



Newsletter

Nov 2016
Vol. 29, No. 2

Genetics Section of the American Fisheries Society

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Photo by Jay Flemming / CC BY

Welcome to the redesigned AFSGS newsletter

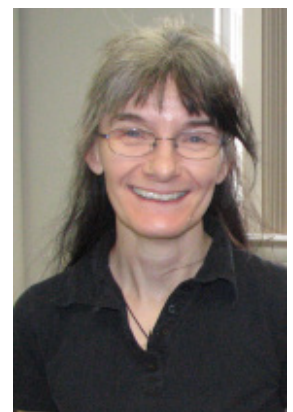
We are seeking contributions to future newsletters, including:

- Job, workshop, and event announcements
- Brief research updates and news
- Feature research articles
- Conference, field work, and lab work photos
- Retirement/promotion announcements
- Other original contributions

Send materials to Jared Homola at jared.homola@maine.edu

President's message

I would like to start my first message by thanking all our outgoing officers and volunteers. Your excellent work continues to keep the Section's activities such as the website, newsletter, and awards running and improving. In particular, I would like to thank outgoing President Jeff Olsen for his work. During the last two years Jeff worked with AFS Constitutional Consultants to update the Section's by-laws, helped organize symposia, developed travel awards, and worked with the Communication Committee and Section volunteers to improve the website and other tools for communicating with Section members, other Society members, and non-members. I look forward to continuing to work with Jeff as he moves into his term as Past-President.

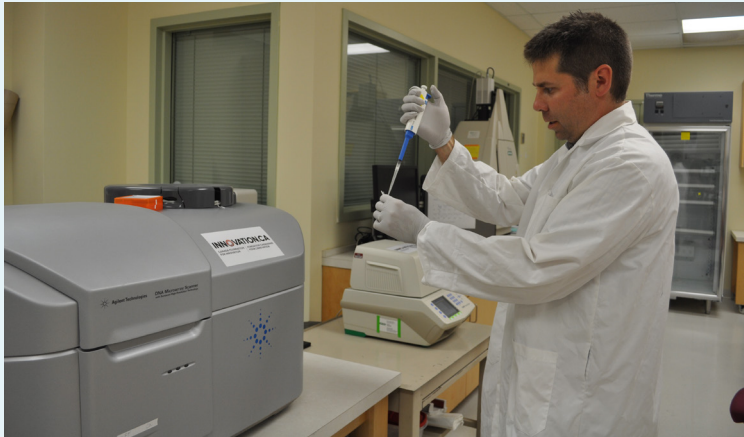


Dr. Wendylee Stott
AFSGS President

Changes to the AFS website and other online services will continue as the Society moves towards its sesquicentennial in 2020. Perhaps take a look at the new website (<http://fisheries.org/>), if you have not already, and while you are there please consider renewing your membership (<http://fisheries.org/membership/>). If you have already renewed, thank-you very much!

Continued on next page

AFSGS Announces Inaugural Early Career Award Recipient



Dr. Scott Pavey
AFSGS 2016 Early Career Award Recipient

My interest in fish started at the age of 5, in a fishing boat with my father and grandfather. Our family vacations in Minnesota were centered on fishing.

When choosing my undergraduate university, I had become more interested in terrestrial ecology and I obtained a Wildlife Biology BSc. (Fisheries Biology minor) at Colorado State University. I then moved to Alaska to find a job in my field. After a summer of nest searching for Canada Geese, I found a job

with the USGS in their Ecological Genetics lab, extracting DNA for various fisheries projects. That led to an MSc program at University of Alaska Anchorage (Advisors: Jocelyn Krebs and Jennifer Neilsen). During the program I completed the graduate course, Advanced Evolution given by Frank von Hippel (now at Arizona State University) and it opened my eyes to the mysterious process of evolution.

[Continued on next page](#)

President's message cont'd

Your Section dues help support awards for student travel to AFS and other relevant meetings. In addition to the annual James E. Wright travel award, the Section provided awards for students to attend the Fisheries Society of British Isles Symposium in Bangor, Wales and the 2016 Coastwide Salmonid Genetics meeting in Astoria, OR. More details on the meeting in Wales can be found in articles by Taylor Wilcox and Ron Essig. These conference experiences are an important part of student development and would not be possible without your support. This year the Section is partnering with the organizers of the 13th International Coregonid Symposium in Bayfield, WI in September 2017 (<http://www.coregonid2017.com/>) to provide a student travel award. So, if you know a student who works on this interesting group of fishes who would like the chance to meet coregonid enthusiasts from around the world, please encourage them to apply.

I hope that everyone who made it to the annual meeting in Kansas City enjoyed the trip and had a productive meeting. I appreciate the effort people made to attend the business meeting. This is where we get to honor our award winners and network with colleagues face-to-face (and maybe enjoy a beverage or two). Thank-you! If you missed the meeting, you

can read the minutes of the meeting in this newsletter. The Section was well represented in many symposia ranging from ancient fishes to social media and there were many excellent talks showing innovative uses of genetic methods for fisheries management. While it feels like the meeting just happened and next year is still far away, the deadline of January 20, 2017 for symposia proposals for the next annual meeting (<http://afsannualmeeting.fisheries.org/>) in Tampa, FL is just over two months away. President-Elect, Andrew Whiteley is the Chair of our Program Committee, so if you have any ideas for developing a proposal for Section sponsorship, please contact him (andrew.whiteley@mso.umt.edu).

I hope you take the time to read and enjoy the rest of our newsletter; it is Jared Homola's first edition as editor. I hope you all have a safe and happy holiday season, or as our much-missed colleague Tim King would say: Fair winds and following seas!



January 20, 2017
Symposia proposals due

March 17, 2017
Symposium, contributed paper
and poster abstracts due

Details at
afsannualmeeting.fisheries.org

Early Career Award Cont'd

What better group than fish could one imagine for evolutionary studies? I went on the a PhD program in 2006 to study sockeye salmon that spawn in the Aniakchak volcano on the Alaska Peninsula (Advisors: Felix Breden, Troy Hamon, and Jennifer Nielsen). They turned out to be a fine example of colonization and local adaptation. This work occurred at the same time that technology for genomics advanced rapidly, and I was able to use gene expression microarrays to characterize the transcriptome of juvenile sockeye in nature. I noticed that many of the genes differentially expressed in river vs lake sockeye salmon were undescribed. The annotation of unknown genes and the ecological role of genes have now become some of my long-term research interests.

I started a postdoc at Laval University with Louis Bernatchez in 2010. His lab has remained at the forefront of applying genomic tools to understand ecology and evolution. I realized that I needed new skills, including computer programming and linux commands in order to handle large files of raw sequences. I became involved with many projects surrounding genomics, especially with the American Eel. In the capstone manuscript (Pavey et al. 2015 Current Biology) of my time there, we found that despite panmixia, subtle genetic differences could be found among rearing groups. They dissolve and reform every generation through either genotype dependent habitat choice or within generation selection. This work called into question the longstanding principal that the diverse and strange phenotypes in American Eel are 100% due to plasticity. We were able to assign protein coding genes to these genetic differences, thanks to our work sequencing the American Eel genome, which is now publically available on Genbank and the paper is online early at Molecular Ecology Resources.

This led to my current position, a Canada Research Chair at University of New Brunswick and the Canadian Rivers Institute that started in 2015. The Canadian Rivers Institute is a consortium of professors across Canada, and North America focused on applied science, public outreach and training. The goal is to make every river a healthy river.

I have built a full service Ecological Genomics lab and currently supervise 7 students at various levels and one postdoc. Our current projects mostly center on species important to people



Photo by Beth Beard, AFS

(Striped Bass, Atlantic Cod, American Eel). We scan genomes to find how neutral and adaptive genomic differences are distributed on the landscape.

It was a great honor to receive the Early Career Award from the AFS Genetics Section. Being recognized by such a highly respected group will help me with my career goals. I believe this new award will also help the section increase membership and current members to become more active in AFS. I am happy to announce that my PhD students are becoming first time members in 2017. They both presented in the Atlantic International Chapter annual meeting and I currently serve as the chapter President.

2016 Annual Meeting Summary

By Wendylee Stott, AFSGS President

For the 2016 AFS annual meeting we met in Kansas City August 19-25. The theme of the meeting was 'making connections and building partnerships' and there were several symposia that discussed the challenges fisheries biologists can face in both these activities as well as many networking activities and a lot of great food. The three plenary speakers (Hal Schramm, Jr., Danielle Brigida, and Zeb Hogan) gave examples of how connections can be made using tools that ranged from television, to social media, to bad fish puns. Although there were no specific genetics-related symposia, the Genetics Section was well represented in all the symposia and contributed paper sessions. Talks and posters covered a broad range of species and questions including everything from ancient fish, to satellite tagging and tracking via social media to invasive carp management and showed, as it does every year, that Section members are contributing to the management of fish across the world and are a social media savvy group.

Congratulations to the Genetics Section's 2016 Award Recipients!

The James E. Wright Graduate Award is given in the memory of Jim Wright, one of the founders of fish genetics research and education in North America. The work of Jim Wright and his students combined classical chromosome studies with allozyme inheritance and helped shape our understanding of the salmonid genome. The award is presented annually at the Genetics Section meeting during the AFS Annual Meeting to recognize excellence in graduate-level work in fisheries genetics and to assist graduate students with travel to the national meeting.

Awardees for 2016:

Lucas Nathan, University of Connecticut
 "Using Riverscape Genetics to Inform Conservation of Eastern Brook Trout Populations" Co-advisors: Jason Vokoun, Amy Welsh

Jackman Eschenroeder, Georgia Southern University
 "Hybridization and Replacement of Roanoke Bass with Invasive Rock Bass in Virginia: A Genetic Analysis of the Problem" Advisor: Jamie Roberts



Jackman Eschenroeder (left) and Nathan Lucas (right) accepting their James E. Wright awards.



Christine Kozfkay accepts the Stevan Phelps award on behalf of Fisch et al.

The Stevan Phelps Memorial Award was created in 2000 as a perpetual memorial to Steve who died prematurely from cancer in 1999. The award, which honors Steve's strong commitment to publication of applied genetic research in fisheries, will be given annually for the best genetics paper published in an AFS journal the preceding year.

Awardees for 2016: Kathleen M. Fisch, Christine C. Kozfkay, Jamie A. Ivy, Oliver A. Ryder, and Robin S. Waples were awarded for their paper, "Fish Hatchery Genetic Management Techniques: Integrating Theory with Implementation" in the North American Journal of Aquaculture 77:343-357.



Jeff Olsen receives a certificate of appreciation for his service as the AFS Genetics Section President from 2014-2016.

Help name our newsletter!

We'd like to tap into the Section's creative minds to name our newsletter.

Send your genetics or fish related name suggestions to:

jared.homola@maine.edu

FSBI Meeting Summary

By Taylor Wilcox

AFSGS/FSBI Travel Award Recipient

In July, with travel support from the Genetics Section, I attended the annual symposium of the Fisheries Society of the British Isles in Bangor, North Wales, UK. I was particularly excited about this year's theme: Fish, Genes, and Genomes: Contributions to Ecology, Evolution, and Management. The diversity of systems and questions that fit under this theme was on full-display. Study systems ranged from farmed salmonids to pelagic elasmobranchs and research questions ran the gamut including Ne estimation, stock assignment, environmental DNA, phylogeography, and more.

Just as striking as the diversity of research questions was the diversity of delegates. This was truly an international meeting with delegates hailing from every continent except Antarctica. Most delegates were not from the UK. Less than a month after the UK referendum to leave the European Union, researchers and managers in the UK and across Europe were still seeking to understand what this means for their research programs and multi-national collaborative projects. This meeting was a powerful reminder of the commitment to global collaboration among fisheries professionals which is robust to the ups and downs of the larger geopolitical climate.



Past AFS President Ron Essig (L) and FSBI President Iain Barber (R) present Taylor Wilcox with the AFS Genetics Section's travel award. Photo by Martin Taylor.

2016 Annual Symposium of the Fisheries Society of the British Isles

Finally, the meeting was made all the more enjoyable by our welcoming hosts who did an excellent job organizing accommodations, venue, food, and social events in beautiful Bangor. Even the North Wales weather decided to cooperate with a string of warm and sunny days. No guarantee that you'll be as lucky on the weather, but I'd highly recommend stopping by if you ever find yourself in that part of the world.

Thank you again to the Genetics Section for the travel support! As they say in Bangor: Cheers!

FSBI Symposium

By Ron Essig, AFS Past President

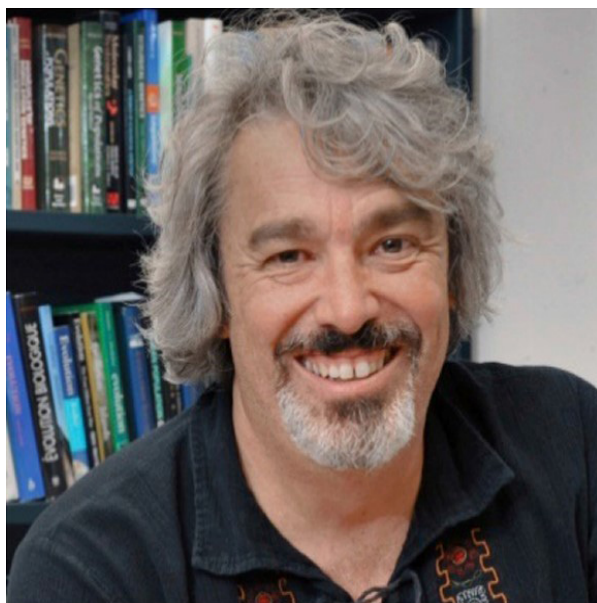
AFS has Memoranda of Understanding with six fisheries societies in other parts of the world. These all feature officer exchanges where Presidents attend each other's society meetings. One of these meetings that I attended July 19-22, 2016 was the Fisheries Society of the British Isles (FSBI) annual symposium at Bangor University in Wales. FSBI meetings have very focused topics and in 2016 this was "Fish, Genes and Genomes: Contributions to Ecology, Evolution and Management." Key themes at the symposium were: adaptation and evolutionary change; phylogenomics; community ecology and evolution; management of wild and capture populations; and fish, molecules and policy. The primary meeting organizer was FSBI Vice President Gary Carvalho of Bangor University.



Attendees of the 2016 Annual Symposium of FSBI. Photo by Martin Taylor.

Continued on page 11

2016 Hall of Excellence Inductees



Dr. Louis Bernatchez

Dr. Louis Bernatchez has been a professor at Laval University in Québec (Canada) since 1995. Since 2006, he has been the Canadian Research Chair in Genomics and Conservation of Aquatic Resources. His research program aims to acquire fundamental knowledge on evolutionary processes responsible for generating and maintaining genetic diversity within and among populations. He is also an elected member of the American Association for the Advancement of Science as well as an elected member of the Royal Society of Canada. The most distinctive character of his research program lies in the integrative approach that combines the fields of quantitative and functional genomics, population genomics, bioinformatics, physiology and ecology. Throughout his career Louis has been at the forefront of integrating the newest conceptual and analytical approaches to address consequential questions of both a basic and applied nature. He has investigated the origin of species in novel environments and defined conservation and management units based on strong evolutionary criteria. He has led numerous collaborative projects involving both private and government sectors that have been funded by the most competitive programs in Canada and coordinated international teams involving many researchers from Canada and 20 other countries. Louis has trained over 140 students and Postdoctoral Fellows, the majority of whom now occupy high quality positions throughout the world. He has published over 350 research articles, book chapters, and presented numerous times as invited, keynote, and plenary speakers at scientific meetings world-wide.



Dr. Jennifer L. Nielsen

After early motherhood, various artistic accomplishments, and work in forestry for Weyerhaeuser Company, Dr. Jennifer Nielsen entered graduate school at UC Berkeley in 1988, age 42. An MSc in animal behavior under Dr. George Barlow led to many new questions including the role of genetics. Working toward her PhD she became involved in the Dr. Alan Wilson Laboratory and started working on DNA. Publication of her PhD Dissertation on mitochondrial DNA analyses of Pacific steelhead throughout California completely changed the way California managed its steelhead fishery. A scientist position at Hopkins Marine Station, Stanford University after graduation helped establish a genetics laboratory dedicated to California trout and salmon. She worked in this capacity for five years until she was hired by US Geological Survey in Anchorage to run their fisheries program where she continued to research fish genetics and ecology in both freshwater and marine fishes. During this period she encouraged the development of DNA labs throughout the US and other countries, working on fish genetics in Mexico, New Zealand, France, Denmark, Holland, Norway, Russia, and South America. She worked in Alaska until 2010 when she retired from USGS and joined the Faculty at The Evergreen State College in Olympia, WA. She taught marine biology and sponsored Evergreen students in genetics with an affiliation with Oregon State University's molecular lab in Newport, OR. In 2013, she left all that behind to retire to her grandchildren and the greenhouse in her backyard with no regrets.

2016 Hall of Excellence Inductees



Dr. James (Jim) E. Seeb

Dr. James Seeb earned his doctorate from the University of Washington studying salmonid evolution and chromosome behavior with Fred Utter and Gary Thorgaard. After graduating, he began a career as an assistant professor at Southern Illinois University. In 1990, Jim moved to Anchorage, Alaska, to develop the Genetics Program, a research division of the Alaska Department of Fish and Game. Here Jim worked with his research partner Lisa Seeb to make the Gene Conservation Laboratory a world leader in the use of genetic principles and tools to support sustainable management of commercial, sport and subsistence fisheries. After a 17 year career with Alaska Department of Fish and Game, Jim was appointed research professor at the School of Aquatic and Fishery Sciences at the University of Washington. During their careers, Jim and Lisa have embraced cutting edge technologies and mentored young professionals, students, and post-docs in the development of genomic resources for fisheries conservation and management. Jim served as Genetics Section President in 1995-1996 and was instrumental in developing the first Section website, established linkages for biotech support for section services, and co-hosted three Section-sponsored SNP workshops.



Dr. Lisa W. Seeb

Dr. Lisa Seeb earned a Master's degree from the University of Montana with Fred Allendorf studying amphibian population genetics and a doctorate from the University of Washington studying *Sebastes* systematics and evolution with Fred Utter and Don Gunderson. After graduating, she began a career as a research assistant professor at the University of Idaho and at Southern Illinois University. In 1990, Lisa moved to Anchorage, Alaska, to develop a genetic stock identification program, a new research initiative of the Alaska Department of Fish and Game. Under the guidance of Lisa and her longtime research partner (and life partner) Dr. James Seeb, the Gene Conservation Laboratory became a world leader in the use of genetic principles and tools to support sustainable management of commercial, sport and subsistence fisheries. After a 17 year career with Alaska Department of Fish and Game, Lisa was appointed research professor at the School of Aquatic and Fishery Sciences at the University of Washington. During their careers, both Lisa and Jim have embraced cutting edge technologies and mentored young professionals, students, and post-docs in the development of genomic resources for fisheries conservation and management. Lisa served as Secretary-Treasurer of the Section in 1992-1994, President in 2002-2004, developed the Wright Award to support student travel, and co-hosted three Section-sponsored SNP workshops.

In Memoriam

Dr. Tim King



Timothy "Tim" Lee King, 57, of Martinsburg, passed away Friday, Sept. 30, 2016, at Winchester Medical Center. Born Nov. 28, 1958, in Kingsport, Tennessee, he was the son of Hazel (Simpson) King and the late Denver King.

Dr. Timothy King was an internationally recognized expert in the field of conservation genetics and genomics, using molecular techniques to understand the evolutionary basis of genetic variation and adaptation. His research contributions provided the basis for identifying unique species and populations and have guided state and federal conservation programs of threatened and endangered species. He has published over 100 research papers on the genetics and genomics of salmon, brook trout, sturgeon, turtles, horseshoe crab, deep-sea coral, Key Largo woodrat, Preble's meadow jumping mouse, black bear, and invasive species. Dr. King began his career as a Conservation Biologist with the Texas Parks and Wildlife Department in Palacios, Texas. After receiving his Ph.D. from the University of North Texas, he joined the U.S. Department of Interior, Leetown Science Center, in Kearneysville, as a Research Fish Biologist in 1993. The Center became part of the U.S. Geological Survey in 1994, where Dr. King led the development of the genetics program until his death. He worked tirelessly to leverage new technologies to enhance the conservation and management of imperiled organisms. In addition to

his prolific research productivity, he was often asked to serve as an expert federal government scientist on threatened and endangered species issues. Dr. King was appointed as the North American expert on the Atlantic salmon to assess the potential impacts of genetically engineered aquaculture salmon on wild populations. He was awarded the U.S. Geological Survey Superior Service Award in 2002, for his significant contributions to understanding the biology of Atlantic salmon that was invaluable to federal and state managers in their efforts to recover this valuable species.

In addition to his scientific contributions, Dr. King was always in great demand as a collaborator, generous with his time and expertise, and a tremendous ambassador for science who readily shared his enthusiasm with many students and colleagues. He gave over 200 presentations during his career ranging from meetings of local stream associations to university classrooms to invited presentations at international scientific meetings of the world's most knowledgeable scientists. He mentored 19 graduate students and numerous post-doctoral scientists, and was an adjunct faculty member at Pennsylvania State University, West Virginia University, University of Toledo, Frostburg State University, and Montclair State University. His visionary leadership, keen analytical mind, quick wit, kindness, and friendship was taken from us much too soon, and will be sorely missed.

He is survived by his wife, Karen Denise (Sulfridge) King; two sons, Brandon King and Travis King (Morgan Baker); and three siblings, Debra Martinez, Donnie King and Jeff King; and numerous nieces and nephews.

In lieu of flowers, donations may be made in his name to the Martinsburg Little League, P.O. Box 931, Martinsburg WV 25402. Online condolences may be offered at www.BrownFuneralHomesWV.com.



Photo by Duane Raver/ CC BY



Photo by Beth Beard, AFS

Calendar

January 2017

4th - 8th *Meeting*: Society for Integrative & Comparative Biology Annual Meeting. New Orleans, Louisiana.

13th *Abstract Deadline*: IAGLR's 60th Annual Conference on Great Lakes Research

20th *Abstract Deadline*: Symposia proposals for the 147th Annual Meeting of the American Fisheries Society

31st *Abstract Deadline*: 11th International Workshop on Lobster Biology and Management.

February 2017

1st *Abstract Deadline*: Wild Trout Symposium XII.

2nd - 5th *Meeting*: AFS Southern Division Annual Meeting. Oklahoma City, Oklahoma.

5th - 8th *Meeting*: 77th Midwest Fish and Wildlife Conference. Lincoln, Nebraska.

21st - 23rd *Workshop*: BioGenomics2017: the Global Biodiversity Genomics Conference. Washington, DC.

23rd *Abstract Deadline*: Ecological Society of America Annual Meeting

26th - March 3rd *Meeting*: Association for the Sciences of Limnology and Oceanography 2017 Aquatic Sciences Meeting. Honolulu, Hawaii.

March 2017

17th *Abstract Deadline*: Contributed paper and poster abstracts 147th Annual Meeting of the American Fisheries Society

April 2017

4th - 7th *Symposium*: Genomics of migration. Max Plank Institute, Plön, Germany

May 2017

15th - 19th *Meeting*: IAGLR's 60th Annual Conference on Great Lakes Research. Detroit, Michigan.

22nd - 25th *Meeting*: AFS Western Division Annual Meeting. Missoula, Montana.

June 2017

7th - 9th *Meeting*: 11th International Workshop on Lobster Biology and Management. Portland, Maine.

July 2017

2nd - 6th *Meeting*: Annual Meeting of the Society for Molecular Biology and Evolution. Austin, Texas.

23rd - 27th *Meeting*: International Congress for Conservation Biology. Cartagena Colombia.

August 2017

6th - 11th *Meeting*: Ecological Society of America Annual Meeting. Portland, Oregon.

20th - 24th *Meeting*: 147th Annual Meeting of the American Fisheries Society. Tampa, Florida.

September 2017

10th - 15th *Meeting*: 13th International Coregonid Symposium. Bayfield, Wisconsin.

18th - 21st *Meeting*: ICES Annual Science Conference. Fort Lauderdale, Florida.

26th - 29th *Meeting*: Wild Trout Symposium XII. West Yellowstone, Montana.

November 2017

5th-9th *Meeting*: Coastal and Estuarine Research Federation Biennial Conference. Providence, Rhode Island.

To find dates and information for AFS chapter meetings, visit fisheries.org/about/units/chapters/

Jobs

Postdoc positions

Postdoctoral Fellow - Fisheries

Location: University of Idaho, Moscow, ID - College of Natural Resources
Salary: \$50,000 - \$53,000

End Date: Until Filled

Responsibilities: The successful candidate will contribute to two conservation management projects that will 1) use genetic pedigree analyses to determine the proportion of returning adult steelhead originating from native winter steelhead, resident rainbow trout, non-native hatchery steelhead, and their hybrids; and 2) use existing scale, otolith and demographic data to develop population models for adult Chinook salmon to estimate the fitness for life history pathways rearing primarily in stream, reservoir and mainstream/estuary habitats. The successful candidate may also contribute to other on-going efforts to determine causes of prespawn mortality in Chinook salmon. Anticipated two year position, with the second year contingent on performance and availability of funding. The successful candidate will be based in Moscow, Idaho, with the possibility of rotations at the Hagerman Lab and working with ODFW collaborators in Corvallis, OR. **Qualifications:** Education: Ph.D. degree in populations genetics, population biology, fisheries, conservation biology or closely related field. Demonstrated oral and written communication skills. Demonstrated ability to work independently and with a group. Ability to pass a background check. **Preferred Qualifications:** Experience in genetic pedigree, conservation or population genetic, or molecular ecological studies. Experience in population and demographic modeling. Physical Requirements & Working Conditions: Posting Number: SP001160P Special Instructions: First consideration date is November 7, 2016; Background Check: Applicants who are selected as final possible candidates must be able to pass a criminal background check. To apply, please visit: <http://apptrkr.com/899739>; EEO Statement: University of Idaho is an Equal Opportunity/Affirmative Action/Veterans/Disability Employer; **Email:** employment@uidaho.edu; **Link:** <http://apptrkr.com/899739>

Adaptive Genomics Postdoc: The Meek Lab at Michigan State University is looking for a highly motivated postdoctoral scholar to study the genomic basis for thermal tolerance and local adaptation in brook trout of the Northeast US. The lab uses field collections and experiments, combined with next-generation sequencing data, to address fundamental ecological questions that are highly relevant to the conservation and management of species. The project that will



Photo by Nicholas A. Tonelli/ [CC BY](https://creativecommons.org/licenses/by/4.0/)

be the focus of this post-doc aims to address two questions, using brook trout as a model system: 1. Are there differences in gene expression patterns among fish from populations with different thermal histories? 2. Are there regions of the genome associated with differences in susceptibility and phenotypic response to thermal stress? We will be using this information to develop an approach for assessing the genetic diversity associated with thermal adaptation in other brook trout populations. The information gained from this study will be invaluable for understanding the molecular basis for local adaptation and its relation to climate change resiliency planning, and in designing management actions that sustain brook trout into the future. The initial hire is for one year, with potential for an additional year of funding upon satisfactory review of progress. The position will be based in the Department of Integrative Biology at Michigan State University. Start date is negotiable, but the ideal is winter or spring 2017. **Qualifications:** Applicants should have a PhD in ecology, evolution, genetics, bioinformatics, or related fields. We are looking for a creative and talented scientist with a good publication record and excellent organizational and communication skills. We are especially interested in candidates with a strong computational background and previous experience with next-generation sequencing data analysis. Experience working in the Unix environment is essential and familiarity with one or several programming languages is highly desirable. **How to apply:** Application review will begin November 15. Please feel free to email before applying to start a conversation. Interested candidates should email Mariah Meek (mhmeek@msu.edu) with the following: 0) "Prospective postdoc" in the email subject 1) Brief cover letter describing research interests and motivation 2) CV 3) Names and email addresses for 3 references 4) 2-3 published papers or manuscripts in preparation.

Jobs

Professional positions

Lab Technician in Conservation Genomics Lab. The Meek Lab at Michigan State University is looking to hire a highly motivated lab technician. The lab uses field collections and experiments, combined with next-generation sequencing data, to address fundamental ecological questions that are highly relevant to the conservation and management of species. We primarily work in aquatic systems. We are looking for an enthusiastic and responsible individual to join our team. This will be a full time position. **Primary duties will include:** 1. Conducting molecular lab work, such as sample processing, DNA and RNA extractions, PCR, and preparing sequencing libraries 2. Ordering equipment and supplies for the lab 3. Lab supply and equipment maintenance and organization 4. Creating and curating a database to organize lab samples 5. Training and coordinating lab work of fellow lab members and visiting scholars 6. Conducting literature reviews on various topics related to conservation, genetics, fisheries, ecology, and evolution 7. Maintaining lab web site 8. Assisting with field work, as needed **Qualifications:** Applicants should have a Bachelors of Science in ecology, evolution, genetics, or related field, with a preference given to those with a Master's degree. Applicants should also have extensive experience conducting molecular lab work, including DNA extractions and PCR. **How to apply:** Application review will begin November 15. Please feel free to email before applying to start a conversation. Interested candidates should read about the work we do at <http://meeklab.com> and email Mariah Meek (mhmeek@msu.edu) with the following: 0)"Prospective lab tech" in the email subject 1) Brief cover letter describing research and lab work experience and career goals 2) CV 3) Names and email addresses for 3 references.

Graduate student positions

Research assistantship is available through the Center of Excellence for Field Biology (CEFB) and Department of Biology at Austin Peay State University (APSU) with an intended start date in early June 2017. The successful applicant will collaborate with APSU faculty and state agencies to investigate the conservation status and genetic diversity of the Piebald Madtom (*Noturus gladiator*). Work will include field surveys and collection and analysis of next-generation sequence data (SNPs) to address questions related to the population and conservation genetics of the Piebald Madtom to fulfill research requirements of an M.S. thesis-based degree in Biology at APSU. The successful applicant will be supported as a Graduate Research Assistant that includes payment of tuition and an academic year stipend for two years, and three months of summer salary each year (totaling ~\$18,000/year). Additional resources such as field vehicles and all necessary lab equipment will be available for use through the CEFB. Renewal of this award in year two will be based on performance in the preceding year. **Required qualifications** include (1) a B.S. in

New AFS Genetics Section Job Board

For additional job postings, be sure to watch the job board on the Section website

genetics.fisheries.org/jobs

Biology, Ecology, Evolution, or a related field, (2) a cumulative GPA of 3.0 or higher and combined GRE of 310 or higher; (3) excellent interpersonal, written, and oral communication skills, (4) strong self-motivation and (5) ability to work well independently and with a team. Previous research experience, particularly involving fish collection and identification and/or molecular data collection and analyses strongly preferred. **To apply** for this position, submit the following materials: (1) statement of research background and interests (2) curriculum vitae (3) names and contact information for three academic or professional references, (4) GRE scores (unofficial or official), and (5) an unofficial copy of your college transcripts to Dr. Rebecca Blanton Johansen at johansenr@apsu.edu by the 15th February 2017. Review of applications will begin on 15th February 2017 and continue until the position is filled.



FSBI Symposium Cont'd

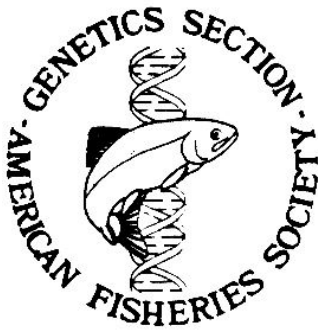
Two AFS members gave the most prominent addresses at the symposium. Robin Waples gave the Jack Jones Memorial Lecture on "Tiny estimates of the Ne/N ratio in marine fish: are they real?" Louis Bernatchez gave the plenary speech on "Adaptive evolutionary potential in the face of environmental change: considerations from studies of genomic variation in fishes."

At the symposium, I had the pleasure of meeting Taylor Wilcox at the University of Montana who received a student travel award from the Genetics Section to attend. His presentation was "Understanding environmental DNA detection probabilities: A case study using a stream-dwelling char." Another AFS student member who attended was Charles Waters of the University of Washington whose travel was supported by the International Fisheries Section. His presentation was "Comparative analysis of adaptive evolution across two different management scenarios in supportive breeding." Even though I do not have a genetics background, I could appreciate how high powered this meeting was. It had about 200 attendees and presenters from 24 countries, so the meeting truly had an international flavor. The meeting program can be found at <http://www.fsbi.org.uk/conference-2016/programme-2/>.

AFSGS Announces Student Travel Award to the 13th International Coregonids Symposium

Purpose of the scholarship

We wish to provide support for students attempting to disseminate their genetics research at the 13th International Coregonid Symposium in Bayfield, Wisconsin. For more information and updates, please visit the Symposium website at: www.coregonid2017.com



What the award will cover

Individuals who are selected may use the funds to help offset the costs of lodging and transportation.

Who is Eligible?

Any graduate or undergraduate student that is a dues-paying member of the American Fisheries Society Genetics Section will be considered. Those that are selected will be expected to present either an oral presentation or poster.

Award Amount

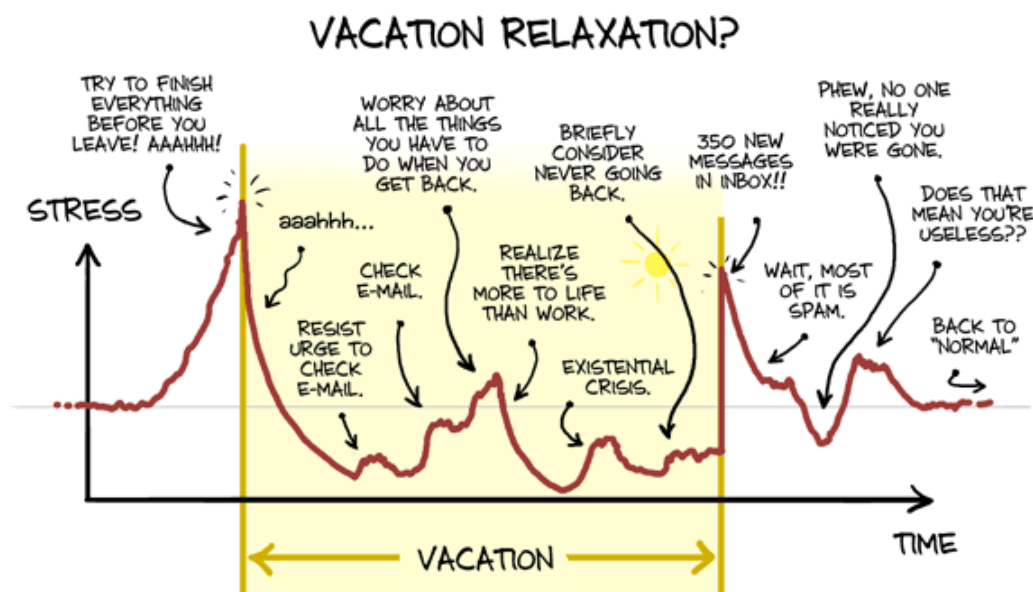
\$1000 will be awarded. A maximum of \$500 will be awarded to any single individual.

How to Apply

Please include the following materials in a single pdf file and email to Jared Myers (jared_myers@fws.gov) by March 15th, 2017.

- Letter of interest stating why you would like to attend the symposium (maximum of 1 page)
- Proposed presentation title and abstract (maximum of 200 words on a separate page).
- Curriculum vitae (maximum of 2 pages)
- Proposed travel budget that highlights how the remainder of the travel costs will be covered.

Comic



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2016 AFS Genetics Section Business Meeting Notes

Monday, August 22, 2016
Sheraton Kansas City, Chouteau A
Kansas City MO
5:30p



Photo by Beth Beard, AFS

1. Call to order at 17:40 by Jeff Olsen

2. Jeff Olsen went over the minutes from the 2015, but as there were no copies present they could not be approved. Jeff will send out the minutes from the 2015 meeting for review at a later date. Jeff made a motion to suspend Robert's rules of order for the remainder of the meeting which was seconded by Michael Douglas.

3. President's Report

a. Jeff and Wendylee attended the Governing Board Meeting. Jeff reviewed the discussions at the meeting. There was discussion about the continued need to grow the society to its potential with a focus on targeting and retaining younger biologists by highlighting the benefits of society membership. There was an overview and discussion of the recent policy report about the need for a more focused message from the AFS and the need for a consistent AFS brand. As part of this, the AFS logo will be redesigned in time for the 150th meeting. The AFS is working on a position statement that targets several important topics that will be presented to the transition team for the next presidential administration.

Society President, Ron Essig, who attended part of the Section meeting, gave an update on the Fisheries Society of the British Isles (FSBI) symposium in July in Wales. The meeting had a genetics theme and the Section provided travel support for a student. The meeting was well attended and President Essig was impressed by the content of the talks.

b. Section Activities

- i. The section by-laws were updated to make sure they complied with parent society standards.
- ii. Two ad hoc committees were converted into standing committees; James Wright award, the Stevan Phelps award.
- iii. The Early Career Award was created.
- iv. Elections for new officers were held: Kristen

Gruenthal was elected as secretary-treasurer and Andrew Whiteley as president-elect.

v. The Section switch banks, we are now with Chase.

4. Secretary-Treasurer's Report (Jeff Olsen for Amy Welsh) - The balance is steady at ~\$3,700. There were three travel awards, the James E. Wright award to Nathan Lucas and Jackman Eschenroeder, one for the FSBI symposium to Taylor Wilcox, and one for the Coastwide Salmonid Genetics meeting to Carolyn Tarpey and Ryan Whitmore.

5. Announcements

The social will be held at Grinders at 7:45 on Monday, just after the meeting.

6. Committee Reports

a. Standing Committees

- i. Nominating – Jeff reported for Meredith who recruited candidates for president-elect, secretary-treasurer, and Hall of Excellence Member at Large and elections were held via an electronic survey. Andrew Whiteley is the new president-elect, Kristen Gruenthal is the new secretary-treasurer and Robin Waples is the Member at Large.
- ii. Program – Wendylee reported that while there were no symposia sponsored by the Section in Kansas City, talks using genetics as a tool for many management activities could be found in many sessions.
- iii. James E. Wright Award – Jeff presented the award to Nathan Lucas and Jackman Eschenroeder on behalf of Andrea Drauch Schreier
- iv. Early Career Award – Jeff presented on behalf of Helen Neville to Scott Pavey. Scott was not able to attend the meeting.

Continued on next page

Business Meeting Notes cont'd

v. Stevan R. Phelps Award – Jeff presented on behalf of Ken Currens to Kathleen Fisch and co-authors. Christine Kozfkay accepted the award.

vi. Hall of Excellence – Wendylee Stott presented awards to Louis Bernatchez, Lisa Seeb, Jim Seeb, and Jennifer Nielsen, none of whom were present. Wendylee read statements from Louis and Jennifer and Wes Larson read a statement from Jim and Lisa Seeb.

b. Ad-Hoc Committees

i. Newsletter – Joy Young could not attend, but has announced that she is stepping down as editor. Volunteers from the Section membership are needed to fill the position.

ii. Membership – Jeff Olsen gave a report on behalf of Helen Neville, membership is down a little at around 166 from this time last year. Some declines been observed society-wide and may be associated with losing members who joined just to attend the Portland meeting.

iii. Website – Jeff reported that Kristen Gruenthal will continue to maintain the website.

7. Old Business – Jeff Olsen

a. Listserv-There have been some problems with the Listserv resulting from some changes in services and staff in the parent society. While they appear to be corrected, users should take care when making replies to posts.

Andrew Whiteley is stepping down as manager of the listserv.

8. New Business – Wendylee Stott

We are looking for volunteers for the membership committee, early career award committee, and the newsletter. Anyone interested or who knows someone who might be interested could contact any member of the Excomm.

Marlis Douglas announced that the new, Imperiled Fishes section may be interested in holding a joint symposium at the meeting next year in Tampa. Gene Wild is the Section president. Thomas Turner suggested that a symposium highlighting the accomplishments of John Gold might be another idea for a symposium at the 2017 meeting.

9. Adjournment at 18:30.

Notes taken by Wendylee Stott



Section officers, committees, and representatives

Section Officers

President

Wendylee Stott
wstott@usgs.gov

President-elect

Andrew Whiteley
andrew.whiteley@umontana.edu

Secretary-Treasurer

Kristen Gruenthal
kristen.gruenthal@noaa.gov

Committees

Hall of Excellence

Robin Waples

James Wright Award

Amy Welsh
Andrea Schreier
Carol Stepien

Early Career Award

Helen Neville

Stevan Phelps Award

Ken Currens

Listserve

Andrew Whiteley

Membership

Mary Peacock

Website

Wesley Larson
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Representatives

PFIRM

Kim Scribner

Black Bass Symposium

Meredith Bartron

Fisheries

Marissa Jones

Newsletter Editor

Jared Homola
jared.homola@maine.edu

