MID-ATLANTIC
FISHERY MANAGEMENT COUNCIL

Northeast Trawl Advisory Panel (NTAP)

Council Meeting

February 8, 2023

Background, History, and Current NTAP Structure

NEFSC Bottom Trawl Survey

Objectives

- Monitor trends in abundance, distribution, life history for demersal fish
- Monitor ecosystem changes

Location: Cape Hatteras to Scotian Shelf

Design: Stratified random

- Strata determined by depth and region
- Spring and fall sampling
- 370 stations/ season
- Stations/stratum based on stratum size and variability of catch

Gear:

- Four-seam, three-bridle bottom trawl
- Rockhopper sweep
- 120 ft bridles, 550 Kg Poly-ice oval doors

Northeast Fishery Science Center Trawl Survey and Industry interest

- Bottom Trawl Survey started in 1963
  - Industry questioned survey and efforts were made to involve fisherman
- 2001-2002: "Trawlgate"
- 2003: NEFSC advisory panel known as the Trawl Survey Advisory Panel (TSAP) was developed
  - Coincided with transition of the survey vessel from the Albatross IV to Henry B. Bigelow
  - Successfully designed gear currently used on Bigelow
- 2008: TSAP dissolved prior to end of calibration study
  - Members felt poorly informed and disagreed with some decisions and the overall process

2009-2014: Catch Efficiency & Industry-based studies

- **2009-2010:** Catch efficiency experiment with Bigelow net comparing rockhopper and cookie sweeps
  - F/V Endurance, F/V Moragh K, F/V Mary K, F/V Karen Elizabeth
- **2013:** Pilot flatfish survey with flatfish net
  - F/V Mary K, F/V Yankee Pride
- **2014:** Catch efficiency experiments using Bigelow net and industry-based flatfish net
  - F/V Hera
- **2014:** Relative efficiency of different bridle length using Bigelow net
  - F/V Karen Elizabeth

Northeast Trawl Advisory Panel (NTAP)

- Continued interest in industry involvement in NEFSC survey
- NEFSC requested the Councils recreate a survey advisory panel under the Council structure
- NTAP was developed in 2015
- Joint MAFMC and NEFMC advisory panel
- Provide advice on NEFSC fishery independent research surveys
  - Primarily focused on the NEFSC's multi-species bottom trawl survey

NTAP Structure

- Council appoint members with equal representation from the MAFMC and NEFMC
- 2 Co-Chairs
  - 1 MAFMC member and 1 NEFMC
- Staff support form the MAFMC
- 20 members
  - Council members
  - Stakeholders
  - Academia representatives
  - NEFSC representatives

NTAP Objectives

1. Understand NEFSC trawl survey gear and performance
2. Evaluate potential to complement of supplement surveys
3. Improve understanding and acceptance of trawl survey data

NTAP Catch Efficiency Studies

- **2015-2017:** Catch efficiency experiments comparing rockhopper and chain sweeps (Bigelow net)
  - F/V Karen Elizabeth
- **2018-2019:** Door testing experiments
- **2019:** Flume tank experiments
- **2019:** Catch efficiency experiment comparing different net spreads (Bigelow net)
  - F/V Karen Elizabeth
- **2022:** Catch efficiency experiment assessing impacts of a restrictor rope on catch (NEAMAP net)
  - F/V Darana R

Summary of Recent NTAP Meeting

January 19, 2023

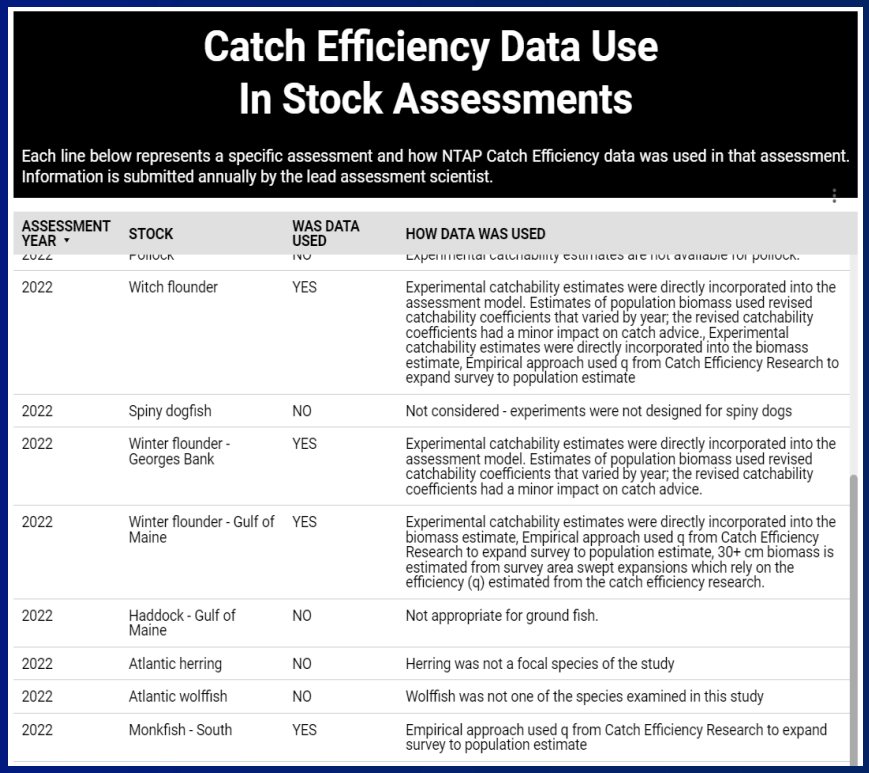
Narragansett, Rhode Island

Science Center Update

- NTAP Operations Manual
  - Informative document outlining NTAP
  - Second draft almost complete and expect to send to NTAP members and Executive Directors for review
- Bottom Trawl Survey
  - Fall 2022: lost 14 days due to COVID but was able to get most of Mid-Atlantic covered
    - Mostly impacted northern stations
    - 2022 Fall Bottom Trawl Survey Featured Story
  - Spring 2023: tentative dates March 15 – May 26
- Bottom Longline Survey: Completed all stations

Science Center Communications Update

- NEFSC NTAP members are exploring ways to better connect with assessment process
- Tool developed to capture how NTAP catch efficiency research is being used in assessments



Catch Efficiency Data Use In Stock Assessments

Each line below represents a specific assessment and how NTAP Catch Efficiency data was used in that assessment. Information is submitted annually by the lead assessment scientist.

ASSESSMENT YEAR	STOCK	WAS DATA USED	HOW DATA WAS USED
2022	Pollock	NO	Experimental catchability estimates are not available for pollock.
2022	Witch flounder	YES	Experimental catchability estimates were directly incorporated into the assessment model. Estimates of population biomass used revised catchability coefficients that varied by year; the revised catchability coefficients had a minor impact on catch advice., Experimental catchability estimates were directly incorporated into the biomass estimate, Empirical approach used q from Catch Efficiency Research to expand survey to population estimate
2022	Spiny dogfish	NO	Not considered - experiments were not designed for spiny dogs
2022	Winter flounder - Georges Bank	YES	Experimental catchability estimates were directly incorporated into the assessment model. Estimates of population biomass used revised catchability coefficients that varied by year; the revised catchability coefficients had a minor impact on catch advice.
2022	Winter flounder - Gulf of Maine	YES	Experimental catchability estimates were directly incorporated into the biomass estimate, Empirical approach used q from Catch Efficiency Research to expand survey to population estimate, 30+ cm biomass is estimated from survey area swept expansions which rely on the efficiency (q) estimated from the catch efficiency research.
2022	Haddock - Gulf of Maine	NO	Not appropriate for ground fish.
2022	Atlantic herring	NO	Herring was not a focal species of the study
2022	Atlantic wolffish	NO	Wolffish was not one of the species examined in this study
2022	Monkfish - South	YES	Empirical approach used q from Catch Efficiency Research to expand survey to population estimate

Catch Efficiency Data in Stock Assessments dashboard

Restrictor Rope Research

Preliminary results

- Conducted paired tows to test if adding a restrictor rope to trawl configuration impacted catch
  - Cooperative research project with the F/V Darana R
  - 2022 Spring and Fall sampling period completed
  - Completed 71 paired tows (142 total)
- Preliminary gear results
  - Minimal effect on net and door width
  - More work needed to assess impact on bridle angle
- Compared catch in paired tows focusing on abundant species (scup, butterfish, silver hake, and longfin squid)
  - No effect on aggregate weights
  - Limited effect on ind. length (varies by species & variable analyzed)

Restrictor Rope Research

NTAP discussion

- Encouraged by results and cooperative effort
  - Good starting point to help with standardizing regional trawl surveys
  - Interest in expanding efforts to Gulf of Maine
- Subtle effect on gear performance could be due to restrictor rope limiting net width and consistent shape
- Recommended:
  - Exploring analysis of additional species
  - Working Group reconvening to discuss application of results, especially in offshore wind areas

Offshore Wind

- Update provided similar to past Council updates
- General frustration with process
  - Questioned how many suggestions in comment letters have been considered or adopted
  - Currently no survey standardization required, and any wind collected data should be publicly available
  - Concern about loss of livelihood
  - Concerned about "NEAMAP" brand being misused
- How can NTAP be more involved
  - Provide input to Council comment letters as appropriate
  - Help develop a standardized approach for wind surveys

Breakout Session: NTAP Priorities

- G1: Understanding trawl gear performance and methodology
  - Utilize acoustic instruments (e.g., echo sounders)
  - Evaluate fishability around offshore windfarms
  - Evaluate distribution changes of fish in/near windfarms
  - Better match timing of surveys for comparison purposes
  - Additional door and net spread testing
- G2: Evaluate potential to complement/supplement NEFSC surveys
  - Calibrate NEAMAP and Bigelow
  - Supplement Bigelow by extending ME/NH and NEAMAP surveys
  - Supplement trawls with acoustic data and other gear types
  - Expand industry-based survey fleet
  - Consider restrictor rope research on Bigelow
  - Consider a common databased for all survey information

Full Panel Discussion: NTAP Priorities

- Survey performance
  - Maximizing stability of net geometry
  - Availability of fish to the survey (e.g., modifying spatial distributions)

- Complementing or supplementing surveys
  - Effort reductions (fixed gear conflicts, loss of sea days)
  - Inability to survey with Bigelow in wind farms
  - New methods to capture other habitats and/or species

Next NTAP Meeting

- Summer 2023
  - Request that it be in-person again
- Recommended agenda items
  - Dive deeper into wind farm monitoring plans
  - Request a presentation from a wind farm developer representative

Acknowledgements/Questions?

- Kathryn Ford – NEFSC
- Wes Townsend – MAFMC Co-Chair
- Daniel Salerno – NEFMC Co-Chair