AFS ONCORHYNCHUS

Newsletter of the Alaska Chapter, American Fisheries Society

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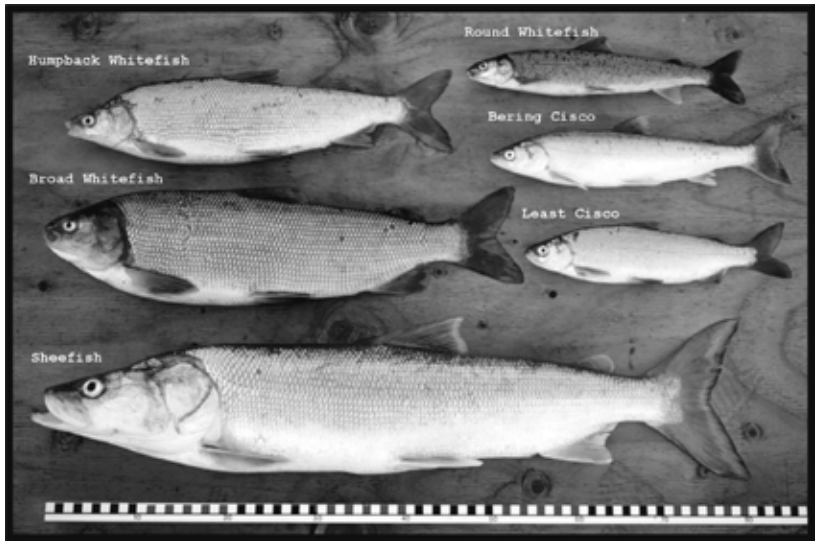
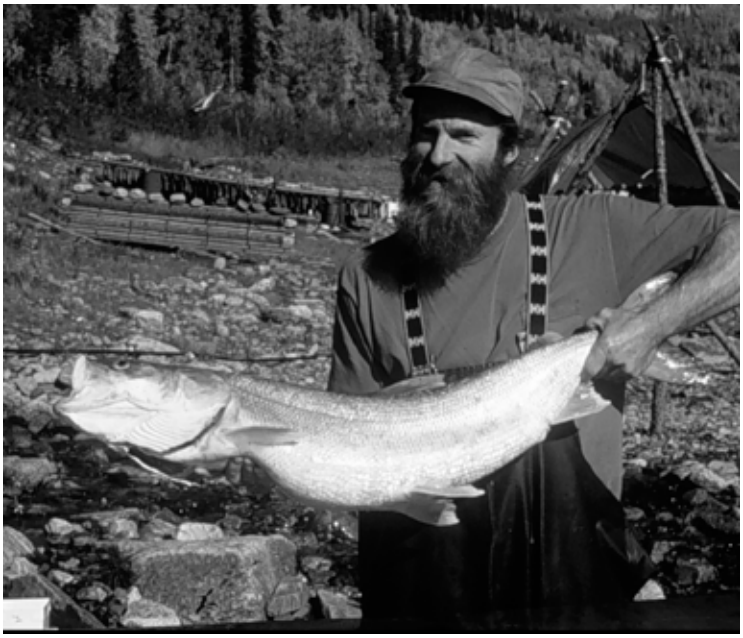


Coregonid fishes common to the Alaska portion of the Yukon River drainage.

Coregonid Research in the Yukon River Drainage

Randy Brown

Coregonid fishes are found throughout the Yukon River drainage. There are six generally recognizable species in the Alaska portion of the drainage including; sheefish *Stenodus leucichthys*, broad whitefish *Coregonus nasus*, humpback whitefish *C. pidscian*, least cisco *C. sardinella*, Bering cisco *C. laurettae*, and round whitefish *Prosopium cylindraceum*. One or more species occupy virtually every type of habitat from marine waters at the river mouth and beyond, to the farthest headwater streams, and in open and closed lake systems. They provide a dependable food resource to people in all regions of the drainage, often during seasons when salmon are not available.



Large female sheefish caught while migrating to spawning habitats in the upper Yukon Flats.

We have a reasonably good understanding of the distribution of coregonid fish in the Yukon River drainage. We know where to catch sheefish with hook and line. We know where to set gillnets for humpback and broad whitefish. We know that round whitefish prefer headwater streams, least cisco prefer lakes, and Bering cisco rear in coastal environments. But our understanding of population dynamics, migrations, and demographics is relatively poor. With few exceptions, when we catch a fish in the drainage we have no idea what its doing there. Is it mature or immature, old or young? Migrating somewhere or living locally? Preparing to spawn or not? Where did it come from? Where is it going? In most situations, these questions have not been answered.

The U.S. Fish and Wildlife Service in Fairbanks began a research program with coregonid species in the late 1990's, building upon the work conducted previously by the Alaska Department of Fish and Game. It began with sheefish that were migrating upstream in the Yukon River near the mouth of the Tanana River, about 1,200 km from the mouth.

Continued on page 3

The President's Column

Jamal Moss

Jamal Moss, AFS Alaska Chapter President

The hallmarks of springtime in Alaska are revealing themselves. With the longer days and moderating temperatures, coffee break rooms are filled with talk of the upcoming field season's logistics, king salmon fishing pointers, and the eagerly anticipated summer vacation. As we welcome the warmer weather and the transition into spring, the Chapter is actively cultivating partnerships through the support of a handful of worthy causes. We supported in part the publication of "Sockeye Salmon Evolution, Ecology, and Management," the proceedings of a special session held at the 135th Annual meeting in Anchorage, and donated seed monies to help the Western Division with upfront costs associated with hosting the 137th Annual meeting in San Francisco this coming September. In our ongoing support of budding scientists, we have also contributed a small monetary prize and AFS membership to the Alaska Statewide High School Science Symposium's best "aquatic" presentation and supported the AFS Equal Opportunity Section travel fund.

I'm pleased to report that Cecil Rich is now chairman of the Environmental Concerns Committee, and has jumped into this role with both feet by taking the lead on drafting a letter to Governor Palin, strongly urging her to move the Habitat Division back to ADF&G. Cecil is a Research Supervisor for the ADF&G Division of Sport Fish in Anchorage where he supervises the division's habitat research and restoration program. People are currently needed to serve on this important committee, so please contact Cecil if you're interested.

Former Governor Frank Murkowski made a change to fisheries protection policy in 2003 when he transferred the authority to protect anadromous fish habitat and maintain fish passage from the Department of Fish and Game (ADFG) to the Department of Natural Resources (ADNR). In doing so, he transferred permitting responsibility from an agency whose mission is to protect fish and game resources to an agency whose mission is to develop natural resources. Governor Murkowski believed the transfer would make the habitat permitting process more efficient for private developers. Newly proposed large-scale development projects, such as the Pebble Mine have sparked marked concern in regards to the dissolving of checks and balances established through having the Habitat Division housed in the Department of Fish and Game. Alaska State Representative Les Gara has sponsored House Bill 41, "An Act returning certain duties regarding habitat management from the Department of Natural Resources to the Department of Fish and Game; and providing for an effective date," and requested that the Chapter provide the House Fisheries Committee with our recommendation through public testimony.

On behalf of the Chapter, Past President Hal Geiger delivered testimony in support of House Bill 41 on the morning of February 14 before the Alaska State Legislature House Fisheries Committee. Hal, an eloquent and witty speaker, did a phenomenal job in delivering his remarks. He noted that Department of Natural Resources biologists have the exact same qualifications as the Department of Fish and Game biologists. "But, if you consider the minimum qualifications of the baseball players on a team that won the World Series, these are the exact same minimum qualifications of players on a team that did not make the playoffs." Hal went on to say that if you are interested in performance, your focus is not on minimum qualifications. Questions about the culture of an organization and the organization's leadership, for example, are what you need to be asking if it is important to have the organization excel and perform."

ONCORHYNCHUS

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Deadline for materials for the summer issue of Oncorhynchus is June 10.

Alaska Chapter's Internet Home Page Address

www.fisheries.org/units/afs-ak/

Electronic Newsletter

In order to save money and to reduce wasted paper, a change to electronic distribution of the *Oncorhynchus* was proposed, and approved, at the 2006 Alaska Chapter business meeting. Layout, printing, and mailing of the *Oncorhynchus* currently costs the Chapter about $3,000 annually; so electronic distribution, which will begin with the summer 2007 issue, should save the Chapter approximately $1,800 annually. Members will be sent a .PDF file of each issue as it becomes available. The *Oncorhynchus* will also continue to be available online at the Chapter website. Anyone who wants to receive a printed copy should contact Allen Bingham, *allen_bingham@fishgame.state.ak.us.* If no contact is made, an electronic copy will be sent to everyone for whom we have an email address. Libraries will continue to receive a printed copy.

Gordon Haas Update

Dermot Cole, excerpted from http://newsminer.com/c/dermotcole/

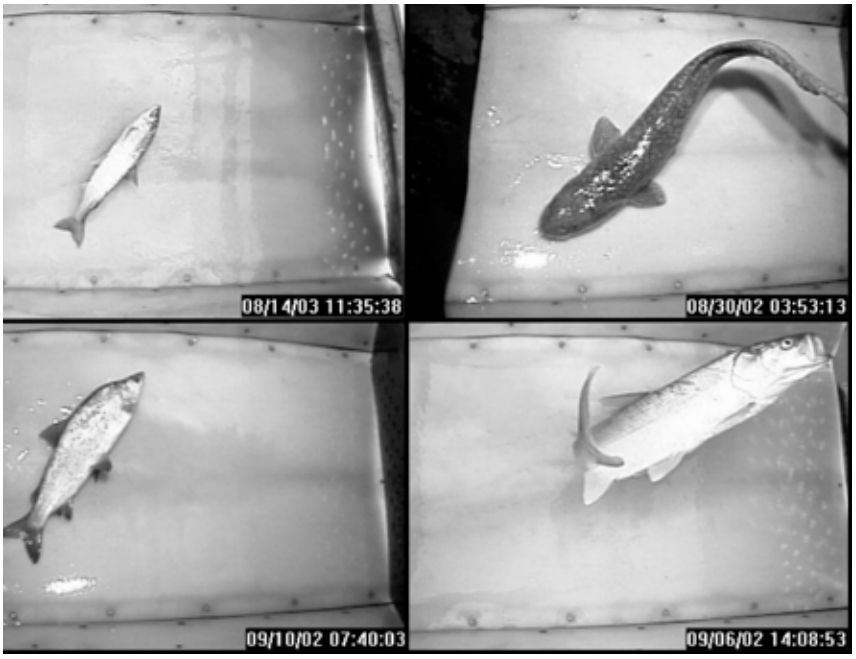
Dr. Gordon Haas, an assistant professor with UAF's School of Fisheries and Ocean Science, suffered serious brain injury as a consequence of falling from the roof of his home in early December. A team of neurosurgeons had to operate twice to relieve post-traumatic pressure on parts of his brain. Friends, associates and students are encouraged by the progress Haas has made since his release from the Neurological Unit of Providence Hospital on January 12. "Since returning to Fairbanks, Gordon has steadily hurdled new mental and physical challenges as part of his recovery," a friend said.

Recognizing that portions of his post-hospital expenses in the coming months will not be covered by health insurance, supporters have established the "Gordon Haas Donation Account" with the College Branch of the Wells Fargo Bank, 794 University Ave., Fairbanks 99709." Donations can be made at any Wells Fargo branch.

Coregonid Research, continued from page 1

Since that time the program has expanded to include virtually all species and into many of the tributary systems. It utilizes a broad set of fisheries tools designed to answer many of the questions listed above, and the eventual goal is to gain a sufficient understanding of coregonid populations and population dynamics in the drainage to allow effective monitoring programs and management strategies to be developed.

Systematic sampling of fish at specific locations and seasons has been very effective at identifying species and demographic groups within species. Length and age distributions, combined with gonadosomatic indices (GSI) revealed minimum sizes and ages at maturity. When these data were examined within their geographic context, drainage-wide patterns of distribution became apparent. Juvenile coregonids of most species are abundant in the lower reaches of the Yukon River and its estuary waters but are rare in upstream reaches of the drainage. Mature fish are present throughout the drainage, but they are the primary demographic group in the upstream regions.



Images of four different species of fish captured in a video-equipped fish wheel.

Spawning migrations of most species are evident in the Yukon River and its major tributaries during the late summer and fall. Video images of fish-wheel catches on the Yukon River have allowed daily CPUE data to be compiled for all species captured. These data revealed the seasonal migration timing for each coregonid species. Sampling showed that these migrations consist of mature, non-feeding fish preparing to spawn. Radio-telemetry projects have been organized around some of these migrations in efforts to locate spawning habitats. Major spawning habitats for coregonid species have been identified in gravel-substrate, braided regions of the Yukon Flats, and in relatively large tributaries of the upper Tanana, Koyukuk, and Nowitna rivers. These spawning habitats appear to be very specific because the distribution of radio-tagged fish remains consistent year after year. Few spawning habitats for coregonid species had been discovered previously, probably because they are predominantly located in larger rivers, spawning season is during the freeze-up period when boating is difficult or impossible, and the technology to implement an effective telemetry program has not been available until recently.

Otolith chemistry techniques have been used to determine if coregonids caught at various locations in the drainage have lived in marine water at some point during their lives. We found that anadromous coregonids of all species except round whitefish migrate far upstream into the Koyukuk, Tanana, and Yukon rivers. Patterns of migration between upstream spawning regions and marine waters appear to vary by species. Many sheefish, for example, migrate between the two environments annually, while Bering cisco leave the river during their first summer and don't return until they are mature. Most anadromous humpback and broad whitefish we have examined spend the first few years moving between brackish and fresh water, and upon maturity they return to freshwater to live out their lives. Radio-telemetry data suggest that after they migrate upstream to spawn, they recruit to feeding habitats in the upper river and few of them ever return to the sea.

Genetic approaches to assessing coregonid fisheries in the Yukon River drainage are in their early stages. At this point we are developing and exploring the utility of markers for population work and species identification, with possible application to the problem of juvenile fish identification. Most collections so far have been from mixed-stock groups, but we are planning to collect samples from spawning aggregations as they are discovered, with the long-term objective of developing baselines for mixed stock analysis. The spawning data that are currently available suggest that there are relatively few genetic populations of the coregonid species in the drainage compared to the large number of genetic populations of the Pacific salmon species *Oncorhynchus* spp. This feature of coregonid population biology, if the available data prove to be correct, may facilitate an effective genetics approach to harvest assessment.

The eventual goal of the Yukon River coregonid research is to provide data that can be used to monitor or manage the fisheries. However, the situation with the coregonids on the Yukon River today is analogous in many ways to the situation with the salmon fisheries of 85 years ago. A significant amount of background information on the biology of salmon was required before informed and effective management decisions could be made. It is our hope that the coregonid research being done now will lead to a similarly improved understanding of their biology, and that the development of effective monitoring programs and management strategies will follow.

First Call for Papers and Session Chairs

Alaska Chapter 34th Annual Conference: "Fisheries Under Pressure: Development, Environment, and Climate in the 21st Century"

The American Fisheries Society, Alaska Chapter is pleased to announce that the 34th Annual Meeting will be held at the Cape Fox Lodge in Ketchikan, November 13–16, 2007. We are searching for session topics and individuals interested in leading sessions. If you have ideas for session topics, continuing education courses, or are interested in leading a session please contact Alaska Chapter Vice President Bert Lewis. Detailed descriptions of each session and abstract submission deadlines will be published in the summer issue of *Oncorhynchus*. Abstract formatting guidelines are available on the Chapter website at: *http://www.fisheries.org/units/afs-ak/meetings/2007/meet2007.htm.*

Preliminary Program Plan

1) Climate and Global Warming
2) Habitat
3) Marine Ecology
4) Commercial Fisheries Research and Management
5) Aquatic and Terrestrial Interactions
6) Marine Derived Nutrients

Award Committee Report

The Chapter is soliciting nominations for the Meritorious Service Award (MSA), the Chapter Service Award (CSA), the Almost Darwin Award, and the Wally Noerenberg Award for Fishery Excellence. I encourage all members to consider nominating deserving individuals for these awards. Please use the form on the Chapter website at *http://www.fisheries.org/units/afs-ak/committee/awards/2007_award_announcement_application.html* to make your nominations. Award presentations will occur at the 2007 Annual Meeting. **Nominations must be submitted by July 31, 2007.**

Nominations for the MSA can be based on an outstanding contribution in any area of Alaska fisheries, including research, management, education, planning, industry, and policy development. Nominations do not have to come from AFS members, nor do nominees need to be active members. The contribution or accomplishment of the candidate must be recent and not the result of many years of effort; recognition of career-long contributions is more appropriate for the Wally Noerenberg Award. The Awards Committee will select winners based on strength of the nomination and the accomplishment.

The CSA was established to award outstanding service to the Alaska Chapter of the American Fisheries Society. These candidates should have been involved in some or all of the following activities: active participation in standing or ad-hoc committees; made important contributions to advance the current objectives, long-term goals or stature of the Chapter and fisheries professionals; contributed a significant amount of time to Chapter activities; improved public awareness of the Alaska Chapter and its activities; encouraged development of students as fisheries professionals through recruitment and involvement as Chapter members; and recruited fisheries professionals as Chapter members. Submit MSA and CSA award nominations and letters of support for nominations to: Cheryl Dion, USFWS, 605 W 4th Ave., Anchorage 99501, 271-2776, *Cheryl_Dion@fws.gov.*

The Almost Darwin Award recognizes the most humorous and outrageous fisheries *faux pas* of any fisheries professional. The nominees must have committed the *faux pas* within the 2006 calendar year. Please include a photo of proof along with the story. Submit award nomination stories and photos to Cheryl Dion at the address above.

The Wally Noerenberg Award for Fishery Excellence, the highest award of the Alaska Chapter, is bestowed as a special honor on individuals who have made great and outstanding contributions to Alaska fisheries. This award was established in 1981 by resolution of the membership. The membership has also set, by resolution, specific guidelines for the Noerenberg Award Committee. Nominee contributions may include scientific research; technological development; species and habitat management; innovations in harvesting, processing, or marketing; academic and fishery education; or involvement in national and international affairs affecting Alaska fisheries. Submit Wally Noerenberg Award nominations and letters of support for nominations to Ted Otis, ADF&G, Division of Commercial Fisheries, 3298 Douglas Place, Homer 99603-8027, 235-1723, *Ted_Otis@fishgame.state.ak.us.*

Rewarding excellence is an enjoyable but challenging task and finding judges is a challenge too. If you would like to help out, the Chapter is soliciting members for the Awards Committee. If you are interested in being a part of this committee please contact Cheryl Dion.

Molly Ahlgren Award Committee Report

The Molly Ahlgren Scholarship Committee met once since the last Chapter meeting. In February we sent a letter to Sheldon Jackson requesting more information about the College's selection process for the scholarship. Our committee will present some of that information at our next Chapter meeting. This year's scholarship award will be made on April 28th, at Sheldon Jackson College's Founder's Day celebration. We hope to have at least one committee member present for this second annual award.

Continuing Education Committee Activities

The Continuing Education Committee once again sponsored a technical writing course, instructed by environmental impact assessment professional, Judd Monroe. The 4-day course was

held at the Wedgewood Resort in Fairbanks, immediately prior to the 2006 Annual Meeting. The course was well-attended, with approximately 20 participants from state and federal resource agencies and featured lively conversation along with practice in editing personal manuscripts as well as an introduction to Judd's writing techniques.

The Chairmanship of the Continuing Education Committee is currently vacant as Hamachan Hamazaki was elected Vice President of the Chapter in 2006. Individuals interested in serving on this important committee should contact Alaska Chapter President Jamal Moss.

Pebble Mine Proposal Update

The Pebble Mine proposal by Northern Dynasty Minerals, a Canadian mining company would be one of the largest gold and copper mines in the world and is located in southwest Alaska near Lake Iliamna. The project area sits at the headwaters of the Koktuli River and Upper Talarik Creek of the Bristol Bay watershed. The Nushagak and Kvichak Rivers into which these systems drain support some of the world's largest sockeye salmon runs while the Nushagak has one of the worlds largest Chinook salmon runs.

The ore deposits–estimated to be worth in excess of $200 billion–are known as Pebble West, which would be the largest open pit mine in North America, and Pebble East, in which a block caving method would be used. Although the details of the proposal are not yet known, it has been proposed that at Pebble West the project would include an open pit about two miles wide and almost 1,700 feet deep while at Pebble East block caving would occur up to 3,500 feet underground with surface subsidence occurring up to one-third of this depth; the footprint would be similar to Pebble West. These would likely lead to flow impacts to the Koktuli River and Talarik Creek as well as the potential for acid generation. There would also be two tailings storage impoundments measuring up to 740 feet tall and over four miles in length along with water supply reservoirs and a ninety mile long road to transport ore-containing slurry along the shore of Lake Iliamna to a port on Cook Inlet and fuel to the mine site.

Because the scale of this mine is much greater than any other mine in the state and there is a likelihood that the accompanying infrastructure would lead to the development of more mines in the area, many are concerned that this project threatens the world class commercial, subsistence, and sport fisheries of the Bristol Bay Region. If you have expertise that you would like to lend the Chapter's Environmental Concerns Committee (ECC) on this issue, please contact Cecil Rich, ECC chair, *cecil@gci.net.*

Cultural Diversity Committee Report

Lisa Stuby and Jerry Berg

Activities

The Cultural Diversity Travel Award helps fund entry-level applicants who are involved in the natural resource field to attend the annual Alaska Chapter conference. The committee selects the top candidates and then tries to get as many recipients to the meeting as possible depending on the meeting location and the location of the candidates. The goal is to help diversify our Chapter membership and get young upcoming people active with AFS. The Cultural Diversity Committee endowment is now over $15,000 and was reinvested this past year in hopes that the interest being earned can better meet the needs for the annual award.

We solicited applications from around the state and received applications from three highly qualified individuals. Although the number of applications was down from previous years, the quality of the applicants was as high as ever. We ultimately were able to fund all three applicants to the conference this year. The 2006 recipients were Valli Peterson, Lisa Kangas and Heidi Herter.

Valli is currently a senior at the University of Alaska Fairbanks (UAF) in Juneau with plans to graduate with a B.S. in fisheries in May 2007. She grew up in the Bristol Bay area and has been involved with fishing activities her whole life. Valli has worked as a fisheries intern for the University of Washington, the Tanana Chiefs Conference (TCC), the Alaska Department of Fish and Game (ADF&G), and the Bristol Bay Native Association.

Lisa plans to get a degree in Biological Sciences and is interested in working in subsistence fisheries management. She spent her childhood years at fish camp on the Yukon River near Ruby. In high school she worked on a project that was based in Bishop Mountain through the Koyukuk Tribal Council and the Tanana Chiefs Conference (TCC) that assessed age, sex, and length composition of salmon. Lisa has spent the last two summers as a TCC fisheries intern through the Partners for Fisheries Monitoring Program and has worked on a whitefish tagging project in the Kanuti National Wildlife Refuge, at the Henshaw Creek weir, the Goodpaster counting tower, and the Traditional and Ecological Knowledge Camp in Fort Yukon.

Heidi is a graduate student in fisheries at the UAF, Juneau Center, School of Fisheries and Ocean Sciences. Her interests lie primarily in harvestable shellfish and other invertebrate species, especially questions and problems pertaining to early life stages of shellfish. She is helping to define the distribution and abundance of early life stages that can greatly affect inter-annual variability in adult population size. She is also interested in essential fish habitat and the use of marine protected areas for conservation and fisheries management purposes. Over the past two years she has studied temporal and spatial variations of late stage Dungeness crab larvae in Glacier Bay. Her work contributes to a growing body of knowledge regarding the effectiveness of Glacier Bay as a marine reserve. Please take some time to congratulate Valli, Lisa and Heidi for their award and help welcome them to the Alaska Chapter!

Recipient Responses

Unfortunately, Juneau experienced a large enough snowfall to shut down the airport for a few days during the first two days of the 2006 AFS Alaska Chapter meeting. Many talks scheduled for the first day were cancelled because the speakers were from Juneau; Heidi Herter's was one of these. She expressed her regret at being unable to attend, but weather is something no one has control over.

Continued on page 6

Field Trip Survival Guide

Laurel Devaney, Education Committee Chair

Spring is the season that can test the fortitude of the strongest biologist, since that's the most likely time that a teacher will ask for assistance with a class field trip. Students respond positively to an activity that's active, hands-on, and centered on a place that they know. This is exactly what can occur on a field trip. It's also a terrific way to get kids excited about the work that you do. However, releasing energetic students from the confines of the classroom to the unfettered spaces waiting outside your door can be similar to unleashing a major nuclear reaction if you don't plan well in advance. Here are some guidelines to follow from field trip survivors.

A Galena student displays her trophy-size Alaska Blackfish!

Pre-Trip Planning

Pre-trip planning will vary from school to school. Many schools have strict policies for field trips and may require School Board approval, depending on the type of outing you're planning. The teacher should check with the principal to determine what the school requires. Check to see if you need permission from a land management agency that surrounds your village or city to visit your chosen site, or to collect items related to your fieldwork. Allow for ample time before the actual field trip to get permits in place; collecting permits may be obtained through ADFG.

If you need transportation, work with the teacher to schedule boat operators, parent drivers or a bus well in advance. At least one adult chaperone for each 12 students is recommended. You may need two adults for younger groups of students. Provide the teacher with materials to brief chaperones in advance on their roles and responsibilities.

Safety

Visit the site in advance. Note any safety concerns such as steep or slippery areas, the presence of glass or other sharp objects, and the presence or signs of dangerous animals like bears. If you are going to a site with water, provisions should be made for the non-swimmers in the class, and a safety plan should be in place for treating hypothermia. Some schools do not permit activities near water of a certain depth or during some times of the year. Check with the principal about the school's regulations.

Activity planning

This is an important element for any field trip. Start by developing the goals and learning objectives for your outdoor activities. Once you have learning objectives in mind, develop pre-trip activities for the students. Consider taking pictures during the site visit to use as part of the pre-visit classroom activities. Pre-visit activities could include:

1) practicing with equipment to ensure the students know how to accurately read a thermometer or determine pH using a test kit;
2) lessons on using keys to identify plants or animal tracks; or
3) studying the history of human use of the area, so you can look for signs of change during the visit.

Develop activity tasks for the students to complete on site. It's important to review what will be completed during the field trip before you leave the classroom. Sometimes a checklist helps students to focus on what they need to accomplish during the field trip. One approach is to rotate small groups through a series of activity stations that are each guided by an adult leader. Make sure that all the students have a job to do to help keep them on task. Develop data sheets or workbooks with questions for the students to answer or observations to make during the field trip. You may also want to purchase a few small disposable cameras for the field trip or borrow the school's video or digital camera. Students can be in charge of taking pictures for use in follow-up activities back in the classroom.

Continued on page 7

Cultural Diversity Committee Report, Continued from page 5

Lisa Kangas e-mailed us this statement: "Attending the AFS Alaska Chapter meeting in Fairbanks was such a rewarding experience. I enjoyed seeing people's hard work and triumphs come to life in the form of a poster. I had class during most of the presentations but I really enjoyed the ones that I was there for. I had the opportunity to talk with Heather Hildebrand (Kuskokwim Native Association) and she informed me about a two-week internship during Christmas break. I also made plans to work on a fish wheel next summer on the Kuskokwim. My favorite part of the conference was the banquet and being able to talk with different people involved in the fisheries field. This conference really gave me the chance to expand my horizons and to meet new people."

I talked to Valli Petersen while we were both attending the Symposium on the "Sustainability of Arctic-Yukon-Kuskokwim Salmon Fisheries." She expressed to me that she had really enjoyed attending the meeting and was grateful for the opportunity to listen to some great talks, and to meet fisheries biologists from around the state.

The award continues to help get new energetic people involved with the Alaska Chapter. The next Chapter AFS meeting will be held in Ketchikan. Please help spread the word about the Cultural Diversity Award(s) coming up for 2007!!

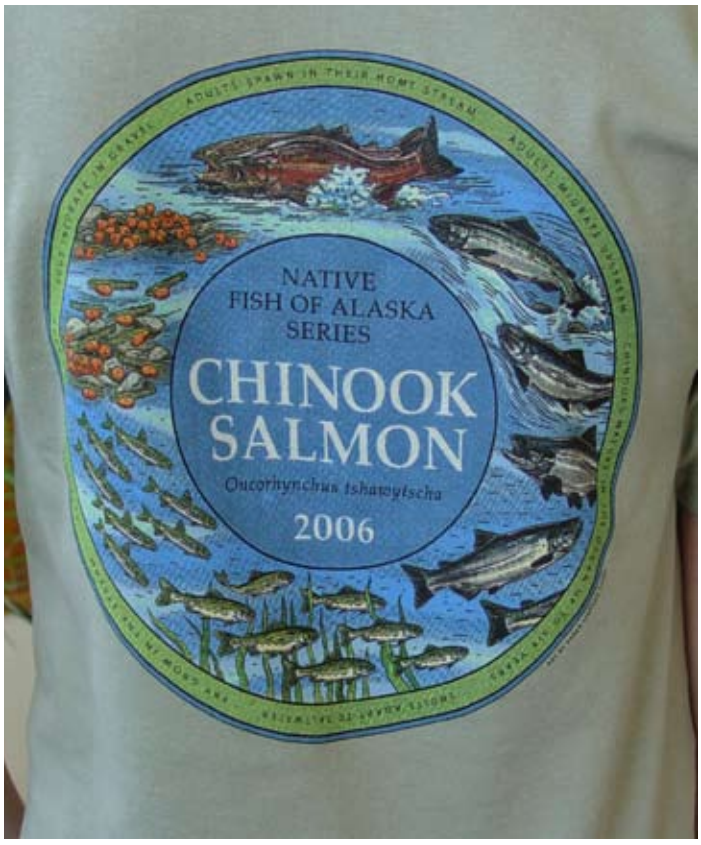
Alaska Chapter Tee Shirts for Sale

The sage green 2006 Alaska Chapter of AFS tee shirts that were on sale at the annual Chapter meeting are still available for purchase for that special someone. The sale of these tee shirts supports AFS student travel. The 2006 shirt features the Chinook salmon on the shirt back; it is the first in a series of commemorative tee shirts to be produced by the Alaska Chapter depicting the life cycle of selected fish species of Alaska. Only 200 shirts have been produced of this special limited edition. Once these are sold, no additional Chinook salmon shirts will be printed. The shirts are short-sleeved, 100% pre-shrunk cotton, and machine washable. The price is only $20.00 per shirt ($18.00 plus $2.00 shipping and handling). Tee shirts may be purchased by check or credit card. Checks should be made out to the "Alaska Chapter of AFS" and mailed to: L.A. Gardner, AFS Treasurer, P.O. Box 672302, Chugiak 99567-2302. Send e-mail requests to *rwjconsulting@ak.net* or phone 688-1400 and provide the following information:

1) Check or credit card info (Visa or Mastercard)
2) Shirt quantity and size (S, M, L, XL, or XXL; note there are only limited quantities of S, M and XXL—order now to ensure you will get your size)
3) Shipping address

Support AFS student member travel and provide a truly unique gift for a friend, colleague, field team member, lower 48 relative, or yourself.

Order today to have your Chinook salmon shirt in time for the field season! This first of the Native Fish of Alaska Series tee shirts is sure to be a collector's item in years to come! Don't miss out!!



The first of the Native Fish of Alaska Series tee shirts features the life history of the Chinook salmon.

Field Trip Survival Guide, Continued from page 6

Form the class into partners or teams. Each team should receive equipment that they are responsible for. Small daypacks or fanny packs are useful to hold equipment for each team.

Some students really like being in charge of telescopes, cameras, or a large pack with all the important equipment. Discuss on-site environmental courtesies such as packing out trash and making a minimal disturbance. If you plan to collect items, discuss collecting methods and the concept of minimal collection with the students.

On Site

Before releasing the students' teams, set the time to return to a designated site. Make sure the chaperones and students know the geographic boundaries of the field trip area. If you have stations, make sure everyone knows the schedule for station rotations. Before leaving the site, complete a student roll call, litter check, and equipment inventory.

Post Trip Activities

Post field trip activities are just as important as the activity itself. Develop activities that summarize the trip and build on prior lessons. This is a great time to be creative! Post field trip activities can include analyzing and graphing the data; posting data on a web site; writing a summary report; developing a video or slide program of the trip to share with other classes or the community; writing an article for the local newspaper; or developing a piece for broadcast on a local radio station.

Get feedback from chaperones, station leaders and students about the field trip. We don't often ask students for their perspective, but after all, the trip is designed to enhance their learning–so ask!

Good field trips can be a wonderfully enriching experience for students. The survival rate for biologists, teachers and parent volunteers can be quite high as well, with a minimum of planning and flexibility. Consider taking advantage of the amazing natural laboratory waiting right outside our doors by planning a spring field trip today!!

The first call for nominations for American Fisheries Society 2007 Awards is currently online

For more information and an application visit the AFS awards website at http://www.fisheries.org/afs/awards.html or contact Gail Goldberg, AFS awards coordinator, at *ggoldberg@fisheries.org,* or 301-897-8616 ext. 201.

EOS Funds Available for Student Travel to 2007 Annual Meeting in San Francisco

The Equal Opportunities Section of the American Fisheries Society announces the availability of monetary awards to attend the National Meeting in San Francisco, California, from September 2–6, 2007. The AFS Equal Opportunities Section is leading an effort to increase participation in the Society by graduate and undergraduate students from underrepresented groups, including women and minorities. Travel grants, not to exceed $500 each, will be awarded on a competitive basis to assist these students with expenses incurred when attending the annual meeting. **Funds are not distributed in advance.** Students selected must be present at the EOS section luncheon and business meeting in San Francisco to receive their award. There are wonderful networking opportunities, technical sessions, continuing education, trade show displays, career and job opportunities, and graduate school opportunities at the meeting.

Knowing how prohibitively expensive air travel can be from Alaska to anywhere in the Lower 48, the EOS can also assist students with finding additional travel support if needed. The EOS award can also be used in conjunction with other funding sources from universities, work places, etc.

An application can be found at *http://www.fisheries.org/units/eos/* or obtained by contacting Gwen White directly. After completing the form, please send it via email or mail to: Gwen White; IDNR Division of Fish & Wildlife; 402 W. Washington St., Rm W273; Indianapolis, IN 46204; (317) 234-4407; *gwhite@dnr.in.gov.*

Completed applications must be emailed or postmarked no later than May 15, 2007. Award decisions will be made by June 15. Please limit answers to the space provided.

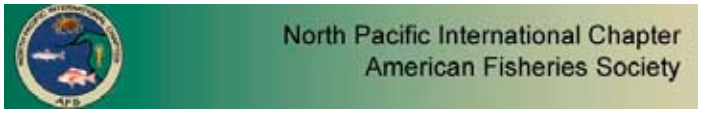
Meetings and Events

Pacific Northwest Freshwater Mussel Research Symposium

April 17, 2007: The Northwest Freshwater Mussel Research Workgroup is holding its 4th annual conference in Vancouver, Washington. Contact Molly Hallock, *hallomh@dfw.wa.gov* or see http://*www.oregonwatersheds.org/events/conferences/musselsymp.*

5th International Fisheries Observer Conference

May 15–18, 2007: This conference, with its theme of "Building Better Fishery Monitoring Programs Through Partnerships Around the World," will be held in Victoria, British Columbia for more information, visit the website at *http://www.fisheriesobserverconference.com.*



NPIC AFS Annual Meeting

June 6–8, 2007: The theme of the AFS North Pacific International Chapter Annual Meeting will be "Fisheries and Development: Can They Co-Exist?" The meeting will be held in Tacoma, Washington. For more information contact Eric Knudsen, *ericknudsen@gci.net* or (360) 424-5767, or visit the website at *http://www.wdafs.org/npic/meetings.htm.*

Student Writing Contest

Submission deadline is May 4, 2007.
For more information and an application, visit the AFS awards website at *http://www.fisheries.org/afs/awards.html.*

4th Reservoir Symposium

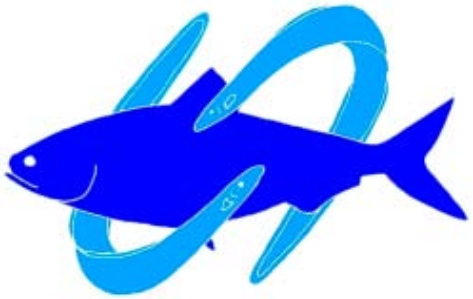
June 6–9, 2007: The Southern Division of AFS is sponsoring this meeting, themed: "Balancing Fisheries Management and Water Uses for Impounded River Systems," it will be held in Atlanta, Georgia. Visit the website at http://*www.sdafs.org/reservoir/symposium* or contact Vic DiCenzo, *vic.dicenzo@dgif.virginia.gov* for more information.

HTI Sonar Advanced Mobile Survey Hydroacoustic Workshop

June 13-15, 2007: This workshop, to be held in Yellowstone Park is intended to address shared challenges faced by biologists involved in freshwater hydroacoustic assessment applications. For more information, email *Workshop2007@HTIsonar.com.*

2nd International Symposium on Diadromous Fishes

June 18–21, 2007: The Northeastern Division of the American Fisheries Society is sponsoring this meeting which will address "Challenges for Diadromous Fishes in a Dynamic Global Environment," to be held in Halifax, Nova Scotia. See *http://www.anacat.ca* or contact Alex Haro, *Alex_Haro@usgs.gov.*



Meetings and Events

The 3rd North American Workshop on Rainbow Smelt

June 22–23, 2007: This workshop will follow the above meeting and will also be in Halifax, Nova Scotia. Check out *http://myweb.dal.ca/ibradbur/home.htm* for more information.

ASIH Annual Meeting

July 11–16, 2007: The joint meeting of the Ichthyologists and Herpetologists will be held in St. Louis, Missouri in conjunction with the annual meetings of the American Elasmobranch Society, the Herpetologists' League and the Society for the Study of Amphibians and Reptiles. The website is at *http://www.dce.ksu.edu/jointmeeting/*.

Alaska Chapter of the American Statistical Association Annual Meeting

July 24–26, 2007: This meeting will be held in Anchorage and will consist of a two-day short course taught by Dr. George Casella, followed by a day of member talks and a short business meeting. Please contact Steve Fleischman, *steve_fleischman@fishgame.state.ak.us,* or 267-2388 for further information.

Ecological Society of America and Society for Ecological Restoration Joint Meeting

August 5–10, 2007: "Ecological Restoration in a Changing World" will be held in San Jose, California. The meeting website is *http://www.esa.org/sanjose/*.

2007 *Salvelinus confluentus* Curiosity Society Annual Meeting

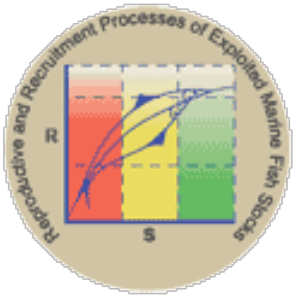
August 22–24, 2007: This meeting will be held at Perkins Lake, Idaho. Presentations on bull trout research and management, and workshops on electrofishing, snorkeling, and redd survey field work are planned. Contact Dan Kenney, *dkenney@fs.fed.us* for more information.

American Fisheries Society 137th Annual Meeting

September 2–6, 2007: The 2007 annual meeting of the AFS parent society is being co-sponsored by the Cal-Neva Chapter and Western Division. The theme is "Thinking Downstream and Down Current: Addressing Uncertainty and Unintended Consequences in Fish and Fisheries." The meeting will be held in San Francisco, California. The program, which includes 61 separate symposia, is currently on the website at *http://www.fisheries.org/sf/*.

Reproductive and Recruitment Processes of Exploited Marine Fish Stocks

October 1–3, 2007: The Northwest Atlantic Fisheries Organization (NAFO), the North Pacific Marine Science Organization (PICES), and the International Council for the Exploration of the Sea (ICES), announce a joint symposium to be held in Lisbon, Portugal. Abstracts are due June 30, 2007. Visit the website at *http://www.nafo.int/symposium.html*.



Wild Trout IX

October 9–12, 2007: This international symposium with its theme of "Sustaining Wild Trout in a Changing World" will be held in West Yellowstone, Montana. The deadline for abstract submission is April 1 and the website is at *http://www.wildtroutsymposium.com/*. For more information, contact Dirk Miller, *Dirk.Miller@wgf.state.wy.us.*

PICES 16th Annual Meeting

October 26–November 5, 2007: Hosted by Fisheries and Oceans Canada, the theme of this meeting is: "The changing North Pacific: Previous patterns, future projections, and ecosystem impacts." It will be held in Victoria, British Columbia. Abstracts are due July 1. The website is at *http://www.pices.int/meetings/annual/PICES16/background.aspx.*

Estuarine Research Federation Meeting

November 4-8, 2007: The ERF 2007 meeting will be held in Providence, RI. Workshops will focus on: Career Planning; Communicating Our Science & Management; and New and Emerging Tools & Technologies. Abstracts are due May 23, 2007, visit *http://erf.org/newsletter/Sp06-ERF07-CFS.html.*

Oncorhynchus
Allen Bingham
P.O. Box 221804
Anchorage, AK 99522-1804

RETURN REQUESTED - DO NOT FORWARD

2007 Alaska Chapter Officers

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Treasurer Lee Ann Gardner, RWJ Consulting, P.O. Box 672302, Chugiak 99567-2302, 688-1400 wk, Fax: 688-1400, *rwjconsulting@ak.net*

Secretary Steve Zemke, Chugach National Forest, 3301 "C" Street, Suite 300, Anchorage 99503, 743-9521 wk, Fax: 743-9480, *szemke@fs.fed.us*

Past President Scott Maclean, ADNR, Habitat Mgmt. & Permitting, 550 West 7th Ave., Suite 1420 Anchorage 99501, 269-6778 wk, Fax: 622-6245, *scott_maclean@dnr.state.ak.us*

Student Unit President Scott Ayers, School of Fisheries & Ocean Sciences, University of Alaska, Fairbanks, *s.ayers@sfos.uaf.edu, fssda1@uaf.edu*

Feel free to contact the Executive Committee members.

2007 AFS Membership Application

You can JOIN the AFS and the Alaska Chapter on-line (or by fax/phone), see *http://www.fisheries.org/afs/* and click on Membership for details, or fill out the application form and process as noted below.

_____
Print or type applicant's name in full

_____
Address

_____
City State Zip Code

_____
Nation Membership year*

Kindly make checks payable to American Fisheries Society in U.S. Currency or drawn on a U.S. bank.

Please mail to Allen Bingham P.O. Box 221804 Anchorage, AK 99522-1804

_____
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

Please provide phone numbers for directory and Society use only:

Home_____ Work_____

Fax_____ Email_____

Employed by:
❑ federal gov't. ❑ state/prov. gov't. ❑ industry ❑ academia ❑ self

❑ **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)**: $19.00 (Other than North America, $22.00)
❑ Young Professional***: $38.00
❑ 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)

Journal Subscriptions (Optional)
❑ Transactions of the AFS[1] ❑ N.A. Journal of Fisheries Management[1]
❑ $43.00 Paper in North America ❑ $48.00 Paper other than N.A.
❑ $25.00 E-Pub via WWW/Internet
❑ North American Journal of Aquaculture[2] ❑ Journal of Aquatic Animal Health[1]
❑ $38.00 Paper in North America ❑ $41.00 Paper other than N.A.
❑ $25.00 E-Pub via WWW/Internet

[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.

** 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).

*** Within 3 years of graduation.

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 *North American Journal of Aquaculture*, bimonthly *Fisheries*, and Membership Directory.