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2002 Alaska Chapter Conference

Final Call for Papers:

Applied Research in Managing Alaska's Fisheries

The AFS Conference is almost here. The conference will be held in Girdwood at the Alyeska Prince Hotel October 21-24. Check out the sessions and continuing education course offerings. If you haven't yet contacted a session chair to present your work, now is the time to do so. Please submit your abstracts to the session chairs by September 20. Abstract Guidelines are posted on the AFS web site.

Accommodations

The Alyeska Prince Hotel is charging us \$80/night/room. To make a reservation, call (907) 754-1111 and let them know you will be attending this conference. The Chapter has also reserved the Girdwood Hostel for students wanting to attend the conference. Space will be on a first come basis. Please contact Susan McNeil (907) 267-2166 to reserve your space.

For those of you flying into Anchorage and who don't want to rent a car, Alaska Cab and Yellow Cab will charge \$75 to take you to the hotel, but you must ask for a flat rate charge. We are also trying to set up a shuttle service from the airport to the hotel. Please contact Lyn Dunbar at (907) 590-2688 (cell) or (907) 455-6001 (voice mail) for more details.

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Tim Shantz holding a freshly tagged chinook salmon in the lower Unuk River in southeast Alaska, 1999. Tim was a valuable ADF&G employee and crew leader on the Unuk River project. Unfortunately, Tim passed away from a heart attack in spring 2001 at the age of 35.

Improvements in Stock Assessment of Chinook Salmon in Southeast Alaska

Scott McPherson

Management and associated fishery modeling of chinook salmon stocks along the eastern Pacific Rim is dependent upon the quality of the databases used to make management decisions that allocate harvests among user groups. As allocative pressure has increased, so has the need for precise data with which to predict, monitor and manage allowable harvests. Precise estimates of escapements, age at return, harvests, exploitation, survival and distribution are needed to provide the horsepower necessary to run a 21st century chinook model for fishery regimes.

In the region of southeast Alaska (SEAK), over 30 natural stocks of chinook salmon have been documented, with annual escapements ranging from less than 100 fish to over 50,000 fish per stock. Geographically, the majority of these river systems are confined within Alaska, but the largest producers of chinook salmon in the region are from transboundary rivers that transect northern British Columbia or the Yukon Territory and Alaska.

In 1990, the population databases for wild SEAK chinook stocks were minimal and inadequate for determining escapement requirements and developing intensive management regimes. Over the past 12 years, a concerted effort has been made to improve the escapement and harvest programs for 11 key streams, which produce 90% of the wild-stock production in the region. Several agencies have cooperated on an international basis, including ADF&G, the Canadian Dept. of Fisheries and Oceans,

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Meetings and Events

Spatial Statistics: Integrating Statistics, GIS, and Statistical Graphics

This three-day conference to be held October 17-19, 2002, in Seattle, Washington, is being organized by the Statistics and Environment Section of the American Statistical Association (ASA) and the National Research Center for Statistics and the Environment. There will be a one-day short course on October 17th, Integrating Geostatistics and GIS by Jay Ver Hoef and Konstantin Krivoruchko. The morning will consist of an introduction to the ideas of geostatistics. The fundamentals of geostatistics will be demonstrated using the Geostatistical Analyst (GA), which is an extension to ArcInfo/ArcMap. In the afternoon, the short course will be a PC lab for hands-on instruction using GA.

Although data will be available, participants are encouraged to bring their own data. In addition to the short course leaders, several other experts in geostatistics and experienced GA users will be available to give individual attention to participants during the afternoon lab. Due to the capacity of the lab, enrollment is limited to 26 so it is important to register early! Registration for the short course is \$350 for members of ASA's Section on Statistics and the Environment and \$375 for nonmembers.

A workshop will begin Friday, October 18th and extend until noon, Saturday, October 19th. Papers will be given on recent advances in the analysis and display of environmental spatial data. The workshop will consist of a series of invited presentations on research topics at the interface of statistics and GIS. Research leaders will give topical presentations on Spatial Statistics and GIS, Spatial Sampling Design, Visualization, Change-of-Support, Agile GIS, and Environmental Applications. Ample time will be provided for a thorough discussion of the topics. Registration for the workshop is \$175 for members of ASA's Section on Statistics and the Environment and \$200 for nonmembers.

You may register on-line at <http://www.engr.washington.edu/~uw-epg/gis/reginfo.html>. This site also has hotel information. For questions on the technical program, please contact Linda J. Young by e-mail: LJYoung@unl.edu or phone: 402-483-2392.

Symposium on Effects of Fishing Activities on Benthic Habitats: Linking Geology, Biology, Socioeconomics and Management

This symposium will to be held November 12-14, 2002, in Tampa, Florida at the Doubletree Westshore Hotel. Over 150 abstracts from 11 countries have been received. Exciting field trips are scheduled. Please visit <http://walrus.wr.usgs.gov/bh2002> for details – program, field trips, accommodations, and to register.

Northwest Salmonid Recovery Conference - 2002

This conference will be held October 22 - 25, 2002, 8:30 A.M. to 4 P.M. at the Mountaineers Conference Center, Tahoma Room, 300 Third Avenue West, Seattle, WA 98119. This conference is dedicated to restoring Pacific Northwest salmonid populations. Each session provides practical information, methods, and resources to help attendees enhance their salmon recovery efforts. Our goal with putting on this event each year is to foster a sense of stewardship and hope by providing current science and practical solutions for salmonid monitoring and recovery. The session topics are:

- Salmonid science, population status, and policy issues
- Habitat and population assessment and monitoring
- Habitat and population restoration
- Field trip: Salmonid habitat restoration site tours

Registration fee is \$120 for one session, \$108 per session for two or more sessions, \$432 for all four sessions (4 days). For more information contact Erick McWayne Northwest Environmental Training Center, e-mail: emcwayne@nwetc.org phone: 206-762-1976.

Hydrologic Extremes: Challenges for Science and Management

The American Institute of Hydrology (AIH) is holding its annual water conference October 13-17, 2002, in Portland, OR. The theme of the conference is "Hydrologic Extremes: Challenges for Science and Management."

One of the keynote speakers will be Dr. William Hooke, past Deputy Director of NOAA and Distinguished Lecturer of the American Meteorological Society. His talk is entitled "A New Apocalypse: Floods, Droughts and the Turmoil of the 21st Century."

The technical program will cover all areas of the hydrologic sciences. More information on this conference, including the full conference agenda, can be found at the following link: <http://www.aihydro.org/conference2002/index.htm>.

Note that the early registration deadline for a discounted rate is Sept. 20, 2002. If you have any questions contact Jim Ruff, President, Oregon Chapter of AIH at Jim.Ruff@noaa.gov or phone 503-230-5437. ☺

"There is no reality in the absence of observation." – The Copenhagen Interpretation of Quantum Mechanics.

Science vs. Policy

A man, flying in a hot air balloon, suddenly realizes he's lost. He reduces height and spots a man down below. He lowers the balloon further and shouts to get directions, "Excuse me, can you tell me where I am?"

The man below says, "Yes, you're in a hot air balloon, hovering 30 feet above this field."

"You must work in Science," says the balloonist.

"I do," replies the man. "How did you know?"

"Well," says the balloonist, "everything you have told me is technically correct, but it's of no use to anyone."

The man below replies, "You must work in Policy."

"I do," replies the balloonist, "but how did you know?"

"Well," says the man, "you don't know where you are, or where you're going, but you expect me to be able to help. You're in the same position you were before we met, but now it's my fault." ☺

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 winter issue of *Oncorhynchus* is Dec. 10.

Alaska Chapter's Internet Home Page Address

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

Alaska Chapter Conference, continued from page 1

Restaurants in Girdwood are limited and you will need transportation, or be a fairly brisk walker to go outside of the hotel area for lunch. For your convenience, the hotel will provide us with breakfast and lunch throughout the conference. The cost for lunch has been included with your registration fee. The AFS chapter will cover breakfast costs.

I tried to include some diverse sessions in this conference, and the session chairs have done a great job in lining up presentations to reflect the theme of this conference. Here is what we have so far:

Continuing Education

Joel Reynolds has put together three valuable course offerings for you on Oct. 21. Please contact Joel (Joel_Reynolds@fishgame.state.ak.us) if you have any questions.

- Using remote video technology in fisheries/wildlife research applications (Ted Otis & David Daum). This will be a full day course.
- Using telemetry to study aquatic systems (John Eiler). This will be a half-day course. Advance Telemetry Systems and LOTEK.
- Human Systems: The whole may be less than the sum of the parts (Dave Bella). This will be a half-day course.

Vendors for the Remote Video Technology and Radio Telemetry will have booths to answer your questions.

Plenary Speaker

New Directions and Ethics in Management of Western Fisheries Resources

Edwin P. (Phil) Pister, Desert Fishes Council and California Department of Fish and Game (retired)

As human populations throughout the western states continue to expand into the 21st century and beyond, with accompanying impacts on already depleted resources, direction of management agencies will inevitably shift from concepts of maximum sustained yield to include and emphasize preservation of biodiversity. This will become necessary if we are to retain even a modicum of our remaining aquatic ecosystems and their associated life forms.



Applicable methodologies have been developed throughout the American Southwest, where the science of conservation biology has been applied to threatened fishes and aquatic ecosystems for more than 30 years in fields as diverse as mitochondrial DNA research, design of refuges, and legal involvement leading to decisions of the U.S. Supreme Court. Case histories are presented, and the inseparability of species from their habitats is emphasized. Hope for a seemingly bleak future may be derived from an evolving conservation ethic not only within the American public, but even more significantly within historically intransigent western fish and wildlife agencies.

At some point Aldo Leopold's land ethic will become obvious and axiomatic in the minds of thinking Americans. However, we have a long journey ahead before this occurs, a journey requiring increased emphasis on management of endangered and depleted species and stocks, riparian habitats, native plants, livestock grazing, fire, and other ecological components in our quest to attain an acceptable and sustainable level of biological diversity and habitat integrity.

Biographical sketch-Edwin P. (Phil) Pister

Phil Pister retired in February 1990 following 38 years as a fishery biologist with the California Department of Fish and Game. He studied wildlife conservation and zoology under A. Starker Leopold at the University of California (Berkeley) and has spent virtually his entire career supervising aquatic management and research within an area encompassing approximately a thousand waters of the eastern Sierra/desert regions of California, ranging from the 14,000 foot crest of the Sierra Nevada to the floor of Death Valley lying below sea level. He founded and serves as executive secretary of the Desert Fishes Council and is involved in desert ecosystem preservation throughout the American Southwest and adjoining areas of Mexico. He holds special interest in the fields of conservation biology and environmental ethics and has served on the Board of Governors of the American Society of Ichthyologists and Herpetologists and of the Society for Conservation Biology. He also serves on the President's Advisory Committee of the University of California's system-wide White Mountain Research Station. He teaches regularly at the National Conservation Training Center (U.S. Fish and Wildlife Service) in West Virginia, has lectured at more than 70 universities in North America and the United Kingdom, and has authored 74 published papers and book chapters.

Fishes of Alaska

Bill Wilson (AFS committee chair of the Fishes of Alaska) and the authors of Fishes of Alaska, Catherine W. Mecklenburg, T. Anthony Mecklenburg, Lyman K. Thorsteinson thank the Alaska Chapter for sponsoring this book. The authors will also be available to sign copies of the book.

Banquet Speaker

Dee Dee Jonrowe will commemorate Rae Baxter during this conference as part of the "Fishes of Alaska" celebration. Dee Dee worked for the Alaska Department of Fish and Game in Bethel in the late 1970's and early 1980's as a fisheries manager. Rae was not only her colleague; he was also her cherished friend.

Sessions

Title: Current Applications of Mark-Recapture Methods in Fisheries Assessment and Management in Alaska

Session Chair: Pat Hansen, Alaska Department of Fish and Game, e-mail: pat_hansen@fishgame.state.ak.us or phone: 267-2441.
Speakers (thus far):

Pete Cleary (ADF&G): Stress effects in fall chum salmon (*Oncorhynchus keta*), from mark-recapture: Plasma stress indicators and non-esterified fatty acid analysis.

Matt Evenson (ADF&G): Copper River Project: Use of radio tags in a two sample mark-recapture experiment to estimate abundance of chinook salmon in the Copper River.

Jeff Fryer (Columbia River Inter-Tribal Fish Commission):
Title not yet recorded.

Title: Using Telemetry in Alaska

Session Chair: John Eiler, National Marine Fisheries Service, e-mail: john.eiler@noaa.gov or phone: 789-6033.

Speakers (thus far):

Ted Spencer (ADF&G): The Yukon River chinook salmon radio telemetry study.

Elizabeth Kito (USFWS): Life history of eulachon (*Thaleichthys pacificus*) in south central, Alaska and Movement patterns of spawning eulachon determined with radio telemetry.

Matt Evenson (ADF&G): Holitna River Project: Radiotelemetry as a means to estimate proportions of chinook, chum, and coho salmon passing through the Kogrukluk River weir.

Derek Wilson (USGS): Freshwater to marine migration of post-spawn steelhead determined with acoustic tags and moored receivers, Ninilchik River, Alaska.

Title: Advances in Marine Biology, and the Associated Fishery Management Implications

Session Chair: Dan Urban, Alaska Department of Fish and Game, e-mail: dan_urban@fishgame.state.ak.us or phone: 486-1849. Speakers (thus far):

Peter Van Tamelen: Fisheries science as a sub discipline of ecology: how and why basic research is to resource managers.

Dan Urban: Change in size of sex transition in pink shrimp in response to varying population levels.

Elizabeth Chilton: Length at maturity for light dusky rockfish and northern rockfish in the Central Gulf of Alaska.

Gretchen Bishop: PIT tagging studies of Tanner crab in the laboratory.

Alisa Abookire: Latitudinal variation in the spawning season of Dover sole (*Microstomus pacificus*).

Cathy Hegwer: Green sea urchins as a keystone species.

Title: Identifying True Carrying Capacity in Anadromous Salmonid Ecosystems

Session Chair: Eric Knudsen, PhD. Chief, Marine and Freshwater Ecology Branch, Alaska Biological Science Center, USGS, Biological Resources Division, 1011 East Tudor Rd. - MS 701, Anchorage, AK 99503, e-mail: eric_knudsen@usgs.gov or phone: 786-3842, Fax: 786-3636.

Speakers (thus far):

Benjamin W. VanAalen: Practical spawner recruiting.

Peter W. Lawson, E. A. Logerwell, N. Mantua, R. C. Francis, and V. Agostini: Climate and the life cycle of coho salmon.

Gretchen Oosterhout: Stochastic life history model (PasRAS) validation for chinook, sockeye, and coho.

Steve Cramer: Methods for estimating carrying capacity for coho, chinook, and steelhead, and cutthroat trout.

Eric Knudsen: Can a life history and ecosystem-based survival model help to evaluate Pacific salmon carrying capacities?

Special Session - Kvichak River Sockeye Salmon: Combining Past and Present Knowledge for More Effective Management

Session Chair: Steve Fried, U.S. Fish and Wildlife Service Office of Subsistence Management, Fisheries Information Services Division, 3601 C Street, Suite 1030, Anchorage, AK 99503, 907-786-3824 voice/message; 907-786-3812 fax; email: stephen_fried@fws.gov.

Historical Perspective and Current Circumstances

Steven Morstad and Jeff Regnart (ADF&G): Management of the Kvichak River sockeye salmon run.

Lowell Fair (ADF&G): History of Kvichak River system sockeye salmon spawning escapement goals.

Carol Ann Woody (USGS): Historic and contemporary Newhalen and Kvichak River sockeye salmon run timing, abundance, age and size composition.

Ian Stewart (University of Washington): Coherence of observed adult sockeye abundance within and among spawning habitat types in the Kvichak River watershed.

Mary McBurney (National Park Service): Traditional ecological knowledge of sockeye salmon in Lake Clark.

Factors Influencing Production

Daniel Schindler (University of Washington): Climatic and density-dependent regulation of Kvichak River juvenile sockeye salmon growth and survival.

Warner Lew (Icicle Seafoods): Title not yet received.

Ed Farley (NMFS): Distribution and size of juvenile sockeye salmon in the eastern Bering Sea, 1999-2002 (Poster?).

Population Structure and Management Implications

Jim Seeb (ADF&G): Sockeye salmon genetic studies: population structure and mixed stock analyses.

Kristina Ramstad (USGS): Genetic variation and geologic history of Lake Clark sockeye salmon (Poster).

Dan Young (USGS): Migration and spawning distribution of Lake Clark sockeye salmon (Poster).

Modeling and Synthesis Efforts – Putting It All Together

Ole Mathisen (University of Alaska Fairbanks) and Jim Edmundson (ADF&G): Review of hypothesis concerning Kvichak River sockeye salmon cycle.

Norma Jean Sands (NMFS): Ecosystem modeling of species interactions affecting sockeye salmon production in Iliamna Lake, Bristol Bay, Alaska.

Panel Discussion

Will current management strategies and practices allow the Kvichak River sockeye salmon run to increase in abundance, maintain its key role in the ecosystem, and fulfill the needs of subsistence, commercial and recreational users?

Can the five-year sockeye salmon abundance cycle be maintained now that the peak year has failed, and should it be maintained?

Is the current management system adaptive, or does it need to be modified so that it can more effectively gather information, answer key questions, and respond to findings?

Title: Communication as a Fisheries Management and Research Tool

Session Co-Chairs: Laurel Devaney, Fairbanks Fishery Resources Office, e-mail: laurel_devaney@fws.gov or phone: 456-0558 and Andrea Medeiros, U.S. Fish & Wildlife Service, e-mail: andrea_medeiros@fws.gov or phone: 786-3674.

Speakers (thus far):

Laura Zabkar (USFWS): The Andreafsky Science Camp: Bridging the gap between Alaskan native villages and fishery resource agencies.

Polly Wheeler (USFWS, Subsistence Division): Working with native communities.

Eric Havelock (Toastmasters): Public speaking tips for scientists.

Craig Medre (Anchorage Daily News): Working with the media.

Tom Morphet (United Fishermen of Alaska): Getting the word out statewide.

Mike Black (State Department of Economic Development): Working with rural governments.

Title: No Fish Habitat = No Fish Management

Session Chair: Bill Hauser, Alaska Department of Fish and Game, e-mail: Bill_hauser@fishgame.state.ak.us or phone: 267-2172.

Description: Alaska is blessed with an abundance of aquatic resources, including pristine fish habitat and viable fish populations, but many Alaskans take these resources for granted. We, as stewards of these resources, must take primary responsibility for the management, protection and preservation of these resources.

Salmon populations in Washington and Oregon are an estimated 3% of historic levels. Losses of anadromous salmon have diminished the productivity of entire watersheds. Much of these losses can be attributed to losses of fish passage and changes of habitat quality or quantity. Can Alaska risk loss of fish populations? Can Alaska risk loss of fish habitat?

This session will describe some Alaskan fish habitat and fish populations that have been lost, some approaches to protection of fish habitat, and how some habitat has been restored.

Speakers (thus far)

Bill Hauser (ADF&G -H&R): Introduction

Meagan Boltwood (Anchorage Waterways Council): Effects of dams on anadromous streams in Alaska and potential benefits of their removal.

Cecil Rich (ADF&G - H&R): Culvert barriers to fish passage in southcentral Alaska: A preliminary assessment.

Matt Whitman (or Bob Ourso) (USGS): Urban salmon habitat: Applying research to restoration planning.

Ed Weiss (ADFG - H&R): Anadromous fish catalog.

Bill Hanson (ADFG - H&R): Tongass culverts.

Mason D. Bryant, Nikolas Zymonas and Brenda E. Wright (USFS): Salmonids on the fringe: Distribution, habitat use, and response of salmonids to upslope riparian forests in high gradient headwater streams, southeast Alaska.

Robert Ruffner (Executive Director Kenai Watershed Forum): The non-profits' role in facilitating collaboration among agencies and governments to secure funding for fish passage - what does it take - a case study from the Kenai Peninsula Borough.

Title: Instream Flow Reservation and Protection

Session Chair: Christopher Estes, Alaska Department of Fish and Game, e-mail: christopher_estes@fishgame.state.ak.us or phone: 267-2142.

Contributed Paper Session

Session Chair: Harold Geiger, Alaska Department of Fish and Game, e-mail: hal_geiger@fishgame.state.ak.us or phone: 465-4257.

Speakers (thus far):

Joel H. Reynolds and W. Stew Grant (ADF&G-Gene Conservation Lab): Polymorphish, precision, & power.

Blair G. Flannery, John K. Wenburg, and Anthony J. Gharrett: Application of amplified fragment length polymorphism (AFLP) to genetic stock identification of Yukon River fall chum salmon.

Randy J. Brown: Probing the upstream limits of anadromous whitefish migrations in the Yukon River.

Title: Twenty-Eight Years of Private, Non-Profit Hatcheries in Alaska: What Have We Learned About Hatchery-Wild Stock Interactions?

Session Chair: Chris Habicht, Alaska Department of Fish and Game, e-mail: chris_habicht@fishgame.state.ak.us or phone: 267-2169.

Speakers (thus far):

Benjamin W. VanAlen: Managing hatchery and wild salmon.

Alex Wertheimer: Effects of hatchery releases and environmental variation on wild-stock productivity: Consequences for sea ranching of pink salmon in Prince William Sound, Alaska.

Jan Konigsberg: Crafting policy to minimize hatchery-wild stock interactions.

Theodore R. Meyers: Disease transmission from cultured salmonids to wild fish stocks: Perspectives on the Alaskan hatchery program.

Douglas M. Eggers: Is the North Pacific Ocean carrying capacity for Pacific salmon limited?

Chinook Salmon, continued from page 1

NMFS, and the Taku River Tlingit, Tahltan and Champagne-Aishihik First Nations of Canada.

The escapement program was the first order of business for improvement. Mark-recapture projects were implemented on all key river systems, where total escapement had not been previously estimated. In most cases, companion aerial or weir index counts were operated to provide expansion factors for past or future index counts. Radio telemetry studies were conducted on the Taku, Chilkat, Unuk, Chickamin, Stikine and Alsek Rivers to verify the mark-recapture estimates and to determine spawning distribution for verification of index count areas. Age, sex, size and other biological sampling was increased and designed to be unbiased; we are now annually sampling all 11 key chinook streams for biological data.

Improving harvest estimation is ongoing and involves multiple components as well. Harvests of the Situk and Alsek River stocks near Yakutat primarily take place inriver in single-stock fisheries. Harvests of the other SEAK chinook stocks takes place in mixed-stock fisheries comprised of just a few stocks to hundreds of stocks and are time and area dependent. Harvest sampling and coded-wire tagging (CWT) of wild smolts are used to solve some of the stock-identification problems in these fisheries.

Wild smolts are captured and tagged for five key wild stocks in the region, as well as all hatcheries that release chinook salmon in the region. Commercial and recreational harvests are sampled at high rates to recover CWTs and estimate harvests for stocks that are tagged. The marked rate is known at release for hatchery

Steven G. McGee: Historical perspective of the Alaska's hatchery program: Mechanisms developed to protect against adverse interactions between wild and hatchery stocks.

Title: Human Nature, Human Influences - Is Alaska Really Different?

Session Chair: David Cannon, US Fish and Wildlife Service, e-mail: david_cannon@fws.gov or phone: 543-1022.

Speakers (thus far):

David Cannon (KNA): Human nature, human influences-Is Alaska really different?

Phil Pister (Desert Fishes Council): People, politics, and fishery resources.

Dave Bella: Human Systems: The whole may be less than the sum of the parts.

Mike Manfredo: Shifting American wildlife values.

Mike Fraidenburg: Making a Difference -Lessons learned by natural resource professionals about institutions, incentives, and the tepid pursuit of conservation.

Panel Discussion: Human behaviors: Beyond linear presumptions.

Session Title: Marine Protected Areas

Session Co-Chairs: Doug Woodby, e-mail: doug_woodby@fishgame.state.ak.us or phone 465-6115 and Katherine Rowell, e-mail: Kathyr@gci.net or phone: 243-7370.

Speakers (thus far):

Doug Woodby: The Alaska MPA program.

Kristen Mabry: Alaska's MPA inventory.

Jim Taggart: Experimental tagging for reserve design.

Bob Stone: Coral and sponge habitat in the Central Gulf of Alaska: A long term study.

Questions?

If you have any questions, recommendations, or if you would like to help with the planning of this conference, please contact Carol Kerkvliet, Alaska Department of Fish and Game; e-mail: carol_kerkvliet@fishgame.state.ak.us or phone: 267-2379. Check the AFS web site (<http://www.fisheries.org/afs-ak/>) for conference updates and scheduling information.

stocks and is estimated for the wild stocks by sampling escapements. Survival, exploitation and maturation rates, as well as distribution of harvest, are also estimated for tagged stocks.

Troll harvests have been sampled since 1998 for genetic analysis (GSI) to determine the stock composition of the troll catch. This GSI method is advantageous in that the entire catch can be allocated to stock groups; the disadvantage is that individual stocks may not be allocated, and hatchery and wild stocks of similar parentage are usually not separable as well. The combination of the GSI and CWT analysis is an improvement in providing direct estimates of stock composition in fisheries.

The results of these efforts for SEAK chinook stocks are improved databases for managing these stocks. Escapement goals have been estimated for all 11 stocks and are being refined concurrent with spawner-recruit database improvements. Preseason and inseason forecasts of abundance are being used or are available for more intensive management for the larger stocks.

Escapement, harvest, exploitation and survival data are available for the present Chinook Model used by the Pacific Salmon Commission and any future improvements. The Alaska Board of Fish has actively used this stock assessment data for crafting regulations that affect all users harvesting SEAK chinook salmon. This international effort in improved stock assessment will provide the tools to ensure sustainable populations of SEAK chinook stocks in the 21st century.

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RETURN REQUESTED - DO NOT FORWARD

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Student Unit President Theresa Tanner, American Fisheries Society, University of Alaska Fairbanks, 211 Irving I Building, Fairbanks 99775, fbafs@uaf.edu

Feel free to contact the Executive Committee members.

2002 AFS Membership Application

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 Equivalent.

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:

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- Alaska Dues: \$10.00** **Alaska Student Dues: \$5.00**
- Membership Dues (includes Fisheries and Membership Directory)
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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.

Journal Subscriptions (Optional)

- Transactions of the AFS¹ N.A. Journal of Fisheries Management¹
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- North American Journal 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).

*** 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 *The Progressive Fish-Culturist*, bimonthly *Fisheries*, and Membership Directory.

**Alaska Chapter American Fisheries Society¹ Annual Conference
October 21-24, 2002 Girdwood, Alaska - Registration Form**

Name	Affiliation	
Address		
City	State	Zip
Telephone	E-Mail	

Registration Fee (Please indicate your choices)

BREAK FAST and LUNCH are Included with Fee

Items	Amount	Subtotal
3-Day Registration	After Oct 7/ before Oct 7 - \$15 discount	
Member	\$155.00/135.00 =	_____
Non-member ²	\$210.00/195.00 =	_____
Student Member ³	\$90.00/75.00 =	_____
1-Day Registration	(Circle days)	
Member	\$50.00 (T W Th) _____ x no. days =	_____
Non-member ²	\$65.00 (T W Th) _____ x no. days =	_____

Continuing Education Course (Please indicate your choices)

BREAKFAST and LUNCH are not Included with Fee

Workshops – 10/21/2002	Before Oct. 7 Members/Non-members	
	After Oct. 7 (Members/Non-members)	
AM - Using Remote Video Technology in Fisheries/Wildlife Research Applications (Ted Otis & David Daum)	\$100.00/125.00	_____
PM	(\$115.00/145.00) =	_____
AM Using Telemetry To Study Aquatic Systems (John Eiler)	\$85.00/100.00	_____
PM	(\$105.00/115.00) =	_____
PM Human Systems: The Whole May Be Less Than the Sum of the Parts (Dave Bella)	\$50.00/65.00	_____
	(\$65.00/80.00) =	_____
Banquet – 10/23/2002		
Halibut Dinner	No. persons (_____) x \$30.00 =	_____
Prime Beef Dinner	No. persons (_____) x \$30.00 =	_____
	Total Enclosed =	_____

Checks payable to **Alaska Chapter of AFS**

Total to be billed (include agency, purchase order, and billing contact person)

Purchase Order Number (_____)

Please direct **Credit Card** questions and send completed form and payment to Bob Ourso:

Alaska Chapter of AFS

c/o Bob Ourso

FAX: (907) 786-7150

4230 University Dr., Ste. 201

E-mail: rtourso@usgs.gov

Anchorage, AK 99508

Billing Questions – Contact Bob Ourso (rtourso@usgs.gov, 907-786-7148)

Meeting Questions – Contact Carol Kerkvliet (carol_kerkvliet@fishgame.state.ak.us, 907-267-2379)

¹ The Alaska Chapter of the American Fisheries Society is a non-profit organization (501© (3)), Fed EIN number 23-7368960.

² Non-members may join AFS and the Chapter at time of registration and register at member's rate. If you choose to join and register at the same time, please mail this form along with a completed membership application along with the appropriate payments to Bob Ourso (see address above).

³ Student members assisting with the meeting (i.e registration, slide projector etc) will have fees waived. Contact Carol Kerkvliet for details (see address above). Student non-members are required to pay the full non-member registration fee.