Winter-Spring 2019

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President's Message

There are some big changes this year at AFS. The annual meeting will be held jointly with The Wildlife Society (http://wildlife.org/). The conference is moved slightly later from its normal time, happening September 29 to October 3, 2019 in Reno, NV (https://afstws2019.org/). Abstracts are due April 12 and registration will open in May. The Estuaries Section will not be teaming up for a "Monsters of" student fundraiser event for this meeting, instead we will wait for the 2020 meeting (150th anniversary) in Columbus, Ohio. If you are interested or have any ideas, feel free to reach out to myself (waterhlz@gmail.com) or another member of the executive board.

During the 2019 AFS Governing Board Meeting, which took place in Cleveland, Ohio (I attended remotely from Chicago, IL), a meeting code of conduct was passed. AFS joins other large societies (e.g., American Geophysical Union, Ecological Society of America, American Physical Society, and The Wildlife Society). Soon it will be posted on the AFS website.

At the US national level, AFS has been actively involved in the proposed revisions to the Waters of the United States (WOTUS). AFS is hosting a webinar on February 27 - https://fisheries.org/2019/02/webinar-on-february-27-waters-of-the-us-wotus-what-you-need-to-know-about-the-rule-and-how-to-take-action/. The public hearing will take place February 27 and 28

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(https://www.epa.gov/wotus-rule/proposed-revised-definition-wotus-public-hearing); and public comments are open until April 15. The proposed rule can be found at https://www.epa.gov/wotus-rule/step-two-revise. To read more on actions AFS has been taking: https://fisheries.org/2018/12/whats-up-with-wotus/ and https://fisheries.org/policy-media/wotus/.

The start of 2019 has brought big changes for me personally, as I defended my PhD at Scripps Institution of Oceanography in December of 2018 and began my job as a Research Biologist with the Daniel P. Haerther Center for Conservation and Research at John G. Shedd Aquarium. I'm hopeful for what the rest of 2019 will bring.

Lynn Waterhouse
Estuaries Section President

It's Election Time in the Estuaries Section

2019 is an election year for the Estuaries Section. The positions of: President-Elect, Treasurer, and Secretary will all be up for election. Official candidate statements will be included with the ballots and are due June 14. The ballots will go out June 15 and elections will end 60 days later – August 14. New officers will be installed during the 2019 business meeting in Reno, Nevada. Please note that you need to have renewed your AFS and Estuaries Section membership for 2019 in order to be eligible to vote. If you have any questions, please contact Past-President Karin Limburg klimburg@esf.edu.

Estuaries Sponsored Symposium in Reno

At the 2019 meeting we will be sponsoring a symposium, "Management Applications of Estuarine Datasets" organized by Catherine Johnston. Below is the abstract that has been submitted to AFS. If you're interested in helping with the organization of this symposium, suggesting a potential speaker, or being a speaker yourself please contact Catherine directly at catherine_johnston@fws.gov.

Management Applications of Estuarine Datasets

Fisheries and wildlife datasets collected in estuaries serve many functions. These datasets can support decision making by managers, providing a critical function to enable decision makers to choose the best steps forward for the resource. The purpose of this symposium is to explore the many ways that estuarine datasets contribute critical information for resource management. Examples of the synergy between datasets and management abound - in fact it is likely more difficult to find an example of a dataset that would not be valuable to management decisions in some way. For example, there may be management processes in place that rely on real-time data collection on an endangered species to inform management actions. Or, an important new discovery by a long-term monitoring program may spur a new plan of action (e.g., the discovery of a newly introduced species or source of contamination). Drawing the link between a dataset and the critical management decisions that it supports can be fundamental to the continued collection of such important data. For this symposium on management applications of estuarine datasets, we invite talks by anyone who works in estuaries - fisheries and wildlife professionals alike!

Feature Article

EVALUATION OF COASTAL MARSH RESTORATION EFFORTS IN ROBINSON PRESERVE, TAMPA BAY, FLORIDA

Amanda Croteau, 2018 PhD Estuaries Section Travel Award Winner

Advisor: Chuck Cichra
University of Florida
School of Forest Resources and Conservation
Program of Fisheries and Aquatic Sciences

Amanda Croteau being presented the Estuaries Section Travel Award by President Lynn Waterhouse.

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 (Figure 1). 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.

Figure 1: Robinson Preserve pre-restoration, 2002.

Over time, habitat shifted from largely unvegetated to vegetated shorelines. In 2008, 76% of all sampling locations were bare shorelines which declined to 30% in 2013. Bare areas were largely colonized, and areas that had vegetation at the beginning of standardized sampling became denser (Figure 2). The benthic habitat of Robinson Preserve was comprised largely of bare sediment.

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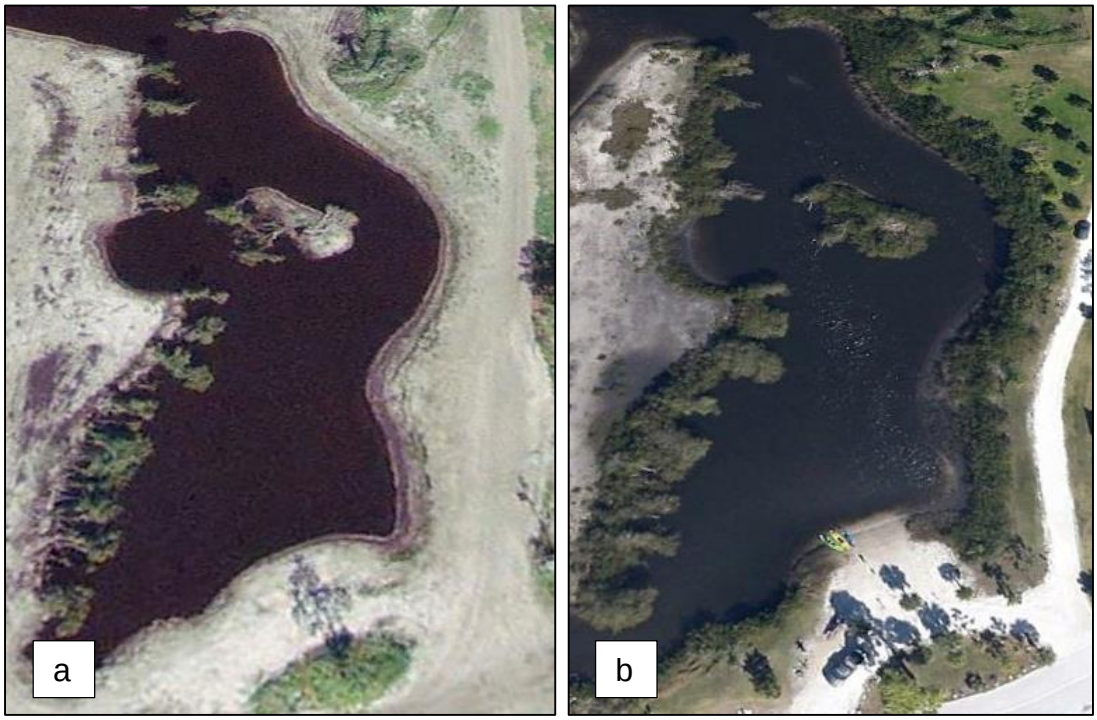

Figure 2: Shoreline vegetation changes over time within Robinson Preserve: a) 2007, b) 2013.

Initially, there was a large pulse of macroalgae, 87% of sample sites, that declined with a few more minor and/or localized pulses of macroalgae. Seagrass, primarily Shoal Grass *Halodule wrightii*, began establishing in small patches, but didn't begin to be present in moderate or high densities until 2010.

Water quality varied among seasons and regions of the preserve, but generally improved over time. Nutrient concentrations declined and water clarity increased. Water control structures that were designed to increase residence time for water that flows from agricultural and residential areas into tidal ponds, were successful and water quality in the rest of the preserve was not impacted despite nutrient loading into these tidal ponds. When compared to reference data from neighboring waterbodies, water quality parameters within the preserve were not degraded.

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, 105 macroinvertebrate species and 87 unique fish taxa 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.

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Numerous commercially or recreationally important species utilize the preserve for juvenile refuge and/or adult foraging (e.g., Common Snook, Red Drum, and Striped Mullet, Blue Crab) (Figure 3). Blue Crab and Pink Shrimp were often more abundant in Robinson Preserve than in the reference data (Florida Marine Research Institute Fisheries Independent Monitoring as well as several technical reports) from the greater Tampa Bay estuary. Fish species richness was lower than bay-shore or river comparison data, but that was likely due to differences in seagrass associated and freshwater species (habitats that were not well represented within the preserve).

There were also fewer non-native species in the preserve. Densities of focal fish species were often higher in Robinson Preserve than in the reference data sets. Of the species identified as targets for restoration and land acquisition by the Tampa Bay National Estuary Program (1996), all have been documented within Robinson Preserve.

Figure 3: Some of the commercially and recreationally important species collected in Robinson Preserve: A) Goliath Grouper, B) Common Snook, C) Red Drum, D) Blue Crab, E) Atlantic Tarpon, and F) Bonefish

Species moved into the preserve relatively quickly, 18% of fish and 13% of invertebrates were documented after a single year of tidal reconnection. This rapid colonization is not unique as Lewis (1992) noted that in created or restored coastal wetlands, the establishment of fish

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communities comparable to reference data often took only 3-5 years. Interestingly, most species moved into the preserve regardless of available habitat, including the target species. This indicates that while vegetation may be the most easily assessed aspect of a coastal restoration, it may not be the most important metric for aquatic communities. This trend has been seen by other studies on estuaries in Tampa Bay (Greeenwood et al. 2008) and other states (e.g., Able 2001). What has been linked to differences in species assemblages is salinity and flow (Greenwood et al. 2008). Salinity and flow also were important in Robinson Preserve with fewer species documented in the site with the lowest average salinity, followed by the site with several areas of observed high water velocity.

References

Able, K.W., D.M. Nemerson, R. Bush, and P. Light. 2001. Spatial Variation in Delaware Bay (U.S.A.) marsh creek fish assemblages. Estuaries, 24(3): 441-452.

Greenwood, M.F., D.D. Chagaris, T.C. MacDonald, R.E. Matheson Jr., R.H. McMichael Jr., R.F. Heagey, F.X. Courtney, G.V. Onorato, and S.D. Stahl. 2008. Tampa Bay tidal tributaries habitat initative fish and fish habitat technical report. Report, Florida Fish and Wildlife Conservation Comission, Fish Wildlife Research Institute, St. Petersberg, Florida.

Lewis, R.R. 1992. Coastal habitat restoration as a fishery management tool. Pages 169-173 in R.H. Stroud, ed. Stemming the tide of coastal fish habitat loss, Proceeding of a Symposium on Conservation of Coastal Fish Habitat, Baltimore, MD, March 7-9, 1991. National Coalition for Marine Conservation, Inc., Savannah, Georgia, 321 p.

Tampa Bay National Estuary Program (TBNEP). 1996. Setting Priorities for Tampa Bay Habitat Protection and Restoration: Restoring the Balance. Final Report, Technical Publication #09-95.

Student Travel Award for Reno Meeting

2019 Estuaries Section Student Travel Award

The Estuaries Section of the American Fisheries Society (AFS) is pleased to offer two financial awards: one for a doctoral student, and the other for a Master's or exceptional undergraduate student, in support of their attendance at the AFS 2019 Annual Meeting. The meeting is scheduled for September 29 – October 3 in Reno, Nevada. The amount of each award will be $400. If no Ph.D. students apply, or vice-versa, we reserve the right to award two travel grants in the other category.

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.

Application procedures

Interested students must submit:

1. Curriculum Vitae
2. Letter of application (1-2 page) describing:
   a. Educational and professional background, including involvement with AFS
   b. Description of research and how it will be presented at the meeting (or if not presenting, how research will benefit from attending the meeting)
   c. Interest in pursuing a career related to the goals of the Estuaries Section https://estuaries.fisheries.org/2017/05/01/welcome/
   d. Statement of financial need. The letter must include all contact information including mailing address, telephone number(s) and e-mail address.
3. Letter of advocacy from a supervisor, an academic advisor, or other appropriate faculty member at the student's college or university. This letter should state:
   a. Why the student deserves the award
   b. Corroborate the need for the award
   c. How the student's work or goals contribute to the goals of the Estuaries Section https://estuaries.fisheries.org/2017/05/01/welcome/

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Student Travel Award for Reno Meeting

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Complete application packages (in a single PDF document) should be sent via email with "Estuaries Section Student Travel Award Application" as the title to: Lynn Waterhouse (waterhlz@gmail.com). Questions may be directed to either Lynn Waterhouse (waterhlz@gmail.com or lwaterho@ucsd.edu), or Catherine Johnston (ckjohnston80@gmail.com). Applications must be received no later than 5:00 PM Eastern Time on Friday, May 31, 2019.

Selection procedures

All applications received by May 31, 2019 are reviewed by a committee representing the Executive Committee of the Estuaries Section and past travel award winners. The applications will be judged on the relevance of the research work to the mission of the Estuaries Section, the student's involvement with AFS, how the student's career goals align with the goals of the Estuaries Section, financial need, and the letter of recommendation.

Awards and notification

Those selected for awards will be notified by telephone or e-mail no later than June 14, 2019. Once notified, if you are giving a talk or poster, please submit the abstract and time information to Lynn Waterhouse (waterhlz@gmail.com) so we can promote your work. To help alleviate some of the upfront costs for awardees, the Estuaries Section may send your check prior to the conference. For this to occur, two things are required: (1) a letter stating that you, the student, need the money prior to the conference and that you, the student, will reimburse the Estuaries section in full if you do not attend the conference for any reason signed by yourself and your major advisor; and (2) the student must submit proof of payment of the registration fee for AFS. The awardees will be recognized at the AFS Annual Meeting in Reno, NV during the Estuaries Section reception and business meeting on Sunday, September 29, circa 4 PM (exact time and venue TBD). Thus, we strongly encourage the winners to plan to be there. The awardees will also be asked to write an article about their research for publication in the Estuaries Section newsletter. Awardees will also be asked to serve on a future travel award selection committee.

Estuaries Section Treasurer's Report

respectfully submitted on 03/15/2019 by
Dr. Konstantine J. Rountos (Treasurer)

Date	Balance	Credit	Debit	Note
11.25.18	3,614.53			Treasurer's Report (2018 Fall Newsletter)
12/21/18	4,714.53	1100.00		Check from AFS for 2019 "Monsters" proceeds
01/02/19	4,694.53		20.00	Check #126 (AFS Invoice 8852 – Student travel award certificates)
03/15/19	4,694.53			Current balance

*Pending check issued – Check #127 for 50% split of 2018 Monsters profits ($597.50)

2018 Monster's profit calculations:

1) AFS Monsters proceeds check = $1,100
2) AIFRB Check = $200.00
3) Reimbursement for Lee (T-shirts) = $-105.00

SUM OF 1, 2 & 3 = $1,195
Sum / 2 = $597.50
50% for MFS = $597.50
50% for ES = $597.50

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