

NOAA FISHERIES

Office of Science and Technology

National Science Activities

Updates on SSC-Relevant Topics

Kristan Blackhart August 16, 2022

Fisheries Integrated Modeling System

A flexible suite of software tools to support sustainable fishery management

What is FIMS?



- Stock assessment at core
- Connects to ecosystem, climate, and economic models/data
- Very flexible for innovative future modeling work
- Collaborative community effort





NOAA Fisheries Integrated Toolbox

- Interdisciplinary collection of operational tools
- Facilitates advanced analyses
- Provides a testing ground for taking tools from research to operational

TOOLS

Fish and Fisheries

Protected Species

Human Dimensions

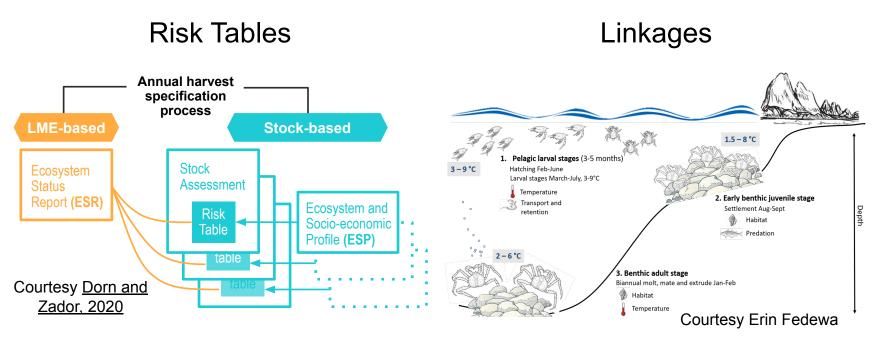
Ecosystems

General Modeling Tools

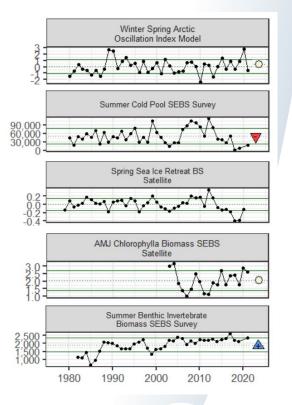


Ecosystem and Socioeconomic Profiles (ESPs)

A standardized framework to facilitate the integration of ecosystem and socioeconomic factors within the stock assessment process



Rebuilding & TAC





Assessment Good Practices

CAPAM Good Practices Workshop

- October 2022
- Finale in series of "Good Practices in Stock Assessment Modeling" workshops organized by CAPAM
- Goal is development of a *Good Practices* Guide

Distribution Mapping and Analysis WG

- Working to advance the development, delivery, and use of species distribution information and tools
- Currently working to make species distribution model climate scenario forecasts for key species broadly accessible

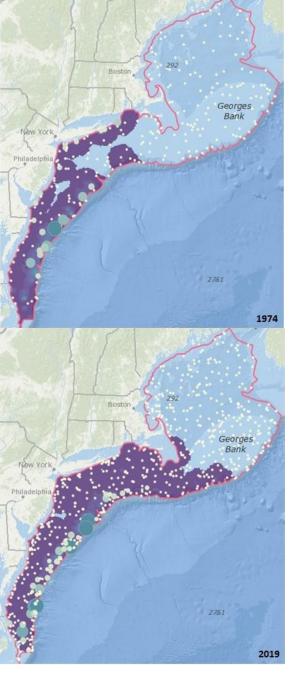
U.S. Assessment Model Diagnostics

- Document developed by national working group in NOAA Fisheries
- Documents model diagnostics currently used, describes regional differences, and provides recommendations for best practices

National Stock Assessment Workshop

- Planned for May 2023
- Theme: Spatial Modeling
- Goals: Allow NOAA Fisheries assessment scientists to collaborate, identify emerging priorities, and establish good practices for stock assessment methods





Distribution Mapping and Analysis Portal (<u>DisMAP</u>)

- Provides tools to visualize, analyze species distributions over time
- Access distribution info for 900+ marine species
- Builds on OceanAdapt effort
- Supports spatial decision making



National Standard 1 Tech Guidance

1. Status Determination Criteria

<u>Status:</u> Initial internal reviews <u>Next Steps:</u> Presentation to the CCC in October, 2022; opportunity for Council review of document to follow

2. Carry-Over and Phase-In Provisions

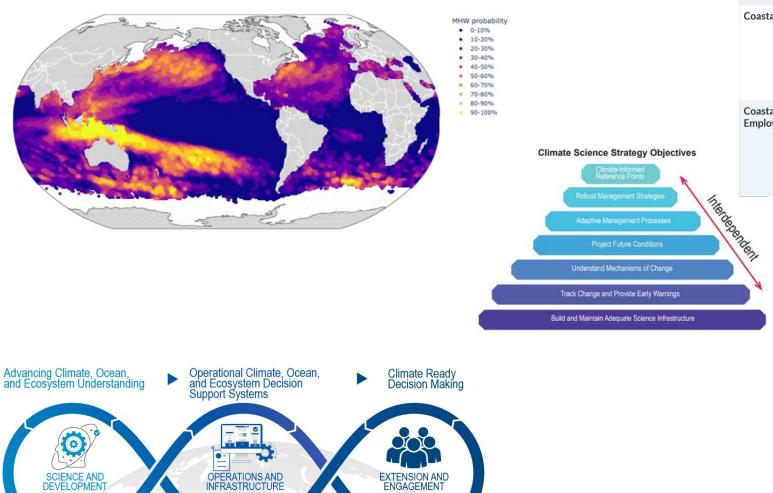
Status: Published

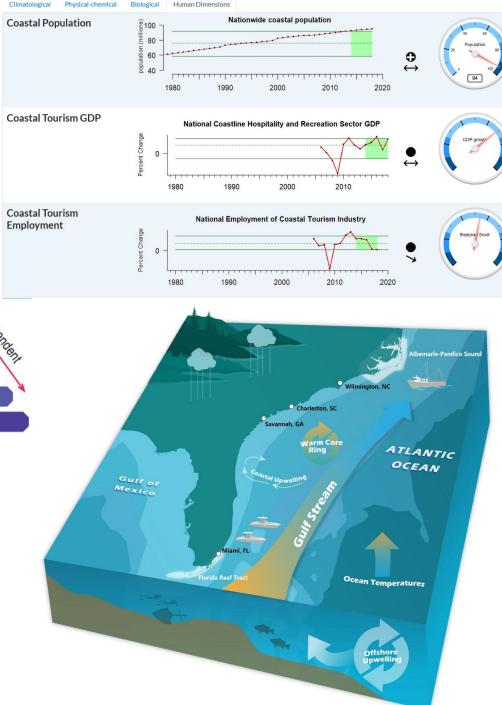
3. Data-Limited ACL Alternative Approaches

<u>Status:</u> Final clearance <u>Next steps:</u> Publication anticipated by end of year



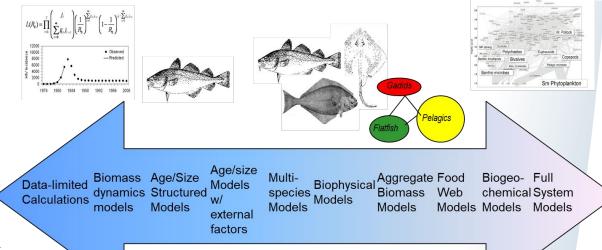
Applied Climate Science





Drives Service Delivery

Ecosystem Modeling



- Ecosystem Modeling Strategy
- Applying ecosystem modeling to living marine resource management
- <u>Multispecies modeling</u> investigations

