

February 1997

Johnson Visits China

John Johnson, Shellfish Project Leader for Oregon Department of Fish and Wildlife, recently visited the People's Republic of China as the guest of a Chinese aquaculture firm to exchange information about aquaculture. John had met his host while working with him on possible oyster aquaculture sites in the Alsea and Lower Umpqua estuaries. After carefully clearing the trip with his supervisors and the State Board of Ethics and removing himself from ever reviewing that company's oyster lease applications, he accepted the expense-paid trip. His wife accompanied him at his own expense.

John was treated royally during the ten-day trip, spending three and a half days touring aquaculture facilities around the Yellow Sea in Shandong Province, and the rest of the time touring sites in and around Beijing. His host provided all accommodations, a chauffeured car and often accompanied him personally.

There are three types of aquaculture being done in Shandong Province, site of 70% of all Chinese aquaculture, bringing in \$3 billion a year. There are multispecies hatcheries, earthen shrimp ponds, and open sea off-bottom aquaculture. The multispecies hatcheries are just that, handling scallops, abalone, oysters, shrimp, sea cucumbers, mussels and flatfish. Because of this diversity, the hatcheries are used to full capacity year-round, unlike our seasonal, one-species hatcheries in Oregon. The Chinese benefit from the plentiful cheap labor and access to the flat calm, 60° year-round Yellow Sea. One hatchery John visited had year-round twenty employees and brought in a profit of \$600,000 a year. They were projecting that by 2000 their profit would have doubled to \$1.2 million.

The only markets available to the Chinese aquaculture industry are Japan and China, due largely to the problems with water pollution. Although there are primary sewage treatment plants around the Yellow Sea, John found the water near shore and in rivers to be of questionable quality. Air pollution, especially in Beijing, was quite poor. The presence of coal-burning generators without scrubbers led to sore throats every night and John's host thoughtfully provided special herbs to soothe and clear his throat. The average annual income per family in the cities is \$300 and in the countryside only \$200. There is wide disparity between rich and poor, with the now-allowed free enterprise giving incentive to increase the standard of living. His host was a former TV reporter and owned a shipping company as well as the aquaculture firm. He had worked for eight years seven days a week, twenty hours a day to build up his company from scratch.

John Johnson

In other observations about China, John found no wildlife except a few birds in the cities, since with 12 million people in Beijing alone, the large prey species had been eaten long ago. Smoking is very common, no one is allowed to own guns, there are still public executions, and the premier status symbol is a cellular phone (costing thousands of dollars).

When asked if what he had learned in China could be applied here, John said that Oregon is limited by its cold water temperatures. In addition, the only water suitable for aquaculture lies in estuaries which have other uses as well.

Public Wing Dedication Set for May 17

The HMSC Public Wing will be officially dedicated on Saturday afternoon, May 17. Plans are underway for a ceremony with Senator Mark Hatfield, Governor Kitzhaber and OSU President Paul Risser speaking. The Public Wing will be open to the public beginning February 1, but the exhibits will not begin arriving until mid-February. Visitors will have some hands-on activities available, with volunteers on duty to answer questions. There is a display showing what will be coming and films and nature trail walks will be scheduled. There is no charge, but visitors will be encouraged to make a \$3 donation. Hours will be 10-4 Thursday through Monday until further notice.

The aquarists, Tim Miller-Morgan and Sherry West, and the maintenance crew have been working to install a temporary aquarium tank so that visitors will be able to see living organisms. Public wing staff Bill Hanshumaker, Craig Toll, Terri Nogler, Dan Cutter and Linda VanderBurgh will be rotating days off during the week to cover the weekend shifts.

More information will be coming as arrangements are made, but please save this date on your calendar.

HMSC Blood Drive Scheduled March 7

On Friday, March 7, the HMSC will be having its sixth on-site blood drive from 10:00 a.m. to 3:00 p.m. in the Public Meeting Room 9. Our last bloodmobile drive in October was an outstanding success because of all the willing volunteers and donors. For our "indoor" drive, we will need at least 10 volunteers for various duties, ranging from canteen work to registering donors. If you would be available for either the full shift or a half shift (9:45-12:30 or 12:30-3:00), please contact Pam Rogers at 7-0212.

We also need blood donors and we can schedule a time convenient for you. We will need at least 65 donors to reach our goal. Thanks for all your support.

Two New Maintenance People On Board

Dave Johnson

Dave Johnson and Brian Willia have joined John Curtin and Bob Miller on our maintenance staff. Dave's speciality is electrical work. He has been in Newport since 1963 and enjoys many outdoor activities. In the past he has collected native plants to sell, has a greenery lease for harvesting greens on federal forest lands, and collects wild mushrooms for sale. He also enjoys canoeing and bow hunting and often uses his mountain bike to reach his hunting areas.

Brian Willia

Brian Willia has a wide range of previous careers, ranging from service in the Navy both as an enlisted man and an officer, to health care finance, to eleven years as a self-employed musician in Hollywood, California. He received his bachelor's in business administration and his master's in hospital administration at the University of Iowa. Brian and his wife Robin decided that it was time for a break from the long hours in the music industry and chose to move away from southern California to the Northwest.

Brian comes to us from Groth-Gates, with expertise in HVAC. His wife Robin works for Beeson Boone and helps coach the high school swim team. They have two girls, 10 and 6. Brian enjoys camping and MIDI (Musical Instrument Digital Interface) music on his computer. He also teaches and plays contemporary guitar.

Morrissey Hopes to Visit Australia

Plans are underway for Michael Morrissey of the Astoria Seafood Lab to serve as Visiting Research Fellow at Curtin University in Western Australia for three weeks in March. The Muresk Institute of Agriculture, a branch of Curtin University, will be his host. While in Australia, Michael will be involved in research projects presently being conducted in Perth and in Cairns, Queensland, and will participate in their undergraduate and postgraduate teaching program. He will also conduct a workshop while there. Curtin University also wants to explore the possibility of developing collaboration in student and staff exchange as well as in research activities.

Hansen and Chapman Begin Pilot Study of Alaskan Ballast Water

Gail Hansen and John Chapman have received funding from the Prince William Sound Regional Citizens' Advisory Council to study potential non-indigenous species in oil tanker ballast water. The \$31,000 contract will run from January through August.

The terminus of the 800-mile Trans-Alaska Pipeline lies on the south shore of Port Valdez, Prince William Sound, where the terminal for loading crude oil is operated by Alyeska Pipeline Service Company. The terminal receives approximately 1.5 million barrels of oil per day from Alaska's North Slope fields. The oil is loaded into tankers at the terminal's four berths and transported to refineries on the U.S. West Coast, the Far East and the Caribbean. The purpose is to evaluate the potential risk of introducing harmful marine organisms into Prince William Sound in ballast water from oil tankers.

The project will form and participate in a Non-Indigenous Species Working Group, to research related non-indigenous species literature and studies, conduct a biological analysis of tank ballast water and ballast treatment facility effluent for introduced species, assist in the development and conduct of a one-day workshop to discuss future evaluation of non-indigenous species invasions in the Sound, educate the Council on this topic and make recommendations based on findings when appropriate.

New Faces at the Center

The new year is bringing new faces to the Oregon coast. Sarah Courbis is a new intern for Bruce Mate, whose research interest is in cetacean vocalization. She is taking some time after graduating from Millersville University in Pennsylvania with a bachelor's degree in biology to work in the field of marine mammals, before deciding if she will go on to graduate school. So far she has been doing library research on West Coast pinniped species and their prey and may also help with analysis of the tracking data. Sarah is looking for a tennis partner and hopes to get into the local theater scene as an actress. She finds the weather here to be much nicer than in her home town of Lancaster, Pennsylvania.

Cheryl Martin is the new CIMRS biological technician who is working with Bob Emmett on zooplankton ecology. She is no stranger to the Pacific coast, having earned her B.A. in biology and environmental studies from Whitman College in Spokane and her master's in fisheries from University of Washington. She worked two years at OSU with Charlie Miller in oceanography and then one year at Friday Harbor with Steven Bollens. Cheryl is working on the abundance and distribution of copepods and other zooplankton as related to physical variations, such as salinity, temperature and phytoplankton. For fun, Cheryl likes travel to warm places, fly fishing, rock climbing, running and reading.

Hot Soup for Food Drive

February is OSU's Food Drive and the HMSC will again be participating. There will be a box in the mailroom to collect canned and dry food for Lincoln County Food Share and donations can be turned in at the Switchboard. In addition, there will be another raffle with tickets soon to be available in the Director's Office.

As a special incentive, homemade hot soup and bread will be served in the mailroom for a \$1 minimum donation on Tuesdays during the noon hour during the month of February. It would be appreciated if those interested would bring their own bowl or cup and spoon.

Other groups or individuals are encouraged to come up with other creative ways to increase our donations to feed the hungry in Lincoln County, a large proportion of which are children.

Library News

Effective immediately, library policies for interlibrary loan of books will change. The library will completely subsidize all borrowing of books by faculty members and graduate students. Undergraduates will be included on a case-by-case basis.

All patrons will pay the first five dollars of the loan fee for a thesis/dissertation and the library will pay the rest. If the subject of the thesis/dissertation is marine science and it might be a valuable addition to the collection, the library might decide to purchase the item, in which case there will not be a five dollar fee.

Requests for photocopies will be treated as in the past (i.e., charges are passed along to the patron).

We are able to pick up the charges for books because the library is a net lender with other state libraries, and we have been reimbursed by the State Library for the work we do in support of other Oregon libraries. This money is what we are using to offset lending charges.

Astoria "International" Seafood Lab News

Seafood wastes research and international programs have been the focus of the Seafood Lab the last few months. The Saltonstall-Kennedy (S-K) Fund awarded Michael Morrissey a \$60,000, 18-month grant for the recovery of antioxidants in surimi wash water. He will team up with Eric Decker of University of Massachusetts in this work. Decker had previously worked in the recovery of anserine and carnosine in meat waste systems. The two researchers decided to co-write a grant to recover the compounds in whiting waste. The surimi process calls for extensive washing of fish mince which removes a number of compounds. Preliminary studies showed that these compounds

were indeed in the whiting wash water. This grant will allow researchers to characterize the systems more extensively and determine if there is commercial feasibility for their recovery and use.

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Morrissey was also awarded a grant from the National Coastal Research Institute for commercialization of enzymes from Pacific whiting wastes. Protease enzymes which exist in high quantity in whiting muscle tissue and causes quality problems with a number of whiting products might also have uses in commercial food processing. The grant will focus on the recovery of these enzymes and their potential uses.

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Jae Park was awarded two small grants over the past month. One was a scholarship from the National Fisheries Institute for work in surimi seafood pasteurization. The other was from OSU International Research & Development Office for the internationalization of the OSU Surimi School. Not surprisingly, Jae ran the first International OSU Surimi School in Bangkok this past December. This course was based on the popular OSU Surimi School held every March in Astoria and was sponsored by Khon Kaen University and the National Institute of Fisheries of Thailand. Michael Morrissey and Jirawat Youngswatdigul accompanied Park and assisted in the lectures and laboratory sessions. Both Park and Morrissey agreed that Jirawat, who is from Thailand and undertook his doctoral and postdoc research under Park, were key to the course's success.

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After the course, the three travel to Khon Kaen University where Park has a joint project with Thai researchers for the production

of surimi from tilapia. A highlight was meeting with the President of Khon Kaen University, Dr. Prinya Chindaprasirt, who took time out of his busy schedule during graduation week, to meet and discuss inter-institution cooperation with the researchers. Morrissey had previously spent a week in southern Chile where he and Ken Hilderbrand gave a workshop on smoked fish. They were both surprised at the rapid growth of the aquaculture salmon industry in Chile which now ranks second to Norway in salmon aquaculture production.

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A send-off dinner was given to B.Y. Kim who spent the past year on sabbatical with Jae Park. He reported that the sabbatical was a success as he submitted five manuscripts for publication and reduced his golf handicap by 2 points.

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A new visitor, Begonia Ben Gigirey from Spain, has joined the lab for a three-month stay. She is working with Haejung An on biogenic amines in albacore tuna and is working on her Ph.D. at the

University of Santiago in the Northwest region of Spain (Galicia). Happily she reports that the Oregon coast is similar to her region in Spain, cold and rainy in the wintertime.

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Haejung was recently appointed to the USDA review board who will meet in December in Washington, D.C. next May to decide on funding for different projects.

A Tour Through the New Ship Ops Bldg

Linda Oliver proudly gave a tour of the new two-story Ship Operations building, as she has spent seven years in the old Ship Support building, which has basically become a workshop/garage. The first floor of the building is an open bay for parking equipment and has the locker room and shower facility. Also on the first floor (west side) is a large, airy electronics lab operated by Bob Bower.

First floor houses open bay and shop

The administrative offices are located upstairs, all completely carpeted and with beautiful views of the bridge and bay. The Marine Superintendent, Fred Jones, has the corner office where he can overlook the expanded dock. Two other offices are on the east side, with the central area being Linda's office and work area. Her counter faces the lovely reception area with photographs of the HMSC's fleet through the years (all the way back to the *Acona*) and Fred's collection of antique sextants.

Photos of HMSC fleet displayed in lobby

On the west side is the conference room and the completely equipped lunch room.

Conference room faces the bridge

The new wooden fence keeps the tourists from driving onto the dock and protects the cars in the crew's parking area. Visitors for Ship Operations are encouraged to use the northernmost entrance, rather than trying to come in from the south.

A separate staging building has been built on the expanded dock and is the site of lathes and other equipment needed by scientists to prepare their equipment for cruises. Although the *Sacajawea* is currently being overhauled, it will be docked at the new facility instead of at South Beach Marina. Crabbing and fishing are still not allowed on either the Ship Dock or on the pumphouse dock.

Ship staging building on dock

Personnel Notes

Congratulations to **Kyoung Chul Park and Kyung Sook Kim** on the birth of their third child and first son, David Jae-Sang Park! He weighed in at 9 lbs. on January 16. He has the distinction of being the first child born to a family living in our new manufactured housing units.

Kyoung is proud father of three

Congratulations also to **Mark Freeman** (ODFW) and his wife on the arrival of their son, Michael Anthony on January 25! Michael weighed in at 5 lbs. 12 oz and stretched 18 inches.

Nancy Morrissey is transferring to the Atwater Prairie Chicken National Refuge in Eagle Lake, Texas (about an hour from Houston) to serve as Assistant Refuge Manager. She has worked in the same capacity at the Center for the USFWS Coastal Refuges. We wish her the best in her new venture!

Joe Maret, one of our aquarists and graduate student in the fish disease wing, defended his master's thesis January 28. He will begin work as an Extension Fish Health Specialist in Lonoke, Arkansas, in mid-February. Lonoke is just a few miles due east of Little Rock. He will be working primarily with freshwater bait fish.