



AFS Estuaries Section Newsletter Spring 2013

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SECTION NEWS

President's Message

This looks like my last newsletter as President of the Estuaries Section, at least for now. I also was President of the Estuaries Section from 2000-2001. When I was nominated to be President-Elect a few years ago, it seemed like one of those situations where I was “it” because I showed up to a meeting.

I think one of the most important duties of a Section President is to help ensure continued strong leadership for the Section. The Estuaries Section certainly has that in the person of Abigail Franklin, who has been an active member of the Section for years before stepping up to serve as President-Elect. And unlike me, Abigail is an active biologist working on estuarine and riverine habitat restoration.

I wanted to make sure the Section would have strong leadership behind Abigail as well. I met Karin Limburg at our 2012 Annual Business Meeting and have been very impressed with her leadership in organizing a great symposium (described later in the newsletter) for the 2013 AFS Annual Meeting.

Issue Highlights

SECTION NEWS

President's Message
2013 Section Elections
Treasurer's Report
2013 Student Travel Awards

2012 NANCY FOSTER AWARD WINNERS

FEATURE ARTICLE

Conditioning Flatfish for Stock Enhancement

2013 AFS SYMPOSIA SPONSORED BY THE ESTUARIES SECTION

MEETING NEWS

OTHER NEWS

A. Stephen Weithman Student Paper Award

I was overjoyed when Karin accepted my invitation to run for President-Elect of the Section for 2013-2015. Karin's biography, along with voting instructions, can be found on the next page. I hope you all vote and consider serving as Section officers in the future.

Speaking of active Estuaries Section members, *Fisheries* magazine has been looking for content from the various AFS Sections. Estuaries Section member Jim Vasslides stepped up to contribute a summary of some Superstorm Sandy-related work he has been doing at the Barnegat Bay Partnership in Toms River, New Jersey. Watch for this in an upcoming issue of *Fisheries*.

Longtime Estuaries Section member Tom Bigford has kicked off a monthly column in *Fisheries*, tentatively titled Fish Habitat Connections. I have read the first two columns, and they should be great reading for members of the Estuaries Section. Watch for Tom's first column in the May 2013 issue of *Fisheries*.

The Estuaries Section will again provide travel awards for up to three students for travel to the AFS 2013 Annual Meeting. Details on the awards can be found in this newsletter. The awards will be presented in Little Rock, Arkansas, at our annual business meeting.

I once again had the honor of representing the Estuaries Section at the AFS Mid-Year Governing Board meeting in Bethesda, Maryland, in early March 2013. A highlight of the meeting was getting to hear a presentation by the final candidate for AFS Executive Director, as well as having the opportunity to ask questions of the finalist. If all works out, the AFS should in good hands for the future. Just like the Estuaries Section!

--Lee Benaka, President, Estuaries Section

2013 SECTION ELECTIONS

Karin Limburg has offered to run for President-Elect of the Estuaries Section for 2013-2015. In addition, Anthony Overton has offered to continue to serve as the Section's Treasurer, and Lynn Waterhouse has offered to continue to serve as the Section's Secretary. Following is Karin's autobiographical statement:

I am a professor of environmental biology at the College of Environmental Science and Forestry of the State University of New York in Syracuse. Much of my research is on diadromous fishes, and much of that is conducted in the Hudson River estuary. I also have interests in watershed ecology and ecological economics. Recently I have, with colleagues, examined the status of diadromous fishes in the North Atlantic as well as the efficacy of diadromous fish passage on mainstems of rivers and estuaries.

In addition to being a long-term member of the AFS, I am an even longer-term member of the Coastal and Estuarine Research Federation and presently serve on the editorial board of *Estuaries and Coasts*. I also served as board member and then president of the U.S. Society for Ecological Economics. Recently I joined the advisory board of a center of interdisciplinary excellence at the University of Bordeaux in France, with a focus on estuarine science. I am also a member of an international working group to develop a science research agenda for continental margins.

AFS has meant a lot to me over the years, and like you, I find so many colleagues with similar interests and issues. As president of the AFS Estuaries Section, I would bring my background in and passion for estuarine science and

fisheries, as well as my connections to CERF. I would also bring my previous experience in professional society leadership. I would strive to grow the section membership, particularly by recruiting student members. I would also confer with other sections, such as Marine Fisheries, Bioengineering, and Water Quality, to consider and/or develop policy statements on issues affecting estuaries. Finally, I think we could sponsor a joint AFS-CERF session at one or the other (or both?) professional society meetings.

How to Vote: Please send an email message to Lee.Benaka@noaa.gov, with the subject line ESTUARIES SECTION ELECTION. In the email, please indicate whether you support Karin's candidacy for President-Elect. Voting is unnecessary for Anthony and Lynn because they are incumbents and running unopposed. Please send your votes to Lee Benaka by **Friday, May 17**.

--Lee Benaka, President, Estuaries Section

TREASURER'S REPORT

Starting Balance (01/01/2012) **\$2,836.71**

Income

- AFS Dues \$1,298.00
- Contribution from Southern Association of Marine Laboratories for Student Travel Awards \$1,000.00
- Total income: \$2,298.00

Expenses

- 2012 Student Travel Awards \$1,500.00
- 2012 Annual Meeting expenses \$ 434.81
- Travel support for President-Elect Abigail Franklin to 2012 Annual Meeting \$ 322.95
- Total expenses: \$2,257.76

Balance on Hand (12/31/2012) **\$2,796.47**

--Anthony Overton, Treasurer, Estuaries Section

2013 STUDENT TRAVEL AWARDS

The Estuaries Section is pleased to offer financial awards for up to three undergraduate or graduate students in support of their attendance at the AFS 2013 Annual Meeting. The amount of each award will be \$500.00.

The Estuaries Section will fund one award, and the Southern Association of Marine Laboratories (SAML) will fund two. For the Estuaries Section award, priority will be given to students who are presenting their own research at the conference (in an oral or poster presentation), are AFS Estuaries Section members, and have a demonstrated financial need. For the two SAML funded awards, in addition to the criteria listed above, preference will be given to those students representing a SAML institution.

For more details on how to apply, please visit the Estuaries Section website at <http://www.fisheriessociety.org/estuaries/>. Complete applications must be sent to Lee.Benaka@noaa.gov by June 14, 2013. Award winners will be notified by June 28, 2013.

--Lee Benaka, President, Estuaries Section

2012 NANCY FOSTER HABITAT CONSERVATION AWARD WINNERS

NOAA/NMFS's Office of Habitat Conservation and the AFS Estuaries Section announce the two winners of the 2012 Nancy Foster Habitat Conservation Award. Garry F. Mayer was selected for more than 30 years as a marine scientist, adjunct faculty member, and national habitat program leader. Garry retired earlier this year from his position as Chief Scientist with NOAA/NMFS Office of Habitat Conservation in Silver Spring, Maryland. Garry always found time to contribute to the Estuaries Section, including as a frequent judge for this Foster Award (he did not serve in that capacity for 2012!).

His final success was in gaining full approval of a new Coastal and Marine Ecological Classification Standard (CMECS) that promises to improve habitat science, management, and policy. Check out <http://www.fgdc.gov/standards/projects/FGD/C-standards-projects/cmecs-folder/>.

Mary Yoklavich, a scientist with NOAA/NMFS Southwest Fisheries Science Center in Santa Cruz, California, received the award for her research, leadership, and vision on habitat science along the Pacific coast. Mary has had a tremendous career, with about 90 publications. Mary is a widely recognized expertise on West Coast rockfishes, has played a key role in integrating science into management, and has provided continuing contributions on deep-sea corals. Please join us in a cheer for two preeminent contributors to estuarine science and management!

--Tom Bigford, NOAA/NMFS Office of Habitat Conservation

FEATURE ARTICLE

Conditioning Flatfish for Stock Enhancement

by Michelle L. Walsh

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A primary focus of my dissertation work was to assess conditioning strategies for flatfish stock enhancement implemented by researchers and managers in Japan, and to examine the feasibility of transferring these strategies to emerging U.S. flatfish stocking programs. I appreciated the opportunity to present my research at the 2012 AFS Meeting in Minneapolis/St. Paul, and I was honored to be selected as a travel award recipient by the Estuaries Section. Here is a brief summary of my work.

Flatfishes (flounders, halibuts, soles) are among the most desirable and highly priced fishes sold for human consumption. Although flatfishes have supported valuable fisheries throughout the world for centuries, catches of many species have declined. Many marine and estuarine fishes release hundreds of thousands of eggs annually, but the small, early life-history stages are vulnerable, there is high natural mortality, and few survive to maturity. Rearing and releasing juvenile flatfish (i.e., stock enhancement) may help rebuild or stabilize natural populations.

A successful stocking program requires survival of released fish, and to achieve this, released fish

must be able to adjust to their new environment, feed successfully, and avoid predation. Conditioning flatfish to natural stimuli before release may offer fish an opportunity to refine these behaviors, which may increase survival in nature and subsequent recruitment to the fishery. Flatfish trained for "wild" conditions may more easily and successfully transition to natural environments upon release.

The overall objective of my dissertation was to evaluate conditioning strategies currently executed for flatfish stock enhancement in order to assess whether these strategies promote the "success" of released juveniles or the stocking effort. I defined "success" of a conditioning strategy in three ways: (1) enhancing performance; (2) yielding a behavioral repertoire by conditioned fish that more closely matches that of wild fish; and (3) increasing the number of released fish landed at market relative to the amount of non-conditioned fish.



Dr. Michelle Walsh tags an adult winter flounder to track spawning movements in New Hampshire estuaries and other inshore coastal areas.

My dissertation work revealed a number of unique approaches and insights into flatfish stock enhancement never before reported. I described the influence of different diets (both live and formulated) on hatchery feeding success, with an explanation of non-traditional live feed culture. I evaluated how this hatchery feeding success translated into wild feeding success once

individuals were released into the wild. I then assessed the success of a large-scale stocking effort where approximately half of the released fish were conditioned in predator-free cages before release. Finally, I described the performance and behavior of fish that underwent cage-conditioning compared to those that were not conditioned.

2013 AFS SYMPOSIA SPONSORED BY THE ESTUARIES SECTION

Population Productivity Drivers and Spatial Scale: A Case Study with Red Drum

Organizers:

Susan Lowerre-Barbieri, Michael Tringali, and Lee Fuiman

Description:

Management objectives are shifting from the optimization of yield to conservation and recovery of marine fish stocks. This, in conjunction with the realization that stock assessments are oversimplifications of complex systems, has led to a call for a better understanding of biological processes and ecosystems. Current harvest control rules are based on measures of single species productivity, but inter-generational estimates (i.e., stock-recruitment relationships) are notoriously poor, highlighting that a key knowledge gap in fisheries ecology and management is an understanding of the factors driving population productivity and the spatial scale over which they act. Filling this knowledge gap will be difficult, given the scale of marine fish life cycles, high offspring mortality, and the somewhat insular nature of researchers focusing on different stages of life history.

The American Fisheries Society annual meeting provides an excellent opportunity to bring together scientists from diverse fields to begin to meet this challenge. Red drum were chosen as the case study for this symposium because: (1) fishing in federal waters has been closed for the past 20 years allowing population connectivity/adult spatial studies to be conducted on populations undisturbed by commercial fishing; (2) red drum is one of the first marine species spawned and reared in captivity, resulting in a better understanding of their reproductive behavior, egg quality, and factors

affecting larval survivorship; (3) they are distributed throughout the Gulf and along the SE Atlantic, providing an opportunity to compare spatial behavior in different ecosystems; (4) management is based on subadult escapement rates; and (5) red drum have been the subject of intensive stock-enhancement efforts, resulting in extensive research on nursery and juvenile habitat and how it impacts survivorship.

Ecosystem Connections: Watershed Health, Anadromous Species, and Ocean Production

Organizers:

Thomas E. Bigford, Karin E. Limburg, Eric P. Palkovacs, and Theodore Castro-Santos

Description:

This symposium will build on the growing body of knowledge documenting the importance of healthy coastal watersheds in supporting ocean populations of highly valued fish stocks. Our goal is to investigate those connections, using anadromous fish as primary integrators for ecological and economic benefits. Two symposia at AFS 2012 connected land, water, forage, and fisheries. In 2013, we will delve further by focusing on how specific riverine and estuarine stocks support important offshore populations. Our objective is to link science and management, with those working on either side of our coasts recognizing the value of their separate contributions. Those connections will clarify future actions to strengthen the collective efforts of AFS members and meeting participants to make solid decisions affecting living resources.

Food chains are among the most visible and tenuous measures of ecosystem health. Healthy and productive populations of river herring, shad, and other anadromous species are crucial for productive stocks of offshore fish species. More specifically, sufficient riverine and estuarine habitat will support ocean populations of valued commercial and recreational fish. Comparable ecological and economic connections occur within estuaries, where resident finfish such as menhaden and shellfish such as oysters provide similar benefits to species such as striped bass and bluefish. Presentations by experts from all sides of this timely issue will help us understand the ecological and economic links between coastal watersheds and our oceans.

MEETING NEWS

American Fisheries Society 143rd Annual Meeting September 8-12, 2013, Little Rock, AR <http://afs2013.com>

The meeting theme, "Preparing for the Challenges Ahead," is likely to stimulate thoughts and presentations on:

- Challenges facing natural resource agencies regarding mandates to do more with fewer resources.
- Challenges facing educators regarding a growing knowledge base, changing student expectations, and teaching to Millennials.
- Challenges facing students regarding their roles as future scientists and managers serving increasingly more diverse stakeholders.
- Other challenges that confront fisheries and natural resource professionals

Coastal & Estuarine Research Federation Annual Meeting November 3-7, 2013, San Diego, CA <http://www.erf.org/cef2013>

June 1, 2013, is the deadline for abstracts. October 3, 2013, is the deadline for early registration.

International Congress on the Biology of Fish August 3-7, 2014, Edinburgh, Scotland <http://icbf2014.sls.hw.ac.uk>

This meeting will cover everything from covering everything from physiology of fish aquaculture, nutrition, parasites and disease to swimming and migratory physiology, ecological physiology, environmental stress and toxicology, in both fresh and seawater environments.

OTHER NEWS

A. Stephen Weithman Student Paper Award

The Missouri Chapter and the Socioeconomics Section of the AFS sponsor the A. Stephen Weithman Best Student Paper Award in Socioeconomics. The award is given for the best platform or poster paper using economic and/or other social science data and analyses presented by a student at the American Fisheries Society

Annual Meeting. Papers are judged on content, originality, organization, contribution to the field of fisheries science, and overall presentation of the study. The award winner receives \$150 and an award certificate following the annual meeting. Applications are due to Peter Fricke by July 1, 2013, for the 2013 AFS Annual Meeting in Little Rock, Arkansas. To obtain an application, please contact Peter Fricke at peter.fricke@frontiernet.net

AFS Job Center Online (and other employment resources) <http://fisheries.org/jobs>

Renew your AFS Membership online at <https://fisheries.org/renew>