

# NPFMC climate-related scientific initiatives and outcomes of SCS8 discussions



D2 SSC October 2024  
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# Recent NPFMC climate-related activities

## NPFMC

- ❑ BS FEP Climate Change Task Force (CCTF)
- ❑ Climate Scenario Workshop
- ❑ SSC workshops

## National

- ❑ NOAA Climate, Ecosystems and Fisheries initiative (CEFI)
- ❑ National SSC meetings (SCS)

# Recent NPFMC climate-related activities

## ❑ **BS FEP Climate Change Task Force (CCTF): November 6-7, 2024**

- ❑ Recap workshop,
- ❑ Workplan, process, progress, and outcomes
- ❑ Develop recommendations for moving forward and for a Council climate workplan
- ❑ Draft a final report

## ❑ **Climate Scenario Workshop**

- ❑ Report in October, action TBD

## ❑ **SSC workshops**

- ❑ Consideration of additional workshops?

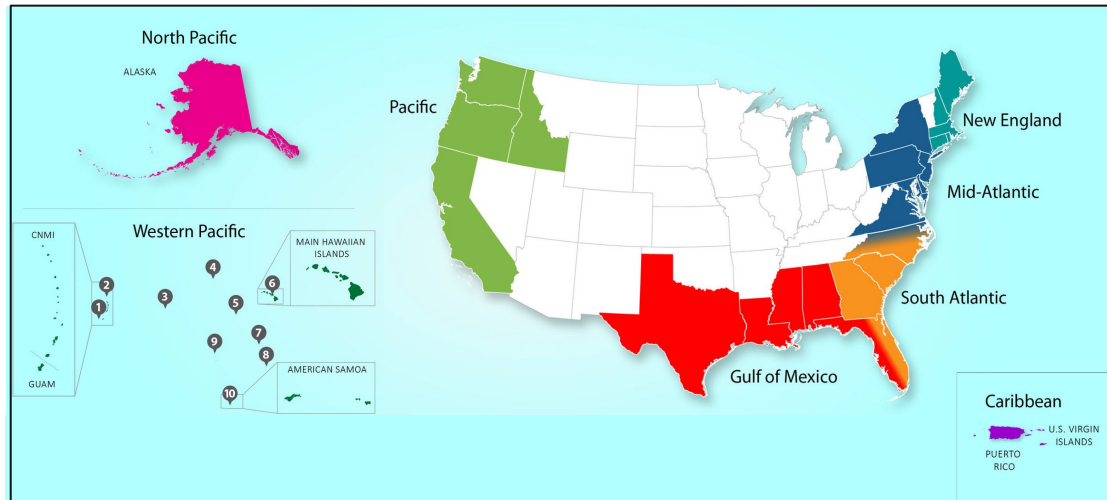
# Recent NPFMC climate-related activities

## National

- ❑ **NOAA Climate, Ecosystems and Fisheries initiative (CEFI)**
  - ❑ NPFMC staff and NMFS RO staff added to Alaska Climate/CEFI Team (ACT)
- ❑ **National SSC meetings (SCS)**
  - ❑ SCS8 outcomes and NPFMC related focus

# Goals of SCS Meetings

Primary purpose of Scientific Coordination Subcommittee (SCS) meetings is to provide coordination across Fishery Management Council Scientific and Statistical Committees (SSCs) in addressing scientific issues of national importance.



# Previous SCS meetings and topics

Year	Host	Focus
2008	WPFMC	Developing Best Practices for SSCs
2009	CFMC	Establishing a Basis for Annual Catch Limits
2010	SAFMC	ABC Control Rule Implementation and Peer Review Procedures
2011	MAFMC	Ecosystem and Social Science Considerations in U.S. Fishery Management
2015	WPFMC	Providing Scientific Advice in the Face of Uncertainty
2018	PFMC	The Use of Management strategy evaluation to Inform Decisions Made by the Regional Fishery Management Councils
2022	NPFMC	Adapting Fisheries Management to a Changing Ecosystem
2024	NEFMC	Applying Acceptable Biological Catch (ABC) Control Rules in a Changing Environment



# 8th National Workshop of the Scientific Coordination Subcommittee

August 26-28, 2024  
Boston, Massachusetts  
**DRAFT** Outcomes



New England  
Fishery Management  
Council



# SCS8 Workshop Theme: Applying ABC Control Rules in a Changing Environment

**Goal:** Provide actionable guidance on how to best support Councils in the management of fisheries, specifically the application of ABC control rules, in a changing environment.

**Motivation:** SSCs have been challenged in applying ABC control rules in a manner that reliably achieves management goals given the degree of ecosystem change and scientific uncertainty that Council regions are experiencing.

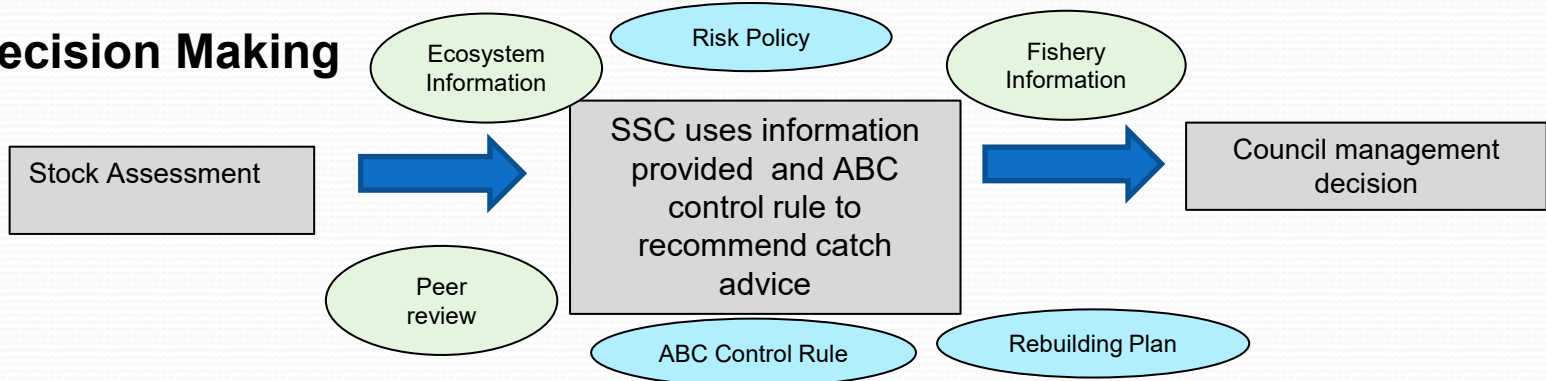


# SSC Role in Fisheries Management

## Strategic Guidance



## Tactical Decision Making



A core function of a Council's SSC is to provide recommendations for tactical decision making on acceptable biological catch (ABC) and to support strategic decision making on ABC control rules.

Ecosystem information is increasingly being integrated into the tactical application and strategic decision making on ABC control rules.

Social science can provide critical insight on the potential for control rules to achieve management goals and how fisheries and communities can adapt to dynamic conditions.



# Agenda-at-a-Glance

## Monday

- Context setting: Current approaches to defining ABC control rules and challenges in their application
- Sub-Theme 1: Advances in ecosystem science and assessment to inform ABC control rules in a dynamic environment

## Tuesday

- Sub-Theme 2: Application of social science to achieve management goals under dynamic conditions
- Sub-Theme 3: Adaptation of reference points, control rules, and rebuilding plans to changing environment

## Wednesday

- Synthesis, actionable outcomes, next steps

## **Context Setting:**

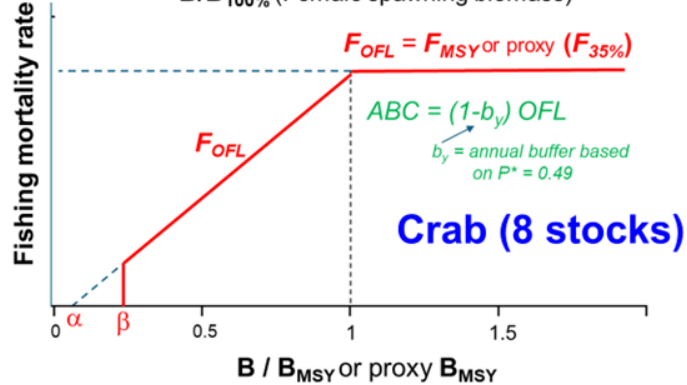
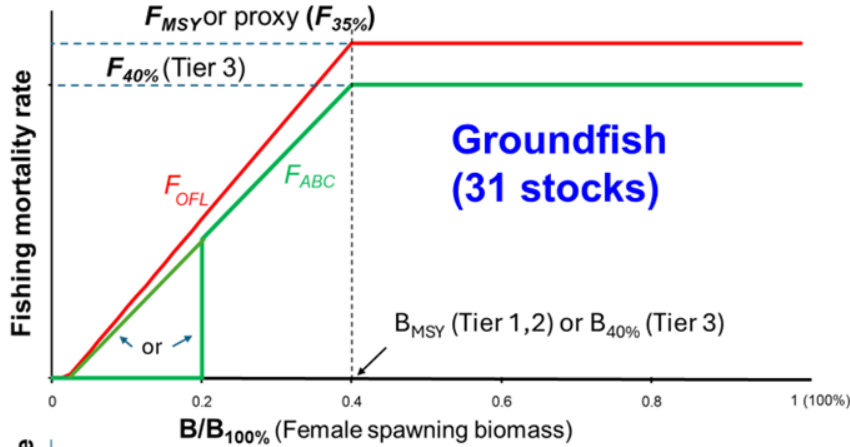
**Current approaches to defining ABC control rules and challenges in their applications**

# Overview

- Reviewed ABC control rules used across Councils
  - Tiered control rules (based on assessment type, uncertainty, stock status) are used across most regions.
  - Recent and ongoing revisions to ABC control rules underway in some Councils.
- Discussed challenges applying ABC control rules.
- Guidance and flexibility in specifying ABC control rules.
- Identification of biggest challenges within Council regions.



## Model-based Control Rules



## Model-based Control Rules

- **Escapement-based HCR**
  - Salmon stocks (mostly delegated)

## Empirical control rules

- **Biomass Index-based ( $F = \gamma * M$ )**
  - 8 groundfish stocks
  - 7 groundfish complexes
- **Catch based (Reference level)**
  - 4 groundfish stocks
  - 2 groundfish complexes
  - 2 crab stocks
- **Fixed in FMP**
  - scallop
  - 3 Arctic stocks ( $OFL = ABC = 0$ )

# Challenges Identified by Council Region

- **Data limitations:** challenge in data availability and quality
- **Stock Assessment:** Non-stationarity in stock dynamics and shifts in species distribution. Limited integration in assessment.
- **Reference Points:** Challenge of defining reference points in a changing environment
- **ABC Control Rule Performance:** Performance of ABC control rules are not simulation tested for robustness to climate/ecosystem change.
- **Flexible Application:** Desire for flexibility in ABC control rule. Interest in an adoption of phase-in and carry over approaches

# NPFMC specific discussions and focus points

- ❑ Compilation of socio-economic information to inform Council decision-making
- ❑ Climate-resilient harvest control rules



# Compilation of socio-economic information to inform Council decision-making

- ❑ Recommend SSC weigh in on the appropriate vehicle for providing concise relevant social, economic and community information to the Council at the time of TAC-setting
  - ❑ Possibly via combination of ESRs, ESPs, and SAFE reports
- ❑ Timing of information for groundfish should coincide with November Plan Team meetings to meet information needs as it relates to TAC-setting process
- ❑ Social and economic information not considered by the SSC in ABC setting rather the SSC should provide advice to the Council on the appropriate aggregation of information to best inform decision-making (including TAC setting)

# Considerations on revising groundfish harvest control rules to be more climate resilient

- ❑ Identify available flexibility and/or lack thereof in current groundfish tier system
- ❑ Identify recent issues by stock with the application of current system
- ❑ Compile existing literature and ACLIM results to help inform sensitivity of stocks to HCR shapes compared with biological reference points and/or fishing rate modifications
  - ❑ Council would need to weigh in on policy objectives (including risk tolerance) in modification of HCRs or reference levels

# NPFMC next steps following SCS8

- ❑ SSC to provide feedback on potential next steps regarding both HCRs and compilation of social and economic information in support of TAC setting.
- ❑ Upcoming potential considerations:
  - ❑ Review of discussion paper and subgroup report on socio-econ information timing and products in December (from 2023 C4 Socio-econ motion)
    - ❑ Are changes needed to timing or products?
  - ❑ HCRs and Assessments: Report back from the Joint Plan Teams in December regarding overarching issues noted with assessments in relation to changing conditions.
    - ❑ Consider this in conjunction with report back from CCTF regarding potential Council considerations and development of a Climate workplan

**Thank you!**