

Office for Fisheries

University of
Alaska

AQUACULTURE POLICY UNDER DEVELOPMENT

Alaska Sea Grant Director Ronald Dearborn and UAJ School of Fisheries Dean Ole Mathisen have been among those on an advisory committee developing a state mariculture policy. Other committee members include representatives of fishermen's organizations, processors, Native organizations and government agencies. The committee has reported findings to Governor Bill Sheffield and his minicabinet on fisheries. Both the executive and legislative branches anticipate further activity by this committee. Dearborn and Mathisen have offered to continue their participation in this discussion of the state's aquaculture plans.

FISHERIES INTERNSHIP AVAILABLE

The Alaska Sea Grant Program and the North Pacific Fishery Management Council have established a summer internship for students in the University of Alaska's fisheries or resource economics programs. The two interns will work at the council offices in Anchorage for the summer, completing office assignments at the council's direction. Travel expenses to and from the student's campus will be provided. Salary is \$400/wk. The interns will pay their own living costs while in the program.

Previous interns were Steve Brooks and Ronald Rogness, both graduate students in resource economics. Brooks redrafted and updated the Gulf of Alaska Groundfish Management Plan. Rogness focused on updating the tanner crab management plan, and on the economic issues associated with Pacific halibut management.

Applications should include current vitae, statement of career objective, and letter of recommendation from the major professor or department head. Submit applications to the Fisheries Internship Program; Alaska Sea Grant College Program; c/o SWOHRD; University of Alaska; Bunnell Bldg., Room 1; 99775-5400.

ALASKA NORTHWEST PUBLISHING PREMIERS TWO MARINE BOOKS

Two popular marine publications were distributed last month that might be useful in classroom instruction. Plant Lore of An Alaskan Island (\$9.95) and Alaska's Saltwater Fishes and Other Sea Life (\$19.95) are now available from Alaska Northwest Publishing Company and at local book stores.

The plant lore book began in an adult education class on Spruce Island near Kodiak. For three years, students in Frances Graham's class collected information on 80 species of wild plants now described in the book. The herbs and other species described can be found in other parts of the Pacific Northwest as well. Careful drawings are provided along with descriptions of traditional uses of the plants in medicinal preparations, household compounds, and recipes.

Saltwater Fishes and Other Sea Life is the culmination of 15 years of work by Doyne Kessler and other biologists at the Kodiak National Marine Fisheries Service Laboratory. The book includes color photos and descriptions of 375 trawl-caught species from salmon to sharks, shrimp, and sea stars. More than 500 color photos are included as well as line drawings. An index and glossary make reference fast and easy.

These books are available in most Alaskan bookstores or may be ordered directly from the publisher at 130 Second Avenue S.; Edmonds, WA; 98020. Add \$1 per book for postage and handling.

ROSENBERG: THE LEGEND CONTINUES

Former Alaska Sea Grant Program director Donald Rosenberg has been re-elected chairman of the North Pacific Fishery Management Council's Scientific and Statistical Committee. Also re-elected as vice-chairman was Richard Marasco. The committee advises the NPFMC on scientific and technical matters. Dr. Terry Quinn, a UAJ biometrician, was also appointed to the committee.

ANADROMOUS FISH ATLAS AND CATALOG AVAILABLE FOR REVIEW

The Alaska Department of Fish and Game is seeking public comment on the Catalog of Waters Important for Spawning, Rearing, or Migration of Anadromous Fishes and its associated atlas. The catalog contains a record of the streams, rivers and lakes that are used by anadromous fishes for spawning, rearing and migration. The atlas uses U.S. Geological Survey topographical maps to show the portions of waterways actually used by anadromous fishes, which species use the waterways and for what particular activity.

The information depicted is based on Fish and Game field surveys. However, the department is also interested in any information on fish activities that can be provided by the public or researchers who observed anadromous fishes in these waters. Comments will be accepted through the end of the month.

To review the catalog or for more information contact your local ADF&G office or Stewart Seaberg of the ADF&G Habitat Division in Anchorage; 333 Raspberry Road; Anchorage, AK; 99501; 267-2335. Completed maps can be purchased from Ridgeway's Photo Reproduction Center in Anchorage.

GIANT CHERRY TROUT PRODUCED IN JAPAN

Dr. Hiroshi Onozato of the Hokkaido University Faculty of Fisheries has developed a way to breed giant cherry trout (Oncorhynchus masou), a high-prized food fish in Japan. Because the cherry trout matures in two years and dies after spawning, Onozato has been trying to grow giant trout by sterilizing the fish. The fish are sterilized during fertilization by chromosome handling. Fry are cultivated for two years, producing bigger, heavier fish. Onozato's sterilization method is reputed to be the first of its kind.

LPRC RESEARCH OF INTEREST TO MARINE SCIENTISTS

The Lease Planning and Research Committee (LPRC), an oil industry support group funded by member companies, has funded more than 50 research projects since 1968 involving Alaska's seafloor and subsea environment. Two recent projects may have results of interest to Alaska's fishing and scientific community.

One new project will continue development of evacuation and survival plans for people stationed on offshore oil rigs operating in ice-covered areas. Work will include building a full-scale prototype and testing it in the Arctic. Results may have application for Alaskan vessels operating in areas under ice threat, for field workers, and for subsistence hunters.

In another project, researchers will investigate the uses of infrared imagery from the U.S. TIRO/NOAA satellite system to track ice movement.

A listing of LPRC-sponsored research is available from the Alaska Oil and Gas Association; 505 West Northern Lights, Room 219; Anchorage, AK; 99503 (907) 272-1481.

SCALEPRINTS IDENTIFY SALMON

Seattle's Biosonics, Inc. is marketing a procedure for quickly identifying salmon scales. Scientists have long known that salmon scales are laid down in rings, much like those of a tree. The rings are spaced according to growth and their shape is influenced by water conditions and food sources. Fish that spend their early lives together in the same nursery area have similar rings. Until now, these have been laboriously compared using microscopes. The scale patterns have long held the potential for identifying exactly where a fish was hatched, but the process for determining its "nationality" was too slow and involved to be of practical management use.

Biosonics, Inc. uses a computer to read the spacing and shape of the rings. A personal computer linked to a video camera compares the scales with hundreds of patterns stored in memory. In approximately 30 minutes, a user can match a scale with scales of other fish from a stream or tributary. Because the process is so fast, managers can check from day to day to determine how many fish from a particular breeding area have been captured. For more information, see the Jan./Feb. issue of "Science 86", p. 6.

TUNA CONFERENCE SET FOR BANGKOK, FEBRUARY 25-27

The tuna industry has undergone many recent changes. Countries that previously supported themselves with exports of raw materials have turned to tuna fishing and processing with force. The industry is suddenly more complex, fast-moving, and highly competitive. INFOFISH and the publishers of Fishing News International have organized the Tuna Trade Conference as an opportunity for people in the tuna industry to get a grip on the international picture.

The emphasis will be on current status and future development opportunities. Sessions will discuss current state of the resource and its exploitation. Marketing discussions will focus on newcomers to the industry and how they have influenced competition, market access, and prospects for market opportunities. A wrap-up session will discuss the future of tuna fisheries.

Registration for the conference is \$440. Rooms are \$90 per single and \$124 for a double. For more information, telephone INFOFISH directly at 291-4466 or telex INFISH MA 31560. Alaska Sea Grant has registration material.

Office for Fisheries

University of
Alaska

MAP COORDINATES ALASKA RE-
SOURCES ISSUES FORUM T.V. PRO-
GRAM

The Alaska Marine Advisory Program is coordinating sponsors for a series of Alaskan resource programs to be broadcast on the state's LearnAlaska Network. Each program brings together various experts to debate current resource use issues affecting Alaska's public policy. The first program will focus on Japanese interception of salmon in high seas fisheries. Sponsoring organizations are responsible for background research and for funding panel travel to the Anchorage taping sessions. If you or your organization are interested in sponsoring one of these programs, or if you have ideas for other topics, contact Grant Sims at the Anchorage MAP office (274-9691) or Rick Steiner at the Cordova MAP Office (424-3446).

JENSEN INTO SECOND PHASE OF
WHITEFISH QUALITY PROJECT

Chuck Jensen, associate professor with the Fishery Industrial Technology Center, has begun work on the second phase of a whitefish quality assurance project for Alaska. During phase I, he completed a whitefish handling manual and conducted various workshops and demonstrations in shorebased processing plants handling these fish. In phase II, he will be surveying the most current methods for handling these fish aboard vessels and bringing the newest technology back to Alaska. This month he will visit nearly a dozen East Coast processors to get first-hand information on handling and boxing fresh/frozen ocean whitefish. Jensen's work is being funded by the National Marine Fisheries Service Saltonstall-Kennedy program.

DIRECT MARKETING WORKSHOP
DRAWS OVER 100 PEOPLE

A direct marketing workshop organized by MAP business specialist Craig Wiese drew 102 people to the Anchorage Sheffield Hotel February 4. The discussion was aimed at those wanting to sell their product to someone other than a local processor. Participants came from Anchorage, Cordova, Sitka, Homer, Kodiak and Valdez to attend the meeting. Speakers from the Alaska Department of Natural Resources, Gourmet Lobster, Movers Inc., Triad Fisheries, Alaska Commercial Fisheries Development Foundation, Fishworks, the Alaska Department of Fish and Game and the Alaska Department of Environmental Conservation provided a basis for the discussion. Among the subjects covered were finding buyers, product quality assurance, packaging, shipping, permits, licenses, and determining financial feasibility of direct marketing operations.

ICE WORM FESTIVAL SURVIVAL SUIT
RACE ATTRACTS 300

The Cordova Ice Worm Festival included an Alaska Marine Advisory Program sponsored survival suit race held February 8. Race marshall Governor Bill Sheffield presided while seven teams of four competed in the event. About 300 people looked on as teams fielded by the State Troopers, Cordova High School's swim team, the Alaska Department of Fish and Game, fishermen, and local businesses flailed through 37° water for the top prize. The event was covered later in the Anchorage Daily News.

ACOUSTIC HARASSMENT STILL POSSIBLE WITH MORE EXPERIMENTATION

It was back to the drawing board for Oregon State University researchers recently when a method of scaring sea lions and seals away from fishing nets failed. OSU and a private engineer, Dr. Charles Greenlaw, had been working on a hydroacoustic device to be attached to fishing nets. It emitted a sound designed to hurt mammals' ears. Other hydroacoustic devices have emitted sounds such as those made by predators, designed to scare the animals. At a recent meeting on the OSU device, researchers announced that although it worked for awhile, sea lion and seals soon became used to it and continued to raid fishing nets. MAP Cordova agent Rick Steiner attended that meeting and would like to try some improvements to the device. Engineers believe that lowering the frequency, increasing the volume and making the sound directional would improve results. Steiner is pursuing sponsors to finance a pilot project.

INTERNATIONAL ROCKFISH SYMPOSIUM SET FOR OCTOBER 20-22, 1986

Any information you have about Pacific Ocean Perch or the other rockfish fisheries will be useful in developing management policies for the complex. This meeting is designed to bring together resource scientists and managers to talk about current management and stock descriptions and to compile the information presented into a proceedings document for their use. Papers are still being accepted in the major topic areas: history of the fisheries, life history and reproduction, aging--growth and mortality, stock assessment, management of the stocks, marketing and economics, the role of rockfish in continental shelf ecosystems. Abstracts must be submitted as soon as possible for consideration in developing a program. For more information con-

tact: Brenda Melteff; Alaska Sea Grant College Program; University of Alaska; 590 University Avenue, Suite 102; Fairbanks, AK; 99709-1046; (907) 474-7088.

NFI NATIONAL CONFERENCE SET FOR CHICAGO

The National Fisheries Institute will hold its 41st annual meeting in Chicago April 1-5 at the Hyatt Regency Hotel. A full week of membership and committee meetings, workshops, seminars, speakers, special events, spouse activities and a golf and tennis tournament are planned.

Speakers include Lou Holz, coach of the University of Minnesota football team. Holz also coached the New York Jets and the University of Arkansas and is described as "one of the nation's best motivational speakers." Dr. William Lands, noted expert on fish and its affects on human health, will also be a featured speaker. He will summarize recent meetings among medical researchers that compared findings on Omega-3, the fatty acids in fish that can change the levels of fat and cholesterol in human blood.

Nine workshops will be offered, conducted by industry leaders and consultants. These will cover overall marketing perspective for fish products, increasing efficiency and profitability, the effects of currency values and other global economic trends on the industry, the world view of resources and supplies, bankruptcy, trends in restauranting, inspection, and sulfites.

All registrations fees must be paid in advance. Fees are \$475 for NFI members and \$800 for non-members. Fees include all sessions, seminars, social functions and outings. For more information contact NFI; P.O. Box 19801; Washington, DC; 20036.

JOINT MEETING OF THE PACIFIC AND ARCTIC DIVISIONS OF AAAS PLANNED

The Arctic and Pacific divisions of the AAAS will hold a joint meeting June 8-13 Vancouver, B.C. Attendees will also enjoy activities in conjunction with the city Vancouver's 100th anniversary and the world's fair, Expo '86.

Technical symposia have been planned around invited papers, but contributed papers are still being accepted. For more information contact the chairpeople listed. Topics include:

- | | |
|--|---|
| Botanical Science | Intermountain Grasslands of the Pacific Northwest
Jim Pojar, Research section, Ministry of Forestry |
| Earth Sciences | Geological Hazards Along the Plate Boundary
John Davies, Alaska Geological Survey |
| Education | Students' Conceptual Difficulties and Scientific Instruction
Lillian McDermott, University of Washington
Innovative Teaching in the Sciences
Roger Christianson, Southern Oregon State College
The Ethics and Practice of Care in Private and Public Places
Eldred E. Rutherford, Western Oregon State College |
| Health and Social Science | Cultural Pluralism and Health Care on the Pacific Rim
Carl A. Maida, UCLA Medical School
Northern Native Languages
Louise Nicklen, Yellowknife, NWT
Energy Conservation Technology: Advances in the Arctic
Richard Bushey, Yellowknife, NWT |
| Environmental Sciences and Resource Management | Association of Primary Production with Recruitment in a Subarctic Ecosystem
Thomas Shirley, University of Alaska, Juneau
International Cooperation in Salmon Management and Research Through the Canadian-U.S. Pacific Salmon Treaty
James C. Olsen, NMFS, Juneau, Alaska
Managing Canada's Water Resources: Policy Issues and Options
Jack Corbett, Southwest Texas State University
Integrating Remote Sensing Information into Resource Management
Hans Schreier, University of British Columbia
Research Advances in the Ecology of Arctic Fishes
David W. Norton, IAB, University of Alaska, Fairbanks
Long Term Management of High Level Radioactive Waste Disposal
David A Tarnas, University of Washington |
| Science, Technology and National Security | Technology, National Security and Arms Control: Some Leading Issues
Richard Scribner, AAAS, Washington, D.C.
The Consequences of Disarmament
Barbara Wright, University of Montana
Problems of the Nuclear Age
Meyer Chesslin, University of Montana |

For more information on registration fees and conference activities contact AAAS-Arctic Division; P.O. Box 80271; Fairbanks, AK 99708.

UA SEA GRANT DIRECTOR COVERS
WASHINGTON D.C.

A national Sea Grant director's meeting was held in Washington D.C. at the end of February. UA Sea Grant Director Ronald Dearborn was at the meeting and met with the Alaska Congressional delegation staff and Senator Ted Stevens while there. He also met briefly with National Fisheries Institute staffers on a national insurance and safety workshop and discussed various aspects of Sea Grant funding with other directors.

The directors discussed the effects of the Gramm-Rudman-Hollings bill on Sea Grant funding, reauthorization of Sea Grant after 1987, and NOAA grant processing. With regard to Sea Grant funding, Dearborn says, "The new administrator of NOAA, Anthony Callio, has been communicating much more with the Sea Grant program than

has any prior NOAA chief...in the process he is learning that there are a lot of bright people in the universities that his agency can draw upon." Dearborn feels this is a better indicator that Sea Grant has NOAA support than in past years. With regard to future funding, there is no sure answer. Between budget and deficit reductions, no one seems sure what will happen.

Dearborn also stopped by the National Fisheries Institute (NFI) to discuss an idea for a national marine insurance and safety workshop. NFI's National Council of Fishing Vessel Safety and Insurance might be a co-sponsor in the effort. Dearborn talked with Kathy Van Olst, former aide to Senator Bob Packwood and new coordinator for the council. She and her staff are working to become a national clearinghouse for safety and insurance information as well as advisors to industry members on insurance and safety issues.

Office for Fisheries

University of
Alaska

SEAFOOD RETAIL CONFERENCE HELD
IN ANCHORAGE AND JUNEAU

The Alaska Seafood Marketing Institute sponsored a series of seafood retailers workshops along the west coast beginning in October 1985. The final leg of that tour was completed in Alaska this month in Anchorage and Fairbanks.

The program was developed by University of Washington Sea Grant marine advisory staff: John Peters, seafood marketing specialist; Steve Harbell, field agent; and Jim Humphreys, field agent. Dr. Sam Gillespie, professor of marketing at Texas A&M University, rounded out the program.

The workshops included lectures and slide presentations on how to buy quality fish, how to maintain quality at the retail level, and how to make seafood sell in a supermarket or specialty store setting. A hands-on evaluation of various seafood products was also part of the training sessions. Approximately 15 people attended in Anchorage and 30 in Fairbanks.

COASTAL ZONE 87 CONFERENCE
CALLS FOR PAPERS

"Coastal Zone 87: Spotlight on Solutions", the fifth symposium on coastal and ocean management, is set for Seattle May 26-29, 1987 at the Westin Hotel. The conference is multidisciplinary and is aimed at professionals, citizens, and decisionmakers. The symposium is sponsored by the American Shore and Beach Preservation Association, the Coastal Zone Foundation, the U.S. Department of Commerce, and the American Society of Engineers.

Papers are invited on five broad topics: coastal and marine policy, environment and information, development and re-

source management, public participation and access, and international issues. Other subjects will be considered as well as proposals for panels or complete sessions on particular topics.

Abstracts must be received by May 15, 1986, limited to two pages, double-spaced. For more information contact: Orville Magoon, Chairman; Coastal Zone 87; P.O. Box 26062; San Francisco, CA; 94126.

SEA OTTERS MAY ENHANCE LOCAL
FISH PRODUCTION IN THE ALEU-
TIANS

Three west coast biologists are investigating the possibility that sea otters may actually improve conditions for local fish production in the Aleutians.

Charles Simenstad and David O. Duggins of the University of Washington and James Estes of USFWS in Santa Cruz, California will be taking measurements in the Aleutians this summer.

According to their theory, sea otters prey on the sea urchins that can graze down lush kelp beds in the area. Because the urchin aren't destroying the kelp, the beds can become a harbor for a variety of fishes, including the rock greenling.

To test the theory, the trio will measure rates of growth and egg production of small invertebrates that are consumed by fish, and of fish themselves, from areas with high otter and kelp densities. They will compare these rates with those in areas of low otter and kelp densities.

BARRY FISHER AWARDS \$10,000 TO SEA GRANT SCIENTIST

Ellen Pikitch, an Oregon Sea Grant scientist, has received a \$10,000 grant from Barry Fisher, well-known west coast fisherman and former OSU faculty member. Fisher told Pikitch, "Your efforts are badly needed. You are focusing upon a compilation of urgently needed data...that will afford all of us--fishermen, processors and agency managers--a much better base from which to make sound management decisions."

Pikitch's Sea Grant work has been on stock assessments and population dynamics of commercially important fish. More recently she has concentrated on how the fishing industry uses a resource so that better industry management can be achieved. She sees a chance to avoid making some mistakes with a few valuable, promising species in Oregon that have not yet been overexploited, particularly Dover sole. She and others on her research team are compiling information on these species' life history, age and distribution at different times of the year, and on migration processes.

FLORIDA SEA GRANT HELPS WITH CHALLENGER EXPLOSION INVESTIGATION

After the Space Shuttle Challenger explosion, the Florida Sea Grant Program helped coordinate commercial and recreational fishing vessels picking up debris. The program also provided information to boaters and commercial

operators who happened on shuttle junk on how to retrieve it and where to turn it over to NASA. Florida Sea Grant also contacted NASA with regard to environmental pollution resulting from the explosion. NASA officials said that there wasn't enough hazardous material onboard the spacecraft to represent a public health hazard.

LOW BUDGET EXPERIMENTS PRODUCE GOOD RESULTS

Tom Shevenell, a doctoral student in earth sciences at the University of New Hampshire is making experimental apparatus from the trash of everyday life. Shevenell and sedimentologist Franz Anderson browse through equipment catalogs but are often faced with high prices or a long wait for an order. In response, they have conducted artificial raindrop experiments in pizza pans to see how far rain can kick up sediments. They have trapped fine sediments in mini-ice cube trays at the end of a laboratory flume that replicates downstream currents. They have cut the bottom from a plastic Dunkin' Donuts bucket and used it to create an onsite rain chamber on the mud flats of Great Bay.

Once, Shevenell put some pans of flour out in the rain and watched the flour pill up when the rain hit it. He knew that when the pans were put in an oven the resulting pellets would be proportional to the size of the original drop. The more expensive way to get similar results would have involved a camera or laser counter.

Office for Fisheries

University of
Alaska

DEARBORN TO LEAD INDUSTRY
TRAWL/KING CRAB BYCATCH WORK
GROUP

Sea Grant Director Ron Dearborn will chair an industry work group in Kodiak to discuss the king crab/trawl bycatch conflict. The group will advise the North Pacific Fishery Management Council on two issues: whether NMFS should extend the emergency trawl closures around Kodiak and what measures can be used to both protect the crab stocks and provide for a bottom trawl fishery in the area.

Currently, four areas around Kodiak are closed to trawlers until June 15. These closures were to protect soft-shell crabs and can be extended for 90 days. The developing trawl fishery needs access to areas, which are within running distance to Kodiak shoreside processors.

The meeting will be held May 20-21 in Kodiak at the Kodiak Community College. A scientific work group will make presentations first, followed by the industry work group sessions and opportunities for industry and public input. The public is welcome to attend all sessions.

SEA GRANT 1987 PROPOSAL CYCLE
STARTS

May 16 is the deadline for summary proposal submission to Alaska Sea Grant. If you have not yet received proposal guidelines, please contact the Alaska Sea Grant office at 474-7086, ask for Lorraine.

ABE MOVES TO KODIAK

Dr. Junzo Abe, aquaculture specialist and vice principal to the Minamikayabe Community College in Hokkaido, has finished the first part of a demonstration project on macrocystis culture in the Sitka area. While in Sitka he has conducted public workshops on aquaculture, met with Sheldon Jackson students and staff, and advised local fishermen on marketing under-used species to Japanese buyers. Among the species he finds most promising for aquaculture in Alaska are oysters, scallops, sea urchins, and the giant kelp macrocystis.

Abe will spend some time in Kodiak before moving on to Seward to conduct work on the developing sea urchin fishery and workshops on aquaculture. Aside from providing Alaskans with expert advice on mariculture and marketing, Abe will also produce a manual on macrocystis culture before leaving Alaska.

SCIENTIFIC COOPERATION AND
EXCHANGE

After 18 months of planning, Alaska Sea Grant, assisted by the North Pacific Fishery Management Council and University of Washington, hosted a meeting on scientific cooperation and exchange. Participation was invited from Canada, Japan, People's Republic of China and the Soviet Union. Each nation sent representatives to discuss development of an organization for scientific exchange and cooperative projects on the oceanography and fisheries resources of the northern North Pacific. University of Alaska participants were R.K. Dearborn, Sea Grant director, and Vera Alexander, IMS director.

The group unanimously agreed to go ahead with planning. Each nation's representatives are taking the summary document back to their government for consideration.

The next meeting to further the planning of such an organization is expected to be in October 1987 in Vancouver, British Columbia in connection with the INPFC/IRIS combined meeting which will be held at the same time and place. If you wish any further information on these developments, contact the Sea Grant office, (907) 474-7086.

MANAGEMENT WORKSHOP HELD AT ROSARIO

Over thirty participants from the United States, Canada, New Zealand, Australia, Iceland, Norway, and Japan attended a workshop sponsored by Alaska Sea Grant, entitled "North Pacific Longline Fishery Management Options," at Rosario Resort in Washington this April. The workshop was moderated by Bruce Rettig of Oregon State University, who defined its purpose as conducting a dialogue on the worldwide problem of "too many fishermen taking too few fish." More specifically, the object was to enable people dealing with fisheries management problems in the Pacific Northwest, particularly Alaska, to learn from the experiences of their counterparts in other countries. The workshop proved very successful in enabling top fisheries economists and managers to meet and exchange information on both a formal and informal basis. The individual transferable quota systems that have been established in New Zealand, Australia and Iceland sparked the liveliest questions and debates of the session.

NMML WORKSHOP LAYS GROUNDWORK FOR PACIFIC HUMPBACK CATALOG

Top researchers on Pacific humpback whales met in Seattle April 30-May 2 to discuss the National Marine Mammal Lab's plans for a Pacific humpback catalog. Although several of the organizations have plans to develop their own catalogs, there are no provisions for a central depository of whale fluke identifications and basic siting statistics.

Under lab plans, each researcher would contribute photos of humpback flukes and siting information. The flukes would be cataloged and stored on videotape. Siting information would be stored on a database along with a computerized version of the fluke description. New photographs would then be compared statistically to existing, identified flukes for possible matches.

When enough photos are collected on videotape, the entire library can be copied onto videodisc. Each contributor would then have access to a complete catalog for the cost of the disc, assuming funding is provided for this catalog system.

Although the amount and type of additional data to be contributed has not been decided, nor have details on access to the information or how it will be used, most researchers agreed to make photo submissions. The meeting was funded by the National Marine Fisheries Service and coordinated by Alaska Sea Grant which also is helping to fund a printed humpback catalog in production at the University of Hawaii.

UI 5
June 1986

FISHLINES

COMMEMORATIVE NAUTICAL CHARTS AVAILABLE

NOAA is doing its part to commemorate the 100th anniversary of the Statue of Liberty. Special editions of the three principle nautical charts of the New York harbor area are now on sale. The charts are standard NOAA nautical charts used for marine navigation, enhanced with full-color etchings showing the statue in various stages of construction, contemporary photographs of New York harbor, and a congratulatory letter from President Reagan.

^
The chart with the most detail is NOAA nautical chart #12334, a 1:10,000 scale anchorage chart of the waters between Staten Island and Brooklyn, titled "New York Harbor, Upper Bay and Narrows". Chart #12327, "New York Harbor", shows the entire harbor area at a 1:40,000 scale. Chart #12326, "Approaches to New York--Fire Island Light to Sea Girt", is a coastal chart of navigational approaches past Ambrose light at a scale of 1:80,000.

All three charts sell for the regular price of \$5⁵⁰ each. The Anchorage NOAA office does not stock these maps. To order, write NOAA Chart Sales; 6501 LaFayette Ave.; Riverdale, MD; 20737. Specify the chart you want when ordering and include a check or money order.

BABY WATCH

The new voice on the phone at the Fairbanks Sea Grant office is Shirley VanDermeyden. Shirley is taking over receptionist duties from Lorraine ~~Beetue~~, executive secretary, who has retired until August to have her third baby. While the Sea Grant Baby Pool is betting on mid-June, the mother is betting on "any minute". Birth announcement next month.

David

SURIMI COMPUTER PROGRAM ANALYZES PROCESSING OPERATIONS

631 Systems , Inc., of Santa Monica California has developed a computer program for use by surimi plant managers, academics, and technicians. Surimi Processing Analyzer can be used for plants producing fillets, roe, mince, meal, oil and/or surimi. It can be used to equip or upgrade a plant, to project net income or return on investment, to ~~examine~~ individual or combined operations, and to analyze profitability.

The program requires a 256K IBM-compatible microcomputer with MSDOS or PC-DOS. It is menu-driven, and requires only minimum computer experience to use.

Operations are described in one section. Then other segments of the program are used to describe production, costs, and income. It also includes a pro forma income statement that adjusts readily to any change in data, allowing quick observation of cause and effect.

For more information, contact Pacific Rim Operations; POB 5000#414; Danville, CA; 94526; (415)831-2634.

IIFET TO MEET IN CANADA

The third biennial conference of the International Institute of Fisheries Economics and Trade will be held in Rimouski, Canada at the University of Quebec August 10-15, 1986. The meeting will focus on fisheries trade, development and policies. The registration fee is \$100, and includes two dinners, lunches, an abstract book and conference proceedings.

X Speakers have been drawn from private business, government and academia in more than 40 countries. There will also be a salmon workshop on cooperative research opportunities. The conference is being held in conjunction with a meeting on small scale fisheries and economic development, sponsored by the University of Quebec Marine Resources Study Group.

IIFET is also sponsoring a workshop just prior to the conference at Chateau Frontenac in Quebec City August 7-8. Panelists from several different countries will discuss the new GATT round and its implications for seafood trade.

For further information or to pre-register, contact Sharon Kelly; IIFET; Oregon State University; Corvallis, OR: 97331 (503)754-2942.

T. what's a
GATT round?
J

SALE ON NEW JOHNS HOPKINS PRESS FISHERIES BIOLOGY AND
MANAGEMENT BOOKS

Through June 30th, you can save 15 percent on five titles
in the Johns Hopkins University Press fisheries series:

The Economics of Fisheries Management, Revised and Enlarged Edition: Seventy-five percent of the material is new in this revision of the standard work in fisheries management. Among the new topics are multipurpose fleets, biological models for harvesting fish, the share system, and the concept of user costs.

By Lee G. Anderson, professor of economics and marine studies, University of Delaware. 352 pp. Sale Price \$25.46

A Functional Biology of Marine Gastropods: A review of taxonomy, morphology; discussion of specific components of gastropod energy budgeting; external biological interactions; perspective on community ecology and zoology. By Roger N. Hughes, College of Animal Biology, University College of North Wales, Bangor, ME. 256pp. Sale price \$27.63

Distribution, Biology and Management of Exotic Fishes: The first major work on exotic fish introductions throughout the world. Environmental concepts, historical aspects, data from published and unpublished sources brought together in an attempt to promote use of beneficial exotic fishes and to present guidelines for protecting indigenous aquatic organisms.

Editors: Walter R. Courtenay, Jr., professor of zoology, Florida Atlantic University; Jay R. Stauffer, Jr., associate professor of aquatic ecology and ichthyology, University of Maryland. 448 pp. Sale Price \$34.00.

Fish Energetics : Explores recent developments in the study of fish energy budgets and examines the practical applications of these developments for aquaculture. By Peter Tytler, lecturer in biological sciences, University of Stirling, Scotland; Peter Calow, head, Department of Zoology, University of Sheffield, England. Sale Price \$27.63.

The Behavior of Teleost Fishes: Brings together up-to-date accounts of the major aspects of fish behavior, examined in the light of current theory. Each chapter presents the fundamental principles of its topic, reviews recent developments, and discusses contemporary controversies and research frontiers.

Edited by Tony J. Pitcher, senior lecturer, School of Animal Biology, University College of North Wales, Bangor, ME. 544 pp. Sale Price \$48.88.

To order, contact Teri Frady, Alaska Sea Grant
Communications, for discount forms.

Office for Fisheries

University of Alaska

OUTSTANDING UAJ FISHERIES STUDENTS
NAMED

Three outstanding graduating students were named at UAJ commencement ceremonies from the School of Fisheries and Science (SFS). Kevin Browlee, a fisheries major, was named outstanding SFS undergraduate. Outstanding SFS graduate students were James James and Kathleen Jensen.

DAVID HAS BABY GIRL

Alaska Sea Grant executive secretary Lorraine David had her third daughter in mid-June at Fairbanks Memorial Hospital. Baby Sharon is the first for Lorraine and husband Richard, whom she married last summer. David is vacationing with her family in Hughes, Alaska and will return to work in August.

ASMI HAS FISH COLOR GRADING KIT

The Alaska Seafood Marketing Institute has a new brochure to help sellers and buyers use color to evaluate Pacific salmon quality. The guide has color photos of coho and chum salmon in various stages of maturity. Even though color can't be used as a definitive indicator of quality, the brochure will help buyers, processors, and fishermen talk the same language. Now each can refer to a specific number from the brochure and know exactly what color they are talking about. The first three copies of the brochure are free, additional copies are \$3 each. For

more information contact: ASMI, 526 E. Main St.; Juneau, AK; 99801.

CONFERENCE SET ON PLASTIC POLLU-
TION IN THE PACIFIC OCEAN

Oregon State University Extension/Sea Grant Program is organizing a one-day symposium on plastics pollution in the Pacific Ocean July 28, 1986, at the Hatfield Marine Science Center in Newport.

Marine bird and mammal populations appear to be dropping in the Pacific Northwest, Gulf of Alaska and Bering Sea. Many feel that there is a connection between this and the prevalence of non-biodegradable trash in the open ocean and coastal bays. Most often encountered are polystyrene packing pellets and trays, nylon and polypropylene fishing nets, and plastic packing straps, sheeting and wrappers.

The National Marine Fisheries Service awarded a contract to Natural Resource Consultants of Seattle to review literature on the subject and develop an educational program aimed at major audiences. Their results will be presented at this meeting. Other speakers include John Byrne, president of Oregon State university; James Coe, Program manager of NMFS Entanglement Research; R. Barry Fisher, president of New Wave Fisheries, Inc.; and Capt. Joe Easley, Oregon Otter Trawl Commission.

Other sponsors include the Highliners Association, the National Marine Fisheries Service,

Natural Resources Consultants, the Newport Fishermen's Wives, and the Port of Newport. For more information contact: Ginny Goblirsch, Extension Marine Agent; 29 S.E. Second St.; Newport, OR: 97365.

MIT CONFERENCE PLANNED ON UNDERSEA TELEOPERATORS AND AUTONOMOUS VEHICLES

The MIT Sea Grant Program and the Department of Ocean Engineering are sponsoring a two-day conference October 22 and 23 on undersea teleoperators and autonomous vehicles. The meeting will be held on the MIT campus.

Seventeen papers will be presented. Speakers include experts on teleoperators, artificial intelligence, mobile robots and the developing manipulator technology. Invited participants represent MIT, the University of New Hampshire, Carnegie-Mellon University, the Harbor Branch Foundation, Shell Oil Company, and International Sub Engineering.

For more information on the conference or to register contact: Elizabeth Harding; MIT Sea Grant Program, Building E38-368; 77 Massachusetts Ave.; Cambridge, MA; 02139; (617)253-7041.

AFS IS COMPILING DIRECTORY

The second edition of the American Fisheries Society directory is being compiled, providing up-to-date names, addresses, phone numbers and listing areas of expertise for aquatic professionals. The volume is indexed alphabetically, by job title, geographic region, and area of specialty.

Copies are \$12.50 for those listed in the directory and \$25 for others. Active and retired fisheries

and aquatic scientists in North America, fisheries and aquatic sciences graduate students and undergraduates in these fields scheduled to receive degrees in 1986 are among those included in the listings.

For more information on ordering, contact: American Fisheries Society; 5410 Grosvenor Lane, Suite 110; Bethesda, MD; 20814-2199.

WORKSHOP ON THE AQUATIC ECOLOGICAL EFFECTS OF POWER GENERATION SET FOR SARASOTA, FLORIDA

The Mote Marine Laboratory of Sarasota, Florida is organizing a workshop on power generation and aquatic environments from December 3-5, 1986 at the lab.

Papers are still being considered in a number of areas: thermal effects, intake effects, impact mitigation and environmental enhancement, and toxicity and bioaccumulation testing. The deadline for abstracts is July 18.

Early registration lasts until August 22 and runs \$45. The late registration fee is \$55. The fees include coffee breaks, one lunch, and printed proceedings. For more information contact: Dr. Selvakumar Mahadevan, Director; Mote Marine Laboratory; 1600 City Island Park; Sarasota, FL; 33577.

Office for Fisheries

University of
Alaska

SEA GRANT DIRECTORS SEE BRIGHTER
FUTURE

Sea Grant directors from around the nation met in Charleston S.C. last month for a two-day planning session. In recent years, directors have jointly addressed how to accommodate budget reductions. This year, they discussed what to do with a \$10 million increase in the national Sea Grant budget for FY88. Only a modest increase is expected for FY87.

The directors agreed that the additional funding would be used to explore coastal ocean resource issues, particularly fisheries oceanography and the closely related issue of estuarine/ocean flux and its impact on coastal areas. In reaching this consensus, the directors agreed that the sciences of oceanography and fisheries biology had matured to the point that greater interaction between the two would benefit both.

The Sea Grant National Advisory Panel also met in Charleston. The Reagan administration had not been filling vacancies on the panel because it had slated Sea Grant for termination. It has reversed its policy on filling vacancies however, and recently appointed a full complement of advisors. This seems to indicate a change in the administration's policy toward Sea Grant.

The advisory panel's new chairman is Earl Conrad of Rockland, Maine. He presented Ron Dearborn, new director of the Alaska Sea Grant Program, with a gift of canned lobster, sardines, and a Maine

bumpersticker. In return, Dearborn invited Conrad to visit Alaska as a Sea Grant site team member, or under more enjoyable circumstances.

SEA GRANT PROPOSALS DUE

Respondents to this year's Sea Grant RFP who have been asked to develop proposals should deliver them to the office by August 22. For more information, contact Brenda Melteff, 474-7086.

OSHOHO MARU MAKES TRADITIONAL STOP
IN SEWARD

The Japanese research vessel Oshoro Maru made its traditional stop in Seward last month. IMS Director Vera Alexander, Geophysical Institute Director Syun Akasofu, Sea Grant Director Ron Dearborn, and Marine Advisory Specialist Craig Wiese presented lectures to the vessel's faculty and students. It was Dearborn's first meeting with the Japanese group. "Although I held my own at the picnic, I felt outclassed by Dr. Akasofu's lecture delivered in Japanese," said Dearborn, "I look forward to participating in this productive international exchange of ideas and friendship in years to come."

SEA GRANT MONITORS TO VISIT

Preliminary plans are underway for Dr. William Graham and Dr. Eugene Fritz of the National Sea Grant College Program to visit Alaska in October. Graham is the Alaska monitor. Fritz is the fisheries program specialist for the national office. They have asked

for a more in-depth introduction to fisheries issues than they can get in a site visit. "This is a great opportunity for us to give the national office a better context in which to view our program for several years to come," says Alaska Sea Grant Director Ron Dearborn. "The site visit, with its focus on separate projects, provides little opportunity for setting context."

NBC NEWS MAGAZINE "1986" FEATURES PENNINGTON

Fame allegedly found Lana Turner at a drug store soda fountain. It glommed onto Hank Pennington this summer on the Kodiak waterfront. As safety and insurance problems in the nations fishing industry forged into the national news this spring, so did television news teams into Kodiak.

Both NBC's "1986" and ABC's "20/20" sought out local color for reports on the big bad Bering Sea and the risks of fishing its environs. A producer could hardly ask for more color than larger-than-life Pennington, a red-haired, wild bearded, flannel plaid-shirted, experienced marine advisory agent with safety training credentials. Heck, he not only doesn't need costuming, he can talk as well.

Thus did national audiences get a whiff of real Kodiak persons when Pennington appeared on the "1986" segment the week of July 21. Pennington is rumored to be looking at a three-segment deal with "60 Minutes"; something with more human interest than Mike Wallace but not as much as Andy Rooney.

SIMS MAKES FAIRBANKS IN ONE PIECE

Grant Sims, MAP media specialist, has arrived in Fairbanks to assume

CES Editor Jim Smith's duties for the year. The Family drove from Anchorage to Fairbanks in late July: the same weekend as the landslide along the Parks Highway. The normally 6 to 7 hour trip took the Sims two days, as a series of typical disasters befell them. Oh, nothing that a crane and some passing highway machinery couldn't get them out of. Sims is working on the next videotape in the marine safety and survival training series. The family will make their home on campus at least until the spring.

BOWHEADS TAGGED BY SATELLITES

Faster than a speeding helicopter, more powerful than a 200 lb halibut in a death spasm, bowhead whales have resisted all efforts at tagging. While following their migration using satellites has been a technical possibility for some time, technicians haven't been able to outsmart the whales and the arctic environment long enough to tag the bowheads. Dr. Bruce Mate of the Hatfield Marine Science Center at Oregon State University is experimenting with two new ways to approach the beasts.

Mate's team will first try to approach bowheads in a five-blade helicopter. These machines generate lower frequency noise and are thought to be less disturbing to bowheads than craft used in earlier attempts. Second, a small radio-controlled helicopter will be maneuvered within reach of the animals.

While no actual tagging will take place, the results of this work may bring scientists within reach of these reclusive animals.

FISHERIES EXPERTS REPORT TO NOAA ON FMCA

A panel of fisheries experts reviewing the FCMA for NOAA Administrator Anthony Calio has presented its report. They conclude that there should be a clear separation of conservation and allocation decisions, and that the conservation decisions should be made before the users are decided. Other recommendations include changes in the way regional council members are selected and in council territories, remarks on limited entry, licensing fees, use of the 200 mile EEZ, and the role of the federal government in fisheries management. The 63-page report is available for public comment from the National Marine Fisheries Service.

NEW LEADER AT SCRIPPS

Edward Frieman, a prominent physicist, has been named to lead the Scripps Institution of Oceanography. Frieman is also executive vice president of Science Applications, Inc. of La Jolla, CA. Frieman takes over from William Nierenberg, who has been in the director's chair for 21 years.

\$5,000 ROSENSTIEL AWARD TARGETS MARINE PHYSICS

The 1986 Rosenstiel Award in Oceanographic Science will bring the winner a medal and a cash prize of \$5,000 this year. Marine physics is the subject area being recognized by the selection panel. They are also encouraging nominations of younger scientists with potential as leaders in the field. Deadline for nominations is November 1, 1986. To make nominations contact Dean Alan Berman at the Rosenstiel School of Marine and Atmospheric Science; University of Miami; Miami, FL.

PATENT POLICY

The General Accounting Office has released a report on university research under Public Law 96-517, the Patent and Trademark Amendments of 1980. GAO reports on the patent activities of 19 universities from January 1982 to December 1984. The document is GAO/RCED-86-93, and is available from GAO; POB 6015; Gaithersburg, MD; 20877.

AVTEC ANNOUNCES 1986-87 FISHERIES/MARITIME TRAINING COURSES

The Alaska Vocational and Technical Center in Seward has announced its marine-emphasis training courses for the next academic year. Subject areas include safety and survival, U.S. Coast Guard licensing and document preparation, and technical assistance. Room and board is \$12.25 per day, on a space available basis. For more information contact AVTEC; Admissions Office; POB 889; Seward, AK 99664; 224-3322.

09/22-10/01 Radar Observer
10/08-17
11/10-19
12/10-19
01/26-2/4
03/09-18
04/20-29
09/29-10/17 Motorboat, Inland and
Ocean Operator
12/01-19
05-04-22
09/29-10/03 Chart Navigation
(MBO)
10/27-11/04
12/01-05
05/04-22
10/08-15 Int'l. Inland Rules of
the Road
11/10-18
12/10-17
05/13-20
10/13-17 Marine Hydraulics
02/16-20
10/-20-24 Loran/Radar Navigation

01/12-16
03/30-04/03
05/11-15
10/20-24 Marine Engines
03/16-20
10/20-11/21 Master/Mate
10/27-31 Small Boat Fish Finding
04/06-10
10/27-31 Marine Electrical
02/23-27
11/03-07 Gas Engine Tune-up
03/09-13
12/01-05 Trawl Technology
02/23-27
01/07-16 Radar Ship Handling
01/19-23 Vessel Stability
02/05-07 Marine Safety and
Survival
03/19-21
04/23-25
02/16-20 Fish Finding
05/18-22
02/23-03/13 Celestial Navigation
04/06-17 Able Seaman
04/20-05/01 Lifeboatman

Fishlines

Volume V, No. 8
September 12, 1986

Office for Fisheries

University of Alaska

NATIONAL WORKSHOP ON FISHING VESSEL INSURANCE AND SAFETY SET FOR WASH- INGTON D.C., FEB. 4-6

Wherever people are talking about vessel insurance, they're probably talking about vessel safety. The two are increasingly fused into one as the liability insurance crisis develops. In February, the National Council of Fishing Vessel Safety and Insurance (NCFVSI) and the national Sea Grant network will sponsor a workshop on the two topics in Washington D.C.

Included among those making presentations will be insurance experts, fishing vessel owners and skippers, charter operators, safety experts, Congressional staffers, and experts on various regional fisheries. At the conclusion of the workshop, some points of national consensus developed during the sessions will be made available. A proceeding including the text of all presentations and summaries of discussions will also be published shortly after the meeting.

For further information contact: Brenda Melteff; University of Alaska; Sea Grant College Program; 590 University Ave., Rm 102; Fairbanks, AK: 99709-1046.

NASH IS NEW FOOD ENGINEER AT FITC

Jeff Nash has arrived in Kodiak to begin work at the FITC as a food engineer. Originally from the northeast United States, Nash recently received his doctorate from Texas A&M University.

In Kodiak, Nash will be applying food engineering principles to fish processing. Among the priorities

will be helping processors with energy conservation measures. He says that he and his colleagues hope to work on new products as well.

Although this is his first time in Alaska, Nash says he always wanted to see the state and is happy to be working in his field. Welcome aboard, Jeff.

INTERNATIONAL SYMPOSIUM ON FISHERIES ACOUSTICS

In 1973 and 1982, the International Council for Exploration of the Sea (ICES) and the United Nations Food and Agricultural Organization (FAO) sponsored international meetings on fisheries acoustics. The National Marine Fisheries Service Northwest and Alaska Fisheries Center (NWAFC) will join ICES and FAO in presenting the third such meeting July 22-26, 1987 in Seattle.

The central theme of the symposium is to describe the current and future role of fisheries acoustics in stock assessment, fisheries management, and other scientific endeavors. Since the 1982 meeting, there has been rapid growth in the use of acoustic techniques to locate and assess fish stocks. Other researchers have used the techniques for sampling fish stocks and other biological populations. The symposium proceeding will reflect the most current applications of this technique.

Deadline for abstracts is October 1. Authors whose papers are accepted will be notified by December 1. Completed papers will be due April 15. Abstracts should be submitted to: Martin O. Nelson; Division of Resource Assessment and

Conservation Engineering; NWAFC;
7600 Sand Point Way, Bldg. 4; Seat-
tle, WA; 98115-0070.

MERCY LANDS MEDIA POSITION

Deborah Mercy has been named half-time instructional media specialist at the Anchorage MAP office. Deborah will be taking over some of the work formerly done by Grant Sims. Mercy is no stranger to MAP, having worked for the office on various contracts over the past year producing videotape and slide presentations. Most recently, she was aboard Bob Jacobson's boat taping the Kodiak halibut opening. Best of luck to Deborah.

OLSEN MOVES TO ANCHORAGE

Remember Sea Grant secretary/graphic artist Tricia Olsen? Who quit her secretarial position to get a degree? Who returned to Sea Grant while a student to become their first half-time graphic artist? Who quit the program after graduation to become features editor at the Fairbanks Daily News-Miner? Olsen has now fled Fairbanks for the bright lights of Anchorage and new husband Perry. While Interior may have seen the last of Olsen, the news world has not. Look for her in the local rags or, who knows, begging for change outside the Anchorage MAP office.

PACIFIC MARINE EXPO FISHERIES BOOTH PLANNED

Alaska sea Grant will be sharing a booth with other Alaska fisheries groups at Pacific Marine Expo, the "off-year" trade show to be held at Seattle Center November 20-22. Pacific Marine Expo will be held while Fish Expo is being held in Boston.

MAP staffers or other faculty members who would like to put materials in the booth should call Teri Frady at Alaska Sea Grant. It is a particularly good time to do surveys since it's one of the few places to find a cross section of the fishing community in one place. If you have other ideas for the booth, please let Frady know: call 474-6702 or send a mail message to SZGRANT.

AQUACULTURE INFORMATION CENTER OFFERS BIBLIOGRAPHIES

The Aquaculture Information Center at the Department of Agriculture's National Agricultural Library (NAL) publishes bibliographies in a series called "Quick Bibliography." There are eight bibliographies for aquaculture: aquaculture, catfish farming, crayfish farming, freshwater shrimp and prawns, shellfish culture, shrimp mariculture, tilapia culture, and trout farming.

These bibliographies are available at no charge. To request copies write: Aquaculture Information Center; National Agricultural Library; Rm. 111; 10301 Baltimore Blvd.; Beltsville, MD; 20705.

Holdings of the Aquaculture Information Center are cataloged in AGRICOLA, NAL's online database that can be accessed through DIA-LOG. For more information on AGRICOLA, contact NAL's education coordinator at (301) 344-3937.

Office for Fisheries

University of Alaska

CALIFORNIA SEA GRANT FINDS PAIN
KILLER IN CORAL

California Sea Grant College Program (CSGCP) researchers have announced discovery of pain killing compounds that are as powerful as morphine with no apparent narcotic or addictive properties.

Called **pseudoteriosins**, these compounds were derived from the Caribbean soft coral known as sea whips. Pseudoteriosins seem to act by controlling prostaglandins, a hormone-like substance that is associated with pain, inflammation and fever. Scientists believe that pseudoteriosins may eventually have wide application in treatment of chronic pain such as that suffered by arthritics.

The discovery was made as part of an ongoing CSGCP project called the Marine Chemistry and Pharmacology Program in which a team of scientists investigates the potential for marine organisms to provide new drugs. Extracts of various marine life specimens from the Pacific and Caribbean are tested for their ability to inhibit cell division and bacterial growth, and for their anti-inflammatory and analgesic properties. Pseudoteriosins are one of 28 extracts selected for intensive study after testing more than 800 marine extract samples.

SEA FARE TO OPEN FEB. 18-20 IN LONG
BEACH

The international seafood exposition Sea Fare '87 will be held in California Feb. 18-20 at the Long Beach Convention Center. Last year's show attracted over 5,000 seafood buyers to the Disneyland

Hotel in Anaheim. More than 350 exhibitors and 5,500 attendees are expected this year.

Sea Fare includes a seminar program that features experts in profitability of food-service operations, wholesaling, importing and retailing. For more information on Sea Fare '87 contact: Sea Fare Expositions, Inc.; 3510 1st Ave. N.W.; Seattle, WA; 98107; (206)547-6030.

NEW BOOK ON HYPOTHERMIA PUBLISHED

Human Performance in the Cold, is the conference proceeding for a meeting held in Alaska in 1982. The conference focused on cold-induced changes in the human body, care of hypothermia victims, recovery for hypothermics, evaluating protective clothing and insulation materials and research needs in this field. The book is co-edited by Minnesota Sea Grant researcher Dr. Robert Pozos and it can be ordered from the publisher: Undersea Medical Society, Inc.; 9650 Rockville Pike; Bethesda, MD; 20814 (\$35).

NEW YORK SEA GRANT SEEKS ASSOCIATE
DIRECTOR AND MAS LEADER

This three-part position is located in Ithaca, New York at Cornell University. The successful candidate will serve as associate director of New York Sea Grant, as extension leader under Cornell Cooperative Extension Service, and as a specialist in extension education. Applicants should have a Ph.D. in

aquatic sciences, natural resource management, extension education or a related field; five years professional experience in a field related to Great Lakes or marine resource management; three years direct experience in extension or other nonformal education program-

ming and management; and demonstrated ability to manage extension education activities. Those interested should provide a letter of interest and resume to: Dr. Lucinda Noble; Search committee chair; Director, Cornell Cooperative Extension; Roberts Hall; Ithaca, NY; 14853; (607)255-2116.

Office for Fisheries

University of Alaska

NEW ALASKA SEA GRANT MONITOR VISITS STATE WITH GRAHAM AND FRITZ

Dr. Fritz Schuler, a resource economist, is Alaska Sea Grant's new program monitor in the National Office of Sea Grant. Fritz joined former Alaska monitor Dr. William Graham and Dr. Gene Fritz on a recent trip to Alaska's fishing communities. In the company of Sea Grant Director Ron Dearborn, the group visited Juneau, Cordova, and Anchorage. Foul weather prevented the team from visiting the large private non-profit hatchery on Ester Island in Prince William Sound, and from landing in Kodiak to talk with fishermen and processors.

SEAFOOD QUALITY MEETING DRAWS INTERNATIONAL CROWD

The International Symposium on Seafood Quality Determination scheduled for Anchorage November 10-14, features over 50 speakers from 11 countries and 16 U.S. states. In addition to U.S. scientists, invited experts hail from Scotland, Denmark, Canada, Norway, Japan, the Netherlands, Australia, Korea, India, and Italy. To date, approximately 125 people have registered to attend the meeting at the Anchorage Hilton.

The meeting is divided into 10 sessions: Instrumental Measurements of Seafood Quality; Sensory Evaluation of Seafood Quality; Chemical and Biochemical Indices of Seafood; Sensory Evaluation Workshop; Microbiological Evaluation of Seafood Quality; Public Health Hazards Associated with Seafood; Shelf-life Estimation for Seafood; Nutritional Aspects of Seafood Quality; Consumer Per-

ception of Seafood Quality; and Seafood Quality Standards.

For more information on attending the meeting contact: Brenda Melteff; Alaska Sea Grant College Program; 590 University Ave., Suite 102; Fairbanks, AK 99709-1046; (907)474-7086.

PLANS GEL FOR FISHING VESSEL SAFETY AND INSURANCE WORKSHOP

The agenda is almost complete for the National Workshop on Fishing Vessel Insurance and Safety scheduled for Feb. 4-6, 1987 in Washington D.C. This conference will present an intensive three-day look at how vessel safety and insurability are related from the perspective of those working the boats, those offering insurance, and those who may be regulating one or both of these industries.

Attendees will discuss the difficulty in obtaining coverage, experiences with alternative forms of insurance, and safety training programs and their role in obtaining insurance. Conferees will include insurance professionals, fishing business people, and congressional staff members.

The meeting is sponsored by the Sea Grant College Program Network and the National Council of Fishing Vessel Safety and Insurance. For more information on attending this conference, contact conference coordinator Brenda Melteff: Alaska Sea Grant; 590 University Ave., Suite 102; Fairbanks, AK 99709-1046; (907) 474-7086.

SEA GRANT TO SHARE BOOTH AT PACIFIC MARINE EXPO

Alaska Sea Grant will share a booth with five other regional

fisheries groups at Pacific Marine Expo in Seattle November 20-22. The North Pacific Fishery Management Council, the National Marine Fisheries Service Alaska Region, the Alaska Office of Commercial Fisheries Development, the Alaska Department of Fish and Game, and the Alaska Seafood Marketing Institute will also send representatives to the booth.

Billed as the "off-year Expo", Pacific Marine Expo is an experiment by National Fisherman Expositions, Inc. The group is willing to put on a trade show in Seattle in the years Fish Expo travels to the east coast if there are enough people interested in attending. Exhibitors have responded in force and organizers hope attendance will be high. The event is structured much like Fish Expo, with a variety of exhibitors from marine trades and service organizations and a seminar series.

Seminars this year include a discussion of the state of the seafood market, by-catch and gear selection, and the third industry safety conference.

SEA GRANT BOOTH PLANNED FOR NSTA

They didn't get the Olympics, but they did get the western regional National Science Teacher's Association convention. Sea Grant will coordinate a Pacific Sea Grant College Program booth at the conference in Anchorage December 2-4 at the Sullivan Arena. Booths will also be sponsored by the Institute of Marine Science and Alaska Sea Week/River Week. The conference includes workshops and seminars. Marine Advisory Agent Dolly Garza will be among those speaking.

ELEVEN NEW MEMBERS APPOINTED TO SEA GRANT REVIEW PANEL

Secretary of Commerce Malcolm Baldrige has appointed eleven new members to the Sea Grant Review Panel, an independent committee

that advises the NOAA administration on policy within Sea Grant:

Richard B. Allen is a charter fishing boat owner-operator from Wakefield, RI.

Dr. Fay Biles is a faculty member and administrator at Kent State University who specializes in health and safety education.

Maumus Francois Claverie, Jr. is an attorney, director of the New Orleans Big Game Fishing Club, and a member of NOAA's Marine Recreational Fishing Steering Committee.

William F. Cochran is president of ALCOA South Carolina, Inc. in Beaufort, S.C., Inc.

Earl Conrad, the elected chairman of the panel, is chief executive officer of Port Clyde Seafoods, in Rockland, ME, and director of the National Fish Meal and Oil Association. Conrad was in Fairbanks in 1985 as a member of the Sea Grant proposal review site team.

Peter M. Dunbar is an attorney, a member of the Florida State House, and primary sponsor of state legislation that created the Florida Marine Fisheries Commission.

Stanley R. Murphy is a professor of mechanical engineering and oceanography at the University of Washington.

Dr. Michael J. Pelczar is a microbiologist and former vice president for Graduate Studies and Research at the University of Maryland.

Benjamin F. Rathbun is owner-operator of charter fishing boats in Noank, CT and an advisor to the New England Fisheries Management Council.

Dr. Saul B. Saila is a fisheries biologist and biometrician, and chief scientist at the University of Rhode Island Division of Marine Resources.

Roger Thomas of Burlingame, CA is owner-operator of a three-vessel commercial passenger/fishing fleet, director of the Coastal Fisheries Foundation, and president of the Golden State Fishermen's Association.

Office for Fisheries

University of Alaska

WOMEN'S FISHERIES NETWORK GETS
ALASKA CHAPTER

The Women's Fisheries Network (WFN), based in Seattle, has sanctioned an Alaska Chapter. The Alaska group will have its first meeting this month. The group encourages women in various parts of the fishing industry to meet, share information, and sponsor educational events on topics of interest.

Annual dues have been set at \$35. For an extra \$10, members can become "founding mothers" of the Alaska chapter. For more information on the group, contact: Julie Settle; Alaska Joint Venture Fisheries; 310 K Street, Room 310; Anchorage, AK; 99501.

RESEARCH FELLOWSHIPS OFFERED AT
WHOI

Woods Hole Oceanographic Institution is offering research fellowships to individuals in social sciences, law, humanities, and natural sciences who wish to apply their training to legal, political, social or economic problems that involve the oceans. Previous research fellows have come from the fields of economics, law, political science, international relations, anthropology, sociology, engineering, marine science, and geography.

Applicants must have completed a doctoral level degree or have acquired equivalent experience while pursuing a career. Recent doctorates receive a stipend of \$24,000 for one year. Depending on the work, a fellow may be offered a longer professional affiliation with the institution.

Application deadline is January 15, 1987. Application information is available from: Dean of Graduate Studies; Education Office, Clark Laboratory; Woods Hole Oceanographic Institution; Woods Hole, MA: 02543; (617)548-1400.

COAST GUARD SAFETY STANDARDS DEVELOPED

A U.S. Coast Guard task force has produced fishing vessel safety standards intended for commercial fishermen. The group, working under the Office of Marine Safety, Security and Environmental Protection, has developed a voluntary program that includes standards, safety awareness and educational material. Full details are available from Lcdr. William J. Morani, Jr. (G-MTH-F/V), Room 1400; USCG Headquarters; 2100 2nd St. N.W.; Washington, DC; 20593; (202)267-1053.

PACIFIC MARINE EXPO A SUCCESS

Alaska Sea Grant coordinated the Alaska Fisheries booth at Pacific Marine Expo, a trade show held in Seattle November 20-22. This was billed as the "off-year" Fish Expo, held in Seattle while Fish Expo traveled to Boston. Two similar attempts at inter-year shows have failed, however, Pacific Marine Expo drew both exhibitors and visitors. Other participating agencies were: ADF&G, ASMI, NPFMC, OCFD and NMFS Alaska region.

National Fisherman Expositions, Inc. estimated at the close of the show that more than 6,000 persons had attended the show. A good percentage of the visitors to the Alaska Fisheries booth

were Alaskans, so early fears that only Seattle fishermen would attend proved groundless. People were particularly interested in Sea Grant's recent report on wholesaler's attitudes toward wild Pacific and pen-raised salmon and on guides for handling rockfish and halibut.

Seminars were a part of the activities, as they are during Fish Expo. Particularly well-attended were those on safety and vessel insurance.

MAP OFFICE ON THE MOVE AGAIN

The Marine Advisory Program headquarters office in Anchorage is in the process of moving to 2221 Northern Lights Boulevard. The phone number remains 274-9691.

SEA GRANT DIRECTOR WINS ELECTION

At the November meeting of the Sea Grant Association, Alaska Sea Grant director, Ron Dearborn became president-elect of SGA. As president-elect and then president next year, Ron will be heavily involved with the Sea Grant budget process in Congress.

INTERNATIONAL SEAFOOD MEETING SUCCESSFUL

The International Symposium on Seafood Quality Determination held November 10-14 in Anchorage provided 52 technical presentations for an audience of 135 people from 15 nations and 19 states. Proceedings will be published by Elsevier in their series "Developments in Food Science".

Office for Fisheries

University of Alaska

SEA GRANT LOOKING FOR A FEW GOOD PROJECTS FOR 1988-1989 GRANT YEARS

Alaska Sea Grant has mailed Requests for Proposals (RFPs) for projects to begin in the next two-year proposal cycle. Pre-proposals are due in the Sea Grant office Feb. 13. If you have not received an RFP by the end of January and would like to, contact the Sea Grant office.

NATIONAL WORKSHOP ON FISHING VESSEL INSURANCE AND SAFETY ATTRACTS TOP SPECIALISTS

Insurance, safety and fishing industry professionals, Congressional staff, and academics will gather in Washington D.C. February 4-6 to attend a workshop on fishing vessel insurance and safety. The three days of discussion will touch on national and international problems in maritime insurance, possible legislative and regulatory changes affecting insurance, alternative approaches to insurance, and fishing vessel safety training and assurance. Each topic area will be considered by a panel of experts, then opened for public discussion.

Although panelists have been drawn from all parts of the nation, some familiar faces will greet Alaskans at the meeting: Al Burch, manager of the Alaska Dragger's Association; University of Alaska Marine Advisory faculty members Craig Wiese and Hank Pennington; Oregon State University's Bob Jacobson; John Sabella, safety specialist with the North Pacific Fishing Vessel Owner's Association; and Sea Grant director Ron Dearborn.

The conference was convened by the National Sea Grant Network and the National Council of Fishing Vessel Safety and Insurance. Sponsors include the Alaska and University of Southern California Sea Grant programs. For more information on the conference contact Brenda R. Melt-off at Alaska Sea Grant, 474-6701.

CNS AND SEA GRANT STAFF MEET SCIENCE TEACHERS

The University of Alaska was well-represented at the National Science Teacher's Association's western regional convention held in Anchorage in

early December. Displays included videotapes and educational material from most western Sea Grant programs, as well as materials from various sections of the College of Natural Science including the Geophysical Institute, Institute of Marine Science, and the UAF Department of Mining and Geological Engineering.

Dr. Syun Akasofu was the keynote speaker at the last general session. Robert Ballard, the *Titanic* researcher from Woods Hole, was also a featured speaker. Organizers estimate that more than 5,000 people attended the conference. Staffing the various UA booths were Claron Hoskins, Don Triplehorn, John Kelley, Ted Cooney, Neil Brown, Teri Frady, and Dolly Garza. Also prominent among the speakers were CHRD Alaska Sea Week/River Week coordinator Sidney Stevens, and former CHRD staffer and current statewide math and science curriculum coordinator Peggy Cowan.

Briefly sighted in the crowd was former gubernatorial science advisor and IMS faculty member Richard Neve. Neve has finished his public commitments and plans to stay in Juneau and work as a consultant.

MATHISEN PUBLISHED IN NEW BOOK DETAILING SOUTH PACIFIC PELAGIC FISH MANAGEMENT

Ole Mathisen, dean of the University of Alaska, Juneau, School of Fisheries and Science, is co-editor and a contributor to a new book on managing pelagic fishes in the South Pacific upwelling system. Mathisen has been a consultant on a multi-year cooperative project among Chile, Peru and Ecuador to develop the management study. Mathisen contributed two papers and edited the volume along with I. Tsukayama. The book is entitled, "Bases Biologicas y Marco Conceptual para el Manejo de los Recursos Pelagicos en el Pacifico Suroriental."

SEA GRANT FUNDS SIX NEW PROJECTS BEGINNING JANUARY 1

Alaska Sea Grant has been awarded its 1987 grant, totaling \$1,232,000. While most of Sea Grant's current projects are continuing, there are six new projects that began January 1.

William Smoker (UAJ School of Fisheries and Science) will examine broodstock improvement for pink salmon.

T.J. Quinn (UAJ School of Fisheries and Science) will study otolith microstructure in Pacific halibut.

Abby Gorham (Alaska Sea Grant) will develop a dynamic simulation model of the U.S. Pacific halibut fishery.

G. Knapp (UAA Institute of Social and Economic Research) will attempt to discover how fisheries management policies affect safety in Alaska's fishing industry.

S.O. Ebbesson (UAF Institute of Marine Science) will study how thyroid-induced smoltification affect the neural structure of coho salmon.

H.J. Niebauer is trying to characterize and possibly predict interannual variability in the Bering Sea.

WESTERN GROUND FISH CONFERENCE SET FOR OREGON, MARCH 1987

The Sixth Annual Western Groundfish Conference will be held March 25-27 at the Salishan Lodge in Gleneden Beach, Ore. The organizers are still accepting papers, but urge those interested to contact them immediately. The conference provides a forum where researchers from various institutions and agencies can discuss their work on any aspect of groundfish. The conference is open to all who wish to attend.

For more information on submitting papers contact Bob Demory or Bill Barss; Oregon Department of Fish and Wildlife; Marine Science Drive, Bldg. No. 3; Newport, OR: 97365; (503)867-4741. To make reservations to stay at the lodge contact: Salishan Lodge; (503)864-2371. The package cost for three nights also includes three breakfasts, two lunches, two dinners, five breaks and use of lodge-owned AV equipment. The price is \$215.65 for a single and \$162.10 for a double.

TITANIC-BUSTER TO HEAD NEW CENTER

The Woods Hole Oceanographic Institution has named Robert Ballard, the man who discovered and filmed the *Titanic* last year, to head its new Center for Marine Exploration. Ballard is already on staff at WHOI, where the ocean engineering

department has conducted much applied research on underwater robotics. The center will work on projects that increase scientists' ability to survey and sample the deep sea. Field work will probably center around the Mid-Ocean ridge, a 46,000 mile-long underwater range that is largely unexplored.

OYSTER THIEVES WRECK CHESAPEAKE COMEBACK

University of Maryland scientists are wringing their hands over the apparent theft of 3 million baby oysters from a boat basin on the Choptank River. The infants were a carefully selected group of disease-resistant oysters that were to be placed around the bay to help fight a sickness that has decimated oyster harvests in the Chesapeake. The shellfish-lifters made off with 400 to 500 plastic mesh bags of the baby oysters, none of which would be market size for another two or three years.

NEW ORLEANS TO HOST SOUTH ATLANTIC FISHERIES CONFERENCE

The Conference on Gulf and South Atlantic Fisheries Law and Policy will be held in New Orleans March 18-20, at the Royal Sonesta Hotel. The conference will concentrate on resource allocation, conflict in state and federal regulation, state regulatory powers, proposed changes to the FCMA, the present marine insurance crisis, and the Law of the Sea and its effect on fisheries management. For more information on the meeting contact: Fisheries Law Conference; Sea Grant communications; LSU Center for Wetland Resources; Baton Rouge, LA; 70803-7507.

"FINMAN" SIMULATION MODEL AVAILABLE FROM FLORIDA SEA GRANT

FINMAN is a computer program that simulates decision-making responses at three levels of fishery management: management rules, agency budget allocation, and research budget allocations. Although the program was developed for the grouper fishery, it presents an interactive and dynamic environment where decisions can be made and interpreted using other fisheries. Two publications describing the system are available: FINMAN: General User's Guide (TP-47/\$3.00) and FINMAN: Model Description and Operations Manual (TP-47-A/\$8.00). To order, contact: Florida Sea Grant Extension Program; G022 McCarty Hall; University of Florida; Gainesville, FL; 32611.