Southeast CASC FY19 Priorities

Research Priorities:

1. **Risk analysis and visualization to support FWS at-risk species assessment**. We are interested in proposals to develop, prototype, and test visualization of datasets to effectively convey the range of climate-related risks to species of concern in the Southeast US. These risks include climate variables, hydrology, and rising sea levels, for example. Proposals should include strategy to test effectiveness of visualizations for risk and data interpretation by species biologists and prototype a system that can be useful to US FWS regional staff who develop Species Status Assessments.
2. **Ecohydrology and impacts to freshwater aquatic species and habitat**. We are interested in workshop and science synthesis proposals that summarize the following:
   1. how future changes to regional hydrological conditions (including high flow, low flow, and temperature) would impact aquatic species including at-risk species
   2. how regional ground water interactions with surface water impacts aquatic species conditions and identification of science gaps in understanding the impacts of future climate, hydrology, and land use to aquatic habitat
   3. how the risk from changes to regional hydrological flow regimes and temperature varies across the southeastern US, including any identification of habitats that might be at greater risk to changing climate or might be more resilient and serve as freshwater climate refugia.
3. **Evaluation of actionable science**. We are interested in proposals that synthesize existing knowledge on evaluating science utility for our stakeholders and that explore methods for quantitative evaluation of the effectiveness of approaches to developing actionable science. We seek proposals that will result in guidance to inform future research proposals on how to make science more actionable and useful for stakeholders.
4. **Climate impacts and adaptation to support tribal sovereign management of natural resources**. We are interested in proposals that address the scientific needs of southeastern US tribes to effectively understand and manage their natural resources to adapt to changing climate.
5. **Evaluation of models for predicting future coastal marsh conditions.** As part of a partnership between NOAA and DOI, we are interested in proposals that explore how the range of marsh system models perform in their prediction of southeastern marsh conditions under climate change, and how managers can best utilize the existing tools to inform land management decisions.