Atlantic States Marine Fisheries Commission

SHAD AND RIVER HERRING
Technical Committee Call and Webinar

Thursday, June 25, 2020
9:00 am - 10:30 am

DRAFT AGENDA

Phone: 1-888-585-9008
Passcode: 705-426-714
Webinar: https://global.gotomeeting.com/join/748483189

1.	**Welcome & Review of the Agenda** *(K. Sprankle, C. Starks)*	9:00 a.m.
2.	**Review Georgia Proposal to modify SFMP sustainability metric** *(J. Page)* • Presentation of proposal • TC discussion	9:05 a.m.
3.	**Develop TC recommendations on AMPs and NC SFMP** *(K. Sprankle)*	9:45 a.m.
4.	**Next Steps** *(C. Starks)*	10:15 a.m.
5.	**Adjourn**	10:30 a.m.

Proposed Change for the Savannah River Management Index and Benchmark for the Georgia American Shad Sustainable Fishery Management Plan

Submitted by

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Introduction:

The Georgia Department of Natural Resources (GADNR) is tasked with managing the various fisheries occurring within in our state, including those for American shad. As part of that management effort, the GADNR composed a sustainable fishery management plan (SFMP) for American shad in Georgia. Adopted in 2017, the purpose of Georgia's SFMP for American shad is to allow the continuation of existing American shad fisheries in Georgia rivers where it has been determined continuation of fishing will not adversely impact the Atlantic Coast American shad stock. Georgia's SFMP fulfills requirements of Amendment 3 to the Interstate Fishery Management Plan (IFMP) for Shad and River Herring (American Shad Management).

Historically, all of Georgia's Atlantic-slope rivers (Savannah, Ogeechee, Altamaha, Satilla, St. Mary's) supported a commercial fishery for American shad. However, in recent years, commercial landings of American shad have been reported from only two (Altamaha and Savannah) of these five rivers. Of these two, the Altamaha River continues to hold the largest commercial fishing effort and yields the majority of statewide commercial landings, though some effort continues on the Savannah River. For the Savannah River, the recent declines in fishermen participation have resulted in a need to re-examine current management strategies for the river.

Need:

While commercial fishing on the Altamaha has remained relatively stable over time, commercial fishing participation in the Savannah River has declined. Reductions in fish markets, ongoing attrition by fishermen leaving the business, and fishing gear preferences by remaining fishermen have resulted in a significant shift in the dynamics of the current shad fishery on the Savannah River and the subsequent commercial landings data provided to the GADNR. As a result, management practices being employed under the current SFMP are becoming difficult to apply and are likely to become obsolete unless conditions change.

Historically, the Savannah River has had at least a handful of commercial fishermen targeting shad in the river. Though some fishermen have utilized set-nets in the river, many fishermen historically have chosen to utilize drift-nets as their preferred fishing gear. With this knowledge in mind, fishery managers determined that, based on available data (2001-15), the best management strategy for managing shad on the Savannah River would be to utilize drift-net caught roe shad landed in Georgia to develop a sustainability benchmark. Managers recommended the sustainability benchmark be a commercial roe drift gillnet CPUE of 9.03 kg shad/trip for 3 consecutive years, meaning that 3 consecutive years of having the annual CPUE fall below 9.03 kg shad/trip would trigger an appropriate management response (Table 1). This management benchmark has worked well until recently when drift-net participation in the river greatly diminished. By 2018, only one fisherman reported drift-net landings to Georgia, and in 2019 there were no Savannah River drift-net shad landed in Georgia and no effort reported. As such, the lack of drift-net landings in 2019 prevent the determination of a CPUE. While this could have been a one-time anomaly, no reported effort or landings of drift-net shad to Georgia in the Savannah River have been received for the 2020 season, which ended in March. While there is a potential for 2020 landings to be received later, fishermen are required by law to have shad landings turned in by April 10th, thus such likelihood is very minimal.

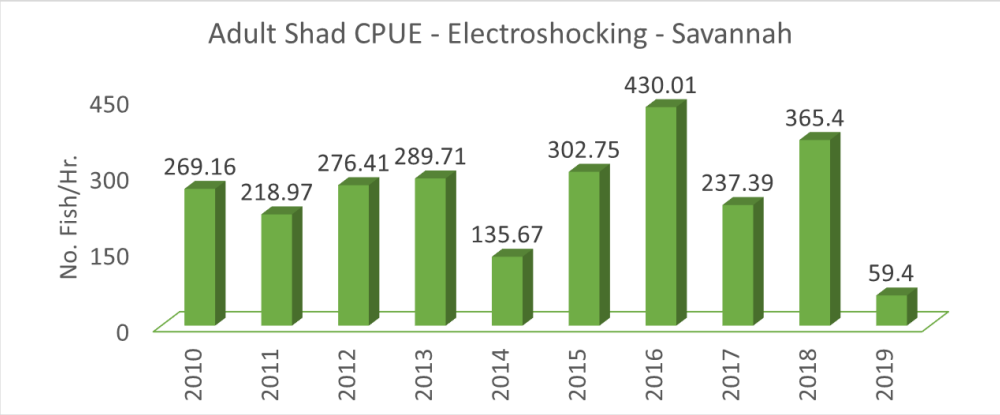
Table 1. Current Management Benchmarks and Triggers

River System	Index	Years Included in Index	Benchmark Value	Benchmark Level	Management Trigger
Altamaha (commercial & recreational)	Gillnet CPUE Index	1983-2015	1.11 shad/ft-hr	25th percentile	3 consecutive years below the benchmark
Savannah (commercial & recreational)	Commercial Roe Drift Gillnet CPUE Index	2001-2015	9.03 kg shad/trip	25th percentile	3 consecutive years below the benchmark
Ogeechee (recreational)	Electrofishing CPUE Index	2010-2015	3.7 shad/hr	25th percentile	3 consecutive years below the benchmark

As a result of the continued decline in participation in the commercial drift-net fishery in the Savannah River, GADNR staff feel it is prudent to examine other potential datasets from fishery-independent work being done on the Savannah River. Since 2010, GADNR staff have conducted electrofishing surveys for adult American shad each year between the months of Feb – June at the New Savannah Bluff Lock and Dam (NSBLD) on the Savannah River. The NSBLD is the first barrier to upstream migration on the Savannah River and is located at river km 301, just south of Augusta, GA and approximately 109 rkm above commercial fishing

waters. American shad once passed through this dam via lockage, but in recent years the U.S. Army Corps of Engineers (USACE) has declared the facility unsafe to operate, so fish are not being passed through the lock at this time. The dam is now a true migration barrier and is the uppermost reach of the American shad migration in the Savannah River. When feasible, GADNR staff conduct electrofishing surveys for adult American shad during each of the aforementioned months. Stunned shad are scooped in dip nets, placed in a holding tank, and processed at the conclusion of the sampling period. Processing of fish entails collecting lengths, weights, and recording sex for each fish. A CPUE, defined as the number of fish per hour, is generated for each event and an annual CPUE (inclusive of all sampling events) is generated at the conclusion of the sampling season. Since 2010, annual CPUEs for the NSBLD electrofishing efforts have ranged from 59 fish/hour to 430.01 fish/hour (Figure 1), averaging 246.2 fish/hr during the 10-year time series.

Table 2. Annual CPUE of American Shad Captured During Electrofishing Surveys at NSBLD



Proposed Action

As a result of ongoing concerns with the changing commercial fishery dynamics in the Savannah River (declining participation by commercial drift-netters, etc.) as seen in both GA landings and SC landings, we have come to a point in time where strong consideration must be given to using a different metric to manage shad in the Savannah River. For 10 years GADNR staff have conducted the electrofishing surveys at the NSBLD in the Savanah River, and it is our intent to continue doing so indefinitely. Though numbers fluctuate annually, this survey has consistently produced adult American shad, and we believe it can be a good indicator of abundance to monitor the Savannah River stock. Utilizing the entire 10-year (2010-19) time series of data, the shad CPUE has averaged 246.2 fish/hr. Based on this, the GADNR proposes to use the 25th percentile (61.56 fish/hr) for 3 consecutive years as a sustainability benchmark for the Savannah River (both commercial and recreational fisheries). Consequently, if the adult shad CPUE falls below 61.56 fish/hr for 3 consecutive years, GADNR

would evaluate and identify the causes thereof and initiate appropriate actions. Potential actions may include reducing the number of fishing days, modifying season dates, or altering legal fishing gears. In the event, such actions are not successful in reversing negative trends, GADNR would then consider closing the fishery in that river system.

Action Pros and Cons

In proposing this action and change in management metric, we have identified some of the pros and cons of such a proposed change. They are as follows:

Pros:

- Allows GADNR to use fishery-independent surveys that are independent of fishermen and thus are not affected by fishermen attrition, market changes, changes in preferred fishing gear by individuals, etc.
- Proposed electrofishing survey has been done for 10 years, so adequate time series available.
- Fish captured in electrofishing survey are of same/similar size to those harvested by commercial and/or recreational fishermen (e.g. all adults).

Cons:

- Electrofishing survey site (e.g. NSBLD) is river-level dependent and can be difficult/impossible to sample during high-water events.
- The Army Corps of Engineers (USACE) has been in discussion for several years to install a migratory fish passage at the NSBLD. Should it ever come to fruition, alteration of the current structure would allow fish to pass and potentially reduce observed catch rates.

Summary

In recognizing the pros and cons of the proposed change, we (GADNR) remain confident that this change is necessary and appropriate. We acknowledge that the NSBLD is river-level dependent and may not be able to be sampled under high-water conditions, but in 10 years of sampling we have been able to adequately complete sampling at the dam at least 9 of those years (the only exception was 2019, when water flows remained consistently high for an extended time, and we were unable to sample in March and April). Additionally, we understand that the potential exists for alterations to be made to the dam by the USACE. However, if or when these will be done is unknown and certainly are not expected in the immediate future. What is certain is that, should commercial fishery trends on the Savannah River continue, it will be challenging if not impossible to adequately monitor the stock and produce the annual commercial CPUE necessary compare to the established benchmark so we can remain in compliance with our current SFMP.