

## **Shad & River Herring Technical Committee Meeting Summary**

January 19, 2023

**Technical Committee Members:** Brian Neilan (Chair, NJ), Wes Eakin (Vice-Chair, NY), Brad Chase (MA), Ingrid Braun (PRFC), Jeremy McCargo (NC), Ken Sprankle (USFWS), Patrick McGee (RI), Ruth Haas-Castro (NOAA), Matthew Jargowsky (MD), Patrick McGrath (VA), Jim Page (GA), Conor O'Donnell (NH), Holly White (NC), Joe Swann (DC), Johnny Moore (DE), Ted Castro-Santos (USGS)

**ASMFC Staff:** James Boyle and Katie Drew

The TC met via conference call on January 19, 2023 to review an update to the North Carolina Sustainable Fishery Management Plan (SFMP) for American shad and to consider a proposal from New Hampshire to reopen its river herring fishery.

The next SFMPs to be reviewed are from Connecticut (Shad) and the Potomac River Fisheries Commission (Shad).

### **1. North Carolina Sustainable Fishery Management Plan (SFMP) for American shad**

Holly White presented the North Carolina SFMP for American shad, which proposed updates to some sustainability metrics and harvest seasons. Some notable changes include updating the Albemarle Sound-Roanoke River Female CPUE and relative fishing mortality (F) metrics to align with Independent Gill Net Survey methodology, and adding recreational harvest data to the relative F measurements in the Tar-Pamlico, Neuse, and Cape Fear Rivers. Additionally, a Juvenile Abundance Index was added to the Albemarle Sound-Roanoke River system sustainability metrics, which will trigger management if it exceeds the threshold for three consecutive years and is based on a fixed time series of 1996 to 2021. A full summary of the changes is included in Table 1. **The TC recommended the updated plan for approval by consensus.**

### **2. New Hampshire Proposal to Reopen the River Herring Fishery**

Conor O'Donnell presented the proposal to reopen the river herring fishery, which was closed in 2021 due to low spawning run counts in 2019 and 2020. The proposal gives three reasons for the low run counts:

- 1) Low water temperatures during the early part of spawning season. Once water temperatures reached favorable levels river flows were significantly decreased.
- 2) Equipment failure and fishway modifications at the Cocheco River fishway led to loss of efficiency and decreased river herring passage. Many more river herring were observed in the

fishway but could not be accurately counted due to poor flow within the modified fishway, resulting in inaccurate electronic fish counting equipment.

3) Fish passage counts at the Pickpocket Dam fishway on the Exeter River were low despite thousands of ascending river herring observed in the vicinity of the former head-of-tide Great Dam and fishway (removed in 2016). The Pickpocket Dam is located 13.4 km upstream of the former Great Dam location. The reasoning behind such low counts is that the majority of river herring are utilizing restored spawning habitat between the former Great Dam and Pickpocket Dam and not accessing the habitat above Pickpocket Dam fishway where the electronic counting station was installed.

In response, New Hampshire changed the monitoring method on the Exeter River to use time series counts at the former Great Dam location and restored the Cocheco River fishway to a previous version, which resulted in the fishery-independent target being exceeded in 2021 and 2022.

The TC noted their recommendation to maintain fishery closures until the sustainability metrics have been met for five consecutive years. However, the TC requested that the New Hampshire SFMP be updated to include the new monitoring methods on the Exeter River with the intention of reevaluating the proposal when the TC can review the procedure in greater detail. **The TC plans to evaluate the revised proposal for Board consideration later in 2023.**

Table 1. Summary Changes to Sustainability Parameters by System from Prior NC SFMP (2018–2022) and Proposed NC SFMP(2023–2027).

<b>System/Sustainability Parameter</b>	<b>Prior SFMP (2018–2022)</b>	<b>Proposed SFMP (2023–2027)</b>	<b>Trigger Management?</b>
<b><u>Albemarle Sound-Roanoke River</u></b>			
IGNS Female CPUE (changed slightly additional data included)	Uses all mesh sizes, float and sink nets, female shad only Jan–May, Zone II only.	Changes: Sink nets dropped to match new IGNS methodology.	Yes, by itself if exceeds threshold 3 consecutive years. Threshold based on fixed time series 2000–2017.
Relative F (combines commercial landings and IGNS CPUE) (changed slightly additional data included)	Used only gill net landings and only IGNS meshes equivalent to commercial sector, IGNS same months as commercial harvest season (e.g. 2014–2022 IGNS used March data only).	Changes: Uses all commercial female roe landings from all gears, IGNS now all meshes females, Jan–May, Zone II, float nets only to match new IGNS methodology.	Yes, by itself if exceeds threshold 3 consecutive years. Threshold based on fixed time series 2002–2017.
Roanoke River Electrofishing (no change)	Female CPUE from WRC Roanoke River electrofishing survey.	No change.	No. Must be used in conjunction with a second index for triggering management action. Threshold based on fixed time series 2001–2017.
Juvenile Abundance Index (new metric)	Did not have one.	New since 2020 coastwide assessment.	Yes, by itself if exceeds threshold 3 consecutive years. Threshold based on fixed time series 1996–2021.
<b><u>Tar-Pamlico and Neuse Rivers</u></b>			
WRC Electrofishing index female only spawning grounds	Female CPUE from WRC electrofishing survey on Tar-Pamlico and Neuse rivers.	No change.	Yes, by itself if exceeds threshold 3 consecutive years. Threshold based on fixed time series 2000–2017.
Relative F (combines commercial landings and electrofishing CPUE) (changed slightly additional data included)	Female CPUE from WRC electrofishing survey on Tar-Pamlico and Neuse rivers with commercial landings.	Changes: Added recreational harvest to the commercial landings. Relative F unit represented as number of fish not pounds.	Yes, by itself if exceeds threshold 3 consecutive years. Threshold based on fixed time series 2012–2022.
<b><u>Cape Fear River</u></b>			

WRC Electrofishing index female only spawning grounds (changed slightly dropped sampling site from CPUE calculation)	Female CPUE from WRC electrofishing survey on Cape Fear River.	Changes: Dropped sampling site at LD-3 from analysis.	Yes, by itself if exceeds threshold 3 consecutive years. Threshold based on fixed time series 2001–2017.
Relative F (combines commercial landings and electrofishing CPUE) (changed slightly additional data included)	Female CPUE from WRC electrofishing survey on Cape Fear River with commercial landings.	Changes: Added recreational harvest to the commercial landings. Dropped sampling site from WRC electrofishing CPUE. Relative F unit represented as number of fish not pounds.	Yes, by itself if exceeds threshold 3 consecutive years. Threshold based on fixed time series 2011–2022, no value for 2012.
<b>Harvest Season</b>	<b>Prior SFMP (2018–2022)</b>	<b>Proposed SFMP (2023–2027)</b>	<b>Purpose for Change?</b>
<b><u>Albemarle Sound-Roanoke River</u></b>			
Commercial	Mar 3–Mar 24	Feb 15–Apr 14 for 2023. Could be allowed anytime Jan 1–April 14 depending on striped bass regulations and JAI, IGNS CPUE, and relative F metric. Work group still sets season annually depending on review of metrics.	Additional harvest days due to shortened season b/c of striped bass quota being met. Allows harvest from gears (pound net runaround gill net) other than float nets. Float nets still allowed ONLY Mar 3–Mar 24. Stock status Albemarle Sound is not overfishing and not depleted based on 2020 ASMFC stock assessment.
Recreational	1-fish American shad within 10-fish shad aggregate	No change in possession limit	Recreational harvest insignificant. No reliable estimate of recreational harvest.
<b><u>Tar-Pamlico and Neuse Rivers</u></b>			
Commercial	Feb 15–April 14	Feb 15–Apr 14 for 2023. Could be allowed anytime Feb 15–April 14 depending on CPUE, and relative F metric performance. Work group still sets season annually depending on review of metrics.	Provides language for management flexibility.

Recreational	Tar-Pam 10-fish American shad or in aggregate, Neuse 1-fish within 10-fish shad aggregate	No change	
<b><i>Cape Fear River</i></b>			
Commercial	Feb 20–April 11	Feb 20–Apr 11 for 2023. Could be allowed anytime Feb 20–April 11 depending on IGNS CPUE, and relative F metric performance. Work group still sets season annually depending on review of metrics.	Provides language for management flexibility.
Recreational	5-fish American shad within 10-fish aggregate	No change	
<b><i>Pee Dee River</i></b>			
Recreational	10-fish American shad or in aggregate	No change	Complements SC management.
<b><i>All Other Internal Waters</i></b>			
Commercial	Feb 15–April 14	Feb 15–Apr 14 for 2023. Could be allowed anytime Feb 15–April 14 depending on review of metrics.	Provides language for management flexibility.
Recreational	10-fish American shad or in aggregate	1-fish American shad limit within 10-fish shad aggregate	Mirrors 1-fish limit in inland waters. WRC rule implemented 2019.