

**River Herring Technical Expert Working Group (TEWG)**  
**Conference Call Summary**  
**June 30, 2014**  
**9:00 a.m. - 12:00 p.m.**

The River Herring Technical Expert Working Group (TEWG) held its second conference call on June 30, 2014 to discuss the following: 1) the status of the river herring conservation planning; 2) TEWG process documents; and 3) updates on TEWG subgroups and committee efforts. Below is a summary of the discussions.

1). River Herring Conservation Planning

NOAA Fisheries and Atlantic States Marine Fisheries Commission (ASMFC) are excited about progress to-date and are on track to complete the conservation planning website in a year. A new committee (the Ecosystem Integration Committee) was established and convened in response to feedback on our last call. NOAA Fisheries and ASMFC have been working to follow-up on various suggestions made by members at March and subgroup calls, as well as other individual feedback.

As noted on the last TEWG call, NOAA Fisheries has provided ASMFC with \$95,000 to support independent research projects to help fill in data gaps and implement conservation actions for river herring, and we were planning to supplement these funds with up to \$100,000 to further support these efforts. NOAA Fisheries now intends to supplement this with an additional \$100,000 for an expanded joint conservation planning initiative (\$295,000 total). NOAA Fisheries and ASMFC intend to publicly announce an open and competitive request for any identified research projects or conservation actions after the September TEWG call. This request will be formulated based on individual expert opinion received through the TEWG and its subgroups, public comment/input provided at the TEWG meetings, and factoring in specific river herring management and science needs.

There were reports provided on two initiatives related to the TEWG:

- NEFSC River Herring Habitat Model: The Northeast Fisheries Science Center (NEFSC) received funds to develop habitat models using both fishery dependent and independent data to predict river herring and shad distribution in relation to Atlantic herring and Atlantic mackerel distribution. The models will then be evaluated in cooperation with industry, and the project will link with other ongoing efforts to conserve river herring and shad, such as the river herring and shad avoidance program. The avoidance program uses real-time by-catch data to help fishing vessels avoid areas where interactions with river herring and shad are high. These efforts include those conducted by the Massachusetts Division of Marine Fisheries and the University of Massachusetts Dartmouth's School of

Marine Science (SMAST). The NEFSC plans to have results on whether catch predictions from the models can be successfully developed in 2016, which is on a similar timeline as when the SMAST avoidance program will be evaluated by the Councils to see if additional management measures are useful in reducing river herring and shad by-catch. (contact Jon Hare for more information)

- River Herring Mapping: Roger Rulifson from East Carolina University is working with Wes Patrick from NOAA Fisheries to estimate pre-Colonial spawning run sizes based on watershed acreage and post-dam (modern) estimates for the entire East Coast (minus Canada). These values will be plugged in to modeling efforts looking at forage fishes in the North Atlantic. Data from this project and others, including supplemental information from Canada with support from the TEWG, will be used to create a River Herring Atlas on the RH Conservation website. (contact Roger Rulifson for more information on the watershed estimates and Tara Trinko-Lake for more information on the river herring website mapping project)

## 2).TEWG Process Documents

Due to the large size of the TEWG, process documents were created to aid members on different aspects of participation. The Conference Call Cheat Sheet and Draft Meeting Guidelines were developed to help all calls run smoothly. In addition, a website was set up to enable sharing of documents amongst the subgroups and members of the TEWG. The Share Site Guide provides basic instructions to the members on how to use that website. There were no comments on the Draft Meeting Guidelines, but NOAA Fisheries and ASMFC noted it would be circulated again to the TEWG for comment before finalizing.

3). TEWG Updates (More detailed summaries of the subgroup calls and progress are available on the TEWG website<sup>1</sup>)

### *General TEWG Updates (Coordinators: Diane Borggaard and Marin Hawk)*

These full meetings are an important opportunity to provide thoughts on larger issues, as well as provide feedback to subgroups and the Ecosystem Integration Committee for individuals not already involved in these. The next full TEWG calls are scheduled for September 3 and December 16 from 9am – 12pm. NOAA Fisheries and ASMFC will be distributing Doodle polls for meetings in 2015 around already established river herring meetings, and is interested in knowing of any other potential meeting conflicts. The 2015 call times may be shifted back an hour (e.g., starting at 10am) to accommodate those members on the West Coast. NOAA Fisheries and ASMFC are working on having Anthony Chatwin from National Fish and Wildlife Foundation and an individual from the Department of Fisheries Ocean Canada present at an

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<sup>1</sup> <https://www.nero.noaa.gov/protected/riverherring/tewg/index.html>

upcoming meeting. The TEWG calendar is an important resource for information on TEWG and subgroup meetings:

<https://www.nero.noaa.gov/protected/riverherring/tewg/calendar/index.html>).

*Stock Status Subgroup (Co-chairs: Kevin Sullivan and Michael Bailey)*

The subgroup discussed past river herring studies and models used in past stock assessments. All previously used models are for data poor stocks. The subgroup is working to compile a possible speakers list as well as a master list of models categorized by short-term or long-term assessments. Data sources will also be identified to determine data gaps and improve the models that are available.

*Climate Change Subgroup (Co-chairs: Janet Nye and Mike Alexander)*

The subgroup reviewed the findings in the NMFS River Herring Climate Change Workshop that was held two years ago which was amongst the information NOAA Fisheries used to help inform the Endangered Species Act listing determination

([http://www.nero.noaa.gov/prot\\_res/CandidateSpeciesProgram/sswpdocs/RIVER%20HERRING%20CLIMATE%20CHANGE%20WORKSHOP%20REPORT\\_122712.pdf](http://www.nero.noaa.gov/prot_res/CandidateSpeciesProgram/sswpdocs/RIVER%20HERRING%20CLIMATE%20CHANGE%20WORKSHOP%20REPORT_122712.pdf)) . The topics

brought up in that workshop were categorized into directly or indirectly related to climate change, and the subgroup agreed to focus solely on those threats that came directly from climate change. The subgroup is working to compile a list of speakers and invite them to the next two subgroup calls to be held before the September TEWG call.

*Genetics/Hybrids/Landlocked Subgroup (Chair: Dan Hasselman)*

The subgroup discussed tools that can be used to learn more about river herring stock structure, with a focus on genetics. West Coast participants who have experience with Pacific salmon genetics were invited to the subgroup to provide insight. A list of research needs is available on the subgroup's website

(<https://www.nero.noaa.gov/protected/riverherring/tewg/genetics/index.html>). For example, a large topic of the subgroup was developing markers for river herring. Microsatellites are currently being used, but there are limitations on that method. Other methods are being explored. Integration across laboratories to apply information to marine ecology and where samples are coming from is important, and some funds received from the NMFS Southwest Fisheries Science Center will be used to move this issue forward. Individual expert opinion and comments made during the discussions included:

- It is important that the full TEWG are aware of the following references:
  - a. Hasselman *et al.* (2014) Human disturbance causes the formation of a hybrid swarm between two naturally sympatric fish species. *Molecular Ecology*.
  - b. McBride *et al.* (2014) Genetic diversity and structure of two hybridizing anadromous fishes across the northern portion of their ranges. *Conservation Genetics*.

- c. Palkovacs *et al.* (2013) Combining genetic and demographic information to prioritize conservation efforts for anadromous alewife and blueback herring. *Evolution Applications*.
  - d. Willis, T.V. (2006) St. Croix River Alewife – Smallmouth bass interactions study, *Maine Rivers*.
- David Coughlin and Dan Hasselmen will connect about a contact David has in North Carolina who has looked at landlocked populations.
  - Stock of origin for river herring caught at sea is currently being investigated, but additional funding is needed to continue this work.

*Habitat Subgroup (Co-chairs: Alison Bowden and Jeff Pierce)*

The subgroup has focused on strategy development to-date. They also identified various data gaps and determined that more specifics are needed for those data gaps (e.g. conductivity and information such as why are there barriers, what types of barriers). A report for the National Fish and Wildlife Foundation is being worked on separately and will be compiled by the end of the year that outlines habitat needs of each of the rivers. The Habitat Subgroup will be considering this report. Individual expert opinion and comments made during the discussions included the following:

- Ed Bassett expressed interest in joining the Habitat Subgroup.
- Roger Rulifson's work is important for consideration by the Habitat Subgroup, and Roger is presently a member.

*Fisheries Subgroup (Co-chairs: Jason Didden and Mary Beth Tooley)*

The subgroup is focusing on identifying strengths and weaknesses on the methods of collecting the catch numbers. The subgroup is also looking at management actions that have been put in place and how those could influence catch numbers. Current management information has been distributed to the subgroup to help inform future discussions. Individual expert opinion and comments made during the discussions include:

- Increased observer coverage in the mid-water trawl and mackerel fisheries would improve data collection.
- The Councils and NOAA Fisheries are investigating how to set-up an industry funded observer program.
- The TEWG should keep updated on the NEFMC's Observer Advisory Committee, and some TEWG members are involved in this. The first committee meeting is scheduled for August 19<sup>th</sup>, at the Sheraton Colonial in Wakefield, Mass and Lori Steele ([lstele@nefmc.org](mailto:lstele@nefmc.org)) can be contacted for more information.
- The TEWG should also keep updated on the electronic monitoring initiative in the Northeast.

- Funding is needed to continue bycatch avoidance initiatives. The Nature Conservancy's support to help the fishing industry avoid river herring has been an appreciated partnership. Information on the bycatch avoidance programs and portside data programs should be sent to the subgroup.

*Species Interactions Subgroup (Chair: Eric Schultz)*

The subgroup discussed the topics related to species interactions that were brought up in the Endangered Species Act river herring listing determination. A majority of those topics focus on predation of river herring. Parasites and diseases were also touched upon. The subgroup is compiling a spreadsheet that outlines the referenced studies (and others) in order to identify data gaps along the coast, as well as conservation projects. A main point that was discussed included the lack of understanding on how species interactions change with different life stages, as well as geographic differences. The subgroup is currently composed of mostly Northeast (Maine through Virginia) members. Speakers have been invited to participate in the subgroup and provide insight into their work. Individual expert opinion and comments made during the discussions included:

- The subgroup should consider invasives such as catfish, and the Chesapeake Bay Program's Invasive Catfish Task Force would be a good resource. The chair is Bruce Vogt (NOAA) and Matt Ogburn is also involved.
- Information from a multi-year diet study that Alan Weaver is involved in may be helpful to the subgroup. Alan will forward the appropriate contacts on the study to Marin for a future subgroup presentation. Maryland and others are also involved in various studies that would be important to consider; the Task Force would be an important resource.

*Ecosystem Integration Committee (Co-chairs: Kim Damon-Randall and Jon Hare)*

The EIC was formed based on the March TEWG discussions. The EIC will ensure that the work of the subgroups is fully integrated to facilitate subgroup and TEWG discussions, as well as conservation planning development. The EIC met and reviewed the background document, which was a compilation of topics that overlapped between the subgroups. The committee compiled a table that outlines the issues and which subgroups are relevant to those issues. The table will be updated throughout the process, and the EIC welcomes feedback on this. The table will be a useful resource for future subgroup discussions.

4). Other Items

Individual expert opinion and comments made during the discussions on other items or those with broad applicability included:

- Canadian involvement in the TEWG process is important.
- Integration of laboratories on the east coast to standardize tissue sampling techniques and ensure comparability of results is important for the TEWG to consider.

- The tribal perspective is an important consideration.

5). Public Comment

None

6). Next Steps

1. The TEWG will be having an informal networking gathering at the American Fisheries Society meeting in Quebec City on August 19th. Dan Hasselman volunteered to help organize this. Details will be sent out to members.
2. Members will provide feedback on the meeting guidelines document reviewed during the call.
3. Ed Bassett will be added to the Habitat Subgroup.
4. Future speaker suggestions include Anthony Chatwin (NFWF), Department of Fisheries and Oceans Canada, and Carlos Garza (NMFS SWFSC). Additional suggestions to be considered after the American Fisheries Society meeting.
5. Doodle polls for 2015 meetings will be sent in future and TEWG members should identify any meeting conflicts. NOAA Fisheries and ASMFC propose to start them at 10am to account for west coast TEWG members. Although the meetings will continue to be scheduled for three hours, depending on agenda topics and discussions, they may be less.
6. The short documentary film of river herring fishermen in Eastern Maine that was shown during the meeting will be circulated ([https://www.youtube.com/watch?v=\\_cn5vzmh9NM](https://www.youtube.com/watch?v=_cn5vzmh9NM)). This film was produced as part of an oral history project carried out by Maine Sea Grant and NOAA Fisheries.
7. TEWG coordinators, as well as subgroup/committee chairs/co-chairs, will consider any suggestions noted above to inform future meetings.

Note: Draft Agenda and background materials can be found at:

<https://www.nero.noaa.gov/protected/riverherring/tewg/index.html>

**TEWG Members**

Michael Alexander  
 Trevor Avery  
 Mike Bailey  
 Edward Bassett  
 Diane Borggaard  
 Alison Bowden  
 Hugh Carberry

David Coughlan  
 Kiersten Curti  
 Greg DiDomenico  
 Phil Edwards  
 Claire Enterline  
 Ben Gahagan  
 Kimberly Damon-Randall  
 Steve Gephard  
 Carolyn Hall

Dan Hasselman  
Marin Hawk  
Pingguo He  
Joe Hightower  
Jeff Kaelin  
Lisa Kerr  
Jake Kritzer  
Genine Lipkey  
Johnny Moore  
Eric Nelson  
Janet Nye

**Public**

Jim Turek  
Toni Kerns  
Dan Kircheis

Chad Holbrook  
Sean McDermott  
Brad Schondelmeier  
Tara Trinko-Lake  
Edith Carson  
Julia Beaty  
Matt Ogburn  
Fritz Rohde  
Eric Schultz  
Elizabeth Silleck (for Joseph Gordon)  
Lindsey Staszak  
Lori Steele  
Alan Weaver  
Bennett Wynne  
Katie Drew

**River Herring Technical Expert Working Group (TEWG)**  
**Conference Call and Webinar**  
**June 30, 2014**  
**9:00am-12:00pm**

**Call-In Number: 1-888-394-8197**

**Passcode: 815277**

**Webinar: <https://www3.gotomeeting.com/register/966692822>**

**Draft Agenda**

Meeting Purposes:

- Discuss status of river herring conservation planning initiative.
- Discuss TEWG process documents.
- Provide updates on TEWG subgroups and committee efforts.

**9:00 PM:** Welcome, Introductions and Getting Organized

- Introductions and attendance
- Opening comments (*D. Borggaard and M. Hawk*)
- Review agenda (*D. Borggaard and M. Hawk*)

**9:10 PM:** River Herring Conservation Planning and TEWG: Updates

- Conservation Planning
  - Updates (e.g., timelines, website, research needs, NOAA Fisheries and ASMFC request for proposals) (*D. Borggaard and M. Hawk, 10 min.*)
  - Related initiatives
    - NEFSC River Herring Habitat Model (*J. Hare, 5 min.*)
    - River Herring Mapping (*speaker to be determined, 5 min.*)
- TEWG Process (*D. Borggaard and M. Hawk, 5 min.*)
  - Draft meeting guidelines
- TEWG Updates
  - Full meetings (*D. Borggaard and M. Hawk, 10 min*)
  - Subgroups (*15 min. each: ~5 min. update and ~10 min. feedback*)
    - Fisheries (*J. Didden and M.B. Tooley*)
    - Climate Change (*J. Nye and M. Alexander*)
    - Stock Status (*K. Sullivan and M. Bailey*)
    - Genetics/Hybrids/Landlocked populations (*D. Hasselman*)
    - Habitat (*A. Bowden and J. Pierce*)
    - Species Interaction (*E. Schultz*)
  - Ecosystem Integration Committee (*K. Damon-Randall and J. Hare, ~5 min. update and ~10 min. feedback*)

- Other

**11:30 PM** Public comment

**11:45 PM** Wrap up and next steps (e.g., possible American Fisheries Society river herring gathering, future speakers, river herring fishermen documentary)

**12:00 PM** Adjourn