



THE TRIBUTARY

A Newsletter of the

Western Division of the American Fisheries Society

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2013 Western Division Meeting

The Idaho Chapter will be hosting the Western Division Annual Meeting in 2013 (April 15—18, 2013) in Boise, Idaho. The topic of the meeting will be “**Fisheries: Learning from the Past and Looking Towards the Future**”.

The meeting website is: <http://www.idahoafs.org/2013AnnualMeeting/>

Call for papers and posters

The 2013 Western Division AFS Program Committee is pleased to announce its call for all papers and posters for the Western Division Annual Meeting of the American Fisheries Society to be held in Boise, Idaho from April 15—18, 2013! The Western Division encompasses three countries from Mexico to Alaska and the Pacific Coast to Colorado. People from, but not limited to, this area will be participating at this event.

Presenters will be able to contribute to one of 27 symposia (see pages 4—12) and to the diverse array of general oral presentations, and/or provide a poster where one can engage one-on-one with numerous attendees on a particular subject. All abstracts must be submitted at <http://www.idahoafs.org/2013AnnualMeeting/submissions.php>. Guidelines on how to submit your oral presentations and posters can be found on this website.

If you have questions, feel free to contact the program committee:

Symposia and Contributing Paper Contacts:

- Joe DuPont at: joe.dupont@idfg.idaho.gov or (208) 799-5010
- Pamela Sponholtz at: Pamela_sponholtz@fws.gov or (303) 236-4255

Contributing Poster Contact:

- Corey Lyman at: clyman@fs.fed.us or (208) 557-5838

Other Important Deadlines

Item	Deadline
Paper and poster submissions for Boise 2013 (see above)	February 14, 2013
Student scholarships (see Western Division website)	February 16, 2013
Student travel grants (see Western Division website)	February 22, 2013
Riparian Challenge (see page 21)	March 1, 2013
Early registration deadline for Boise 2013 (see meeting website)	March 15, 2013
Small project grants (see Western Division website)	March 15, 2013
Reduced hotel rate for Boise 2013 ends (see meeting website)	March 22, 2013
Student Writing Contest (see page 22)	April 1, 2013

Officers

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Western Division Excom members
Dave Ward, Lori Martin, Mary Buckman,
and Tina Swanson.

President's Hook

As we start the New Year, planning for the Western Division Annual Meeting has reached a fever pitch. The meeting, hosted this year by the Idaho Chapter, will be held in beautiful Boise this spring. Early registration is now open and the deadline for abstracts is just around the corner, **February 14**. Make sure to visit the meeting website (<http://www.idahoafs.org/2013AnnualMeeting/>) to find out more and make your plans.

In keeping with the impressive diversity of our membership, the Boise meeting's scientific program has something for everyone. In addition to the regular contributed papers and posters, 27 (yes 27!) special topic symposia are planned. Themes include species (including lamprey, sturgeon, salmon, and Colorado River fishes), habitats (from stream hydraulics and nutrient amendment to effects of climate change), management (including hatcheries, tagging and monitoring, recreational fisheries and invasive species), and science communication.

I want to highlight the science communication symposium in particular. At the AFS meeting last fall, I attended an excellent session on "science communication in the 21st century," organized by Jeremiah Osborne-Gowey and Elden Hawkes Jr.. The speakers discussed the range of "new" communication tools, from open access journals to Twitter, but at the concluding panel discussion many of the questions focused how to craft and convey the content. In other words, people wanted to know how to be more effective communicators regardless of the communication medium used.

So—for our Western Division meeting, I have teamed up with Jeremiah, Demian Ebert, and WDAFS Student Representative Tracy Wendt to organize a special session: *The Science of Science Communication: The Art of Telling Compelling Stories in a New Media Environment*.

In this hybrid symposium-workshop, we will explore a variety of communication tools, techniques and policies used by leaders in science communication and provide multiple perspectives on the future of science communication. Participants will learn how to communicate science through live storytelling, video and interactive internet formats, and the art of the powerful PowerPoint; how to use visual thinking in science meetings and conferences; and how to talk to non-scientist audiences, including policy- and decision-makers and the general public. The symposium will consist of a series of informational presentations followed by small group activities to practice these new techniques. Using a selected example research paper, each group will devise a plan for how to tell the science story from different angles, present their work to the audience/speakers, and receive constructive feedback on presentations and tips for how to improve them.

My co-sponsors and I developed this session with both students and practicing professionals in mind, so we hope you will join us for it—and all of the other great sessions, activities, networking and catching up with old friends—in Boise later this year!

— Tina Swanson, President



2013 Meeting Symposia

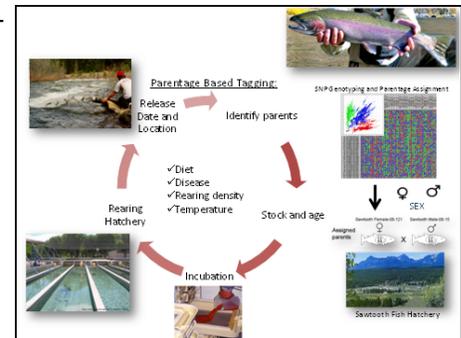
Parentage Based Tagging: From conception to implementation

Co-chair: Matthew Campbell; Idaho Department of Fish and Game (208) 939-6713; matthew.campbell@idfg.idaho.gov

Co-chair: Shawn Narum, Columbia River Inter-Tribal Fish Commission; (208) 837-9096; NARS@critfc.org

Sponsor: Fluidigm Corporation and Idaho Department of Fish and Game

Description: This symposium will focus on an exciting new genetic technology, called Parentage Based Tagging (PBT), that should provide an excellent tool for addressing management and conservation needs associated with marking hatchery stocks, conducting hatchery evaluations and reform, and enforcing salmonid fishery management measures. Talks will focus on describing the development of new genetic markers and analysis software and the development of sampling methodologies for estimating stock composition in fisheries and the proportion of hatchery-origin spawners on wild spawning grounds. Talks will also provide examples of the implementation of PBT programs for Chinook salmon and steelhead in the Snake River basin and in California. A panel discussion at the end of the symposium will answer questions from the audience and discuss the possibilities of extending this technology throughout the Columbia River Basin.



Hydraulics and Habitat

Co-chair: Jeanne M. McFall; Pacific States Marine Fisheries Commission/Idaho Dept. of Fish and Game; (208) 287-2792; jeanne.mcfall@idfg.idaho.gov

Co-chair: Stephanie Hallock; Coeur d'Alene Tribe, (208) 686-0701; shallock@cdatribe-nsn.gov

Description: This Symposium will focus on enhancing aquatic habitat by influencing stream hydraulics to restore stream function. Recent studies have shown that techniques focusing on restoring natural processes may be more cost effective and more self-sustainable over the long-term in improving fish populations. This symposium will facilitate discussions of river restoration, the use of large wood or beaver to create in-stream structures, bio-engineering techniques, and passive methods like riparian planting to restore the natural processes and functions to improve aquatic habitat. We will share methods used, design reasoning, construction techniques, and lessons learned.



Upgrading Old and Antiquated Hatcheries Using Modern and Innovative Technology

Chair: Larry Peltz, Retired from Alaska Department of Fish and Game and US Fish and Wildlife Service, (208) 476-4704, lpeltz@starband.net

Description: Many old hatcheries are approaching the end of their lifespan with infrastructure that is failing, on the verge of failing or obsolete. Many hatcheries are facing related issues of changing water availability, water quality and effluent management. All of these things impact the quantity and quality of fish production. Technological improvements have been developed which could aid many hatcheries to solve infrastructure issues and improve fish production. Many hatcheries have been recently upgraded. This symposium will look at several of these facilities to pass on knowledge gained, successes and failures.

2013 Meeting Symposia

New information regarding climate effects on aquatic resources in the western US: how do we use this stuff?

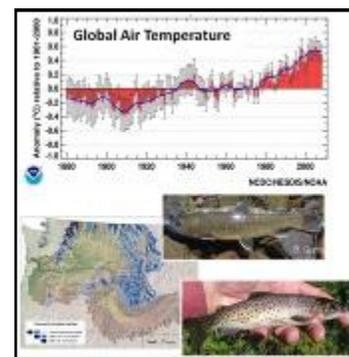
Co-chair: Dan Isaak; U.S. Forest Service, Rocky Mountain Research Station; (208) 373-4385; disaak@fs.fed.us

Co-chair: Jeff Kershner; USGS, Northern Rocky Mountain Science Center; (406) 994-7842; jkershner@usgs.gov

Co-chair: Robert Al-Chokhachy; USGS, Northern Rocky Mountain Science Center; (406) 994-5304; ral-chokhachy@usgs.gov

Co-chair: Jason Dunham; USGS, Forest and Rangeland Ecosystem Science Center; (541) 750-0990; jbdunham@usgs.gov

Description: Record warm and dry conditions across much of the U.S. during 2012 are a sobering reminder of the profound effects of climate. As formerly extreme conditions become the “new normal” this century, fish populations will have to adapt through behavioral, evolutionary, and distributional means. The amount and pace of change may be disruptive to biological communities and user groups in some areas. Understanding and predicting these changes with sufficient accuracy requires biophysical information across a range of spatial and temporal scales. Significant advances have been made in recent years towards improved understanding of climate effects on aquatic systems and this symposium will assemble presentations that cover the spectrum of this research across the western U.S. Complimentary presentations will also be solicited from representatives of key resource agencies and publics to facilitate a dialogue regarding how (and whether) the new information is useful.



PIT-Tag Technology: Progression from Novel to Standard Fisheries Tool

Chair: Steve Anglea; Biomark, Inc.; (208) 275-0011; steve.anglea@biomark.com

Description: PIT tags introduced into the Pacific Northwest in the mid-1980's were first used to evaluate survival through the hydroelectric projects in the Columbia River basin. Innovations such as multiplexing readers, high performance tags, and larger antennas have resulted in the widespread application of PIT-Tag technology as a fisheries tool. Advances in PIT-Tag technology, and the rate at which fisheries researchers and managers are adopting it, has created its own set of challenges related to data base management and analyses. Information on implantation techniques, monitoring juvenile and adult fishes, data base management and analyses, and management decisions will be presented.



Interactions of fish and hydropower operations in the west – an update on recent studies and trends in resource management in the FERC relicensing process

Chair: Matt Hutchinson; HDR; (503) 423-3722; matthew.hutchinson@hdrinc.com

Sponsor: HDR

Description: This symposium will examine current fish-related research at hydropower facilities in the west associated with FERC relicensing or similar processes. Long-term studies that were derived as part of FERC relicensing of existing dams have led to advancements in how hydroelectric facilities are configured or operated in relation to fish. The symposium will also provide an opportunity to discuss how research on fish interaction with traditional hydroelectric facilities can be used for future developments of alternative hydroelectric energy such as pump storage, small/micro hydro, and hydrokinetic.



2013 Meeting Symposia

Making Fishing Better – How fisheries management has improved the recreational angling experience

Chair: Dan Garren; Idaho Department of Fish and Game; (208) 525-7290; dan.garren@idfg.idaho.gov

Description: Today's fisheries biologists are inundated by a variety of challenges including ESA issues, native fish concerns, harvest allocation, dealing with climate change, hydropower development, habitat degradation and permitting and paper-work but still manage to carry out a primary function of fisheries management – providing quality recreational opportunities for sport anglers. Scientific conferences and agendas tend to reflect the challenges we face, but often overlook the fundamentals of fisheries management that are vital to meeting angler expectations. This symposium will provide the opportunity for presenters to highlight projects, research and/or management actions that have resulted in improvements to recreational fisheries or the fishing experience.



Sturgeon Management and Conservation: what have we learned and where are we headed

Chair: Ken Lepla; Idaho Power Company; (208) 388-2921; KLepla@idahopower.com

Description: Over the past 25 plus years, considerable research has been directed at white sturgeon to better understand basic ecology, population demographics, and the anthropogenic threats that have led to population declines. While much has been learned, there remains considerable work in further understanding mechanisms limiting productivity and recruitment for natural populations as well as the best use of aquaculture as a tool for conservation. This symposium will facilitate information sharing on issues facing white sturgeon and invites biologists, managers, and private sector interests to present information and perhaps new directions on research, management, and restoration activities for white sturgeon.



Status, Management, and Biology of Colorado River Fishes

Chair: Bill Stewart; Arizona Game and Fish Department; (623) 236-7368; bstewart@azgfd.gov

Description: With the headwaters in the Rocky Mountains of Colorado and the outflow into the Gulf of California, the Colorado River is home to a very diverse assemblage of fish species. Water development and the introduction of nonnative species for sportfishing have created numerous challenges for fisheries managers and finding a balance among the competing interests is often difficult. Presentations for this symposium will highlight what programs, research, and monitoring activities are in place to address such challenges along the Colorado River.



2013 Meeting Symposia

Aquatic vegetation management

Chair: Robert Hand, Idaho Department of Fish and Game; (208) 799-5010; robert.hand@idfg.idaho.gov

Description: This symposia will include updates on current research, case studies, techniques, and management strategies employed to manage aquatic vegetation for improving fish habitat, water quality, or recreation in western reservoirs and rivers.



Pacific Groundfish: current research and management strategies

Chair: Robert Hand, Idaho Department of Fish and Game; (208) 799-5010; robert.hand@idfg.idaho.gov

Description: This symposia will provide information on current research and management strategies being employed by Pacific Coast states to protect these economically and recreationally important fisheries.



Silver bullet or so much fertilizer? Synthesis and dialogue regarding the science and management of nutrient amendments as mitigation tools

Co-chair: T.J. Ross, Idaho Department of Fish and Game; (208) 769-1414; tj.ross@idfg.idaho.gov

Co-chair: Colden Baxter, Idaho State University; (208) 251-5980; baxtcold@isu.edu

Sponsor: Idaho Department of Fish and Game

Description: Fisheries scientists and managers have increasingly focused on the detrimental consequences to biodiversity and productivity of oligotrophication; reductions in nutrients that may be due, for instance, to losses of Pacific salmon or sequestration in reservoirs. These losses have elicited a range of management strategies, primarily nutrient amendments designed as mitigation.

This symposium will include presentations to synthesize findings and highlight major uncertainties from the suite of investigations that have evaluated

in-stream nutrient mitigation efforts, followed by a panel-facilitated dialogue regarding the management applications of such tools, including cost-benefit assessment and practical challenges of their application.



2013 Meeting Symposia

“If you build it – they all come” – the effects of competing nonnative salmonids in bull trout spawning and rearing habitat.

Chair: Wade Fredenberg; U.S. Fish and Wildlife Service; (406) 758-6872; wade_fredenberg@fws.gov

Description: Bull trout is an apex species that generally occurs at low density. Despite widespread range throughout the Pacific Northwest and impressive migratory capabilities, bull trout are heavily dependent on recruitment from relatively small patches of spawning and rearing habitat in 3rd and 4th order headwater streams. These patches, contain common attributes colloquially referred to as the 4C's: “clean, cold, complex, connected” and are often groundwater-linked. The effects of nonnative predators and competitors (e.g., lake trout, northern pike) and the various ecosystem threats that occur across the much broader range of bull trout foraging, migrating and overwintering habitat (e.g., lakes, reservoirs, mainstem rivers) have been heavily emphasized in the literature. Much less is known about the impact of competing congeneric brook trout and increasingly-prevalent brown trout being found in the relatively higher value and scarcer patches of spawning and rearing habitat. This symposium will focus on what we know and what we don't know about biological interactions between these non-natives and bull trout, with an additional focus on the effectiveness of potential management actions. Implicit is the attempt to clarify what the important attributes are for maximizing long-term productivity of bull trout in crucial spawning and rearing habitats.



Turning mitigation into beneficial conservation for native fish: challenges, successes, and the attempts to reach a comprehensive approach

Chair: Julie Meka Carter; Arizona Game and Fish Department; (623) 236-7576; jcarter@azgfd.gov

Description: Mitigation and conservation programs specifically tied to fisheries have been developed for decades to offset impacts of various activities including dam construction and operation, water delivery, extractive industry development, and sport fish stocking. There has been a recent movement to use mitigation dollars to a broader extent by considering it a tool to aid in the restoration and conservation of aquatic species in a more comprehensive manner. Thus there becomes an opportunity for fishery managers to develop meaningful conservation and mitigation programs to benefit certain species. This symposium invites speakers working on mitigation and conservation programs to discuss their program challenges, successes, and attempts to reach a comprehensive approach to ultimately benefit fisheries resources.

Challenges of invasive mollusks: threats, management tools and options

Chair: Christine Moffitt; USGS-University of Idaho; (208) 885-7047; cmoffitt@uidaho.edu

Description: Freshwater aquatic ecosystems are at risk from the potential colonization by invasive mollusk species such as zebra, quagga mussels, Asian clams, and New Zealand mudsnails. The symposium provides an opportunity for researchers and managers within the Western Division to exchange the latest information on selected infestations and review the approaches used to address these challenges. We profile some visible case histories of infestations and their consequences. In a panel discussion, we engage selected state and federal agency representatives to discuss the framework and conflicts of their regulatory authority, and their agency approach to prevent, contain, or eradicate existing infestations.



2013 Meeting Symposia

The Science of Science Communication: The Art of Telling Compelling Stories in a New Media Environment

Co-chair: Demian Ebert, (503) 227-1042 ext 22, demian.ebert@aecom.com

Co-chair: Jeremiah Osborne-Gowey, (541) 207-8105, jeremiahosbornegowey@gmail.com

Co-chair: Christina Swanson, (415) 875-6103, cswanson@nrdc.org

Co-chair: Tracy Wendt, (406) 214-2868, tracywendt@gmail.com

Description: Although scientific literacy rates are alarmingly low, the public responds with great interest when scientists share their research. Today people receive information instantly from a vast array of sources. Technological advances have resulted in a proliferation of new communication tools and interaction platforms. Scientists, however, are usually trained to communicate via journals and conference presentation to a limited audience and not with the policy-makers, popular media, or the general public. This hybrid symposium-workshop combines presentations from science communication leaders of various disciplines with audience participation activities designed to help scientists develop and improve their science communication skills.

Advancing techniques for modeling salmonid life cycles and population production: considerations and case studies

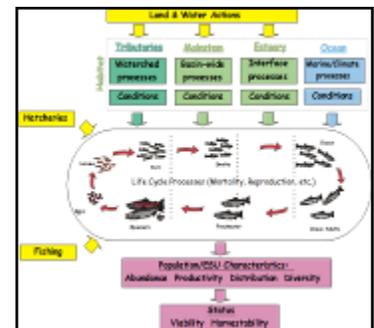
Co-chair: Timothy Copeland, Idaho Department of Fish and Game; (208) 465-8404; tim.copeland@idfg.idaho.gov

Co-chair: Eric Knudsen; Consultant; (360) 421-0828; eericknudsen@gmail.com

Co-chair: Jack Williams; Trout Unlimited; 541-772-7724; JWilliams@tu.org

Co-chair: Rich Zabel; NOAA Fisheries; (206) 860-3290; rich.zabel@noaa.gov

Description: Better techniques are needed to estimate salmonid production for conservation and fisheries management. Production potential synthesizes habitat capacity, life history, biological diversity, environmental variation, and number of spawners. Effects of management actions must be projected through the life cycle to evaluate demographic responses and inform decisions, especially for anadromous fish, which spend much of their life cycle far from sites of management actions. Our objectives are to 1) describe recent developments in integrated modeling of life cycles, 2) highlight research and case studies improving the scientific basis for estimating production potential, and 3) facilitate coordination of research and modeling efforts.



Advancements in co-management of anadromous fishes

Chair: Jay Hesse; Nez Perce Tribe; (208) 843-7145; jayh@nezperce.org

Description: Effective management involves a framework that encompasses the population in question (fish), its ecosystem (habitat), and society's values and behavior (people). Global scale actions are influencing our local natural resources at an increasing rate. The life cycle of anadromous fishes inherently crosses multiple natural resource management jurisdictions, making effective collaboration between managers paramount. Fisheries managers are demonstrating they are up to the task of refining co-management processes and collaborative on-the-ground actions. Presentations in this symposium will describe how fisheries managers have moved beyond arguments over harvest allocations and are now focused on working together to protect, restore, and enhance anadromous fish returns. Examples of joint management, joint operations, collaborative operational planning, integrated research, cost-share partnerships in the Columbia River Basin will be provided by tribal, state, federal, and non-governmental organization entities. Each fish management agency and interested user group has a unique set of goals; as such it is unrealistic to expect natural resources co-management to be void of conflict. However, by sharing examples of functional collaboration between anadromous fish management entities we hope to maximize the impact AFS members have in the complex world of anadromous fish.

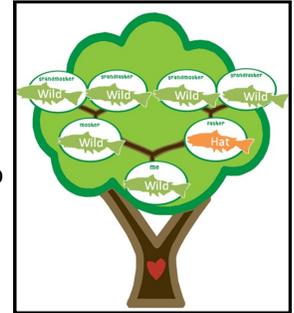
2013 Meeting Symposia

Establishing Common Ground in Reproductive Success Studies

Co-chair: Jay Hesse; Nez Perce Tribe; (208) 843-7145; jayh@nezperce.org

Co-chair: Shawn Narum; Columbia River Inter-Tribal Fish Commission; (208) 837-9096; nars@critfc.org

Description: Genetics-based reproductive success studies are increasingly utilized to inform management decisions. The relative reproductive success (RRS) calculation has provided a common metric for comparing the performance of naturally spawning hatchery and natural populations. However, variation in how studies are conducted, analyzed, and reported hinders direct and clear comparisons among studies. This symposium will bring together investigators of salmonid reproductive success studies in the Pacific Northwest to achieve two goals: 1) inform people on key factors of RRS analyses that influence interpretation and synthesis of results across studies, and 2) promote better standardization of reproductive success analyses and study design attributes.



Rangewide Status Assessment for Interior Redband Trout

Co-chair: David Lentz; California. Dept. of Fish and Game; (916) 445-3773; dlentz@dfg.ca.gov

Co-chair: Scott Grunder; Idaho Dept. of Fish and Game; (208) 287-2774; scott.grunder@idfg.idaho.gov

Co-chair: Stephanie Gunckel; Oregon Dept. of Fish and Wildlife; (541) 757-5109; stephanie.gunckel@oregonstate.edu

Description: During 2012, a multi-state, federal and tribal effort with funding from the Western Native Trout Initiative was completed to produce a rangewide status assessment for interior redband trout. This symposium will provide a venue for those interested and involved with redband trout to learn about information generated from the assessment, other research, and their contributions to management and conservation of redband trout.



Native species conservation and recreational fisheries for non-native gamefish in the Columbia River: Can we find a balance?

Chair: Terry Shrader; Oregon Department of Fish & Wildlife; (541) 388-6363; terry.m.shrader@state.or.us

Description: Walleye and smallmouth bass fisheries on the Columbia River provide substantial recreational and economic benefits but also impact several ESA-listed salmonid species. System complexity does not lend itself to simple solutions and a lack of specific information often results in broad management decisions that can polarize the situation even more. Management agencies trying to optimize angler benefits consistent with conservation of naturally produced native fish species are constantly challenged by competing interests as not "doing enough" to address their viewpoint. This symposium will consider the management dilemma faced by stakeholders with an interest in the Columbia River fisheries and native species conservation.



2013 Meeting Symposia

Pacific lamprey conservation and restoration: using data from the past, present, and future to better understand a complex critter

Co-chair: Brian McIlraith; Columbia River Inter-Tribal Fish Commission; (503) 731-1284; mcib@critfc.org

Co-chair: Chris Caudill, University of Idaho, caudill@uidaho.edu

Co-chair: Dale Allen; Idaho Department of Fish and Game, (208) 634-8137; dale.allen@idfg.idaho.gov

Description: Pacific lampreys (*Entosphenus tridentatus*), a culturally and ecologically important fish species, have declined throughout much of their range along the Pacific Coast. Efforts to better understand Pacific lamprey and ultimately restore populations will require managers to think creatively, utilize existing tools effectively, and apply emerging technologies proactively to put the lamprey puzzle together. This symposium will highlight existing efforts to address limiting factors and understand basic Pacific lamprey life history using standard and emerging techniques as well as evaluate how new information is being used to guide restoration efforts.



Aquatic Habitat Monitoring: What are we measuring, what trends are emerging, and how is the data being communicated?

Co-chair: Pamela Reber; Coast Fork Willamette Watershed Council; (541) 767-9717; coordinator@coastfork.org

Co-chair: Corey Lyman; USDA Forest Service; (208) 557-5838; clyman@fs.fed.us

Description: Well-established data collection methods may hold clear meaning and produce good metrics for the researchers who implement them, but do habitat biologists, restoration practitioners, and funders understand how to interpret the results? Good communication at the science-policy interface is increasingly difficult when there are multiple drivers for data collection and when outcomes and methods vary with each attribute. This symposium topic will review regional aquatic habitat monitoring trends, explore monitoring metrics validity and repeatability, and improve communication about aquatic habitat monitoring for all participants! Expert presenters on a range of widely-used methods will present key findings.



Lake and reservoir fisheries management: food web-based approaches

Chair: Andy Dux; Idaho Dept. of Fish and Game; (208) 769-1414; andy.dux@idfg.idaho.gov

Description: Lake and reservoir fisheries are becoming increasingly complex to manage given the rapid spread of introduced fishes and other aquatic invasive species and increasing alterations to lake and reservoir systems. As a result, it is becoming increasingly important to understand food web interactions in lakes and reservoirs to improve fisheries management in these waters. The goal of this symposium is to bring together fisheries professionals to share and discuss food web-based research and management approaches. This may include topics such as balancing predator-prey populations, lake fertilization, suppression of nonnative species, or evaluating factors that affect lake productivity and nutrient cycling.



2013 Meeting Symposia

Practical uses of age and growth information in fisheries management

Co-chair: Michael Quist; Idaho Cooperative Fish and Wildlife Research Unit, University of Idaho; (208) 885-4064; mcquist@uidaho.edu

Co-chair: Dan Schill; Idaho Dept. of Fish and Game; (208) 287-2777; dan.schill@idfg.idaho.gov

Description: The purpose of this symposium is to discuss current issues and ideas associated with age and growth analyses. Primary topics will include techniques associated with estimating age structure and growth rates, analysis of data, and sampling designs. Case studies are also welcome in the symposium to illustrate how age and growth data are used in the management of fish populations.



Columbia & Snake Rivers Mainstem Passage: Past, Present, and Prospects

Chair: Russ Kiefer; Idaho Dept. of Fish and Game; (208) 287-2790; russ.kiefer@idfg.idaho.gov

Description: This symposium will explore the emerging understanding of mainstem passage and the effects on juvenile migrations and adult returns. This symposium is organized into three segments. The first segment will be a brief review of past policies, science, and management decisions. Technical presentations in segment two will explore the emerging science and fish passage management with an emphasis on adult returns and life-cycle analysis. The final segment will consist of manager and stakeholder perspectives regarding future hydrosystem management, culminating with a panel discussion about incorporating the emerging science into decision making to meet public policy goals and legal requirements.



The management and science of upriver bright fall Chinook in the Columbia River basin-What are we learning and how can we use it?

Co-chair: Jeffrey Fryer; Columbia River Inter-Tribal Fish Commission; (503) 731-1266; frj@critfc.org

Co-chair: Russell Langshaw, Grant County Public Utility District; (509) 989-7305; rlangsh@gcpud.org

Co-chair: Ken Tiffan; U.S. Geological Survey; (509) 538-2299; ktiffan@usgs.gov

Description: Snake River and Columbia River Hanford Reach fall Chinook salmon populations provide comparisons and contrasts from two very different river environments. Both populations face challenges due to hydropower development, but one is ESA listed and the other is the largest spawning population of fall Chinook salmon in the contiguous United States. Current research is dramatically improving our understanding of the relationships between river conditions and survival at all life-stages. Some long-standing commonly held beliefs are being confirmed, others are being rejected, and new theories developed during our quest for more effective management and protections.



2013 Meeting Workshops



Power-Based Standardization In Electrofishing

Organizer: James B. Reynolds

University of Alaska-Fairbanks

jbreynolds@alaska.edu, (480) 414-7993



Location: Boise Centre

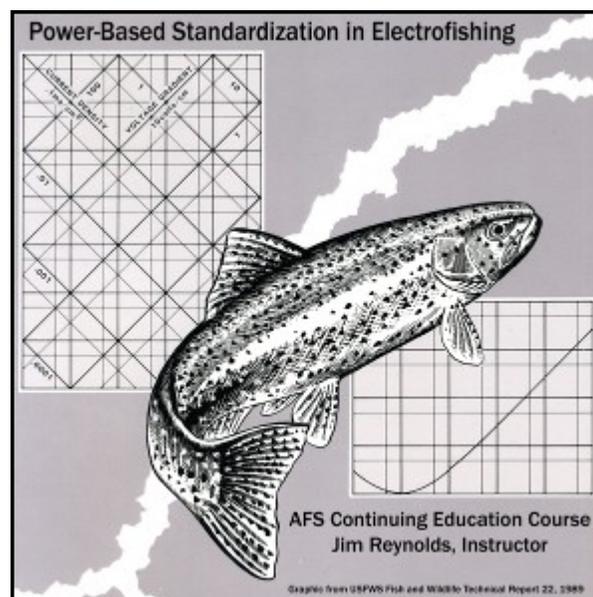
Workshop Length: Half Day—April 15

Cost: \$30

Lunch: On your own

Workshop Abstract:

Standardization of electrofishing, a common sampling method, requires an understanding of electrical principles, particularly power transfer theory. This half-day course will present the theory and practice of power-based standardization in electrofishing, and be presented in three 70-minute sessions with two intervening 15-minute breaks. Basic electrical principles, including power transfer, will be covered in Session 1; elements of power-based standardization in Session 2; and development of standardized power procedures in Session 3. Participants will receive an overview of the proper approach to electrofishing standardization, regardless of method (e.g., boat, backpack).



2013 Meeting Workshops



Spatial Statistical Modeling on Stream Networks

Jay M. Ver Hoef, NOAA Alaska Fisheries Science Center

Erin E. Peterson, CSIRO

Daniel J. Isaak, U.S. Forest Service RMRS



Organizer: Daniel Isaak, disaak@fs.fed.us, (208) 373-4385

Sponsor: U.S. Forest Service

Location: Idaho Water Centre, 322 E. Front Street

Workshop Length: Full Day—April 15

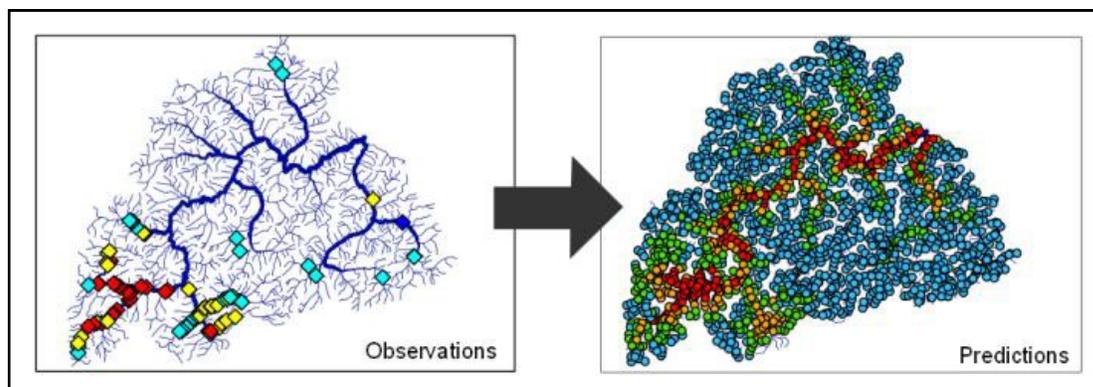
Cost: \$100

Registration Limit: 25

Lunch: On your own

Workshop Abstract:

Using actual stream data, using FREE software packages, we will – Provide an overview of spatial statistical modeling on stream networks, including a discussion of when they are, or are not, useful; Share two sets of user-friendly tools: STARS ArcGIS toolset and SSN package for R Statistical Software; Demonstrate the GIS tools and the steps necessary to calculate the spatial information needed to fit a spatial statistical model in R; Demonstrate the statistical tools and their functionality, using an existing stream temperature dataset: spatial regression and prediction for continuous, presence/absence, and count data, block kriging and prediction, simulation, uncertainty estimation, and visualization techniques



2013 Meeting Workshops



Physical and Biological Considerations Related to the Use of Wood in Aquatic Habitat and Stream Restoration Actions

George Pess, NOAA-NWFSC

Roger Peters, USFWS

Mike McHenry, Elwha Tribe

Tim Abbe, PEG/PHG, Natural Systems Design

Jeanne McFall, PSMFC/IDFG



Organizer: Jeanne McFall, PSMFC/IDFG, jeanne.mcfall@idfg.idaho.gov, (208) 287-2792

Location: Boise Centre

Workshop Length: Full Day—April 15

Cost: \$70

Registration Limit: 42

Lunch: On your own

Workshop Abstract:

This Workshop, taught by leading experts in the field of stream restoration and fish response, will focus on improving habitat through the use of wood structures. Included will be an overview of fluvial processes and river dynamics, hydraulic considerations and structure design, implementation and logistics (including permitting), and lessons learned through years of design and construction. Also included will be a discussion on the evolution of project monitoring and the biological response, design of monitoring plans, and the dynamics of fish populations post-construction. We will culminate with an open dialogue from participants and the challenges faced by audience practitioners.

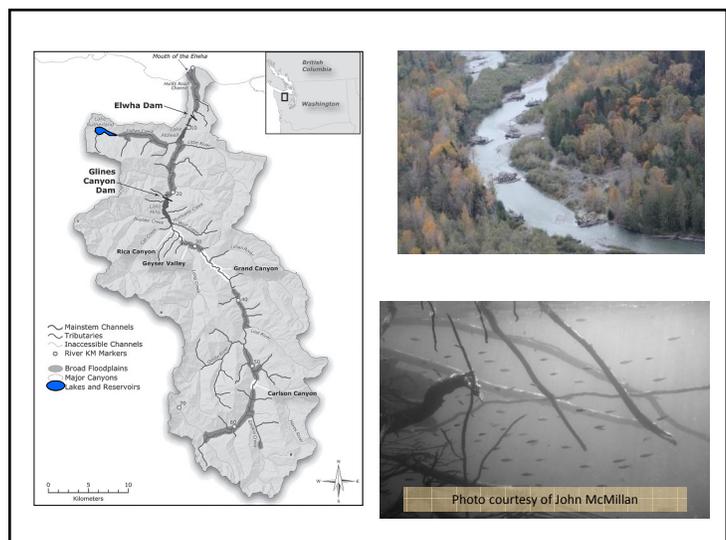


Photo courtesy of John McMillan

2013 Meeting Workshops



Physiological Stress in Fish Culture and Fish Management

Organizer: Doug Munson, Idaho Department of Fish and Game

doug.munson@idfg.idaho.gov, (208) 939-2413



Location: Boise Centre

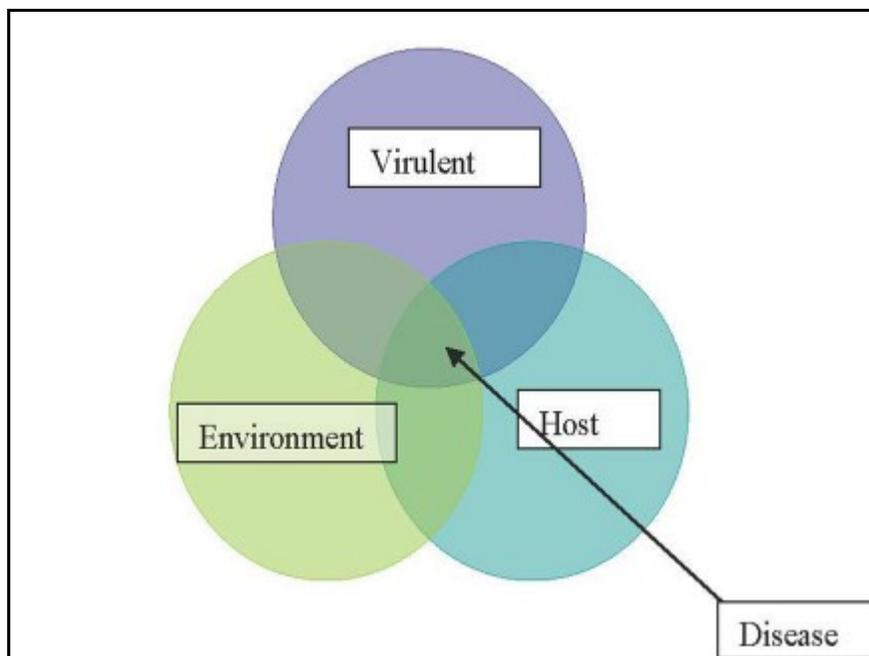
Workshop Length: Half Day—April 15

Cost: \$25

Lunch: On your own

Workshop Abstract:

This half day continuing education program will present multiple topics of physiological stress as it relates to fish culture and fish management. Topics will include General Adaptive Syndrome (effects of bad stress) and explore the concepts of training fish to handle stress (good stress) so they might survive at higher rates after release from a hatchery setting. Concepts presented at these presentations will be applicable to fish culture and hatchery management. If you have any questions please call Doug Munson at (208)939-2413 or Bryan Grant at(208)427-6364.



2013 Meeting Workshops

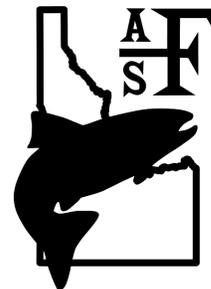


How Many Different Ways is this Method Implemented?

Discussion of best practices for snorkeling methodology and pool measurement methods.

Amy Puls, PNAMP

Jacque Schei, PANMP



Organizer: Jacque Schei, jschei@usgs.gov, (509) 538-2299 ext. 282

Location: Boise Centre

Workshop Length: Half Day—April 15

Cost: \$25

Registration Limit: 20

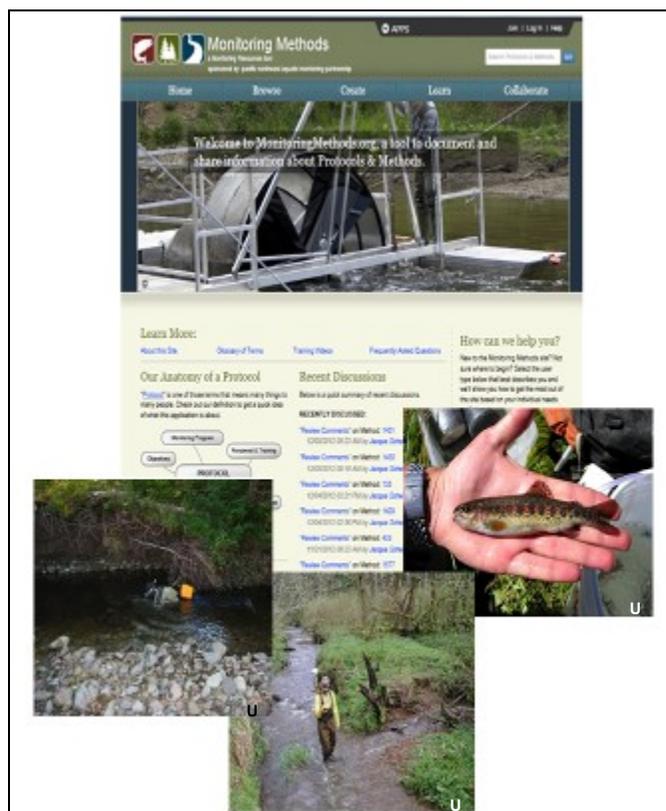
Lunch: On your own

Workshop Abstract:

Please join us for a half day workshop to discuss best practices and learn how MonitoringMethods.org can inform and support methods reviews by the community.

Developed by the Pacific Northwest Aquatic Monitoring Partnership (PNAMP), MonitoringMethods.org is an online tool that supports documentation of methods and protocols. It also provides an easily accessible library of methods and protocols to support sharing and collaboration. MonitoringMethods.org content

has grown to a point that we can now see trends, including documentation of seemingly redundant techniques. Are these methods really documenting different techniques and if so, why? In this workshop, we'd like to convene subject matter experts to discuss the intricacies of how a particular method is implemented. We will focus on two topics: snorkeling methodology, possibly including a mark-recapture element in the discussion, and methods for measuring pool characteristics.



2013 Meeting Workshops



Student Colloquium

Organizer: John Walrath, University of Idaho/PUAFS

walr7955@vandals.uidaho.edu, (308) 750-1898



Location: Boise Centre

Sponsor: Western Division and Idaho Chapter AFS

Workshop Length: Full Day—April 15

Cost: \$25

Registration Limit: 20

Lunch: On your own

Workshop Abstract:

The student colloquium workshop is an opportunity to practice giving your presentation in front of an audience. Feedback will be given on presentation style, tone, organization, etc. by both students and professionals. This is an all day event with a morning and afternoon break during which snacks will be provided, but lunch will be on your own. This is a great opportunity to present your research more than once at a meeting of your peers.



Photo courtesy of Lake Superior State University

Announcements

Acoustic Tag and Hydroacoustic Winter Short Courses

Using Acoustic Tags to Track Fish - http://www.htisonar.com/at_short_course.htm

7—8 February, 2013 from 9 AM—5 PM in Seattle, Washington

This short course addresses all aspects of tracking fish movement with acoustic tags, including three-dimensional tracking with sub-meter resolution. The course includes hands-on-operation and a variety of applications are covered.

Using Hydroacoustics for Fisheries Assessment - http://www.htisonar.com/ha_short_course.htm

14—15 February, 2013 from 9 AM—5 PM in Seattle, Washington

The hydroacoustic short course covers mobile and fixed-location survey techniques, and subjects include basic hydroacoustic theory, deployment logistics, data collection and processing, as well as typical results. Split-beam, single-beam, and multi-beam frequency techniques are discussed in detail. For more information or to save a seat for either of these courses, email support@HTIsonar.com.

Smith-Root Introduction to Electrofishing Courses in 2013

Smith-Root, Inc.'s Introduction to Electrofishing courses for 2013 will be held March 12—13, April 18—19, May 7—8, and September 24—25 at their headquarters in Vancouver, Washington, USA. This two-day course includes classroom and hands-on training in the field with backpack electrofishers. For more information go to www.smith-root.com or call (360) 573-0202.

9th Indo-Pacific Fish Conference, Okinawa, Japan

Alexei M. Orlov (orlov@vniro.ru) of the Russian Federal Research Institute of Fisheries & Oceanography, Moscow, Russia is organizing a symposium on Top predatory fish in the Indo-Pacific ecosystems at the 9th Indo-Pacific Fish Conference, Okinawa, Japan, (<http://www.fish-isj.jp/9ipfc>) **June 24—28, 2013**.



Top predatory fishes of Indo-Pacific region are represented by the variety of different species, including sharks, large skates and rays, barracudas, lancetfish, daggertooth, tunas and billfishes, halibuts, sablefish, cod, toothfishes, etc. However, diet compositions and forage resources consumed by these large predators are studied insufficiently, level of feeding competition between them is largely unknown, and the role of top predators in the ecosystems is poorly understood. Meanwhile, many of top predators are important targets (e.g. tunas, billfishes, halibuts, cod, sablefish, toothfishes) of trawl, longline, net, pot, trap, and troll fisheries. These fisheries may impact ecosystem structure (e.g., if large top predators are overfished, abundance of forage fishes may increase or one predatory fish might be replaced by another). The knowledge of feeding habits and trophic relations of large top predatory fishes might help to understand fluctuations of their abundance and to make exploitation of their resources sustainable.

Announcements

International Conference on Engineering & Ecohydrology for Fish Passage—Fish Passage 2013

June 25—27, 2013—Oregon State University

The 2013 International Conference on Engineering & Ecohydrology for Fish Passage (Fish Passage 2013) promises to be an important international forum to exchange findings and experiences on fish related passage issues. Fish Passage 2013 will be of interest to researchers, educators, practitioners, funders, and regulators who have an interest in advancements in technical fishways, nature-like fishways, stream restoration and stabilization, dam removal, road ecology, and the myriad of funding, safety, climate change, and other social issues surrounding watershed connectivity projects.

This is a three-day conference with concurrent sessions in engineering, biology, and management and social issues. The conference will also feature plenary talks, professional networking opportunities, and a poster session. Independently offered short courses and workshops will be available immediately before and after the conference. For more information please see: <http://fishpassage.umass.edu/>

Prince William Sound Science Center awarded contract to study the interactions of wild and hatchery pink and chum salmon

The Prince William Sound Science Center (PWSSC) has been awarded a major contract by the Alaska Department of Fish and Game (ADFG) for a 4-year study entitled “Interactions of Wild and Hatchery Pink and Chum Salmon in Prince William Sound and Southeast Alaska.” The overarching questions that need to be addressed for the State of Alaska are:

1. What is the extent and annual variability in straying of hatchery pink salmon in Prince William Sound (PWS) and chum salmon in PWS and Southeast Alaska (SEAK)?
2. What is the impact on fitness (productivity) of wild pink and chum salmon stocks due to straying of hatchery pinks and chum salmon?

The PWSSC has been contracted primarily to collect the large amounts of field data to support scientific analyses to answer these questions. The study was designed by a Science Panel organized by ADFG consisting of experts on salmon biology and management, genetics, hatchery issues, and experimental statistics.

According to PWSSC President Katrina Hoffman, the contract study will be organized into three projects: PWS stream sampling (Dr. Tom Kline, Project Leader); ocean sampling (Dr. Michele Buckhorn, Project Leader); Southeast Alaska stream sampling (Tory O’Connell, Project Leader). Dr. Eric Knudsen will serve as overall project manager and science coordinator, under contract to the PWSSC. The Southeast Alaska stream sampling project is being subcontracted to the Sitka Sound Science Center.

Some preliminary field work started in 2012 but the larger effort will begin in 2013 and continue through 2016. To achieve the scientific objectives will require that adult salmon are sampled in about 65 streams two to three times in each spawning season and that about 280 standard offshore fishing sites be sampled with a gillnet. Bone and tissue samples will be collected from adult fish to identify their hatchery-wild origins and, in a subset of streams, their DNA signatures. The streams sampled for adult DNA will be resampled for alevin DNA in the spring to determine the relative reproductive success of the genetically identified hatchery and wild offspring.

Results from this study will help ADFG salmon managers make informed decisions about hatchery and wild salmon management. For more information contact Katrina Hoffman at khoffman@pwssc.org or (907) 424-5800.





American Fisheries Society

Western Division

AFS Western Division Riparian, Watersheds and Habitat Committee

- 2013 Riparian Challenge Call for Entries -

The Riparian, Watersheds and Habitat Committee is seeking entries for the Western Division's 2013 Riparian Challenge Award. The Forest Service, Bureau of Land Management and other conservation agencies or private industries in the region encompassed by the Western Division (twelve western states, British Columbia, Yukon Territories, and Mexico), are invited to participate in the Riparian Challenge. Winners will receive the Western Division's Award of Excellence in Riparian Management to be presented at the American Fisheries Society's Western Division Annual Meeting hosted by the Idaho Chapter in Boise, Idaho, April 15—18, 2013. The purpose of the Riparian Challenge award is to:

- Encourage the Bureau of Land Management, Forest Service, and other conservation agencies or private industry to strive for excellence in riparian and watershed habitat management,
- Encourage agencies to progress in on-the-ground accomplishments which when added together throughout the West, will significantly improve riparian systems,
- Recognize managers and resource specialists for their efforts in maintaining, restoring, and improving riparian and watershed ecosystems.

If you are aware of a project that should be considered for the award, please ask the appropriate USFS, BLM, conservation agency or industry to submit an entry form. Winners will be selected in the following categories:

BLM

- Best Resource Area or Field Office

Forest Service

- Best Ranger District

Other (conservation agencies, consultants, or private industry)

- Best Riparian Project

More information, along with a description of the entry format, criteria for evaluating entries, and examples of recent winning entries, please visit:

<http://wdafs.org/awards/information-deadlines-applications/riparian-challenge-award/>

Questions concerning the Riparian Challenge and completed electronic entries should be emailed to the Riparian Challenge Committee Chair, Troy Brandt (tbrandt@riverdesigngroup.net, (503) 307-8367). Entries are to be submitted by **March 1, 2013**.



Win the honor of having YOUR writing published In Fisheries!

Student Writing Contest Now Accepting Submissions

Submission deadline
April 1, 2013

Submissions should be directed to:

Walt Duffy, USGS California Coop
Fish & Wildlife Unit, Humboldt
State University, Arcata, CA
95521

Questions?

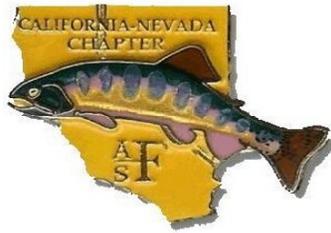
Call Walt Duffy at (707) 826-5644
or email
walter.duffy@humboldt.edu

The **American Fisheries Society Student Writing Contest** recognizes students for excellence in the communication of fisheries research to the general public.

Undergraduate and graduate students are encouraged to submit a 500- to 700-word article explaining their own research or a research project in their lab or school. The article must be written in language understandable to the general public (i.e., journalistic style). The winning article will be published in ***Fisheries***.

Students may write about research that has been completed, is in progress, or is in the planning stages. The papers will be judged according to their quality and their ability to turn a scientific research topic into a paper for the general public and will be scored based upon a grading rubric. Check the AFS Web site (www.fisheries.org) awards page for the grading rubric.

AMERICAN FISHERIES SOCIETY



BIODIVERSITY OF CALIFORNIA AND NEVADA FISHES

47th Annual Conference of the California-Nevada Chapter

April 4th – April 6th, 2013

Davis Veterans Memorial Center

203 East 14th Street, Davis, CA, 95616

FIRST CALL FOR PAPERS AND POSTERS

Conference Background

The theme of the 47th Annual Conference of the California-Nevada Chapter of the American Fisheries Society is “The Biodiversity of California and Nevada Fishes”. This year’s theme is intended to focus our attention on the bioregional diversity of fishes in California and Nevada. Sessions will be organized around the different bioregions and will explore the amazing diversity of fish under the purview of our chapter. There will also be a special student-run symposium to showcase the up-and-coming generation’s scientific research.

This call for papers seeks oral and poster contributions relevant to the conference theme on topics falling under the following bioregions: Coastal, Estuarine, Great Basin, or Sacramento-San Joaquin.

Abstract Submission

Abstracts are due March 1, 2013. Abstract submission must include:

1. Type of presentation preferred (oral or poster)
2. Topic area from above list of bioregions, or general fisheries science
3. Title, in upper/lower case type using as few words as possible
4. Author(s) name(s) as they should appear in the abstract book, full affiliation, and mailing address, and phone, fax, and email address
5. Name of presenter and contact person if different from first author
6. Students indicate participation in “best student paper or poster”
7. Text of abstract in 300 words or less

Important: Write “Cal-Neva AFS Abstract” in subject line of email

Please email abstracts to: Patrick Crain, President-Elect, Cal-Neva AFS, at:

afs.calneva@gmail.com



Save the Date



After a rewarding 2013 Western Division AFS meeting in Boise, Idaho, start making plans to attend the 2014 Western Division AFS meeting in Mazatlan, Mexico



April 7—12, 2014



About the Tributary

The Tributary is the newsletter of the Western Division of the American Fisheries Society published four times per year.

Editor

Travis Neebling Travis.Neebling@wyo.gov

About the American Fisheries Society

The mission of the American Fisheries Society is to improve the conservation and sustainability of fishery resources and aquatic ecosystems by advancing fisheries and aquatic science and promoting the development of fisheries professionals.

<http://www.fisheries.org>

About the Western Division of the American Fisheries Society

Established as the first Division of the [American Fisheries Society](#) in 1948, the Western Division now includes [Chapters](#) from twelve western states, British Columbia, Yukon Territories, and Mexico. Our members represent a tremendous array of fisheries workers involved in all aspects of the fisheries profession. The collective diversity and expertise of Western Division members is the basis of an intimate and unparalleled familiarity with fisheries resources and issues within our geographic region. Division objectives are to provide a forum for exchanging technical and policy information, promote understanding by regional, Federal, and state policy-makers of the nature and extent of fishery matters of concern to the membership, facilitate timely exchange of information to chapters and the general membership, and provide a vehicle for the active participation of individual members in Society business and professional activities.

<http://www.wdafs.org>