



Atlantic States Marine Fisheries Commission

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MEMORANDUM

TO: Sciaenids Management Board
FROM: Black Drum Technical Committee
DATE: October 2, 2023
SUBJECT: 2023 Black Drum Data Update

Background

The 2023 Black Drum Benchmark Stock Assessment determined the Atlantic coast stock was not overfished nor experiencing overfishing in the terminal year of the assessment (2020). However, the assessment acknowledged lack of contrast in black drum data sets coupled with high uncertainty in model-based estimates. To this end, the Black Drum Technical Committee (TC) recommended close monitoring of empirical stock indicators annually between stock assessments to identify any concerning trends in a timely manner. The next black drum stock assessment is tentatively scheduled for 2027. Should any concerning trends occur, the TC may recommend an expedited assessment.

Indicators developed during the stock assessment include abundance (young-of-year, age 0-1, subadult, and exploitable abundance), range expansion, recreational live releases and harvest, and commercial landings. Additional details on these indicators are available in Section 6 of the [2023 stock assessment report](#). At the conclusion of the assessment, indicators overall did not appear negative. The following provides updated indicator time series with two additional years of data through 2022.

Results

Overall, indicators show mixed signs of stability and declines since the assessment.

- Mid-Atlantic abundance indicators (all YOY) have varied around their time series means during the two update years (Figure 1).
- South Atlantic abundance indicators were mixed with declines measured by the SC Trammel survey (ages 0-1) and GA Trammel survey (YOY), while varying around the time series mean for the NC Gillnet survey (subadult, Figure 2).
- The MRIP CPUE (exploitable abundance indicator) declined below the time series mean for both update years (Figure 3).
- The range expansion indicator was not available for 2021 and declined below the time series mean in 2022 (Figure 4).
- Recreational live release indicators varied around the time series mean in the Mid-Atlantic and were both above the time series mean in South Atlantic during the update

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years (Figure 5). Live releases in the South Atlantic have continued to follow a declining trend in 2021 and 2022 that was observed at the end of the stock assessment time series.

- Recreational harvest has varied with both update years below the time series mean in the Mid-Atlantic and both update years above the time series mean in the South Atlantic (Figure 6).
- Commercial landings have shown a similar pattern to the recreational harvest with both update years below the time series mean in the Mid-Atlantic and both update years above the time series mean in the South Atlantic (Figure 7).

Recommendations

The Black Drum TC met on September 26, 2023 to discuss the data update to the indicators and make a recommendation to the Sciaenids Management Board for their October 2023 meeting. In their discussion, the Black Drum TC noted that, despite some observed declines in a few of the indicators, in each case the two additional years of data were still within the historical range of that indicator. In addition, the TC did not believe two additional years of data are enough to determine any definitive trend in the black drum stock. As a result, they do not believe there is cause for concern at this time. **The TC recommended no change to the current black drum stock assessment schedule, but did note it will be important to continue to monitor the indicators.**

The TC discussed potential reasons behind some of the declines observed in the indicators. The declines observed in the recreational live releases in the South Atlantic could potentially be attributed to declines in directed effort. It was also noted there may be less market demand for black drum now compared to 10 to 15 years ago in some areas of the Mid-Atlantic, such as Maryland and Delaware, which may account for the decline in commercial harvest observed in this region. Additionally, fewer fishermen may be harvesting black drum because they are no longer participating in other fisheries, such as striped bass, where black drum is a bycatch species.

The Black Drum TC also highlighted the continued need for a black drum fishery independent index for adults, which none of the existing fishery independent surveys currently target. Current indicators are highly sensitive to year class strength, which is variable for black drum, creating challenges for assessing trends of overall stock abundance. As noted in the research recommendations of the 2023 Black Drum Stock Assessment report, an adult fishery independent survey for black drum would likely consist of a purse seine or long-line gears with bait and sampling areas appropriate to target black drum.

Lastly, the Black Drum TC discussed, hypothetically, what trends in the indicators the TC believes would be of concern and likely cause the TC to recommend changes to the black drum stock assessment schedule. The TC would be concerned if young-of-year or sub-adult fishery independent index values were repeatedly lower than what's previously been observed for that index, over a longer period of time, such as four or five years. The Black Drum TC can refer back to this discussion in future years when discussing the annual update to the indicators.

Figures

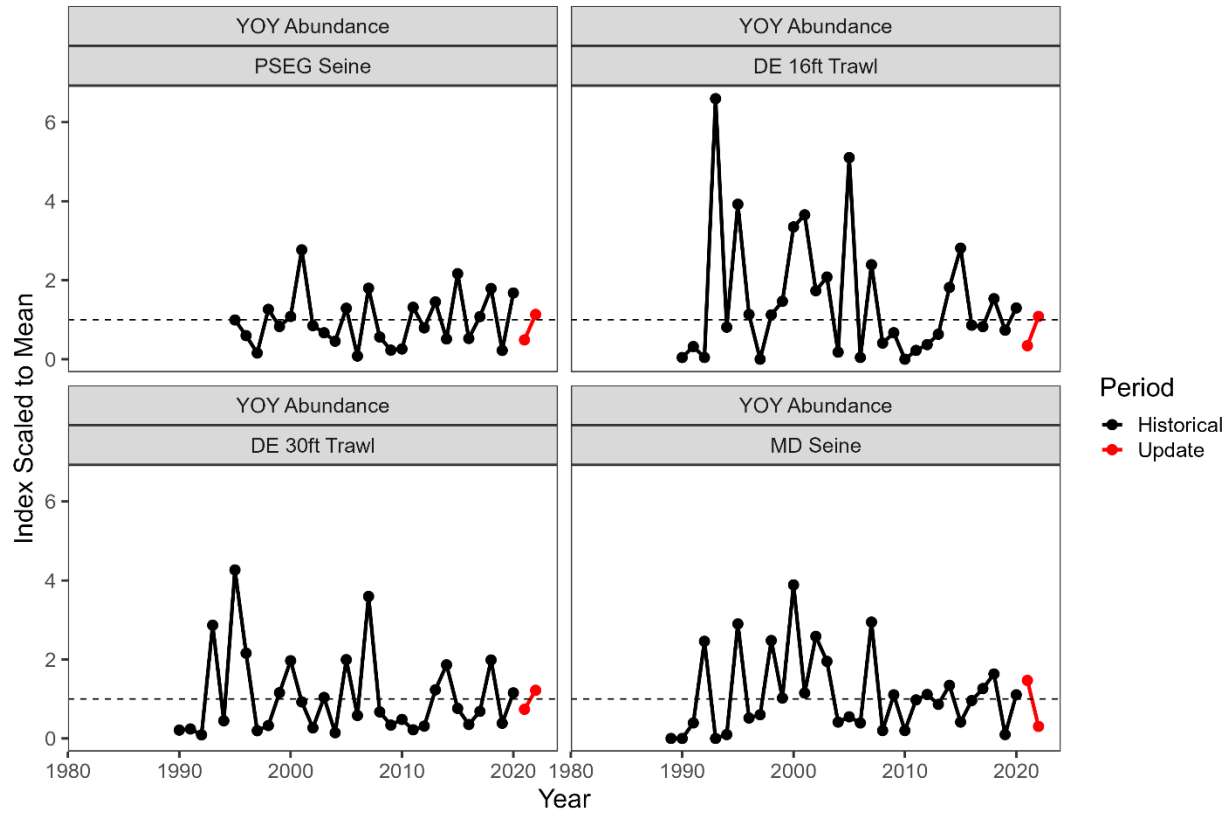


Figure 1. Mid-Atlantic abundance indicators. The dashed line is the time series mean.

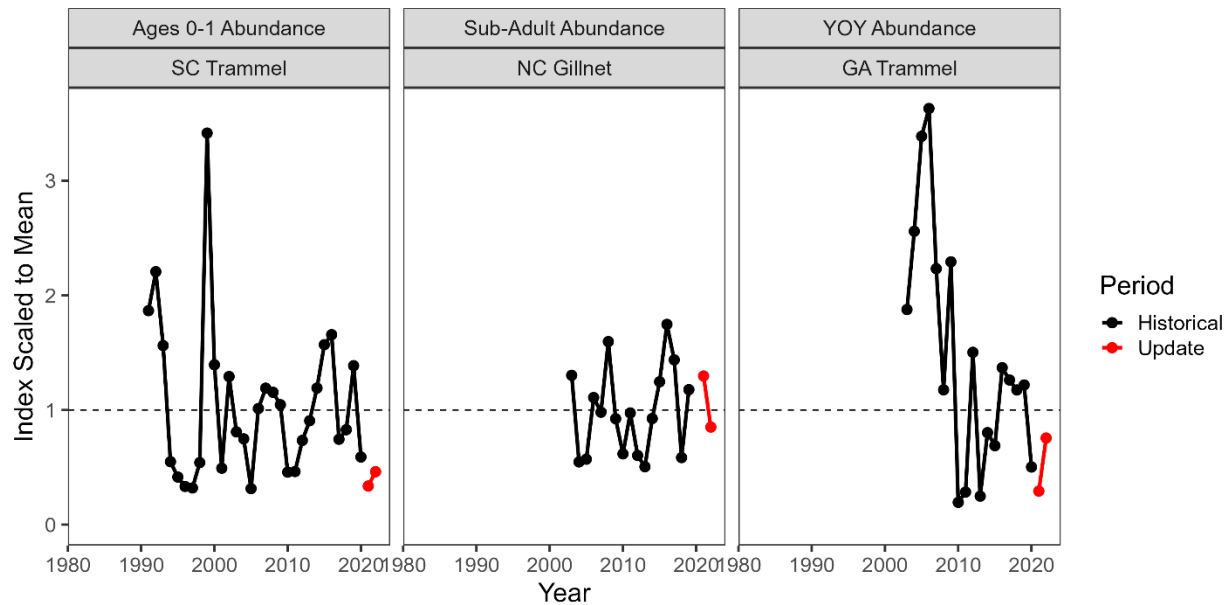


Figure 2. South Atlantic abundance indicators. The dashed line is the time series mean.

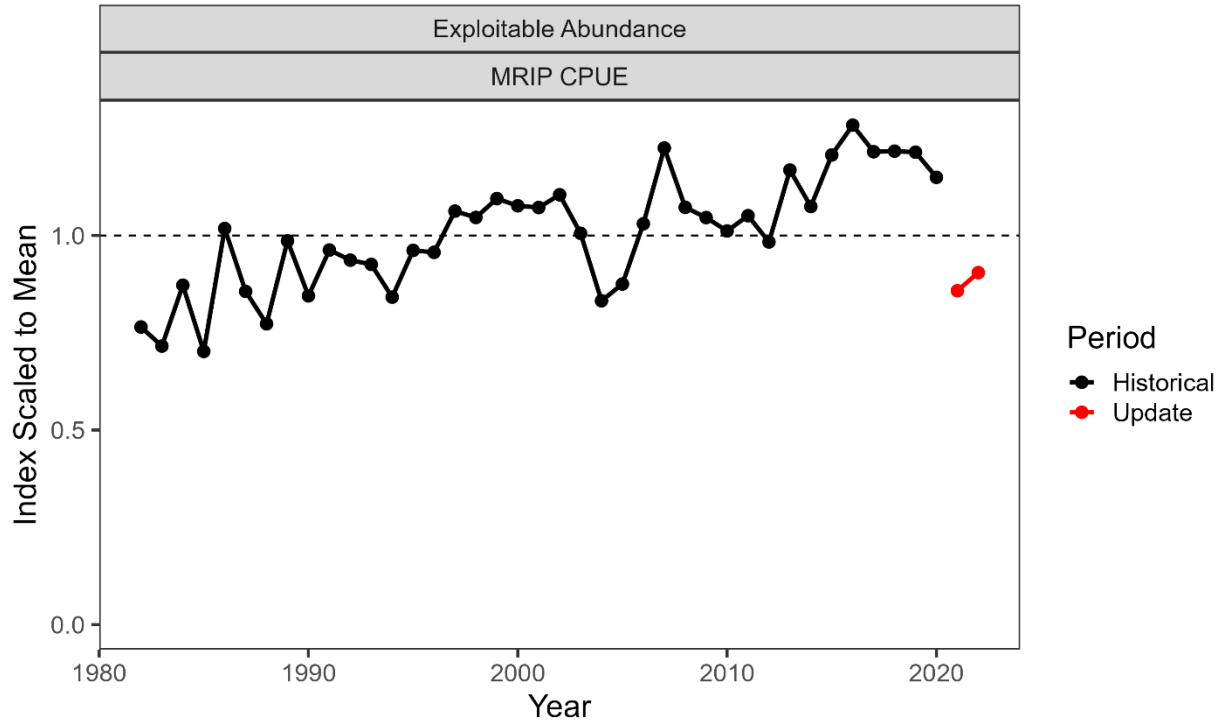


Figure 3. Coastwide abundance indicator. The dashed line is the time series mean.

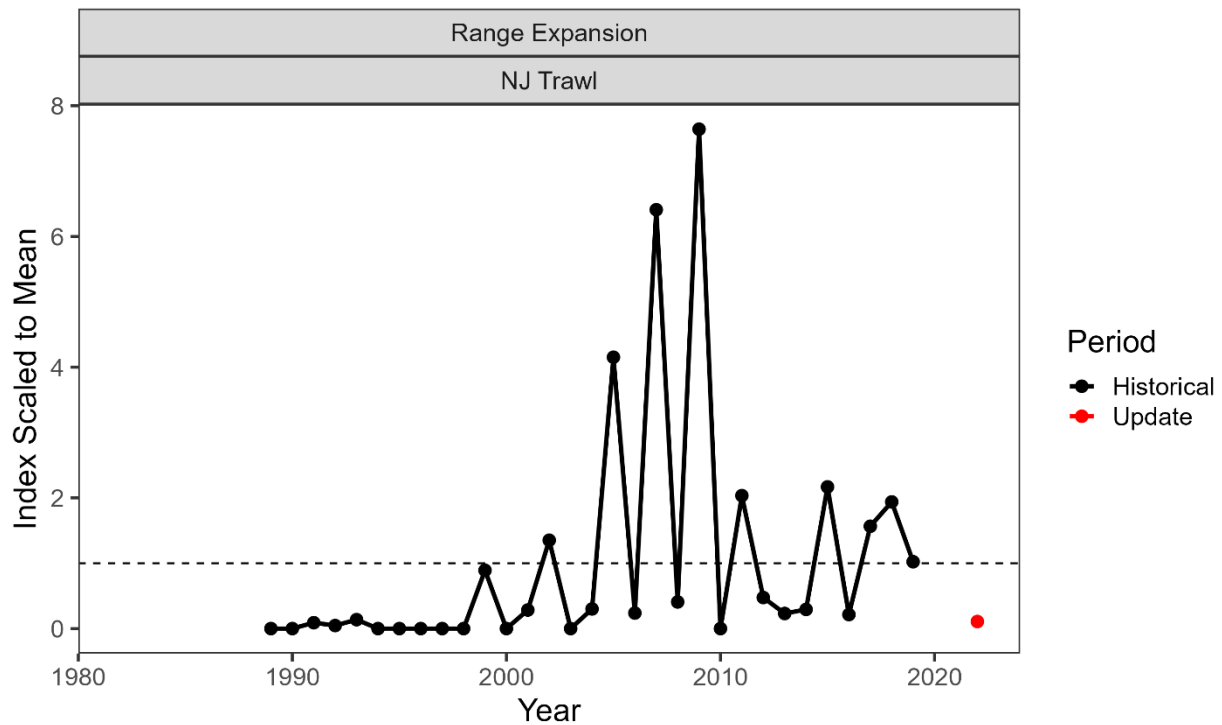


Figure 4. Range expansion indicator. The dashed line is the time series mean.

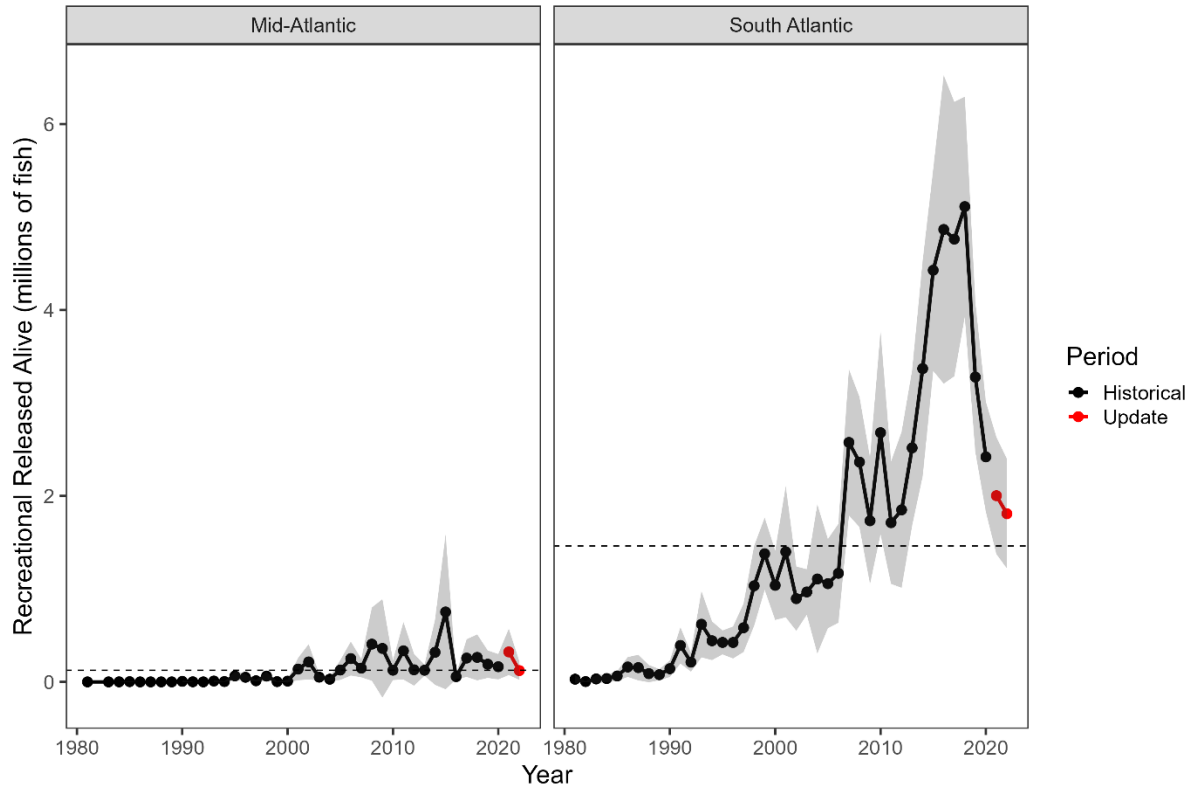


Figure 5. Recreational live release indicators. The dashed line is the time series mean.

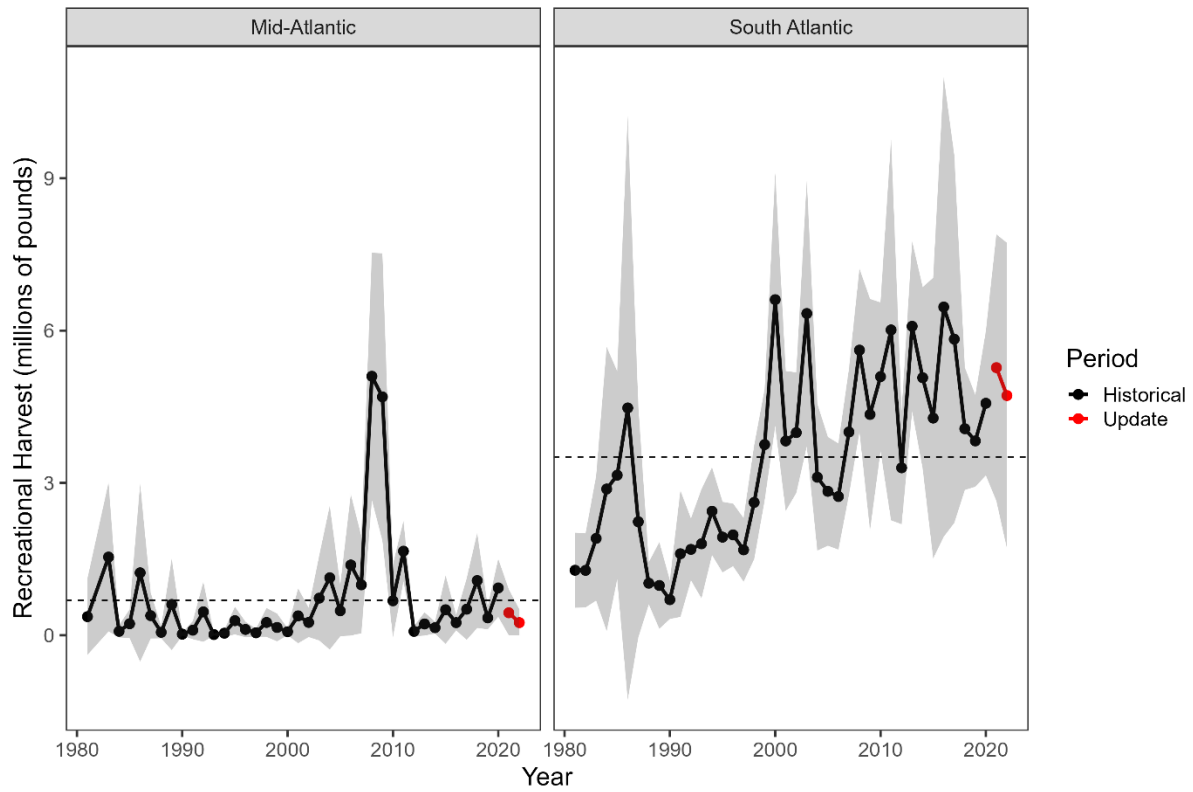


Figure 6. Recreational harvest indicators. The dashed line is the time series mean.

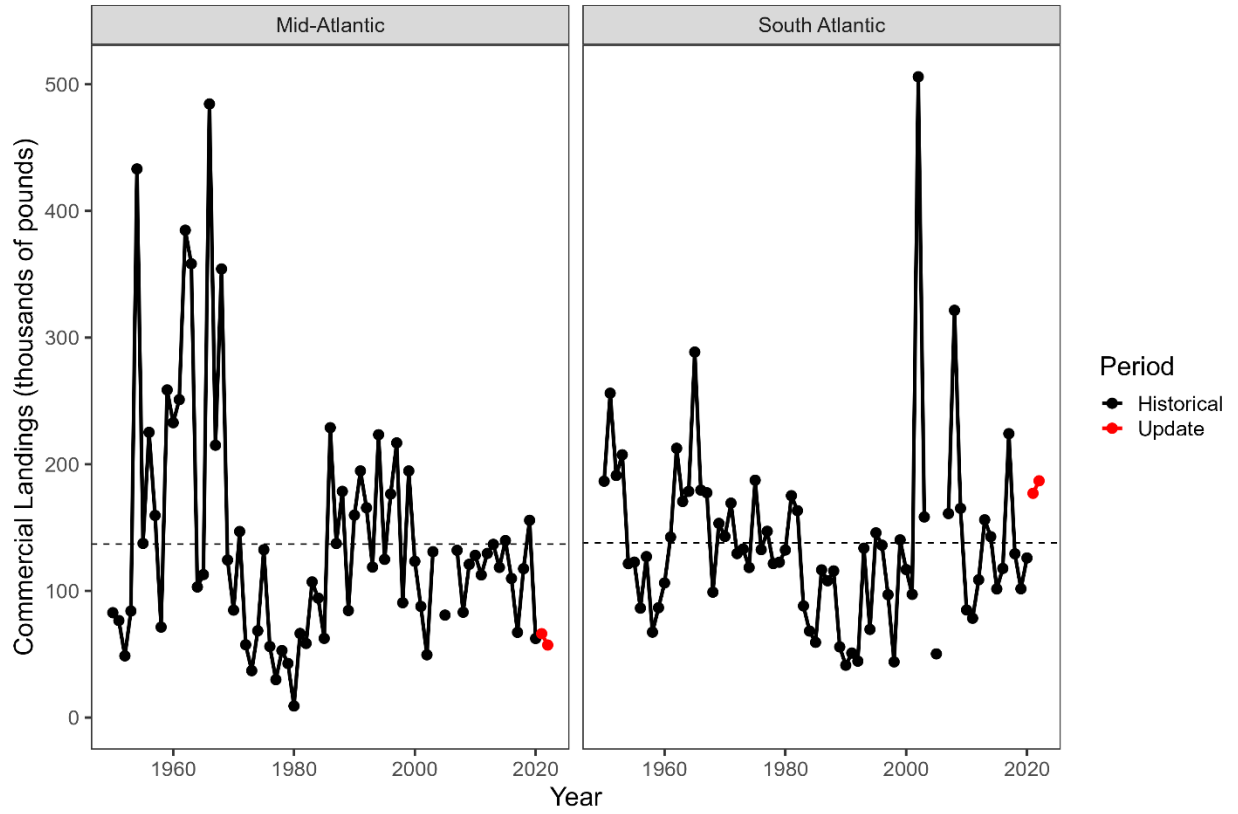


Figure 7. Commercial landings indicators. The dashed line is the time series mean.