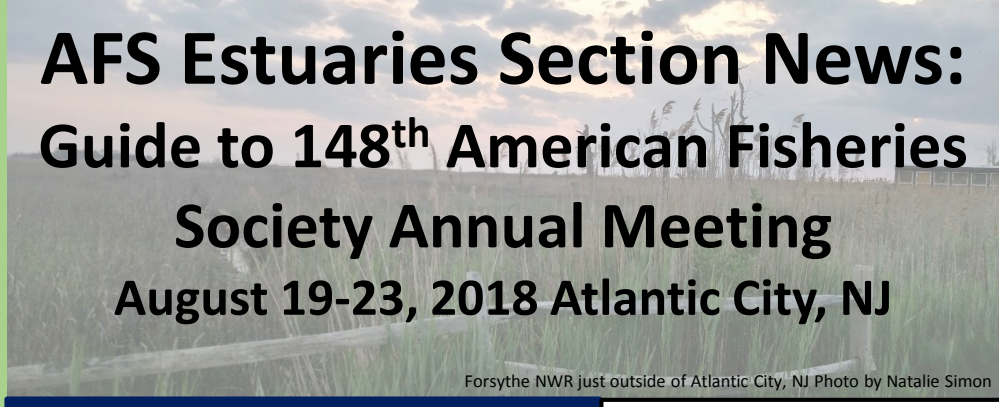
AFS Estuaries Section News:

Guide to 148th American Fisheries Society Annual Meeting

August 19-23, 2018 Atlantic City, NJ



Forsythe NWR just outside of Atlantic City, NJ Photo by Natalie Simon

Guide to the Annual Meeting 2018

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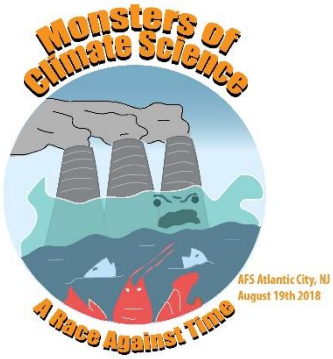
Monsters of Climate Change

Sunday, August 19th
12:30 PM - 3:30 PM
Convention Center 320



The 1980s "Monsters of Rock" tour brought together the best heavy metal bands in the world to play together. The Monsters of Climate Science workshop will bring together top scientists from around the country for an afternoon of mayhem, mirth, and majorly informative presentations on different aspects of climate change science and the impacts on fisheries. This event, which is organized by the AFS Estuaries and Marine Fisheries Sections, will benefit student travel awards for the AFS Annual Meeting. Laser lights, heavy metal, great talks, and a great cause–what's not to like?

Students: $20, All other attendees: $40
Register online with your conference registration as a Continuing Education Course/Workshop on Sunday August 19th or at the door.

Monsters:
Doug Beard, U.S. Geological Survey
Lisa Kerr, Gulf of Maine Research Institute
Vince Saba, NOAA Fisheries Northeast Fisheries Science Center
Michelle Staudinger, U.S. Geological Survey
Talia Young, Princeton University
Abigail Lynch, U.S. Geological Survey

Estuaries Section and Marine Fisheries Section Annual Business Meetings

Sunday, August 19th, 4:00 PM - 6:00 PM
Convention Center 320

The agenda can be viewed here. Come mix and mingle with fellow Estuaries Section members and our friends in the Marine Fisheries Section. We will give an update of accomplishments, discuss ideas for symposia for 2019 in Reno, give an update on the Monsters of Climate Change Science, and honor our Student Travel Scholarship award winners, Amanda Croteau from University of Florida and Steven Lombardo from NC State University.

Social Hour – Estuaries and Marine Fisheries Sections

Monday August 20th, 8:30 PM after the Trade Show
at the
Wingcraft Kitchen and Beer Bar
2010 Baltic Ave, Atlantic City, NJ 08401

Specials will be offered during the hours of the social.

Sponsored Symposium
Life in the Big City: Understanding Urbanization Impacts on Estuarine Fishes and Shellfish

Sponsored By: Estuaries Section and Fish Habitat Section
Date and Time: Thursday, August 23 1:40 PM – 5:00 PM
Room: Convention Center 305/306

Estuaries provide critical habitat for an assortment of fish species that rely on them during some, or all of, their life history. Humans also depend on estuaries in a number of ways, as they provide a variety of economic, cultural, and ecological services. Nearly 50% of the population of the U.S. lives in coastal counties, most of that falling within estuarine watersheds. These watersheds are undergoing different rates of urbanization and the change from "natural" systems to those dominated by human development can impose significant stressors on estuaries. The purpose of this symposium is to explore the impacts of urbanization on estuarine fishes and shellfish. Many human activities have adverse consequences for estuarine organisms (e.g., dredging, shoreline hardening, flow manipulation, pollution, and introduced species to name a few) so topics of interest are diverse. We invite presentations from researchers working in estuaries across the country that examine both direct and more indirect impacts of urbanization on fishes and shellfish.

Organizers: James Vasslides and Catherine Johnston

Student Talks

Estuaries Section PhD Student Travel Award Winner: Amanda Croteau, UF

Colonization and Use of a Salt Marsh Following Large-Scale Habitat Restoration
Authors: Amanda Croteau
Symposium: Habitat Enhancement for Conservation and Management in Marine and Freshwater Environments: Effects and Mechanisms of Response
Time and Location: Wednesday, August 22 11:00 AM – 11:20 AM; Convention Center 415

Florida's coastal habitats have been severely impacted by development. In the past 100 years, Tampa Bay has lost >44% of its mangrove and salt marsh habitat. Robinson Preserve is a 197-hectare preserve, located on the southern shore of Tampa Bay. Originally a coastal wetland, the property was ditched, drained, and used for agriculture. Tidal flow was restored in 2006. While upland and salt marsh vegetation were planted, aquatic flora and fauna were left to colonize from neighboring populations. Robinson Preserve was sampled quarterly from 2007-2013 to evaluate the success of restoration activities. Different species colonized the preserve at different rates based on life-history characteristics. Within the first year following tidal reconnection, 18 fish and 14 invertebrate species had been collected. Although the rate of colonization slowed, at least one new species was documented during each subsequent sampling event. After 7 years of colonization, 85 fish and 105 invertebrate species have been observed. A number of species are ubiquitous, others are seasonal, and some appear to fluctuate based on the presence/absence of specific habitat types, such as macroalgae and seagrass. Numerous commercially or recreationally important species utilize the preserve for juvenile refuge and/or adult foraging (e.g., snook, red drum, and mullet).

Reefs to Rivers: Bridging Florida's Diversity by Empowering Student Involvement
Amanda Croteau and Natalie Simon
Symposium: Engaging the Next Generation of Fisheries Scientists: Strategies for Student Subunits of AFS
Time and Location: Monday, August 20 3:40 PM – 4:00 PM; Convention Center 417

Florida is a large state full of diverse aquatic resources with 2,170 km of coastline, more than 30,000 lakes, over 150 rivers and creeks, and more than 200 springs. Our chapter, established in 1980, exemplifies this diversity with members from both freshwater and saltwater disciplines, across federal and state agencies, as well as academic institutions, consulting firms, and NGOs. In 2005, the Florida Student Subunit was formed to promote student involvement. The chapter supports students by providing travel awards to attend the annual chapter meeting and scholarships for graduate students. The culmination of financial support, welcoming environment, and encouragement has led students to give 33-48% of total presentations in the past 5 years, take on leadership roles (serve on planning committees, develop workshops, etc.), and to actively connect with the public and professional community beyond the annual meeting. Students have collaborated across colleges and disciplines to publish together and to contribute to our Reefs to Rivers blog. Subunit and chapter members stay engaged through our social media platforms (Facebook and Instagram), and participate in our annual Sheepshead Shuffle Virtual 5K. As a subunit, we focus on building connections and developing collaborations to empower the next generation of Florida's fisheries scientists.

Student Talks

Estuaries Section MS Student Travel Award Winner: Steven Lombardo, NCSU

Evidence for Temperature-dependent Shifts in Spawning Times of Anadromous Alewife (*Alosa pseudoharengus*) and Blueback Herring (*Alosa aestivalis*)
Authors: Steven M. Lombardo, Jeffrey A. Buckel, Ernest F. Hain, Emily H. Griffith, and Holly White
Symposium: American Shad and River Herring: Research, Monitoring, and Challenges to Effective Management of Three Alosine Species of Conservation Concern on the Atlantic Coast
Time and Location: Thursday, August 23rd 8:00 AM – 8:20 AM; Convention Center 408

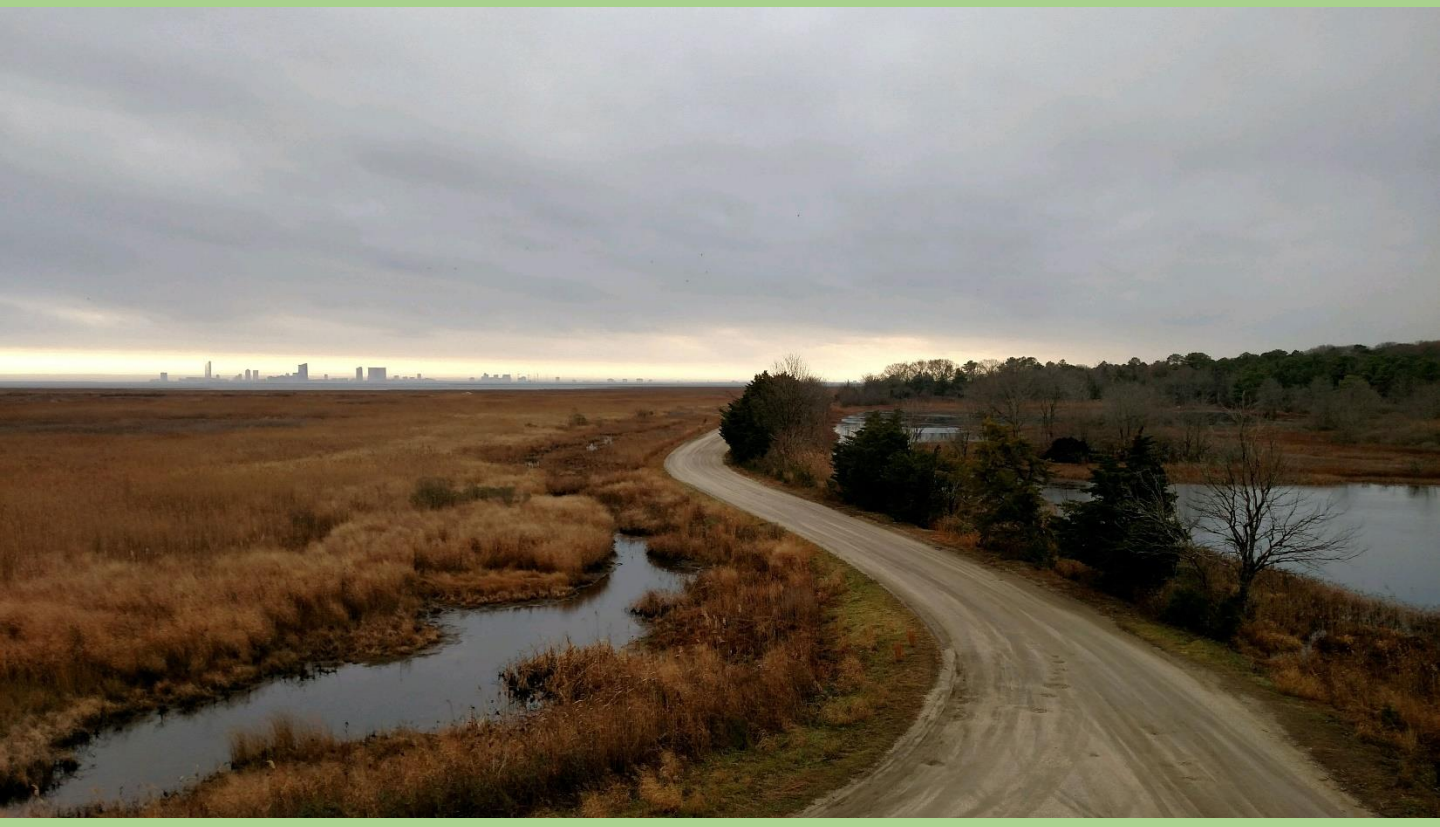
Populations of alewife and blueback herring, collectively known as river herring, have remained in a depressed state since the 1970s in spite of fishing moratoria and habitat restoration efforts. We hypothesized that the phenology of river herring spawning has been influenced by the increased rate of vernal warming in northeastern North Carolina. We analyzed four decades of river herring presence/absence data collected by the North Carolina Division of Marine Fisheries in the Albemarle Sound watershed. We used logistic GAMs to characterize the ingress, peak, and egress timing of river herring within spawning habitat. Relative to the 1970s, alewife are now arriving to spawning habitat 17 days earlier and leaving 40 days earlier (peak 18 days earlier) while blueback herring are arriving two days earlier and leaving 42 days earlier (peak 20 days earlier). The changes in ingress and egress times have shortened the spawning ground residency time by 23 days for alewife and 40 days for blueback herring. We found that the rate of vernal warming is ~65% faster during the last 20 years and is the most parsimonious explanation for changes in spawn times. The influence of a shortened spawning season on river herring recruitment warrants further investigation.

Our friends at the Potomac Chapter would also like to invite you to their Student Travel Award winner's talk: Vaskar Nepal KC, VIMS

Responses of Invasive Blue Catfish to Variation in Food Resources
Authors: Vaskar Nepal KC, Mary C. Fabrizio and Richard W. Brill
Session: Diet and Feeding
Monday, August 20th 11:20 AM – 11:40 AM; Convention Center 319

Blue Catfish (*Ictalurus furcatus*) is an invasive species of increasing management concern in the Chesapeake Bay region. We contend that it is necessary to assess growth and metabolic rates at various ration levels to understand the responses of Blue catfish to complex conditions in the wild, and thus their ability to invade new environments and their potential impacts on the ecosystem. We compared the growth rates, body condition, and metabolic rates of subadult Blue Catfish (N = 10 per treatment level) fed commercial fish pellets at three ration levels (ad libitum, 66% ad libitum and 33% ad libitum) for four months. We did not observe any statistically significant differences in mean growth rates or body condition among the different ration levels. There were, however, measurable decreases in weight-specific standard metabolic rates that were directly related to ration level, which may account for the lack of the observed differences in body condition. Blue Catfish therefore appear to have mechanisms which enable them to survive low rates of caloric intake, suggesting that this species has the potential to expand to the more oligotrophic areas in the Chesapeake Bay region.

We look Forward to seeing you all in Atlantic City!



Forsythe NWR with Atlantic City skyline in the background, photo by Natalie Simon.

Check us out online!

Website: http://estuaries.fisheries.org

Twitter: @Estuaries_AFS

Facebook: http://www.facebook.com/EstuariesSectionAFS

LinkedIn: https://www.linkedin.com/groups/7443198