2022 Lobster Data Update

Data Sets

- Data sets include:
  - Trawl survey indicators, including recruit abundance (71-80 mm lobsters) and survey encounter rate
  - Ventless trap survey sex-specific design-based abundances indices by statistical area (53mm+)
  - YOY settlement indicator
- Updated data include 2019, 2020, 2021

Indicator Status

- Indicator status determined relative to percentiles of the assessment time series

Indicator	< 25th percentile	Between 25th and 75th percentile	> 75th percentile
Recruitment indices (larval or YOY)	Negative	Neutral	Positive
Recruit abundance	Negative	Neutral	Positive
Ventless trap abundance	Negative	Neutral	Positive
Proportion positive tows	Negative	Neutral	Positive

- Five year means for terminal indicator status updated

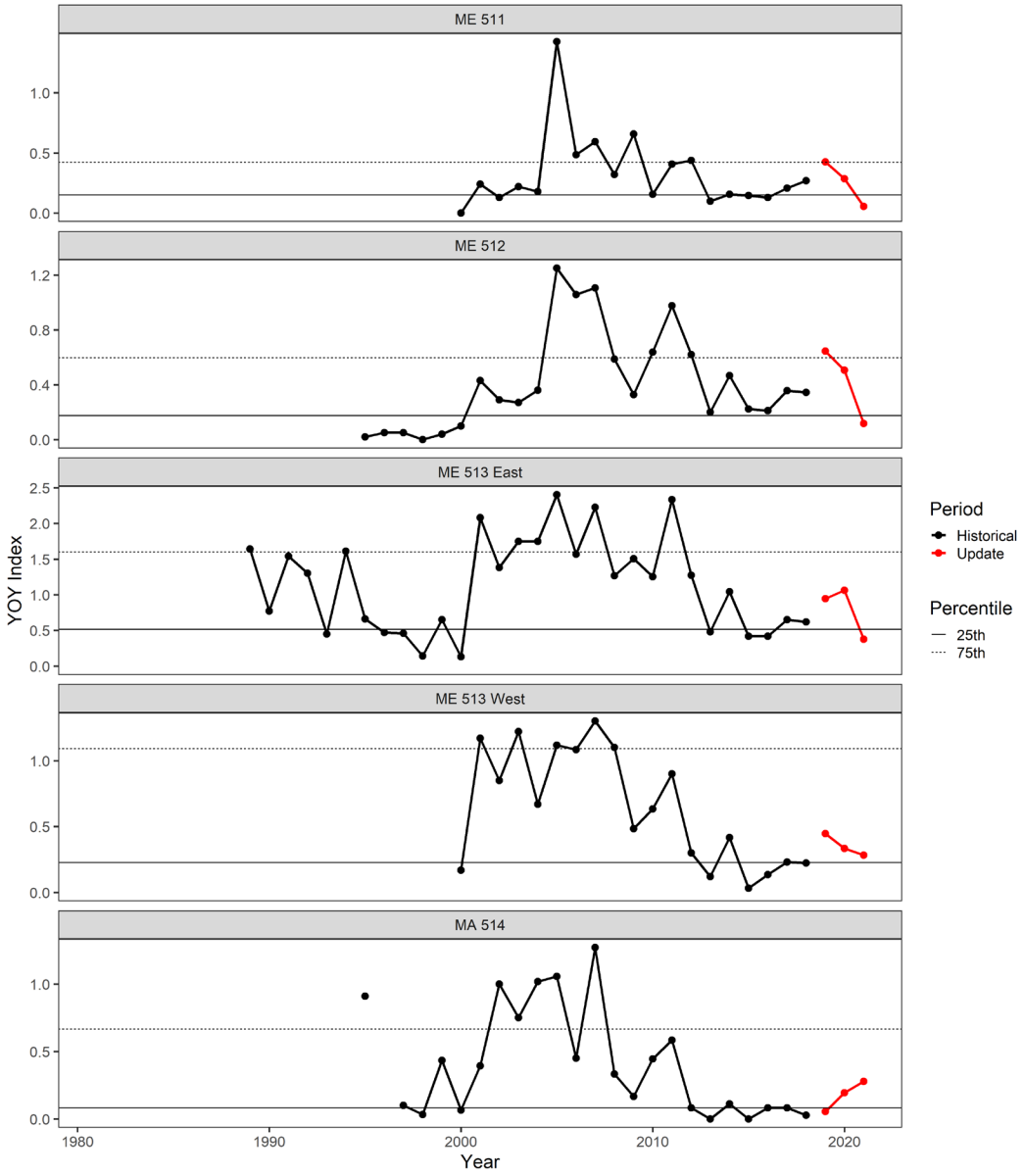
Notes

- Covid-19 impacts on sampling efforts in 2020 continue to impact five year means (2017-2021)

- Reduction in MA SNE VTS area in 2021, changes indices from last year's update

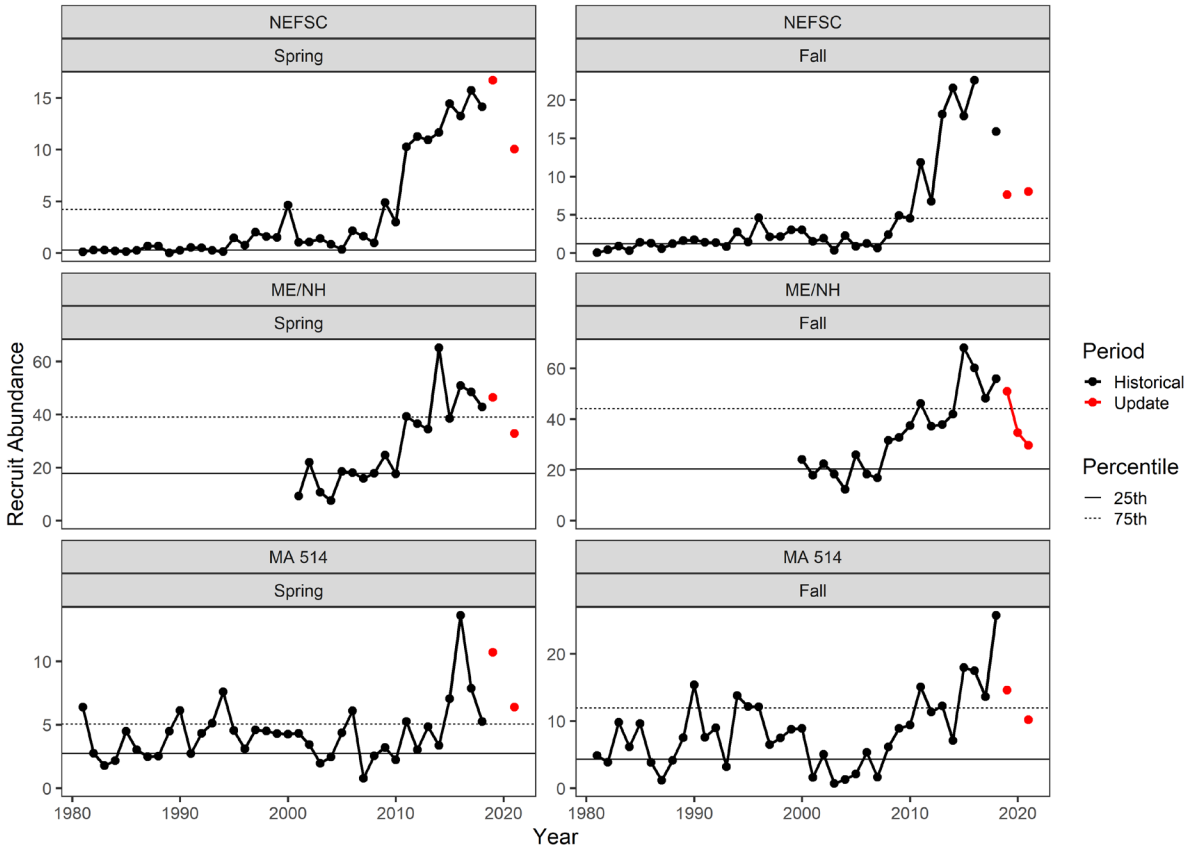
GOM: YOY Indices

- Improvements since the SA, but still not positive
  - Means all neutral
  - 2021 moved from neutral to negative conditions in all three northeast areas



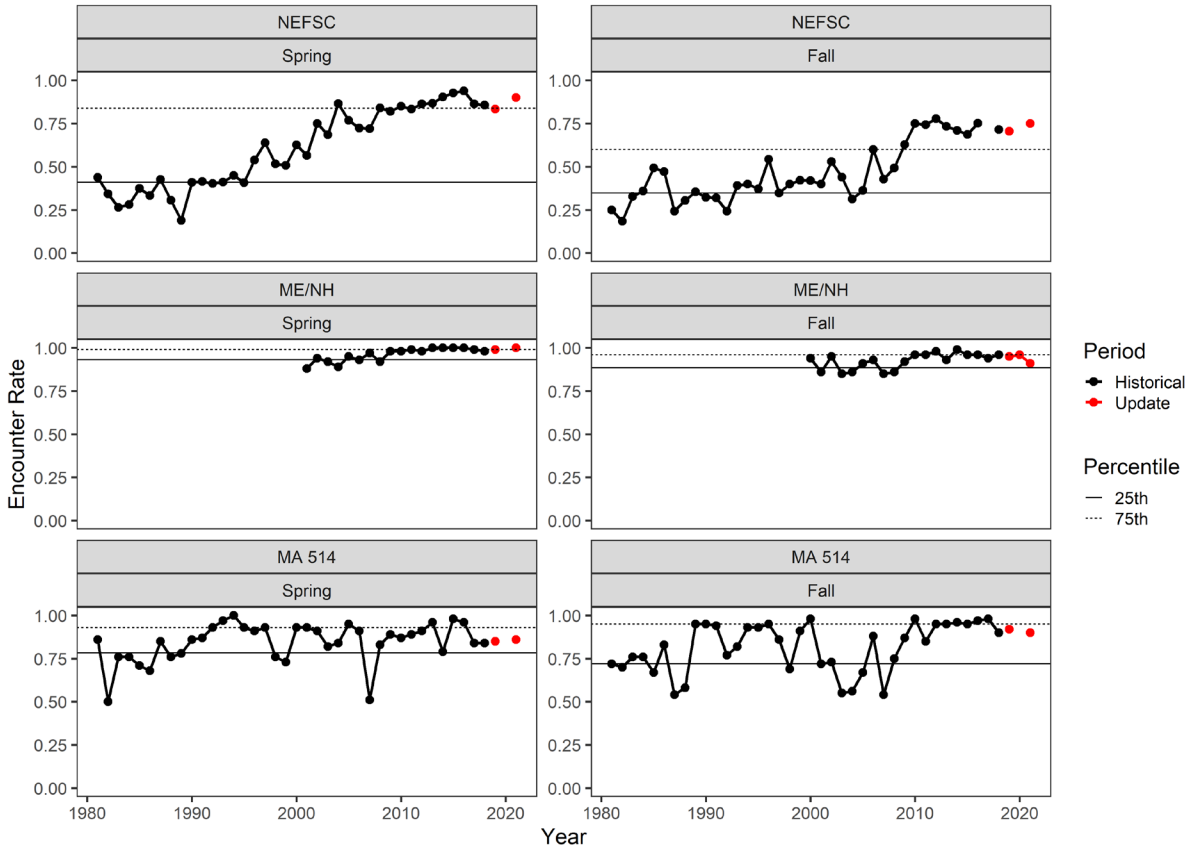
GOM: Recruit Abundance

- Remained positive, but showed some sign of decline since the SA
  - One mean changed from positive to neutral
  - 2021 values for three of four inshore indicators were neutral and the only available 2020 value was also neutral
  - Five of six indicators were not available for 2020 due to covid-19 sampling restrictions.



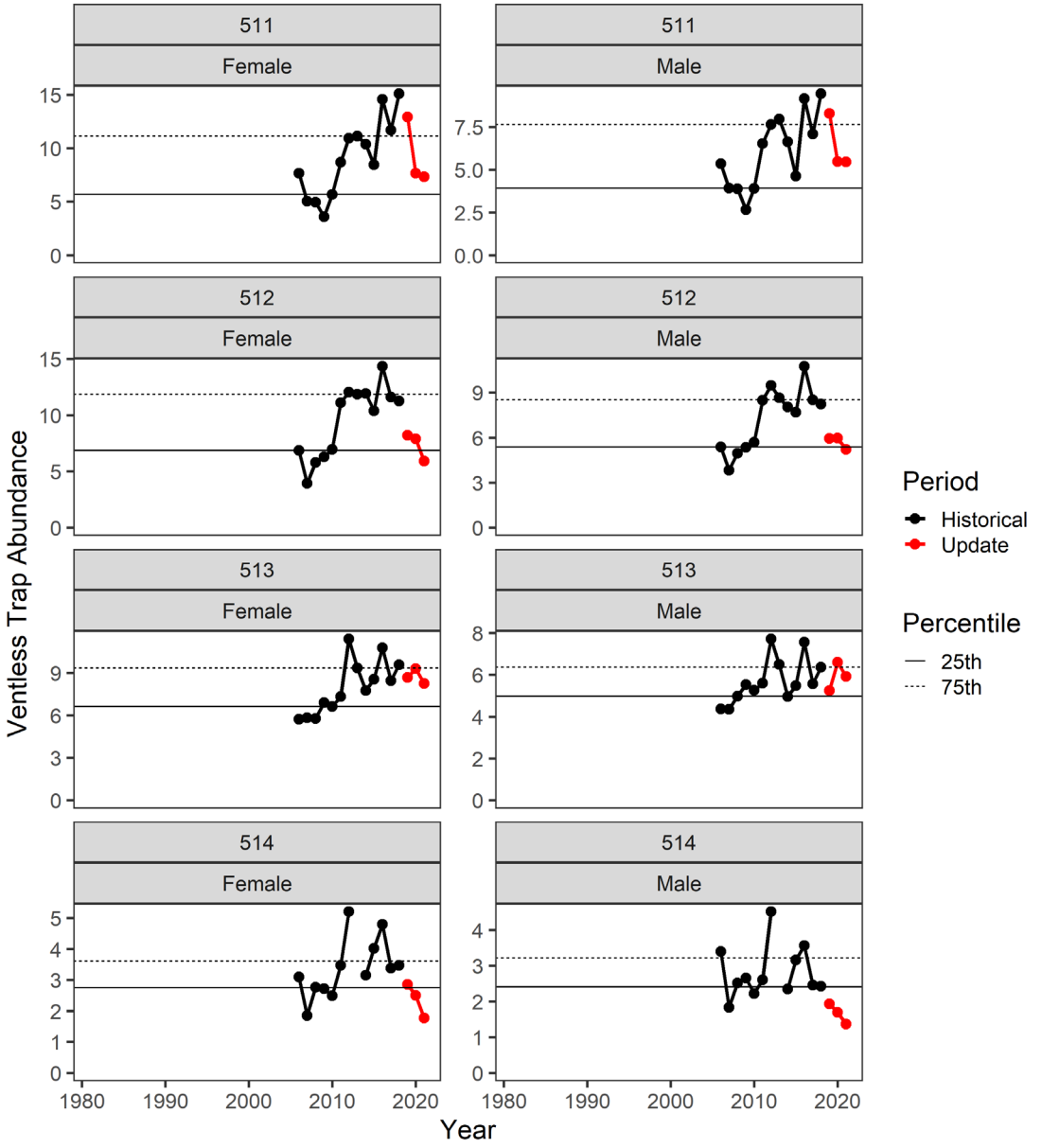
GOM: Encounter Rates

- Deteriorating conditions inshore since the SA
  - All inshore means neutral
  - Five of six indicators were not available for 2020 due to covid-19 sampling restrictions.



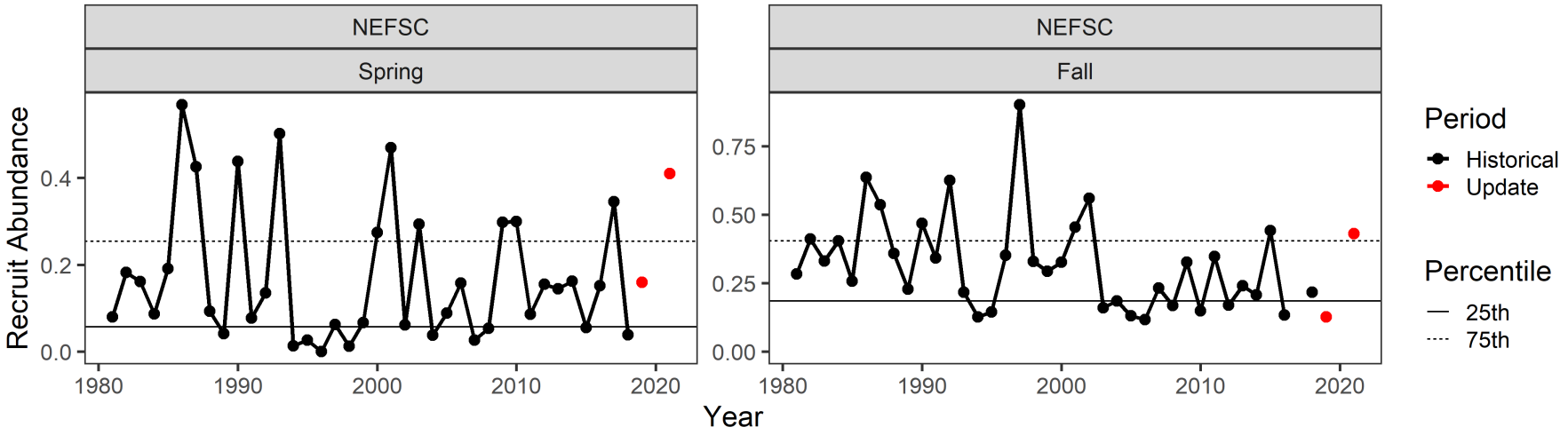
GOM: VTS Indices

- Declining since the SA
  - Seven of eight means neutral and one was negative
  - Two additional values in 2021 moved into negative conditions
  - 2021 values for both sexes in 514 were among the lowest values observed



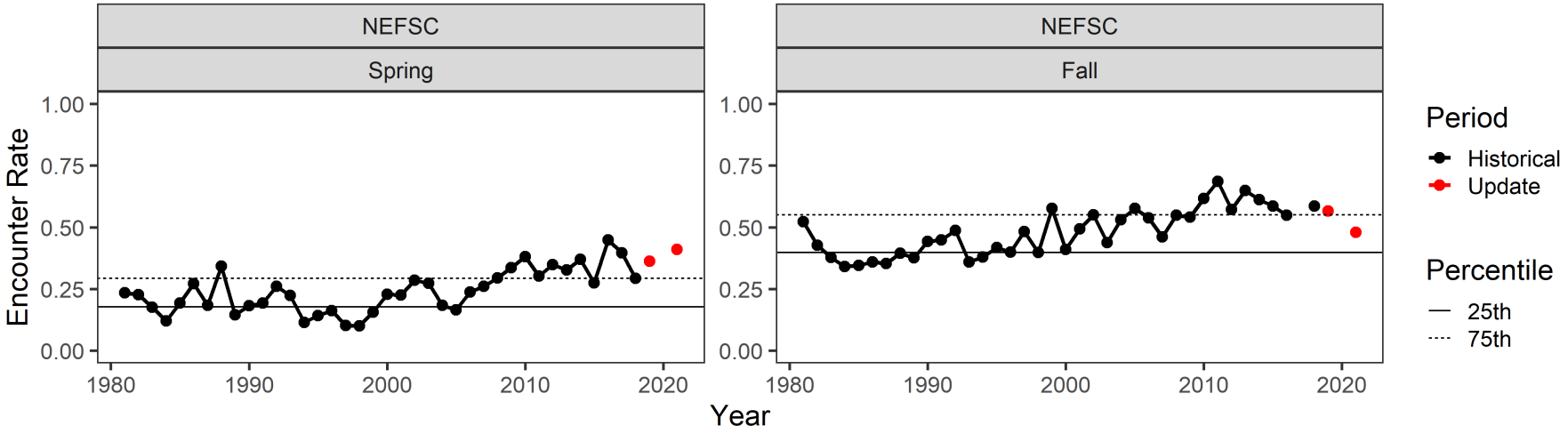
GBK: Recruit Abundance

- Conditions similar to during the SA
  - Means both neutral
  - 2021 values were both positive and relatively high
  - No indicators were available for 2020 due to covid-19 sampling restrictions



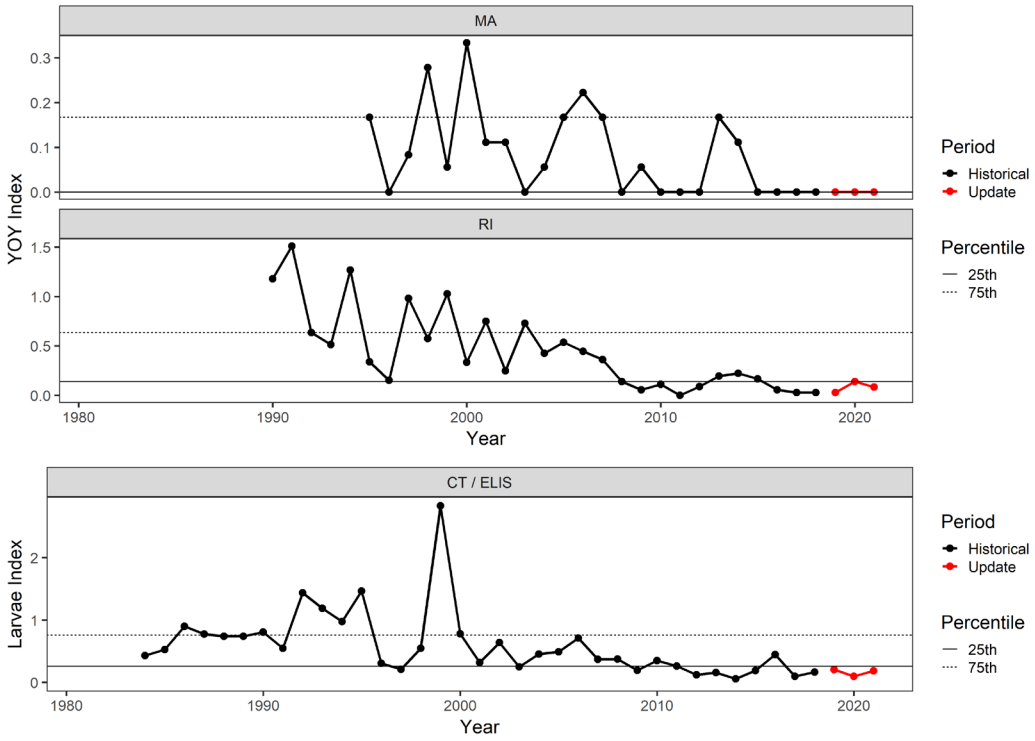
GBK: Encounter Rates

- Some decline in the fall since the SA
  - Fall mean changed from positive to neutral, spring mean remained positive
  - No indicators were available for 2020 due to covid-19 sampling restrictions.



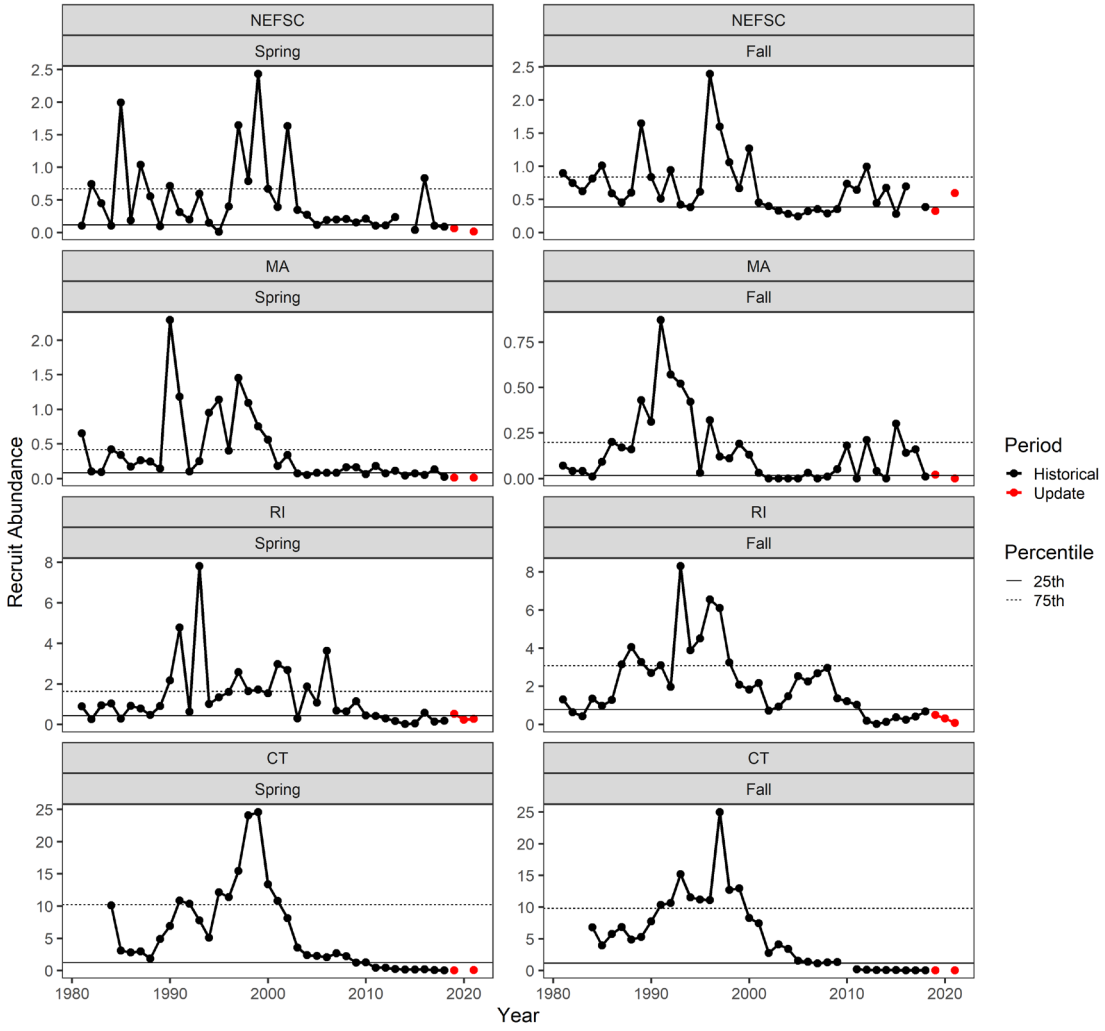
SNE: YOY Indices

- Negative conditions across the stock with some decline since the SA
  - All means negative
  - Only one non-negative annual indicator observed since the SA
  - No YOY caught during MA survey for the last seven years



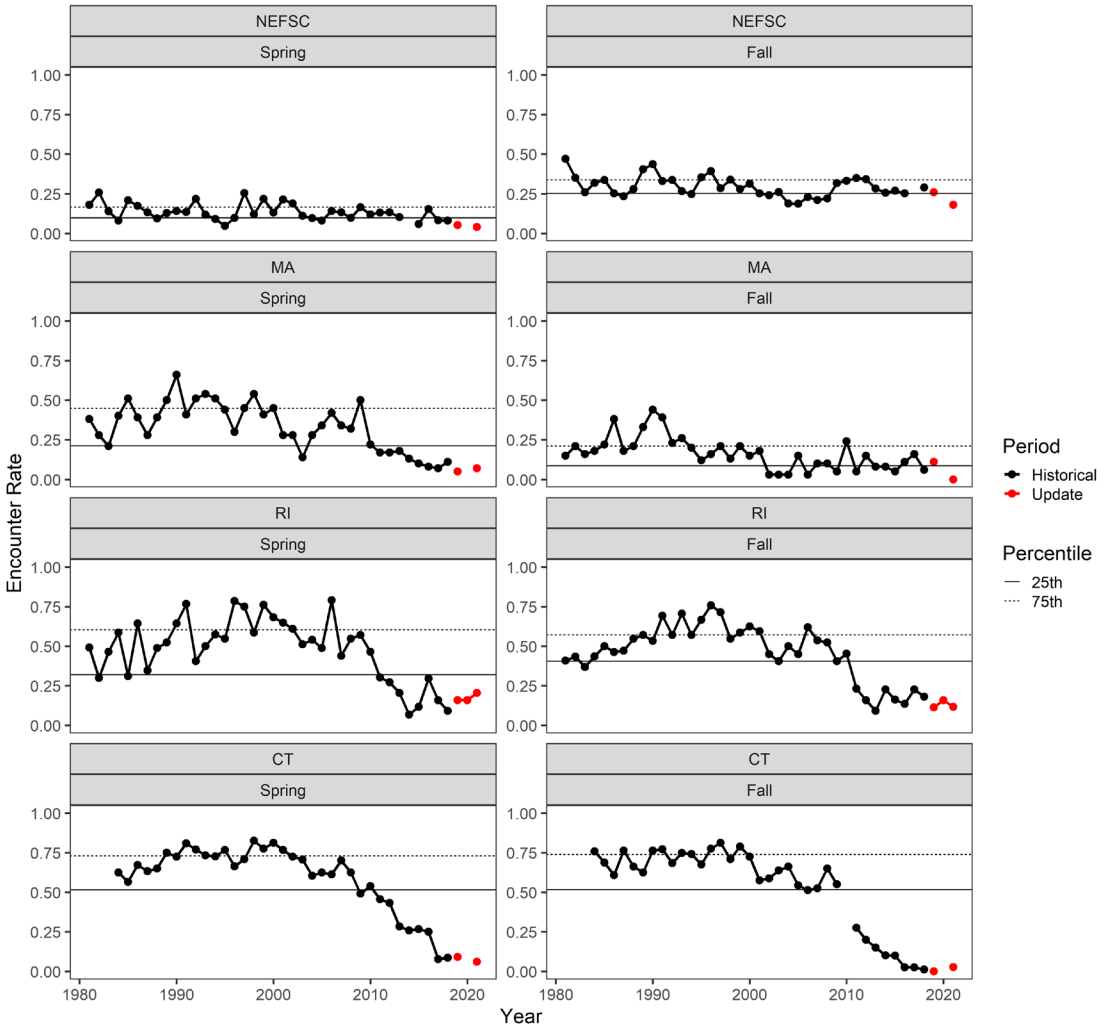
SNE: Recruit Abundance

- Conditions similar to during the SA with some slight decline offshore
  - Spring offshore mean changed from neutral to negative.
  - Five inshore indicators negative and the other two indicators (one inshore and one offshore) neutral
  - Six of eight indicators were not available for 2020 due to covid-19 sampling restrictions



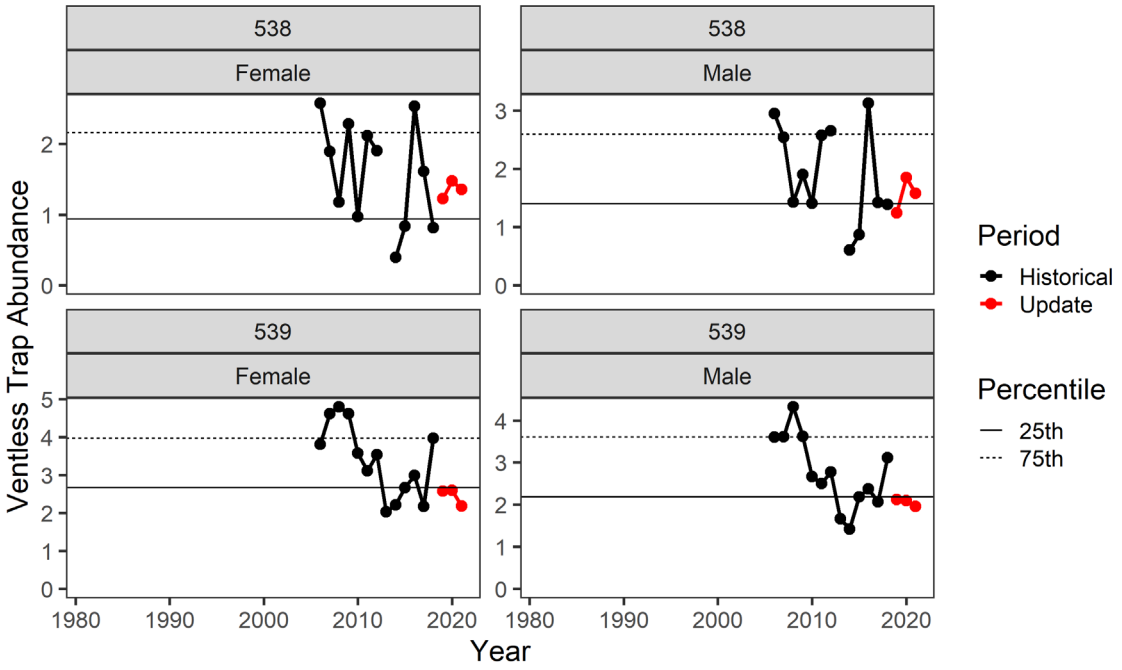
SNE: Encounter Rates

- Deteriorating conditions since the SA
  - All means negative
  - 2021 values all negative for first time
  - Six of eight indicators were not available for 2020 due to covid-19 sampling restrictions.



SNE: VTS Indices

- Conditions similar to conditions during the SA
  - Means all neutral
  - All annual 539 values since the SA negative, but higher 2018 values kept five year means neutral
  - Female 538 reduced area index similar to historical area index
  - 2018 and 2019 538 values for the male index changed from neutral for the historical survey area to negative for the reduced survey area



In summary

- Gulf of Maine indicators show declines from time series highs observed during the stock assessment

- Georges Bank indicators show conditions similar to during the stock assessment
  - Note that there are no YOY or VTS indicators for this sub-stock area

- Southern New England indicators show continued unfavorable conditions with some further signs of decline since the stock assessment

Questions?

Draft Addendum XXVII

Increasing Protection of Spawning Stock in the Gulf of Maine/Georges Bank

American Lobster Management Board
November 7, 2022

Outline

1. Background
2. Proposed Management Options
3. PDT Report on Magnuson-Stevens Act Implications for Proposed Gauge Size
4. LEC input on MSA issue
5. Discuss Next Steps

Background

- August 2017: Board initiated Draft Addendum XXVII to increase the resiliency of the GOM/GBK stock
  - Focus on standardizing measures across LCMAs
- Following 2020 benchmark assessment, Board reinitiated work on Addendum XXVII

New objective:

Given persistent low settlement indices and recent decreases in recruit indices, the addendum should consider a trigger mechanism such that, upon reaching the trigger, measures would be automatically implemented to increase the overall protection of spawning stock biomass of the GOM/GBK stock

Action Timeline

Date	Action
February 2021	Board reinitiated work on Draft Addendum XXVII
January 2022	Board approved Draft Addendum XXVII for Public Comment * *Policy Board delayed further action*
November 2022	**Discuss next steps on Draft Addendum**
TBD	Public hearings and comment period
TBD	Board meeting to consider final approval of Draft Addendum XXIX

Proposed Management Options

Proposed Management Options

- Proposed Options separated into two issues:

Issue 1: Measures to be standardized upon final approval of Addendum XXVII

Issue 2: Implementing management measures to increase protection of SSB

Issue 1 Options

Issue 1: Measures to be standardized upon final approval of Addendum XXVII

Option A	**Status Quo**
Option B*	**Standardized measures to be implemented upon final approval of addendum**
Sub-option B1	standardized measures within an LCMA
Sub-option B2	standard V-notch requirement across all LCMAs
Sub-option B3	standard V-notch possession definition of 1/8” with or without setal hairs for LCMAs 1, 3, and OCC
Sub-option B4	standardize regulations to limit the issuance of trap tags to equal the harvester trap tag allocation for LCMAs 1, 3, and OCC

***Board may select multiple sub-options**

Issue 2

Issue 2: Implementing management measures to increase protection of SSB

- Consider changes to the minimum and maximum gauge sizes along with corresponding vent sizes
- Proposed measures are expected to
  - 1) increase SSB, and
  - 2) result in the minimum gauge size increasing to meet or exceed the size at 50% maturity (L50) for each LCMA
- Vent sizes change to match final minimum gauge size

Issue 2

- Two approaches for implementing management changes:
  - 1) establish a trigger mechanism where pre-determined management changes would be triggered upon reaching a defined trigger level based on observed changes in recruit (71-80 mm carapace length) abundance indices
  - 2) establish a pre-determined schedule for future changes to the management measures

Issue 2 Options

Issue 2: Implementing management measures to increase protection of SSB

Option A	**Status Quo**
Option B	**Gauge size changes triggered by 17% decline, and 32% decline in trigger index**
Option C	**Gauge size changes triggered by 20% decline, and 30% decline in trigger index**
Option D	**Gradual change in gauge sizes triggered by 17% decline in trigger index**
Option E	**Scheduled changes to minimum gauge size in LCMA 1**

Issue 2: Option B

Option B	LCMA 1	LCMA 3	OCC
Trigger 1 (17% decline)	**Minimum gauge: 3 5/16" (84 mm)** Maximum gauge: status quo, 5" Vent size: status quo	Minimum gauge: status quo, 3 17/32" (90 mm) Maximum gauge: status quo, 6 ¾" (171 mm) Vent size: status quo	Minimum gauge: status quo, 3 3/8" (86 mm) Max: status quo, 6 ¾" (171 mm) Vent size: status quo
Trigger 2 (32% decline)	**Minimum gauge: 3 3/8" (86 mm)** Maximum gauge: status quo **Vent size: 2 x 5 3/4" rectangular; 2 5/8" circular**	Minimum gauge: status quo **Maximum gauge: 6"** Vent size: status quo	Minimum gauge: status quo **Maximum gauge: 6"** Vent size: status quo

Issue 2: Option C

Option C	LCMA 1	LCMA 3	OCC
Trigger 1 (20% decline)	**Minimum gauge: 3 5/16" (84 mm)** Maximum gauge: status quo, 5" Vent size: status quo	Minimum gauge: status quo, 3 17/32" (90 mm) Maximum gauge: status quo, 6 ¾" (171 mm) Vent size: status quo	Minimum gauge: status quo, 3 3/8" (86 mm) Max: status quo, 6 ¾" (171 mm) Vent size: status quo
Trigger 2 (30% decline)	**Minimum gauge: 3 3/8" (86 mm)** Maximum gauge: status quo **Vent size: 2 x 5 3/4" rectangular; 2 5/8" circular**	Minimum gauge: status quo **Maximum gauge: 6"** Vent size: status quo	Minimum gauge: status quo **Maximum gauge: 6"** Vent size: status quo

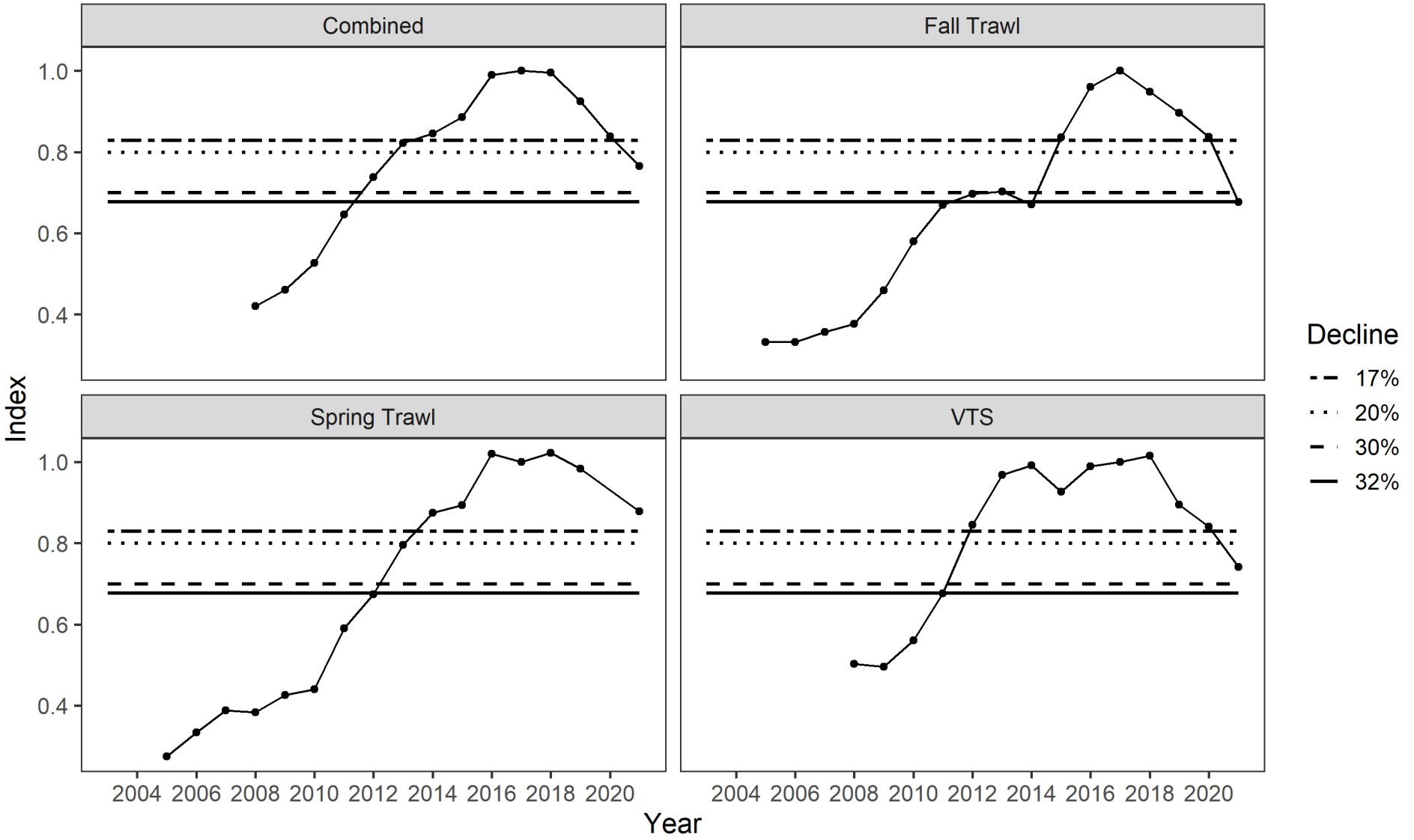
Issue 2: Option D

Option D	LCMA 1	LCMA 3	OCC
Current Measures (Year 0)	Min gauge: 3 ¼” Max gauge: 5” Vent size: status quo	Min gauge: $3^{17}/_{32}$” Max gauge: 6 ¾” Vent size: status quo	Min gauge: $3\ ^{3}/_{8}$” Max gauge: 6 ¾” Vent size: status quo
Trigger 1 (17% decline) (Year 1)	**Min gauge:** **$3\ ^{5}/_{16}$” (84 mm)** Max gauge: status quo Vent size: status quo	Min gauge: status quo **Max gauge: 6 ½”** Vent size: status quo	Min gauge: status quo **Max gauge: 6 ½”** Vent size: status quo
Intermediate gauge sizes (Year 3)	Min gauge: $3\ ^{3}/_{8}$” (86 mm) Max gauge: status quo Vent size: status quo	Min gauge: status quo **Max gauge: 6 ¼”** Vent size: status quo	Min gauge: status quo **Max gauge: 6 ¼”** Vent size: status quo
Final gauge and vent sizes (Year 5)	Min gauge: $3\ ^{3}/_{8}$” Max gauge: status quo **Vent size: 2 x $5\ ^{3}/_{4}$” rect.; $2\ ^{5}/_{8}$” circ.**	Min gauge: status quo **Max gauge: 6”** Vent size: status quo	Min gauge: status quo **Max gauge: 6”** Vent size: status quo

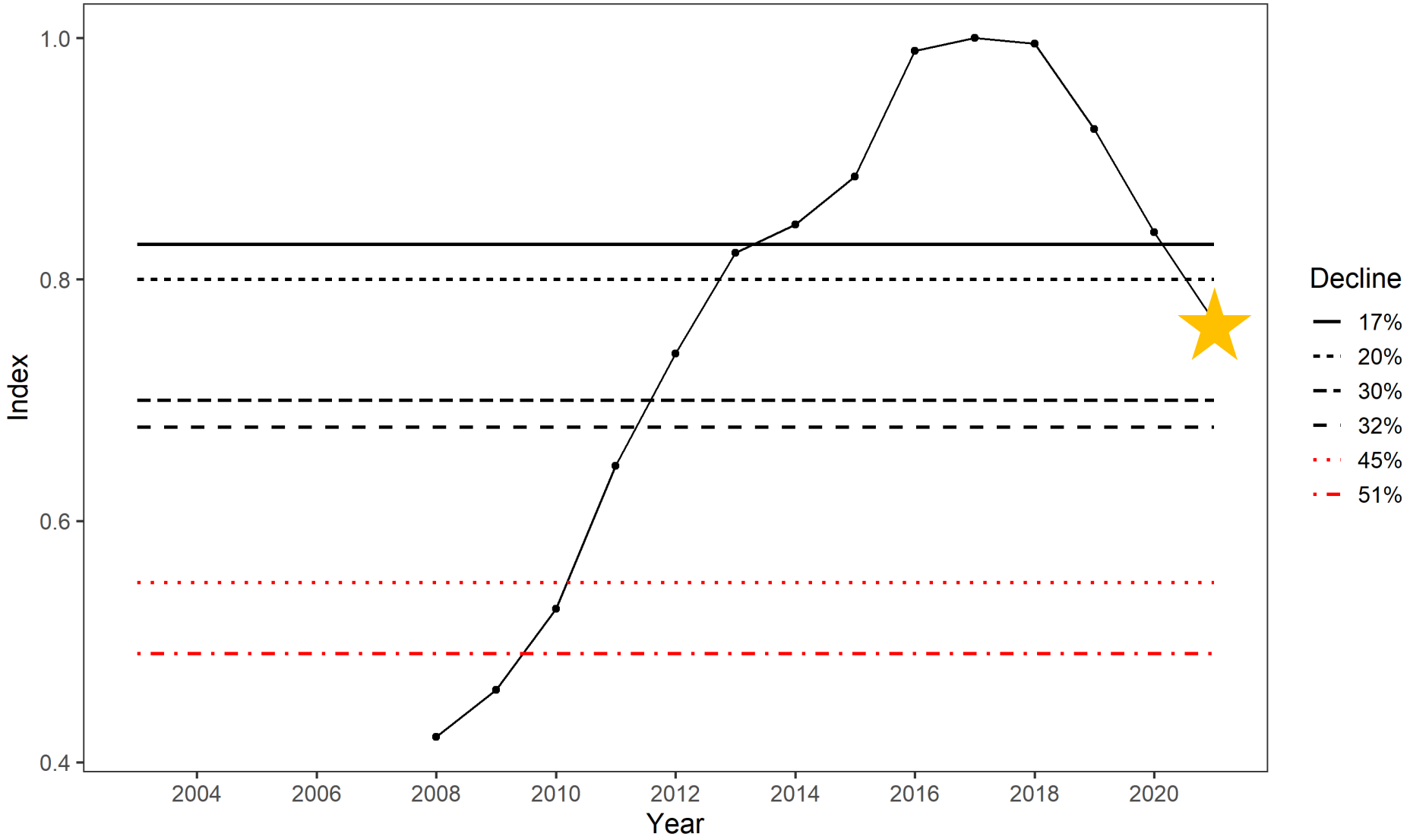
Issue 2: Option E

Option E	LCMA 1	LCMA 3	OCC
2023 fishing year measures	**Min: 3 $^{5}/_{16}$" (84 mm)** Max: status quo Vent size: status quo	Min: status quo Max: status quo	Min: status quo Max: status quo
2025 fishing year measures	**Min: 3-3/8 (86 mm)** Max: status quo **Vent size: 2 x 5 $^{3}/_{4}$" rectangular; 2 $^{5}/_{8}$" circular**	Min: status quo Max: status quo	Min: status quo Max: status quo

Trigger Index through 2021



Trigger Index through 2021



MSA Concern

- Draft Addendum XXVII proposes a minimum gauge size of 3 $^{5}/_{16}$" (84 mm) in LCMA 1
  - Current size is 3 $^{1}/_{4}$ "
- Magnuson-Stevens prohibits import/sale of lobsters smaller than the minimum possession size in effect under the FMP
- Increasing the LCMA 1 gauge size means imports/sale of lobsters under 3 $^{5}/_{16}$" from Canada would be prohibited
  - Potential impacts for trade, harvesters, dealers, and processors

PDT Discussion

- Maine dealers rely on Canadian lobster in the Spring when US fishery cannot supply them
- Possible solution to add language to Addendum to say increased gauge sizes implemented through this addendum would not apply to imported lobster
  - NOAA advises need to demonstrate economic impact if increased min size ($3\ ^{5}/_{16}$”) applies to imports
  - Would this open up imports to any size?
- PDT recommends moving forward with Draft Addendum given continued decline in indices

LEC Discussion

- Imports of American lobster under the minimum gauge size in effect in the US would create additional challenges for enforcement
  - Could create market opportunities for illegal US lobster catch below the minimum gauge size
  - Can enforce different min size at the border, but once lobsters are at dealers they are usually comingled
  - Could require special permits and requirements for dealers to possess lobster below US min size
- LEC supports standardization of measures within and across LCMAs

Board Discussion

How does the Board want to move forward?

1. Take addendum out for public comment as is
   - Gather public input on the impact of increasing the minimum gauge size
2. Make modifications to the document
   - Modify trigger levels? Other changes to the document?
   - Language to exclude imports from min size increase
     - Requires staff/committee work to evaluate economic impacts and include in the document
3. Postpone to a time certain or indefinitely

Next Steps

- If approved for public comment today, next steps are:
  - Finalize and publish addendum for public comment; schedule public hearings (**November**)
  - Conduct state public hearings (**January**)
  - Convene Advisory Panel (**January**)
  - Board meeting to consider final action (**February**)

Questions?

2023 Jonah Crab Stock Assessment Progress Update

November 7, 2022

Data Workshop

- June 13-15 (virtual)
- Reviewed available data sets
- Stock structure
- Stock indicators
- Data revisions

Methods Workshop

- October 3-5 (virtual)
- Reviewed results from data revision tasks
- Continued development of potential stock indicators
- Discussed assessment methods

Schedule

Milestone	Participants	Purpose	Dates
Data Workshop	TC, SAS	Review Data	June 13-15, 2022
Methods Workshop	TC, SAS	Identify Assessment Methods	September 2022
Assessment Workshop	SAS	Review/Finalize Assessment Results	February 2023
Peer Review Workshop	SAS	External Review of Assessment	July 2023
Board Review	Board, SAS Chair	Consider Assessment for Management	October 2023

Questions?