



# ONCORHYNCHUS

Newsletter of the Alaska Chapter, American Fisheries Society  
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## King Crab Rehabilitation in Alaska

*Ben Daly*

Several historical king crab stocks in Alaska had very large fisheries that crashed and have remained closed despite decades of no fishing. Because king crabs are some of the most commercially valuable crustaceans in the world, and because recruitment limitation has been proposed to explain their lack of recovery, stock enhancement has been proposed as a potential tool for rehabilitation.

The Alaska King Crab Research Rehabilitation and Biology (AKCRRAB) program was created in 2006 as a partnership between the University of Alaska Fairbanks, Alaska Sea Grant, the Alutiiq Pride Shellfish Hatchery, NOAA Fisheries, and many community-based groups to assess the feasibility of rehabilitation for king crabs in Alaska. King crabs are relatively new to the aquaculture industry. Pioneering small-scale larval rearing research by Dr. Brad Stevens in Kodiak, and crab aquaculture efforts in the Chesapeake Bay, Japan, and Russia, were fundamental to the AKCRRAB effort. However, AKCRRAB biologists discovered that much of the technology developed in Kodiak, Japan, and Russia does not apply to hatchery systems aimed at large-scale rehabilitation.

In spring 2007, research biologists at the Alutiiq Pride Shellfish Hatchery in Seward used baseline knowledge from previous research to begin exploring optimal diets, stocking densities, and tank parameters needed for hatchery production. After an unsuccessful year in 2007, biologists and hatchery personnel refined larval rearing techniques and installed a sophisticated seawater filtration system. AKCRRAB has since made great strides in developing large-scale rearing techniques for culturing juvenile king crabs. For two consecutive years in 2009 and 2010, over 100,000 first stage juvenile red king crabs (*Paralithodes camtschaticus*) were produced at the Alutiiq Pride Shellfish Hatchery. Each year, hatchery researchers have been able



*Juvenile red king crab that was cultured at the Alutiiq Pride Shellfish Hatchery.*



Research biologist and graduate student, Ben Daly at a juvenile nursery tank.

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## The President's Corner

Lisa Stuby

During mid-April, 2010, I had the opportunity to attend the Western Division of the American Fisheries Society (WDAFS) conference in Salt Lake City, Utah. The Alaska Chapter is part of WDAFS, which also includes other western states, British Columbia and Yukon Territory,



Lisa Stuby, AFS Alaska Chapter President..

Canada; Mexico, and the U.S. Islands and Trust Territories of the Western Pacific. The WDAFS is a part of the AFS Parent Society, which represents a world-wide membership and is not exclusively a North American professional society. Some 3,500-strong, WDAFS membership represents a tremendous array of people involved in all aspects of the fisheries professions. The relatively large geographic region encompassed by WDAFS, represents a large collective diversity and expertise in knowledge of fisheries resources and issues.

I have attended every Alaska Chapter AFS meeting since 1996, with the exception of the 1999 Kodiak meeting. For me, the annual meeting has become a yearly tradition that I look forward to. At the meetings I meet up with old friends and colleagues, learn about projects in different parts of the state, network with other Kuskokwim River Drainage researchers, expand my horizons with continuing education courses, and enjoy the social events. With this yearly tradition and Alaska focus, it has become easy to forget that there is so much more to AFS than just the Alaska Chapter. Being quite so distant from the Lower 48 can sometimes feel isolating. Attending the WDAFS conference was a good way to learn what fisheries professionals in other states are doing and what issues they are facing, giving me a valuable regional perspective on Alaskan fisheries research and issues.

While attending the WDAFS conference, my horizons were broadened in many ways. I heard

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## King Crab Rehabilitation, continued

to build on experimental results from the previous year to further refine larval rearing techniques and protocols. As a result, red king crab hatchery production has increased steadily from less than 1,000 juveniles in 2007 to 108,000 juveniles in 2010. For comparison, the Zone C Lobster Hatchery in Stonington, Maine strives to produce 100,000 stage IV American lobsters (*Homarus americanus*) annually to release for stock enhancement purposes. Stage IV lobsters are analogous to the king crab post-larvae or "glaucothoe," as they are both semi-benthic and begin to settle to suitable benthic habitat. For blue crab (*Callinectes sapidus*) stock enhancement and hatchery culture in the Chesapeake Bay, hatchery production in 2002 was 40,000 juvenile crabs, which was considered a great success.

The increase in hatchery production has allowed the AKCRRAB program to increase its ability to conduct important research on juvenile king crabs. In the past three years, AKCRRAB has made multiple shipments of juvenile red and blue king crabs totaling many thousands of crabs to AKCRRAB researchers at university and NOAA laboratories in Alaska and Oregon for use in various research projects. A major benefit in developing techniques for large-scale hatchery culture of juvenile king crabs is the ability to supply scientists with research animals. Collaborative research conducted by the University of Alaska Fairbanks-Juneau Center, NOAA Alaska Fisheries Science Center in Newport, Oregon, and NOAA Fisheries Research Center in Kodiak has investigated king crab physiology, behavior, habitat requirements, and population genetics using hatchery-cultured crabs. Future studies will focus on population genetics, tagging techniques, effects of ocean acidification, predation, and ecological fitness of hatchery-cultured king crabs, all part of developing a large-scale stock rehabilitation program.

While hatchery production has focused on rearing both red and blue king crab (*Paralithodes platypus*), production technology for blue king crabs lags behind that of red king crabs. With the exception of 2008 experiments, which achieved high survival rates, large-scale culture of blue king crab has been less successful than that of red king

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### The President's Corner, continued

talks on species like cutthroat trout (*Salmo clarkii*) and mountain whitefish (*Prosopium williamsoni*) that are uncommon or absent in Alaska, and on subjects such as the effects of dams and dam removal on salmon populations, and met fisheries biologists whose work is quite different from mine. I also chaired a symposium, "Telemetry Techniques for Fisheries Professionals," where I learned about new applications for radiotelemetry techniques I have been utilizing for the past 10 years in Western Alaska. An example of one new radiotelemetry application was in assessing the impact of development on outmigrating steelhead (*Oncorhynchus mykiss*) in the Sacramento-San Joaquin Delta. Of course, I saw a few familiar faces from Alaska to help me feel at home!

I also participated in a couple of student activities at the WDAFS conference. I helped judge student posters and was amazed to see very good undergraduate work presented. Some Lower 48 universities are encouraging undergraduate students to conduct fisheries research projects. Students plan, initiate, conduct, and report on the project, and so are introduced to the work they will do once they graduate and are employed or pursue an advanced degree. I also, participated in the Student Mentoring Social, "Speed Dating with Professionals," which was a lot of fun. In attendance were working professionals from state, and federal agencies, universities, and the private sector. Each student had 10 minutes to sit down and ask questions regarding graduate school, jobs, things to know when applying for a job, etc. After the 10 minutes was up, a bell rang, and the student switched mentors. It was nice to see all of the support for student advancement and enhancement at this conference.

I highly recommend traveling to an out-of state WDAFS and/or Parent Society conference—that is if ever-shrinking budgets and ever-expanding demands on our time allow! There was talk at the WDAFS Business Breakfast of the Alaska Chapter hosting the WDAFS conference in 2014, in which case AKAFS Chapter members wouldn't have too far to travel. Meeting many new and fascinating people was only one of the advantages of attending a large conference like this. Oh, and of course, the socials were great fun.

### King Crab Rehabilitation, continued

crabs. In addition to the fact that many blue king crab fisheries are currently closed, their remote location makes it logistically difficult to obtain ovigerous females. Additionally, blue king crab larvae have experienced high rates of mortality in the hatchery, particularly in 2009 and 2010. Theories for the high mortality include increased sensitivity to warmer temperatures and high density rearing conditions.

Collection of ovigerous females, or "broodstock," is an integral part of the AKCRRAB program and is made possible by the participation of various stakeholders. Unlike salmon, king crab mate in the wild, and females brood their offspring for a year or more before the larvae hatch. These ovigerous females are collected as close to hatch as possible and then brought into the hatchery where larvae are collected once they hatch. Commercial fishermen (F/V *Stormbird*, F/V *Zone Five*), Alaska Department of Fish and Game trawl survey personnel, University of Alaska Fairbanks personnel, and NOAA Fisheries personnel have volunteered their time and effort in obtaining red king crab broodstock from Kodiak and Bristol Bay and blue king crab broodstock from the Pribilof Islands, Little Diomed Island, and St Matthews Island.

To date, there has been no release of hatchery-cultured king crabs into the wild. Much research is needed to develop successful release strategies and to understand potential environmental impacts of releasing large numbers of hatchery-cultured crabs. For example, University of Alaska researchers are conducting population genetics research aimed at better understanding potential genetic impacts of a stock rehabilitation effort, which is critical for determining how to maintain natural genetic diversity and will likely direct future collection of

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## ONCORHYNCHUS

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

### King Crab Rehabilitation, continued

broodstock. Though a large-scale release is likely years away; the AKCRRAB program provides an incredible opportunity to learn about larval and juvenile king crab biology and will aid policymakers in making informed decisions about whether to one day pursue active rehabilitation of depressed wild king crab stocks through hatchery

production. The successful Russian introduction of red king crabs into the Barents Sea in the 1960s suggests that it is in theory possible to restore king crabs to their historic range. With continued research and hatchery success, there is hope that rehabilitation of depressed stocks in Alaska may one day be a reality. ?

### Continuing Education Committee Co-chair Sought

The Chapter is looking for someone to co-chair the Continuing Education Committee. Until recently, Tammy Hoem shared duties with Jan Conitz, but Jan had to relinquish her committee position after accepting a Research Analyst position with the State of Alaska, Department of Health and Social Services. We thank Jan for all of her dedication and hard work on this committee and wish her the best in her new position.

The Continuing Education Committee is an on-going *ad hoc* committee of the Alaska Chapter. It was established to provide training opportunities to fisheries professionals on significant new scientific findings or techniques, so that they can become more effective stewards of fishery resources and fish habitats. The Continuing Education Committee Chair can appoint an indefinite number of Alaska

Chapter members as necessary to achieve the Committee's purpose.

The primary duties of the co-chair of the Continuing Education Committee are to organize courses and workshops by soliciting instructors, scheduling times and places, developing course agendas, coordinating travel and local arrangements, preparing course announcements, determining appropriate income and enrollment fees, determining minimum and maximum enrollment numbers, conducting enrollment, and conducting a course evaluation at the conclusion of a course. If you are interested in helping Tammy Hoem with this important and very rewarding position, please contact her at [tdhoem@alaska.edu](mailto:tdhoem@alaska.edu). It is nice to have another person(s) to bounce ideas off of and also to help coordinate with the instructors. ?

### AFS Parent Society Annual Meeting

Although the deadline for abstract submission has passed, registration is ongoing for the 140th meeting of the American Fisheries Society in Pittsburgh, Pennsylvania. The program will include presentations on all dimensions of marine and freshwater fisheries biology, management and stock assessment. Pittsburgh is a world-class city renowned for its arts, entertainment and recreational opportunities. The

meeting features five socials, with the Grand Social on Wednesday evening at the Pittsburgh Zoo and Aquarium, a 77-acre facility with 4,000 species of fish and wildlife. There will also be many continuing education classes and workshops, including "Fish Population Modeling," "Fish Passage Assessment," "Habitat Mapping using Side Scan Sonar," "AFS Leadership," "Programming in R for Fisheries Scientists," "Advanced GIS for Fisheries Biologists," and "Instream Habitat Modeling using MesoHABSIM," to name just a few. For more information, visit the website online at <http://www.fisheries.org/afs10/index.php>. ?



## First Call for Papers, 2010 Annual Alaska Chapter Conference: “Alaskan Fisheries in a Changing World”

*Audra Brase*

The 2010 Alaska Chapter Meeting of the American Fisheries Society will take place November 3–5 at Juneau’s Centennial Hall. Offsite socials are being planned for the Ladd Macaulay (DIPAC) Salmon Hatchery and The Hanger Restaurant. Our banquet entertainment (tentative) will be Salsa Borealis, a popular local band specializing in Latin rhythms.

Two of our keynote speakers will be Dr. Gordon Kruse and Dr. Keith Criddle of the University of Alaska. Both speakers will be directly addressing the meeting’s theme of “Alaskan Fisheries in a Changing World,” with Dr. Kruse presenting a lecture on what climate change means to Alaska’s fisheries, and Dr. Criddle examining the world economy and its impact on Alaskan fisheries.

This year’s meeting has already attracted quite a bit of interest, with fifteen sessions planned (including the poster session) encompassing several unique themes that we haven’t seen in past years. All sessions are currently open for presentation submission. For more information about each session please contact the chair(s) as presented below. The deadline for abstract submission is September 10. Students are especially encouraged to present at the meeting, as both the Best Student Poster and Best Student Presentation winners will be receiving a monetary award in addition to a plaque.

### **Crustaceans are Cooler: Fisheries and Biology of Crabs and Shrimps in Alaska**

Session Chair: Ginny Eckert ([gleckert@alaska.edu](mailto:gleckert@alaska.edu))

Crustacean fisheries were historically and are commercially important in Alaska, yet we are still learning much about their biology. This session is intended to highlight the broad array of biological and fisheries research on crabs and shrimps in Alaska.

### **Dynamics of Marine Ecosystems**

Session Chair: Gordon Kruse ([gordon.kruse@alaska.edu](mailto:gordon.kruse@alaska.edu))

Marine ecosystems provide a diversity of ecosystem services, including provisioning of commercial, sport and subsistence fisheries. Variability on climate-ocean forcing and human stressors (fishing, habitat degradation, etc.) cause variability in marine ecosystem structure, as well as changes in the productivity of component species as indexed by their distribution, growth, recruitment, and mortality. This session will examine the dynamics of marine ecosystems and their component species associated with both natural and anthropogenic factors.

### **Evolutionary/Genetics Perspectives in Alaska Fisheries**

Session Chair: Megan McPhee ([mvmcphee@alaska.edu](mailto:mvmcphee@alaska.edu))

This session will focus on population genetic structure and diversity, stock identification, and evolutionary processes affecting Alaskan fish and shellfish populations.

### **Evolving Role of NGOs in Alaska’s Fisheries**

Session Chair: Heather Brandon ([Heather.Brandon@wwfus.org](mailto:Heather.Brandon@wwfus.org))

This session will explore the new and evolving techniques that NGOs use to influence fishing practices and management decisions. NGOs come in all shapes, sizes and sympathies, some of which you might not expect. Fishing industry-based NGOs fund cutting edge research, while environmental NGOs push markets to influence fishing practices. Coastal communities and Native populations, while historically under-represented in fishery management processes, are developing their ability to influence fishery management, in part, by utilizing an NGO structure to achieve the critical mass needed to have staffing support, money for engaging the management process, and the power of representing a membership. This session will hear from a variety of NGOs about the many ways they influence fisheries.

### **Fisheries Enforcement & Fish Sustainability**

Session Chair: Raymond Reichl ([raymond.j.reichl@uscg.mil](mailto:raymond.j.reichl@uscg.mil))

Fisheries enforcement is often described as the third leg that supports the three-legged stool of fisheries management. While a great deal of attention is paid to the legs of science and policy, enforcement is often lost in those discussions. The complexity of fisheries enforcement requires

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**2010 Annual Alaska Chapter Conference**, continued

applying the intricacies of a vast array of regulations, providing a presence to deter and apprehend violators, and cooperatively litigating cases within the court system. Enforcement also requires a great deal of public relations building in order to help deter and avoid violations. Sport, commercial, and subsistence fisheries in Alaska are a mix of overlapping state and federal jurisdictions and regulations. Commercial fisheries add significant additional levels of complexity in that international relations, regulations, and treaties all play roles in developing enforcement goals, policies, and on-the-water strategies. In fact, the international complexities even extend to some Alaskan sport fisheries, which are cooperatively state and federally enforced, but ultimately regulated pursuant to an international treaty. This session will provide an overview of Alaska fisheries enforcement with the objective of providing a better understanding of how fisheries enforcement, along with policy and scientific research, support that three-legged stool of fisheries management.

**Habitat Session I: Elements of Effective Fish Habitat Restoration**

Session Co-chairs: K. Koski (*K.Koski@noaa.gov*) and Neil Stichert (*neil\_stichert@fws.gov*)

Successful and effective fish habitat restoration requires the completion of several important elements. We in Alaska are fortunate to have most of our habitats in a nearly pristine state and we do not have to rely on restoration to maintain our fisheries. However, when habitats are degraded and restoration is needed, sequential incorporation of these basic elements into restoration programs ensures that we fix the cause of the habitat degradation and not merely the effects.

**Habitat Session II: Fish Habitat Partnerships in Alaska**

Session Co-chairs: K. Koski (*K.Koski@noaa.gov*) and Neil Stichert (*neil\_stichert@fws.gov*)

The National Fish Habitat Action Plan establishes Fish Habitat Partnership as a science-based, partnership-driven structure for implementing Strategic Habitat Conservation for aquatic resources. There are currently fifteen recognized Fish Habitat Partnerships in the nation, and six of these partnerships are represented in Alaska. This session will introduce the Alaska partnerships,

defining their geographic scope, leadership and governance, strategies for fish habitat conservation, and recent accomplishments.

**Multiple Ways of Knowing in Fishery Science and Management**

Session Chair: Courtney Carothers (*clcarothers@alaska.edu*)

Increasingly, fishery scientists and managers are called upon to incorporate traditional, indigenous, and local knowledge into their practices. While generating new possibilities for engagement, the inclusion of multiple ways of knowing in science and management also produces complex challenges. Rather than viewing knowledge as a product that can be extracted and inserted, a focus on the processes of knowledge production and practice engages us fundamentally in divergent ontologies, values, and world views. This session will include a collection of empirical, methodological, and theoretical papers exploring processes of knowing, drawing out both possibilities and challenges.

**Research and Management of Pacific Halibut and Other Flatfish**

Session Co-chairs: Andy Seitz (*acseitz@alaska.edu*) & Julie Nielsen (*jknielsen@alaska.edu*)

Pacific halibut and other flatfish are important commercial, ecological, and cultural resources for the state of Alaska. This session will explore current research topics such as growth, behavior, and distribution, as well as provide updated perspectives on management issues for halibut and other flatfish species.

**Rockfish & Groundfish**

Session Chair: Jamal Moss (*Jamal.Moss@noaa.gov*)

Biology and Management of groundfish and rockfish in Alaska.

**Salmonid Bycatch in the Bering Sea Pollock Fishery: Trends, Management Measures and Impacts**

Session Co-chairs: Becca Robbins Gisclair (*becca@yukonsalmon.org*), and Chris Stark (*tcstark@alaska.edu*)

This session will explore the issue of Chinook and chum salmon bycatch in the Bering Sea pollock fishery. We will discuss trends in salmon bycatch and associated pollock harvests, including fleet effort and monthly and seasonal variations.

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**2010 Annual Alaska Chapter Conference**, continued

We will look at past and present management measures and industry-initiated efforts intended to reduce salmon bycatch. The session will also look at genetic and scale pattern stock identification techniques, and sampling protocols utilized to assess and monitor salmon bycatch. Finally, the session will explore current knowledge of Chinook and chum salmon migration patterns and their effects on salmon fisheries and escapement, and long term environmental and fisheries factors driving salmon and pollock abundance and high-seas distribution.

**Salmonid Smolt Ecology**

Session Chair: Andy Seitz ([acseitz@alaska.edu](mailto:acseitz@alaska.edu))

Although salmonid smolts show great ecological diversity, much remains unknown about them. This session is intended to explore current knowledge of the ecology and biology of salmonid smolts in Alaska, as determined through research and monitoring projects conducted by agencies, academia and other organizations.

**Steelhead and Wild Trout**

Session Co-chairs: Roger Harding ([roger.harding@alaska.gov](mailto:roger.harding@alaska.gov)) and David Love ([david.love@alaska.gov](mailto:david.love@alaska.gov))

The goal of this session is to provide a forum for state and federal steelhead managers and researchers to share pertinent information to support the sustainability of Alaskan steelhead and wild trout stocks. Presentations on steelhead and trout stock status, habitat issues, harvest trends, application of new technologies, management objectives, and research programs are encouraged.

**Telemetry Techniques for Fishery Scientists**

Session Chair: Lisa Stuby ([lisa.stuby@alaska.gov](mailto:lisa.stuby@alaska.gov))

Telemetry technology allows remote measurement, storage, and reporting of biological and physical data and has numerous applications in biology and other sciences. Animals under study may be fitted with a wide array of instrumentation ranging from simple transmitters to video cameras, GPS packages, and transceivers that provide time and position and other information such as environmental conditions to scientists and stewards. Telemetry techniques have many useful applications in fisheries science. Fish that have been tagged with radio or acoustic transmitters can be tracked and their behavior followed in detail.

With ongoing advances in telemetry technology, fisheries researchers have been able to equip their research subjects with smaller transmitters with extended life spans that allow for longer and more detailed studies with minimal impact on fish behavior. Telemetry techniques have led to a greater understanding of distribution, behavior, migratory timing, and life-history characteristics of numerous fish species and populations. The primary goal of this session is to provide a venue for scientists who utilize telemetry techniques in their studies to share their research.

**Poster Session**

Session Chair: Brendan Scanlon ([brendan.scanlon@alaska.gov](mailto:brendan.scanlon@alaska.gov))

Researchers that prefer to present their work with a poster should submit abstracts to this session. Students are especially encouraged, as there will be a \$200 award for Best Student Poster.

**Contributed Papers**

Session Chair: James Savereide ([james.savereide@alaska.gov](mailto:james.savereide@alaska.gov))

Presenters with topics that do not fit the subject matter of the other sessions are encouraged to submit their abstracts to this session.

**Continuing Education Classes**

Continuing Education Classes are planned for November 1 and 2, although not all the classes have been determined. Possible courses include "Data Visualization," "Productive Meetings," "GIS Basics," "Media Training," "Small Engine Repair," "Habitat Restoration," "Scientific Public Speaking," "Reading CWT & Otoliths," and "Acoustic Tag Basics." If there is something special you would like to see offered, or if you would like to teach a class, please contact Audra Brase ([Audra.Brase@alaska.gov](mailto:Audra.Brase@alaska.gov)) or Tammy Hoem ([tdhoem@alaska.edu](mailto:tdhoem@alaska.edu)).

We haven't had a meeting in Juneau in over ten years, so I am really looking forward to a good turnout. Have a safe and productive summer and I hope to see most of you in November! 🐟

**Put Nov. 3-5, 2010  
on your calendar today!**

## Bill Heard Marks 50 Years of Service with NOAA Fisheries

*Adam Moles*

This spring, AFS Past-President Bill Heard was recognized for 50 years of service in federal fisheries research, mostly in the National Marine Fisheries Service. "For a half century, Bill has been building a scientific legacy that has helped lay the basis for greater understanding of marine life in Alaska, especially salmon. His work has informed the decisions of fisheries managers for many years, and all for the better," said Dr. Douglas DeMaster, director of NOAA's Alaska Fisheries Science Center.

Bill served the Alaska Chapter of the American Fisheries Society as President in 1983/84, and has been an active AFS member throughout his career. He was awarded the Alaska Chapter AFS, Meritorious Service Award in 1988 to recognize these contributions. During his presidency, he hosted the 1983 annual meeting in Soldotna.

With his boundless energy, constant good humor, consummate professionalism, and prodigious output of over 60 scientific publications, Bill has been an inspiration to four generations of Alaskan scientists. His first assignment in Alaska was in 1958 as a graduate student at Brooks Lake in Bristol Bay. He returned to Brooks Lake in 1960 with a permanent job as a fisheries biologist studying sockeye salmon and other fishes in the Naknek River system. In 1965, he began work in Southeast Alaska at Little Port Walter, researching pink, coho, and Chinook salmon life histories and stock enhancement. Since the 1980's, he has managed the Marine Salmon Interactions Program at Auke Bay Laboratories, which focuses on stock assessment of salmon within their ecosystems.

Heard has served on a number of federal, state, and international advisory groups and panels, including the Governor's Fishery Council in the late 1970s and early 1980s that developed the framework for the successful stock enhancement hatchery program in Alaska today. He is currently active in North Pacific Anadromous Fish Commission and Pacific Salmon Commission technical committees, and on the Aquaculture Panel for the United States and Japan Cooperative Program in Natural Resources. ?



*AFS Past-President Bill Heard.*

### Arctic Grayling T-Shirts Still Available Online

The Arctic grayling t-shirt is blue and features the Arctic grayling on the shirt back and the Alaska Chapter logo on the front. These t-shirts are 100% pre-shrunk cotton and machine washable. Sizes M, L, and XL are currently available.

**ALL proceeds will go to fund student travel to Alaska Chapter meetings.**

**Ordering instructions can be found at: <http://www.fisheries.org/units/afs-ak/> under Memorabilia.**

## Juneau Student Group Update

Sara Miller

Although the talks this year at the 14th Annual Student Symposium in Juneau were dominated by crabs, there were also talks on ichthyoplankton in the Bering Sea, chum salmon scale patterns, pink salmon migration, and biogeochemical analysis of fish bones.

This year we had presenters from Fairbanks, Juneau, and Seward. The winner of the Best Presentation Award was Molly Zaleski. Her talk was on snow crabs, and she showed video footage of male crabs fighting over a female.

Many Juneau Student Group members also participated in the Sea Coast Relay in Juneau; the distance was almost a marathon! One team was even named The Deadly Dogfish. 🐟



Winner of the AFS, Alaska Chapter, Student Subunit, Juneau Student Group Annual Student Symposium, Molly Zaleski.



Sea Coast relay team, The Deadly Dogfish. Pictured are Megan Peterson, Gretchen Geiger, Jackie Patt, Sara Miller, and Chris Manhard.

## Fairbanks Student Group Update



Matt Albert and Liz Goldsmith prepare to dig into some delicious moose chili.

In March, Stefanie Benca of the Alaska Marine Science and Fisheries Career Coalition visited from Anchorage to speak about her work supporting Alaskans, particularly rural Alaskans and Alaska Natives, who seek careers in fisheries and marine science. In April, Keegan Birchfield, an undergraduate fisheries student at UAF, gave a talk regarding his experiences as a fisheries technician in Alaska as part of the Juneau Student Group's Annual Student Symposium.

The Fairbanks Student Group finished off the semester

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## Fairbanks Student Group Update, continued

in May with its annual barbeque and potluck at the mushers hall; the barbecue was attended by UAF students, faculty, staff, and friends. Aside from enjoying the spring weather in Fairbanks and eating barbecue, the Group uses this event to recognize individuals who have helped with day-to-day operations.

This year the Fairbanks Student Group would like to acknowledge Madeline Scholl (outstanding

staff), Jason Stolarski (outstanding student) Trent Sutton (outstanding faculty) and Matt Albert (outstanding technician). Numerous items were raffled off as well, the largest, a Sierra Designs two-person pack tent, went to Katie Murra-Straub.

The election of new officers was postponed until the first meeting in the spring, as numerous UAF fisheries students had departed earlier in the semester to conduct field work. ☹

## Call for Nominations for Vice President

*Hamachan Hamazaki*

Be a part of the AFS, Alaska Chapter Executive Committee (EXCOM) team! The Alaska Chapter is looking for a candidate for vice president. Being an EXCOM member is a five-year commitment and I have had nothing but positive experiences serving on this committee! After being elected vice president, you move up annually; first to president-elect, then president, and finally to immediate past president. Each of these positions serves on the EXCOM. During your fifth year, you would serve as committee chair of the past presidents.

To expand, for 2010/11, you would serve as vice president. The vice president's duties include assisting the president-elect in organizing the Annual Chapter Meeting, and acting as chair of Membership Committee, responsible for increasing Chapter membership.

For 2011/12, you would serve as president-elect. The president-elect's duties include assisting the president, and acting as chair of the Program Committee, responsible for organizing the Annual Alaska Chapter Meeting. The 2012 meeting will be held in Fairbanks, and organizing it will take a significant part of your time. But don't worry, the rest of the EXCOM provides lots of support to help you succeed!

For 2012/13, you would serve as president. The president's duties are to represent the Chapter and to chair the EXCOM. The president is also a member of WDAFS, represents the Alaska Chapter at the annual WDAFS meeting, and writes a quarterly "President's Corner" for the *Oncorhynchus*.

For 2013/14, you would serve as immediate past-president. The immediate past-president is responsible for initiating Procedure Manual and Bylaw updates, and, not to be downplayed, to provide wisdom to the rest of the EXCOM.

The final year of your service would be 2014/15. During that year, you would serve as chair of the Past Presidents Committee. Your primary duty in this role would be to provide the wisdom of the past-presidents to guide the Alaska Chapter EXCOM when necessary.

It seems like a large commitment to make, but I assure you that it's rewarding. Please volunteer! Thanks. ☹



**JOIN OR RENEW YOUR MEMBERSHIP TO AFS NOW AT**

<http://www.fisheries.org/afs/membership.html>

## Meetings and Events



### ESA Annual Meeting

August 1–6, 2010: The annual meeting of the Ecological Society of America will be held in Pittsburgh, Pennsylvania. The theme is “Global Warming: The legacy of our past, the challenge for our future.” For information, please visit [http://www.esa.org/pittsburgh/call\\_contributed\\_opa.php](http://www.esa.org/pittsburgh/call_contributed_opa.php).

### ICES/PICES/FAO Symposium on the Collection and Interpretation of Fishery Dependent Data



August 23–26, 2010: This meeting, themed “Making the Most of Fisheries Information Underpinning Policy, Management and Science,” will be held in Galway, Ireland. Visit <http://www.marine.ie/fisherydependentdata/>.

### AFS 2010

September 12–16, 2010: The 140th annual meeting of the American Fisheries Society will be held at the Westin Hotel and David L. Lawrence Convention Center in Pittsburgh, Pennsylvania. Please visit <http://www.fisheries.org/afs10/> for more information.



### 2010 ICES Annual Science Conference

September 20–24, 2010: This symposium will be held in Nantes, France. Session proposals are due August 14, see <http://www.ices.dk/iceswork/asc/2010/index.asp>.



### Wild Trout Symposium

September 28–30, 2010: The Wild Trout Symposium will be held at the Holiday Inn in Yellowstone, MT. Visit <http://www.wildtroutsymposium.com/>.

### Alaska Chapter ASA Annual Meeting

October 20–22, 2010: The speaker at this meeting will be Dr. Richard Davis of Columbia University who will give a 2-day short course on Time Series. Please email [david.barnard@alaska.gov](mailto:david.barnard@alaska.gov) or visit <http://www.amstat.org/chapters/Alaska/>.



### PICES 2010 Annual Meeting

October 22–31, 2010: This meeting, themed: “North Pacific Ecosystems Today, and Challenges in Understanding and Forecasting Change,” will be held in Portland, OR. The deadline for abstract submission is July 12. For more information, visit <http://www.pices.int/meetings/annual/PICES-2010/2010-background.aspx>.

### Ecosystems 2010: Global Progress on Ecosystem-based Fisheries Management

November 8–11, 2010: This meeting, sponsored by Alaska Sea Grant, will be held in Anchorage at the Hotel Captain Cook. For more information, please visit <http://seagrants.uaf.edu/conferences/2010/wakefield-ecosystems/index.php>.



### WSN 2010



November 11–14, 2010: This meeting will be held in San Diego, California. For more information, please visit <http://www.wsn-online.org/>.



### ASLO 2011 Aquatic Science Meeting

February 13–18, 2011: This meeting will be held in the Puerto Rico Convention Center in San Juan, Puerto Rico. For more information, please visit <http://aslo.org/meetings/sanjuan2011/>.

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## Meetings and Events, continued

### Aquaculture America 2011

February 28–March 3, 2011: This meeting will be held in the New Orleans. The call for papers is currently online at <https://www.was.org/WasMeetings/meetings/Default.aspx?code=AA2011> with a deadline of August 1, 2010.



### 103rd meeting of the National Shellfisheries Association Meeting 2011

March 2–31, 2011: This meeting, the 103rd meeting of the National Shellfisheries Association, will be held in Baltimore, Maryland. Sessions are currently being organized online at <http://shellfish.org/node/78817> and the abstract deadline is December 13, 2010.



### Kodiak Area Marine Science Symposium

April 9–12, 2011: This meeting, sponsored by Alaska Sea Grant, will be held in Kodiak. For more information, please see <http://seagrant.uaf.edu/conferences/index.html#coming>.



### IMCC 2011

May 14–18, 2011: This meeting, the Second International Marine Conservation Congress, will be held in Victoria; B.C. Symposia proposals are currently being solicited online at <http://www2.cedarcrest.edu/imcc/index.html> and are due August 31, 2010.



### Coastal & Estuarine Research Federation



November 6–11, 2011: This meeting will be held at the Ocean Center at Daytona Beach, Florida. Session proposals are now being accepted at <http://erf.org/>.

### SICB 2012

2012: The annual meeting of the Society for Integrative and Comparative Biology will be held in Charleston, South Carolina, the call for symposia is ongoing online at <http://www.sicb.org/meetings/2012/callsymp.php3> with a due date of August 16, 2010.



## 2010 Alaska Chapter Officers

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Feel free to contact the Executive Committee members