendors, and volunteers arrived to get everything set up and ready for the crowds that would soon be arriving to take part in Saturday’s full schedule of SeaFest activities.

George Boehlert welcomed those assembled for the 10:30am opening ceremony, and introduced former HMSC Director Lavern Weber and OSU President Ed Ray, who both offered welcoming remarks. Kameran Onley, from the White House Council on Environmental Quality, commended the Hatfield center’s leadership in forging partnerships that advanced the goal of increasing “ocean literacy”, which is one of the principal recommendations of the report issued by the U.S. Commission on Ocean Policy last year.

Onley presented a Coastal America “Spirit Award” to the organizers of SeaFest 2004, in recognition of the successful partnerships that come together around SeaFest to educate the public about marine and coastal ecosystems. She also announced that the Oregon Coast Aquarium would be joining HMSC as an officially designated Coastal Ecosystem Learning Center, helping advance Coastal America’s goal of involving the public in protecting the nation’s coastal resources.
SeaFest 2005 The Day in Pictures
Thank you!

SeaFest succeeds because of the dedication of many individuals representing OSU, our federal and state agency partners at HMSC, and our local community. The reward for this effort came in the form of compliments from many satisfied visitors, and could be seen in the expressions of wonder and excitement on the faces of visitors young and old, some of which are captured in the photos on these pages.

We would like to extend a special thank you to the Siletz Tribal Charitable Contribution Fund, and to Georgia Pacific, for their continued financial support of SeaFest, which enables us to invite the participation of many community organizations and reach a much larger audience than we could otherwise by ourselves.

We are sincerely grateful to those who served on the SeaFest planning committee, to the scientific exhibitors whose research is central to our education and outreach efforts, to those who led children’s activities and tours for the public, and to the army of volunteers who helped with so many needs from start to finish. We could not have done it without you!

Linda Brodeur and Ken Hall
SeaFest 2005 Coordinators
**Personnel News and Notes**

**Surprise!**

HMSC Business Office staff members Debi Furay and Eunice Jenson were caught off guard by a surprise party in their honor, on the occasion of being selected for merit awards from the Association of Office Professionals.

A representative from OSU main campus came to present the award, which was celebrated in the staff lounge over coffee and cake on June 20th. Congratulations, Debi and Eunice, and thanks for all your hard work!

**HMSC Happenings**

**Markham Symposium showcases graduate student research**

Eighteen OSU graduate students received scholarships and awards totaling $86,000 for research and education activities at the HMSC in 2005 and 2006. Funding for the scholarships and fellowships comes largely from endowments and private donations to the HMSC, some of which have been providing financial assistance to students for more than three decades.

The awards were presented during the June 14th Markham Symposium and poster session, where donors are invited to meet the students and learn more about their research projects.

Some of the HMSC scholarships are given for excellence in academic and research performance in any marine related discipline, while others encourage research in a specific area, such as fisheries ecology and management, or marine education.