



AFS Potomac Chapter Newsletter January 2014

Newsletter Editor –

Jennifer Cudney, Earth Resources Technology, Inc. / National Marine Fisheries Service, Silver Spring, MD 20910. Phone 301/427-8548; email Jennifer.Cudney@noaa.gov

H. Ward Slacum—Acting President
Philip Hoffman—Acting President-Elect
Lee Benaka—Acting Treasurer
Jennifer Cudney—Acting Secretary
<https://sites.google.com/site/afspotomac/>
AFSPotomac@gmail.com

SECTION NEWS

President's Message

Hello Potomac Chapter members! It's been a little over a year since our last newsletter updating you on the goings on of our Chapter and a lot has occurred since then. After the fun day we all had in November 2012 at the first crab feast of the Potomac Chapter in a long time, the acting officers and I have been busy supporting fisheries issues important to us and to the AFS parent Chapter.

Issue Highlights

SECTION NEWS

President's Message
Treasurer's Report
2013 Travel Award Winner

POTOMAC CHAPTER ELECTIONS

CAPITOL HILL BRIEFING

FEATURE ARTICLE

On the Path to Understanding the Ecosystem Effects of Harmful Algal Blooms

2013 CRAB FEAST

FISHERIES LEADERSHIP DIALOGUE

AFS EMERGING LEADERS MENTORSHIP AWARD (ELMA) PROGRAM

In the spring of 2013 the Chapter helped coordinate an AFS briefing to Congress on fisheries and climate change. We also met with the AFS President Bob Hughes and Executive Director Doug Austin and other AFS officers and staff last summer in a day-long discussion with agencies and non-governmental organizations committed to fisheries management. In addition, we hosted another fun-filled day of eating crabs and talking fisheries and family at the AFS headquarters in the fall.

We also have been hard at work looking for members interested in serving as Chapter officers to help advance the support of Chapter membership. I'm happy to say that we have identified a full complement of officers, and you can read their bios in this newsletter and vote for them today!

During my time as acting Potomac Chapter President I have been fortunate to have participated in so many interesting activities and to have met many of you along the way. Chapter members often bring up the great luncheons that the Potomac Chapter used to put on. The luncheons were used as a sounding board to discuss and debate current topics of interest to

the membership. We would like to resurrect the lunchtime seminars and want your help to come up with topics for the seminars. Please send us ideas on what you would like to discuss to afspotomac@gmail.com.

You are the Chapter's greatest asset, so we hope that YOU might volunteer to present your work to get the seminar series started.

--Ward Slacum, Acting President, Potomac Chapter

Treasurer's Report

M&T Bank Simple Checking for Business
Starting Balance (01/31/13) **\$ 4,530.85**

Income

- AFS Dues (06/04/13) \$ 324.00
- AFS Dues (08/14/13) \$ 245.00
- Total income: \$ 569.00

Expenses

- Capitol Hill Briefing expenses (05/20/13)
 \$ 35.44
- Bank checks order (06/06/13)
 \$ 53.44
- AFS Equal Opportunities Section Travel Award (07/22/13)
 \$ 200.00
- 2013 Student Travel Award (09/08/13)
 \$ 400.00
- AFS/NMFS meeting expenses (11/05/13)
 \$ 184.18
- Total expenses: \$ 873.06

Balance on Hand (11/30/13) **\$ 4,226.79**

M&T Bank 12-13 Month Time Deposit Account
Starting Balance (01/01/13) **\$ 7,161.35**
Ending Balance (06/25/13) **\$ 7,164.92**

--Lee Benaka, Acting Treasurer, Potomac Chapter

2013 Travel Award Winner

The Potomac Chapter decided to fund a \$400 student travel award to the AFS 2013 Annual Meeting. The AFS Estuaries Section awards three travel awards each year. For 2013, the Estuaries Section received more high-quality nominations than it could afford to fund. When the Potomac Chapter learned of this, its leaders decided to fund a deserving student.

The awardee, Konstantine Rountos, made one oral presentation and one poster presentation at the AFS 2013 Annual Meeting in Little Rock, Arkansas. Rountos is a fourth-year Ph.D. student at Stony Brook University's School of Marine and Atmospheric Sciences under the advisement of Dr. Ellen K. Pikitch. Konstantine has contributed the feature article to this edition of the newsletter. The Potomac Chapter appreciates his high-quality scholarship and interest in AFS.

POTOMAC CHAPTER ELECTIONS

Now that the AFS Potomac Chapter has identified an excellent candidate for President-Elect, it is now ready to hold officer elections for the first time in over 10 years. Since August 2012, Ward Slacum has served as Acting President, Jennifer Cudney has served as Acting Secretary, and Lee Benaka has served as Acting Treasurer of the Chapter. These are two-year terms that will expire in August 2014 at the next AFS Annual Meeting. The President-Elect candidate will assume his position in February 2014 and become President in August 2014. This summer the Potomac Chapter will identify nominees for a President-Elect for 2014-2016. Following are biographical statements for the candidates:

H. Ward Slacum, President

My involvement in the Potomac Chapter stemmed from an interest in how fisheries science and research gets incorporated into the policy making process. Most of my career has centered on researching coastal fisheries stocks and working with managers and industry to evaluate and develop metrics to enhance fisheries management. Since I've been active with the Potomac Chapter I have had several

opportunities to participate in forums related to fisheries policy issues and it's been great (see Presidents message and other newsletter sections). My participation in these forums primarily due to my affiliation with the Chapter and as President I will work hard to ensure that all Potomac Chapter members are aware of such opportunities so that you have the opportunity to participate if you want to. In addition, AFS headquarters has begun an initiative to provide additional support to its chapters and I will use this support to establish better and more up to date methods of communications with our members over the next year.

I am currently working for Versar, Inc. as the Program Manager of the Coastal Monitoring and Assessment Program (C-MAP) specializes in natural resource assessment and management. My Program is comprised of several senior scientists and technicians conducting interdisciplinary research on fisheries and ecosystems along the East Coast of the U.S. I have been working at Versar for 12 years and have developed a program that primarily supports the fisheries management needs of State and Federal government agencies.

I have a Master's degree in Fisheries Science from the University of Maryland MEES Program and B.S. in Environmental Science and have been a member of AFS since 1996. I was born on the Eastern Shore of Maryland, but traveled to various Marine Corp bases around the country until settling back to the Shore about 20 years ago. I have shared the time since then with my wife Julie who is the chief of the Endangered Species Branch in the Chesapeake Bay Fish and Wildlife Service field office. I enjoy spending my free time outdoors gardening, taking pictures, fishing, and also making furniture in the woodshop.

Philip L. Hoffman, President-Elect

How do you support and encourage fisheries professionals who may no longer touch actual fish? This striking conundrum is at the heart of the American Fisheries Society's Potomac Chapter. It's also why I want to become the next President-Elect. At the National level, both Current AFS President Robert Hughes and Past-President John Boreman have staked out a position for AFS of returning to its roots of advocacy FOR the fisheries professional, and nowhere is that advocacy more needed, or more

likely to succeed, then here in the Potomac. Our membership is drawn from the headquarters of national fisheries management agencies; from regional and state fisheries governing boards and management entities; academia, and the non-governmental organizations that seek to drive national fisheries policy. As President-Elect I want to move these groups closer together, so they speak with one voice about how fisheries professionals ARE already contributing to our Nation's and our resources well-being. I see this happening in small ways – like the crab-feast and other social opportunities; medium-sized ways like continuing education seminars, regional conferences, and Chapter outreach communications; and in large ways like expanding our Capitol Hill briefing series.

I am currently working as the Director of the Cooperative Institute Program in NOAA's Office of Oceanic and Atmospheric Research. I lead a national team delivering \$170 Million annually in university-based Foundational Science that supports all of NOAA's missions, and I work with scientists, researchers, graduate students and post-docs at 41 universities in 27 states and the District of Columbia.

I joined NOAA in 2005 to as the Program Coordinator for NOAA Fisheries Protected Species Program. I worked in the Silver Spring headquarters and spent my time trying to turn real scientific needs into executable federal budgets; translating actions conducted by field scientists into federal government performance measures, and serving as a sounding board for the needs of the six NOAA Fisheries Service Regional Offices and Science Centers with respect to planning and budgeting processes.

Prior to my NOAA service, I worked for the U.S. Army Corps of Engineers in Seattle, Washington leading ecosystem restoration and mitigation teams as well as ensuring environmental compliance during military construction projects at the region's Army and Air Force bases (2002-2005). My early career included stints with the Pinellas County Department of Environmental Management (Clearwater, FL); Tampa BayWatch, a regional NGO focused on community based coastal habitat restoration (St. Petersburg, FL); and the Florida Fish and Wildlife Commission's Florida Marine Research Institute (now the Florida Wildlife Research Institute).

A Louisiana native, I am married to a NOAA Coastal Marine Ecologist (and fellow AFS member); I am proud father of three daughters (age 4 to 17) and a son (3); I am a devoted LSU Tigers football fan; and de-stress by making things out of wood for my nearly 100-year-old house, fishing, or building scale models of the trains I grew up watching in Baton Rouge, LA.

B.S. Marine Science – Biology Concentration
May 1992 Eckerd College, St. Petersburg, FL.
M.S. Oceanography & Coastal Science
(Fisheries Emphasis) December 1999 LSU,
Baton Rouge, LA

Jennifer Cudney, Secretary

I have been involved with the American Fisheries Society in some form or fashion since I started my M.S. program in Biology at East Carolina University (ECU) in 2001. Between 2002-2004 I served as president of the ECU Student Subunit, a part of the Tidewater Chapter of AFS. ECU AFS was an extremely active student group on campus. During my tenure as president I coordinated two annual meetings, helped the student subunit organize campus community activities and fundraisers, represented the student subunit at numerous Chapter and Parent Society meetings, maintained a monthly meeting schedule with numerous guest speakers, and coordinated workshop and training opportunities for students.

After working three years at the Aquatic Ecology Laboratory at Ohio State University as a head research technician, I returned to ECU to enroll in the Coastal Resources Management Ph.d Program. My dissertation research, on the behavior and management of spiny dogfish sharks, afforded me the opportunity to work with North Carolina commercial fishermen in developing and implementing an acoustic tagging research program off the Outer Banks of North Carolina. I was fortunate to be accepted into the 2011 class of the John A. Knauss Marine Policy Fellowship. After completing my fellowship with the Highly Migratory Species Management Division of NMFS, I was invited to stay on as a contractor for HMS.

I sincerely missed being an active part of the ECU student subunit, and was delighted to serve as Acting Secretary of the Potomac Chapter over the last year. As Secretary for the Potomac Chapter, I would bring to the executive committee

an understanding of the needs of students and young professionals in fisheries.

Lee Benaka, Treasurer

Since February 2013, I have worked in the NMFS Office of Science and Technology, focusing on national observer issues and bycatch monitoring. Previously, I worked in the NMFS Office of Sustainable Fisheries from 2002 to 2013.

I have been involved with the AFS Potomac Chapter since early 1999, when I attended a Potomac Chapter holiday luncheon and made a contact that led to my first job at NMFS. I also served as President of the AFS Estuaries Section from 2011 to 2013 and as Treasurer of the AFS Marine Fisheries Section for several years in the 2000s.

I have a Master of Marine Affairs degree from the University of Rhode Island

How to Vote: Please send an email message to Jennifer.Cudney@noaa.gov, with the subject line POTOMAC CHAPTER ELECTION. In the email, please indicate whether you support Ward as President, Philip as President-Elect, Jennifer as Secretary, and Lee as Treasurer. Please send your votes to Jennifer by **Friday, February 28.**

**--Jennifer Cudney, Acting Secretary,
Potomac Chapter**

CAPITOL HILL BRIEFING

The Potomac Chapter, in conjunction with the AFS External Affairs Committee, convened a briefing on Climate Change and Fisheries on May 9, 2013, in the Rayburn House Office Building on Capitol Hill. This was the first Capitol Hill briefing sponsored by the Potomac Chapter since a July 2001 briefing on Aquatic Nuisance Species and Fisheries.

The briefing was drew over 40 people, including staffers from the offices of 7 members of Congress, as well as professionals from the Food and Agriculture Organization of the United Nations, the Natural Resources Defense Council, Oceana, and the Center for American Progress. AFS President John Boreman opened the briefing by describing the AFS Climate Change Policy Statement. President Boreman also

described the contents of his January 2013 letter to President Obama regarding climate change.

The briefing included four presentations on a variety of aspects of climate change and fisheries. Presenters included Cora Campbell, Commissioner of the Alaska Department of Fish and Game; Malin Pinsky of Princeton University; John Hare of NOAA Fisheries Northeast Fisheries Science Center; and Leaf Hillman of the Karuk Tribe of California. Ward Slacum and Lee Benaka wrote a detailed summary of this briefing that was published in the September 2013 issue of *Fisheries*.

--Lee Benaka, Acting Treasurer, Potomac Chapter

FEATURE ARTICLE

On the Path to Understanding the Ecosystem Effects of Harmful Algal Blooms: First Stop, Early Life Stage Fish!

by Konstantine J. Rountos
School of Marine and Atmospheric Sciences,
Stony Brook University, Stony Brook, NY
11794-5000
krountos@gmail.com

Harmful algal blooms (HABs) are caused by a variety of marine and freshwater phytoplankton, many of which can produce potent biotoxins. These HABs can be ecologically and economically destructive, causing conspicuous mass mortalities in both wild and farmed fish and shellfish species globally. Although these impacts are substantial, little is known about the broader ecological impacts of HABs, many of which go unseen. In addition to observations of "fish kills" in the field, the vast majority of toxicology research has focused on juvenile and adult life stages of fish. Only a handful of studies have even evaluated the effects of a few HAB species on early life stages of fish (i.e. embryos and eleutheroembryos or "yolk-sac" larvae). Impacts to early life stages would likely go unnoticed in the wild and could have considerable consequences to the recruitment of coastal fish populations.

One particularly compelling HAB species is *Cochlodinium polykrikoides*, commonly referred to as the "red tide," "rust tide," or "mahogany

tide." Blooms of this ichthyotoxic dinoflagellate can cause rapid mortality to both fish and shellfish. Unfortunately, this HAB has increased in geographic extent, frequency and duration in many coastal ecosystems worldwide, likely due to eutrophication. Generally forming high density (10^3 - 10^5 cells ml^{-1}) patches, these blooms can persist for many months and cover large coastal areas ($>1 \text{ km}^2$) in Asia, Europe and North America and often overlap temporally with the spawning events of many coastal fish species.

While the ichthyotoxicity of *C. polykrikoides* has been demonstrated using older life stages of fish, researchers have yet to identify the specific biotoxin(s) produced by this HAB or the broader effects to ecosystems, supporting the need for future research. Because of the rapid toxicity of *C. polykrikoides* to juvenile and adult fish, many have hypothesized that the impacts of these blooms to the ichthyoplankton, particularly early life stages of fish, may be significant and likely go unnoticed in the field.

A portion of my dissertation research, which I presented at the 2013 Annual AFS meeting in Little Rock, AR, examined the potential impacts of *C. polykrikoides* on early life stages of fish. Using laboratory experiments with three estuarine forage fish species common in the U.S. East Coast, I conducted a series of bioassays to (1) assess the toxicity of *C. polykrikoides* to embryos and eleutheroembryos of these fish species and (2) assess the sublethal toxicity to eleutheroembryos from exposure. My research confirms that newly hatched eleutheroembryos of several forage fish species can experience rapid mortality and dramatic sublethal effects to motility when exposed to *C. polykrikoides*, while in general, survival was relatively high in embryos exposed to *C. polykrikoides* treatments until they hatched. This suggests that the toxic agents in *C. polykrikoides* may not easily penetrate the chorionic membrane of these fish species, similar to what is documented for a variety of other toxicants. However, there may be other teratological effects from embryo exposures that we did not evaluate in our experiments but could be significant and only manifest themselves when exposed fish are more developed. Of particular significance was our finding that short-term exposures (15min) to bloom concentrations of *C. polykrikoides* can cause eleutheroembryos to temporarily lose their swimming ability, however motility can be

regained if the eleutheroembryos are given enough time to recover in control water. This research is currently in review for publication.



Inland silverside (*Menidia beryllina*) eleutheroembryo exposed to HAB species *Cochlodinium polykrikoides* (small dots in photo, credit K.J. Rountous).

This exciting research has shed light on to the potential impacts of *C. polykrikoides* blooms to early life stages of fish in coastal areas. Given the heterogeneous and episodic nature of *C. polykrikoides* blooms, these results can provide coastal managers and scientists with a better understanding of the potential impacts posed to coastal fish populations. Ultimately, as this HAB species increases in frequency and duration in many coastal areas, the effects on early life stages of fish need to be accounted for in order to understand the true ecosystem impacts.

I acknowledge and thank the Potomac Chapter of AFS for a student travel award, which allowed me to present this research at the 2013 National AFS meeting.

2013 CRAB FEAST

Despite the three-week Federal government shutdown, the Potomac Chapter managed to hold another successful crab feast on November 2. Approximately 30 Chapter members turned out on an unseasonably warm day to eat delicious crabs on the scenic grounds of the AFS headquarters. Members of the Washington, DC, bluegrass band Hollertown (www.hollertown.com) provided live music as the crabs were devoured. The Potomac Chapter sincerely thanks Denise Spencer and Shawn Johnson for their hospitality in hosting the crab feast once again.



--Lee Benaka, Acting Treasurer, Potomac Chapter

FISHERIES LEADERSHIP DIALOGUE

On October 31, at the Pew Charitable Trusts Conference Center in Washington, DC, the AFS and the National Wildlife Federation hosted a Fisheries Leadership Dialogue Luncheon involving leaders of Federal fisheries agencies and non-governmental organizations.

The purpose of this meeting was to bring together leaders in the Washington, DC fisheries community to build professional collaboration, identify and discuss key fisheries issues, and help to identify opportunities where the AFS can add value to further positive action on these issues.

Leaders of NMFS, the U.S. Fish and Wildlife Service, the U.S. Forest Service, the U.S. Army

Corps of Engineers, U.S. Environmental Protection Agency, Trout Unlimited, the Nature Conservancy, the Izaak Walton League, and the Theodore Roosevelt Conservation Partnership provided thoughtful comments on key fisheries challenges and possible AFS activities.

The Potomac Chapter worked with AFS Executive Director Doug Austen to identify participants for this meeting and was recognized at the meeting. The participants left the meeting with a general consensus that this helpful dialogue would continue in the future.

LOOKING FOR AFS' FUTURE LEADERS

The AFS Emerging Leaders Mentorship Award (ELMA) Program was recently established to develop future leaders of the Society, and the fisheries profession as a whole, by providing selected candidates an opportunity to participate for one year in activities of the AFS Governing Board. Up to \$2,000 will be allocated annually by the Society to fund partial travel for up to four candidates per year with a maximum of \$500 per candidate. Participants in the program will be selected based on their level of involvement in AFS, as well as their potential for assuming leadership of an AFS unit in the future.

Applications and more information may be found on the AFS Parent Society homepage: <http://afsmembers.org/emerging-leadership-award-2014/>. Submit your application for the ELMA by April 1 to Jim Bowker (Award Chair, Western Division AFS Vice President) at jim_bowker@fws.gov and cc: your Division President. Questions may be directed to Jim Bowker through email or by phone (406-994-9910).

THE AFS POTOMAC CHAPTER NEEDS YOU!

The AFS Potomac Chapter is actively soliciting ideas from interested members and non-members for how to better serve its members and the Washington D.C./Potomac regional fisheries community. If you have suggestions for chapter activities, training opportunities, seminars, or networking events, or want to become more involved in the Potomac Chapter, please feel free to contact Ward, Philip, Lee, or Jennifer at any time.

