

ACFHP Science and Data Meeting Summary

September 27 – 28, 2017

Arlington, Virginia

Members present: Jeff Beal (FL FWC), Carolyn Belcher (GA DNR), Cindy Cooksey (NOAA SERO), Tim Ellis (A-P NEP), Sonny Emmert (GA DNR), Erik Martin (TNC), Capt. Al Modjeski (American Littoral Society), Dave O'Brien (NOAA), Marek Topolski (MD DNR)

Staff present: Lisa Havel

ACFHP Steering Committee present: Pat Campfield (ASMFC)

The ACFHP Science and Data Committee (Committee) spent two days finalizing their recommended variables and metrics for ACFHP's Southeast Mapping Prioritization Project. The first day was spent reviewing the progress to date, going over a few examples of other prioritizations, and narrowing our list down of the most important variables for each prioritization, from a list of over 100 options. The second day was spent coming up with the metrics for each variable that will be put into the prioritizations. We also discussed the geographic scale for each prioritization, and spent a good portion of time determine how, and if, we could incorporate fish data (presence/absence, CPUE, spawning areas, etc.) into these analyses. Our final determinations can be found below.

Specific Analyses

After reviewing the available data and the goals for both this project and ACFHP's mission, goals, and objectives, the Committee decided the following analyses should be included in this mapping project:

1. Diadromous habitat for protection in the northern range*
2. Diadromous habitat for restoration in the northern range
3. Estuarine habitat for protection in the northern range
4. Estuarine habitat for restoration in the northern range
5. Estuarine habitat for protection in the southern range**
6. Estuarine habitat for restoration in the southern range
7. Coastal habitat for protection in the southern range

*Northern range = The North Carolina/Virginia border (some catchments for rivers that drain in North Carolina might extend into Virginia) to Cape Canaveral, FL

**Southern range = Cape Canaveral, FL to the FL Keys

The Committee decided that diadromous habitat in the southern range should not be mapped, as there are no diadromous species in the region. Along the same lines, the Committee decided not to map the coastal habitats in the northern range, since ACFHP priority habitats do not extend that far offshore. For coastal habitats in the southern range, where the ACFHP priority habitat 'other sessile fauna (corals)' is located, the Committee agreed that all coral, because it is so threatened and expensive to restore, should be protected. Therefore, only a simple protection analysis is necessary. Mainly, are there coral habitats there? If so, they should be protected.

Scale

The Committee discussed scale a few times over the course of the meeting, and settled on the following:

1. Diadromous scale: catchment, when possible. HUC12 when catchment is not available
2. Estuarine scale: 1 km² polygons, when possible. This will be similar to ACFHP's winter flounder mapping tool in the Fish Habitat Decision Support Tool (http://www.downstreamstrategies.com/documents/reports_publication/winter-flounder-report_final.pdf, page 12). If this is not possible, we might have to use TNC's Coastal Shoreline Units (http://easterndivision.s3.amazonaws.com/Marine/SABMA/FINAL_DRAFT_SABMA_coastal_eco_systems_090415.pdf, page 38).
3. Coastal scale: 10' squares (~100 km²). These are consistent with EFH designations and TNC's migratory species mapping (http://easterndivision.s3.amazonaws.com/Marine/SABMA/FINAL_DRAFT_SABMA_marine_mammal_sea_turtles_090415.pdf, page 12)

Fish Data

The Committee discussed ways to incorporate fish data (presence/absence, abundance, CPUE, etc.) at length for the different assessments. Overall, we had difficulty finding a comprehensive (i.e. for the entire mapping area) dataset for species that are closely associated with habitat, and whose distribution was primarily influenced by habitat. The Committee decided that if the data was available, we would include a layer of Atlantic sturgeon presence in the diadromous prioritizations, and include species diversity in a layer combined with access to oceans, also in the diadromous prioritizations. The Committee were not confident that comprehensive data existed for estuarine or coastal waters. Spotted seatrout, black sea bass, summer flounder and red drum (estuarine), as well as red grouper, summer flounder, and southern flounder were discussed as possibilities, but because we cannot tease out the effects of fish from habitat quality and quantity, they were not included.

Variables and Metrics

See Excel spreadsheets for final variables and metrics chosen.

Connectivity

The Committee agreed that in order to incorporate connectivity into these assessments, catchments or polygons should be ranked as high priority for restoration or protection if they are located on the most direct route from an area of high restoration or protection potential to the ocean. In other words, if a catchment ranks high for restoration, all catchments downstream in the most direct path to the ocean should also rank high.