



AFS GENETICS SECTION NEWSLETTER



Volume 19, Issue 2
May 2006

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President's Message

Dear Genetics Section Members,

I hope you're enjoying spring and looking forward to a productive summer season, as I am. The memorable AFS meeting held in Anchorage last September is still fresh in my mind, as I begin organizing upcoming Section activities for this September's meeting in Lake Placid, New York. The Section will be sponsoring two symposia at that meeting, which are described briefly in this newsletter. Please plan to support the Section by attending one or both of these sessions if you travel to Lake Placid!

At this year's Section meeting we will announce the winners of the Section's Wright and Phelps awards. A final reminder: Wright award applications for support of graduate student travel to the annual meeting are due **May 15**. The Phelps committee has reached its decision on this year's award winner, which I will announce at our Section meeting. I'll post the details for this meeting in the Section's summer newsletter.

Several interesting conferences are coming up this month and next (see the Calendar of Upcoming Events for particulars, deadlines, and website information). For example, the annual meeting of the Society for Molecular Biology and Evolution: Genomes, Evolution, & Bioinformatics (GEB2006) will be held May 24-28 at Arizona State University in Tempe, Arizona. This year's Coastwide Salmonid Genetics Meeting will be held June 22-24 in Santa Cruz, California. (A relatively small meeting, the Coastwide has met every couple of years on the Pacific coast for the last twenty or so years, and is a favorite of graduate students). Evolution 2006, the joint meeting of the American Society of Naturalists, the Society of Systematic Biologists and the Society for the Study of Evolution, will be going on June 23-27 at the State University of New York at Stony Brook, New York. The

20th annual meeting of the Society for Conservation Biology, Conservation Without Borders, will be held June 24-28 in San Jose, California. The IX International Symposium for Genetics in Aquaculture, held every few years, will occur this year from June 25-30 in Montpellier, France. If you can afford to travel to one of these meetings, you probably already know that it can be very difficult to choose from among them.

Finally, a plea to all Section members: Please take time to vote in the upcoming election for new officers. We will be sending ballots and candidate information to you very soon.

Sincerely,
Jeff Hard, AFS Genetics Section President

Applications Due Monday! 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 at the Genetics Section meeting 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 amount of the award for travel to the 2006 annual meeting in Lake Placid, New York is anticipated to be \$400.00. 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 addresses of 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: May 15, 2006

All application materials should be sent via postal or email to:

Jeffrey B. Olsen
Conservation Genetics Laboratory
U.S. Fish and Wildlife Service
1011 East Tudor Road
Anchorage, Alaska 99503
ph (907) 786-3598
jeffrey_olsen@fws.gov

Past Winners of the Wright Graduate Award:

2005

Kristina Ramstad, University of Montana
Aaron Schrey, Southern Illinois University

2004

Amy Welsh, University of California Davis

2003

Jennifer McLean, University of Washington

2002

Devon Keeney, Southern Illinois University

2001

Joel Carlin, University of Florida

1997

Naohisa Kanda, University of Montana
Jeffrey Olsen, University of Washington
Anna Rakitin, University of Guelph

AFS GS Symposium on Hybridization

**"The Role of Hybridization in Evolution, Ecology, and
Conservation of Fishes"**

Hybridization has important implications for management, conservation, and evolution of fishes. Hybridization can be harmful when it erodes the genetic distinctiveness between species or reduces the frequency of adaptive phenotypes, sometimes leading to the extinction of species with relatively small population

sizes. Human activities, including stock transfer, habitat alteration, and exploitation may increase the incidence of hybridization, although the magnitudes of these effects are hard to quantify. The presence of hybrids also complicates management decisions and legislation. Hybridization can also be a natural component of the evolution of fish communities by fostering the exchange of genes among nascent species that are not fully reproductively isolated and may also result in the evolution of new species. In this symposium we will seek to bring together experts from a variety of disciplines including genetics, morphology, management, and conservation to discuss the impacts of hybridization on natural populations of fishes. Topics for discussion include the detection of hybridization and identification of hybrids using molecular and morphological tools, the impact of hybridization on endangered species and endangered species policies, strategies for preserving the genetic integrity of native fishes through elimination of hybrids and non-native fishes, the role of hybridization in the evolution and speciation of fishes, and case studies of the management practices and roles that natural and manmade hybrid fishes play in aquatic ecosystems.

Ed and Jeff welcome help on this symposium, particularly in organizing, logistics and presentation ideas. If you would like to volunteer, please contact him! - Editor

Symposium Organizers:

Ed Heist
Fisheries and Illinois Aquaculture Center
Southern Illinois University Carbondale
edheist@siu.edu

Jeff Hard
Program Manager, Population Biology
Conservation Biology Division
Northwest Fisheries Science Center
Seattle Washington
Jeff.Hard@noaa.gov

AFS GS Symposium on Trout & Char

“Risks to Migratory Life Histories of Trout and Char: a Call for Research, Assessment and Conservation”

Many species of trout and char express life history forms that exploit different habitats over the life cycle of the animal. These habitats range from headwater tributaries to estuaries or oceans. The expression of life history variation in these organisms reflects complex interactions between the environment and genetics. Life history models are increasingly powerful in predicting life history trajectories. At the same time, technological tools are being developed that reveal complex patterns

and causes of migration that were not apparent in earlier research. Yet the declines in migratory life history forms may be outpacing our technological advances. In some instances migratory forms are extinct and resident forms persist, leaving society with the impression that populations or species of trout or char are not at risk and may not warrant special protection. Resident populations of trout and char are not continually challenged with the rigors of migration lessening selective pressures for that trait. Thus, if migratory forms of trout and char become extirpated their non-migratory counterparts may have an uncertain legacy in terms of future adaptive traits. Goals of this session are to:

1. present recent research on our understanding of life history complexity in trout and char,
2. document the unique risks to and the loss of migratory life history forms of these species, and
3. present potential conservation and assessment approaches for migratory forms of trout and char.

Symposium Organizer:
Kitty Griswold, Fishery Biologist
Conte Anadromous Fish Research Center
US Geological Survey
Turners Falls Massachusetts
kitty_griswold@usgs.gov

Moderators Needed for AFS Genetics Session

Hello Genetics Section Members,

I'm the contributed papers chair for the upcoming AFS annual meeting in Lake Placid, NY, and I'm currently working on recruiting moderators for the meeting. Moderators are responsible for overseeing a block of 5-6 oral presentations (time slots are 20 min.)—this includes contacting speakers prior to the meeting, introducing speakers, and monitoring time to make sure that the session stays on schedule. The Genetics contributed session will be running all day on Tuesday, 9/12 and requires three moderators. I was wondering if three people would be interested in volunteering for these positions?

Thanks, and please let me know if you need any more information.

Sincerely,
Maureen G. Walsh, Research Fishery Biologist
USGS Lake Ontario Biological Station
17 Lake St., Oswego, NY 13126
Phone: (315) 343-3951 x12
email: mw Walsh@usgs.gov

Symposium Announcement:

The Invasive Asian Carps in North America: A Forum to Understand the Biology and Manage the Problem

August 22-23, 2006, Peoria, IL

Bighead, black, silver and grass carps are large fishes native to Asia. They are considered invasive in the United States, and undesirable effects on native species are expected. Bighead and silver carps, especially, have become extremely abundant in the large rivers of the central United States, especially in the vicinity of Peoria, IL, where this symposium is located. Black and grass carp also have a high potential for becoming nuisance species because of their efficient and specialized feeding strategies. This conference is designed to provide continuing and public education on the biology of Asian carps, and to provide a forum for advancement of the most recent information on Asian carp management and control.

You are invited to submit a paper or poster on biological research, modeling, or education/outreach efforts related to the following topics:

- Prevention of new carp introductions
- Containment
- Control of existing feral populations including market development
- Minimization of adverse impacts

Platform presentations: Presentations will last 15 minutes with an additional 5 minutes allowed for questions and will be grouped in a logical order within the conference. Posters: maximum size 3' X 6'. We have a large space for posters and encourage your participation in a special poster session on the evening of Aug 22nd. You may have a poster in addition to a paper. Presenters of platform presentations or posters must pay the normal registration fee. After abstracts are submitted and selected, publication of a proceedings will be considered. Presenters should indicate if they desire publication in that proceedings. If a proceedings is generated, published papers must undergo peer review. Note: **Deadline for abstract submission is May 26, 2006.** See <http://wwwaux.cerc.cr.usgs.gov/MICRA/Asian%20Carp%20Symposium.htm> for more details.

**You Recently Submitted to the IRS,
Why Not to Your Section?**

Just got a new grant? Need a used thermal cycler? Had a new baby? You've shared your fortunes with the IRS, now share news of your fortunes with us! The submission deadline for the next newsletter issue is **July 24**. As always, suggest what would make your section better – we'll even print out your thoughts anonymously if you wish. Please send news, concerns, issues, etc. to the

Newsletter Editor at carlinjl@whitman.edu.

Calendar of Upcoming Events

May 2006

- May 15 — Application Deadline for the **AFS Genetics Section Graduate Travel Award in Memory of James Wright**. See this newsletter for details!
- May 15 — Symposium proposal deadline for the 2007 annual meeting of the **Society for the Study of Evolution**. To be held Jun 18-23 2007, Massey University, Auckland, New Zealand. See www.evolutionsociety.org/news.html#2007sse.
- May 23-27 — "Get your kicks in 2006" Annual meeting of the **Society for the Preservation of Natural History Collections**. Sheraton Old Town, Albuquerque, New Mexico. See www.spnhc.org.
- May 24-28 — Annual meeting of the Society for Molecular Biology and Evolution: **Genomes, Evolution, & Bioinformatics** (GEB2006) conference to be held at Arizona State University. Arizona State University, Tempe, Arizona. See www.smbe.org/geb.
- May 31 — Abstract deadline for the Third International Symposium on **Stock Enhancement and Sea Ranching**. To be held on Sep 18-21 at the Westin Seattle Hotel, Seattle WA. See www.searanching.org.
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June 2006

- Jun 1 — Contributing speaker's abstract deadline for the 2006 AGA Symposium **Genetics of Speciation**, Jul 21-24, University of British Columbia, Vancouver, Canada. See www.theaga.org/agasymposium/index.html
- Jun 4-9 — **American Society of Limnology and Oceanography** Summer Meeting: Global Challenges Facing Oceanography and Limnology, Victoria, British Columbia, Canada. See aslo.org/meetings/victoria2006.
- Jun 12-16 — Symposium on the **Ecology of Stream Fish: State of the Art and Future Prospects II**, Leon, Spain. Contact Fred Utter, fmutter@u.washington.edu.
- Jun 17-23 — Seventh Symposium on **Fish Immunology**, Stirling, Scotland. See www.abdn.ac.uk/noffi.
- Jun 22-24 — **Coastwide Genetics Meeting**, Santa Cruz, California. Seymour Marine Discovery Center, Santa Cruz California. See santacruz.nmfs.noaa.gov/events/salmon_genetics/index.php

- Jun 23-27 — **Evolution 2006**, the joint meeting of the American Society of Naturalists, the Society of Systematic Biologists and the Society for the Study of Evolution, at State University of New York at Stony Brook, New York. See life.bio.sunysb.edu/ee/sse2006.
- Jun 24 — 2006 Seattle Showcase **Symposium in Statistical Genetics** at the University of Washington, Seattle Washington. See www.biostat.washington.edu.
- Jun 24-28 — 20th annual meeting of the **Society for Conservation Biology**, Conservation Without Borders, in San Jose, California. See conbio.net/2006/Index.cfm.
- Jun 26-30 — IX International Symposium on **Genetics in Aquaculture** (ISGA), Montpellier, France. See www.mediaqua.fr/IAGA/web/general_information/index.htm.
- Jun 30 — Early registration deadline for the Third International Symposium on **Stock Enhancement and Sea Ranching**. To be held on Sep 18-21 at the Westin Seattle Hotel, Seattle WA. See www.searanching.org.
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July 2006

- Jul 9 — Full proposal target dates for NSF programs in both **Population and Evolutionary Processes** and **Systematic Biology**. See www.nsf.gov.
- Jul 10-14 — **Fish Population Structure: Implications to Conservation**, Aberdeen, UK. See www.fsbi2006.org.uk.
- Jul 14 — Abstract deadline for the Tenth **Flatfish Biology Conference**. To be held Nov 29-30 at Water's Edge Resort, Westbrook, CT. See www.mi.nmfs.gov/flatfishbiologyworkshop.html.
- Jul 12-17 — **American Society of Ichthyologists and Herpetologists** Annual Conference, New Orleans, LA. Symposia include "Phylogeny, evolution, and ecology of the gobioid fishes." See www.asih.org/meetings/meetings.html.
- Jul 17-28 — Summer course for graduate students and postdocs in **Analysing Biodiversity & Life History Strategies**. Kristineberg Marine Research Station, Sweden. See www.marine-genomics-europe.org/.
- Jul 18-22 — ICBF 2006: Seventh **International Congress on the Biology of Fish**, St John's, Newfoundland, Canada. Symposia include "Genetically Modified Fish: Effects of Ectopic Gene Expression on the Biology of Fishes" and "Genomics and Proteomic Approaches in Fish Biology." See www.mun.ca/biology/icbf7/index.html.
- Jul 21-24 — 2006 AGA Symposium **Genetics of Speciation**, University of British Columbia, Vancouver, Canada. See www.theaga.org/agasymposium/index.html
- Jul 24 — Deadline for submitting news to the **AFS Genetics Section Newsletter**.

Send items to carlinjl@whitman.edu.

- Jul 29-Aug 3 — The joint annual meetings of the **American Malacological Society** and the Western Society of Malacologists. University of Washington, Seattle WA. See erato.acnatsci.org/ams/meetings/next.html.
- Jul 30-Aug 4 — Fifth International Conference on **Stickleback Behavior and Evolution**, Anchorage, AK. See fish.uoregon.edu/sb/stickleback2006.
- Jul 31 — Abstract deadline for 59th meeting of the **Gulf and Caribbean Fisheries Institute**, Nov 5-10. Belize City, Belize. See www.gcfi.org.
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August 2006

- Aug 19 — Symposium proposal deadline for the 2008 annual meeting of **SICB**, the Society of Integrative and Comparative Biology to be held Jan 2-6 2008 in San Antonio TX. See www.sicb.org/meetings/2008/index.php3.
- Aug 21-25 — UCLA Statistical Genetics group short course on **statistical genetics**. UCLA campus, Los Angeles CA. See www.genetics.ucla.edu/courses/statgene.
- Aug 22-26 — First **European Congress of Conservation Biology**: Diversity for Europe, Eger, Hungary. Symposia include "Conservation of Marine Biodiversity" and "Diversity of important transboundary wetlands of Europe." See www.eccb2006.org.
- Aug 25 — Abstract deadline for the 99th annual meeting of the **National Shellfisheries Association**. To be held Feb 26-Mar 2 in San Antonio, Texas. See shellfish.org/meetings.htm.
- Aug 31 — Registration deadline for **ICES 2006** International Council for the Exploration of the Sea Annual Science Conference, Sep 19-23 in the Netherlands. See www.ices.dk/iceswork/asc/2006/index.asp.
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September - December 2006

- Sep 10-14 — **AFS 136th Annual Meeting**, Olympic Village, Lake Placid NY. See www.afslakeplacid.org.
- Sep 11-15 — Advanced course on **Design and Analysis of Ecological Experiments**. Univ. Algarve, Faro Portugal. See www.ualg.pt/ccmar/maree/education.php.
- Sep 18-21 — Third International Symposium on **Stock Enhancement and Sea Ranching**. Westin Seattle Hotel, Seattle, WA. See www.searanching.org.
- Sep 19-23 — **ICES 2006** International Council for the Exploration of the Sea Annual Science Conference, the Netherlands. Theme sessions include

- “Evolutionary effects of exploitation on living marine resources.” See www.ices.dk/iceswork/asc/2006/index.asp.
- Oct 7-9—The 52nd Annual Systematics Symposium, Missouri Botanical Garden, **Reconstructing Complex Evolutionary Histories: Gene-Species Trees, Historical Biogeography, and Coevolution.** See www.mobot.org/MOBOT/research/symposium/welcome.shtml
- Oct 17-20—**15th International Salmonid Conference** sponsored by the Fisheries Management Section, Newcastle, UK. See www.associationofrivertrusts.org.uk/salmonid_conf/index.htm.
- Oct 30-Nov 3—International Council for the Exploration of the Sea **ICES Symposium** on Fishing Technology in the 21st Century: Integrating Fishing and Ecosystem Conservation, Boston, Massachusetts. See www.ices2006boston.org.
- Oct 31-Nov 3—24th **Lowell Wakefield Fisheries Symposium** “Resiliency of Gadid Stocks to Fishing and Climate Change.” Alaska Sea Grant College Program. Hotel Captain Cook, Anchorage, AK. See www.uaf.edu/seagrant/Conferences/gadids/index.html.
- Nov 3-5—4th Symposium on **Genes in Ecology, Ecology in Genes.** Sheraton Overland Park Hotel, Overland Park KS. See www.k-state.edu/ecogen/symp2006.html.
- Nov 5-10— 59th meeting of the **Gulf and Caribbean Fisheries Institute.** Large Pelagic Fishes in the Caribbean Sea and the Gulf of Mexico: Current Status and Integrated Management. Belize City, Belize. See www.gcfi.org.
- Nov 5-8—60th Annual **SEAFWA** (Southeastern Association of Fish and Wildlife Agencies) Conference: Wildlife Management in the Next New World, Norfolk, VA. See seafwa2006.org.
- Nov 19-22—**Aquaculture Canada 2006**, 23rd Annual Meeting of the Aquaculture Association of Canada. Westin Nova Scotian Hotel, Halifax, Nova Scotia. www.aquacultureassociation.ca/ac06/welcome.html
- Nov 29-30—Tenth **Flatfish Biology Conference.** Water’s Edge Resort, Westbrook, CT. See www.mi.nmfs.gov/flatfishbiologyworkshop.html.
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