

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

Vol. 4 Issue 2 May 2001

UAF Diving

The Scientific Diving Course, taught by **Dr. Brenda Konar**, through the graduate program in Marine Sciences and



Dr. Brenda Konar

Limnology, was offered again in the spring semester. The class was broken into two groups because of the size of the class and the different skill levels. Ten students returned from last year (they took a more

advanced version); the remaining were a beginning group, new to cold water and scientific diving. The returning students wrote proposals to test a hypothesis of their choice, completed dive plans, organized their field season (one week at the Kasitsna Bay Marine Lab) and presented their results at a class meeting. Two projects from this class were such a success that the results will be presented at the 21st Annual Scientific Diving Symposium in Seward, Alaska, September 19-23, 2001.

There were 12 new students this year, six of whom were certified as a PADI Open Water Diver as a part of this class. These students started the diving certification

[See Diving, page 2](#)

UAF scientists named Aldo Leopold Leadership Fellows

Two scientists from the University of Alaska Fairbanks have been selected as 2001 Aldo Leopold Leadership Fellows. The distinguished fellowship program, operated by Oregon State University on behalf of the Ecological Society of America, helps scientists become more effective communicators of scientific information. **Dr. Brenda Norcross**, IMS, and Dr. Richard Boone, IAB, were among 22 scientists selected through a national competitive process. "One of the biggest challenges scientists face is telling the public about the work we do," said **Norcross**. "The public often doesn't understand how much work goes into doing good science, and why we don't always have the answers they expect. Ultimately, doing research is worthwhile, but we also need to educate people about our work and what our findings mean." **Dr. Norcross** and Dr. Boone will join scientists from such prestigious institutions as Rutgers University, University of California at Berkeley, and the University of Washington for training in Tucson, Arizona, and

Washington, D.C. Fellows will learn strategies for writing and speaking effectively about their work to the public, media, lawmakers, research funding agencies, and others.

[See Fellows, page 4](#)

Harbor Seal Research

Harbor Seal researcher **Tami Mau**, Ph.D candidate, IMS, was one of several biologists featured in the *Cape Cod Chronicle*, March 22, 2001 and on the front page of the *Cape Cod Times*, March 21, 2001, for her work with harbor seals. **Mau** was among more than a dozen scientists who worked at Cape Cod for about 10 days, netting, tagging, taking blood samples of, and releasing harbor seals. The captured seals were tagged with temporary radio transmitters, used to aid in population counts, travel habits and growth estimates. The effort took a great deal of planning, stealth, and manpower. The work at Cape Cod was one part of a large project that also consisted of work in April of 2001, off the coast of Maine. Gordon Waring, of NMFS (National Marine Fisheries Service), said, in the *Cape Cod Chronicle*, "this is the largest project



Tami Mau, back, and other researchers, collecting data from harbor seal. Photo courtesy T. Mau.

[See Seals, page 2](#)



Diving class participants signaling the OK sign during closing award ceremonies; they are now "certified".

In This Issue

UAF Diving	1
Harbor Seal Research	1
A. Leopold Leadership Fellows .	1
Sea Grant News	2
People	3
Seward Marine Center News	4
Kachemak Bay Conference	4
Publications	4
Flow Cytometry	4

Seals

conducted on the East coast for harbor seals.” The blood samples taken will be analyzed at UAF as part of a four-year study funded by an EPA grant. The samples will be examined for biological markers which indicate long-term physiological stress, which could include predation and lack of food. Evidence of contamination from heavy metals and other pollutants will also be sought; **Mau** and other researchers are interested in how metals work naturally in seal biology and hope to gain further insights into seal metabolism. **Mau**, in the *Cape Cod Chronicle*, said “They’re looking good,” **Mau** said when asked about the seals she’d taken samples from. ‘We’ve picked up quite a few older seals. They seem to be in pretty good shape.’” The information gathered in the study **Mau** participated in will help NMFS further develop management plans and may alter the seal’s bycatch category. **Mau**’s faculty advisor is Dr. Castellini; she has also participated in seal studies in Antarctica and Maine.



Researchers weigh a harbor seal, Chatham Fish pier, Cape Cod. Photo courtesy Cape Cod Times.



Eloise Brown (left) and Julie Matweyou (bottom) demonstrating “graceful” water entry.



Diving

process with **Dr. Brenda Konar** in January. When the semester started, the rest of the new students met once a week for 6 weeks at Hamme Pool with various objectives such as swim tests, basic SCUBA skills, in-water rescue drills, and dry-suit training. At this time, the class also received their CPR and First Aid certifications (taught by UAF Codes and Safety) and Emergency Oxygen Administration certification (taught by **Dr. Steve Jewett**). These certifications were part of this class.

After completing all the necessary skills and exams, the class was ready to go to UAF’s Marine Lab at Kasitsna Bay for spring break. Of the twenty-two students who went to K-Bay, twelve were graduate students, seven were undergrads and three researchers or staff—over 350 dives were made by students in seven days. These dives included basic, rescue and advanced drysuit skills, scientific techniques, and night, beach, boat and deep dives. Many of the graduates of this course will be using projects completed in this class as pilot studies for what will eventually become part of their MS and PhD research. Others will be using their new Research certification to work on SCUBA related research projects this summer. Special thanks to the outside instructor who helped with the class, Mitch Osborne, of Test The Waters. For more information about this and other SCUBA related classes, please contact Brenda Konar at bkonar@ims.uaf.edu.



Various members of Dr. Konar’s dive class



Sea Grant News

Marine Advisory Program, Alaska Sea Grant and Alaska Cooperative Extension Service personnel recently joined forces to conduct public outreach at the Great Alaska Sportsmen's Show in Anchorage, April 5-8. MAP's **Terry Johnson** and Sea Grant's **Kurt Byers** and **Tatiana Piatonova** were joined by Sheryl Stanek, CES's home economist, in Anchorage at the Sea Grant booth. The five did a combined 66 hours of public service, meeting the public, answering questions, giving away free publications and selling books and educational games. **Terry Johnson** talked with the public about boating safety and marine education. **Johnson** also presented a seminar on how to buy insurance for a charterboat. According to **Johnson**, the most common question they answered was: "What is Sea Grant?"

The Alaska Sea Grant publication “Biological Field Techniques for Chionoecetes Crabs,” by L. Jadamec, W. Donaldson, and P. Cullenburg, won two awards at the Sea Grant Week meeting in March. The book tied for the Blue Ribbon award for technical publications, and also won the People's Choice award in the technical publications category.

Alaska Sea Grant and Marine Advisory made contact with the fishing industry and public at ComFish, the annual commercial fishing trade show in Kodiak, in March. Sea Grant staffers **Sherri Pristash** and **Tatiana Piatonova** distributed publications, and **Scott Smiley**, **Bob Foy**, and **Brian Himelbloom** of FITC also talked with booth visitors and industry representatives. Sea Grant K-12 educational items were most popular, especially the Salmon Migration Game.

Kimberly Williams, MAP, Dillingham, coordinated the Bristol Bay Salmon Science Symposium on the Bristol Bay Campus, May 2- 4, 2001. The symposium featured numerous researchers, including Dr. Milo Adkison, FD, Dr. Bruce Finney, IMS, and Dr. Ole Mathisen, emeritus, FD. Agencies and institutions presenting information included: University of Washington, AK. Dept. of Fish and Game, National Oceanic Atmospheric Administration, and USGS.

Deborah Mercy's video *School of Fisheries and Ocean Sciences* recently won an award at the annual International Film and Video Festival. The festival had 1,500 entries from 33 countries this year. **Mercy** won the Certificate for Creative



Deborah Mercy

See SeaGrant, page 4

People

Gay Sheffield started her M.S. in Marine Biology at UAF under the late **Dr. Francis Fay** and finished under **Dr. Brendan Kelly**. Part of her thesis has recently been published in Marine Mammal Science. The story was published by Nature: see <http://www.nature.com/nsu/010404/010404-18.html>.

Dr. Brendan Kelly, FD, Lori Quakenbush, Brian Taras, SFOS, and their three seal-sniffing Labrador retrievers (Jamberry, Reba, and Mattie) were recently camped on the sea ice in the Beaufort Sea studying ringed seal ecology. The project, funded by CMI and UAS, will involve data collection in April - June of 2001, 2002, and 2003. The researchers will be assisted by undergraduate students supported by a NSF grant to **Dr. Kelly**. Student assistants this year include Dusty McDonald (UAF), Oriana Harding (UAS), and Rachael Ingram (UAS).

Dr. Brendan Kelly, FD, traveled to Santa Cruz, California on April 23-25 to participate in a meeting of the Steering Committee for the U.S.-Russian Working Group on Marine Mammals. The Working Group, formed as part of an Environmental Accord between the U.S. and Russia, facilitates scientific exchanges between U.S. and Russian marine mammal specialists.

Gordon Haas will be the new Assistant Professor of Fisheries, SFOS, and Curator of Fish, UA Museum, a joint appointment. His speciality is conservation biology, evolution and systematics of fishes. His teaching responsibilities will include Ichthyology, Marine Fishes of Alaska, and an unspecified graduate course. He will also establish a research program in biology and systematics of Alaskan fishes. Mr. Haas is presently a research biologist with the British Columbia Ministry of Fisheries, Vancouver, Canada.

The successful candidate for the Marine Biologist position is **Dr. Katrin Iken**. She will join us as an Assistant Professor on Sept. 15. Dr. Iken is a chemical ecologist, specializing in chemically-mediated interactions between plants and animals and in chemical defenses. She currently holds a postdoctoral position at the University of Alabama Birmingham, where she has been

conducting research in Antarctic benthic communities. Very little research of this type has been done at high northern latitudes and in the Arctic and she is looking forward to the many research opportunities afforded by her position with SFOS. Dr. Iken will teach our graduate Marine Biology course and participate in offering our Biology and Ecology of Marine Invertebrates course at Kasitsna Bay Laboratory.

Dr. Don Button, IMS, recently organized the first American Society for Limnology and Oceanography workshop on the development of sensitive flow cytometers for use in aquatic microbiology. The workshop was attended by international leaders in flow cytometry design and construction. One outcome was a plan to merge technology in single-molecule detection, by flow cytometry, with capabilities in the analysis of marine picoplankton. This will be proposed as a joint venture between the National Flow Cytometry Resource in Los Alamos, NM and UAF.

Arny Blanchard has been working as Biometrician/Project Manager at SFOS since October 2000. Arny has been employed at SFOS for over fourteen years in a variety of positions and currently manages a long-term monitoring program in Port Valdez, Alaska. He is available for consulting on statistical issues for students and staff as well as participation in research projects. We congratulate Arny on his promotion and encourage everyone to make use of his abilities.

In late April, Marine Advisory associate director **Rick Steiner** testified in Moscow before the Russian Duma (congress) Committee for Economic Policy and Business and the Committee on Taxation at a hearing on "Macro-economic Efficiency of Alternative Tax Policies." His testimony was "Restructuring Oil Taxation Regimes to Maximize Public Benefit." Steiner's principal message is that oil companies—both Russian and foreign multinationals—are retaining far too much of the economic rent from publicly owned resources, oil in particular.

Steiner feels the production sharing agreements between regional governments

in Russia and foreign oil companies are too favorable toward the oil companies. He recommended restructuring the tax regime to extract \$10-20 billion more revenue per year from oil and gas production into the federal treasury, establishing a Russian Permanent Fund (modeled on the Alaska fund), and establishing a Russian Land and Water Conservation Fund (LWCF) modeled on the LWCF in the United States, and he sought Russian support to create a global habitat conservation fund at the United Nations.

While in Moscow he also gave a seminar on resource economics to the Russian Academy of Sciences. Steiner said the recommendations and proposals were extremely well received, and that the committee chairmen will meet with President Putin with the recommendations. The Russian Academy of Sciences requested a summary of the testimony and seminar to provide to President Putin as well. Steiner's travel was supported by the Land Research Trust in London. From Moscow Steiner went to Tokyo, conducting a seminar for the Japan Environmental Disaster Information Center on oil spill prevention and response, and also to Sapporo where he gave a seminar on Sakhalin oil issues--both sponsored by Pacific Environment and Friends of the Earth-Japan. His speaking tour coincided with the release of the Japanese version of his co-authored 1999 report "Sakhalin's Oil: Doing it Right." He also met with top environmental officials of Mitsui and the Japan Bank for International Cooperation.

Jamelle Duszynski, former SFOS fiscal office front desk receptionist, is now the SFOS Payroll Personnel clerk.

Wendy Frandsen, former SFOS Payroll Personnel clerk, is now the SFOS Human Resource Coordinator.

Tania Clucas, former SFOS accounting technician, is now the SFOS Sponsored Programs Manager.

Juan Goula, former SFOS Human Resource Coordinator, is the new SFOS Operations Manager.

Ann Trent is the new SFOS accounting coordinator. Welcome Ann!

Dorene Walrath is the new SFOS fiscal office front desk receptionist. Welcome Dorene!

Michele Frandsen, former IMS lab technician, is the new Sea Grant Program Coordinator. She will be the primary contact for funded researchers, extension agents, graduate students and the public and will maintain and update the network database for the Alaska Sea Grant Program.



Dr. Don Button



Dr. Brendan Kelly



Rick Steiner

Seward Marine Center

Dr. Augustus John Paul III has been granted Professor Emeritus status. **Dr. Paul** will retire in 2001 with thirty years of service with the University. Most of this time was spent at the Seward Marine Center where he has been resident scientist for over 26 years. He and his wife, **Judy McDonald**,



Dr. A.J. Paul and Judy McDonald

who is a lab technician, will be dearly missed.

The R/V *Alpha Helix* spent January and February of 2001 undergoing shipyard repairs. During the period, the vessel was repainted. Both generators, plus the anchor windlass and hydraulic motors, were rewound. The rudder was removed for the installation of new bearings, a new weather tight door was installed on the upper deck and all electrical motors were measured for proper resistance. All fresh water, fuel and ballast tanks were cleaned, as were its sea chests. New carpeting was installed in most living spaces and scientific equipment was sent out for calibration and repairs. After being re-floated on 19 February, the vessel started its cruise season on 2 March. This year the vessel has a hefty 191 day schedule. It will sail in the Gulf of Alaska and Bering Sea as far northward as St. Lawrence Island. The GLOBEC program, PIs **Tom Weingartner** (SFOS-UAF) and Suzanne Strom (WWU), is a major part of its schedule but it will also place moorings into the Gulf and Bering Strait areas under the direction of PIs Knut Aagaard (UW) and **Dave Musgrave** (SFOS-UAF). A Steller Sea Lion study will be conducted with PI George Hunt (UCI) in the Aleutian Island area. Bering Sea cruises will also perform a Nutrient Study with **Terry Whitlege** as PI and a LEXEN program anaerobic study in Skan Bay with Bill Reebugh as PI. The Aagaard mooring cruise will occur partially in the Russian Exclusive Economic Zone. The crew consists of the old, reliable hands Bill Rook - master, Gary Ramos - mate, Trish Kaminsky - cook, Rawlins Appersen - chief engineer, Kevin Marlow - ableseaman plus Steve Hartz and Brian Rowe as marine technicians. New crewman this year are Brian Moore - assistant engineer, Dave McSpadden and Pam Blusk - ableseamen, and Dave Aldrich - marine technician.

The vessel's 2001 cruise season ends on 10 December.

Sea Grant

Excellence, third place. The video, created at the request of Dean Vera Alexander, showcases SFOS researchers, faculty, and students at work. Mercy produced the video—she created the concept and did the writing, shooting, editing, narration, and motion graphics. The award ceremony will be held June 7-8 in Chicago. Mercy received a similar award from the International Film and Video Festival 10 years ago for her video *It Could Have Been Prevented*, about river boating safety in Alaska. More information on Sea Grant videos, publications, and posters available at <http://www.uaf.edu/seagrant/pubvid/Pubs.html>.

Alaska Sea Grant's *Salmon Migration Game* won a gold award in the ACE competition, in the graphic design/illustration category. Former Sea Grant graphic artist Dave Brenner illustrated the game, and **Sue Keller** and **Kurt Byers** also helped with the product. The game, a joint Sea



Doug Schneider

Grant--U.S. Fish and Wildlife Service project, has been a popular seller and has attracted attention at trade shows. It is available at Sea Grant for \$10.

Kachemak Bay Conference

"Tides of Change: Patterns and Significance of Environmental Change in Kachemak Bay and the North Pacific Ocean" is the title of the upcoming Kachemak Bay Conference, scheduled for Sept. 14-15, in Homer. Scientists with pertinent research results interested in presenting papers or posters at the conference are invited to submit abstracts to the conference's steering committee. **Terry Johnson**, MAP, in Homer, is on the committee and is organizer of the marine ecosystem part of the program. Other sessions will focus on the nearshore environment and aquatic/terrestrial ecosystems. The Kachemak Bay Conference is both a forum for researchers to present their work and for educators and community members to



Terry Johnson

update their understanding of the state of knowledge about Alaska's coastal waters. Some sessions will be dedicated to technical presentations, others to interpretation of those presentations and to traditional ecological knowledge. Contact Terry Johnson at (907)

update their understanding of the state of knowledge about Alaska's coastal waters. Some sessions will be dedicated to technical presentations, others to interpretation of those presentations and to traditional ecological knowledge. Contact Terry Johnson at (907)

235-5643 or rftlj@uaf.edu.

Flow Cytometry News

Garrett Perney is the new research associate/flow cytometer operator. He has experience with Beckton Dickinson, a current leading supplier of the instrumentation, in electronics by way of chasing Russian submarines in the arctic, in cell biology through work with Peggy Arps, UAF, in microbiology and he also has experience in tissue culture. He is an avid photographer and aviator with good promise for returning the facility to one known for high quality data and leadership in aquatic bacterial analysis. In the coming months, according to Button, Perney "will be getting the system tuned up but will be glad to help with problems in marine microbiology. With the first precision standard curves now established by the facility and good stability of preserved samples that give accurate population, biomass, and DNA content data, the possibility of obtaining synoptic data on microbial activity by interested workers becomes available."



Fellows

"Each of our new fellows is a talented, articulate and recognized environmental scientist," said Judith Vergun, project director at OSU. "They will receive advanced leadership and communication training during the coming year, and improve their ability to share scientific expertise with a broad array of interested parties beyond academia." To date, the fellowship program has produced 60 fellows from 25 states and the District of Columbia, who have been trained to work with the private sector, public news media, policy makers, non-governmental organizations, and other scientists. More information available on Aldo Leopold Leadership Fellowships at: <http://www.leopold.orst.edu>.



An all-school faculty meeting was held at Wedgewood Resort May 15-16.

A number of older reprints on a variety of subjects from Dr. H. M. Feder's collection are available to anyone who might be interested in them. These reprints are located in file boxes on a laboratory bench in room 145, O'Neill. Please help yourself to any of the reprints of interest.

Alaska Sea Grant will be undergoing a program review 17-20 July 2001 by an assessment team appointed by the director of the National Sea Grant College Program. Those associated or familiar with Alaska Sea Grant are invited to provide the assessment team with comments on any aspect of the program or its work. You may submit written comments by mail to: Program Assessment Team, Alaska Sea Grant College Program, University of Alaska Fairbanks, PO Box 75504, Fairbanks, AK 99775-5040. Or by email to: fygrant@uaf.edu. More information on the PAT visit can be found at: <http://www.uaf.edu/seagrant/pat>.

A full-color version of our newsletter is available at: www.sfos.uaf.edu/
 In order to view this version, you will need a copy of Adobe Acrobat Reader.

Recent Publications

- Sheffield, G., Fay, F. H., Feder, H. & Kelly, B. P. 2001. Laboratory digestion of prey and interpretation of walrus stomach contents. *Marine Mammal Science* 17, 310-330.
- Hoberg, M. & Feder, H. In Press. The Macrobenthos of Sites within Prince William Sound, Alaska, Prior to the *Exxon Valdez* Oil Spill. *International Review of Hydrobiology*.
- Button, D. K. & B. R. Robertson. The DNA Content of Aquatic Bacteria by Flow Cytometry. *Applied and Environmental Microbiology* 67: 1636-1645.
- Button, D. K. 2001 Isolation of oligo-bacteria. In *Marine Microbiology*, J. Paul, Editor. Academic Press. p161-173.
- Lowther, P. E., H. D. Douglas III, & C. L. Gratto-Trevor. 2001. Willet (*Catoptrophorus semipalmatus*). In *The Birds of North America*, No. 579 (A. Poole & F. Gill, Eds.). The Birds of North America, Inc., Philadelphia, PA.

Editor's Corner: Got News?

Special thanks to Kurt Byers, Sue Keller and other staff of Sea Grant, staff of JCSFOS and Seward Marine Center, Tami Mau, Juan Goula, Drs. Brenda Konar, Don Button, and Howard Feder, and others for material used in this newsletter.

Greg Simpson

SFOS Support Services, SFOS/UAf

fygds@uaf.edu (907-474-2464)

Fax: 907-474-7204



School of Fisheries and Ocean Sciences

SFOS News

is produced by the
School of Fisheries and Ocean Sciences
Support Services
University of Alaska Fairbanks
Fairbanks, AK 99775-7220

The University of Alaska Fairbanks is accredited by the Commission on Colleges of the Northwest Association of Schools and Colleges. UAF is an AA/EO employer and educational institution.