SCS7 Case studies

We would like to solicit regionally representative case studies for each of our 3 theme topics listed below. Please note that a short description is all that is needed at this time to provide some context regarding the case study. Case studies can be completed projects/actions, on-going or planned. The intent is to help frame the overall outcomes of national guidance on how to address these types of issues so all relevant examples regardless of their timeline of completion are welcome.

Please fill these out no later than November 15th by region (please discuss amongst SSC's to agree upon regional contributions).

1. How to incorporate ecosystem indicators into the stock assessment process?

Much work has been done in developing ecosystem indicators to assess environmental changes as they relate to federally managed species. Stock assessments are beginning to incorporate these indicators in a variety of ways to serve multiple management purposes. This session will focus upon understanding ecosystem dynamics and how insights from modeling can best inform stock assessments and resulting management decisions. For example, changing environmental conditions may affect vital population parameters (recruitment, mortality, growth) and availability of fished species to survey or commercial fishing gear (catchability). Changes in these parameters can greatly affect the assessment of stock status and biological reference points. This session focusses on approaches to incorporate ecosystem indicators into the stock assessment process. Among other approaches, this theme session will also explore the current and future utility of ensemble or multi-models in the assessment and management process.

2. Developing information to support management of interacting species in consideration of ecosystem-based fishery management (EBFM).

Stock assessment considerations under evolving ecosystem-based fishery management (EBFM) principles must address, among many things, the interaction of multiple species including predator-prey relationships. Various avenues have been explored, including assessment and management of fish assemblages and the use of multispecies predator-prey models to evaluate harvest options for both predator and prey. This session will focus on how best to address these considerations on a regional and national level, as well as the development of elements and considerations that should be considered for inclusion in the development of national guidelines.

3. How to assess and develop fishing level recommendations for species exhibiting distributional changes?

The Magnuson Act requires that stocks are managed throughout their distributional range. However, this mandate is challenging for species exhibiting shifts in their distribution, often under changing climate conditions. Fish movement away from traditional fishing grounds and survey areas creates difficult challenges for stock assessment. The primary focus of this session is to address how stock assessment and fishing level recommendations as should best accommodate stocks whose geographic distributions are modified with climate variability and climate change.