

Species Declared Interest



NY is requesting to declare into the Cobia FMP

- Consistent with the PRT recommendations
- Increase presence of Cobia in NY state waters
 - Commercial: over 1,000 pounds since 2019 and has reached up to 6.9% of the coastwide commercial landings
 - Recreational: increasing encounters
- Suitable habitat moving northward



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Office of
Aquaculture

Aquaculture in the EEZ



Danielle Blacklock, Director
Office of Aquaculture

We need more U.S. seafood...

- **We import more than 70% of the seafood we eat**
- **Global demand for seafood growing**
 - Globally- we will need an additional 50 million tons in 25 years.
- **Americans eat ~70% of the recommended**
- **Malnutrition in the United States**
 - 42% of adults are obese
 - 12.8% of households are food insecure



Credit, Representative Sean D. Reyes, Utah Office of the Attorney General

Climate Change Threatens Our Global Food Production System

Bloomberg Green

Climate Adaptation

Drought Indicators in Western U.S. Flash Warnings of the 'Big One'

Summer in the U.S. begins with widespread drought already at historic levels across 11 states. Experts warn of worsening conditions once wildfires start.

By [Brian K. Sullivan](#) and [Elizabeth Elio](#)
June 24, 2021, 6:00 AM EDT | Updated on June 24, 2021, 10:31 AM EDT



Most Read

- China Crushed, Just As, and His Fortach Rivels Are Next
- Death Toll in Florida Collapse Rises to 4, 150 Still Missing
- Many Feared Dead After Florida Beachfront Condo Collapse
- Credit Suisse's New Chairman Sends Out Tough Investment Bank

Conservation workers with production water from the Columbia River in California on June 20. Photograph by [unreadable]

New Study: Climate Change to Shift Many Fish Species North

May 17, 2018

A new NOAA Fisheries-funded study presents the first major projections of where U.S. fish species populations may shift under future climate scenarios.

Feature Story - National



More Information

- New Study: Projecting Shifts in Thermal Habitat of
- Climate
- NOAA Fisheries Climate Science Strategy

Recent News

- Just Got Banned NOAA Fisheries Assistant Administrator
- Climate

FEATURE STORY

Save the Beak Shrike: 2021 NOAA Media Month Photo Contest

FEATURE STORY

NOAA Fisheries Great Lakes Program Name of Young

A new NOAA Fisheries-funded study (published this week in the journal PLOS ONE) presents the first major projections of where U.S. fish species populations may shift under future climate scenarios. The research was led by James Buckley and Matt Pinsky of Rutgers University-New Brunswick.

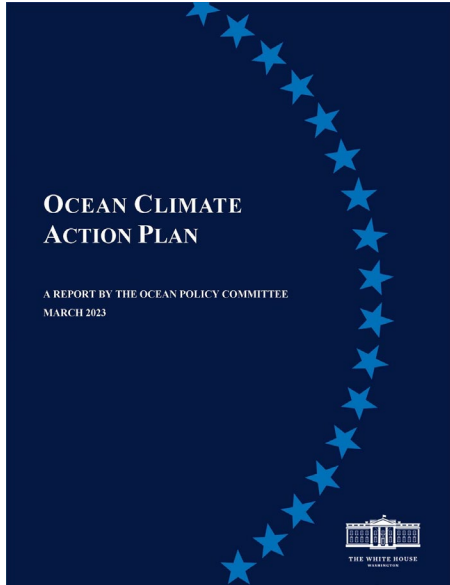
Rapid global heating is hurting farm productivity, study finds

Research shows rising temperatures since 1960s have acted as handbrake to agricultural yield of crops and livestock



▲ wheat farm in Dixon, Illinois. With the global population set to rise to more than 10bn by 2050, the UN estimates food production will have to increase by about 70%. Photograph: Jim Young/Reuters





OCAP ACTION: **Expand and decarbonize sustainable U.S. aquaculture production**

NOVEMBER 10, 2022

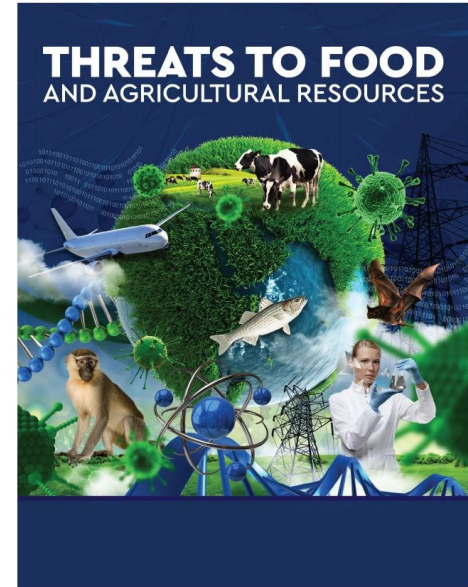
National Security Memorandum on Strengthening the Security and Resilience of United States Food and Agriculture

► BRIEFING ROOM ► PRESIDENTIAL ACTIONS

NATIONAL SECURITY MEMORANDUM/NSM-16

THE SECRETARY OF STATE
THE SECRETARY OF DEFENSE
THE ATTORNEY GENERAL
THE SECRETARY OF THE INTERIOR
THE SECRETARY OF AGRICULTURE
THE SECRETARY OF COMMERCE
THE SECRETARY OF LABOR
THE SECRETARY OF HEALTH AND HUMAN SERVICES
THE SECRETARY OF HOMELAND SECURITY

- **Aquaculture is agriculture**
- **Designated as critical infrastructure**



DHS recommends the growth of domestic aquaculture as one of six key national priorities to support domestic food system resilience.

Why the ASMFC Policy Board?



Why Atlantic Striped bass

- Versatile growing options
 - Fresh and saltwater
 - Large temperature range
 - Multiple culture methods

- Existing market

- **Equal Opportunity**

Policy

- Illegal to fish, harvest, possess, or retain Striped bass in the **Atlantic** U.S. EEZ
 - Some states have a prohibition on sale.

- This prohibition does not apply to the **Gulf of Mexico**



Production

- Currently farmed in
 - Ponds: NC, SC, TX
 - Recirculating Aq.: OH (experimental)
 - Netpens: Mexico
- Farmed atlantic striped bass is commanding a premium price as compared to wild harvested and farmed hybrid striped bass.

Research

- It started in 1874!
- Now-
 - Dramatic improvement in growth rate due to selective breeding
 - Full genome sequenced
 - Multiple known sterilization methods
 - Known feeding protocols
 - StriperHub- Goal is commercialization for both striped bass and hybrid striped bass



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Northeast Fisheries
Science Center

Industry Based Survey (IBS) White Paper

Kathryn Ford, PEMAD Director
ASMFC January 25

Council motions

NEFMC and MAFMC passed motions (supported by ASMFC) in Sep/Oct 2023:

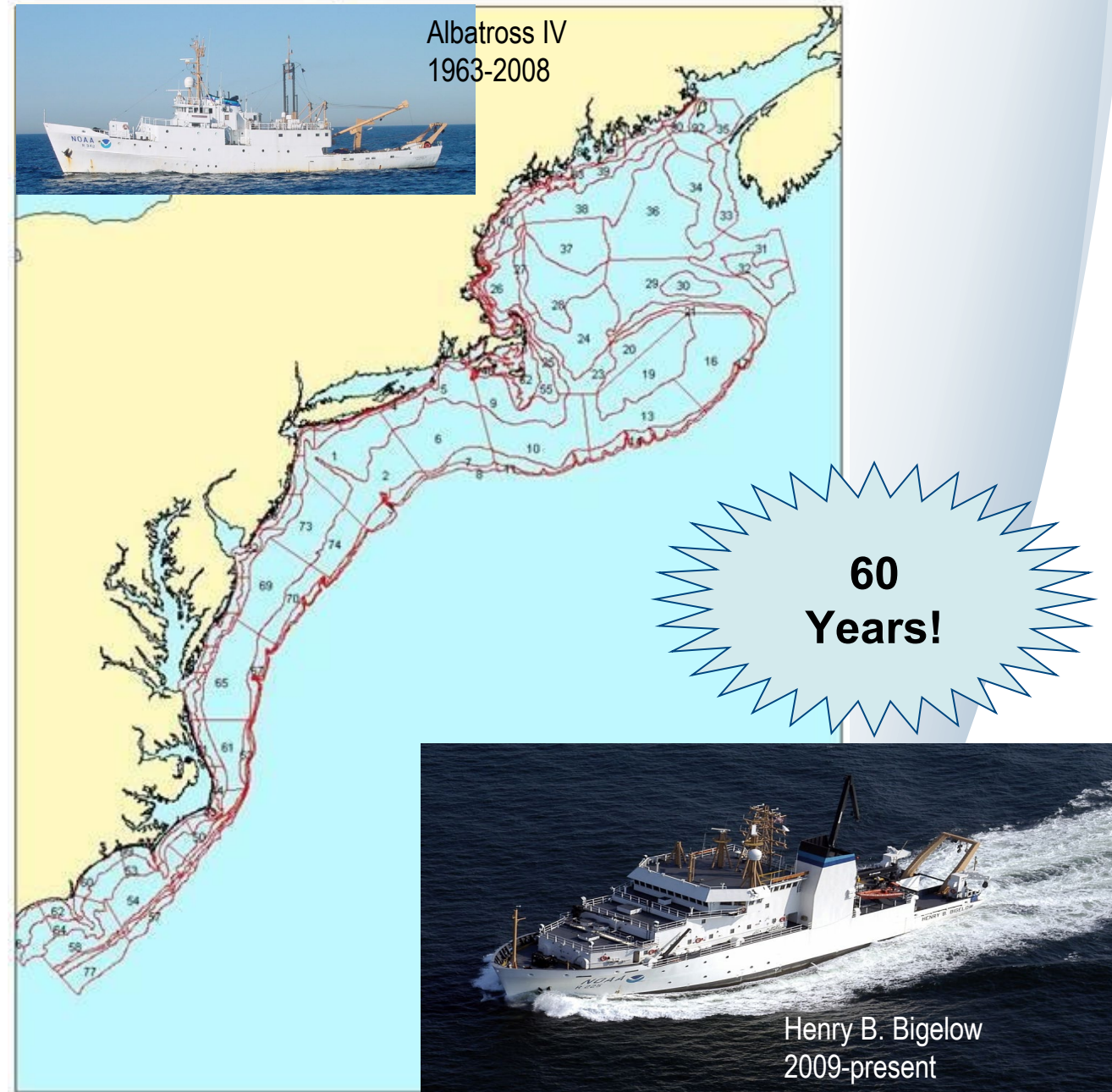
The Council request the Northeast Fisheries Science Center (NEFSC) to develop a white paper to be submitted to the New England Fishery Management Council by January 12, 2024, outlining an industry-based survey that is complementary to the spring and autumn Bottom Trawl Survey.



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NEFSC Multispecies Bottom Trawl Survey

- Monitor ecosystem changes and trends in abundance, distribution, and life history for demersal fish - information for 63 stocks and collects more than 600 species - shelf scale
- Informs status of ecosystem reports, stock assessments and climate assessments
- 120 survey days per year (60 each in fall and spring)
- Uses the **Bigelow** which has a sister ship, **Pisces**, both run by NOAA-OMAO
- Trawl gear designed with NTAP and is also used on SNE/MidA NEAMAP, ChesMMAP, and is expanding to other surveys

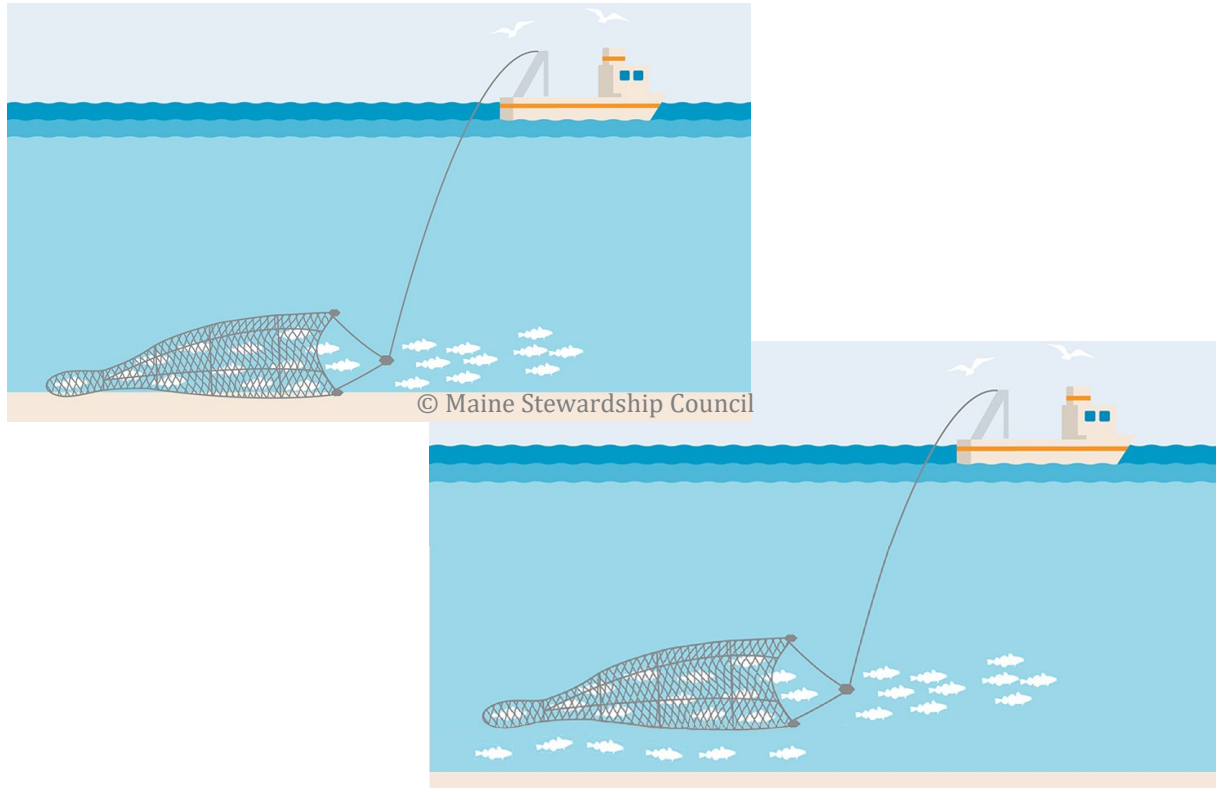


Why is consistency so important?

Consistent trawl performance

=

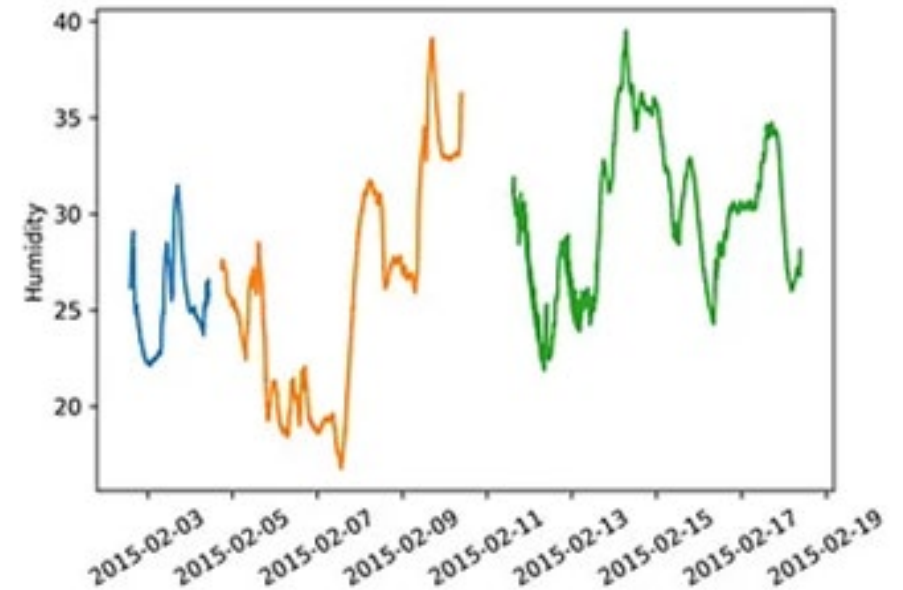
consistent catchability, less uncertainty



Consistent time series

=

less extrapolation, less uncertainty



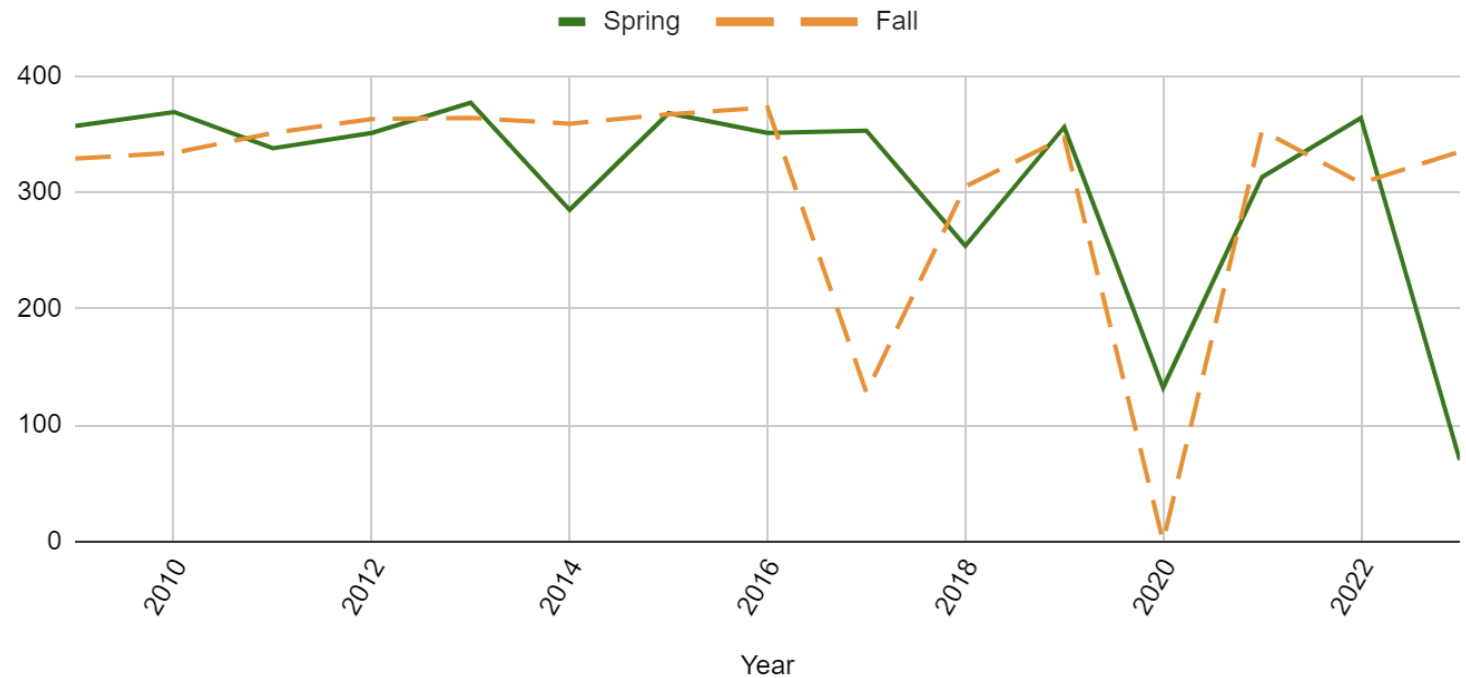
Concerns about Bigelow performance

2009-2015	351 stations (n=15)
2016-2023	266 stations (n=15)*

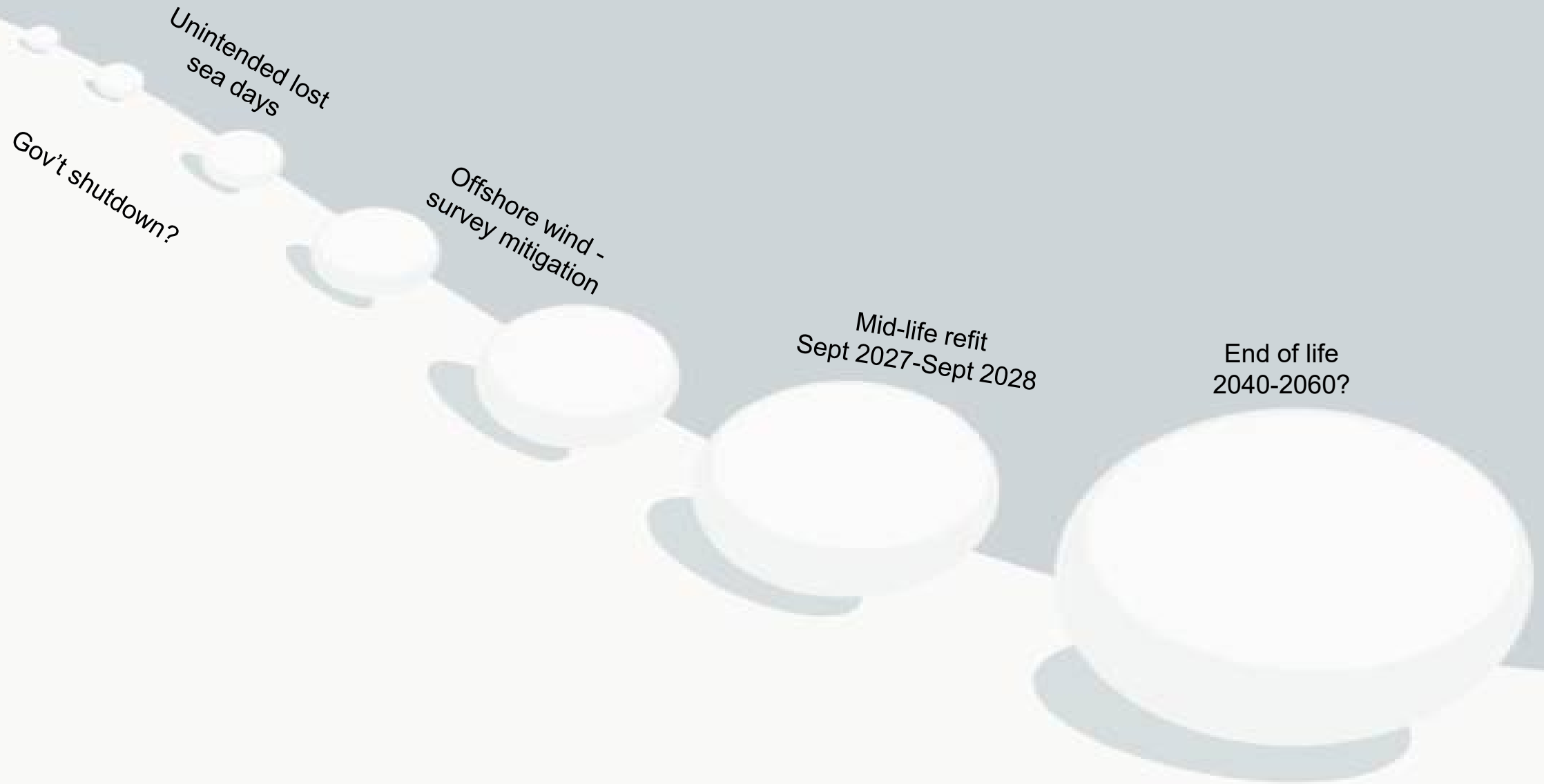
**295 with COVID impact removed (n=13)*

- 30 surveys
- 9 (30%) with <320 stations
- 3 late spring starts
- 3 COVID
- 2 staffing limitations
- 2 ship repairs

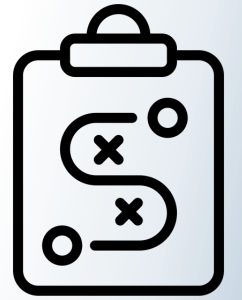
Bigelow # of Valid Tows



Upcoming platform impacts



Contingency planning



NTAP working group to develop a plan - kickoff Sep 2023

Members: Terry Alexander, Dan Salerno, David Goethel, Vito Giacalone, Eric Reid, Jim Gartland, Kathryn Ford, Anna Mercer, Phil Politis, Tim Miller (with additional NMFS and OMAO support as needed)

TOR:

Describe vessel platforms that can support completing the NEFSC spring and fall BTS when the Bigelow is unavailable. Assess the viability of the platform(s) and platform deployment needs from logistical and scientific perspectives and identify where additional information is needed to fully develop a given option. Consider options that at a minimum meet stock assessment needs. This effort should produce a relatively high level overview of options and identify information gaps.

Bigelow Contingencies Options

1. Pisces
2. NEFSC vessel calibrated to Bigelow
3. Industry based vessel(s) calibrated to Bigelow
4. Industry based survey (IBS) not calibrated to Bigelow (parallel, separate survey)



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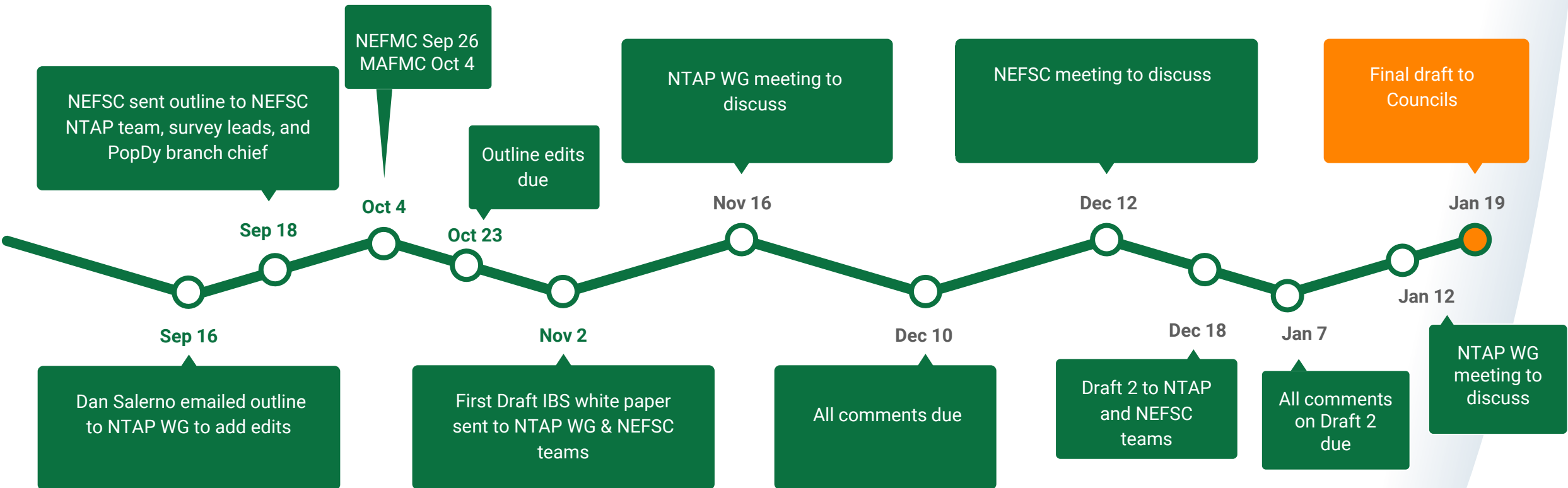
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NEFSC Goals for this project

Science for management	Improve data products by improving survey data consistency
Operations	Be consistent, add resilience to existing NEFSC multispecies bottom trawl survey
Industry involvement	Have sound science, be transparent, and improve trust through collaboration



IBS white paper development



Basic description of the proposed IBS

- Design
 - Same geographic range, seasons, strata, and station allocation as NEFSC survey
 - Aim for 24 hour sampling, determine if 12 hour per vessel is feasible
- Gear
 - Same gear as NEFSC survey (flexibility on doors, no autotrawl)
 - Net mensuration for tow evaluation
- Sampling
 - Station data, water quality data, gear performance & net spread
 - Catch - total number, biomass, composition; age, sex, maturity, stomach contents (preserved)
 - Determine additional biological sampling of catch during pilot survey



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Basic description of the proposed IBS

- Vessels
 - Appropriate length and horsepower to sample in open ocean conditions and tow gear at 3 knots for 20 minutes
 - Sufficient winch capabilities for towing the standardized gear package across the survey area
 - Necessary deck space for processing stations and catch processing
 - Capacity for CTD casts to 200 fm (365 m). Placement of the CTD on the trawl net would be considered.
 - Appropriate vessel crew for the length of the sampling day
 - Space for 1 spare net (2 or 3 may be needed if multi-week surveys legs are being done)
 - Capable of using appropriate doors
 - If 24-hour operations are being done, appropriate number of bunks for vessel and science crews



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Basic description of the proposed IBS

- Data management
 - Electronic data collection and management
 - Availability to stock assessments 4 weeks after survey concludes
- Program management
 - Third party operated as starting point BUT other options described



Differences between IBS & BTS

- Program management relies on a third party (not NEFSC)
- Potential use of multiple vessels
- Potential use of different doors
- Smaller wire diameter
- No autotrawls
- Specific towing protocols may need to differ (have to determine during pilot study)
- Potentially less biological sampling of fishes (potentially less age, sex, or maturity; no or less stomach contents; no or fewer special sampling requests)
- Plankton sampling to be determined
- No acoustic sampling (no ADCP, no EK80)
- 12/24 hour day



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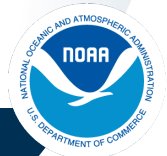
What goals does IBS address?

Theme	Goal	Impact of IBS on goal
Science for management	Improve data products by improving survey consistency	Increases resilience of primary time series for many assessments
Operations	Add resilience to existing NEFSC multispecies bottom trawl survey	Potential replacement if Bigelow can't survey
Industry involvement	Have sound science, be transparent, and improve trust through collaboration	Industry is providing input to design and operations, industry vessels could be used as platforms



Next steps

1. Finish the contingency plan
 - o Flesh out options 1, 2, and 3
2. Explore connections with offshore wind – work with NEFSC survey & assessment working group
3. Plan out a pilot survey to be on the water in FY2025



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Questions & Discussion

Contact information:

Kathryn Ford

kathryn.ford@noaa.gov

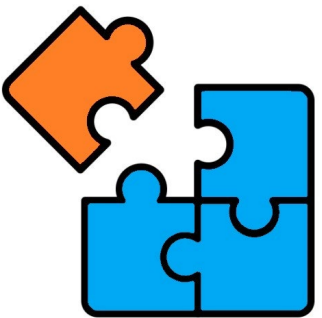
(774) 279-3695

[linkedin.com/in/kathrynhford](https://www.linkedin.com/in/kathrynhford)



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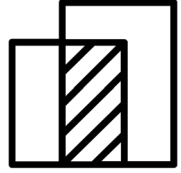
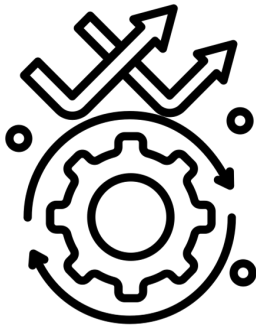
There are many ways to improve fisheries data



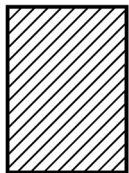
Add data

Survey where/how Bigelow can't:

- finer scale
- hard bottom
- shallow water
- target 1 species



Some stations



All stations

Add resilience

Contingencies

- Sister ship Pisces
- Other ships



Reduce uncertainty

Gear research

- catchability studies
- restrictor rope

