

# Atlantic States Marine Fisheries Commission

## Shad and River Herring Management Board

*February 2, 2023*

*8:30 – 9:30 a.m.*

*Hybrid Meeting*

### Draft Agenda

The times listed are approximate; the order in which these items will be taken is subject to change; other items may be added as necessary.

- |                                                                                                                              |           |
|------------------------------------------------------------------------------------------------------------------------------|-----------|
| 1. Welcome/Call to Order ( <i>L. Fegley</i> )                                                                                | 8:30 a.m. |
| 2. Board Consent                                                                                                             | 8:30 a.m. |
| • Approval of Agenda                                                                                                         |           |
| • Approval of Proceedings from November 2022                                                                                 |           |
| 3. Public Comment                                                                                                            | 8:35 a.m. |
| 4. Consider North Carolina American Shad Sustainable Fishery Management Plan Update ( <i>B. Neilan</i> ) <b>Final Action</b> | 8:40 a.m. |
| 5. Update on the 2023 River Herring Benchmark Stock Assessment ( <i>K. Drew</i> )                                            | 8:55 a.m. |
| 6. Consider Fishery Management Plan Review and State Compliance for 2021 Fishing Year ( <i>J. Boyle</i> ) <b>Action</b>      | 9:05 a.m. |
| 7. Review and Populate Advisory Panel Membership ( <i>T. Berger</i> ) <b>Action</b>                                          | 9:20 a.m. |
| 8. Elect Vice-Chair <b>Action</b>                                                                                            | 9:25 a.m. |
| 9. Other Business/Adjourn                                                                                                    | 9:30 a.m. |

The meeting will be held at The Westin Crystal City (1800 Richmond Highway, Arlington, VA; 703.486.1111) and via webinar; click [here](#) for details

# Atlantic States Marine Fisheries Commission

## MEETING OVERVIEW

Shad and River Herring Management Board

February 2, 2023

8:30 a.m. – 9:30 a.m.

Hybrid Meeting

|                                                                                                                 |                                                 |                                                                     |
|-----------------------------------------------------------------------------------------------------------------|-------------------------------------------------|---------------------------------------------------------------------|
| Chair: Lynn Fegley (MD)<br>Assumed Chairmanship: 2/23                                                           | Technical Committee Chair:<br>Brian Neilan (NJ) | Law Enforcement Committee<br>Representative: Thomas<br>Burrell (PA) |
| Vice Chair:<br>Vacant                                                                                           | Advisory Panel Chair:<br>Pam Lyons Gromen       | Previous Board Meeting:<br>November 8, 2022                         |
| Voting Members: ME, NH, MA, RI, CT, NY, NJ, PA, DE, MD, DC, PRFC, VA, NC, SC, GA, FL, NMFS,<br>USFWS (19 votes) |                                                 |                                                                     |

### 2. Board Consent

- Approval of Agenda
- Approval of Proceedings from November 8, 2022

**3. Public Comment** – At the beginning of the meeting public comment will be taken on items not on the agenda. Individuals that wish to speak at this time must sign-in at the beginning of the meeting. For agenda items that have already gone out for public hearing and/or have had a public comment period that has closed, the Board Chair may determine that additional public comment will not provide additional information. In this circumstance the Chair will not allow additional public comment on an issue. For agenda items that the public has not had a chance to provide input, the Board Chair may allow limited opportunity for comment. The Board Chair has the discretion to limit the number of speakers and/or the length of each comment.

### 4. Consider North Carolina American Shad Sustainable Fishery Management Plan Update (8:40-8:55 a.m.) Final Action

#### Background

- Amendments 2 and 3 to the Shad and River Herring FMP require all states and jurisdictions that have a commercial fishery to submit a sustainable fishing management plan (SFMP) for river herring and American shad, respectively. Plans are updated and reviewed by the Technical Committee (TC) every five years.
- North Carolina submitted an updated SFMP for TC review and Board consideration at the 2023 Winter Meeting (**Supplemental Materials**).
- The TC reviewed this SFMP update and developed a recommendation for the Board (**Supplemental Materials**).

#### Presentations

- American Shad Sustainable Fishery Management Plan Update for Board Consideration by B. Neilan

#### Board Actions for Consideration

- Consider approval of updated SFMP for North Carolina

**5. Update on 2023 River Herring Benchmark Stock Assessment (8:55-9:05 a.m.)**

**Background**

- The river herring benchmark stock assessment was initiated in April 2022. The methods workshop is scheduled for February 2023.

**Presentations**

- Update on River Herring Stock Assessment Progress by K. Drew

**6. Consider Fishery Management Plan Review and State Compliance for the 2021 Fishing Year (9:05-9:20 a.m.) Action**

**Background**

- State Compliance Reports were due on July 1, 2022.
- The Plan Review Team reviewed each state report and compiled the annual FMP Review (**Supplemental Materials**).

**Presentations**

- Overview of the FMP Review Report by J. Boyle

**Board Actions for Consideration**

- Approve FMP Review for 2021 fishing year, state compliance reports, and *de minimis* requests

**7. Review and Populate Advisory Panel Membership (9:20-9:25 p.m.)**

**Background**

- There is one new nomination to the Shad and River Herring Advisory Panel—Stephen Gephard, a recreational angler and retired CT DEEP biologist (**Briefing Materials**).

**Presentations**

- Nomination by T. Berger

**Board Actions for Consideration**

- Approve Shad and River Herring Advisory Panel Nomination

**8. Elect Vice-Chair**

**9. Other Business/Adjourn**

## Shad and River Herring 2023 TC Tasks

**Activity level: Medium**

**Committee Overlap Score:** Medium (Multi-species committees for this Board)

### Committee Task List

- 2023 River Herring Benchmark Stock Assessment
- Updates to state Shad SFMPs
- Annual state compliance reports due July 1

**TC Members:** Mike Brown (ME), Conor O'Donnell (NH), Brad Chase (MA), Patrick McGee (RI), Kevin Job (CT), Wes Eakin (Vice Chair, NY), Brian Neilan (Chair, NJ), Brian Niewinski (PA), Johnny Moore (DE), Matthew Jargowsky (MD), Ingrid Braun (PRFC), Joseph Swann (DC), Patrick McGrath (VA), Holly White (NC), Jeremy McCargo (NC), Bill Post (SC), Jim Page (GA), Reid Hyle (FL), Ken Sprankle (MA), Ruth Hass-Castro (NOAA), John Ellis (USFWS), Ted Castro-Santos (USGS), C. Michael Bailey (USFWS)

**DRAFT PROCEEDINGS OF THE  
ATLANTIC STATES MARINE FISHERIES COMMISSION  
SHAD AND RIVER HERRING MANAGEMENT BOARD**

**The Ocean Place Resort  
Long Branch, New Jersey  
Hybrid Meeting**

**November 8, 2022**

These minutes are draft and subject to approval by Shad and River Herring Management Board.  
The Board will review the minutes during its next meeting.

Draft Proceedings of the Shad and River Herring Management Board Hybrid Meeting  
November 2022

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    Approval of Draft Terms of Reference ..... 9  
    Approval of Stock Assessment Subcommittee Membership ..... 14

Presentation on NOAAs River Herring Habitat Conservation Plan ..... 15

Review and Populate Advisory Panel Membership ..... 19

Adjournment ..... 20

These minutes are draft and subject to approval by Shad and River Herring Management Board.  
The Board will review the minutes during its next meeting.

### INDEX OF MOTIONS

1. **Move to approve agenda** by Consent (Page 1).
2. **Move to approve proceedings May 3, 2022** by Consent (Page 1).
3. **Move to approve the updated Shad Habitat Plan from Massachusetts as presented today** (Page 3). Motion by Mike Armstrong; second by Eric Reid. Motion approved by consent (Page 3).
4. **Move to approve the updated River Herring Sustainable Fishery Management Plan from Massachusetts as presented today** (Page 6). Motion by Cheri Patterson; second by Steve Train. Motion approved by consent (Page 6).
5. **Move to approve the continuation of the provisional river herring fisheries as described in the addendum to the Maine river herring SFMP for the remainder of the five-year period ending in 2024, at which time the Technical Committee will use the established sustainability criteria to evaluate if the municipalities may continue harvest under the SFMP** (Page 8). Motion by Pat Keliher; second by Malcolm Rhodes. Motion approved by consent (Page 9).
6. **Move to approve the Stock Assessment Subcommittee and Terms of Reference for the 2023 Benchmark Stock Assessment as presented today** (Page 14). Motion by John Clark; second by Lynn Fegley. Motion approved by consent (Page 14).
7. **Move to approve the nominations of Paul Perra and Jerry Audet from Massachusetts to the Shad and River Herring Advisory Panel** (Page 20). Motion by Cheri Patterson; second by Pat Geer. Motion approved by consent (Page 20).
8. **Motion to adjourn** by Consent (Page 20).

## ATTENDANCE

### Board Members

|                                                 |                                                 |
|-------------------------------------------------|-------------------------------------------------|
| Pat Keliher, ME (AA)                            | Roy Miller, DE (GA)                             |
| Steve Train, ME (GA)                            | Craig Pugh, DE, proxy for Rep. Carson (LA)      |
| Cheri Patterson, NH (AA)                        | Lynn Fegley, MD (AA, Acting)                    |
| Dennis Abbott, NH, proxy for Sen. Watters (LA)  | Allison Colden, MD, proxy for Del. Stein (LA)   |
| Mike Armstrong, MA, proxy for D. McKiernan (AA) | Russell Dize, MD (GA)                           |
| Sarah Ferrara, MA, proxy for Rep. Peake (LA)    | Pat Geer, VA, proxy for J. Green (AA)           |
| Phil Edwards, RI, proxy for J. McNamee (AA)     | Shanna Madsen, VA, proxy for Sen. Mason (LA)    |
| David Borden, RI (GA)                           | Chris Batsavage, NC, proxy for K. Rawls (AA)    |
| Eric Reid, RI, proxy for Rep. Sosnowski (LA)    | Jerry Mannen, NC (GA)                           |
| Justin Davis, CT (AA)                           | Ross Self, SC, proxy for M. Bell (AA)           |
| Bill Hyatt, CT (GA)                             | Malcolm Rhodes, SC (GA)                         |
| Sen. Craig Miner, CT (LA)                       | Chris McDonough, SC, proxy for Sen. Cromer (LA) |
| John Maniscalco, NY, proxy for J. Gilmore (AA)  | Doug Haymans, GA (AA)                           |
| Emerson Hasbrouck, NY (GA)                      | Spud Woodward, GA (GA)                          |
| Heather Corbett, NJ, proxy for J. Cimino (AA)   | Erika Burgess FL, proxy for J. McCawley (AA)    |
| Tom Fote, NJ (GA)                               | Gary Jennings, FL (GA)                          |
| Adam Nowalsky, NJ, proxy for Sen. Gopal (LA)    | Marty Gary, PRFC                                |
| Kris Kuhn, PA, proxy for T. Schaeffer (AA)      | Dan Ryan, DC, proxy for R. Cloyd                |
| Loren Lustig, PA (GA)                           | Rick Jacobson, USFWS                            |
| Warren Elliott, PA (LA)                         | Max Appelman, NOAA                              |
| John Clark, DE (AA)                             |                                                 |

**(AA = Administrative Appointee; GA = Governor Appointee; LA = Legislative Appointee)**

### Ex-Officio Members

Brian Neilan, Technical Committee Vice-Chair

### Staff

|                  |               |                |
|------------------|---------------|----------------|
| Bob Beal         | Katie Drew    | Adam Lee       |
| Toni Kerns       | Emilie Franke | Jeff Rinaldi   |
| Madeline Musante | Lisa Havel    | Caitlin Starks |
| Tina Berger      | Chris Jacobs  |                |
| James Boyle      | Jeff Kipp     |                |

### Guests

|                          |                         |                           |
|--------------------------|-------------------------|---------------------------|
| Ashley Ascii, NOAA       | Jeff Brust, NJ DEP      | Maureen Davidson, NYS DEC |
| Marina Barrineau, FL FWC | John Carmichael, SAFMC  | Roman Dudus               |
| Mel Bell, SC (AA)        | Joe Cimino, NJ (AA)     | Wes Eakin, NYS DEC        |
| Alan Bianchi, NC DNR     | Casey Clark, ME DMR     | Emily Farr, Manomet       |
| Christopher Boelke, NOAA | Margaret Conroy, DE DFW | Jennifer Foss, NOAA       |
| Jason Boucher, NOAA      | Caitlin Craig, NYS DEC  | Ben German, NOAA          |

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Draft Proceedings of the Shad and River Herring Management Board Hybrid Meeting  
November 2022

**Guests (continued)**

|                                         |                           |                                    |
|-----------------------------------------|---------------------------|------------------------------------|
| Jim Gilmore, NY (AA)                    | Tina Moore, NC DENR       | Andrew Sinchuk, NYS DEC            |
| Jamie Green, VA (AA)                    | Brandon Muffley, MAFMC    | Kiel Stone, GMU                    |
| Pam Lyons Gromen, WildOceans            | Kirby Rootes-Murdy, USGS  | David Stormer, DE DFW              |
| Lars Hammer, ME DMR                     | Thomas Newman             | ElizaBeth Streifeneder, NYS DEC    |
| Anne Hayden                             | Derek Orner, NOAA         | Kevin Sullivan, NH F&G             |
| Helen Takade-Heumacher, US FWS          | Willow Patten, NC DENR    | Mike Thalhauser, Coastal Fisheries |
| Jessie Hornstein, NYS DEC               | Lucas Pensinger, NC DENR  | Jonathan Watson, NOAA              |
| Andrew Hrycyna, Mystic River            | Nicholas Popoff, US FWS   | William Wayman, US FWS             |
| Landis Hudson, Maine Rivers             | Bill Post, SC DNR         | Holly White, NC DENR               |
| John Kravchak                           | Will Poston, SGA          | Ritchie White, CCA NH              |
| Danni Logue                             | Kathy Rawls, NC (AA)      | Meredith Whitten, NC DENR          |
| Mike Luisi, MD DNR                      | Eric Roach                | Christine Wiegand, SAFMC           |
| Michael Manning, Maine<br>Salmon Rivers | Jason Rock, NC DENR       | Kate Wilke, TNC                    |
| Patrick McGrath, VIMS                   | Mike Ruccio, NMFS         | Chris Wright, NOAA                 |
| Nichola Meserve, MA DMF                 | Zachary Schuller, NYS DEC | Renee Zobel, NH F&G                |
|                                         | McLean Seward, NC DENR    |                                    |

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The Shad and River Herring Management Board of the Atlantic States Marine Fisheries Commission convened in The Monmouth I Room in The Ocean Place Resort, a hybrid meeting, in-person and webinar; Tuesday, November 8, 2022, and was called to order at 9:00 a.m. by Chair Justin Davis.

#### **CALL TO ORDER**

CHAIR JUSTIN DAVIS: Good morning, Folks. I'm going to go ahead and call to order this meeting of the Shad and River Herring Management Board. Good morning, all, my name is Justin Davis. I'm the Administrative Commissioner from Connecticut, and I'm currently serving as the Chair of the Shad and River Herring Management Board.

I'll acknowledge up here at the head table with me I have Dr. Katie Drew and James Boyle from Commission staff, as well as Brian Neilan from New Jersey DEP, our current Technical Committee Chair. All of them will be helping out with running the meeting today.

#### **APPROVAL OF AGENDA**

CHAIR DAVIS: For our first order of business this morning is approval of the agenda.

I'll ask if anybody has any suggested modifications or additions to the agenda that was provided in the meeting materials. Okay, not seeing any hands, we'll consider the agenda approved by consent.

#### **APPROVAL OF PROCEEDINGS**

CHAIR DAVIS: Moving on to the next item, approval of the proceedings from the last meeting of this Board in May of this year, which were also provided in the meeting materials.

I'll also take a quick minute to thank my Vice Chair, Lynn Fegley from the state of Maryland, for running that meeting, because I was not available. Thanks, Lynn. Any suggested edits, modifications, additions to the meeting

proceedings from May 2022? Okay, not seeing any hands we'll consider those proceedings approved by consent. Moving right along here.

#### **PUBLIC COMMENT**

CHAIR DAVIS: Next item on the agenda is Public Comment. This would be public comment for any items not on the meeting agenda this morning. Do we have any members of the public here in the room or on the webinar, who would like to provide public comment at this time? Okay, not seeing anybody who would like to make public comment at this time.

#### **AMERICAN SHAD HABITAT PLAN UPDATE**

CHAIR DAVIS: We'll move along here to our next item on the agenda. We're going to have a series of presentations this morning concerning Shad Habitat Plans and Sustainable Fishery Management Plans. For the first of those I'm going to turn to Brian Neilan for a presentation on an American Shad Habitat Plan Update. Brian.

MR. BRIAN NEILAN: Good morning to the Board. My name is Brian Neilan, and I'm the TC rep from New Jersey and current Chair of the Shad and River Herring TC. I hope you've been enjoying your time in my home state so far, as the bunker put on a show for you yesterday.

MR. NEILAN: Today I have for you a few different plans for your consideration. First is an American Shad Habitat Plan for the Taunton River in Massachusetts, followed by a few River Herring Sustainable Fishery Management Plans, all out of New England.

Just some quick background on these habitat plans. Under Amendment 3 to the Shad and River Herring Fishery Management Plan, all states and jurisdictions are required to submit habitat plans for American shad. These plans are meant to contain a summary of current and historical information on spawning and nursery habitat, any threats to those habitats, and any habitat restoration programs or anything going on within each state.

Back in February of 2022 the Board agreed that these plans should be updated every five years or so, similar to how we update our sustainable fishery management plans. Over the past couple years, the Board has been presented with a slew of updated and new plans for consideration from various agencies and jurisdictions, as the Board requested.

#### **MASSACHUSETTS TAUNTON RIVER ADDITION**

MR. NEILAN: At the end of last month one habitat plan was evaluated by the TC, and submitted for Board consideration today. This is the Taunton River Plan out of Massachusetts. The TC recommends approval of this plan. We'll jump right in here. The Taunton River Plan was submitted by the Massachusetts Division of Marine Fisheries, and was presented by the Mass TC Rep, Brad Chase.

Each plan is required to have a habitat assessment that details current and historic shad spawning in nursery habitat. For the Taunton River, for this particular plan the Taunton River is one of the largest rivers in Southeast Massachusetts. It's unique in New England, being such a large river with no dams or impediments along the course of its main stem.

There were historical commercial shad fisheries in the main stem and tributaries that were impacted by overharvest, dams in the tributaries, and industrial pollution. There has been minimal recent evidence of existing shad run, despite some stocking efforts that went on in the '60s and '70s. Before those stocking efforts, Mass DMF did a survey to assess the habitat and down 45 kilometers of the main stem of potential spawning habitat.

This plan was primarily developed to support the development of a shad stocking effort in the Taunton River. It's a multiagency effort between Mass DMF, Massachusetts Division of Wildlife, and the United States Fish and Wildlife Service. With recent improvements in water

management and decreases in pollution, they're hoping that they might be a little more successful in this stocking effort.

Each plan is required to do a Threats Assessment. This is kind of a plan in progress, but Mass DMF wanted to submit the plan in order to highlight the current and future stocking efforts that they're undertaking. As I said, they're hoping to take advantage of the nearly 80 acres of potential spawning and nursery habitat.

At this time no formal Threats Assessment has been conducted, but Barriers to Migration, which is one of the greatest threats to spawning habitat access is not an issue, at least in the main stem here. The biggest issues in the past were commercial overfishing, and industrial pollution, which degraded the water quality and spawning habitat, to the point that shad spawning was largely unsuccessful. Habitat plans are also required to detail any habitat restoration programs going on within the watershed and the state.

As mentioned before, this is a kind of in the works plan that is being developed to support the joint agency stocking effort. For the Mass DMF expects that a habitat survey and assessment would be useful for this watershed, with methods potentially transferrable to other watersheds within Massachusetts, but they are still working on funding, which is we've all experienced problems with.

Mass DMF recommended that the following actions be taken for the Taunton River. First, an assessment of the amount and suitability of habitat for shad spawning and rearing. They have the assessment from the '60s, but they would obviously like to update that with the water quality increases over the past decades.

Then continued monitoring to document the status of the shad spawning run in response to the stocking efforts. Within the Habitat Plan, Mass DMF also included the proposed stocking plan for the Taunton River. The Taunton River Watershed has about 80 acres of potential American shad

spawning habitat. Based on this estimate, Mass DMF and the other agencies involved are looking to do stock over the next four to five years about 20 million shad larvae.

To achieve this goal, they are going to be taking 350 broodstock fish from Holyoke Dam yearly, doing strip spawning and then surviving adults will be released post spawning. Additionally, they are going to be doing monitoring for juveniles during the summer and fall to look at success rates of their stocking.

Adult monitoring would begin three years after the initial stocking. Three years is when you start seeing your returns. So far in 2022, over 5 million shad larvae were stocked. During summer sampling they found juvenile American shad at three, up to five, monitoring stations they currently monitor. That's the rundown of the Taunton River Plan from Massachusetts. I could take any questions.

CHAIR DAVIS: Thank you, Brian, for that presentation. I'll turn back to the Board and see if there are any questions for Brian. Okay, not seeing any hands from the Board. I think at this point, James, we'll need a motion to approve the Shad Habitat Plan Update. I'm wondering if there might be a member of the Board that would be willing to make that motion. Mike Armstrong.

**DR. MIKE ARMSTRONG: Certainly. I move to approve the updated Shad Habitat Plan from Massachusetts as presented today.**

CHAIR DAVIS: Okay, there is a motion from Mike Armstrong. I'm just going to wait until it's up on the board. There it is. I'm looking for a second, Eric Reid, Rhode Island. I'll ask the Board if there is any discussion on the motion. Mike, as the maker of the motion do you want to provide your rationale?

DR. ARMSTRONG: Yes, I don't think I need to say much. It was covered in the presentation there. But we're pretty excited to begin a cooperative program with U.S. Fish and Wildlife

Service hatchery in North Attleboro, which is adjacent to the Taunton River, and we've already had some documentation of success. The Taunton is a big river, and my only question is, why haven't we done this before. But the stars have aligned, and I think it will be awesome.

CHAIR DAVIS: Any other members of the Board wish to make a comment on the motion? Okay, we'll see if we can do this the easy way. **Are there any objections to the motion? Okay, not seeing any hands, the motion passes by unanimous consent.**

#### **RIVER HERRING SUSTAINABLE FISHERY MANAGEMENT PLAN UPDATES FROM MASSACHUSETTS AND MAINE**

CHAIR DAVIS: All right, so we're going to go back to Brian here for our next presentation on Approval of Two Sustainable Fishery Management Plan Updates. Brian.

MR. NEILAN: Next I'll be going over some River Herring Sustainable Fishery Management Plan from Massachusetts and Maine. Just a bit of background on our sustainable fishery management plans and what is required of them, including the FMPs sustainability definition. Amendments 2 and 3 of the Shad and River Herring Plan require states wishing to have a fishery to submit a sustainable fishery management plan.

The definition of sustainability in the FMP is that any harvest will demonstrate their stock can support a commercial and/or recreational fishery that will not diminish the future stock reproduction and recruitment. These plans are updated and reviewed every five years to reassess stock status and the sustainability of the harvest. Last month the TC reviewed a bunch of plan updates and new plans from Massachusetts and Maine.

Three herring sustainable fishery management plans were evaluated by the TC and are being submitted today for the Board's consideration. We have a Nemasket River update to their current SFMP, a Herring River out of Massachusetts new

plan being added to this Massachusetts State Plan, and then an update to the Addendum to the Maine 2019 Sustainable Fishery Management Plan. Again, these are all river herring plans.

#### **MASSACHUSETTS NEMASKET RIVER UPDATE**

MR. NEILAN: The TC recommends approval of both Massachusetts plans and the continuation of the Maine limited fisheries, based on the presented update. The first presentation was a regularly scheduled update of the Nemasket River, River Herring Sustainable Management Plan from Massachusetts.

The proposed Nemasket River fishery is a small dip net fishery, with harvest that would predominantly be used for bait and personal consumption.

It's cooperatively managed by the Massachusetts DMF and the Middleboro and Lakeville Town Herring Fishery Commission. The Fishery Commission is made up of residents of the town, and they kind of do the counts. They manage the fishery on a local level. The updated plan remains relatively unchanged from the previous iteration.

Just a quick rundown of the management measures here. It's a five-week season that goes middle of April to middle of May. Approximately 900 permits issued per year, with required reporting, and the harvest allowance is 20 fish per permit per week. You need trip tickets for each trip. To possess the river herring, you have to have these trip tickets in your possession as well. I might have buried the lead here a bit, but no harvest was permitted throughout the previous tenure of the plan. The Herring Commission did not permit harvest for a couple of reasons. The year before they were going to start harvest there was a decrease in their run counts to a level that the Commission was not comfortable with allowing harvest to take place. There is also some hesitancy there to be the only open

fishery in the state, kind of worried about the concentration of effort on their stretch there.

Here are the fishery program mechanics. The management unit is the Nemasket River, the run in the river between the towns of Middleboro and Lakeville. That is the only place where harvest would potentially be allowed if the Herring Commission wants to open a fishery. For sustainability measure its ongoing spawning run counts, used to calculate run size, and that will serve as the primary measure to monitor runs, the health of the runs.

They have a sustainability target; they plan to harvest. Harvest will be capped at 10 percent of the time series mean on the run counts. This value will be calculated each year. Their primary action threshold, their management threshold will be 25th percentile of the run count. If this threshold is exceeded two years in a row, the harvest rate will be reduced in half to 5 percent of the time series mean.

If it's exceeded three years in a row, then the fishery will be closed until such time that three years in a row above the management target is achieved. But as I said previously, there has been no harvest so far. They also plan on using a secondary threshold, to kind of reinforce the other threshold. As I said, 10 percent of the time series mean is their harvest goal here.

In any given year if they exceed their 10 percent harvest rate, Mass DMF will meet with the Herring Commission to review the harvest records and look at their management practices to look at ways they could reduce harvest through different control measures, reducing permits, reducing fishing days, bag limits that sort of thing.

They are also looking at potential future targets, including mortality based on repeat spawning, so they are taking biological samples as well. Here is a graph showing the annual run count over the years, with the blue line at the bottom. You could see it representing the 10 percent harvest threshold. The

red area represents the first quartile management threshold.

Like I said, two years below that the harvest target will be reduced in half, and three years below the fishery will be closed. Then the top line there is the time series mean. That's it for the Nemasket Plan Update. I guess I could take questions and just reiterate that although they had the ability to harvest, they didn't. The Herring Commission has been very cautious and conservative, and hasn't harvested at all during the previous tenure.

CHAIR DAVIS: Thanks, Brian, at this point I'll turn back to the Board and see if there are any questions on the Nemasket River Plan Update. Brian, I do have one quick question. Is the last year in that graph 2021 or 2022, the last year of data?

MR. NEILAN: I believe that is 2021. I'm not sure they finished calculating 2022 yet.

DR. ARMSTRONG: Yes, I believe this year's number is around 700, 800,000. It's not on the graph though.

CHAIR DAVIS: Okay, thanks, Mike. Okay, not seeing any hands from the Board. I think Brian, what we should do is maybe just move along to the next Massachusetts Plan Update and then at the end of that we could consider a motion to approve the two sustainable fishery management plan updates from Massachusetts.

#### **MASSACHUSETTS ADDITION OF THE HERRING RIVER**

MR. NEILAN: Sure. Massachusetts also submitted a proposed River Herring SFMP for the Herring River. The proposed plan is essentially the same as the Nemasket River Plan, we just used some tweaks to kind of tailor it to this particular river's run. There are less total permits here, but they stayed at the 10 percent of the time series mean as their harvest target.

I believe the Town of Harwich, their Herring Commission also has similar hesitancy to open, for similar reasons in the Nemasket Plan. They are worried about being the only open fishery and the concentration of effort, and then they are also just being very cautious and conservative, given the state of river herring coastwide.

Again, here are the fishery program mechanics, as I said very similar to the Nemasket River, just tailored to the Herring River's run. The run size will be measured through combined visual. On the Herring River they have an electronic fish counter. Those run counts are currently combined, but in the future, I think once they get their electronic fish counts dialed in, I believe they're going to transition to a fish counter only in the next iteration of the plan for the counts.

Again, the sustainability target is 10 percent of the time series mean. The primary action threshold is the same at the 25th percentile of the run. They also had that secondary threshold looking at a yearly harvest rates if they ever exceed that 10 percent on a given year, they will revisit their harvest control measures.

For management actions in any given year run counts climb below the 25th percentile being reported in the ASMFC Annual Compliance Report two years in a row below the sustainability target of 25 percent will reduce the harvest in half, and then three years in a row will close down the fishery. I went through that one a little quicker, just because it's very similar to the previous plan, so I would be happy to take any questions.

CHAIR DAVIS: Okay, thanks, Brian, I'll turn it back to the Board and see if there are any questions relative to the Herring River Sustainable Fishery Management Plan. I do have one question or a comment. I think I direct this to you, Mike, possibly. I suspect many folks around the table are aware, but if not, we just had one of the worst years on record for river herring returns in Southern New England.

Connecticut, many of the runs we monitor we sort of recorded the lowest returns we've ever recorded, or close to. cursory examination of the data suggests that it doesn't look like a single year class failure, but sort of all the year classes in the runs were at much lower-than-expected abundances. It has the biologists on our staff who deal with river herring kind of scratching their heads about what's going on with river herring in Southern New England. There is a lot of allusion in the presentation to a conservative stance about harvest on these rivers. I'm wondering, do you have any insight, even with these plans being approved, whether you think Mass DMF and the town groups that are managing these rivers are going to move forward with opening harvest next year, or if there might be a little bit of a "wait and see" approach, given the year we just had for river herring returns?

DR. ARMSTRONG: Yes, I don't think they will harvest. There were downturns in a lot of our runs too, but not all of them. It's more, these are our two largest runs, and they historically have been harvested. They want it in their back pocket to be available. I honestly can't tell you if Herring River, if we pass this would even be above the threshold for harvest. But Brad Chase told me they're not terribly interested in aggressively going forward with harvesting until things are steady and looking good.

CHAIR DAVIS: Looking to the Board to see if there are any additional questions. Okay, so at this point I think we'll need a motion to approve these two sustainable fishery management plans from Massachusetts. I'll look to the Board to see if somebody is willing to make that motion. Cheri Patterson. Cheri, would you mind reading that motion into the record?

**MS. CHERI PATTERSON: Thank you, Mr. Chair, I would love to. Move to approve the updated River Herring Sustainable Fishery Management Plan from Massachusetts as presented today.**

CHAIR DAVIS: We have a motion on the board, do we have a second? I see Steve Train. I'll turn back to you, Cheri, to see if you want to provide any rationale for the motion.

MS. PATTERSON: No, I think Brian covered the Management Plans very well, and I don't see any issues with them.

CHAIR DAVIS: Okay, thank you all, I'll look back to the Board to see if there are any additional comments on the motion. **All right, seeing no additional hands, I'll ask if there are any objections to the motion. Not seeing any hands, the motion passes by unanimous consent.**

#### **MAINE SUSTAINABLE FISHERY MANAGEMENT PLAN ADDENDUM**

CHAIR DAVIS: Okay, Brian, I'll turn back to you for the presentation on the Addendum to Maine's Sustainable Fishery Management Plan.

MR. NEILAN: Lastly, I have an update on the Maine River Herring Sustainable Fishery Management Plan Addendum. In 2019 the Board approved an Addendum to the Maine River Herring SFMP to allow three provisional fisheries through 2024. This was in an effort to incentivize the continuation of local restoration efforts.

There has been a lot of great local restoration efforts on these three rivers, these provisional fisheries were allowed dam removals, culvert replacements, improvement to fish passage. To keep the momentum going they opted to possibly allow the fishery provisional fisheries in these rivers.

The Board required an update to look at these provisional fisheries to see if they're having an effect, good or bad, on the river herring runs. There were three habitats in the Addendum ranging from 43 to 135 acres of potential spawning habitat. These locations did not meet the existing Maine SFMP metrics, but as I said, we're under restoration, so they didn't quite have run counts that met the minimum amount of years, but they

were almost there, and currently getting really good returns.

As I said, there is active restoration efforts underway to increase population size, age structure, and repeat spawning, as well as lower the mortality estimates on the various rivers. For these limited fisheries, the control rules and assessment criteria were developed as follows. This has been kind of an escapement fishery approach.

The harvest will occur after May 18 to allow older river herring to escape the fishery. Municipalities that allow recreational fisheries must enumerate and subtract the recreational harvest from the currently allowed commercial catch. The goal is their release of a minimum spawning stock threshold of 235 fish per acre.

Commercial fishery that does not meet this escapement threshold will close until the fishery achieves the escapement threshold, again, at some point. There will be annual review of age data and mortality rates, repeat spawning rates derived from annual biological collection, to assess the need to reduce harvest numbers, or to suspend any fishery short of the 5-year period.

It's very well tracked, or potentially be tracked. The Board asked for an update midway through the tenure of these provisional fisheries. Only one municipality opted to conduct a fishery. In 2020 the run was over before the harvest opened on May 18, so they chose to harvest the runbacks. This kind of resulted in a higher mortality rate on older fish.

The other two municipalities did not opt to conduct their fishery, but they did continue with biological data and fish counts. Then the Addendum requires management action resulting, due to the 2022 harvest in the one municipality that did allow harvest, management action resulting in reduction in the 2023 harvest meet the mortality and repeat spawning goals.

Maine had some recommendations from their presentation. They recommended to allow municipalities within the plan to continue to fish for the remainder of the five-year period, or at least have the option to fish, as I said, only one of the three municipalities chose to conduct a harvest. They want to maintain the existing control rules that manage harvest based on returns, biological data, and associated management actions.

At the end of the Addendum period, which I believe is 2024, they'll make a final determination on these provisional fisheries regarding whether to continue to allow them, and assess whether further restoration access helps municipalities meet the Maine and ASMFC sustainability metrics. That's all I have for that one, the Maine Addendum Update, and I would be happy to take any questions.

CHAIR DAVIS: Okay, thank you, Brian. Turn back to the Board to see if there are any questions. Lynn Fegley.

MS. LYNN FEGLEY: I just had a curiosity question, maybe for the state of Maine about, it looked to me, I think what I saw was that for the recreational harvest happens after May 18, but anything that they harvest would be subtracted from the commercial catch allowance. I'm just kind of curious how that works, because the timing seems, it's just an interesting setup, sort of an on-the-fly allocation. I just wonder if that works well. I'm curious.

CHAIR DAVIS: Pat, look to you, see if you would like to answer the question.

MR. PATRICK C. KELIHER: Thanks for that question, Lynn, I think. I don't know if it works well or not, quite honestly. I mean the intent here is to try to ensure that we can control the overall harvest. But because it's all happening in a very isolated location, we can keep an eye on that and the volunteers track it pretty well. I think overall, because of the size of the system it works. If this was a larger system where they could harvest in multiple locations, it probably wouldn't work at all.



CHAIR DAVIS: Okay, thanks, Pat. I look to the Board to see if there are any additional questions on the presentation. I was remiss in not doing this earlier. I meant to provide an opportunity for public comment on this general agenda item on sustainable fishery management plans. I'll ask at this time if there is any member of the public in the audience or on the webinar who would like to make a public comment.

DR. KATIE DREW: On the webinar we have Andrew Hrycyna. Andrew, you're self-muted now, so if you would like to unmute yourself you can go ahead and make a comment. Andrew, you're still muted on your end. If you want to click the little red button so it turns green.

CHAIR DAVIS: Okay, Andrew, we'll go ahead and move on, but if you drop a comment, potentially on the webinar, we could possibly come back to you to provide comment later on. Not seeing any additional hands from the Board, at this point we'll need a motion to approve Maine's Sustainable Fishery Management Plan Addendum. I'll look to the Board to see if anybody would be willing to make that motion. Pat Keliher.

MR. KELIHER: Before I make that motion, just for clarity of the record based on Maryland's question. The municipality actually in this case, chose not to allow for that recreational harvest this past year, so that controlled it even more.

**On this particular issue I would move to approve the continuation of the provisional river herring fisheries as described in the addendum to the Maine River Herring SFMP for the remainder of the five-year period ending in 2024, at which time the Technical Committee will use the established sustainability criteria to evaluate if the municipalities may continue to harvest under the SFMP.**

CHAIR DAVIS: We have a motion by Pat Keliher, I see a second from Malcolm Rhodes. Pat, I'll turn back to you to see if you want to provide any additional comments or rationale on the motion.

MR. KELIHER: I don't have anything else.

CHAIR DAVIS: Would any other member of the Board care to comment on the motion? I'll go back to Andrew, a member of the public on the webinar for a second try here for public comment. Andrew, go ahead.

MR. ANDREW HRYCYNA: Yes, thank you very much. I lost control of the interface there for a moment. I'm Andy Hrycyna from the Mystic River Watershed Association in Boston, where we are very proud of our program of monitoring our herring run. It has documented a two to threefold increase, thanks to a fish ladder installation and collaboration.

We do the monitoring in collaboration with DMF. Really, some of my concerns have been addressed, but we wanted to just submit a comment urging caution on reinstating harvest on Nemasket and Herring Rivers at the time when it's not clear from data that populations are robust, and not just support sustainable harvest.

A major concern we had is lack of sort of publicly available analysis how vulnerable these populations are to changes due to climate change, especially to the expected increase in the incidence and severity of summer droughts. In fact, we noted also that the Herring River run has shown declines in the past four successive years from over a million to 25 percent of that number in 2022.

Those comments about caution were appreciated. But maybe more to the point, if part of the motivation for reinstating harvest is to engage a variety of stakeholders in the larger conservation efforts, we believe there are other and better ways, and we've had great success in recruiting volunteers for in-person counts. We have 150 people a year going out and doing counts.

We also have an education program in schools that reach thousands of kids, and we have a video monitoring program that engages 5,000 users a year. We've shared that technology with Pembroke in Plymouth, and with South River in Marshfield. If part of the motivation is encouraging public awareness and engagement, we think that these programs and technologies allow ways that reach more people than the relatively few people engaged in the harvest. That was our comment, and thank you very much.

CHAIR DAVIS: Thank you, Andrew, and I'll apologize again for not providing you an opportunity to make that comment earlier when we were considering Massachusetts Sustainable Fishery Management Plans. At this point I'll turn back to the Board to see if there are any additional hands for a comment or discussion.

**Okay, seeing none, I'll ask if there are any objections to the motion. Okay, seeing none, the motion passes by unanimous consent.**

#### **UPDATE ON THE 2023 RIVER HERRING BENCHMARK STOCK ASSESSMENT**

CHAIR DAVIS: All right, so we'll move on to our next agenda item. I'm going to turn to Dr. Katie Drew to provide an update on the 2023 River Herring Benchmark Stock Assessment.

DR. DREW: We'll just get a presentation up here pretty quickly, and thank you, Madeline.

#### **APPROVAL OF DRAFT TERMS OF REFERENCE**

DR. DREW: We are going to go over today a quick summary of the timeline and where we are on that, and then present for your approval the Terms of Reference for the stock assessment and the Stock Assessment Subcommittee membership for your approval. This is the current timeline. We have clearly moved ahead without having these things approved yet. But mostly we've been in the

preparation stages of gathering data from our various state and partner agencies, as well as we did a call for data via a press release, and got several datasets from academic and other institutions to supplement what we have.

We plan to have the SAS and the TORs approved today here at this webinar/in-person meeting, and then our next sort of big meetings will be a methods workshop in February-ish of next year, and an assessment workshop in April of next year, so that we can finalize the report, have the peer review in August, and present to you again in October of 2023, at our annual meeting, the final result of this assessment.

Obviously, this is a large amount of work. These are essentially two stock assessments for two separate species, with multiple stocks going on at the same time. There is a possibility that this timeline will need to be adjusted, in order to complete our work. But this is what we are on track for now. Obviously, we will be having consistent SAS webinars throughout this process, but we just highlighted some of the major meetings and milestones for now.

What we need from you is basically approval of the Terms of Reference. This is an external peer review, so that means that we usually do two sets of TORs, one for the Stock Assessment Subcommittee to follow, and that is for how we want to conduct the assessment itself, what we want to focus on, our major areas of concern.

Then a separate set of TORs for the Peer Review Panel itself to follow, which is more focused on evaluating what the SAS has completed. We'll start with the TORs for the SAS and the TC. TOR 1, define and justify stock structure. Obviously, our river herring are genetically distinct populations at the river level. But we would like to have some sort of biologically justified stock structure in between the river and the coastwide that is maybe a little more biologically justifiable than just state.

We're looking to recent genetic information to kind of develop a stock structure on the coast that will

let us pull in datasets from multiple rivers, and also maybe make some inferences about rivers within genetic stock regions that don't have available data. Obviously then, it's important to define and justify that within the assessment. The second TOR is to characterize the precision and accuracy of all of the data that we have.

The fishery dependent stuff, the fishery independent stuff, this includes life history data like age and repeat spawner data, as well as your sort of nontraditional stock assessment datasets like entrainment, impingement, passage, etcetera that are unique to river herring. Obviously, this comes with a lot of sub-bullets that are all included in the meeting materials. We don't need to read through all of this. But basically, it's just focused on making sure that we are providing adequate descriptions of the data sources.

Describe how we're calculating or standardizing our indices, and making sure that we have fully described the uncertainty with all of these datasets. Then finally, justify the inclusion or the elimination of these datasets as we go through and kind of pick and choose from what's available to us. TOR 3 is estimate bycatch where and when possible. This will include pulling data from, obviously the Northeast Fisheries Science Center Bycatch Observer Programs, but also potentially looking at state datasets or individual one-off studies to cover bycatch of river herring, again, when and where possible.

Summarize data availability and trends by stock. We want to make sure that. There is a tremendous amount of data out there for river herring, and so we want to make sure that we are capturing all of that data in an understandable and comprehensive format. Discussing what is available and what is not available, as well as what are the overall trends from this data by stock.

Then, if possible, go beyond that sort of trend analysis to develop models used to estimate

population parameters like total mortality, biomass and abundance, as well as biological reference points, and analyze that model performance. You will note that if possible and where possible is doing a lot of work in these TORs.

I think with the recognition that these are data poor species. As I said, we have a ton of data for them, but it's still not enough, and so we may not be able to do traditional methods for all of the stocks and all of the rivers. But we're going to give it a try. This one also includes a number of, well sub bullets that give us much more detailed instructions about how to document that model usage and development.

Make sure that we're stating our assumptions and making clear sources of uncertainty, and assumptions that we're making as we go through to help us evaluate these models better. If possible, develop methods to calculate a biologically based cap or limit on bycatch of river herring and ocean fisheries.

This one is actually a little unique. Most of the rest of the TORs were based on the shad benchmark assessment, but this was a specific request from the Mid-Atlantic Council, which does implement a bycatch cap on ocean fisheries, in order to try to reduce the overall bycatch of river herring in those fisheries that they manage.

However, that cap is currently based on sort of historical levels. They are very interested in developing a more biologically or scientifically justified cap for those fisheries. If this is also one where we put that impossible in front, we are definitely interested in exploring this. If we could develop this, this would be useful for river herring management, from our perspective, as well as from the Council's perspective.

But there is no guarantee that we will actually be able to have the data to do that the defensible way. We're going to give it a try, but it may or may not pan out. After all of that work, obviously the key finding from the assessment will be to recommend

stock status as related to reference points, if available.

If we are able to develop reference points for specific stocks, specific rivers, then we will try to recommend stock status relative to those reference points. This is sort of a catch-all TOR, in terms of other scientific issues that maybe don't fit within a traditional assessment framework, basically focusing on after we have done all that work, take the time to reflect on, are the answers that we're getting out of this aligning with what our understanding of the stock dynamics are? Comparing trends and population parameters and reference points with the actual modeled results coming out afterwards. Compare the reference points that we're developing to what we think we know about the life history of this stock, and consider or explain any inconsistencies, as well as trying to look at either in a qualitative or a quantitative way, climate change impacts, predation impacts, other anthropogenic sources of mortality on the stock.

We may not be able to quantify these effects, but can we describe them in a qualitative framework to help understand what's happening with this species complex. Our traditional if a minority report has been filed, make sure that we go through the correct steps of responding to that minority report, and making sure that both reports are in conversation with each other.

Then sort of the wrap up of Number 10, short term and long-term prioritized research recommendations, as well as recommending the timing of the next benchmark and assessment updates to be most informative to management. Those were the TORs for the stock assessment. Those are the TORs that the SAS will address through our work.

But we also developed a set of TORs for the Peer Review Panel, and really, it's mostly just taking those TORs and then instead of saying do these things, it says evaluate how we did these

things. The TORs for Peer Review are basically evaluate the choice of stock structure. Evaluate the thoroughness of the data collection and the presentation of the data, the treatment of the data.

Are we fully capturing uncertainty, et cetera. There is sort of that similar list of items that they should check off to make sure that we did a good job of presenting. Evaluate the methods and the models used to estimate population parameters, biological reference points and the bycatch cap limit, if we are able to. Whatever we develop they will evaluate.

Again, if the minority report has been filed, we do ask the Peer Review Panel to review that report as well, and comment on whether it is an appropriate response, or basically who's right in this situation, or can you merge them to create sort of a more appropriate response to the minority report and the majority report.

Then we'll look to the Peer Review Panel to, after they have reviewed the assessment, to recommend the best estimates of biomass, abundance and exploitation, if possible, if we're getting those data out, or specify alternative estimation methods. If they don't like what we have done and reject it, we would like them to provide an alternative that we can pursue in the future.

Then to evaluate the choice of reference points similarly, and the methods used to estimate them, and recommend that stock status, as well as the absolute estimates recommend stock status, or again if appropriate specify an alternative option for management advice. They will also then review the research and data collection recommendations, tell us what they think about our recommendations, and make their own recommendations for future research to improve the reliability of the assessment in the future.

They will provide their own opinion on the timing of the next benchmark and stock assessment updates. Then prepare their final report summarizing their evaluation of our assessment, and ideally have that done within four weeks of the end of the workshop. That's it for the TORs, I am happy to answer any

questions. I don't know if you want to just jump straight into the SAS, or also approve them separately.

CHAIR DAVIS: I think what we'll do here is just pause for a moment and see if there are any questions from the Board for Katie, relative to the Terms of Reference. Mike Armstrong.

DR. ARMSTRONG: Katie, going back to the bycatch TOR. The putative source that everyone believed was a major source was the herring and the mackerel fishery, which are at a very, very diminished level now, and yet as Justin said, we've had tremendous downturns across age classes, which is suggested of bycatch, because it's not year class strength Will you be looking at, what we see is bycatch in small mesh. Other fisheries that kind of have been ignored, like whiting and squid, would it be your intent to dig into those other fisheries and see what you find?

DR. DREW: Yes, good question. Obviously, there is the mackerel and the herring fisheries have had special dedicated sampling programs for that level of bycatch and monitoring. But there is also the larger Northeast Fishery Science Center Bottom Trawl, sorry there is the bottom trawl, but I was thinking specifically of the Observer Program that covers a wider range of gears and fisheries.

However, that also does have limited coverage, so it's hard to say what the uncertainty will be on those estimates. We will update them for this assessment, and we'll look for other sources of bycatch data if possible. But for sure, it's a limitation of the data that we have available to us that there is going to be a lot of uncertainty around that.

While that TOR is specifically for a management plan that addresses those two fisheries, I think we can provide more general advice as well. Perhaps we won't be able to say, this is the exact level for the cap that the Council is interested in, but can we provide advice on

bycatch in general, to the Council to address that as a whole, based on our data.

CHAIR DAVIS: Okay, Bill Hyatt.

MR. WILLIAM HYATT: I don't know if this is a question, you're going to be able to answer at this point. But given all the if possible and where possible in what you showed us. It seems like TOR Number 8 is going to be kind of an important catch all to address a lot of this stuff. I just was wondering if you've given any thought to how fine grained, relative to specific watersheds and populations you envision getting in this assessment, compared to say previous assessments?

DR. DREW: I think we want to get as fine grained as we can, given the data. There will definitely be some systems where we can get very detailed information, and possibly even develop estimates of exploitation or estimates of total biomass. There will be other systems where it's like, well we think we saw a river herring in there once.

I think the goal is to try to be as detailed as possible spatially, but then build up to more regional within still a biologically based framework to say, okay this river appears to be or is most likely part of this larger meta stock, and what is the overall trend doing for these different rivers? Where we can combine datasets from different rivers into still a biologically meaningful trend. I think it's still hard to say. The goal would not be to less detailed than previous assessments. I think the goal would be to maybe instead of focusing on the last time the level between river and coast was state.

If we couldn't, you know we would talk about specific rivers and then we talk about the states in general, and then the coast. I think this time the goal would be, instead of focusing on state as a unit, focus on some of these genetic regional stocks as a unit in between river and coast, if that helps.

CHAIR DAVIS: John Maniscalco.

MR. JOHN MANISCALCO: Bill and I had similar questions. I was just wondering if we've previously

been able to utilize environmental data in earlier river herring assessments, and if you think there is a real chance of getting to see some analyses on at least some river systems, considering environmental impact.

DR. DREW: I think we've had some limited information, but it has been more in a qualitative sense of saying, you know this is what the environment has done compared to this is what the trend has done. I think we're definitely interested in trying some more, especially with related to run counts, to look more comprehensively at environmental factors that could be driving those run counts, as opposed to just sort of, here's a run count, we're done.

I think trying to look at environmental conditions and other factors that could be related to that run count, as well as trying to. I think one of our big questions is, why are we seeing differences in regions? I think Southern New England was saying they've seen some of the worst runs in history recently, and other regions have been saying, things looked fine for us, 2022 was great. What is causing that difference? Is that related to the environment?

Is that related to management? Is that related to other factors that we don't have a good handle on yet? I think for sure we would like to do more with that. But again, the limitation is, do you have that environmental data for the complete time series of that run? Did your methods change halfway through your counting process, et cetera. I think we're definitely interested in that, and we'll pursue it where possible, given the data limitations that we have.

CHAIR DAVIS: Okay, I'll go to Lynn Fegley and then John Clark.

MS. FEGLEY: Thank you, Katie, for that presentation. I was curious, you've got a TOR to reflect on additional sources of mortality by stock, and then also the bycatch. I'm just

wondering if there is any mechanism to look at how bycatch is affecting a particular stock. As Mike Armstrong pointed out, there is sort of putative that bycatch could be impacting the runs in the Northeast, and maybe that's why the Northeast is having issues. Is there a way to tease out bycatch mortality and how it affects a particular stock, or how does that work?

DR. DREW: There has been some limited data collected on the genetic composition of fish in the bycatch fishery. We do have, but it's more snapshot type of stock. We can definitely look at, you know in recent years there has been data collected on that, so we can definitely then link some of that bycatch back to these genetic stocks, probably not down to the river level, but back to some of these more genetically distinct stocks. But again, that's kind of like a snapshot in time.

But it's definitely a step closer to maybe having an understanding of, again are these differences in condition or run counts, etcetera, coming from something like differential mortality in these bycatch fisheries across different regions. It's something we're very interested in looking at.

CHAIR DAVIS: Okay, John Clark.

MR. JOHN CLARK: Thanks for the presentation, Katie. Yet another question on Number 8. The item you had about predation just had me curious. We've seen an absolute explosion of invasive catfish in the Mid-Atlantic, and we've been doing stomach contents on blue cats. Is there any way to work that type of information into your natural mortality?

Then on the other hand there is a huge amount of money available right now going into fish passage. We have a lot of dams just in a state as small as Delaware that are slated either for removal or putting in natural fish passages to allow herring to get over. Is that something that can be considered in the modeling you do?

DR. DREW: Good question. I am not sure that we will be able to quantify the effects of predation, in

terms of changing your natural mortality at this point. I think we definitely look at linkages between increasing of the invasive species, or increases in the striped bass population in certain rivers, and how does that compare to the overall trends in mortality that we're seeing?

I think we can look at it as a factor. It may end up being a little more qualitative than quantitative at this point. In terms of the fish passage question. We are working again with the people who did the shad habitat model, and tried to translate that into a river herring model. We'll hopefully be able to provide some similar information that we did with shad about the potential benefits of restoration and quantify the effects of habitat loss for river herring.

Obviously, it's not a simple port over that the shad habitat is different than the river herring habitat, and so for blueback herring is different than alewife at that level. We'll need to put in some more work to refine those maps and the habitat for those species. But hopefully we can apply that same approach, and provide some more information on that as we did for shad.

CHAIR DAVIS: Okay, I'll look to the Board to see if there are any additional questions on the Terms of Reference for the stock assessment. Do we have any hands on the webinar at all? Okay, not seeing any additional questions.

#### **APPROVAL OF STOCK ASSESSMENT SUBCOMMITTEE MEMBERSHIP**

CHAIR DAVIS: I think what I would like to do at this time is ask Dr. Drew to present the Stock Assessment Subcommittee membership, and then after that we'll entertain motions to approve the Terms of Reference and the Stock Assessment Subcommittee membership.

DR. DREW: It should be very quick. I will be presenting the Stock Assessment Subcommittee membership. We have excellent

representation. We have people from NOAA Fisheries, U.S. Fish and Wildlife, as well as somebody from the USGS via the University of Maine. Joe Zydlewski one of the habitat modelers I mentioned before, as well as representation from Maine, Delaware, New York, Massachusetts, South Carolina, Maryland and ASMFC. I think it's a great subcommittee. These are the names, and good expertise in terms of riverine biology, as well as modeling approaches. They have all been hard at work already in the assumption that you will approve them.

CHAIR DAVIS: There is certainly quite a collection of talent up there on the slide, so we look forward to all the great work they're going to do. I think at this point we could entertain a motion from the Board to approve both the terms of reference and the Stock Assessment Subcommittee membership in one motion. I believe staff has a motion like that prepared, so I'll look to the Board to see if somebody would like to make that motion. John Clark.

**MR. CLARK: I would be glad to make that motion, Mr. Chair. Move to approve the Stock Assessment Committee and Terms of Reference for the 2023 Benchmark Stock Assessment as presented today.**

CHAIR DAVIS: We have a motion from John Clark. I think I saw a second from Lynn Fegley. I'll ask the Board if there is any discussion on the motion. Malcolm Rhodes.

DR. MALCOLM RHODES: Do we need to include accepting the members of the Stock Assessment Subcommittee in this motion, or should that be a separate one, or is that in it already?

DR. DREW: It should be subcommittee, Stock Assessment Subcommittee. I think you were just thrown off by the lack of the Sub in there.

CHAIR DAVIS: Thanks for that, Malcolm. **Okay, I'll ask the Board if there are any objections to the motion. Seeing none, the motion passes by unanimous consent.**

**PRESENTATION ON NOAA'S RIVER HERRING  
HABITAT CONSERVATION PLAN**

CHAIR DAVIS: Moving right along to our next agenda item. We're going to have a presentation on NOAA's River Herring Habitat Conservation Plan by Ben German and Jonathan Watson. Ben and John, I'll go ahead and turn it over to you.

MR. BEN GERMAN: Good morning, everybody, I want to thank you for the invitation to present an overview to the Board on NOAA's River Herring Habitat Conservation Plan. My name is Ben German, and I work in the Habitat and Ecosystem Services position at NOAA Fisheries, in our Greater Atlantic Regional Fisheries Office in Gloucester, Massachusetts. I am joined today by my colleague, Jonathan Watson, and I'll ask him to introduce himself and do a little microphone check here.

MR. JONATHAN WATSON: Hi, I'm Jonathan Watson, also with NOAA Fisheries Habitat and Ecosystem Services Division in the Great Atlantic Region in the Annapolis Field Office. Happy to be here today.

MR. GERMAN: First we want to acknowledge the NOAA Office of Habitat Conservation for funding this effort. You can see here the three groups that were responsible for document development. First, we have the core team, led by a contractor, which was comprised of Jonathan and myself, as well as contractors, who's time with us has ended, he was Matt Best, as well as Sean McDermott who helped out early in plan development, and is assisting with the final review.

Then we had the working group, which you can see there, which is a primarily internal team to NOAA, although we did have representatives from ASMFC as you can see there. Then we had the Steering Committee, which was comprised of regional river herring subject matter experts from partner agencies and academia.

This is just a brief overview of the folks involved. We'll provide a little more detail on the roles of these groups in a later slide. For a bit of background on the effort. Back in 2015, as many of you may be aware, the TEWG was formed, that's the Technical Expert Working Group, to help address the need for river herring conservation and restoration.

As a part of the documents produced by that group, there was a number of them, but they were kind of compiled into a plan back in 2015. The TEWG, although it's no longer formally assembled, it's now kind of folded into the River Herring Forum that meets biannually. At that time the TEWG recommended that the work they completed would be updated and expanded as necessary, to reflect the temporary needs and approaches to research and restoration.

This plan approaches river herring conservation at the coastwide scale, built upon that effort and takes a bit of a broader approach than most watershed plans that you may be familiar with. This allows for a bit of more acoustic framework. However, it is a little bit less specific likely than some of the regional and local plans, by necessity.

But it is designed to support these more directed efforts at finer scales. Here is some of the plan features that seek to improve on past efforts. The 2015 plan was largely retrospective, and came on the heels of NMFS 2013 Endangered Species Act listing determination. River herring were not listed as a result of the 2013 determination, or the revisit in 2019.

However, it was noted in both cases that the lack of information on the species is a challenge, but more on this later. This plan takes a bit more proactive of an approach, focusing on the needs of river herring over the next decade and beyond. Also, it's being produced in a traditional document format, which is a bit easier to navigate and share out, compared to the web-based offering of the 2015 plan, which incidentally is no longer public facing. With that I'll turn it over to Jonathan for some finer details on the contents of the plan.

These minutes are draft and subject to approval by the Shad and River Herring Management Board.  
The Board will review the minutes during its next meeting.



MR. WATSON: Yes, what were our overall goals at the outside of this plan, and essentially asking the question of how do we conserve and restore these species, which are at historically low abundances coastwide, really with a focus on their habitat. The goal here was to provide a framework complete with goals and objectives for the restoration of river herring throughout their range in a single document.

It's also to facilitate hydropower licensing review, federal EFH and hydropower consultations, and promote restoration projects in support of river herring conservation and management. This document is really designed to help NOAA Fisheries meet our mandates in all these avenues. We also want to support coordination and collaboration internally across regions, you know the Great Lake Region and the Southeast Region of NOAA Fisheries, and also between tribes and state agencies and other partners.

Finally, another broad goal is to support collaborative restoration activities by state agencies, tribes, and NGOs and other stakeholders throughout the range of river herring, which is Florida to Maine. How we went about doing this, basically structured the effort by developing two different committees.

Obviously, the core team that has been described, included Ben, myself and a contractor, Matt Best, as well as Sean McDermott. But then also, you know with close review from the NOAA internal team and ASMFC representatives, which is about 10 people from the Greater Atlantic Region, NOAA Fisheries, the Southeast Region and the restoration center.

That group, that working group was really responsible for reviewing and compiling available data, developing the content, producing the draft materials, and providing initial review of the document. Then the Steering Committee, which was composed of

those technical experts throughout the range of river herring.

They were responsible for providing feedback on the plan content and direction, bringing additional regional context to the document, providing secondary review. We have been through several rounds of review at this point. We are closing in on entering it into the final publication process through our policy series, the Greater Atlantic Region Field Office policy series, which is anticipated at the end of this year, or maybe beginning of next year.

A lot of text here, not intending to be read, but this is essentially how we structured the plan. Each of these bullets represent a chapter. Aside from the intro to the agencies, which have been our missions, which we've already kind of covered here. I'll jump into each one of these sections in a little bit finer detail here.

The first two chapters of the document focus on life history and stock status. A lot of this information is already out there has been presented in various documents. But we worked to update those documents by placing recent studies, which add to that body of knowledge within the context of this past literature.

We also provide information about the management timeline, recent fisheries management efforts, and condensed several decades of fisheries management information into one source document, and divided it up by regions. That section is largely an update. One of our major focuses of the document was to describe the threats to river herring, again, many of which are known.

These include barriers to migration and lost connectivity, climate change, habitat degradation, at-sea mortality, hybrids and landlock variance, trophic dynamics and other interspecific interactions. You know as I said, many of these were known, but we provide some updated literature examining their likely effects, and described studies that have focused on emerging threats like invasive species, such as blue catfish out

on the lower left there, and climate change, which we are still learning about. In the data gaps and research needs section, you know many of these were identified in the 2015 plan developed by the Technical Expert Working Group, and they were focused on several categories, including climate change, fisheries and stock status, life history strategies and population dynamics, habitat use, and viability, species interactions, historical population information.

Here we just highlight the need for continued research on these species, because we're still learning about them and there are still things we don't know. We also highlight how answering specific research questions would help address emerging threats, you know for example climate change, and identify how it would help direct the management of the species.

Section 6, I believe it is, the ecosystem integration and social ecological benefit section, you know acknowledges that a healthy well-functioning riverine system holds intrinsic values that can be measured in economic, social, cultural and ecosystem services terms. In many systems river herring are considered a keystone species.

We note that function. By highlighting each of these benefits, we also note that where the stock is diminished restoration provides an opportunity to enhance this suite of functions and we really worked to tie it to the human community benefit. We also drew attention to the important link that river herring provide between marine and freshwater ecosystems, such as marine derived nutrients, the prey buffering roles that they served.

Support of the marine food web as forage, and also co-benefits for other freshwater species such as mussels. Then again, as one of those ways that we worked to demonstrate the value for communities of river herring, you know to human communities. We documented

different contemporary river herring festivals up and down the coast.

We currently have about 20 different festivals, and most of those are in New England. We just acknowledge that those festivals can help establish a sense of place, and it can enhance economic activity in some of our coastal towns. I'm going to turn it back over to Ben to finish up the plan description.

MR. GERMAN: This section tackles a bit of a description of the watersheds that we're looking at here. You can see on the map we're looking at 24 coastal HUC4 watersheds from Maine to Florida. This is an area over 300,000 square miles. It gives a very broad overview of river herring management and threats documented in each of these watersheds.

It also attempts to catalogue existing plans and assessments, reference those, describing threats and sources of degradation in each specific watershed. Adding in a little finer scale in this section as well, we have kind of an overview of the 233 HUC8 watersheds that comprise those 24 HUC4s that I showed in the previous slide. We attempt to assign a designation whether that HUC8 is a focus area or not for river herring management.

In order to do this, we establish four criteria, and based on our review to date the identified focus areas were highlighted here. You can see in green it was yes, a focus, in red not a focus, and the shade indicates how many of the four criteria the reviewers indicated that that watershed met, in their opinion. Those criteria were Number 1, watersheds with greatest river herring potential, which could mean production in total numbers of fish or the importance of that contribution to the region.

Number 2 was watersheds in greatest need of river herring restoration, which could result from degraded historical habitat, extirpated runs for one reason or another, invasive species or lost connectivity. Criteria Number 3 was historical or cultural significance of the former runs, which

speaks to regional sense of place, which includes economic impacts.

Criteria Number 4 was watersheds with ongoing river herring work, which includes travel, federal, state, local, academic or NGO run projects. You can see there the dark green areas are both a yes focus and meet 3 or 4 of these criteria. Generally, we defer to the highest value indicated for any HUC8.

If there were multiple reviewers for a single HUC 8, and one said it was a focus and one said it wasn't, we deferred to the yes vote. I also want to point out that this designation is not intended to indicate a priority for projects or watersheds. It's really as a more formal prioritization exercise might, rather it's included here in this plan to shed light on areas where river herring restoration is currently occurring, and it is expected to be a focus of the state managers, tribes and others, over the next decade.

This exercise also served to inform the development of the plan itself, providing relevance and context to our goals and objectives for river herring habitat conservation. You can kind of view this as a bit of a heat map of where work is being done. You can kind of see the northeast is relatively dark in color compared to the southeast.

But there is certainly more detail on this plan, and we would like you to take a look once it is published, if you're interested. The next section, Section 8, is the goals, objectives and recommendations. These were developed including some measurable actions for the restoration of river herring.

The recommendations are specific action items that fall under each objective, which serve the broad level goals. They are viewed as generally beneficial, proactive steps to help the species, and they are not intended to be prescriptive or directive, so there are very few instances here

of technical guidance, they are more broad recommendations.

They are crafted to strengthen and support regional watershed and local restoration efforts. Here you can see kind of the four very high-level goals, and I'll briefly run through the four of these, as well as some relevant objectives, the examples of objectives that would fall under each one. Goal 1 is focused on improving connectivity between the ocean habitat and the spawning and rearing habitat in fresh water.

Objectives under this goal include developing watershed plans and prioritizations, pursuing barrier removals where possible, advocating for effective fish passage where removal is not feasible. Each of these objectives have action items that stress a watershed approach to connectivity. Goal 2 focuses on figuring out where the valuable spawning and rearing habitats are, and working to conserve and restore them. Objectives here include things like assessing the quantity and quality of current and potential habitat, restoring degraded habitats, and minimizing human impacts on river herring and their habitats, pertaining to things like construction, water intakes, et cetera.

Goal 3 is focused on building partnerships that we may collectively work together for the benefit of these species. Objectives here include disseminating information about research and potential funding for project partners and continuing to convene researchers, managers and restoration practitioners at the river herring forum.

Finally, Goal 4 is focused on addressing knowledge gaps. Objectives here include describing how climate change may interact with other threats, such as invasive species, monitoring of runs, and providing reliable and comparable data throughout the range of species, and defining factors that govern effective upstream and downstream passage at different barriers.

Again, there are many sub bullets to each of these, but these goals and objectives are really aimed to benefit river herring and support efforts of

practitioners engaged in restoration at state and local scales. The final section of the plan is what we've called our restoration project showcase. It provides examples of recent restoration efforts targeted to benefit river herring.

We worked with our restoration center and other practitioners, including state agencies and NGOs to develop a comprehensive list of projects that have occurred over the last five or ten years. We came up with a list of 30 plus projects that are included in a table in the appendix of the plan. But we selected 11 of these to highlight in this section, which represent a range of approaches implemented across the range of the species.

It's intended to describe some of the successes and lessons learned through the process of implementing these projects, and it's intended to provide some greater insight into how the projects are developed, funded and challenges to overcome to help inform future efforts. Finally, I'll just close with some of the intended benefits to the plan.

It's really a compendium of material at a coastwide scale. Again, much of this information is available, but is scattered among various state watershed and local planning efforts, and our intent here is to bring them together into a single document. Not to rehash those efforts, but at least to, in some cases, point the reader to relevant documents that they may be interested in.

It provides watershed information, management actions and timelines, as well as recommendations for the diversity of habitats that support river herring along the Atlantic coast, and has a particular relevance to some of the recent federal funding opportunities to the infrastructure law.

It also helps with our internal coordination across regions at NOAA Fisheries. In our work, whether it's FERC hydropower or non-

hydropower engagement, and it also provides the granular detail on restoration projects encourage to help inform future efforts. With that I'll wrap up and take questions if there are any. Thank you for your time today.

CHAIR DAVIS: I'm being told Jonathan and Ben may not have heard what I just said, so I'll just thank them again for the presentation, and I'm looking to the Board to see if there are any questions. Mike Armstrong.

DR. ARMSTRONG: I'm pretty sure I saw it earlier, but I sort of missed it. When will this document become available?

MR. GERMAN: We're hoping to publish by the end of this calendar year, at the very latest January or February.

DR. ARMSTRONG: I'm lazy and we're busy. If you could provide notification to ASMFC, and maybe through James, and he could then notify all of us when it becomes available, that would be awesome.

MR. GERMAN: We'll be sure to do that.

CHAIR DAVIS: Okay and James is nodding, so it sounds like that will happen. Any other questions from the Board? Okay, thank you again, Jonathan and Ben for that presentation.

#### **REVIEW AND POPULATE ADVISORY PANEL MEMBERSHIP**

CHAIR DAVIS: All right, we'll move on to our last item on the agenda this morning and turn to Tina Berger from Commission staff, who has a nomination for the Advisory Panel.

MS. TINA L. BERGER: I offer for the Board's consideration and approval two nominees to the Shad and River Herring Advisory Panel, Paul Perra a recreational angler and Jerry Audet also an angler and outdoor writer. Both are from Massachusetts.

CHAIR DAVIS: Thank you, Tina. We have a motion up on the board. I'll look to see if there is somebody willing to make that motion. Cheri Patterson. Cheri, would you be willing to read that. Thank you.

(Whereupon the meeting adjourned at 10:30 a.m.  
on Tuesday, November 8, 2022)

MS. PATTERSON: Yes, I would love to, it would be wonderful to see Paul Perra back into this.  
**Move to approve the nominations of Paul Perra and Jerry Audet from Massachusetts to the Shad and River Herring Advisory Panel.**

CHAIR DAVIS: Okay, and I'm seeing a second from Pat Geer down the line there. I'll ask the Board if there is any discussion or comments on the motion. **Okay, I'll ask if there are any objections to the motion. Seeing none; the motion passes by unanimous consent.** All right, so we've reached the end of our agenda items.

#### **ADJOURNMENT**

I'll ask if there is any other business to come before this Board this morning. Okay, not seeing any takers, I'll again thank Dr. Katie Drew, James Boyle and Brian Neilan for their help running the meeting this morning. I was also remiss this morning not acknowledging Madeline Musante and Dustin Colson Leaning down there at the end of the table who are helping keep the magic board going this morning.

Thanks very much for your help with that. I'll take a quick moment just to congratulate Dustin. Dustin is going to be leaving the Commission, I believe next week, for a new position with Environmental Defense Fund. I've had the good fortune of working closely with Dustin in my capacity as the Chair of the Summer Flounder, Scup and Black Sea Bass Management Board, and Dustin's been excellent to work with. I'm sure he'll be an asset to his new organization he's moving on to. Thank you, Dustin, and congratulations and good luck.



# Atlantic States Marine Fisheries Commission

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## MEMORANDUM

January 9, 2023

**To: Shad and River Herring Management Board**

**From: Tina Berger, Director of Communications**

**RE: Advisory Panel Nomination**

Please find attached a new nomination to the Shad and River Herring Advisory Panel – Stephen Gephard, a recreational angler and retired CT DEEP biologist with over four decades of experience with diadromous species. Please review this nomination for action at the next Board meeting.

If you have any questions, please feel free to contact me at (703) 842-0749 or [tberger@asmfc.org](mailto:tberger@asmfc.org).

Enc.

cc: James Boyle

M23-001

## SHAD & RIVER HERRING ADVISORY PANEL

Bolded names await approval by the Shad & River Herring Management Board

January 9, 2023

### **Maine**

*River Herring:*

Deborah Wilson (conservation)  
374 Bayview Road  
Nobleboro, ME 04555  
Phone: (207)380-6997  
[Deb.wilson1028@gmail.com](mailto:Deb.wilson1028@gmail.com)  
Appt Confirmed 5/3/22

Mike Thalhauser (comm)  
Alewife Harvesters of Maine  
13 Atlantic Avenue  
Stonington, ME 04681  
207.367.2708  
[mthalhauser@coastalfisheries.org](mailto:mthalhauser@coastalfisheries.org)  
Appt. Confirmed 10/30/19

*Shad:*

**Vacancy - shad rec**

### **New Hampshire**

*Shad & River Herring:*  
Eric Roach (rec)  
54A Foggs Lane  
Seabrook, NH 03874  
Phone: 603.502.0928  
[Eroach1970@gmail.com](mailto:Eroach1970@gmail.com)  
Appt Confirmed 2/4/21

### **Massachusetts**

*Shad & River Herring:*  
Paul Perra (rec)  
5 Candleberry Court  
Bourne, MA 02532  
Phone: 978.381.4746  
[pperra@icloud.com](mailto:pperra@icloud.com)  
Appt Confirmed 11/8/22

Jerry Audet (rec/outdoor writer)  
286 Yew Street  
Douglas, MA 01516  
Phone: 304.906.1298  
[indeepoutdoorswmedia@gmail.com](mailto:indeepoutdoorswmedia@gmail.com)  
Appt Confirmed 11/8/22

### **Connecticut**

*Shad & River Herring:*

**Stephen Gephard (rec)**  
**7 High Street**  
**Deep River, CT 06417**  
**Phone: 860.966.9344**  
[sgephard@gmail.com](mailto:sgephard@gmail.com)

### **1 Vacancies**

### **New York**

*Shad & River Herring:*

Byron Young  
53 Highview Lane  
Ridge, NY 11961  
Phone: (631) 821-9623  
Cell: (631) 294-9612  
Fax: (631) 821-9623  
Email: [youngb53@optimum.net](mailto:youngb53@optimum.net)  
Appt. Confirmed 5/5/08  
Chair from 1/09- 1/11  
*Confirmed interest in March 2019*

### **New Jersey**

*Shad:*

**Vacancy – recreational**

*Shad & River Herring:*

Jeff Kaelin (comm. trawl and purse seine)  
Director of Sustainability and Government  
Relations  
Lund's Fisheries, Inc.  
997 Ocean Drive  
Cape May, NJ 08204  
Phone: 207.266.0440  
[jkaelin@lundsfish.com](mailto:jkaelin@lundsfish.com)  
Appt Confirmed 8/20/09  
*Confirmed interest in March 2019*

### **Pennsylvania**

**Vacancy**

## SHAD & RIVER HERRING ADVISORY PANEL

Bolded names await approval by the Shad & River Herring Management Board

January 9, 2023

### **Delaware**

*Shad & River Herring:*  
Dr. Edward Hale  
Delaware Sea Grant  
23 Gosling Drive

Lewes, DE 19958  
Phone: 302.470.3380  
[EHale@udel.edu](mailto:EHale@udel.edu)  
Appt Confirmed 2/4/21

### **Maryland**

*Shad & River Herring:*  
**Vacancy - recreational**

### **Georgia**

*River Herring:*  
Fulton Love (dealer)  
6817 Basin Road  
Savannah, GA 31419  
Phone: (912)925-3616  
FAX: (912)925-1900  
Appt. Confirmed 10/30/95  
Appt. Reconfirmed 9/8/99; 3/19/08  
**No response to Sept 2017 or March 2019 inquiry regarding continuing interest in serving on AP**

### **Virginia**

*Shad & River Herring:*  
**Vacancy**

*Shad:*  
**Vacancy**

### **North Carolina**

*River Herring:*  
Louis Ray Brown, Jr. (rec)  
212 Walnut Creek Drive  
Goldsboro, NC 27534  
Phone (day): (919) 778-9404  
Phone (eve): (919) 778-9792  
FAX: (919) 778-1197  
Email: [oldpirate.rb@gmail.com](mailto:oldpirate.rb@gmail.com)  
Appt. Confirmed 5/5/08; 8/18  
*Confirmed interest in March 2019*

### **Florida**

*Shad & River Herring:*  
**2 vacancies**

### **Potomac River Fisheries Commission**

*River Herring:*  
Kevin L. Gladhill (rec)  
21370 Mount Lena Road  
Boonsboro, MD 21713  
Phone (day): (301)988-6697  
Phone (eve): (301)714-1074  
Email: [KLGladhill@myactv.net](mailto:KLGladhill@myactv.net)  
Appt. Confirmed 5/5/08  
**No response to Sept 2017 or March 2019 inquiry regarding continuing interest in serving on AP**

**Vacancy – commercial**

### **South Carolina**

*Shad:*  
Thomas M. Rowe, Jr. (rec)  
4625 Flounder Lake Drive  
Meggett, SC 29449  
Phone: 843-908-0247  
FAX: 843-549-7575  
Email: [thomasmrowe@hotmail.com](mailto:thomasmrowe@hotmail.com)  
Appt Confirmed 8/3/10  
*Confirmed interest in Sept 2017*

**Vacancy – commercial pound net**

### **District of Columbia**

*Shad:*  
Joe Fletcher (rec)  
1445 Pathfinder Lane  
McLean, VA 22101  
Phone (day): (202)244-0461  
Appt. Confirmed 10/30/95  
Appt. Reconfirmed 9/15/99  
Appt. Reconfirmed 4/21/08  
**No response to Sept 2017 inquiry regarding continuing interest in serving on AP**

**Vacancy – commercial net**



**Nontraditional Stakeholders**

Chair, Pam Lyons Gromen (fisheries conservation) (1/11)

Executive Director

Wild Oceans

1793 Sandy Court

Springboro, Ohio 45066

Phone: 240.405.6931

Email: [plgromen@wildoceans.org](mailto:plgromen@wildoceans.org)

Appt. Confirmed 5/5/08

*Confirmed interest in March 2019*

Alison A. Bowden

Freshwater Program Director

The Nature Conservancy

205 Portland St, Suite 400

Boston, MA 02114

Phone (day): (617) 227-7017 x351

Phone (eve): (617)678-6135

FAX: (617) 227-7688

Email: [abowden@tnc.org](mailto:abowden@tnc.org)

Appt. Confirmed 5/5/08

*Confirmed interest in March 2019*



**ATLANTIC STATES MARINE FISHERIES COMMISSION**

**Advisory Panel Nomination Form**

This form is designed to help nominate Advisors to the Commission's Species Advisory Panels. The information on the returned form will be provided to the Commission's relevant species management board or section. Please answer the questions in the categories (All Nominees, Commercial Fisherman, Charter/Headboat Captain, Recreational Fisherman, Dealer/Processor, or Other Interested Parties) that pertain to the nominee's experience. If the nominee fits into more than one category, answer the questions for all categories that fit the situation. Also, please fill in the sections which pertain to All Nominees (pages 1 and 2). In addition, nominee signatures are required to verify the provided information (page 4), and Commissioner signatures are requested to verify Commissioner consensus (page 4). Please print and use a black pen.

Form submitted by: Justin Davis State: Connecticut  
(your name)

Name of Nominee: Stephen Gephard

Address: 7 High Street

City, State, Zip: Deep River, CT 06417

Please provide the appropriate numbers where the nominee can be reached:

Phone (day): 860-966-9344

Phone (evening): 860-966-9344

FAX: n.a.

Email: sgephard@gmail.com

.....  
**FOR ALL NOMINEES:**

1. Please list, in order of preference, the Advisory Panel for which you are nominating the above person.

1. Shad and River Herring
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_

2. Has the nominee been found in violation of criminal or civil federal fishery law or regulation or convicted of any felony or crime over the last three years?

yes \_\_\_\_\_ no X

3. Is the nominee a member of any fishermen's organizations or clubs?

yes  no

If "yes," please list them below by name.

Connecticut River Salmon Assoc.

(recreational)

4. What kinds (species) of fish and/or shellfish has the nominee fished for during the past year?

Striped Bass

Bluefish

5. What kinds (species) of fish and/or shellfish has the nominee fished for in the past?

Atlantic Salmon

trout

black bass

**FOR COMMERCIAL FISHERMEN:**

1. How many years has the nominee been the commercial fishing business? \_\_\_\_\_ years

2. Is the nominee employed only in commercial fishing? yes \_\_\_\_\_ no \_\_\_\_\_

3. What is the predominant gear type used by the nominee? \_\_\_\_\_

4. What is the predominant geographic area fished by the nominee (i.e., inshore, offshore)? \_\_\_\_\_

**FOR CHARTER/HEADBOAT CAPTAINS:**

1. How long has the nominee been employed in the charter/headboat business? \_\_\_\_\_ years

2. Is the nominee employed only in the charter/headboat industry? yes \_\_\_\_\_ no \_\_\_\_\_

If "no," please list other type(s) of business(es) and/occupation(s): \_\_\_\_\_

\_\_\_\_\_

3. How many years has the nominee lived in the home port community? \_\_\_\_\_ years

If less than five years, please indicate the nominee's previous home port community.

\_\_\_\_\_

**FOR RECREATIONAL FISHERMEN:**

1. How long has the nominee engaged in recreational fishing? >60 years

2. Is the nominee working, or has the nominee ever worked in any area related to the fishing industry? yes \_\_\_\_\_ no X \_\_\_\_\_

If "yes," please explain.

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**FOR SEAFOOD PROCESSORS & DEALERS:**

1. How long has the nominee been employed in the business of seafood processing/dealing? \_\_\_\_\_ years

2. Is the nominee employed only in the business of seafood processing/dealing?

yes \_\_\_\_\_ no \_\_\_\_\_ If "no," please list other type(s) of business(es) and/or occupation(s):

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

3. How many years has the nominee lived in the home port community? \_\_\_\_\_ years

If less than five years, please indicate the nominee's previous home port community.

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**FOR OTHER INTERESTED PARTIES:**

1. How long has the nominee been interested in fishing and/or fisheries management? ~50 years

2. Is the nominee employed in the fishing business or the field of fisheries management?  
yes X no \_\_\_\_\_

If "no," please list other type(s) of business(es) and/or occupation(s):

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**FOR ALL NOMINEES:**

In the space provided below, please provide the Commission with any additional information which you feel would assist us in making choosing new Advisors. You may use as many pages as needed.

The formatting for this space is non-functional. Please see attached addendum.

Nominee Signature:  \_\_\_\_\_

Date: 12/21/2022

Name: **Stephen Gephard**  
\_\_\_\_\_  
(please print)

**COMMISSIONERS SIGN-OFF (not required for non-traditional stakeholders)**

  
\_\_\_\_\_  
State Director

\_\_\_\_\_  
State Legislator

\_\_\_\_\_  
Governor's Appointee

ADDENDUM TO THE ADVISORY PANEL NOMINATION FORM- Gephard

The nominee holds a BA in Biology and a MS in Fisheries Biology and worked for 42 years with the CTDEEP Fisheries Division as a fisheries biologist, specializing in diadromous fish species. Upon retirement in 2020, he had supervised the CTDEEP's Diadromous Fish program for nearly 20 years. During this time, he was the first chairman of the ASMFC's American Eel Technical Committee. He has extensive technical experience with both Alewife and Blueback Herring as well as knowledge with American Shad. He has co-authored technical publications on these species. He is currently a self-employed fisheries consultant specializing in diadromous fish species and fish passage and remains active in the field. He currently is a member of Steering Committee on development NOAA's River Herring Habitat Conservation Plan.