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Fisheries Opportunities – Make A Difference!

You can make a difference in guiding the activities of the Alaska Chapter.

The Alaska Chapter is seeking nominations for the Chapter positions of Secretary and First Vice-President. Additional information is available elsewhere in this newsletter and also from members of your Chapter Executive Committee or on the Chapter website: <http://www.fisheries.org/afs-ak/aboutus.html>.

If you (or someone you know) would be willing to work cooperatively with other resource professionals toward aquatic resource sustainability while serving in one of these prestigious positions, please send your nomination to Bill Bechtol (email: bill_bechtol@fishgame.state.ak.us, ph: 907-235-8191). Nominations must be received by August 30 and voting by Chapter members will be conducted through mail-in ballots or by email. ☺

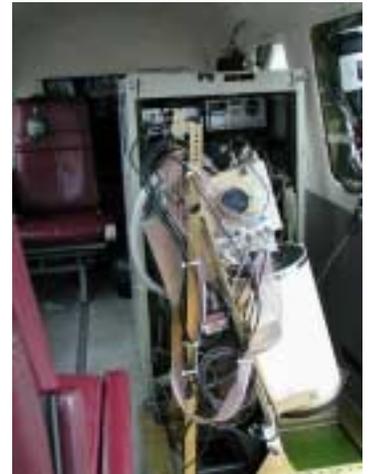
Airborne Remote Sensing for Fisheries and Marine Ecological Research

Evelyn D. Brown

Airborne lidar (light detecting and ranging) is a tool showing promise for marine research. One form of lidar produces short pulses of green (532 nm) laser light that passes through the water surface reflecting off fish and particles and returns to a telescope receiver. The strength of the returning pulse separates large from small objects, and the elapsed time indicates the range or depth of the object. When coupled on a single platform with other instruments, such as imagers, radiometers, and infrared cameras, physical and biological measurements are recorded simultaneously. Surface and subsurface features, such as zooplankton layers, fish schools, large individual fish, marine mammals, sea birds, oceanic fronts, sea surface temperature and salinity, and chlorophyll blooms are recorded to depths where light signals are attenuated.

During the summer of 2000, the Fish Lidar Oceanic Experimental system (FLOE), developed by Jim Churnside and James Wilson of the NOAA Environmental Technology Laboratory, was tested and evaluated as part of a pilot study in the north Pacific. The FLOE system was coupled with a digital imager for the study. The measured daytime swath was about 5 m increasing to 7 m at night. For imaging, we used a high-resolution video camera equipped with a tunable spectral filter capable of capturing 10 different bandwidths within the visual range as well as an adjustable focal length and frame-capture rate. The image swath width is altitude and focal length dependent and ranged from 150-200 m for this study. The instruments were mounted so that the swaths overlapped and angled down-looking at about 10 degrees from a camera port and window port in a twin-engine aircraft. The survey required at least three scientific personnel: a survey transect planner and navigator, an image operator, and a lidar operator. Surveys were flown in British Columbia, northern southeast Alaska, Prince William Sound, and over the continental shelf in the Gulf of Alaska. Flying at 1000 ft altitude at 120 knots, 222 km were surveyed per hour. The lidar captured data on plankton, krill, fish schools, larger individual predators, and detail of biological structure at ocean fronts.

The maximum range and sensitivity of the lidar is highly dependent on the clarity of the water. For this study, the penetration depth was 15-30 m for inside waters and up to 50 m in outside waters over the continental shelf. Penetration was much better at night due to an increased field of view and no background light interference. The imager captured sea bird and mammal configurations, fish schools, and changes in ocean color/front structure. The median signal is small and sensitive to noise at depths near attenuation and



The Fish Lidar Oceanic Experimental system mounted inside the survey aircraft.

The President's Column

Carol Ann Woody



I grew up in a home that fought for habitat and time for vanishing species. The snail darter, Kemp's Ridley turtle, the Mexican red wolf, and the black-footed ferret all floated above our dinner table with the Tennessee Valley Authority, ranchers, and recovery plans. My father, a tall skinny Fish and Wildlife Service biologist who prefers animals to humans, regularly received death threats for his pro animal wars, particularly after forcing Turtle Excluder Devices (TEDs) on Louisianan shrimp trawlers. Even though the Kemp's Ridley turtle was listed as endangered, thousands died as "bycatch" by drowning in shrimp trawler nets. The TEDs let turtles escape in time to catch another breath, but fishers fought against their installation complaining they were expensive, cumbersome, dangerous, and worthless. Many studies and courtroom battles later, the turtles won one round, and TEDs are installed on American trawlers.

Twenty-three years later, I look backward and forward at the human relationship with animals. Species are currently vanishing at a rate comparable to the pre-human mass extinctions of the Cretaceous, Permian, and Triassic. The Pleistocene extinctions occurred about the time humans began hunting in packs and a growing body of evidence implicates humans in that round. Humans account for the majority of extinctions today. The marine turtles that evolved over 50 million years ago and which my father fought to save, are all listed as endangered. Insidious coastal development has destroyed critical nesting habitats and streetlights fatally attract hatchlings to roads, not the sea. Turtles continue to die as "by catch" and their meat and eggs (purported aphrodisiacs) are still poached. However, some populations appear stable, some habitats are protected, and my recent wanderings in Mexico indicate a broad shift in thinking.

Communities are working together to conserve and to advertise the plight of marine turtles. School facades along the coast are decorated with marine scenes and turtles dominate the murals. Children's scrawls plead with you not to buy turtle products. Lotion made from turtle oil is now uncommon. Hairpieces, carapaces and other once common items are no longer in the markets. Maybe so few

turtles are left that these products had to disappear. But laypeople are educated, enthused, and are now working to protect turtles.

Dedicated Mexican biologists and teachers have obviously made a huge difference in changing how turtles are perceived in these villages. Education and ownership in marine turtle conservation programs has captured the interest of entire communities. If applied early, community involvement can make a big difference in the outcome of conservation efforts, if we only cultivate the potential. Belated community involvement can't bring a species back from extinction or from the genetic cul-de-sac of reduced population size. Community support can make or break a program and can make significant scientific contributions.

What does any of this have to do with Alaskan fisheries? Everything. What happened to our Kodiak king crab fishery? What's happening to the Yukon chum? The Kvichak sockeye? Somehow Alaska got a sustainable sticker on the management of our salmon resources, but we are only looking at one century. I would feel more comfortable if we got that sticker after 3 centuries. Why? Look at the human track record in regard to sustainable management of world fisheries. What is the current status of Atlantic salmon, the Great Lakes fishery, cod, tuna, blue crab, lobster, and on and on? All of these fisheries were once great but we failed; the Alaskan fisheries are not immune. Look at the current crises, and those are only the ones we know about! There are too few biologists in too big an area with too little information money and time. We need to support and help initiate ongoing community-based research programs. If we don't, we are wasting the opportunity to gather priceless life history and genetic data to aid current efforts in understanding and conserving our fisheries.

This summer I hired six Alaskan Native interns for a special project—they will sample the subsistence catch in their village. Two teams of three students (high school juniors and seniors) and one teacher will rotate through fish camps of relatives and friends, collecting length at age, fecundity, otoliths, and genetic samples from salmon captured in subsistence nets. The students will also learn how to monitor escapement, construct life tables, enter and proof data, conduct basic statistical analysis and report the findings to their village. How did I get these students interested? —by visiting the local villages and schools regularly, giving slide shows on salmon ecology, and talking about our research—by making science fun. I ask for help in learning more about the salmon populations in the area and the community helps me. The people in these communities are important stakeholders and are directly affected by poor returns to the Kvichak. They are worried about declining catches, and having to move traditional subsistence sites for lack of fish. Last year I could only find two students for the program, this year I had applicants from all over Central Alaska. More can be done at the community level and the type of data we are collecting, life tables, escapement counts, and genetic

ONCORHYNCHUS

Oncorhynchus is the quarterly newsletter of the Alaska Chapter of the American Fisheries Society. Material in this newsletter may be reprinted from *AFS Diary* and *Western Division*.

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Deadline for materials for the fall issue of *Oncorhynchus* is Sept. 10.

Alaska Chapter's Internet Home Page Address

<http://www.fisheries.org/afs-ak/>

Wanted - Fisheries Professionals

You are unique! You have knowledge and experience that should be shared with others in providing for the sustainability of Alaska's aquatic resources. Here's your opportunity to work with others of like interests, but with different skills, to provide for a common goal. The AFS Alaska Chapter is seeking nominations for the Chapter officers of Secretary and First Vice-President. These positions serve as voting members on the Chapter Executive Committee in attending to the functions and administrative issues of the Alaska Chapter while representing the interests of the Chapter membership. The Executive Committee meets by teleconference at about 6-week intervals, exclusive of the summer season.

The Secretary is responsible for the official records of the Chapter. More specifically, the Secretary prepares minutes of the annual business meeting and Executive Committee meetings for distribution to members of the Executive Committee; sends, through the Chapter President, minutes of the annual business meeting to the Society Executive Director; serves as a voting member of the Executive Committee; maintains records of activities, minutes, membership, and other aspects of the Chapter. The term of the Secretary is two years.

The First Vice-President serves as chair of the Membership Committee, and assists the President-

Elect in the planning and preparation of the annual meeting as mutually agreed on, and shall perform other duties as assigned. More specifically the First Vice-President is responsible for: appointing and working with Membership Committee members to further increase membership; serving as a voting member of the Executive Committee; assisting the President-elect in the organization of the Annual Meeting; and disbursing Chapter funds as authorized by the Chapter Executive Committee. The term of the First Vice-President is one year; at the end of that year, the First Vice-President succeeds the President-elect, who in turn succeeds the President, who succeeds the Past-President.

More information about either of these positions can be obtained by contacting current members of your Chapter Executive Committee and by looking up the Bylaws and Procedures Manual sections of the "About Us" link at the Chapter website: <http://www.fisheries.org/afs-ak/aboutus.html>. If you (or someone you know) would be willing to serve in one of these prestigious positions, please send your nomination to Bill Bechtol (ph: 907-235-8191; email: bill_bechtol@fishgame.state.ak.us). Nominations must be received by August 30 and voting by Chapter members will be conducted through mail-in ballots or by email. ☺

President's Column, *continued from page 1*

samples, will allow managers to monitor trends, status and relationships, and make better management decisions.

To learn more about putting science to work in communities, check out the Loka Institute at www.loka.org. They are a great source of information and resources for doing community-based science. Check out Susan Guyette's useful publication "Community-Based Research, A Handbook for Native Americans". Talk to the Alaskan groups that are involving communities in their research - the Fish and Wildlife Service, LGL consultants, and USGS. If you want to start such a project, talk to Ken Harper, Jim Finn, Michael Link, or myself at the annual meeting this fall. Tap into the Aquatic education resources available through the chapter.

I'd like to think the Kvichak and the Yukon runs will come back again and that the 'less than one return per spawner' we have seen for a while is just due to a la niña climate regime that will reverse itself. I'd also like to think that it's not a synergistic effect of high exploitation, chum chucking, global warming, decreased diversity of metapopulations, competition for food with billions of hatchery fish, and other factors we don't understand. I hope we can earn the sustainable sticker centuries to come. ☺

Airborne Remote Sensing, *continued from page 1*

thus the detection of targets near the maximum range is not very robust. This is of particular concern for studies in Alaska where the water in some areas can be considerably more turbid than in the coastal waters of California. However, much of the primary and secondary production along with predatory activity takes place in the upper 30 m during the Alaskan summers when the water column is stratified. Thus, the lidar measurements provide the potential to yield real-time, high-resolution snapshots of biological distribution in the upper level of the ocean.

We concluded that airborne remote sensing instrumentation could greatly enhance our data collection capabilities in the ocean. We were able to significantly increase the temporal and spatial resolution of assessments in the upper 30-50 m in northern marine waters. For fisheries surveys, species that occur near the surface or that form large, near-surface aggregations, such as herring, capelin, and high seas migratory salmon would be perfect candidates. Pollock and other more benthic species would be poor candidates. We further recommended a shift in ocean survey design that uses the aircraft sensors to cover broad spatial survey tracks and the ship (with acoustics, nets, and observers needed for validation and target strength data) to adaptively sample desired features. ☺

Meetings and Events

2001 Annual Alaska Chapter AFS Meeting

The annual Alaska Chapter meeting will be held November 12-15, 2001 in Sitka at the Harrigan Centennial Hall. Now is a good time to start thinking about giving a presentation. Ideas for session topics and workshops are welcome, and if you would like to volunteer to put together a session of related studies so much the better. Some of the topics already offered are aquatic education and advances in technology for fish biology. Abstracts for contributed papers will be accepted through September. Submit your proposals and abstracts (see Alaska Chapter website for guidelines, <http://www.fisheries.org/afs-ak/>) to David Wiswar, USFWS, 101 12th Ave., Box 17, Fairbanks, AK 99701 or email: david_wiswar@fws.gov.

Managing River Flows for Biodiversity Conference

It's not too late to register for the conference Managing River Flows for Biodiversity: A Conference on Science, Policy, and Conservation Action, July 30-August 2 at Colorado State University, Ft. Collins, Colorado. This conference is being convened to address the issues of ecologically sustainable water management. Sessions will include plenaries on the state of policy and the state of science regarding managing river flows for biodiversity, case study symposia, a poster session, and a field trip. For more information and to register for the conference go to www.freshwaters.org/conference.

PICES

The Tenth Anniversary Meeting of the North Pacific Marine Sciences Organization (PICES) will be held in Victoria, B.C., Canada, October 5-13, 2001. The session is titled "A Decade of Variability in the Physical and Biological Components of the Bering Sea Ecosystem: 1991-2001." This half-day symposium will examine the nature of climate changes in the Bering Sea over the past decade and the effects of these changes on the ecosystem. There is widespread recognition that significant changes occurred in the marine ecosystem over the last decade, possibly due to shifts in the Pacific Decadal Oscillation and Arctic Oscillation and influences of El Niño-La Niña. The character of the Bering Sea seasonal ice pack recently has changed from the "warm" phase that persisted since the regime shift of the late 1970s to one that exhibits rapid buildup in winter but earlier retreat in spring. Vast colonies of coccolithophores began appearing on the Bering Sea shelf in the summer of 1997 and have recurred each summer since. Salmon stocks recruited in much lower numbers in the last few years than were forecast. Pollock distribution and abundance have varied with fluctuations in sea ice. Shifts have also been observed in crab, seabird, and marine mammal populations. The symposium will examine ecosystem change in the western and eastern Bering Sea, identifying possible processes that effect change. Abstracts are due May 15, 2001. Selected papers will be published in a special issue of Progress in Oceanography. For more information, contact S. Allen Macklin; ph: 206-526-6798, Fax: 206-526-6485, Allen.Macklin@noaa.gov or see the PICES web site at <http://pices.ios.bc.ca/>.

Bering Sea Summit

The Bering Sea Summit will be held April 22-26, 2002 at the Egan Center in Anchorage, Alaska. The purpose of the summit is to open dialogue among the highly diverse and international organizations, management agencies and communities in the Bering Sea region to establish creative alliances and partnerships, and achieve sustainable policies and durable decisions. Scientists, resource managers, commercial and industrial interests, subsistence users, local committees, Native organizations, community leaders, and conservationists will attend. The science symposium will be one of several symposia on issues affecting the Bering Sea. The outcome of the summit is expected to be a multi-stakeholders' strategic vision for protecting and utilizing Bering Sea resources. Contact S. Allen Macklin for more information; Ph: 206 526-6798, Fax: 206 526-6485, Allen.Macklin@noaa.gov.

Watershed Restoration Workshop 2001: "Integrating Practical Approaches"

The Oregon Chapter of the American Fisheries Society invites you to the latest workshop in its educational and popular watershed restoration series. The November 13-15, 2001 workshop in Eugene, Oregon will be similar to one hosted in 1999 which rapidly sold-out, but will also include new information and events.

The program will feature experienced scientists and practitioners from the Northwest, who will teach how to identify, prioritize, and integrate the most practical approaches to restoring watershed functions. Topics will span both sides of the Cascades, and include:

- riparian restoration techniques (revegetation, noxious weeds);
- road and culvert treatments;
- urban enhancements;
- philosophy of restoration;
- watershed assessment, problem identification, and prioritization;
- restoring meadows, wetlands, salt marshes, and estuaries;
- stream channel restoration techniques;
- landowner perspectives; and
- monitoring and evaluation.

Provisions include workbooks, student discounts, AFS Continuing Education credit, and plenty of time for questions and socializing. Registration is only \$130 before October 31. Vendors can display during the 3-day Restoration Trade Show for \$300 per booth.

The agenda, registration form, trade show application form, and other information are available via the conference web page www.osu.orst.edu/groups/orafs/www, or via Richard Grost at 541-496-4580 (rgrost@compuserve.com). Mark the dates and spread the word!

2005 Meeting Bid

The Alaska Chapter is submitting a bid to host the parent society 2005 annual meeting in Anchorage in September, 2005. Once every 4 years the Chapter can submit a bid to host the parent society meeting. Some of you may recall that the Chapter hosted the parent society meeting in 1989. It was a great success, the largest AFS meeting to that date. We have the opportunity this year to submit a bid to host the 2005 meeting.

This was discussed at the last two Chapter business meetings and Chapter members decided to go for it and try a repeat performance. Our bid to host the 2005 meeting will be presented to the Time and Place Committee in Phoenix on Sunday August 19. If you are going to the AFS parent society meeting this August please add the Time and Place Committee meeting to your agenda. It's from 9 AM - 11 AM, at the Crowne Plaza hotel.

The Chapter needs you to support our bid and extol the advantages of having an AFS meeting in our great state. Of course, if we are successful in getting the bid we will also need your help. We will be forming a program and local arrangements committee. Yes, there is a lot of work involved, but it's also a great opportunity and it's fun. If you'd like to be involved in planning the 2005 meeting please contact Carol Ann Woody, Chapter President or Cindy Hartmann, 2005 meeting bid chairperson, Cindy.Hartmann@noaa.gov, Ph. 907-586-7585. ☺

Committee Reports

Bill Wilson, Chair

The Fish Key Committee is in the final stages of preparing the "Fishes of Alaska" book for the printers. We have identified costs from AFS, and we are obtaining a supplemental grant from USGS-BRD for printing the book. AFS will coordinate the printing and distribution of the book. The color photographs (slides primarily) are being professionally scanned. The text is nearly completed, and the species accounts are done. Pagination, indexing, and a few details we know we'll encounter are yet to be completed—but all of this will occur soon. We hope this camera-ready book goes to the printers in the next month or two.

Alaska Chapter Website Update

Allen Bingham

I recently updated the Chapter's website (<http://www.fisheries.org/afs-ak/>) with the following "major" additions to the News Items:

Marine Fisheries Section's Student Travel Award.

Application deadline is June 29, 2001 for this year's annual meeting. Up to four student travel grants of \$500 each will be awarded for students to attend the annual AFS meeting in Phoenix, AZ. Students must be members of AFS and be presenting a paper or poster on a marine fisheries related topic. To apply, send a letter of interest, a 2-page (maximum) resume, and the title and abstract of your paper or poster to Marine Fisheries Section President Anne Richards. Follow this link for more mailing information (located on the main AFS web-site).

Cultural Diversity Travel Award. The Cultural Diversity Travel Award *Continued on next page for*

Anchorage writing workshop a great success! Fairbanks Registration Opened!

The recent Scientific/Technical Writing workshop in Anchorage was a great success. The course was filled to capacity (literally) and, according to the course assessments, a very worthwhile investment of time. Attendees learned valuable practical writing and editing techniques, so be on the look out for a shift in your colleague's writing and an influx of editing comments regarding organizational structure, misplaced modifiers, and evaluative terms!

Instructor Jud Monroe (left) and Larry DuBois (center) listen as John Linderman (right) discusses an editorial point.



The workshop will be repeated in Fairbanks Oct. 22-26. For registration information, contact Joel Reynolds at joel_reynolds@fishgame.state.ak.us. The class size is limited to 22 participants. Price remains \$350 for AFS members/\$400 for non-members. The workshop

will be coming to Juneau in January/February. If you live in the Juneau area, please volunteer to be the local coordinator (contact me)! This would be a surefire way to win the admiration of your peers.

Continuing Education pl workshops at the Chapter meeting in Sitka this November. Data Visualization and Display (for the graphically impaired) (Joel Reynolds, ADF&G) – a course covering design considerations, style considerations, and statistical graphing methods. Content will range from the design and style work of Edward Tufte (author of "The Visual Display of Quantitative Information", "Envisioning Information", and "Visual Explanations") to an overview of graphing techniques organized by data type (a la William Cleveland's "Visualizing Data").

The course will include boxplots and stem-and-leaf plots to conditioning scatterplots, data smoothers, and recent ideas in diagnostic and multivariate displays. The course aims to present basic design considerations for enhancing graph interpretation and impact as well as to provide an overview of the spectrum of graphical techniques available. IT WILL NOT FOCUS ON PRODUCTION (software). Registration details and information on the second course will be published in the next Onchorhynchus (and on the chapter website). ☺

the 2001 Annual Meeting has been posted. The award this year has been dedicated to Alaska Natives in fisheries. An application form needs to be submitted by October 1, 2001.

Jobs. A new Jobs Page includes a recent job opening for a fishery biologist with the Kuskokwim Native Association.

2000-2001 Chapter Officers and Committee Chairs. This page reflects the newly elected officers for the Fairbanks campus of the Student Unit, as well as indicates the vacancy for the Wally Noerenberg Awards committee chair.

2001 Annual Chapter Meeting. Information regarding the 2001 Annual Chapter Meeting to be held in Sitka during the week of November 12, 2001, including the First Call for Papers and Symposia and instructions to Presenters has been posted.

Student Subunit. The Student Subunit page now has a link to the recently-approved version of the student unit bylaws, and has a contact for the student representative for the Sheldon Jackson campus (also note that I previously updated this page on 4/30/01 with references to older events removed for upcoming events on the Fairbanks campus, updated the Fairbanks and Juneau campus officer list, and listed some upcoming Juneau campus events). Check it out!!! ☺

What More Can I Say! Join the Bioengineering Section!

The following article by Alex Haro appeared in the AFS Bioengineering Newsletter in January. One of my goals as Bioengineering Section President is to revitalize this great Section by bringing in new members, particularly younger people with fresh ideas and the energy to make them happen. Interested? Read on and join us if it seems right for you!

What is Bioengineering?

By Alex Haro, from BioEngineering Section Newsletter Vol. 18, No. 1, January 2001)

My dusty copy of Webster's Ninth New Collegiate Dictionary defines bioengineering as a noun (ca. 1954), having "application to biological or medical science of engineering principles (as the theory of control systems in models of the nervous system) or engineering equipment (as in the construction of artificial organs)." The concept of bioengineering among the present day media and the general public conjures images of scientists in white lab coats creating complex molecular structures (or "modified" organisms) in some deep underground laboratory. Yet bioengineering can mean much more than this, especially within the fisheries science profession. Fisheries science has gone beyond the enumeration of catch statistics, hatchery production, and field surveys of fish populations. The technologies and disciplines available to fisheries scientists today allow for broader and intensive investigations than were undertaken in the past, to address much more complex questions. Likewise the engineering profession has broadened its scope to tackle resource conservation problems that involve the hydraulic, structural, and civil engineering fields.

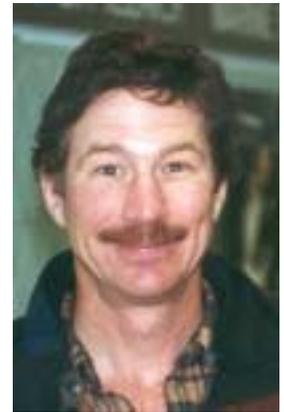
The result has been that the fisheries science and engineering professions now have broad overlap, and many applied problems such as fish passage, fishing gear development, development of hydrologic models, and biological and environmental measurement technologies require considerable contributions from both the biological and engineering fields. However, many of us as members of AFS still classify ourselves as either "biologist" or "engineer," when in fact we are doing both. You may be "doing bioengineering" if you are:

- Developing engineered structures for fisheries conservation and science, traditional "fish structure" (fishway, bypass, or channel), fish habitat (both natural and artificial), or fishing gear (net, weir, processing machine, etc.). It could include investigating or modifying "non-fish" structures, such as culverts, heat exchangers, bridges, water intakes, etc.

Mike Murphy

Retires

After 20 years of Federal service, Mike Murphy recently retired from the National Marine Fisheries Service, Auke Bay Laboratory (ABL). After receiving his masters degree in fisheries at Oregon State University, Mike worked briefly for the USFS before beginning work at ABL. Mike's research was instrumental in the enactment of legislation that required a minimum of 100 ft. buffers along anadromous streams in logged areas of the Tongass national forest. Mike was editor of the Chapter's *Oncorhynchus* newsletter for 5 years. ☺



- Applying engineering techniques to fisheries studies. This includes development of advanced electronics (e.g., telemetry), control systems, software or innovative instrumentation.
- Sharing biological information with engineers (or vice versa) to address a common problem or develop criteria or standards. Examples would be results of telemetry or hydroacoustic studies relative to an engineered structure (e.g., intake), characteristics of fish swimming (relative to fish passage), effects of thermal or chemical factors of fish survival and behavior (relative to discharges and plant operations). Conversely, engineers may assist biologists by providing designs for structures or equipment, characteristics of materials, substrates, or fluids, or advice on engineering principles or regulations.

AFS's Bioengineering Section includes a group of biologists, engineers, and managers with a diversity of backgrounds that include both biology and engineering. If you are "doing bioengineering," and are not a member of BES, we invite you to join us and share your experiences and expertise. BES is a great way to meet and communicate with others who are integrating biological and engineering concepts, and also a vehicle to find out what is happening (or will soon happen) in the field.

Sound Interesting? Check out our Website at <http://biosys.bre.orst.edu/afseng>.

Want to Join? There is a link on the BES homepage (above) that takes prospective members to an AFS web page with forms for registration. Click on "Online," open the "Membership Renewal Form" and complete it; select only the Bioengineering Section membership box. All processing fees will be waived for current AFS members who are only joining the BES. It only costs \$5 per year!

If you have questions or would like to discuss how belonging to the Section might help you, feel free to contact me at any time at ntaft@aldenlab.com. ☺

Pacific Coastal Salmon Recovery – Southeast Alaska’s Sustainable Salmon Fund

Amy Skilbred

Over the past two years, Congress has appropriated \$148 million for Pacific Coastal Salmon Recovery. These funds have been allocated to Alaska, other Pacific Northwest states, and Northwest treaty tribes. Congressional guidelines for use of the funds include salmon habitat restoration, salmon stock enhancement, salmon research, and implementation of the 1999 Pacific Salmon Treaty agreement.

Alaska’s portion, \$14 million in 1999 and approximately \$17 million in 2000, is being used primarily to assist with our efforts to ensure the continued success of salmon stocks that use marine and freshwater systems in Southeast Alaska and sustaining the fishing economy that is dependent upon these salmon resources. Some of Alaska’s funding will also assist with cooperative efforts to maintain and restore healthy runs of salmon in the Pacific Northwest and Canada.

As part of receiving these funds, Alaska entered into a Memorandum of Understanding (MOU) with the National Marine Fisheries Service (NMFS) outlining the purpose and scope of the state program. The MOU designated the Alaska Department of Fish and Game as the lead agency for the state and identified the following project areas for Alaska’s Southeast Sustainable Salmon Fund (SSSF): salmon habitat and stock research and monitoring, habitat stewardship and restoration, increasing economic opportunities for Southeast Alaska salmon fishermen, and cooperative projects with Canada and Pacific Northwest states and treaty tribes.

SSSF programs and projects will follow the science-based guiding principles of Alaska’s Sustainable Salmon Fisheries Policy adopted by the Alaska Board of Fisheries in March 2000. The goal of this policy is to ensure conservation of salmon and their required marine and aquatic habitats, protection of customary and traditional uses and other uses, and the sustained economic health of Alaska’s fishing communities. The five principles of this policy are:

1. Wild salmon stocks and their habitats should be maintained at levels of resource productivity that ensure sustained yields.
2. Fisheries shall be managed to allow escapements within ranges that conserve and sustain potential salmon production and maintain normal ecosystem functioning.
3. Effective salmon management systems should be established and applied to regulate human activities that affect salmon.
4. Public support and involvement for sustained use and protection of salmon resources shall be sought and encouraged.
5. In the face of uncertainty, salmon stocks, fisheries, artificial propagation and essential habitats shall be managed conservatively.

As part of the SSSF process, a Stakeholder Advisory Panel has been established to provide recommendations on use of the funds. In addition, a Science Coordination Panel is providing expertise on project development and developing a strategic plan for sustainable salmon in Southeast Alaska. The strategic plan will provide a road map to aid in prioritizing and addressing information needs and issues affecting the sustainability of salmon.

Almost a year into the SSSF program, Alaska is moving ahead on specific projects that have been funded or are proposed for funding in the project areas. These include:

Habitat Stewardship and Restoration projects focused on ensuring that wild salmon stocks and their habitats are maintained at production levels to provide sustained yields. These programs will assess and determine the condition of salmon habitats in Southeast Alaska through road and fish passage assessments, developing a computer-based information system tied to legally designated anadromous fish streams, identifying nearshore habitat for salmon and adding it to the information system, determining instream flow needs for salmon, and increasing Alaska’s ability to manage fish habitat.

Salmon Research projects are focused on managing fisheries to allow for escapements that conserve and sustain potential salmon production and maintain normal ecosystem functioning, and developing the information to ensure effective salmon management and implementation of the 1999 Pacific Salmon Treaty Agreement. This project area includes several projects on coho and sockeye salmon, as well as chinook genetics study.

Increasing Economic Opportunities for Southeast Alaska Salmon Fishermen projects fall into four categories recommended by the stakeholder advisory panel for the first year of funding: salmon enhancement, marketing, education, and infrastructure. The projects that have been recommended include increasing coho production at one hatchery, moving additional chum salmon to a remote release site, developing a fish technician program at a local university, exploring a system to get salmon from small villages to markets more cost effectively and easily, educational displays, and providing assistance to upgrade a fish buying facility in a small community.

For more information on the Southeast Sustainable Salmon Fund, contact Amy Skilbred at the Alaska Department of Fish and Game by phone at 907-465-6139 or via email at amy_skilbred@fishgame.state.ak.us.

*Mark Your Calendar Now!
Annual Alaska Chapter Meeting
November 12-15, 2001*

Oncorhynchus

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FIRST CLASS

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2001 Alaska Chapter Officers

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Feel free to contact the Executive Committee members.

2001 AFS Membership Application

Print or type applicant's name in full _____

Address _____

City _____ State _____ Zip Code _____

Nation _____ Membership year* _____

Please provide phone numbers for directory and Society use only:

Home _____ Work _____

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Employed by:
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- Alaska Dues: \$10.00** **Alaska Student Dues: \$5.00**
- Membership Dues (includes *Fisheries* and Membership Directory)
- Regular (North America): \$76.00 (Other than North America, \$88.00)
- Student (North America): \$38.00 (Other than North America, \$44.00)
- Retired (North America): (65 or over): \$38.00 (Other than North America \$44.00)
- Life (All): \$1,737.00 (includes *Fisheries* and one other journal of choice)

1 Prices are for AFS members only 2 Membership not required for subscription
* New members accepted Jan. 1-Aug.31 are credited to full membership for that year. (Back issues of Journals are sent.) Members accepted Sept. 1-Dec. 31 credited to full membership as of next Jan. 1, unless requested otherwise. Membership on calendar year only.

Kindly make checks payable to American Fisheries Society in U.S. Currency or Equivalent.

Please mail to
Allen Bingham
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Professional recruiting others (PROCLUB) _____

If applicant is a student as defined below, the teacher endorsing him signs here.** _____

Name of institution where student is enrolled _____

Date _____

Journal Subscriptions (Optional)

- Transactions of the AFS¹ N.A. Journal of Fisheries Management¹
- \$38.00 Paper in North America \$43.00 Paper other than N.A.
- \$25.00 E-Pub via WWW/Internet
- North American Journal of Aquaculture² Journal of Aquatic Animal Health¹
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**** Bona fide students of fisheries subjects are eligible for Student membership (limited to 6 years). Persons employed full-time not eligible. Teacher endorsement required (see above).**

NOTE: Retired membership for Active members upon retiring at age 65. Sustaining membership for commercial firms, conservation clubs, or others desiring to support the Society. Library Subscriptions include bimonthly *Transactions*, quarterly *North American Journal of Fisheries Management*, *Journal of Aquatic Animal Health*, quarterly *The Progressive Fish-Culturist*, bimonthly *Fisheries*, and Membership Directory.