

March 1997

The main entrance of new lab, off Highway 30

Astoria Seafood Lab Under Construction

The overcrowded staff and students at the Astoria Seafood Lab are eagerly anticipating the completion of construction of the new, much-enlarged Lab. This will be the third building the Lab has been in since its inception in 1939. The first building was on Youngs Bay in what was originally a cannery. It wasn't until 1968 that the current building on the east mooring basin was built and dedicated. The third and newest building is projected to be finished this summer and will greatly enhance working conditions. The new lab is located right on a major thoroughfare, instead of being inconspicuous, and the new and separate Seafood Consumer Center will be located just east of the new Lab on the same side of the road.

The seafood industry has undergone many changes in the nearly sixty years the Lab has been at work. When it opened it was the heyday of canneries for salmon and some tuna. Early work was done on discoloration problems for canned Dungeness crab. During W.W.II the Norwegian and Japanese sources of fish liver oil for the production of Vitamin A were blocked and a new fishery developed. The Seafood Lab played an important part with its vitamin assays.

Seafood Consumer Center will go between the Lab and the white building to the left.

The construction of the dams on the Columbia and its tributaries began in 1933, leading to a rising demand for fish food for the salmon hatcheries established to save the salmon runs. Russell Sinnhuber and Duncan Law of the Lab developed the Oregon Moist Pellet that still provides the major source of hatchery food.

During and after the war, the seafood industry began preparing frozen fish for markets, instead of just the canned and fresh items. Groundfish began to be exploited, originally for mink farms, meal and oil, but then for fresh and frozen human markets. The growth of commercial airlines made it possible to sell Oregon seafood across the country in something other than a can. The pre-formed fish sticks were an outgrowth of the groundfish industry and the technological developments in processing equipment.

With the advent of the modified Louisiana shrimp peeling machinery, the small pink Oregon shrimp fishery could grow, freed from laborious hand peeling. However, it was Dave Crawford of the Seafood Lab who found a way to increase the yield of the shrimp machines enough to provide a sufficient profit margin for the industry.

Most recently the Lab has been at the forefront of surimi technology, which has transformed the former "trash fish," Pacific whiting, into a booming industry.

Throughout its long history, the Lab has developed many different seafood products, but only a few have taken hold. The interactions of rising and falling fisheries stocks, international competition and markets, consumer taste preferences, fishing and processing technologies, and shifting funding sources have all played a part in the Lab's history. With its new, expanded facilities and collaboration with the new Food Innovation Center and the Seafood Consumer Center, the Seafood Lab is preparing to make its vital contributions during the next sixty years.

Blood Drive Still Seeks Donors

The annual spring HMSC blood drive is coming up the first Friday in March, from 10-3, and there are still many who have not reserved a time to give blood. The Center has quite a reputation for outstanding blood drives, almost always reaching and exceeding its goal. There is no price on the pint of blood you give; how much is a life worth? It may cost you an hour of time and a few moments of inconvenience, but you can give the gift of life no matter what your income.

If you haven't already signed up, please see your building recruiter or sign up on the main schedule sheet in the Director's office.

NMFS - Tonya Builder
EPA - Bud Balloch
ODFW - Jodene Summers
NOAA - Jessica Waddell
Main Building - Pam Rogers

Welcome Our New Aquarist!

Sherry West is our newest graduate student aquarist, replacing Joe Maret who has gone on to work in Arkansas. She earned her bachelor's at the University of Tennessee at Knoxville in Wildlife and Fisheries Science. While there, she became part of the Cooperative Education Program whereby the federal government pays for one day of school for every day you work for a government agency. Sherry knew she wanted to work for the Forest Service, so she applied for and won this very competitive position. Since she wanted the adventure of living and working in Alaska, she requested assignment to the Pacific Northwest sector. She was assigned to Klamath Falls and, never having been in Oregon, was totally shocked when she arrived in a dry high desert instead of the green forest she was expecting.

Eventually she got acclimatized, especially when she found there were forests just an hour's drive away, and worked her way up to Manager of the District in the five years she was there. At the end of that time, she decided that she didn't want to be a federal manager for the rest of her life, and

turned back to school with her new goal of working in public education in aquariums. She is now working for her Master's in Science Education under Barbara Crawford.

For fun Sherry enjoys cross-country skiing, cross-stitch, and diving. While she is here she wants to improve her fishing skills and raise a garden.

Builder Chuck Byers and Dave Specht Beside New Hovercraft Engine

EPA Hovercraft Arrives

The EPA has purchased a new tool for doing benthic surveys in local estuaries a hovercraft built by Chuck Byers. The craft is built on a Douglas-fir frame with fiberglass over foam and metal and cost around \$15,000. The craft can go as easily over mud flats and water as it can over the parking lot, provided the wind is not too fierce. It will enable researchers to access a wide variety of survey sites with minimal impact on them and at a faster pace. Once local operators are trained, the hovercraft can be loaded on a trailer and hauled to the different estuaries.

The purpose of the surveys is to characterize the invertebrates, sea grasses (including the introduced *Spartina*) and create a baseline. Then researchers can document the rate of spread of *Spartina* and determine how it competes with the native eelgrass. Different habitats within the estuary react differently to xenobiotic species. Factors to consider are nutrient export, sediment erosion from clearcutting (changes the amount of light in the water and can smother rooted communities) and the changing depth of the bay. Changes in the depth can change the temperature regime, which has profound effects.

John Chapman's work on the effects of global climate change on the spread of introduced species has been sponsored by EPA because his model can be used for other estuaries. With such a model, different management strategies can be assessed for their impact on the system. This could mean changing oyster, fisheries or watershed management practices.

One major insult to local estuaries has been the problems caused by insufficient sewage treatment by coastal communities. Many coastal communities do not have the money to build satisfactory sewage plants and the leaching from septic tanks flows into the estuaries. These added nutrients can lead to a change of phytoplankton and macroalgae, which could change the upper predators from oysters to jellyfish, for example.

1997 Food Drive Surpasses 1996

This year the HMSC really put their hearts into the annual Food Drive for Lincoln County Food Share, increasing their donations by over \$100. Last year the Center donated \$178 in cash, plus \$150 from the statewide raffle tickets. This year the Center shared \$358 in cash plus \$100 in raffle tickets, surpassing the 1996 total of \$328 with \$458 in 1997.

Special thanks go to Susan Mills for the tasty breads and homemade chocolate mousse served at the weekly "Soup Kitchen." Her home cooking alone brought in \$55 .

It is this kind of warm generosity that makes the HMSC a welcome and appreciated member of the Lincoln County community. Thanks to you all!

Ron Greene stands beside RAFOS float

RAFOS Float Surfaces Too Soon

Ron Greene of NOAA VENTS reports that one of his RAFOS floats, deployed 110 miles west of Coos Bay during the April 96 cruise on the *R/V Wecoma*, was discovered by a fishing vessel six miles off Waldport recently. The float, designed to float along with the eruption plume for an undersea volcano, evidently had problems with its ballast. It is designed to float at the 2000 meter level in the ocean, but when it began taking on water and sinking below that level, the automatic burn wire dropped the ballast and the float came to the surface.

The float downloaded information to the satellite which indicated its changing level, so Ron knew it was in trouble. The fishermen aboard the *F.V Ms. Law* spotted what looked like a light bulb surrounded by gooseneck barnacles and snagged it. They were quite surprised to find the light bulb to be seven feet long! Inside the float was the address of the Monterey Naval Station and when contacted, they sent the fishermen to Ron. For their retrieval, the fishermen got a \$100 finder's fee and an *R/V Discoverer* hat. Considering the float costs \$2000, it was well worth it. Ron believes the float was carried by regular surface currents the 155 miles from the drop site to the recovery site.

Losing the float and with it the current location of the event plume may change the VENTS summer research plans. Right now the brand new *R/V Ron Brown* is scheduled to come into the HMSC's expanded dock at the beginning and end of the 14-day NOAA cruise. In the meantime, Ron is doing follow-up on the helium heat information accumulated since the 1993 event.

Oregon Birders On-Line

Much information about birds in Lincoln County is available free on the Oregon Birders On-Line (OBOL) Home Page:

<http://www.cyber-dyne.com/~lb/obol.html>; (all lower case letters)

under the menu selections for "(Mostly) Lincoln Co. Field Notes" and "Journal of Oregon Ornithology (JOO)."

The "(Mostly) Lincoln Co. Field Notes" menu selection has information about Lincoln County birds, including field note columns from the "Sandpiper," the newsletter of Yaquina Birders and Naturalists.

The latest issue of Journal of Oregon Ornithology (JOO No. 6) is now also available at:

<http://www.orednet.org/~rbayer/j/joomenu.htm>; (all lower case letters).

No. 6 includes an article about birds at Newton Hill (Lincoln Co.), three previously unpublished mid-winter bird counts (Lincoln Co.), two articles about Brant at Yaquina Estuary (Lincoln Co.), one article about macrophyton at Yaquina Estuary, and Kathy Merrifield's field sketch of a hybrid male American X Eurasian Wigeon on the front cover.

JOO Nos. 1-5 have been updated with internal hypertext links to Chapters, sections, Tables, and Figures to make navigating through large documents easier. No. 6 also includes internal hypertext links to references in the Literature Cited.

Information courtesy of Range Bayer (rbayer@orednet.org)

Scrap Paper in Blue; White Paper in White

Custodian Range Bayer reports that, although we do pretty well with our recycling stations, there is room for improvement. Here are the high points:

- White paper, white envelopes without self-adhering labels and without plastic windows go into the White bags
 - Scrap paper (colored paper, *opened* junk mail, single sheets of slick paper and envelopes with plastic windows or self-adhering labels, copy paper wrappers) go into the Blue bags
 - Newspapers go into the Newspaper box. Do not include glue-backed telephone books or catalogs
 - Magazines and glossy catalogs go into the Slick Box, but again, no glue-backed magazines or catalogs
 - No Styrofoam can be recycled here. Please *bag* Styrofoam peanuts so they don't blow all over from the dumpster. *If you put them in a covered cardboard box, don't put them with the Corrugated Cardboard pallet for flattening!* That box would go into the dumpster.
 - Do not leave anything but empty corrugated cardboard boxes by the Cardboard pallet next to the dumpster. Loose newspapers, magazines, etc. just make a mess and require extra work.
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OOPS!

Last month Cheryl Morgan was mentioned as getting her degree from Whitworth College in Spokane. It should have been Whitman College in Walla Walla. The editor's apologies!

Summer Short Courses Listed

Vicki Osis has announced four summer short courses for 1997. June 23-27 will be Estuary Ecosystems (FW 508), taught by our former graduate student, Dr. Karl Brookins. The course will examine how estuaries function at a system level. June 30-July 11 Gretchen Rollwagen will teach Biological Oceanography for Teachers (OC 649). This course will focus on the major functional groups of marine organisms and the ways they behave in several important marine ecosystems: the open ocean, hydrothermal vents, the mesopelagic zone and the coastal ocean.

Mark Meleason will teach Introduction to Stream Ecology (FW 599) July 14-25. Topics to be covered include stream geomorphology, hydraulics, riparian forests and the woody debris, invertebrates, stream food webs and stream restoration and management.

Lastly, Dr. Richard Vong will teach Meteorology for Teachers (ATS 590) July 28-August 8. He will survey atmospheric processes with an emphasis on those related to the weather, air pollution and climate change.

Anyone interested in more information should contact Linda Conser at 7-0159.

Library News

OSU is currently in a trial period for Web access to Cambridge Scientific Abstracts. This service offers a wide variety of research databases in the physical, environmental and life sciences. Databases that are part of the service include: Aquatic Sciences & Fisheries Abstracts, Environmental Sciences & Pollution Abstracts, Health & Safety Science Abstracts, Oceanic Abstracts, MEDLINE, Solid State & Superconductivity Abstracts, TOXLINE and much more.

To try it out just connect to our electronic database page:

(<http://www.orst.edu/dept/library/database.htm>) and choose the Cambridge Scientific Abstracts option. When prompted type:

nov95 for the username and
nov9595 for the password.
Then click on the Access IDS button.

This trial will last until at least Feb. 28, 1997. This is limited to OSU IP numbers. Please try it out yourself since this service could replace a number of our current CD subscriptions. Direct

comments or questions on this service to Janet Webster (7-0108), Anne Christie (737-7291) or John Donel (737-7279).

Oregon Index is a selective index file to multiple Oregon newspapers and Oregon-related articles in other publications. The index has been voluntarily produced by staff and volunteers from a number of Oregon libraries, since 1987. We are presently adding other machine-readable files to the database. We have already added Eugene Register-Guard entries for 1995-97, and will be updating that file on a monthly basis. We are already testing for conversion of keyword index backfiles from Willamette Week, and hope to add these in the near future.

It is now searchable via the web at <http://www.osl.state.or.us/oslhome.html>, or directly at

<http://db.osl.state.or.us/orind1.htm>, Current File, 1995-present;
<http://db.osl.state.or.us/orind2.htm>, Backfile, 1987-1994.

For more information, contact Janet Webster.

The Global Directory of Marine Science Institutions and Scientists is a database containing information on scientists and their scientific interests. The GLODIR is a product developed under the auspices of the IODE's Group of Experts on Marine Information Management (GE-MIM).

An on-line input system of the Global Directory of Marine Institutions and Scientists (GLODIR) has been developed. The system allows for individual scientists to submit (and in future update) information on their scientific activities so as to enable the marine science community as well as policy makers and other stakeholders in marine related issues to easily identify experts in subjects of their interest. The database is maintained by the Inter-governmental Oceanographic Commission Secretariat. It is developed within the 'free flow of scientific data and information' philosophy of the IODE. Therefore consultation of the database is free for all. However, it cannot be used for any commercial purposes.

Input is collected on-line, as well as through collaborative agreements with IOC regional offices (IOCARIBE, WESTPAC,...), regional programmes/projects (RECOSCIX-WIO,...), and special interest organizations (IAMSPLIC, EURASPLIC,...). If you're interested in adding to the database, please do so by visiting the web site at

<http://www.unesco.org/ioc/infser/glodir.htm>.