

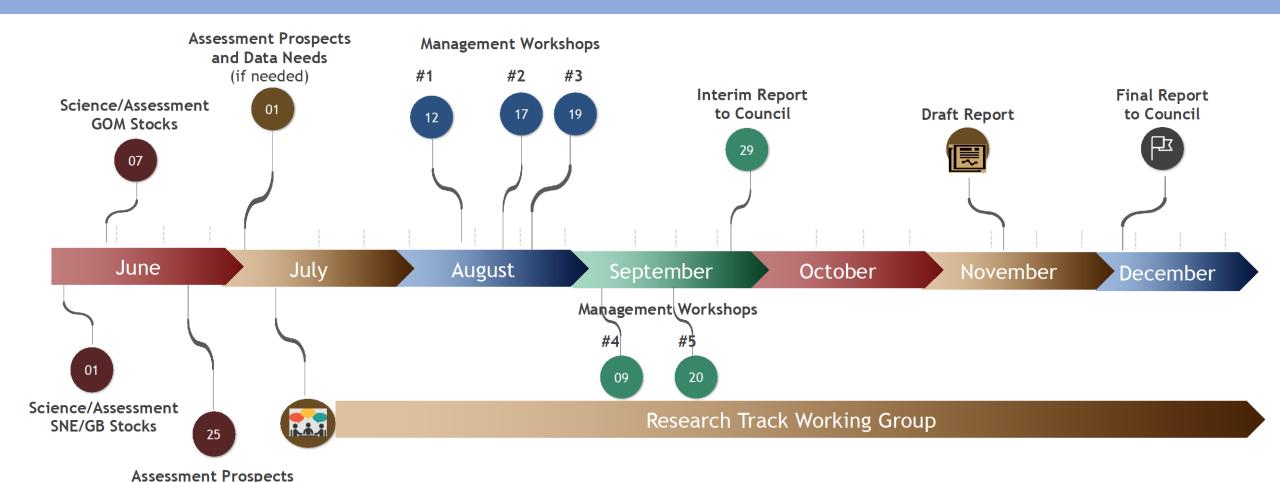








## **2021 Atlantic Cod Stock Structure Workshop Timeline**





and Data Needs







## **Management Workshop Series**

#### **Last Thursday, August 12**

• **Setting the Groundwork:** 1pm-3pm

#### **Tuesday, August 17**

Gathering Regional Perspectives from Southern New England and Georges Bank East & West

#### Today, August 19

• Gathering Regional Perspectives from Gulf of Maine East & West: 1pm-3pm

#### **Thursday, September 9**

Focusing on Recreational Fishing Perspectives: 2pm-4pm (later start time)

#### **Monday, September 20**

• Evaluating Tradeoffs to Adjusting Management Measures: Monday, September 20, 1pm-3pm (may extend)









## **Management Workshop #1 Review**

### Setting the groundwork:

- Brief Overview of Science/Assessment Workshops
- Understanding Existing Atlantic Cod Management
- > Considering Example Management Approaches
  - Revising management boundaries
  - Adaptive sampling and monitoring
  - Mixed stock area-based catch limits
  - Re-allocation
  - Additional spawning closures









## **Management Workshop #1 Review**

#### Setting the groundwork:

- Kerr et al. 2007, N. Atlantic examples/approaches
  - > status quo management
  - "weakest link" management
  - spatial and temporal closures
  - > stock composition analysis
  - alteration of stock boundaries





ICES Journal of Marine Science (2017), 74(6), 1708–1722. doi:10.1093/icesjms/fsw188

Contribution to the Themed Section: 'Beyond ocean connectivity: new frontiers in early life stages and adult connectivity to meet assessment and management'

#### **Review Article**

Lessons learned from practical approaches to reconcile mismatches between biological population structure and stock units of marine fish

Lisa A. Kerr, <sup>1\*</sup> Niels T. Hintzen, <sup>2</sup> Steven X. Cadrin, <sup>3</sup> Lotte Worsøe Clausen, <sup>4</sup> Mark Dickey-Collas, <sup>4,5</sup> Daniel R. Goethel, <sup>6</sup> Emma M.C. Hatfield, <sup>7,†</sup> Jacob P. Kritzer, <sup>8</sup> and Richard D.M. Nash <sup>9</sup>









## **Management Workshop #1 Review**

#### Some discussion themes:

- Different management tools may be appropriate for different areas based on data available.
- Altering management boundaries does not necessarily mean changing from 2 stocks to 5 stocks:
  - Potential option for an "in between" scenario that is a better fit for the biological structure than the current management, even if it does not fully align with the 5 biological populations.







# Management Workshop #2 Review Southern New England and Georges Bank East and West

#### Some discussion themes:

#### 1. Additional spawning closures for fisheries

- Must be focused and targeted
- Must monitor effectiveness (research)
- Question: Have existing spawning closures been successful?
- May have differential impact in the fishery

#### 2. Gear options to avoid or catch cod

- Conceptually very attractive, research time con
- Switching can be expensive for fishermen
- Several gear options already developed (Ruhl, ULOT, haddock separator, etc.)

#### 3. Additional trip reporting requirements for fisheries

Need better spatial resolution in recreational catch reporting









## **Navigational Aids**

- All options on the table no decisions being made.
- Encourage broad participation especially from folks who often have limited time to share ideas.
- We are all here to learn both questions and ideas welcome.
- Share the floor.
- Be respectful.
- Focus on task at hand.







## Today's Agenda

- 1:00 Welcome and Introductions
- 1:10 Review of Goals and Objectives of Cod Stock Structure Workshop Series & Brief Outline of Existing Atlantic Cod Management in the Gulf of Maine
- 1:30 How to Consider Winter & Spring Spawning in the Gulf of Maine
- 1:45 Considering Additional Fisheries Management Options & Tradeoffs
- 2:50 Wrap-up & Next Steps
- 3:00 Adjourn









## Atlantic Cod Stock Structure Goals & Objectives Jamie Cournane, NEFMC









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### For More Information

https://seagrant.unh.edu/2021-atlantic-cod-stock-workshops

**Management Questions or Input** 

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**Science/Assessment Questions or Input** 

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