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New Evaluation Process

The Sea Grant Association and the National Sea Grant Office will implement an evaluation process that will strengthen the Sea Grant college programs in the network and provide a basis for changing the grant levels to Sea Grant college programs. The new evaluation process will place emphasis on the accomplishments of the Sea Grant college programs and on the adoption of appropriate planning and implementation methods for the call and review of proposals. The evaluation process will also use review teams modeled after standard academic visiting teams.

Proposal Coordination

At the November meeting of the Sea Grant Association the National Sea Grant Office (NSGO) pledged to streamline its calls for proposals. NSGO will continue to reserve \$10 million of the \$55 million appropriated for the national program, for the purpose of running separate competitions outside of its support to Sea Grant College Programs. NSGO will streamline the process by (1) sending out the invitations for all of the competitions at one time, (2) better matching its calls for proposals with the timing of the competitions at each of the Sea Grant college programs, and (3) standardizing the review process.

Alaska Fisheries Report

Alaska's Super Station (Channel 2) recently aired a story on HACCP, thanks to Alaska Sea Grant and Marine Advisory. Alaska Sea Grant and MAP contacted Channel 2 news director Charles Fedullo with the tipoff that the seafood inspection program must be in place by December 18, 1997. The story was aired on the Tuesday night feature called the Alaska Fisheries Report.

Highlighted in the story were a description of HACCP (hazard analysis and critical control point), the FDA plan to implement the seafood inspection program this month, how HACCP will improve the quality and wholesomeness of the nation's seafood supply, the large number of seafood processors who have taken training necessary to carry out the HACCP program, and that HACCP is an outgrowth of a NASA program to ensure the quality of food in space flights. Kevin O'Sullivan of the Alaska Seafood Marketing Institute was interviewed on camera during the story. Alaska Marine Advisory has played a key role in providing [HACCP training](#).

Publications on the Web

National Fisherman magazine has placed the full text for several Sea Grant publications on their business manual web page. Included are *Trading Up, Saving Taxes*, by T. Johnson; *Fishing Vessel Insurance--How Much Is Enough?*, by T. Johnson; *Marine Partnerships*, by J. Jacobson; *Self-Insurance Programs for the Commercial Fishing Industry*, by D. Nixon et al., all published by Alaska Sea Grant; and *Defining Fisheries: A User's Glossary*, by K. Roberts et al., published by Rhode Island Sea Grant. <http://www.nationalfisherman.com/mlibrary/busman/busman.html>.

Publications to Be Released Soon

Temperature Directed Fishing: How to Reduce Bycatch and Increase Productivity, by Bob Mikol. This manual teaches temperature directed fishing methods to help fishermen reduce search time, increase fishing productivity, and eliminate bycatch. Temperature directed fishing (TDF) makes use of water temperature preferences of commercially important marine fish. Fishermen can practice TDF with minimal equipment--a notebook, graph paper, and temperature sensors to measure surface water temperature and subsurface temperature. TDF methods are widely used in Norway and by most of the larger Japanese fishing operations,

and for them it pays off in high productivity. MAB-48, 1997, 43 pp., price \$4.00, avail. mid-December 1997, 474-6707.

[Alaska Diving Safety: Workshop Proceedings](#). The dive harvest industry is poised to boom in Alaska, and at the same time the attraction of Alaska's underwater wonders is stimulating an upsurge in recreational scuba diving. Anticipating a large increase in diving for fun and profit in Alaska's waters, Alaska Sea Grant and the Alaska Marine Safety Education Association held a workshop in July 1997 in Sitka, Alaska, to identify safety education needs for the dive industries. The meeting was attended by commercial and recreational divers and dive shop owners, U.S. Coast Guard, emergency responders, and university people. This book is useful to all who are concerned about the future of commercial and recreational dive safety in Alaska. AK-SG-97-03, 1997, 43 pp., \$4.00, avail. mid-December 1997, 474-6707.

[Forage Fishes in Marine Ecosystems](#). The information on ecosystems worldwide brought together at the International Symposium on the Role of Forage Fishes in Marine Ecosystems will aid in multispecies management in Alaska and elsewhere. Forage fishes are of particular concern in Alaska because lack of these prey fishes is most likely the cause of a dramatic decline in Steller sea lions, fur seals, and seabirds in the past 20 years. Fifty-six research contributions are in the book, plus a workshop report. Perhaps most useful is the 33-page symposium summary by Alan Springer and Suzann Speckman, which has indexes to the book by predator and prey species. AK-SG-97-01, 1997, 816 pp., mail order price \$40.00 for U.S. and Canada, \$60.00 for overseas orders, avail. January 1998, 474-6707.

[Identification Guide to North Pacific Albatrosses](#), by Liz Mitchell. This 8 1/2" by 11" laminated, color identification card shows three species of albatrosses. It is designed as a tool for longline fishermen to avoid taking rare albatrosses. If fishermen see the endangered short-tailed albatross they are advised to move their vessel to another area--taking just one of these birds can close down a fishery. Agencies who supported the publication include Alaska Sea Grant, Audubon Society, International Pacific Halibut Commission, North Pacific Longliners Association, Washington Sea Grant, and U.S. Fish and Wildlife Service. Alaska Sea Grant will sell the cards, price \$4.00, avail. January 1998, 474-6707.

Alaska Ports and Harbors

MAP agent Doug Coughenower reported in his November *Charter Log* newsletter that the Alaska Association of Harbormasters and Port Administrators want more marine fuel tax money used for repairing ports. Coughenower, who has many charter fishing businesses among his Homer constituency, attended the AAHPA annual meeting in Wrangel recently. AAHPA says the tax brings \$8 million into the Alaska General Fund each year, with less than half the money going back to the ports. Repair and maintenance of Alaska's ports and harbors has been neglected--the Department of Transportation estimates that nearly \$53 million is needed to bring them up to a "good" standard. AAHPA is backing an effort to funnel a higher proportion of the 5% fuel tax to port repair and maintenance, Coughenower reports.

Volunteer!

The National Ocean Sciences Bowl is a Jeopardy-style marine science contest that will match teams of students from 16 Alaska high schools, to be held in Seward February 28, 1998. Volunteers will be trained January 8-14, when National Ocean Science Bowl officials from Washington, DC, will be in Seward to teach rules and oversee practice on the clock and buzzer system. If you are interested in volunteering for the event, contact Judy McDonald at (907) 224-5261, FNJM1@uaf.edu.

Volunteers needed:

1. Moderators, who have a good voice and are familiar with scientific vocabulary.
2. Rules judges, who have time to study the rules and have experience with references.
3. Scorekeepers, who can add by 4s and 10s and have legible writing.
4. Timekeepers, who can operate the clock and stopwatch.
5. Information booth tenders, who are friendly and informative.
6. Runners, who can get around fast to deliver messages and run errands.

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Research Funds Awarded

Alaska Sea Grant is funding the following research projects for 1998-99:

- Michael Castellini, Condition and Health of Alaska Seals and Sea Lions; Kerry Beckett and Heather Herman, student assistantships
- Chuck Crapo, Managing Salmon Fisheries for Quality
- Keith Criddle, Kenai Peninsula Pacific Halibut Sport Fishery; Isaac Wedin and Michelle Jones, student assistantships
- Keith Criddle and Todd Lee, Copper River Basin Personal Use and Subsistence
- Bruce Finney, Long-Term Variability in Alaskan Sockeye Salmon Abundance; John Sweetman, student assistantship
- Tony Gharrett and Bill Smoker, Conserving Salmon Biodiversity: Outbreeding Depression in Pink Salmon, Phase II; Ivan Wang, student assistantship
- A.J. Paul, Reproductive Biology of Brown King Crab
- Gerry Plumley, Paralytic Shellfish Poisoning: Identification of Bacterial Genes; Tracy Toivanen, student assistantship
- Terry Quinn and Clive Turnbull, Extensions to a Length-Based Population Model for Invertebrate Populations; Caihong Fu, student assistantship
- Terry Quinn, Lew Haldorson, and Jonathon Heifetz, Adaptive Sampling of Rockfishes in the Gulf of Alaska
- Tom Weingartner, Monitoring Transport in the Alaska Coastal Current: A Feasibility Study

Bering Sea Workshop

During the Bering Sea Ecosystem Workshop in December, Sea Grant director Ron Dearborn's words emphasizing that university research is key to good resource management were enthusiastically received. Dearborn urged state, federal, and university people to increase cooperative efforts to ensure effective long-term management of the Bering Sea ecosystem.

The Anchorage workshop was attended by representatives of federal and state agencies, native interests, international research organizations, and university researchers in physical and biological sciences. It was convened to learn from scientists what research is needed to understand ecosystem changes in the Bering Sea. An executive task force has been created to provide funding and focus that will sustain the highly productive Bering Sea ecosystem. The meeting was sponsored by NOAA and the Department of the Interior.

Johnson Has Job Information

In a recent newspaper column, Dillingham MAP agent Terry Johnson offered help to fishermen suffering because of the salmon industry slump in western Alaska. Johnson encouraged fishermen to consider supplemental employment. He reported that the marine industries--transportation, oil and gas exploration, undersea research, shipbuilding, and engineering--are all booming. There is a big demand for qualified operators, crews, and

technicians. Fleets of offshore supply boats in the Gulf of Mexico are tied up for lack of crews, and shipyards turn away contracts because they can't get enough skilled workers. In most cases a salmon fisherman can take such a job seasonally, without giving up the traditional lifestyle.

Because the best jobs require specialized education or training, Johnson gathered information on training centers at Fish Expo last November, such as the California Maritime Academy, the Seattle Maritime Academy, and Alaska Vocational-Technical Institute. Johnson compiled web addresses for 30 marine technology schools, soon to be accessible from the Sea Grant web site.

Wynne Helps New England Fishermen

MAP marine mammal specialist Kate Wynne was tapped by Maine-New Hampshire Sea Grant to help New England fishermen reduce threats to whales. During a temporary assignment at the University of Maine last fall, Wynne wrote a series of illustrated pamphlets for the public, and contributed to a video about recent whale conservation measures. The project was funded by NOAA through the University of Maine Cooperative Extension and Marine Advisory Program.

The fishing industry is getting hit with new regulations and guidelines, while many fishermen aren't aware of any problem and don't know why the regulations are necessary. The pamphlets will help the fishing industry and boaters modify gear, avoid ship collisions with whales, and understand the process required by the Marine Mammal Protection Act. One publication advises boaters on what to do if they spot an entangled whale.

Once the new rules are finalized by NMFS, the Maine Department of Marine Resources and other organizations will distribute Wynne's materials. Wynne's approach to addressing threats fishermen may pose to marine mammals is to involve fishermen in finding solutions.

"Fishermen have lots of ideas and information that scientists can use. They can be our eyes and ears," Wynne says.

Kaynor Is New Webmaster

Carol Kaynor has been promoted to Webmaster/Publishing Coordinator at Alaska Sea Grant. In addition to continuing to format books, Kaynor now has responsibility for much of the web site work at Sea Grant. She puts text and artwork on the 350-page web site, sets web technology standards for Sea Grant, registers the site with search engines, updates links, learns coding language, finds new interface software, and keeps up on changes in fast-moving web technology. Kaynor started working at Sea Grant in 1993. Her dedication and high work standards have made a major contribution to the quality of Alaska Sea Grant's award-winning books.

Brenner Dives on Alvin

Alaska Sea Grant artist Dave Brenner spent five weeks aboard the R/V *Atlantis* on a cruise south of Baja California, in November-December. SFOS scientist Cindy VanDover, hydrothermal vent researcher and submersible Alvin pilot, invited Brenner along on the cruise to offer an artist's perspective on the life forms two miles below the ocean surface. Despite the demand among scientists for space on the submersible, Brenner got on an Alvin dive after patiently waiting for four weeks.

The submersible took the crew down to deep sea volcanic vents called black smokers. Brenner shot many photographs and did a lot of sketching, which may become part of a traveling art exhibit, a coloring book, and a poster showing the vents and the fauna that thrive around them. Brenner is working with Wisconsin Sea Grant to put some of the images on their JASON web site. Since his return, he has made three presentations about the Alvin to kids at Fairbanks elementary schools.

Schneider to Board Icebreaker

Sea Grant information officer Doug Schneider will spend five days aboard the Canadian icebreaker *Des Groseilliers* in mid-February. Last fall the icebreaker was deliberately frozen in the Arctic ice pack 300 miles north of Barrow to allow 50 researchers to study the role of the Arctic in global climate. The joint U.S.-Canadian research project, SHEBA (Surface Heat Budget of the Arctic), is the largest research effort undertaken in the Arctic by the National Science Foundation. While on the ship, Schneider will interview scientists for Arctic Science Journeys radio, and coordinate stories for the Voice of America and KUAC-FM's Alaska Edition.

Magazine Cover Photo

The photo on the cover of the January issue of the American Fisheries Society Fisheries magazine was taken by Doug Schneider, Sea Grant information officer. The picture shows commercial fishermen from the Russian "Old Believers" settlement near Homer, Alaska.

New Publication

[*Who Has the Legal Right to Fish?*](#) is an indispensable primer on the legal basis for rights to the fish in Alaska waters. The book defines how governments and tribes have authority for fish management and taking; explains the interplay among federal constitutional law, state common law, and statutes in determining rights to the resource; and describes the legal balancing needed to resolve competing uses of the resource. It is a good introduction to legal procedures that test personal rights, and has some history of the U.S. legal system. Author Harry Bader is associate professor at UAF College of Natural Resource Development and Management, where he teaches natural resource law and policy. The book is 28 pp. and is available at the Sea Grant office for \$4.00, phone 474-6707.

Marine Scientist Directory

A worldwide directory of marine and freshwater scientists is being put together on the worldwide web. Sponsors envision that the directory will become the main online tool for professionals seeking contract partners, coauthors, reviewers, and specialists. To submit information or search the database, visit the site at <http://ioc2.unesco.org/glodir/>.

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Economic Value of a Personal-Use Fishery

Michelle Jones, graduate student in the UAF Economics Department, is working for Keith Criddle and Todd Lee on their Sea Grant project "Economic Valuation of the Copper River Basin Personal-Use and Subsistence Salmon Fishery." Her research assesses the value of the fishery using a "travel cost" method--how far and how frequently people travel to the area to fish. Her results will be of particular interest to the Alaska Board of Fish who manage the fishery and to personal-use, sport, and commercial fisheries organizations.

Economic analyses have been done for commercial and sport salmon fisheries in the Copper River Basin, but not for personal use. In fact, this is the only study Jones knows of to assign economic value to a personal-use/subsistence fishery. The Copper River Basin personal-use/subsistence fishery is the largest in Alaska.

Jones has been gathering data for her research since summer 1997. She is using information from the Alaska Department of Fish and Game personal-use/subsistence fishery, for which about 8,000 permits are issued per year. She also has demographic and income data from the Internal Revenue Service and Alaska Department of Labor. Her 10-year dataset covers an unusually long period for this type of study.

The target species in the Copper River Basin is sockeye salmon and also includes chinook and coho, with an occasional steelhead. Personal use fishermen use dipnets and subsistence fishermen use fish wheels, and the season lasts from June 1 to the end of September. Jones says the bulk of users are from Anchorage and Fairbanks, but people come from as far away as Barrow, Prudhoe, Wrangell, Sitka, and the Aleutians.

Jones' preliminary calculations indicate that she'll have some statistically significant results, but she does not yet know what story the numbers will tell. She plans to be finished writing her thesis on this research in April and will receive her master's in May 1998.

Alaska Ocean Sciences Bowl

Twelve teams of Alaska high school students competed in the Alaska Ocean Sciences Bowl competition in Seward, February 28. The winning team, four girls from Anchorage East High School, will compete in the national finals in Washington DC April 25. They will also be treated to a cruise on the *Alpha Helix* March 20.

Judy McDonald, Seward Marine Center, organized the Alaska competition. McDonald is pleased with the success of the Alaska bowl, and regards it as an excellent activity to train students in marine science. She had help from 50 volunteers from SFOS and Seward. Science judges included Dean Vera Alexander, Mike Castellini, A.J. Paul, Ray RaLonde, Susan Sugai, and Seward mayor Bob Satin. Susan Henrichs and Susan Sugai reviewed the questions. Linda Clayton coached the Seward team, and Brian Himelbloom coached the Kodiak team. Hank Pennington raised funds, took pictures, and moved tables. Grace Abromaitis and Jim Pfeiffenberger provided facilities support. Deborah Mercy videotaped the event. Roberta Miller organized the Fairbanks volunteer contingent. Julie Carpenter helped with fund-raising. Doug Schneider helped get the story out to the media. Dave Brenner designed t-shirts and the banner. Many Seward helpers served as moderators, timers, and runners. And several individuals, businesses, and agencies donated money to help defray costs.

The Alaska event was one of sixteen regional Ocean Science bowls held around the country with support from the Consortium for Oceanographic Research and Education (CORE), the National Educators Association, NOAA, NASA, NSF, and US Navy Office of Naval Research and Oceanographer of the Navy. CORE delegates are currently considering

whether the event will be held every year in the future. McDonald is enthusiastic about organizing the Alaska OSB annually--she already has volunteers lined up for 1999.

Articles Published

Doug Schneider, Sea Grant public information officer, published two stories in the March *Alaska Fisherman's Journal*. "New Nets Let Fish Go" is about UAF-developed, square-mesh net panels which allow smaller pollock to be released when larger fish are targeted by trawlers. "Popcorn of the Sea" is a story about University of British Columbia research on why a long-term, pollock-only diet may not sustain sea lions.

Sea Grant Association

The Sea Grant Association will hold a 30th anniversary celebration for Sea Grant in Washington DC on March 11. The event will be in the Mansfield Room in the Capitol, and will be hosted by Sen. Ted Stevens. SGA president Ron Dearborn will welcome dignitaries and special guests, Congressional members will speak, and John A. Knauss will address the group. SGA will also have a reception for past and present Knauss fellows, and hold an SGA delegates meeting.

Congress Reauthorizes Sea Grant

Alaska Sea Grant received good news this month when Congress reauthorized the nation's Sea Grant programs through 2003. The reauthorization recommends an appropriation of \$64.8 million to Sea Grant in 1998, an increase of nearly \$8 million. The funding will be divided among the 29 state Sea Grant programs through a competitive review process. Alaska Sea Grant's current year budget is \$1.3 million.

Alaska Sea Grant's research focuses on two major program goals: understanding the natural and human-caused changes in the North Pacific Ocean, and maximizing the value of Alaska seafood production.

Sponsors of S. 927, "Sea Grant Reauthorization Act," were Olympia Snowe (R-ME), chair of the Subcommittee on Oceans and Fisheries, and Ernest Hollings (D-SC), ranking member of the Committee on Commerce, Science, and Transportation. Ted Stevens cosponsored the bill. In the House the bill was sponsored by Don Young, chair of the Committee on Resources, Jim Saxton (R-NJ), Neil Abercrombie (D-HI) and George Miller (D-CA).

YOTO

The United Nations declared 1998 as the International Year of the Ocean in recognition of the importance of the ocean, the marine environment, and its life-giving resources. Many YOTO special events are scheduled, including a major International World's Fair, Oceans 98 in Lisbon, Portugal. The World's Fair runs from May 22 to September 30, and is sponsored by Microsoft's Bill Gates. An oceanarium on site will hold 15,000 specimens of 200 species.

Plans for YOTO have been in the works for several years. In 1993, the Intergovernmental Oceanographic Commission of UNESCO (United Nations Education Science and Cultural Organization) passed a resolution calling for an International Year of the Ocean, and the UN General Assembly formally adopted the proposal in December 1994.

NOAA is leading the U.S. federal effort to promote YOTO. Also participating are National Security Council, Office of Science and Technology Policy, National Science Foundation, US Navy, US Army Corps of Engineers, Department of Energy, Department of State, US Coast Guard, US Maritime Administration, Department of the Interior (Office of Water and Science), US Geological Survey, Minerals Management Service, Environmental Protection Agency, and NASA.

For information on YOTO, go to <http://www.yoto98.noaa.gov>.

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Knauss Fellowships

Graduate students in all marine-related fields are invited to apply for the 1999 Knauss Marine Policy Fellowship. Since 1979, the Sea Grant Knauss Fellowship program has provided a year's educational experience in Washington DC for 345 students. Each year 20-25 fellows in the program get valuable on-the-job training, gain access to professional networking, and develop close friendships with other fellows. Applications are due in the Alaska Sea Grant office in early September 1998, for the fellowship term beginning February 1999. For more information contact Sue Keller 474-6703.

Ecosystem Symposium

An international symposium on Ecosystem Considerations in Fisheries Management will be held September 29-October 3, 1998 in Anchorage. It is the 16th Lowell Wakefield Fisheries Symposium and the 1998 joint meeting of the American Fisheries Society Western Division, Alaska Chapter, and North Pacific International Chapter.

The goal of the symposium is to gather world experts on how to incorporate ecosystem knowledge into fishery management, and how to advance fishery management beyond the single species model. The Lowell Wakefield program is organized into sessions on Physical and Environmental Effects, Species Interactions, Concepts and Tools for Management, Anthropogenic Influences, Habitat and Spatial Considerations, and Whole Ecosystem Approaches. For Wakefield information, visit our Sea Grant [conferences](#) web page.

Presentations for the AFS program are on Lake Fertilization, Influence of Spawning Anadromous Fishes on Freshwater and Terrestrial Ecosystems, Sockeye Salmon Ecology and Management, Recent Developments in Modeling Salmon Populations, Riparian Ecology and Management, Rainbow Trout in Alaska, Ecosystem Management on Commercial Forest Land, Marine Fisheries Assessment and Management in the North Pacific, Pink Salmon and Oil, Adaptive Management for Fish Recovery and Enhancement, Mass Marking in Fisheries Management Research, and Effects of Urban Development on Fish and Their Habitat. For AFS information, visit the AFS Alaska Chapter web site at <http://www.fisheries.org/afs-ak/>.

The University of Alaska Sea Grant College Program has been sponsoring and coordinating the Lowell Wakefield Fisheries Symposium series since 1982. The meetings are a forum for information exchange in biology, management, economics, and processing of fish species and complexes as well as an opportunity for scientists from high latitude countries to discuss their work. To register for the joint meeting go to our [conferences page](#), or contact Brenda Baxter, phone 474-6701.

Athelstan Spilhaus

Athelstan Spilhaus, one of the "fathers" of Sea Grant, died March 29 at the age of 86 in Virginia. Spilhaus is credited with presenting the idea for Sea Grant Colleges at the 1963 meeting of the American Fisheries Society in Minneapolis.

Spilhaus was a geophysicist, meteorologist, and inventor who became the U.S. ambassador to UNESCO in 1954. He spent most of his career at the University of Minnesota, where he was a meteorology professor and dean of the university's technology institute. Spilhaus developed the bathythermograph to measure temperatures in the deep ocean.

Many know Spilhaus through his newspaper connection. He was chair of the scientific advisory committee of the American Newspaper Publishers Association, and wrote the "Our New Age" Sunday feature for youths, which appeared from 1957 to 1973. Spilhaus was known to many as an undaunted, resolute leader, a pioneer, and a patron of the oceans.

Kodiak Whale Fest

Kodiak Island residents have a unique opportunity to view gray whales this month as more than 20,000 of the 30-ton cetaceans make their way from Baja California to the Bering Sea. Marine Advisory specialist Kate Wynne has helped coordinate the second annual Kodiak Whale Fest, a community event to focus on the annual migration and educate the public. Wynne is giving public lectures, has promoted the event on radio and TV, and wrote a brochure for it. Events during the April 4-11 Whale Fest include lectures, art shows, a kite flying contest, a whale video contest, museum exhibits, movies, and more. SFOS professor Mike Castellini is also on the lecture schedule.

As many as 24 whales can be seen in one hour as the whales pass by Kodiak Island on their spring migration. Viewers are encouraged to report their sightings to a whale hotline hosted by the visitor bureau and reported on the radio. Susan Payne, who is directing Whale Fest, hosts a web site for the event at <http://www.koc.alaska.edu/sprojects194l/whalefest/wf2.htm>.

Radio Awards

UAF's Arctic Science Journeys radio series recently won awards in the annual competition of the Agricultural Communicators in Education (ACE), a national group of university writers and communications professionals. The radio series won first place in the regular program category, the story "Trawling for Answers for Sea Lion Declines" won first place in the radio news category, and "Fly Away Home," about the spring migration of shorebirds through the Copper River delta, won second place in the features category.

Arctic Science Journeys is written and produced by Doug Schneider at Alaska Sea Grant. KUAC-FM's Robert Hannon and Debra Damron of UAF University Relations are hosts. The series highlights science, culture, and the environment of the Arctic, and is heard throughout Alaska, the Lower 48, and internationally on the Voice of America. [Story text](#) is available at the Alaska Sea Grant web site.

Publication Awards

Each year the editors of the State Publications column in the *Journal of Government Information* select 100 publications nationwide, notable for their content and presentation. Alaska Sea Grant's [Solving Bycatch: Considerations for Today and Tomorrow](#) was one of three Alaska publications selected for 1997. Patience Frederickson, head of Government Publications Services for the Alaska Department of Education, nominated the book. *Solving Bycatch* is the proceedings of a workshop held in September 1995 in Seattle. Papers cover the ecological impacts of bycatch and fish behavior, and panel discussions are included on management and methods used to reduce bycatch. Brenda Baxter and Sue Keller produced the book. AK-SG-96-03, 1996, 322 pp., \$25, available from Sea Grant, phone 474-6707.

Alaska Fisherman's Direct Marketing Manual, edited by MAP agent Terry Johnson, was also selected as a 1997 notable government publication. Brian Paust and Craig Wiese contributed to the book as well. It is available from the Alaska Seafood Marketing Institute, (800) 478-2771.

Steller Sea Lion Video

MAP media specialist [Deborah Mercy](#) recently finished a video on Alaska's Steller sea lions, a joint project with Alaska Department of Fish and Game. The video describes how Steller sea lions live and explains what scientists are doing to unravel the mystery of the sea lion population crash. The video is geared to the school classroom and the public. MAPV-35, 27 minutes, \$20.00, available at Sea Grant, 474-6707.

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Marine Education

Last month, MAP agent Dolly Garza and Sea Grant artist Dave Brenner helped educate Fairbanks children about the ocean. Garza, Brenner, and many other community professionals were participating in Sea Week at Pearl Creek Elementary School in Fairbanks. Garza demonstrated subsistence uses of Alaska's coastal foods and Brenner made presentations on his experience diving to the bottom of the ocean in the submersible *Alvin*.

Undersea photos that Brenner took on the *Alvin* were highlighted in a story published in the Heartland section of the *Fairbanks Daily News Miner* March 12, written by Cindy Van Dover, Undersea Research Center science director. (Alaska Sea Grant has a limited number of copies of the article.)

Salmon Preview on TV

A new program in the Alaska Resource Issues Forum Television Series will air May 9 in Anchorage. Salmon Preview 98 is a one-hour discussion of the upcoming salmon season in Alaska, including projected run sizes, market characteristics, and more. Featured are Barbara Belknap, Alaska Seafood Marketing Institute; Gunnar Knapp, Salmon Market Information Service; Jerry McCune, Cordova District Fishermen United; Bill Terhar, president of Ocean Bounty Seafoods; and Kate Troll, Alaska State Fisheries Specialist. MAP agent Rick Steiner is the moderator. The program will be aired on KAKM Channel 7, May 9 at 6 pm, and also on KUAC Alaska One, Sunday June 7 at 2 pm.

Sea Grant Appropriations

After recent news of Sea Grant reauthorization for another five years, the National Sea Grant College Program now views with interest the upcoming appropriations process. A letter written by Representative Don Young to Chairman Rogers, of the Appropriations Committee, urges that Sea Grant be funded at its authorized level of \$64.8 million, which would be an increase of about \$7 million over the current appropriation. The letter is co-authored by other senior Republicans and Democrats on the House Resources Committee, and has been signed by 100 members of the U.S. House of Representatives. The appropriations process in the House is moving slowly, and the effect of the letter is not yet apparent.

1998 Industrial Fellows

Proposals are due June 1, 1998, at Alaska Sea Grant for the 1998 Industrial Fellows Program. National Sea Grant developed the Industrial Fellows Program in 1995, to strengthen ties between academia and industry. National Sea Grant expects to support up to four new Industrial Fellows in 1998, with required matching funds from private industrial sponsors.

In cooperation with specific companies, the Sea Grant Industrial Fellows Program provides support for highly qualified graduate students who are pursuing research on topics of interest to a particular industry or company. Ideally, the student, faculty advisor, Sea Grant, and the industry representative work together on a project from beginning to end. Research facilities and the cost of the activity are shared.

University faculty are the major source for identifying potential industrial collaborators and research topics, while Marine Advisory, university industrial relations offices, and the Sea Grant Review Panel also have located industrial partners in some states. Graduate students are selected for the fellowships through national competition.

The goals of the Industrial Fellowship Program are to enhance the education and training

provided to top graduate students, provide real-world experience to graduate students to accelerate career development, increase interactions between U.S. top scientists and engineers and their industrial counterparts, accelerate the exchange of information and technologies between universities and industry, and forge long-term relationships between Sea Grant and industrial firms.

Sea Grant programs can support up to half the total budget, and the industrial partner must commit to match funds. The sponsoring Sea Grant program conducts a peer review on submitted proposals, and the National Sea Grant Office oversees further review by a panel from academia, industry, and the federal government with expertise in industry-academic interactions. Fellowships begin September 1, 1998.

Alaska SeaLife Center

More than two decades of planning by Seward residents and University of Alaska personnel culminated on May 2 with the grand opening of the \$57 million [Alaska SeaLife Center](#) in Seward. The center is the only northern-climate marine mammal research facility in the Western Hemisphere. Also central to its mission are research on seabirds, fishes, and invertebrates; marine mammal and seabird rehabilitation; and public education.

The SeaLife Center got a generous donation at the grand opening from the Fish and Wildlife Foundation of Washington DC--a \$1 million check was presented to center director Kim Sundberg for Steller sea lion research. Luminaries giving speeches at the grand opening included Sen. Frank Murkowski, Gov. Tony Knowles, and former Gov. Wally Hickel. UA President Jerome Komisar and UAF Chancellor Joan Wadlow, both on the SeaLife Center board of directors, participated in the ribbon cutting.

Grand opening festivities included a special showing of Sea Grant's newest video, [Steller Sea Lions: In Jeopardy](#), produced by [Deborah Mercy](#). The video will be shown daily this summer at the SeaLife Center. In addition to the video, many Sea Grant books and posters are available at the center gift shop.

IMS and SFOS faculty were central to the planning that resulted in the SeaLife Center. UA professor Don Hood, working with Seward government and business leaders, was one of the visionaries who developed the initiative for a world-class marine research facility in Seward. The idea gained momentum after a National Science Foundation study cited Seward as an ideal location for a major cold-water marine science laboratory. SFOS Dean Vera Alexander has been a staunch supporter, and Tom Smith and Mike Castellini were principal contributors in planning and implementation of the center.

The long-standing effort to establish a major marine research facility got the boost it needed in the early 1990s after the *Exxon Valdez* oil spill. Seeing the opportunity, IMS professor A.J. Paul advised planners and developers that marine mammal and seabird research and rehabilitation was the best focus for the facility. With encouragement from then-Governor Hickel, the Alaska Legislature earmarked \$12.5 million in *Exxon Valdez* settlement money for the project. The *Exxon Valdez* Trustee Council later provided \$24.9 million, and another \$20 million was raised through bond sales and fund-raising activities.

Today, although the self-supporting SeaLife Center is not part of the University of Alaska, SFOS personnel remain key in its day-to-day operation. Mike Castellini is research director, and several SFOS faculty review research proposals and provide guidance for the center. For more information, contact Mike Castellini at 474-6825, mikec@ims.alaska.edu.

Ocean Conference

The National Ocean Conference is scheduled for June 11-12, 1998, at the U.S. Naval Postgraduate School in Monterey, CA. Organized by the Secretary of Commerce and Secretary of the Navy, the conference will be the official U.S. forum of business, academia, government, and non-government organizations to talk about national interests in the ocean for the next century. Approximately 500 people have been invited to the conference.

The conference will address oceans and commerce; oceans and global security; ocean environment and health; and ocean exploration, education, and research. Among others, President Clinton, Vice President Gore, and state governors will be involved.

To make the conference a national event, several sites will be set up for regional programs with down-link broadcasts from Monterey and regional panel discussions. The regional sites are in Boston; Washington DC; New York; Baltimore; Charleston; Tampa; Corpus Christi;

Monterey; and Newport, OR.

A panel of experts at each site will write a summary report from the region, addressing major questions. The panelists for regional sites are being selected now. For information about being a panelist, contact Oregon Sea Grant Educator Vicki Osis, phone: 541-867-0159, fax: 541-867-0320, e-mail: Vicki.Osis@hmssc.orst.edu.

Fishlines is a monthly in-house newsletter reporting Alaska Sea Grant activities to staff, students, and principal investigators of Alaska Sea Grant and the Marine Advisory Program, and staff of the School of Fisheries and Ocean Sciences. For more information contact Sue Keller, (907) 474-6703, FNSK@uaf.edu.

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Arctic Science Journeys

Discovery Channel On-Line is using Arctic Science Journeys radio stories on an occasional basis. The first one, ORCA-FM, was on the Discovery site in May, complete with sound and pictures. Watch the News Briefs section of <http://www.discovery.com/> for future ASJ stories. To hear current Arctic Science Journeys stories, dial 907-474-1806. Full text is at the Sea Grant [ASJ site](#).

Aquaculture Technology Workshop

Connecticut Sea Grant is co-sponsoring a workshop on Aquaculture Technology on June 26-27, 1998 with the University of Connecticut Biotechnology Center, in Stamford, CT.

Common Bivalves of Alaska--Poster

Many people love to gather shellfish to eat from Alaska's beaches, but it can be a fatal pastime if bivalves are harvested from unmonitored, uncertified beaches. This [two-sided poster](#) shows the different clam, mussel, scallop, cockle, and oyster species commonly found along Alaska's shores. It also tells about the risk of eating shellfish contaminated with paralytic shellfish toxin, a naturally occurring poison sometimes found in shellfish. Information is included on distribution, habitat, size, identifying characteristics, and toxicity when contaminated with paralytic shellfish toxin. The poster has information on how to recognize symptoms of paralytic shellfish poisoning and how to provide first aid to victims. Available at the Alaska Sea Grant office, phone 474-6707. 11" x 17", \$2.00.

Alaska's Awesome Halibut--Poster

This lavish color poster, designed and illustrated by Anchorage artist Debra Dubac, shows the Pacific halibut life cycle and range, tells how much is harvested by recreational, subsistence, and commercial fishers, and presents fascinating facts about the prized fish. The poster was produced by the Alaska Marine Conservation Council, and is available at the Alaska Sea Grant office, phone 474-6707. 39" x 27.5", \$20.00.

Resource Forum Video

Alaska's Inshore-Offshore Bottomfish Processing Debate is a one-hour video discussion of how to divide one of the largest fisheries in the world--Alaska's 2 million ton bottomfish harvest--between factory trawlers and boats delivering to onshore processors. The North Pacific Fishery Management Council is scheduled to make the allocation decision on June 10.

Panel members include Joe Sullivan of At-Sea Processors Association; Glen Reed, executive director of North Pacific Seafood Coalition; Eugene Asicksik, president of Norton Sound Economic Development Corp.; and John Iani, vice president of UniSea, Inc. Marine Advisory agent Rick Steiner is moderator. The program aired the first week of June in many parts of Alaska. For more information or to get a copy of the video, contact Rick Steiner at (907) 274-9691.

Positions Available

American Oceans Campaign has two job openings--a senior California environmental policy position in Santa Monica, and a marine wildlife program leader position in Washington, DC. The environmental policy position requires a background in California ocean and coastal issues, and experience in ocean environmental policy, public relations, leadership, and fund-raising. The marine wildlife position requires knowledge of fishery management, and skills in writing, leadership, and working within a coalition. For more information on the job

openings, call (310) 576-6162.

American Oceans Campaign is a national nonprofit environmental organization, <http://www.americoceans.org>. Ted Danson is president of the board of directors.

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PSP Saxitoxin Research

Shellfish are abundant in Alaska, but largely because of contamination by saxitoxins Alaska's commercial bivalve industry remains very small. Understanding paralytic shellfish poisoning (PSP), which is caused by saxitoxins, is critically important to the state of Alaska.

IMS graduate student Tracie Toivanen is working on a project that will make headway toward that goal. Toivanen's research is part of Gerry Plumley's Sea Grant-funded study "Paralytic Shellfish Poisoning: Identification of Bacterial Genes." The project will help clarify saxitoxin synthesis, determine the roles of bacteria and dinoflagellates in toxin production and PSP events, and identify toxin-producing microorganisms. Plumley plans to identify and clone genes responsible for synthesizing PSP toxins, and characterize the genes by DNA sequencing.

Although Toivanen has not chosen a specific direction for her master's research, she has participated in experiments on the growth conditions and saxitoxin production of the bacterium *Pseudomonas stutzeri*. Her preliminary studies have involved raising the bacterium with various sources of carbon and nitrogen to determine the effect on saxitoxin production, comparing bacteria-produced saxitoxins to those produced by PSP dinoflagellates, and introducing the toxin-producing bacteria to non-toxin algae to find out if the same toxin is produced.

PSP saxitoxin is known to exist in 21 molecular forms. When ingested by humans, saxitoxins work as sodium channel blockers, stopping the passage of electrical charge through cells of muscles and neurons. Eating only a small amount of contaminated shellfish can cause death. Adding to the urgency for research like Plumley's project are reports of an alarming increase in the worldwide frequency and severity of harmful algal blooms, including PSP-producing dinoflagellates. Contact Sea Grant for more information about [PSP](#), 474-6707.

Visiting Professor

Alaska Sea Grant recently supported UAF visiting faculty Ed Kolbe at the Marine Advisory Program in Anchorage. Kolbe spent four months in Alaska, developing a northwest regional extension specialist position in engineering, and seeking engineering projects of regional interest. As part of the same project Kolbe spent six months at the University of Washington, and he is now with Oregon State University Sea Grant Extension in Portland, Oregon. While in Alaska Kolbe talked to processors, village organizers, and others about needs and opportunities. Kolbe and MAP chairman Don Kramer have completed a manuscript for a book on planning for freezing seafood. Kolbe is professor in the Bioresource Engineering Department at Oregon State University in Corvallis.

New Book

[*Spawn, Spat, and Sprains: A Manual for Aquaculture Safety in Alaska*](#), by Jerry Dzugan and Dan Falvey, with introduction by Ray RaLonde.

Spawn, Spat, and Sprains is the only book on the market that tells aquaculture workers how to reduce the risk of being injured at the hatchery and shellfish farm. The easy-to-read manual was written by marine safety experts in response to numerous requests from the industry. Chapters include physical and chemical hazards, proper lifting techniques, airplane and boat safety, basic first aid, electrical hazards, fire fighting, cold water survival, and coping with bears.

Aquaculture injury claims in Alaska, which have exceeded \$175,000 in a single year, result in costly worker compensation premiums. The pain and suffering, as well as the cost, can be devastating to small, family-run shellfish operations and are a burden to the aquaculture industry. To help address the concern, the Alaska Marine Safety Education Association uses this book as the core of its aquaculture site safety program. 84 pages, \$6.00, available at the Alaska Sea Grant office, phone 474-6707.

Coughenower Retires

After more than 16 years as marine advisory agent with the University of Alaska, Doug Coughenower retired in June 1998. Professor Emeritus Coughenower was MAP agent in Homer for 13 years, and

served in marine extension in Dillingham, Alaska; in Washington, DC; at the University of Massachusetts; and at the University of Florida. Coughenower plans to remain active on passenger vessel access issues and continue working on other marine activities.

Fish Fry

NOAA will celebrate the 30th anniversary of the National Sea Grant College Program at the 23rd annual NOAA Fish Fry on July 22, at the National Aquarium in Washington, DC.

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National Sea Grant Director in Alaska

Dr. Ronald Baird, director of the National Sea Grant College Program, visited Alaska in July. Baird was impressed by the high visibility of Sea Grant at each place he visited. In Juneau Baird met with SFOS faculty to discuss how regional and national priorities can affect competition for research money. He also met with scientists at the NMFS Auke Bay laboratory and with the Alaska Department of Fish and Game to talk about partnerships on marine resource issues. In Fairbanks Baird's discussions were focused on administrative issues, and included a visit to the Alaska Sea Grant office. In meetings with UAF Chancellor Wadlow, Provost Reichardt, and SFOS Dean Alexander the conversation addressed UAF and NOAA priorities for Sea Grant. In Kodiak Baird met with FITC faculty and with Jeffrey Stephan, chair of the Sea Grant National Review Panel. Baird also met with marine advisory faculty in Anchorage and Petersburg.

Salmon Declines

Many thanks to SFOS faculty Milo Adkison, Ted Cooney, Don Schell, and Tom Weingartner, who generously provided key information for an SFOS-Sea Grant news release on the causes of salmon declines in Bristol Bay and the Yukon River region in July. The news release, and a feature web page on scientific discussion about possible causes, were widely used by the media. The information spurred stories in the *Anchorage Daily News*, the Environmental News Network, the Associated Press, the Alaska Public Radio Network, *Fairbanks Daily News-Miner*, and coastal Alaska newspapers. In addition, the September issue of the *Alaska Fisherman's Journal* includes the interviews with UAF scientists from the web site plus an article on salmon declines by Sea Grant public information officer Doug Schneider. See the Sea Grant salmon decline web site at <http://www.uaf.alaska.edu/seagrant/issues/salmon.html>.

Sunken Whaling Ships

The August 23 *Anchorage Daily News* featured a story on the UAF-NASA-Coast Guard effort to locate and map sunken whaling ships off the northwest coast of Alaska. The story mentions the involvement of Ray Highsmith, UAF West Coast and Polar National Undersea Research Center (NURC). The article, which appeared on the front page of the Metro section, was a result of a news release sent out by Alaska Sea Grant on behalf of NURC. ABCnews.com also did a story on the project after receiving the news release.

Atlantic Marine Mammal Guide

Rhode Island Sea Grant will soon publish the book *Guide to Marine Mammals and Turtles of the U.S. Atlantic and Gulf of Mexico*. The color publication is authored by MAP marine mammal specialist [Kate Wynne](#), and Malia Schwartz, communications director at Rhode Island Sea Grant. The book is closely modeled on Wynne's award-winning *Guide to Marine Mammals of Alaska* published by Alaska Sea Grant, with 16,000 copies sold.

NMFS encouraged development of the Atlantic guidebook and provided \$20,000 for Wynne to get started on it. In response to Kurt Byers' search for a publisher among Atlantic Sea Grant programs, Joe DeAlteris of Rhode Island Sea Grant Extension enthusiastically embraced the project.

HABS Web Site

MAP aquaculture specialist [Ray RaLonde](#) has provided helpful information for the NOAA harmful algal blooms (HABS) web site at <http://www.nwfsc.noaa.gov/hab/>. The site covers PSP and related issues along the Pacific, including problems, events, and research.

HazNet Web Site Debuts

In a year when El Nino has spawned violent weather around the globe, and when many scientists anticipate continuing weather extremes, the national Sea Grant network created HazNet, a web site devoted to coastal hazards awareness and mitigation. The HazNet web site gathers information and

resources from Sea Grant programs, NOAA, and other sources, helping people handle natural hazards such as river flooding, storm surge, coastal erosion, seismic events, and hurricanes. The site has consumer fact sheets, including how to buy storm shutters in South Carolina, a community hazard mitigation plan from Rhode Island, changes in building codes in South Florida, a bibliography of Sea Grant coastal hazards research, and an online hazards bulletin board and discussion group. HazNet is a two-year project funded through a National Sea Grant College Program grant, and organized by Sea Grant programs nationwide. See <http://www.haznet.org>.

SGA to Meet

The annual Sea Grant Association meeting will be held in Fairbanks September 15-17, 1998 at the Princess Hotel. About 15 Sea Grant directors will attend the meeting along with representatives from Sea Grant communicators and marine advisory. SGA president Ron Dearborn will host the meeting. In addition to the SGA business meeting the agenda includes a discussion on an initiative for essential fish habitat with speakers Garry Mayer, NMFS; Clarence Pautzke, North Pacific Fishery Management Council; and Jeff Stephan, United Fishermen's Marketing Association. Topics also include the report from the Knauss Fellowship committee and a Sea Grant initiative in aquaculture. A reception will be held at the University of Alaska Museum with UAF administrators and the Cooperative Institute for Arctic Research (CIFAR). David Evans, newly appointed director of the NOAA Office of Oceanic and Atmospheric Research, will be in Fairbanks for the meeting. SGA is an association of universities and organizations that participate in Sea Grant activities.

Sea Grant Week '99

New Jersey Sea Grant will organize the next Sea Grant Week meeting in Portland, OR, June 26-30, 1999. Sea Grant in the New Millennium: Science for Sustainability is the theme for the meeting.

Teachers Go to Sea with NOAA

Teachers from schools across the nation went to sea again this past summer aboard NOAA research vessels. Thirty-four teachers used the tools of science to learn such things as how the seas are charted for safe navigation, how fish populations are assessed so conservation management plans can be put into place, and how the ocean interacts with the atmosphere. Alaska Sea Grant has participated in the program by providing publications for NOAA teacher cruises on the North Pacific.

"Teacher at Sea" is coordinated by Wanda Campbell. Teachers can request 1999 applications at (757) 441-6800; email Wanda.Campbell@noaa.gov; NOAA Atlantic Marine Center, 439 York St., Norfolk, VA 23510. Applications are due between Jan. 1 and March 8, 1999.

Estuaries Meeting

New Jersey Sea Grant is organizing a three-hour symposium at the AAAS Annual Meeting and Science Innovation Exposition in Anaheim, CA, Jan. 21-26, 1999. The symposium theme will be The Role of Estuaries in Sustaining Coastal Fisheries: Is There One? Several Sea Grant funded researchers will be presenting. Questions can be directed to Steve Litvin at (732) 872-1300 ext. 20 or LITVINNJSG@aol.com.

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Sea Lion Hormone Cycle

SFOS graduate student Heather Harmon is in her second year working toward her master's degree in marine biology. She is studying reproductive hormones in Steller sea lions, part of Mike Castellini's Sea Grant-funded project.

The focus of Harmon's master's research is to record the annual profile of reproductive hormones in male and female Steller sea lions. Blood samples will be taken once a month and saliva samples twice a week from three captive Steller sea lions at the Alaska SeaLife Center. She will measure estrogen and progesterone in the two female sea lions, and testosterone in the male. Also, she routinely uses ultrasound on the three sea lions, to measure body fat.

The reproductive hormone profile will be useful in many ways. For example, once a baseline cycle is available, scientists will be able to determine the reproductive status of wild Steller sea lions by sampling blood or saliva, and may be able to detect changes in a population's reproduction rate. The hormone profile will also be useful in determining the reproductive status of captive Steller sea lions. The profile is particularly important for the Steller sea lion because of its endangered status. Such hormonal profiles have been established for a long list of seal and sea lion species.

This past summer Harmon spent a week in Aialik Bay helping to attach radio transmitters and identification tags to harbor seals. In addition, weights, lengths, girth measurements, and blood samples were taken to be archived. That experience will help her handle wild animals in addition to the animals she works with at the Alaska SeaLife Center.

Harmon started working at the new Alaska SeaLife Center in July. She feels that, for her, it is an opportunity of a lifetime to work at such a wonderful facility. She plans to finish her master's in spring 2000.

Pacific Fisheries Legislative Task Force

The Pacific Fisheries Legislative Task Force, composed of two House members and two Senators from each of the West Coast state legislatures (including Idaho and Hawaii) was hosted in Kodiak last month by State Rep. Alan Austerman. Testifying before the group, on Sea Grant activities, were Ron Dearborn, Alaska Sea Grant; Ron Baird, National Sea Grant Office; and Dolores Wesson, California Sea Grant. In his testimony Dearborn recognized the interest in research and outreach with a short-term payoff, but pointed out to the legislators that the long-term investments by all the West Coast Sea Grant programs are beginning to pay off, in increased understanding of the effect of changes in ocean weather and climate on marine resources. As long as some of the Sea Grant investment portfolio is focused on long-term issues, substantial progress in these critical areas can be made.

Award Goes to Pennington

At the biennial conference of Sea Grant Extension Leaders, the William Q. Wick Visionary Career Leadership Award was given to Hank Pennington, former Alaska Sea Grant Marine Advisory agent, and Bruce Wilkins, former New York Sea Grant Extension leader. The presentation took place on September 29, at the Woods Hole Oceanographic Institution.

Pennington is recognized by many in the commercial fishing industry as the person most responsible for developing the premier marine safety education program within the Sea Grant system. He was the creator, founding chairman (1985-1987), and board member (1987-present) of the Alaska Marine Safety Education Association (AMSEA). AMSEA is a consortium of thirteen university, public, and private agencies whose mission is to make marine safety education readily available to the commercial and recreational boating public by training marine safety trainers. Since its inception, AMSEA has certified more than 2,000 trainers who in turn have trained over 65,000 commercial and recreational boaters in Alaska and across the lower 48 states. According to the U.S. Coast Guard, the marine safety instruction in Alaska is a "key factor in reducing at-sea deaths by 50% and the drowning rate from 25 to 10 per year since 1991."

The purpose of the Wick award is to recognize an outstanding individual for vision and leadership in Sea Grant and Marine Extension. The award is named after Bill Wick, former extension agent, Sea Grant Program Leader, and Sea Grant Director in Oregon.

MAP in Bristol Bay

Dillingham MAP agent Terry Johnson is busy co-teaching two courses this fall: FISH 493, Fisheries Business; and RD 245, Issues in Alaska Maritime Development. Also he is organizing workshops in his region on the effects of the federal subsistence fisheries takeover, and workshops in Dillingham and Naknek on direct marketing. He will travel to Japan in November with UA professor Gunnar Knapp to work on their market study for fisheries roe products.

During his off-work hours, Johnson runs a marine ecotourism operation. He was especially busy in June and July, taking visitors to see walrus at Round Island and to other sites to view marine and terrestrial wildlife. Johnson plans to write a report for entrepreneurs and business developers on marine ecotourism in western Alaska, using his operation as a demonstration project.

"Salmon" Panel Named

Alaska Gov. Tony Knowles appointed SFOS Dean Vera Alexander to a seven-member task force to lay the groundwork for a scientific investigation of the Bering Sea salmon fishery disaster. Also selected were Harry Wilde, mayor of Mountain Village, a Yukon River village hard hit by decreasing salmon runs; SFOS Advisory Council member Arliss Sturgulewski; Robin Samuelsen, of the North Pacific Fishery Management Council; Frank Rue, commissioner of the Alaska Department of Fish and Game; NMFS regional director Steve Pennoyer; and Lt. Governor Fran Ulmer, who will chair the task force. Knowles asked the task force to look at available information on whether changes in climate, ocean conditions, and pollution have influenced the decline in salmon returns to Bristol Bay and the Bering Sea.

Ecosystem Symposium

According to key fisheries scientists and managers, the Lowell Wakefield Fisheries Symposium Series is at the top of the list of key influences on the successful management of West Coast fisheries over the past 15 years. This point was repeated in discussions at the Lowell Wakefield Symposium on [Ecosystem Considerations in Fisheries Management](#), held in Anchorage early this month. The Wakefield series is sponsored by Alaska Sea Grant.

The sixteenth Lowell Wakefield symposium, like its predecessors, was successful in bringing together academic science and management. The meeting topic was especially timely in view of the new federal Magnuson-Stevens Fisheries Act, which mandates that fisheries are to be managed in an ecosystem context that protects essential fish habitat.

Plenary speakers at the symposium included Richard Beamish, senior scientist at the Pacific Biological Station in Nanaimo, British Columbia; Alaska Lt. Governor Fran Ulmer; Alaska Sea Grant director Ron Dearborn; Carlos Fetterolf, on the National Sea Grant review panel and past president of the American Fisheries Society; Terry D. Garcia, deputy administrator of NOAA; Larry Mercurief, who has served Alaska Native people in executive positions for over 35 years; conservation biologist Stuart Pimm; Frank Rue, commissioner of Alaska Department of Fish and Game; and William Seitz, U.S. Fish and Wildlife Service.

The symposium was held concurrently with American Fisheries Society chapter meetings. Nearly 500 people attended the joint meeting, with 150 participating in the Wakefield symposium.

PICES Meeting

Marine scientists will gather in Fairbanks, October 14-23, for the seventh annual meeting of the North Pacific Marine Science Organization, or PICES. The meeting will be at the Westmark Hotel.

Topics for scientific sessions will include

- El Niño effects
- Climate and ecosystem changes
- Effects of contaminants such as PCBs on the marine food chain
- Climate change and carrying capacity
- The marine carbon cycle
- Factors that control plankton production
- Effects of climate change on small species such as sardine, anchovy, herring, and squid
- Environmentally sustainable mariculture

The scientific sessions are open to all. Meetings of the Scientific Committee, Working Group, and PICES formal governance will also take place.

PICES is dedicated to enhancing North Pacific collaborative research. Each member nation is represented on the PICES governing council by two delegates, appointed by their government. The U.S. delegates are SFOS Dean Vera Alexander and James Balsiger, director of the NMFS Alaska Fisheries Science Center in Seattle. For more information about the Fairbanks PICES meeting, contact Maggie Billington at maggie@ims.alaska.edu.

UAF Researchers in the News

Alaska Sea Grant recently placed two UAF researchers in the national spotlight. Sea Grant's Arctic Science Journeys radio series highlighted the discovery of dinosaur tracks in northwestern Alaska, by UA Museum's Roland Gangloff. Audio of the story can be heard on the Environmental News Network at <http://www.enn.com/multimedia/index.asp>.

Sea Grant also worked with Discovery Online to place a feature story on bowhead whale baleen research by Don Schell of IMS.

Beach Curriculum

Beach Explorations: A Curriculum for Grades 5-10, by Gloria Snively, published by Oregon Sea Grant and Washington Sea Grant. The exciting world at the edge of the sea is the focus of this richly illustrated curriculum, 286 pages. The book helps teachers plan trips to the beach, and includes studies of rocky shores, sandy beaches, cobble beaches, mud flats, and estuaries. The author provides information about the natural history of beach animals and plants and habitats, for the teacher without a biology background. About 75 lessons and activities are described, and can be used over a six-week period. The book was written for teachers, park naturalists, scout leaders, and other interpreters. Although some of the lessons mention the Pacific Northwest, the book can be used all along the Pacific and Atlantic coasts. The \$25.00 price includes a set of 80 illustrated study cards for student use. Available at Alaska Sea Grant, phone 474-6707.

New Video

When Seconds Count: Care and Use of the Immersion Suit is a new video directed by Deborah Mercy and produced by MAP and the Alaska Marine Safety Education Association. The 16-minute video tells what features to look for when buying an immersion suit, how to put one on, how to use it, and how to take care of it. Aware that immersion suits are required on board most fishing vessels, many fishermen buy the suits without trying them on, and pay little attention to how suits can be used to save a life. While the video shows fishermen, sail-boaters, children, and tugboat operators, all mariners will find it useful. Immersion suits are expensive--\$250-500--and that money will be more wisely spent by the mariners who view this video. The video sells for \$15.00, MAPV-38.

Fisheries/GIS Symposium

An international symposium on the use of geographic information systems (GIS) in fisheries science will take place in Seattle, WA, March 2-4, 1999. Registration is due by October 15, 1998. Abstracts and registration fees are due by December 15. For more information contact Stephen.K.Brown@noaa.gov.

Job Available

The Alaska Department of Fish and Game is recruiting for a Habitat Biologist I position in Homer. The position will last 15-18 months, with potential for continued employment. The employee will help compile information on the Kachemak Bay Watershed-Lower Cook Inlet area. The position will be filled through the Internet at <http://www.jobs.state.ak.us/>. Or call 1-800-587-0430.

Young Professional Oceanographers

The National Science Foundation has three science assistant positions. The master's level is ideal for these jobs, but others will be considered. Candidates should have ocean science technical knowledge, or a strong interest in learning about federal management of science and NSF support for ocean sciences. There is no closing date but NSF will review applications in mid-December 1998, and will interview and select in early January 1999. For more information see <http://www.nsf.gov/>.

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National Sea Grant Gets Marine Safety Award

The United States Marine Safety Association (USMSA) has selected the National Sea Grant College Program as the recipient of its annual award for promoting safety at sea. USMSA is recognizing Sea Grant for its contribution to marine safety over many years. The award will be presented at the association's annual meeting in Seattle, November 19-21, 1998. USMSA represents manufacturers, service corporations, sales representatives, and individuals involved in products or services that promote safety at sea.

Sea Grant's research and technology transfer programs have resulted in saving lives and reducing property loss in coastal areas, particularly among the commercial fishing, boating, and diving communities. To promote safety and emergency preparedness, Sea Grant has developed training programs on vessel stability, diving safety, fire-fighting, use of survival equipment, management of emergency situations, and proper procedures for handling hazardous materials. The USMSA award honors Sea Grant's sustained dedication to promoting marine safety.

Coincidentally, Alaska Sea Grant is nearing completion of a new national recreational boating safety book, *Water Wise*, which will be published jointly with USMSA and in partnership with the Alaska Marine Safety Education Association (AMSEA).

Wakefield Symposia

Spatial Processes and Management of Fish Populations will be the 17th Lowell Wakefield Fisheries Symposium, in Anchorage, October 27-30, 1999. At the symposium worldwide experts will discuss spatial features of fish population dynamics, spatial fisheries management applications, and technological advances in spatial fisheries research and management. To contribute an oral or poster presentation, submit an abstract no later than February 15, 1999.

Herring 2000, the 18th Wakefield Symposium, will also be in Anchorage, February 23-26, 2000. The symposium will bring together scientists who manage herring, study herring biology and ecology, and study the social and economic aspects of herring. Although past herring research has played a key role in the development of fisheries science and management, herring fisheries have been characterized by unpredictable fluctuations and collapse. Wakefield symposium sponsors also convened the Alaska Herring Symposium in 1980 and the International Herring Symposium in 1990. To contribute an oral or poster presentation to Herring 2000, submit an abstract of 300 words or less no later than June 15, 1999.

Find the "calls for papers" at <http://www.uaf.alaska.edu/seagrant/conferences/symposia.html>. Brenda Baxter of Alaska Sea Grant is coordinating both meetings, (907) 474-6701, FNBRB@uaf.edu.

Sea Grant Grad Students

Alaska Sea Grant hosted a get-together of Sea Grant-funded graduate students and staff in October, to show appreciation of the students' hard work and commitment. Sea Grant will place photographs and profiles of the students on the web.

Sea Grant-funded graduate student Zhengyu Wei defended his master's thesis in October on Paralytic Shellfish Poison Toxins: Tn5 Transposon Mutagenesis Established for a Bacterial Producer, *Pseudomonas stutzeri* SF/PS, and Its Application to the Study of Antibiotic Resistance. Wei was funded on a grant to professor Gerry Plumley.

Boatkeeper

Alaska Sea Grant recently posted 13 boat maintenance articles on the web, written by Dillingham Marine Advisory agent Terry Johnson. *Pacific Fishing* magazine publishes the articles in a continuing series called Boatkeeper. As the complexity of modern fishing vessels and equipment increases, these articles can help fishermen keep up on the details of maintenance and operation. Johnson has owned and operated fishing boats in Alaska for 15 years, and currently charters his 50-foot motor yacht in western Alaska. To read the articles in PDF format, go to <http://www.uaf.alaska.edu/seagrant>

</boatkeeper/boatkeeper.html>.

Arctic Science Journeys News

During October, the Voice of America web site featured an Arctic Science Journeys radio story on the discovery of dinosaur tracks in Alaska.

At the recent request of local residents, KTOO-FM in Juneau has signed on to receive ASJ radio stories. ASJ is a radio service that offers stories about science, culture, and the environment of the far north, and is a production of Alaska Sea Grant with assistance from KUAC-FM Alaska Public Radio.

Media Highlights UAF People and Events

The October PICES meeting in Fairbanks was the focus of a front page story in the *Anchorage Daily News*, and was also covered by Fairbanks print and television media. Alaska Public Radio aired a call-in show on El Niño and other ocean issues discussed at the PICES meetings, with Milo Adkison, Fisheries Division, and SFOS associate dean Al Tyler. PICES is the North Pacific Marine Science Organization.

UAF faculty and the Arctic Science Conference in Fairbanks were highlighted in an October feature article in the *Anchorage Daily News* on climate change in the Arctic and subarctic.

The October 1998 issue of *Water Environment and Technology* magazine featured Milo Adkison in a short article on Alaska's salmon declines. The article was spurred by a Sea Grant news release and interviews that are online at the Alaska Sea Grant home page.

UAF researchers were interviewed by a science reporter and film crew from the television Arts and Entertainment Channel. A&E is producing a one-hour documentary on global climate. Sea Grant worked with A&E during October to get UAF and SFOS research on the program.

Science News Topics Requested

Scientific American is developing an online daily science news service, called Sciam Daily. They are seeking sources for science news stories every day, especially stories that go beyond the roster of daily science news that everyone else is covering. Stories can include research reports, new developments, and articles that have just been published in scientific journals. Contact Miriam Lacob Stix, gstix@aol.com.

Fishlines is a monthly in-house newsletter reporting Alaska Sea Grant activities to staff, students, and principal investigators of Alaska Sea Grant and the Marine Advisory Program, and staff of the School of Fisheries and Ocean Sciences. For more information contact Sue Keller, (907) 474-6703, FNSK@uaf.edu.

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Sea Grant Funding Opportunity

Alaska Sea Grant's Announcement of Funding Opportunity for 2000-2001 will be distributed on December 16, 1998. Signed preliminary proposals, limited to four pages plus accompanying materials, are due in the Alaska Sea Grant Office March 1, 1999. By March 31, 1999, faculty will be advised whether they should develop full proposals, which will be due June 1, 1999. Any researcher who has not received a copy of the funding opportunity announcement by December 22, 1998, should contact Susan Sugai by phone (907) 474-6840 or email (fnsfs@uaf.edu), and an electronic version will be sent.

Herring Market in Japan

Terry Johnson, Dillingham Marine Advisory agent, traveled to Japan last month to research the market for Alaska herring and herring roe products. Johnson interviewed more than 20 processors, importers, wholesalers, association executives, and government officials in Tokyo, Sapporo, and Rumoi.

Big fluctuations in prices make business planning difficult for Alaska herring fishermen. Johnson's project is intended to identify factors that influence herring prices, to allow fishermen and others in the herring business to monitor changes in the market. The herring market research is a joint project with the UAA Institute of Social and Economic Research, sponsored in part by Alaska Sea Grant.

Seafood Technology Coordinator

Liz Brown was named seafood technology program coordinator for the Marine Advisory Program in August 1998. She teaches HACCP and seafood processing sanitation classes, and will be recruiting students and organizing seafood technology courses for MAP. Brown is assistant professor and director of the Seafood Technology Training Program at Sheldon Jackson College in Sitka.

The Seafood Technology Training Program is the recent recipient of a pledge for \$500,000 support from pollock processors, Glacier Fish Company and Arctic Storm, Inc. In Alaska, the seafood industry is the largest private employer with more than 35,000 jobs annually, most of which are unskilled seasonal processing line jobs. The funding will allow Brown's seafood technology program and Sheldon Jackson to train local employees for higher paying, year-round jobs in the industry.

Oil in the Arctic: Forum on TV

MAP agent Rick Steiner is the producer and host for a Resource Issues Forum television program on the Future of Oil in America's Arctic to air in January. The program will be a one-hour discussion of the oil industry on Alaska's North Slope, onshore and offshore. Participants will debate the environmental, social, and economic aspects of oil operations, and the proposals for additional leasing in the National Petroleum Reserve Alaska, the Arctic National Wildlife Refuge, Arctic Slope Regional Corporation lands, state lands and waters, and on the outer continental shelf. This will be the first televised debate on the newest oil leasing proposals. Participants will include Jacob Adams, Arctic Slope Regional Corporation; Faith Gimmel, G'witchin Steering Committee; Ben Nageak, Mayor, North Slope Borough; Ann Rothe, Trustees for Alaska; and Steve Taylor, BP Exploration. The show will air on KUAC Alaska One January 31 at 7 pm.

Fish Expo

Alaska Sea Grant shared a booth with the Marine Advisory Program and Sheldon Jackson College Seafood Technology Training Program at Fish Expo 98, last month in Seattle. Sherri Pristash, who directed operations at the booth, said the visitors seemed especially appreciative to have person-to-person contact with Marine Advisory staff Don Kramer, Brian Paust, Terry Johnson, Deborah Mercy, Liz Brown, and Ellie Evans. Visitors to the Sea Grant booth included fishermen, charter operators, processors, and staff from government agencies.

Sea Grant sold publications in the amount of \$859, up from last year. The favorites were fish handling books, rockfish and flatfish guides, and *Fishing for Octopus*. A NMFS fisheries enforcement officer dropped by to report that they depend on the book *Guide to Northeast Pacific Rockfish* as an important

enforcement tool. They modify their copies to list the harvestable/nonharvestable status of each fish, and use it when they board commercial boats to inspect the catch. The rockfish guide, written by Don Kramer and Victoria O'Connell, is one of Sea Grant's best-selling books.

Pristash also made sales visits to several bookstores in the Seattle area. The small, independent bookstores in the area are especially interested in stocking Sea Grant books.

Christmas Sale

Fishlines readers are invited to stop by the Sea Grant office, 205 O'Neill, before the holiday break and get 20% off anything in stock! Sea Grant has the ever-popular book [Guide to Marine Mammals of Alaska](#), plus nice T-shirts, books for teachers, and colorful posters.

UAF in the Media

Sea Grant's Doug Schneider wrote the November 15 cover story for "We Alaskans," the weekend magazine of the Anchorage Daily News. The story, on the growing geoduck fishery in Southeast Alaska, featured experts including Ray RaLonde and Brian Paust of SFOS-Marine Advisory. See the article online at <http://www.adn.com/weak/wearkive/we981115.htm>.

In early December National Public Radio's Morning Edition featured a short segment on La Niña's impact on national weather. Information aired on La Niña's effect on Alaska was collected from weather forecasters by Doug Schneider. National Public Radio also recently aired a story about hibernating Arctic ground squirrels on Pulse of the Planet. Sound for the story was collected by Kathy Turco of SFOS, and information was provided by Brian Barnes, IAB.

College Bowl 1999

The UAF College Bowl tournament is scheduled for January 23. Teams of four will compete in a double elimination competition. Topics include natural sciences, literature, current events, multicultural issues, religions and myths, performing arts, and others. Sign up by January 21 at the UAF Student Activities Office, 474-6027.

Job Opening

The American Fisheries Society is seeking an executive director for their international headquarters in Bethesda, Maryland. Responsibilities include managing operations, fund-raising, and promoting fisheries conservation. The person reports to the governing board of elected members. Candidates need a broad knowledge of fisheries, aquaculture, and aquatic resource issues and 15 years experience. Deadline for applications is January 14, 1999. Contact R.L. Kendall, AFS, fax (301) 897-8096; <http://www.fisheries.org>.

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