



# SFOS NEWS

Institute of Marine Science • Marine Advisory Program • Fishery Industrial Technology Center • Coastal Marine Institute  
Alaska Sea Grant College Program • North Pacific Marine Research Program • Fisheries Division • Global Undersea Research Unit

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## First field trip of new CMI project completed



Photo by Rolf Gradinger

*Nielson and Bluhm with our vehicle park, consisting of two snow machines and sleds, packed with sampling equipment on the Beaufort Sea fast ice.*

By R. Gradinger and B. Bluhm

The first field phase of the newly funded CMI project on "Susceptibility of sea ice biota to disturbances in the shallow Beaufort Sea: Phase 1: Biological coupling of sea ice with the pelagic and benthic realms" by **Bodil Bluhm** and **Rolf Gradinger** was conducted from April 24 to 28, 2002. The two PIs were supported by **Mette Nielson**, a University of Alaska Fairbanks School of Fisheries and Ocean Sciences graduate student interested in sea ice ecology. The Barrow Arctic Science Consortium, in particular Dave Ramey, provided invaluable logistical assistance in Barrow. This project is focussing on the biological coupling processes occurring in the fast ice covered waters of the Beaufort Sea close to Barrow, Alaska. Based on earlier observations by Carey, Alexander, and others, Bluhm and Gradinger's work tries to elucidate the significance of the sea ice habitat in the life cycles of benthic and pelagic biota during the entire ice season. We anticipate the ice production to play a significant role in both the pelagic and benthic realms and expect disturbances to hamper this link.



Photo by Rolf Gradinger  
*Bluhm and Nielson collecting water samples with the Kemmerer sampler through an ice core hole.*

On the arrival day, the group headed out with snow machines to conduct their first field sampling, and ice cores, water and plankton net samples were successfully collected. In the lab, ice was melted, ice biota and zooplankton were sorted alive, and water and sediment samples were filtered. Gradinger and co-workers will determine trophic relations using gut

contents and stable isotope signatures.

Field sampling proceeded for four days, and was luckily not impacted by the local polar bears, even though visibility was often poor due to the strong wind gusts and snow drift. The group is now eager to process the collected material. The next field trip is scheduled for November 2002.

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# SALMON, SALMON and More SALMON!

By Phil Marshall

The Sea–Air–Land Modeling and Observing Network (SALMON) Project, under Principal Investigator Dr. David Musgrave here at SFOS/IMS, is underway with funding from NASA to establish the first coastal oceanographic observational system in Alaska. SALMON is to install CODAR arrays this summer, a type of radar system measuring sea wave speed, direction and height, at three sites in Prince William Sound (PWS). Combined with two bio-geophysical moorings to be deployed in Hinchinbrook Entrance, this oceanographic sensor system will be maintained by Tony D’Aoust, our new hire for field operations. He brings practical experience from fishing in all Alaskan waters and from fieldwork aboard various research vessels in Antarctic waters. This oceanographic information will be checked by Hank Statscewich, SALMON’s research analyst, and then fed to the Regional Oceanographic Modeling System (ROMS) being customized for Prince William Sound, the northern Gulf of Alaska and Cook Inlet by Dr. Kate Hedstrom, a modeler for SALMON, over at the Arctic Region Supercomputing Center. Hedstrom’s

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*SALMON is to install CODAR arrays this summer, a type of radar system measuring sea wave speed, direction and height, at three sites in Prince William Sound.*

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version has been tested doing a simulation of 115 days so far (twenty-four, twelve hour days of forty-eight running processors!). Meshing with the Regional Atmospheric Modeling System (RAMS) being conducted by Dr. Peter Olsson at the Alaska Experimental Forecast Facility at the University of Alaska Anchorage, improved predictions for ocean weather in Prince William Sound are to be operational by June 2003.

This applied research will also promote basic research into the physical oceanography of PWS. Musgrave and Statscewich hope to answer basic circulation questions in this area that so strongly affects one of the U.S.’s largest fisheries. (In a nearby area, GAK 4 on the Seward Line, Statscewich and crew in March recovered and redeployed the two moorings there.)

Drawing on all this work, Kathy Turco, a past researcher and now environmental sound recording producer, has just produced for

SALMON an eight-minute audiovisual production entitled “Oceanographic Research at Sea aboard the *Alpha Helix*”. This arresting piece, soon to be available from our office in 127 O’Neill, is the first of our public outreach materials from the project. Other educational curriculum materials – lesson plans and demonstrations about physical oceanography at middle to high school levels – have been developed by Philip Marshall, project manager. Some of these demos were performed at the April 6 Science Potpourri in the Natural Sciences Facility by William Williams, Georgina Blamey, and Sookmi Moon. If anyone else is interested in using them educationally, check with Marshall at 474-5254 or [marshall@ims.uaf.edu](mailto:marshall@ims.uaf.edu).

For more information about the SALMON Project, go to our website at [www.salmonproject.org](http://www.salmonproject.org). (Our student aide, Jenny Bunker, will be assisting us with this site, too).

## Sea-Air-Land Modeling and Observing Network

By Phil Marshall

Our Principal Investigator, Dave Musgrave, has had many irons in the fire! His Thursday morning radio clips about the project and physical oceanography are aired at 8:10 a.m. on KUAC-FM. He was back in the Washington, D.C. area in March participating in a national strategy and planning meeting about coastal observing systems. This was the same topic as at a meeting in Savannah, GA in May. Before the Kachemak Bay Science Conference in April where he was a presenter on physical oceanographic influences on salmon in the Gulf of Alaska, he attended the Intensive Observing Period meeting in Cordova. All this is leading up to the calibration and short season testing of CODAR units in Prince William Sound as part of the North Pacific Fisheries Application Center funded by NASA and in conjunction with the University of Massa-

chusetts/Dartmouth.

Hank Statscewich, our research analyst, has attended local and foreign workshops and conferences about communications between sea sensors and local computer networks, oceanographic buoys, and HF radar for measuring surface currents and sea state, all in anticipation of the SALMON Project’s instrumentation in Prince William Sound (PWS), The Semidi Islands, in collaboration with the Alaska SeaLife Center and the Chiswell Islands off the mouth of Resurrection Bay. He’s also busy expanding our website: <http://halibut.ims.uaf.edu:8000/SALMON/>.

Tony D’Aoust, our new mooring and logistics technician attended both the ComFish show in Kodiak and the Office of Naval Research and Marine Technology Society’s buoy workshop in Seattle during the month of April. He is our lead on permitting, siting,

deployment and powering of our CODAR arrays both in PWS and now in the Semidi’s and on Chirikof Island south of Kodiak as part of the TWEAK (Tsunami Warning) ProjectAF in April.

Philip Marshall has been teaching physical oceanography with labs and demonstrations to a variety of 5<sup>th</sup> grade classes at Denali, Ticasuk Brown, and University Park Elementary Schools. Val Barber kindly stepped in and used the materials for Girl Scout Day at the University of Alaska Fairbanks in April. Kathy Turco continues to develop audiovisual educational aids and is traveling to promote them.

And Kate Hedstrom, our modeler extraordinaire over at Alaska Region Supercomputing Center, reports a 216–day run of the Regional Oceanographic Model System (ROMS) for the Cook Inlet area.

# People



**Terry Johnson**, Marine Advisory agent in Homer, is completing the first draft of a manuscript for a book on the Bering Sea which Sea Grant has contracted

**Terry Johnson** to publish under the North Pacific Marine Research initiative.

The book is for secondary students and non-scientifically-trained adults and provides a brief description of the Bering Sea, origins and current oceanography, its living and non-living resources, human history, management, and current and upcoming issues, including things like climate change, shifts in primary productivity, pollution, etc.

Terry needs knowledgeable reviewers to look at specific sections in their areas of expertise, checking for accuracy, and suggesting revisions for the second draft. Each section is only a few thousand words and can be read in fifteen minutes, he says. Also he is seeking material for sidebars on specific current research.

If you can spare a half-hour or so to read and comment on the section in your area of knowledge, or if you are willing to be featured in one of the brief sidebars, please contact him at [rftlj@uaf.edu](mailto:rftlj@uaf.edu) or (907) 235-5643. Time is of the essence, so please get in touch right away.



Photo by Joy Gonzales

Loda Griffith is shown near the window in this classroom in Central, AK.

**Loda Griffeth** participated in the Science Potpourri in the town of Central, AK in April as part of the NEWNET outreach program. NEWNET interns make presentations to local schools on radioactivity each year. Dr. John Kelley directs the NEWNET project in association with the Alaska Department of Environmental Conservation with support from the Battelle-Pacific Northwest Laboratories. Loda Griffeth will also be a summer intern at PNNL.



**John Kelley**

May 20–23, 2002 as part of PNNL's Faculty Ambassador Program.

**Dr. John Kelley** was invited to participate in an Environmental and Molecular Sciences Laboratory (EMSL) workshop at the Battelle-Pacific Northwest National Laboratory,

Acting on his conviction that during times of poor financial returns it is even more important that fishermen maintain their vessels well, Marine Advisory Program agent **Terry Johnson** has put together a special publication called "Vessel Maintenance Guide". The publication contains specific how-to information on maintaining fuel systems, preventing corrosion, winterizing, and prepping the boat before the season. The articles are revised and updated from the Boatkeeper series, which has been running the last four years in the industry trade journal "Pacific Fishing" and is republished in print and on the web by Alaska Sea Grant. The "Vessel Maintenance Guide" is being distributed free as a supplement to Pacific Fishing and copies will be available through Marine Advisory.

**Richard Steiner** was a keynote speaker at EarthWalk, a large environmental march in downtown Seattle, on April 14 of this year.



He also presented a proposal to the International Space Development Conference in **Richard Steiner** Denver to designate the moon as a U.N. World Heritage Site, protected for peaceful, scientific purposes. Steiner's proposal was covered by the Wall Street Journal, MSNBC, the AP, and the BBC, among others.

## Fisheries Graduates Two Ph.D.s and an MS



Dr. Jennifer Boldt, Fisheries, worked with Dr. Lew Haldorson and graduated in December 2001. She is currently a Research Associate with the Fisheries Division.

### Other Fisheries Graduates ~December 2001~

Dr. Zhenming Su's advisor was Dr. Milo Adkison. He is now a post doc fellow at Simon Fraser University in Burnaby, BC, Canada.

Michael Byerly, MS, worked with Dr. Lew Haldorson. He is now employed by the Alaska Department of Fish & Game in Homer.

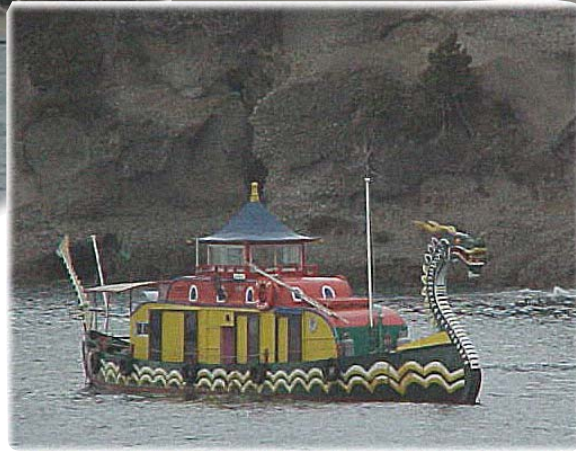


Dr. Jennifer Boldt, Fisheries with Regent Marlene Johnson at Commencement.

# Shirley Mixes Work With Pleasure in Japan



As part of his sabbatical activities, **Dr. Tom Shirley** has been at the Seto Marine Lab, University of Kyoto, located in the small town of Shirahama, approximately three hours train ride S.E. of Kyoto. Tom has been lecturing, working with colleagues and writing, in between enjoying many Japanese hot spas and tasting an array of different seafoods. He thinks that the typical meal could serve as fish as well as invertebrate lab exams. The habitat is



somewhat unique, in that hermatypic corals grow in the nearshore area, the occasional palm tree grows in yards, a large sandy beach graces the downtown shoreline, and the area is abun-

dant with natural hot springs (spas) because of geothermal activity. Needless to say, the area is a popular destination among Japanese tourists. The lab is situated about a mile outside of the town, has a nice seawater facility, a

large public aquarium, many labs, and a dormitory complete with Spartan rooms equipped with futons and little else.

## UA Professors Awarded \$1.6 Million in 2002 from the North Pacific Research Board

Nine University of Alaska Anchorage and University of Alaska Fairbanks faculty members were among the recipients of \$1.6 million in awards announced by the North Pacific Research Board (NPRB) on June 6 (see <http://www.fakr.noaa.gov/nprb/rfp.htm>).

**Mike Castellini, Tony Gharrett,**

**Susan Henrichs, John Kennish (UAA), Gordon Kruse, Dave Musgrave, Lorrie Rea**

**(UAA), Tom Weingartner, and Terry Whitledge** were P.I.s or Co-P.I.s on seven of the fifteen grants funded from among responses to its March 2002 request for proposals. Interested researchers should look for another

Request For Proposals of \$10 – 12 million in November 2002. Research topics are available at the website above. University people with questions about NPRB can contact Phil Mundy:

[phil\\_mundy@oilspill.state.ak.us](mailto:phil_mundy@oilspill.state.ak.us)  
or 800-478-7745.

## U.S. Commission on Ocean Policy Meeting

The U.S. Commission on Ocean Policy will hold its eighth public meeting June 13–14, 2002, in the Commission Chambers at the Port of Seattle building, Pier 69, 2711 Alaskan Way, Seattle, Washington. The meeting, which is free and open to the public, will run from 12:30 to 6:00 p.m. on Thursday, June 13, and from 8:30 a.m. to 6:00 p.m. on Friday, May 14.

At the meeting, the Commission will hear presentations on coastal and ocean issues of concern to the Northwestern United States. The agenda will include invited speakers representing local and regional government agencies and non-governmental organizations, comments from the public and any required administrative discussions and executive sessions. A public comment period is scheduled for

Friday, June 14. The agenda for the meeting will be posted at: [www.oceancommission.gov](http://www.oceancommission.gov) before the meeting. This is the sixth in a series of nine region-specific meetings to be held by the Commission.

For more information contact Terry Schaff at the U.S. Commission on Ocean Policy, by phone, 202-418-3442, or by e-mail: [schaff@oceancommission.gov](mailto:schaff@oceancommission.gov).

# Blanchard, Feder, and Shaw Explore the Effects of Ballast Disposal in Port Valdez

The following is a reprint of the abstract of the article **Long-term investigation of Benthic Fauna and the Influence of Treated Ballast Water Disposal in Port Valdez, Alaska**, by A. Blanchard, H. Feder, and D. Shaw which was published in the *Marine Pollution Bulletin* **44**: 367–382.

## Abstract:

Benthic faunal structure and hydrocarbon concentrations in sediments were examined annually for ten years (1989–1998) in Port Valdez, Alaska,

where a near-bottom permitted discharge of treated tanker ballast waters containing residual petroleum has occurred since 1977.

Measured concentrations of hydrocarbons in sediments near the discharge showed detectable increases in concentration, but on only one occasion were these increases either to levels exceeding ecotoxicological thresholds (ER-L) or associated with alterations in the benthic community.

Changes in faunal structure indicating disturbance were observed at one

station near the discharge from 1995 through 1997 and were apparent as increased numbers of opportunistic taxa and anomalous trends in abundance and diversity.

Minimum-effect hypotheses provided evidence of negligible to small effects on benthic infauna from disposal of treated ballast water. Minimum-effect hypotheses have the potential to assist both researchers and managers by providing a tool to relate scientific results to ecological importance and decision criteria.

# American Fisheries Society selected as host of 3rd World Fisheries Congress in Beijing, China

The American Fisheries Society has been honored to be selected as the host of the 4th Congress at the Beijing, China assembly of the 3rd World Fisheries Congress, thanks to the fine efforts of the International Fisheries Section. Vancouver, British Columbia, has been selected as the host city, thus will provide an opportunity for all to easily attend the upcoming Congress, 2–6 May 2004. This is the first time this global event has been held in North America.

The Theme of the 4th Congress is: “Reconciling Fisheries with Conservation: The Challenge of Managing Aquatic Ecosystems”.

An international array of prestigious fisheries scientists will be giving keynote addresses, and chairing program sessions. In addition, the program contains over forty sessions that address the most pressing issues in fisheries management in both freshwater and marine ecosystems, along with a special forum for interested industry representatives and non-governmental organizations. The details of the program and venue are provided as they become available on the web page.

An expression of interest form is included on our web page ([www.worldfisheries2004.org](http://www.worldfisheries2004.org)) to ensure you are kept current on all future announcements. We will periodically provide you with an update

notice concerning any news and pertinent deadlines related to the Congress.

We will also be calling on all of the Chapters, Sections, and Divisions of the American Fisheries Society to ask assistance in putting on the Congress

to ensure the international family of fisheries professionals that visit North America will experience a World Class event.

This event will likely be a once-in-a-lifetime event for most of us, so please put these dates on your calendar and make plans to attend now.



## Corrections

Last month's reprint of **Bruce Finney's** article was actually the UAF press release about the article, written by Doug Schneider (we had incorrectly attributed the article to *Nature*).

**Steve Jewett's** line in “Funding” should have listed his project title as “Collaborative Research: Investigating Ecological Change in the Nearshore Kotzebue Sound Ecosystem: Simultaneous Application of Traditional and Scientific Ecological Knowledge”, for which he received \$215,059 from NSF.

## Publications

**Blanchard, A. L., H. M. Feder, and D. G. Shaw.** 2002. Long-term investigation of Benthic Fauna and the Influence of Treated Ballast Water Disposal in Port Valdez, Alaska. *Marine Pollution Bulletin*, **44**: 367–382.

**D. Dasher, W. Hansen, S. Read, S. Faler, D. Farmer, W. Eford, J.J. Kelley, R. Patrick.** 2002. An assessment of the reported leakage of anthropogenic radionuclides from the underground nuclear test sites at Amchitka Island, Alaska, USA to the surface environment. *Journal of Environmental Radioactivity*, **60**: 165–187.

**M. Baskaran, G. -H. Hong, S. Dayton, J.J. Bodkin, J.J. Kelley.** 2002. Temporal variations of natural and anthropogenic radionuclides in sea otter skull tissue in the North Pacific Ocean. (In Press). *Journal of Environmental Radioactivity*.

## Emeriti list for 2001–2002

Mr. Brian Paust, Dr. Albert V. Tyler, and Dr. Donald Schell were named as Emeriti from the School of Fisheries and Ocean Sciences for 2001–2002.

The following Graduate Fellowships were awarded for FY-03:

**Elizabeth Grover**

(Advisor: Professor Don Button)

**Renee Maabadi**

(Advisor: Professor David Musgrave)

**Juan Horillo**

(Advisor: Professor Zygmunt Kowalik)

**Liu Hui**

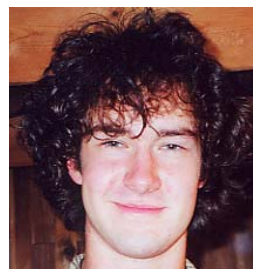
(Advisor: Professor Russell Hopcroft).

## SFOS Graduate Fellowships

## New faces in Business Office



**Nina Valadez**



**Tristan Cobine**

## Editor's Corner: Got News?

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Special thanks to the contributors of the material used in this newsletter.

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