

# Tidewater Press

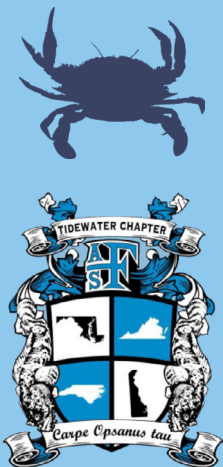
NEWSLETTER OF THE TIDEWATER  
CHAPTER OF THE AMERICAN FISHERIES SOCIETY

Spring 2019 Volume 34, Issue 1



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## IMPORTANT DATES

**Tidewater Annual Meeting**  
February 7-9, 2019

**AFS Annual Meeting**  
September 29-October 3,  
2019

## Meet the President-Elect, Bradley G. Stevens

Greetings Tidewaterologists,

What do you call someone who studies the natural resources of the ocean, bays, and tidal waters of our coastal zone? "Watermen" is already reserved for those who make their living by harvesting those resources, as well as being gender-exclusive. Marine biologists? Coastal ecologists? Aquatic Scientists? Each of those seems too restrictive, so I chose "Tidewaterologists" to define those who study the Tidewater regions. I started my professional career studying Busyconid whelks in the tidewaters around Charleston, SC, where I received my MS degree in Marine Biology. I then moved to Seattle, Washington, where I studied Dungeness crabs in the tidewaters of the Washington coast, and received my PhD from the University of Washington. After graduation, I moved to Alaska, where I worked for the NMFS for 22 years, studying cold-water crabs (king crabs, snow crabs, etc) in the Bering Sea and Gulf of Alaska, which, though tidal, don't qualify as being "tidewater". I moved back to the East Coast in 2006, for a brief stint at the University of Massachusetts, before coming to UMES in 2009, where I am once again surrounded and immersed in tidewaters. Tidewaters are renowned as mixing regions, forming an ecotone where the riparian and marine ecosystems become integrated. The resulting transition zone is a place where diversity and productivity is usually greater than the source ecosystems. Simulating the ecotone for which we are named, my goal as President of the Tidewater Chapter is to increase the diversity of our membership, in order to promote inclusiveness and productivity within our profession. In fact, the AFS Strategic Plan states "the Society will increase the disciplinary, gender, ethnic, and



cultural diversity and engagement of its members as a vital means to maintain relevancy and respond to the challenges facing fisheries science and management”.

But how do we do that? An excellent article on the national AFS website defines specific action areas, which can be found [here](#). One potential solution is to actively recruit members of minority or under-represented populations into our ranks. To that end, I challenge each of you to reach out to under-represented and non-traditional students and professionals and encourage them to join AFS and attend meetings.

Goal 8 of the above mentioned article is to “Develop a diversity and inclusion scorecard”. To that end I propose to create a voluntary “Diversity Meter” at our meeting in February. I will encourage every attendee to categorize themselves (confidentially, of course) in a population group so that we can see how well we are doing at including under-represented populations. I hope it will form a baseline from which we can demonstrate increased inclusion at future meetings.

Tidewaterologists, the challenges for our planet, and our profession, are great. As we immerse ourselves in the mixing of waters, we must also immerse ourselves in the mixing of cultures, ideas, and solutions. Only by this means will we develop the diversity of tools, approaches, and experience that we need to succeed.

Bradley G. Stevens, President-elect  
Tidewater Chapter, American Fisheries Society



## Virginia Update



Gail Schwieterman  
Virginia Member At Large

Gail Schwieterman is a PhD Candidate in Fisheries Science at the Virginia Institute of Marine Science.

Like most water bodies in the United States, Chesapeake Bay and its subestuaries have accumulated quite a few non-native species over the past centuries. One of the particularly concerning ones is the Blue Catfish (*Ictalurus furcatus*)—a freshwater fish native to large rivers in the mid-western United States, that was brought to tidewater Virginia in the 1970s and 1980s in an effort to increase recreational fisheries. Since then, the population size has increased tremendously—a recent study estimated the population size in a 7 mile stretch of tidal James River to be 1.6 million Blue Catfish. There has also been a range expansion, with Blue Catfish expanding more and more into saltier waters towards the mouth of these subestuaries. With mounting evidence that Blue Catfish may have negative effects on valuable native critters such as River Herring and blue crab through competition and predation, Blue Catfish is now considered an invasive species in the Chesapeake Bay region. Questions remain, how far into the Bay are these fish likely to expand, and what kind of effects are these fish going to have on our natural resources throughout the Bay? And perhaps more importantly, how can we manage this species to minimize its negative impacts but keep a sustainable recreational and commercial fishery in the region? Vaskar Nepal, a Ph.D. student at Virginia Institute of Marine Science (VIMS), aims to shed some light on these questions.

With a combination of laboratory experiments and field observations, Nepal is studying the effects of temperature, food level and salinity on Blue Catfish biology. Unfortunately, his findings are not particularly uplifting to fisheries managers and conservationists. It seems that Blue Catfish are physiologically capable of surviving salty estuarine environments and using these



habitats to invade new river systems. In addition, the fish has low food requirements and may be able to survive and grow well in habitats with little food. What is more, with increasing water temperatures in the region, Blue Catfish are likely to grow faster in the coming years. “To control the expansion and impacts of Blue Catfish on our resources, managers need to enact and enforce pretty strict rules throughout the Bay watershed,” Nepal says.

Nepal eventually aims to combine all of this information to build a predictive model, the goal being to identify estuarine habitats that are particularly susceptible to further range expansion of Blue Catfish. This can help managers develop location-specific regulations to reach their goals of maintaining a harvestable population of Blue Catfish while minimizing negative impacts on coastal ecosystems and their native fisheries resources.



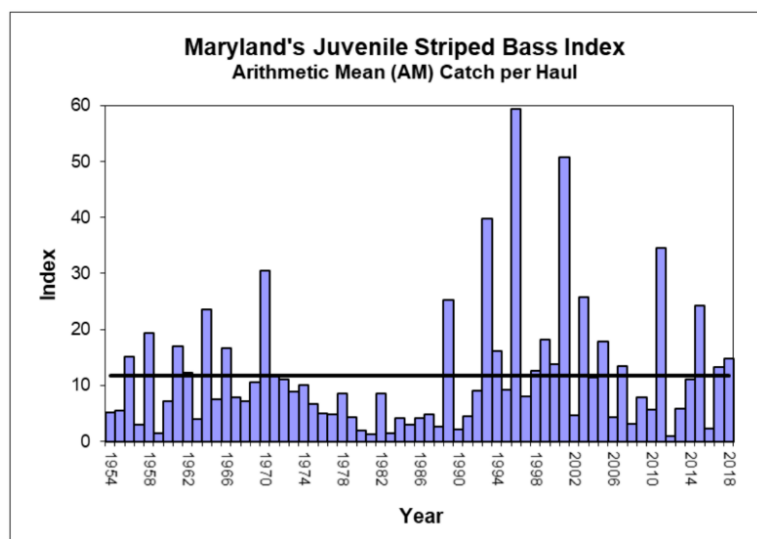


## Maryland Update

### Striped Bass

The Maryland Department of Natural Resources (DNR) announced results of its annual young-of-year Striped Bass survey in Chesapeake Bay, which documented healthy reproduction of the state fish. The 2018 young-of-year index is 14.8, higher than the 65-year average of 11.8. Known locally as rockfish, Striped Bass spawn in Chesapeake Bay and its tributaries each spring. The juvenile Striped Bass survey is conducted annually to measure spawning success and help predict future abundance. The index represents the average number of young-of-year Striped Bass captured in each sample. During this year's survey, department biologists collected more than 36,000 fish of 55 species, including 1,951 young-of-year Striped Bass. Results show that White Perch and American Shad also experienced above-average spawning success this spring.

The department has monitored the reproductive success of Striped Bass and other fish species in Maryland's portion of Chesapeake Bay annually since 1954, making it one of the oldest fish community surveys in the nation. Twenty-two survey sites are located in the four major spawning systems: Choptank, Potomac, and Nanticoke rivers and Upper Chesapeake Bay. Biologists visit each site three times during the summer, collecting fish with two sweeps of a 100-foot beach seine net.



### Oyster Assessment

The Maryland DNR in consultation with the University of Maryland Center for Environmental Science recently completed the first modern stock assessment of oysters in Maryland. The stock assessment began with the passage of the Sustainable Oyster Population and Fishery Act of 2016. The stock assessment estimated abundance, habitat, and natural and fishing mortality rates for 36 regions of Maryland's portion of the Chesapeake Bay for 1999-2017. The assessment also estimated sustainable harvest reference points and determined stock status for each region. The full details of the assessment methods, results, and peer review can be found at [https://dnr.maryland.gov/fisheries/Pages/oysters/Oyster\\_Stock\\_Assess.aspx](https://dnr.maryland.gov/fisheries/Pages/oysters/Oyster_Stock_Assess.aspx).



## Maryland Update *continued*

Estimated abundance of market oysters (>3 in) declined from about 600 million individuals in 1999 to about 300 million individuals in 2017. Although the net population trend was a decline during this period, abundance increased since 2002-2004 when the population reached 200 million market oysters after several years of severe disease mortality. Individual regions had substantially different patterns over time, with northern regions generally showing a decline and southern regions showing recovery since the early 2000s. Harvest rates that would generate maximum sustainable yield were estimated to be between 0% and 22% per year. Of the 36 regions, 19 had harvest rates above the maximum sustainable limit, 3 were between the target and the limit, and the remaining 14 were at the target or below. This information will be used to revise Maryland's oyster fishery management plan and provide a scientific basis for future management decisions.

### New Fishing Regulations

The opening of regular Striped Bass season coincided with new conservation minded regulations pertaining to the use of bait, gear, and hooks. The Maryland General Assembly Joint Committee Administrative, Executive and Legislative Review Committee recently approved Maryland DNR regulations, which were effective through Oct. 12, 2018.

Beginning May 16, 2018, in Chesapeake Bay and its tidal tributaries:

1. Anglers must use non-offset circle hooks when live-lining or chumming;
2. Anglers must use circle hooks or "J" hooks when using fish, crabs, or worms as bait, or when using processed baits; and
3. The minimum size for Striped Bass is 19 inches.

"The new rockfish regulations seek to address the shared concerns of anglers, charters, and conservationists who have reported high mortality rates of sublegal rockfish," Fishing and Boating Service Director David Blazer said. "The new rules aim to increase fishing opportunity and success while reducing unnecessary mortality in the bay." While the emergency regulations were in effect, the department is also moving forward with regulations aimed at making them permanent through the remainder of the 2018 and 2019 fishing seasons. After the regulations sunset in 2019, the department will use new stock assessment data to determine if the new conservation actions were preventing mortality as designed and intended.



## North Carolina Update



Jacob Boyd  
NC Member At Large

Jacob Boyd is the Section Chief for the North Carolina Division of Marine Fisheries Habitat and Enhancement section.

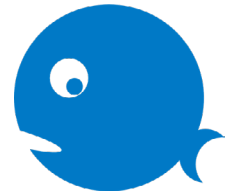
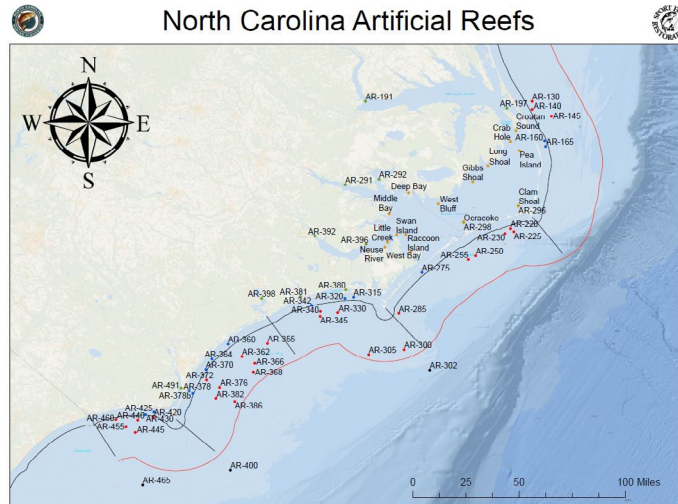
North Carolina has a diversity of marine habitat which is crucial to its coastal fisheries. While much of the concern over the decline of certain fish stocks has been debated primarily from an overfishing perspective, habitat loss and degradation can make a stock more susceptible to decline. The North Carolina Division of Marine Fisheries (NCDMF) protects fish habitat through the Coastal Habitat Protection Plan (CHPP) implementation and restricting various fishing gear in certain habitats. The CHPP is the guidance document that addresses habitat and water quality efforts needed to protect, enhance and restore fish habitat in North Carolina. While protecting habitat is critical, creating habitat also plays a vital role in the enhancement of North Carolina's fishery resources. Habitat enhancement programs strive to promote sustainable fisheries through the creation of habitat to attract the web of organisms that depend on this habitat to forage, seek refuge, grow, and reproduce. Currently, the NCDMF has multiple programs aimed at creating and protecting essential marine habitat: Oyster Sanctuary Program, Cultch Planting Program, and Artificial Reef Program.

Oysters are an essential part of estuarine ecosystems including North Carolina's. They provide numerous ecosystem benefits such as water filtration, shoreline stabilization, and habitat for many different kinds of fish and other marine life. Since as early as 1905, the NCDMF and its partners have been working hard to rehabilitate oyster populations, by

building high quality underwater habitat for oysters to thrive upon. Shellfish rehabilitation by the NCDMF is accomplished by building strategically placed oyster sanctuaries which are protected from harvest and constructing open-access "cultch planting" areas to function more like natural reefs. These two reef building programs are intended to work with one another to offer our estuary high reproductive potential and plenty of suitable habitat for settlement and growth of oysters. Oyster sanctuaries are specialized artificial reefs, purposely constructed to promote the restoration of oysters. The sanctuary concept is to build and protect densely populated, environmentally resilient oyster reefs. These productive sites supply the estuary with viable larvae for the benefit of other natural and cultch-planted reefs. As one of the division's oldest initiatives, the cultch planting program, is geared toward restoring habitat that functions more like natural reefs. Reefs are built with small natural materials spread in a thin veneer on the bottom over several acres of suitable bottom. The materials, known as "cultch," are usually either recycled oyster shell or 2" pieces of fossil rock, known as marl.



## North Carolina Update *continued*



Another method of creating habitat is through artificial reefs which create structure to promote recruitment of shellfish and habitat for various types of marine life. The Division of Marine Fisheries has been involved with the construction, permitting, and monitoring of artificial reefs since the early 1970s. An artificial reef is a manmade underwater structure, typically built to promote marine life in areas with a generally featureless bottom. Today, North Carolina has one of the most active artificial reef programs in the country, with 43 ocean reefs, ranging from one-half to 38 miles from shore, and 25 estuarine reefs, including 15 oyster sanctuaries. Sunken ships, bridge debris, concrete pipe, and other materials create hotspots of marine life for anglers and divers across the North Carolina coast.





## Treasurer's Report

### Current Financial Report

Checking: \$17,937.38

Mutual Fund: \$ 1,917.55

Total: \$19,854.93



The current checking account balance includes \$160.06 payment to DotEasy for our new website set up and domain name, \$300 payment as deposit for 2019 annual meeting venue, and a \$573 refund check paid to the Tidewater Chapter by the AFS Parent Society for 2017 Chapter dues paid while paying Society dues.

Annual chapter dues for 2018 are \$10.00. If you are not currently a member of the Chapter but would like to join, a membership form can be found on the Chapter website or you can email me at [Stephanie.McInerny@ncdenr.gov](mailto:Stephanie.McInerny@ncdenr.gov).

A lifetime membership is available for a onetime fee of \$150.00. Checks should be sent to:

Stephanie McInerny  
TWC Secretary/Treasurer  
NC Division of Marine Fisheries  
3441 Arendell Street  
Morehead City, NC 28557



## Upcoming Meetings

### American Fisheries Society & The Wildlife Society 2019 Joint Annual Conference

The American Fisheries Society and The Wildlife Society will come together for the first-ever joint national conference of these two organizations. The event is expected be the largest gathering of fish and wildlife professionals ever. Don't miss out on unprecedented networking opportunities, numerous learning opportunities, continuing education and training, and engagement with over 150 businesses and organizations through the tradeshow.

Join us in Reno, Nevada from September 29 through October 3, 2019 for an unforgettable experience. Registration opens May 2019.

<https://afstws2019.org/>



## Upcoming Meetings

### 33rd Annual Tidewater AFS Meeting

REGISTER NOW!

February 7-9, 2019

Early registration ends 1/25.

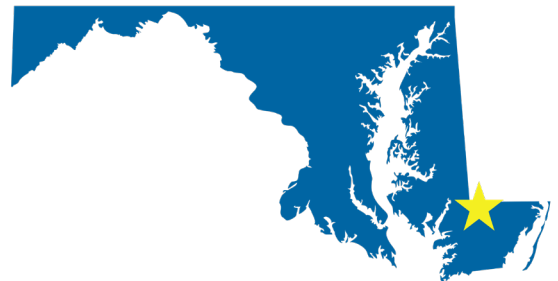
[CLICK HERE](#) to visit the meeting page to register and plan your trip.

If you have questions regarding meeting logistics, please contact [Brad Stevens](#).

[DOWNLOAD](#) the meeting flyer\* and share with interested fish folks and/or groups.

Thank you to [Salisbury University](#) for co-sponsoring the meeting.

Salisbury  
UNIVERSITY



### *Get updates via the Chapter **LISTSERV***

#### **TO SUBSCRIBE**

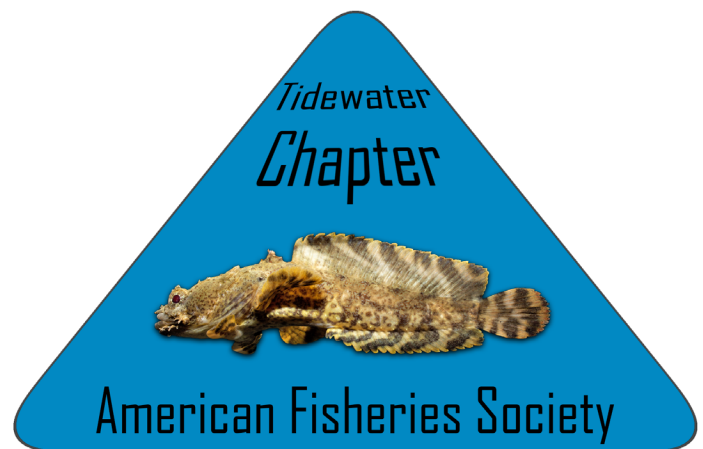
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**Past President / Nominating Committee Chair:** [Sally Roman](#)

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**Secretary:** [Jessica Thompson](#)

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