Atlantic States Marine Fisheries Commission

American Eel Technical Committee and Stock Assessment Subcommittee

Call Summary

April 8, 2016
9:30 a.m. – 12:00 p.m.

The American Eel Technical Committee and Stock Assessment Subcommittee met on April 9, 2016 to discuss the five-year trigger for a 2017 benchmark stock assessment, a 2016 ageing workshop, and the 2015 commercial yellow eel landings. Present on the call were: Wilson Laney (USFWS), Todd Mathes (NC), Brad Chase (MA), Gail Wippelhauser (ME), Phil Edwards (RI), Jen Pyle (NJ), Jordan Zimmerman (DE), Jeff Brust (NJ), Robert Eckert (NH), Sean Doyle (DC), Carol Hoffman (NY), Keith Whiteford (MD), Sheila Eyler (USFWS), John Sweka (USFWS), Ellen Cosby (PRFC), Mike Waine (ASMFC), and Kristen Anstead (ASMFC). Also listening in on the call were members of the public: Jessica Graham (SE Aquatic), Zoemma Warshafsky (VIMS), Mark Cantrell (USFWS).

The agenda items discussed by the TC and SAS were:

1. 2017 Benchmark Stock Assessment
2. 2016 Ageing Workshop
3. 2015 Commercial Yellow Eel Landings
4. Other Business

1. 2017 Benchmark Stock Assessment

The five-year trigger for the next eel benchmark stock assessment is in 2017. The 2012 benchmark stock assessment listed research recommendations that should be completed before the next benchmark and these were circulated before the call. The TC/SAS used these recommendations to evaluate how much progress has been made and to make suggestions where more work is needed. Each research recommendation, a summary of the discussion, and suggested action follows.

Improve accuracy of commercial catch and effort data

Some progress has been made to address this, including Addenda III and IV, a swipe card programs in ME, and standardized reporting forms in NY and NJ. Concern was expressed that freshwater and personal-use harvest is not being captured in current datasets.

1. **Action**: State representatives will check with their freshwater counterparts and assess the comprehensive reporting in their state from commercial, freshwater, personal use, and tribal fisheries. ASMFC staff will consult ACCSP and MRIP to corroborate reported harvest from commercial and recreational fisheries.

Characterize the length, weight, age, and sex structure of coastwide commercial harvest

NY, NJ, and DE are all collecting fishery dependent biological data and work has been initiated in the Chesapeake Bay. NC currently has a project on the Roanoke River collecting biological data, but it is fishery independent. There was some discussion regarding sexing and ageing techniques and the possible need to standardize protocols along the coast if more states begin collecting this data in the future.

2. **Action**: States with fishery dependent sampling programs should share their methods so those without sampling programs can assess the feasibility of applying similar methods in their area.

Improve the understanding of the distribution and frequency of occurrence of eels along the coast

NJ has begun a yellow eel pot survey to improve data from that region, NY reports eels from any of their fishery independent surveys, and MA has begun a yellow eel survey.

3. **Action**: States should look at the list of fishery independent monitoring programs listed in Table 1 from Addendum III to make sure this information is up to date and add any new surveys.

Improve the understanding of the impact of Anguillicoloides crassus on American eels

Zoemma Warshafsky from VIMS created a fillable worksheet from compliance reports to identify how states are currently sampling for *A. crassus*.

4. **Action**: ASMFC staff will distribute the document from VIMS regarding *A. crassus* sampling and states will review the information and update as necessary.

Improve the understanding of spawning and maturation

No states are aware of any progress being made for this research recommendation and no action was suggested.

Improve upstream and downstream passage for all life stages of American eels

ME did some work removing dams and MA deployed a gravity-fed eel pass. Sheila Eyler and John Sweka published a yield per recruit model that could be useful for other states to adapt to their dams. It was suggested that mapping eel habitat and dam location by state would be a productive exercise.

5. **Action**: Eyler and Sweka will share their yield per recruit model for others to adapt to their states, if applicable. ASMFC staff will follow up with the Fish Passage Working Group to see if any progress has been made there for eel. States should provide input to the feasibility of mapping dam locations in eel habitats.

Improve the understanding of habitat needs and availability

There are some developments for this research recommendation for the Susquehanna and Shenandoah Rivers, as well as some data for DE. It was mentioned that the U.S. Fish and Wildlife Service's American Eel Biological Species Report from Shepard (2015) has a map that could help states identify eel habitats.

6. **Action**: ASMFC staff will circulate the Shepard (2015) paper and states will review Figure 9 to see the eel distribution in their state.

Conduct intensive age and growth studies at regional index sites to support development of reference points and estimates of exploitation

Work addressing this research recommendation was initiated in the Chesapeake Bay and is underway in the Roanoke River in NC. Participants agree that the lack of age and growth studies along the coast is a major impediment to the development of a more sophisticated modeling approach than trend analysis or data-poor models. No action was suggested at this time, but the possibility of exploring a mandatory coastwide commercial sampling program was discussed.

TC/SAS Recommendation: There are not enough new data sets or program developments since the last benchmark stock assessment in 2012. Therefore, the TC and SAS recommend doing an update in 2017 and continuing to make progress on the research recommendations to support a benchmark in the future.

2. 2016 Eel Ageing Workshop

American eel is a candidate species for an ageing workshop in 2016 and TC/SAS members discussed whether this was a best use of resources and if this was a research need at this time. Participants agreed that it is unlikely that an age-structured model will be used in the near future but acknowledged that it is good to get protocols developed before an age model is implemented. Members were concerned about the amount of time a workshop would take and suggested a hard part exchange with a follow-up conference call should be done to assess coastwide inconsistencies in ageing. Only if there were major ageing issues that emerged from that exercise, an in-person workshop would be held. Incorporating sexing into the ageing workshop was also discussed.

7. **Action**: ASMFC staff will explore the possibility of organizing a hard part exchange with the potential for a follow-up workshop only if necessary, as well as incorporating sexing protocols.

3. 2015 Commercial Yellow Eel Landings

Updated landings are needed to evaluate if the allocation trigger has been met.

8. **Action**: State representatives will update ASMFC staff on their 2015 commercial yellow eel landings.

4. Other Business

The TC/SAS discussed additional research needs and the following recommendations were made:

I. A joint meeting of the ASMFC American eel TC, representatives from the Gulf of Mexico American eel committee, and the Canadian DFO should be held to discuss new research, modeling approaches, datasets, and future collaborations.

II. An eel TC meeting should be held in 2016 to discuss progress that can be made on the research recommendations and the utility of the YOY surveys and whether some need to be relocated or expanded.

9. **Action**: ASMFC staff requests that TC members keep the summer meeting week of June 20th open for a possible 2-day TC meeting. Staff will look into the possibility of a North American workshop for eel.