



**SSC Report – Except C-1 and C-4
Portland, Oregon
February 2018**

Planning for the 7th National SCS meeting

- Anne Hollowed, Gordon Kruse and Diana Stram serve as NPFMC contacts for the Scientific Coordination Subcommittee (SCS) of the Council Coordination Committee (CCC)
- This committee is responsible for planning the Seventh National Meeting of the SCS (SCS7), formerly known as the “National SSC Meeting.”
- The NPFMC is planning to host the 7th meeting, tentatively in July 2020.
- Three proposed topics:
 - How to incorporate various ecosystem indicators in the stock assessment process,
 - Approaches for conducting multispecies assessments and setting reference points for species significantly affected by trophic interactions, and
 - How to assess and manage species exhibiting distributional changes.

SSC Handbook

- Diana Evans presented a draft SSC Handbook for review.
- The handbook is intended to compile existing information on SSC terms of reference, membership, meeting procedures, etc. from the Council's Standard Operating Procedures and Policies (SOPPs) with additional interpretation and guidance prepared by previous SSC chairs.
- The SSC greatly appreciates efforts to assemble this SSC Handbook. Not only will this be very useful to new SSC members, but it will also serve as a handy reference for all SSC members, as well as the broader Council family.
- The SSC provided editorial comments and looks forward to working with Council staff to prepare a revised version for Council approval.

B1 Research Priorities Process

- Considerable progress has been made in recent years
 - Improvements in the online database, increased coordination with NPRB, and reviews of the process
- SSC implemented suggested changes to process from the Council's working group in June 2018
 - "Top ten" list, exclude Critical Ongoing Monitoring or Strategic research priorities from 2018 review
- These were implemented, acknowledging:
 1. Growing number of priorities, lengthy time required for a thorough review, and limited meeting time, and
 2. Importance of the priorities in promoting the research needed to support fisheries management in the NPFMC

B1 Research Priorities Process

- **The SSC recommends completing a full review of research priorities once every three years**
 - Place Plan Teams and FEP teams on this same timeframe
 - Including the “top ten” list
 - Cycle to begin in June 2019, if other Council agenda items allows for sufficient extra time for the SSC to conduct this detailed research review

B3 AFSC Update

- The partial government shutdown had substantial immediate impact and some longer-term impacts
 - Contracting, budgeting, and administrative processes have considerable backlogs and may not meet some deadlines
 - The GOA acoustic pollock survey will be abbreviated by dropping the Shumagin and Kenai regions
 - Innovative research and planning that generally occurs during the “down period” in December and January was reduced
 - Observers continued to be deployed, but post-deployment debriefings did not occur, resulting in reduced QA/QC

B3 AFSC Update (continued)

- Bottom trawl survey update
 - For FY 19 only four vessels will be contracted instead of five
 - Two in the EBS and two (not three) in the GOA
 - One EBS vessel will also survey the NBS, if funding allows
 - Analyses by AFSC staff to evaluate statistical impacts of reductions in station density and sample frequency are ongoing but have been delayed
 - The SSC ***strongly encourages*** the Council to reemphasize that this Critical Ongoing Monitoring continues at least at the historic level of five vessels
 - Climate change is changing past abundance and distribution patterns and we actually need more data, not less

D7 Marine Mammal Conservation Status

- The SSC received a presentation from Dr. Jeremy Sterling, AFSC Marine Mammal Lab on northern fur seals. Due to the shutdown, no other updates were provided. We look forward to a full report in 2020.

Population Status

- 2018 pup production on St. Paul was 6% lower than 2017; similar to the long-term trend of -4.1% per year from 1998-2018. Pup production on St. George is low, but there was no trend in the population since 1998. There was no 2018 survey at Bogoslof Island; the population there has been increasing (10.1% increase per year since 1997) — surveys are planned for 2019 at Bogoslof.
- The SSC supports ongoing efforts to continue monitoring this important population demographic information.

D7 (continued)

Ongoing Research Projects

- New (2016) project uses unmanned surface vehicles (saildrones) to map prey landscapes in combination with seal bio-telemetry (e.g., movement, diving, crittercams videos) to elucidate northern fur seal behavioral responses to prey availability. Preliminary results indicate associations between northern fur seals and age-0 and adult pollock.
- This type of research is very important with increasing variability in ocean conditions and fish distributions the Bering Sea, especially as concerns the declining fur seal population.
- Knowledge gained from these studies can assist the NPFMC in evaluating and/or improving ecosystem-based approaches to fur seal conservation and fisheries management.

D7 (continued)

- Another project is a large collaborative effort that combines a spatially explicit northern fur seal bioenergetic model with outputs from an end-to-end ecosystem (FEAST) and multispecies stock assessment (CEATTLE) models.
- Preliminary results indicate annual- and colony-specific fur seal diet variation, prey size, and bioenergetics (gross energy intake by age-class).
- Next steps include linking the bioenergetic and spatial fur seal models to FEAST and CEATTLE to evaluate mechanisms underlying observed declines in fur seal populations
- The SSC notes this project is a particularly good example of how coupled biophysical models that go all the way up through fish and fisheries can be utilized in retrospective studies to understand interactions between species groups, relevant to important Council issues.

SSC Workshop on ROMS & NPZ models

- Workshop focused on current status of coupled biophysical models and their ability to inform fishery management in the EBS & GOA.
- SSC was impressed with substantial improvements to the models that have been implemented since our last review in 2014.
- Periodic updates of hindcasts and long-term projections may be adequate for research into mechanisms of fish production (hindcasts) or evaluations of alternative harvest strategies (long-term projections).
- However, if these models are transitioned to operational use in short-term forecasts, then routine, more frequent model outputs will be necessary.
- This research represents a pathway to incorporate ecosystem considerations into stock assessments and other fishery research.