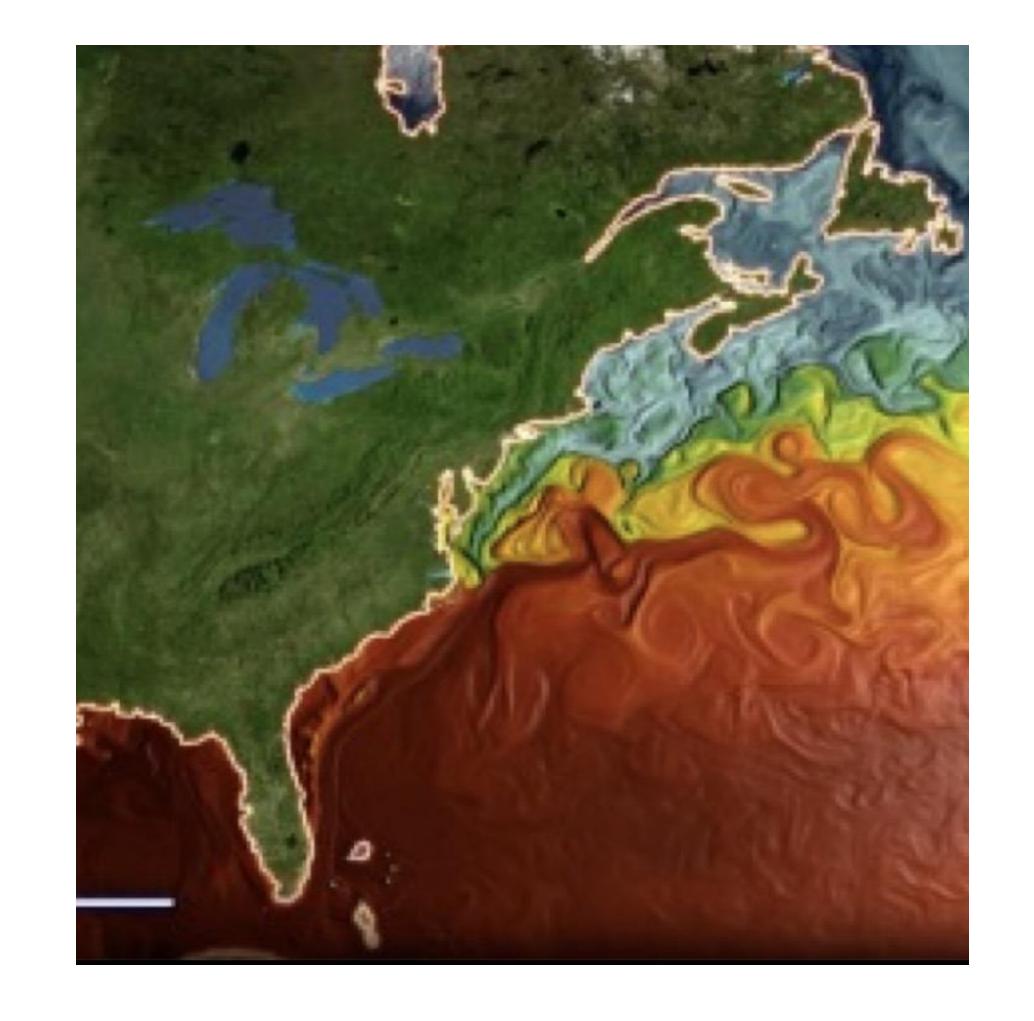
# EAST COAST CLIMATE CHANGE SCENARIO PLANNING

Michelle Bachman, NEFMC Staff
New England Fishery Management Council
Portland, Maine
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# Initiative Objectives

- 1. Explore how East Coast fishery governance and management issues will be affected by climate driven change in fisheries, particularly changing stock availability and distributions.
- 2. Advance a set of tools and processes that provide flexible and robust fishery management strategies, which continue to promote fishery conservation and resilient fishing communities, and address uncertainty in an era of climate change.





### Benefits of scenarios

- Quicker reactions to a changing world
- Early and broad risk identification
- Innovative ideas
- More considered decisions and flexible plans
- Alignment towards a preferred future



# Why are we creating scenarios?

# Project Objective

Explore how East Coast fishery governance and management issues will be affected by climate driven change in fisheries, particularly shifting stock availability and distributions

## Framing Question

How might climate change affect stock availability and distribution, and other aspects of East Coast marine fisheries over the next 20 years?

What does this mean for effective future governance and management across multiple jurisdictions?

# Scenario Building Blocks

Pre-determined Elements

Factors or forces that are 'locked-in' and confidently predictable over the time horizon

Critical
Uncertainties

Important forces that have the potential to move in alternative directions over the time horizon

Wildcards

Low probability events and developments that could impact the future in significant ways in the time horizon

# Mini-Scenario Creation (1)

# **Expected future** Choose five cards that, when combined, best describe the 'expected future' - the story that East Coast fishing generally assumes will happen given climate change between now and 2042 1. Briefly describe the future scenario that this combination of cards creates 2. What makes this scenario interesting? 3. What evidence exists today that makes this future seems plausible?

4. Give this scenario a memorable name

### ECSP Draft Scenario Framework

**High adaptability** 

### **MADE IN THE USA**

(localism, transparency, data rather than science, cultural shifts)

Complex: unpredictable, stochastic, wildcard-driven, (science struggles to help)

**High adaptability** 

### **MAKING LEMONADE**

(hostile trade, e-vessels, localization, fed support, tech helps adaptation)

Low adaptability

### **LIFE FINDS A WAY**

(spatial conflicts, wind, aquaculture, mobile fleets, can't cope with variability)

Stock production, Habitat Replacement species etc.
Maintained

High adaptability

### **CATCH OF THE DAY**

(influx of capital, changes in catch, deliberate consolidation, industrialized)

Patterns of climate drivers, range expansions etc.

Stock production, Habitat

Replacement species etc.

**Declining** 

Low adaptability

### **CATCH ME IF YOU CAN**

(chasing what's available, depleted forage base, jellyfish, generalists, vicious cycle)

High adaptability

# RISING TO THE CHALLENGE

(biomass declines, industry stays profitable, high efficiency, synergy with aquaculture)

Low adaptability

# PLENTY OF FISH IN THE SEA...

(ecosystems thriving, carbon emissions under control, competition with protected species)

Challenging: extensive, solvable, trend-driven (science helps)

Low adaptability

# IF WE ARE SCREWED..

(user group conflicts, different timescales, incongruent adaptation)

## **East Coast Scenario Planning Initiative Timeline**

# Steps in this Multi-Year Initiative

**Orientation:** 

establish draft objectives, expected outcomes and project focus

Spring -Summer 2021

### Scoping:

reach out to stakeholders to gather input on forces of change that could affect fisheries over the next 20 years

### Summer – Fall 2021

Winter 2022

### **Exploration:**

analyze forces driving change in greater detail

### Creation:

conduct workshop sessions to construct and discuss scenarios

Summer 2022

**Scenario Deepening** 

### **Application:**

use scenarios to identify actions and recommendations

### Monitoring:

identify key indicators to monitor change and outline next steps

Fall 2022-Winter 2023



# Scenario Deepening

- 1. Review of inputs from this workshop (core team)
- 2. Edit inputs / refine scenarios to create a first draft set of scenarios
- 3. Organize 3-4 scenario deepening webinars (End July August)
  - Available to public
  - Communicate the basic stories of each scenario
  - Check for plausibility, relevance, challenge, memorability, divergence
  - Suggestions for how to improve the stories across those dimensions
  - Specific regional, stakeholder, species storylines
  - What's missing? What would you add?

# Applying the Scenarios

- Planned conversations at Fall meetings
  - SAFMC
  - MAFMC
  - NEFMC
  - ASMFC
- Potential for other conversations/webinars with specific groups
- All to generate ideas for management and governance changes under different conditions of each scenario
- Followed by a Summit meeting to review all ideas and prioritize / suggest recommendations

# "Scenarios are stories. They are works of art rather than scientific analyses. The precision of [their content] is less important than the types of conversations and decisions they spark."



Arie de Geus, The Living Company

De Geus is a former corporate planning director for Royal Dutch Shell. Shell pioneered the application of scenario planning to the business world.