

FISHERIES SCIENCE PROGRAM OVERVIEW

Assessment Science Committee

Committee Name: Assessment Science Committee (ASC)

Active Subcommittees:

Species Stock Assessment Subcommittees (SAS):

The ASC and each species' technical committee (TC) jointly appoint Stock Assessment Subcommittees, with membership consisting of a combination of ASC members and TC members. The SASs are responsible for conducting species assessments and report to the species TCs. The ASC provides overall guidance to the development of species stock assessments. Assessments are periodically conducted by the SASs, with input on assessment modeling approaches from the ASC upon request.

Purpose:

The ISFMP Policy Board created the ASC to coordinate scheduling of stock assessments across species and assist the Policy Board in setting priorities in relation to current workloads. The ASC also provides guidance to SASs, TCs, and Management Boards on broad technical issues - e.g., stock assessment methods, biological reference points, sampling targets, and other assessment issues common to multiple Commission-managed species. The ASC provides advice to the SASs to troubleshoot challenging assessments, and recommends new models to explore to continually evolve benchmark assessments. The ASC reports to the ISFMP Policy Board.

Membership:

The ISFMP Policy Board appoints membership to the ASC. Agencies should nominate individuals for appointment to the ASC based on experience in population dynamics modeling and other stock assessment methods. The Policy Board reviews nominations and appoints members to the ASC based on expertise, as opposed to agency representation. The ASC has a maximum of 25 members. Rotation of membership is considered periodically.

Codifying Document: ISFMP Charter

Type & Frequency of Meetings: In person meetings every other year or as needed; conference calls approximately every six months.

Primary activities:

Coordinate the scheduling of stock assessments

- Assist the ISFMP Policy Board in setting priorities and timelines for periodically conducting stock assessments for Commission species in relation to current workloads.
- Provide input on type of assessment peer review required (ASMFC, SARC, SEDAR) upon referral from a Management Board.

- Provide advice to Species Stock Assessment Subcommittees to troubleshoot challenging assessments, and recommend new models to explore to evolve benchmark assessments
- Provide input on assessment modeling approaches for annual assessments upon request by a Species Stock Assessment Subcommittee.

Provide guidance to Species Stock Assessment Subcommittees, Technical Committees, and Management Boards on broad technical issues.

- Stock assessment methods
- Biological reference points
- Sampling targets
- Other assessment issues regarding Commission managed species

Provide input to the Commission’s multispecies activities

- Evaluate multispecies assessment models (Ecopath with Ecosim, Multispecies Statistical Catch-at-Age) for use by individual species technical committees.
- Develop multispecies data collection priorities

Guide the ASMFC stock assessment methods training workshops for state agency scientists

- Commissioner's Stock Assessment Training Seminars
- Introductory Stock Assessment Training
- Intermediate Stock Assessment Training
- Advanced Stock Assessment Training

Provide advice to other Commission and State/Federal programs

- ACCSP sampling, technical issues, and data use
- Use of NEAMAP and SEAMAP surveys’ data in stock assessments, analytical requests

Major accomplishments:

Benchmark Stock Assessment Framework: Data, Assessment, and Review Workshop Process

- Establishes the guidelines and procedures for conducting and peer reviewing ASMFC benchmark assessments
- Target Audiences – Commissioners, members of ASMFC technical committees and stock assessment committees
- 1st printed in 1998 and revised most recently in 2018

Stock Assessment Scientists Capacity Surveys

- Periodically, the ASC distributes and summarizes findings from a survey of state and federal fisheries agencies to describe the coast wide stock assessment capacity based on the number of scientists available to contribute, and their levels of expertise; survey results are used to identify and address workload shortfalls, in consideration of the assessment schedule across species

Recreational Fisheries Data and Analyses / MRIP

- Receive updates from MRIP (Marine Recreational Information Program) scientists on changes in survey or catch estimation methods, implications for catch and effort statistics, and provide advice to SASs, TCs for integrating new estimates into stock assessments, tracking harvests and discards, and other technical analyses

Development of Assessment Data and Analytical Best Practices

- Establishment of standard data types, formatting, and submissions for use in assessments, as well as survey index and other analytical methods that should be followed in all Commission stock assessments

Fishery-Independent Data Use Policy

- A science policy statement clarifying for survey and research scientists how their data can be considered and used in stock assessments, as well as rules the Commission will follow regarding publications and limitations to sharing submitted data

Guide to Fisheries Science and Stock Assessments

- A publication explaining the fisheries science and stock assessment methods used to determine stock status. The Guide is intended for fishermen and other stakeholders interested in fisheries science activities, and serves as a primer for the scientific basis for the Commission's decision-making process

Development and Use of Reference Points

- A guidance document for managers to use in setting reference points

Assessment Oversight Panel (AOP)

- ASC members represent the Commission on the Northeast regional Assessment Oversight Panel to review, modify, and approve individual stock assessment plans for species assessed by the NMFS Northeast Fisheries Science Center (NEFSC)

Introductory Stock Assessment Training

- A semester course provided to state scientists, providing an introduction to quantitative fisheries population dynamics and stock assessment modeling
- Offered every other year since 2000, most recently in 2020

Intermediate Stock Assessment Training

- A 3-part series of workshops designed to prepare scientists for participation in the Commission's stock assessment process (Data, Methods, and Assessment Workshops)
- Offered every 3-4 years

Advanced Stock Assessment Training Workshops

- Short courses to train experienced state assessment scientists in advanced fishery science and assessment modeling methods
- Management Strategy Evaluation, 2020

- Introduction to R Programming, 2018
- Stock Synthesis Modeling, 2017
- Bayesian Assessment Methods, 2015
- Data Limited Assessment Methods, 2012
- Auto-Differentiating Model Builder Programming for Stock Assessment, 2011
- Age-Structured Stock Assessment Methods Using the NOAA Fisheries Toolbox, 2010
- Standardization of Indices for Use in Stock Assessment, 2009
- An Introduction to Linear Models in R Programming, 2008
- Maximum Likelihood Estimation for Quantitative Fisheries Science, 2007

Benchmark Stock Assessments and Peer Review schedule

- Schedule of stock assessments and peer reviews in a shifting ten year window covering Commission species that have or will undergo stock assessment via ASMFC, SEDAR (Southeast), or SARC (Northeast).

History of Chairmanship:

Current Chair & Vice-Chair: Chair, John Sweka, USFWS

(2017–2018) Laura Lee, NC

(2014–2016) Matt Cieri, ME

(2012–2013) Kim McKown, NY

(2009–2011): Helen Takade, NC

(2007–2008): Mike Murphy, FL

(2005–2006): John Carmichael, SEDAR

(2003–2005): Doug Grout, NH

Staff Lead: Sarah Murray, Fisheries Science Coordinator, smurray@asmfc.org