



# The American Fisheries Society Genetics Section Newsletter

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June 2014

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## **DEADLINE EXTENDED TO JUNE 6th!**

### **Apply for the AFS Genetics Section Graduate Award in Memory of James E. Wright**

The Genetics Section of the American Fisheries Society is pleased to announce the

James E. Wright Graduate Award. This award is presented annually by the Genetics

Section at the AFS Annual Meeting and is intended to recognize excellence in graduate-level work in fisheries genetics and to assist graduate students with travel to the national meeting. The section anticipates awarding an award for \$500 to attend the 2014 AFS annual meeting in Quebec City. All graduate students are encouraged to apply.

Selection will be based on the following criteria:

1. Potential for success in research in fisheries genetics (60%)
2. Anticipated contribution to upcoming annual meeting, e.g. paper, poster, or other contribution (20%)
3. Service to the Society, its Sections, or Chapters (10%)
4. Demonstrated need for travel assistance (10%)

#### **Application Procedure:**

1. Applicant must be a full or affiliate member of the Genetics Section at the time of application.
2. Application package should include:
  - a. A brief curriculum vitae including anticipated degree, date of completion, and career goals.
  - b. A statement of the thesis or dissertation and abstract of progress to date.
  - c. The names and contact information for two references familiar with the applicant's background and abilities.
  - d. A statement of previous service to the Society, its Sections, or Chapters, and need for travel assistance.
  - e. A statement addressing anticipated contribution to the upcoming annual meeting.

Deadline for application is: **June 6, 2014**

All application materials should be sent via email to:

Amy B. Welsh, email: amy.welsh@mail.wvu.edu

## Announcements

Members of the Genetics Section,

Nominations (due June 15, 2014) are now open for the inaugural class of the Section's Hall of Excellence. The intent of the Hall of Excellence is to recognize professionals who have made outstanding contributions to the advancement of management or conservation of aquatic species and ecosystems through the application of genetics tools, techniques, or theory. The nomination form is attached. Find out more about the Hall of Excellence here (<http://genetics.fisheries.org/hall-of-excellence/>).

When submitting a nomination please consider the following:

Nominations should identify individuals (past or present) and explain how they have made a significant contribution(s) to genetics of aquatic organisms, conservation or management-oriented fisheries/aquatic research, or the promotion of genetic applications for fisheries/aquatic resource conservation, protection, and management. Membership by the nominee to AFS and the Genetics Section are not a pre-requisite, but service to AFS and the Genetics Section will be considered in the award process. Nominations should also include name, short biography and vitae of nominee, an explanation of their contribution to the field as well as to AFS if applicable, contact information (current address, phone, and email), date of birth, and date of death (if applicable).

Feel free to contact me if you have any questions.

Jeffrey B Olsen  
Conservation Genetics Laboratory  
U.S. Fish and Wildlife Service  
1011 East Tudor Road  
Anchorage, Alaska 99503  
mail stop 331

## Announcements



**Join us for the annual AFS meeting!**

Fisheries and Oceans Canada, and the Northeastern Division, the Atlantic International Chapter and the Canadian Aquatic Resources Section of the American Fisheries Society (AFS), cordially invite you to attend the 144th Annual Meeting that will be held in Québec City from 17 to 21 August 2014.

Located on the bank of the St. Lawrence River, Québec is one of the world's most beautiful cities. The area's European appeal and North American lifestyle, complete with a storied history, thriving art scene, and vibrant French-speaking culture, make it truly one of a kind.

**And don't forget the Genetics Section meeting!**

Monday, August 18<sup>th</sup>

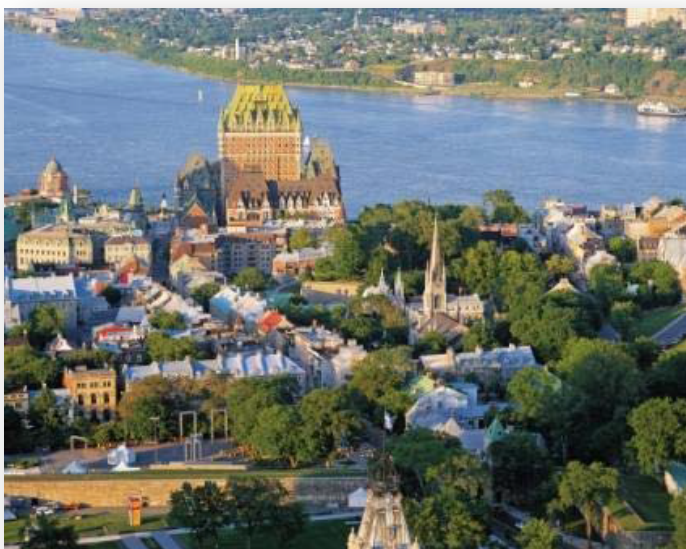
5:30pm – 6:30pm

Genetics Section Meeting

Convention Center 2104B

## Student Events at AFS 2014

At this year's AFS meeting, student activities will take place on **Tuesday afternoon and evening**. Don't miss this opportunity to participate in mentorship and networking events with over 500 students from 5 continents!



**August 17th-21st**

### ***Student Colloquium : Tuesday August 19th, 3:40 pm to 4:40 pm***

This year's colloquium will feature a panel of professionals from diverse backgrounds (government, non-profit, academia, etc.). This is a great opportunity to hear fisheries professionals share their insights on entering the job market and building a successful career in the sector.

### ***Speed Mentoring : Tuesday August 19th, 4:45 pm to 5:45 pm***

The Speed Mentoring event will offer students an opportunity to meet and network with over 20 professionals who will provide sector- and occupation-specific information and advice. As space is limited, sign up early to participate in the Speed Mentoring event by e-mailing your name, University and program to : **students.afs2014@gmail.com** (If space is still available on-site registration will be possible)

### ***Career Fair : Tuesday August 19th, 4:45 pm to 5:45 pm***

The Career Fair is open to everyone and will be held alongside the Speed Mentoring event to allow students to participate in both activities. Potential employers from universities and various sectors including government, non-profit, and private sectors will be present at the Career Fair. Don't forget to bring your résumé or business cards!

### ***Student Networking Event Tuesday August 19th, 6:30 pm to 10:00 pm***

The gathering will happen at the La Ninkasi pub, located on famous Rue St-Jean close to the Convention Centre, where food and drinks will be served. Come enjoy a variety of locally brewed beers. This is a unique occasion for networking in a fun and relaxed atmosphere.

### ***Student Photography Contest***

Students are invited to share the wonderful places, species, and people they have encountered by submitting photos related to their research and field work to the Student Photography Contest under 3 major themes: *Landscape, Animal, and Human*. Photos should be sent before August 1, 2014 to [afs2014.photocontest@gmail.com](mailto:afs2014.photocontest@gmail.com). All photos will be displayed electronically, during the student networking event and one winner from each category will be announced in the evening. Prizes will be awarded to winners! Photo contest rules are available at : [www.afs2014.org\students](http://www.afs2014.org\students)



Comic

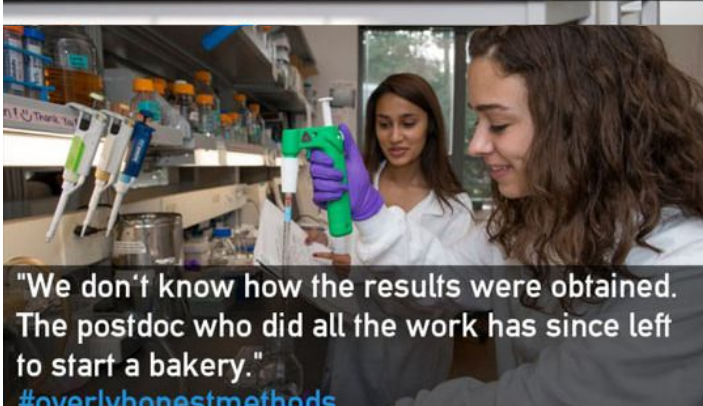
# SCIENTISTS GET A LITTLE TOO HONEST



"Sample size was smaller than planned because I had been in grad school for 10 yrs & my advisor wanted me to graduate."  
#overlyhonestmethods



"PCR reaction repeated for 25 cycles because that's how long it takes to go teach class."  
#overlyhonestmethods



"We don't know how the results were obtained. The postdoc who did all the work has since left to start a bakery."  
#overlyhonestmethods



"This dye was selected because the bottle was within reach"  
#overlyhonestmethods



"We didn't read half of the papers we cite because they are behind a paywall"  
#overlyhonestmethods



"Reagent became unavailable in 2002 because nobody wanted to order more and risk being added to terrorists watchlists."  
#overlyhonestmethods

Reprinted from <http://m.lolsnaps.com/index.html?id=87369>

## Workshop announcement

### American Genetics Association Workshop

#### **Escape from homeolog hell: Transmission genetics of salmonid fishes following whole genome duplication**

We are organizing a two-day workshop as part of the American Genetic Association meeting in Seattle this coming June/July. The workshop will focus on understanding the transmission genetics of salmonid fishes and its application to constructing accurate genome maps of salmon, trout, char, whitefish, and grayling for use in population genomics.

Many papers are published each year on the aquacultural, population, or evolutionary genetics of salmonid fishes. This entire family underwent a whole genome duplication event some 25-50 million years ago. The meiotic behavior of duplicated chromosomes has presented many challenges to understanding the genetics of polyploid species (e.g., salmonid fishes, cotton, and wheat).

Early inheritance studies with allozymes in salmonids indicated that loci in the salmonid genome are inherited disomically. However, some pairs of duplicated loci show patterns of partial tetrasomic inheritance in males that can be explained only by recombination between homeologous chromosomes. Such homeologous exchanges present a conceptual and computational challenge to the construction of linkage maps. The difficulty of interpreting duplicated loci has led to these loci being excluded from many recent mapping studies and studies of population genomics. In addition, the observed excess of recombinant genotypes (so-called pseudolinkage) cannot be analyzed using any of the software programs designed to construct linkage maps in diploid species.

This two-day (30 June-1 July) workshop will meet following the two-day Presidential Symposium on Evolution and Plasticity organized by Robin Waples. Symposium details will be posted in February or

early March on the AGA website (<http://www.theaga.org/>). We will limit participation to no more than 25-30 people at this workshop. The format will consist of a few invited overview presentations, as well as shorter presentations by other participants. Roy Danzmann, Willie Davidson, Michael Hansen, and Craig Primmer all have agreed to participate. Most of the time will be spent in open discussion.

Those who also attend the Presidential Symposium and stay in University of Washington housing can add two nights to their stay to attend the workshop. Others participants can choose from many nearby hotels in the University District including:

University Inn

<http://www.universityinnseattle.com/>

Watertown Hotel

<http://www.watertownseattle.com/>

College Inn

<http://www.collegeinnseattle.com/>

Hotel Decca

<http://www.hoteldecca.com/>

The registration fee of \$150 will include lunches and breaks both days, as well as an evening barbecue with drinks. Please contact us as soon as possible if you are interested in participating in this workshop so we can secure your spot. More details will be provided after you contact us.

Jim Seeb ([jseeb@uw.edu](mailto:jseeb@uw.edu))

Fred Allendorf ([fred.allendorf@gmail.com](mailto:fred.allendorf@gmail.com))

## Calendar

### JUNE 2014

**3<sup>rd</sup>-5<sup>th</sup> Meeting.** Coastwide Salmonid Genetics. Juneau, Alaska.

**6<sup>th</sup> Application due.** AFS Genetics Section Graduate Award in Memory of James E. Wright.

**8<sup>th</sup>-12<sup>th</sup> Meeting.** Society for Molecular Biology and Evolution (SMBE). Puerto Rico.

**15<sup>th</sup> Nomination due.** AFS Genetics Section Hall of Excellence.

**27<sup>th</sup>-29<sup>th</sup> Symposium.** American Genetics Association Presidential Symposium. Seattle, Washington.

**30<sup>th</sup> Registration due.** International Marine Conservation Congress. Glasgow, England.

**30<sup>th</sup>- July 1<sup>st</sup> Workshop.** American Genetics Association Workshop. Seattle, Washington

### JULY 2014

**1<sup>st</sup> Abstracts due** 7<sup>TH</sup> World Recreational Fishing Conference. Campinas, State of Sao Paulo, Brazil.

**7<sup>th</sup>-10<sup>th</sup> Meeting.** Annual Symposium of the Fisheries Society of the British Isles: Integrated perspective on fish stock enhancement. Hull, England.

**30<sup>th</sup>-Aug 3<sup>rd</sup> Meeting.** American Society of Ichthyologists and Herpetologists (ASIH). Chattanooga, TN.

### AUGUST 2014

**3<sup>rd</sup>-7<sup>th</sup> Meeting.** 11<sup>th</sup> International Congress on the Biology of Fish. Edinburgh, Scotland.

**14<sup>th</sup>- 18<sup>th</sup> Meeting.** International Marine Conservation Congress. Glasgow, England.

**17<sup>th</sup>- 21<sup>st</sup> Meeting.** Annual AFS meeting. Quebec City, Quebec.

### SEPTEMBER 2014

**3<sup>rd</sup>-7<sup>th</sup> Meeting.** 7<sup>TH</sup> World Recreational Fishing Conference. Campinas, State of Sao Paulo, Brazil.

**15<sup>th</sup>-19<sup>th</sup> Meeting.** International Council for the Exploration of the Sea (ICES) annual science conference. A Coruna, Spain.

## Courses

### Methods in Ecological and Evolutionary Genomics

June-July, 2014.

Mote Tropical Research Laboratory, Florida Keys.

Are any of you interested in learning RNAseq, 2b-RAD, qPCR or meta-barcoding in the beautiful Florida Keys this summer? We are sending out a survey to determine which courses will gather the most interest since we can only offer three (~1 week long) courses. 1. tag-based RNA-seq 2. 2b-RAD 3. quantitative PCR 4. Meta-barcoding with amplicon sequencing If you are interested in participating in these workshops, please respond to this survey <http://www.surveymonkey.com/s/5ftx7rs>

### Next-Generation Summer Course in Environmental Genomics at the Desert Island Biological Lab

August 2nd-9<sup>th</sup>

The faculty at MDIBL is pleased to again offer a training course in Environmental Genomics, aiming to better understand technologies and approaches used to discover how gene function is influenced by environmental conditions while accounting for variation that exists within and among natural populations. This course is built on the paradigm that the research field will most effectively grow by properly designing large-scale experiments enabled by drastically increased sample-throughput and lower sequencing costs.

### 2 Day qPCR Course

5-6 Dec, 2014.

University of Regensburg, Germany.

Entire qPCR workflow covered in two days:

- Focus on gene expression (including microRNA)
- Theoretical background and practical hands-on data-analysis
- Complemented with training on Biogazelle's qbase+ software
- Focus on experiment design and data-analysis
- Attention for validation and quality control

For more information email: [mariana.mondragon@biologie.uni-regensburg.de](mailto:mariana.mondragon@biologie.uni-regensburg.de)

## Jobs

### Graduate positions

**PhD position in marine ecology.** Agency: University of Nordland, Faculty of Biosciences and Aquaculture, BodA, Norway. Description: The main goal of the doctoral project is to address the evolutionary relationships between copepods of the genus *Calanus*. The project will also investigate the population genetic structure of *Calanus* sp in the Arctic. Closing date: 6 June 2014. Contact Person: Galice Guillaume Hoarau. Contact email: [Galice.Guillaume.Hoarau@uin.no](mailto:Galice.Guillaume.Hoarau@uin.no)

**Technician.** Agency: Fisheries Ecology Lab/ Dauphin Island Sea Lab. Dr. Sean Powers at the Dauphin Island Sea Lab seeks a temporary technician to work with him analyzing samples from oyster recruitment and abundance projects across the gulf of Mexico. Closing date: available immediately. Pay: \$12/hr. Contact person: Claire Pabody. Contact email: [cpabody@disl.org](mailto:cpabody@disl.org)

**PhD Grad Student Fellow in Fish Population Genetics and Genomics.** Agency: University of Toledo, OH. New research project on Yellow Perch and invasive Eurasian Ruffe comparative population genomics/genetics, next-generation sequencing, kin selection, and chemical cues that may regulate homing. Starting date: Apply now to begin the Fall 2014 or Spring 2015. Ok to start in summer 2014 too. Apply to: [Http://www.utoledo.edu/nsm/envsciences/grad/index.htm](http://www.utoledo.edu/nsm/envsciences/grad/index.htm)

**M.S. Graduate Assistantship on Cutthroat Trout Culture.** Agency: Dept. of Fish, Wildlife, and Conservation Biology, Colorado State University, Fort Collins, CO. Description: The student will participate in a 2-year study on improving the culture of juvenile cutthroat trout. The culture portion of the study will be conducted at the U.S. Fish and Wildlife Service Bozeman Fish Technology Center. Starting date: Open until filled. Contact person: Dr. Christopher Myrick. Contact email: [chris.myrick@colostate.edu](mailto:chris.myrick@colostate.edu)

### Postdocs

**Post-doctoral Research Position.** Agency: Auburn University, AL. Description: We seek a Post-doctoral Scientist to conduct research on Chinook salmon stocks of western Alaska. Essential functions include assessing stock abundance and productivity of Chinook salmon stocks, building computer simulations to evaluate harvest policy trade-offs, and evaluating the performance of stock assessment approaches. Pay: \$35K-\$47K. Contact person: Matt Catalano. Contact email: [mjc0028@auburn.edu](mailto:mjc0028@auburn.edu)

**Postdoctoral Fellowship in Invasion Ecology.** Agency: Great Lakes Institute, CA. Description: Focused on phenotypic plasticity and genetic diversity of successful and less successful aquatic invasive species (AIS). The PDF will be responsible for: 1) amalgamating and publishing synthesis papers from stable isotope, genetic and metabolic data 2) developing specific predictive models that incorporate the concept of adaptive and evolutionary responses of AIS to novel environments, and 3) developing new research projects of particular interest to the applicant. PhD defense date set before 30 June 2014. Contact person: DRS. Fisk or Heath. Contact email: [afisk@uwindsor.ca](mailto:afisk@uwindsor.ca) or [death@uwindsor.ca](mailto:death@uwindsor.ca)

Please send information on symposia, jobs, articles, and calendar events to [Joy.Young@myfwc.com](mailto:Joy.Young@myfwc.com) to see it published in the next newsletter!



## Jobs continued

### Professional

**Environmental Genome Centre Experimental Officer.** Agency: University of Birmingham. Description: Oversee the day-to-day operations of a new environmental genomics centre Seeking prospective candidates who have demonstrated skills in molecular biology or biochemistry, project design, data management and analysis. Closing date: 30 June 2014. Contact Person: John Colbourne. Contact email: [j.k.colbourne@bham.ac.uk](mailto:j.k.colbourne@bham.ac.uk)

**Researcher/Lab-manager.** Agency: University of Texas, Integrative Biology. Location: Austin, TX. Description: Purpose of the position: Will provide technical assistance in genetic and genomic analysis of animals, plants, and microorganisms in the lab of Ulrich Mueller, Integrative Biology, University of Texas at Austin, USA. Research integrates evolutionary genomics, molecular ecology, microbiology, behavioral evolution, and plant biology. Essential

Functions: Conducts research on genetic/genomics and molecular-ecological analysis of animals, plants and microorganisms. Trains new laboratory personnel on laboratory techniques and laboratory procedures. Required Qualifications: Bachelor's degree in biology. Experience with scientific equipment used in a genetics laboratory. Preferred Qualifications: Experience in genomics, molecular-genetics, or quantitative-genetics of plants or animals. Preference will be given to candidates with some of the following skills: bioinformatics; microbiology; next-gen sequencing; transcriptomics; quantitative genetics. Ability and interest in collaborative work with post-docs, graduate students, and undergraduate researchers. To apply, please send single pdf-file including resume and contact-information of three referees to: Prof. Ulrich Mueller, Integrative Biology, University of Texas at Austin; [umueller@austin.utexas.edu](mailto:umueller@austin.utexas.edu).

## Section Officers, Committees and Representatives

### President

Meredith Bartron

[Meredith\\_Bartron@fws.gov](mailto:Meredith_Bartron@fws.gov)

### President Elect

Jeff Olsen

[Jeffrey\\_Olsen@fws.gov](mailto:Jeffrey_Olsen@fws.gov)

### Secretary/Treasurer

Wendylee Stott

[wstott@usgs.gov](mailto:wstott@usgs.gov)

Newsletter Editor

Joy Young

[Joy.Young@MyFWC.com](mailto:Joy.Young@MyFWC.com)

### Committees

Hall of Excellence  
Jeff Olsen

James Wright Award  
Amy Welsh  
Andrea Schreier  
Carol Stepien

Listerve  
Andrew Whitely  
[awhiteley@eco.umass.edu](mailto:awhiteley@eco.umass.edu)

Stevan Phelps Award  
Ken Currens

### Website

Wesley Larson  
[wlarson1@uw.edu](mailto:wlarson1@uw.edu)

Kristen Gruenthal  
[Kristen.gruenthal@noaa.gov](mailto:Kristen.gruenthal@noaa.gov)

### Representatives

PFIRM  
Kim Scribner

Black Bass Symposium  
Meredith Bartron

Fisheries  
Marissa Jones

## Nomination Form

### **AFS Genetics Section Hall of Excellence Nomination Form**

*2014 Nominations due June 15, 2014*

Nominations can be submitted via email, fax, or mail, to:

Jeff Olsen, Committee Chair

1011 East Tudor Road, Anchorage, AK 99503, MS331

phone: 907-786-3598

fax: 907-786-3978

email: [jeffrey\\_olsen@fws.gov](mailto:jeffrey_olsen@fws.gov)

#### Nominee Information

Name:

CV:

Short Biography:

Explanation of the significant contribution to the field of genetics of aquatic organisms, conservation or management-oriented fisheries/aquatic research, or the promotion of genetic applications for fisheries/aquatic resource conservation, protection, and management:

Service to AFS:

Contact information for nominee (phone, address, email):

#### Nominator Information

Nominated by (may list multiple names, please identify a primary contact):

Phone:

Email:

Address: