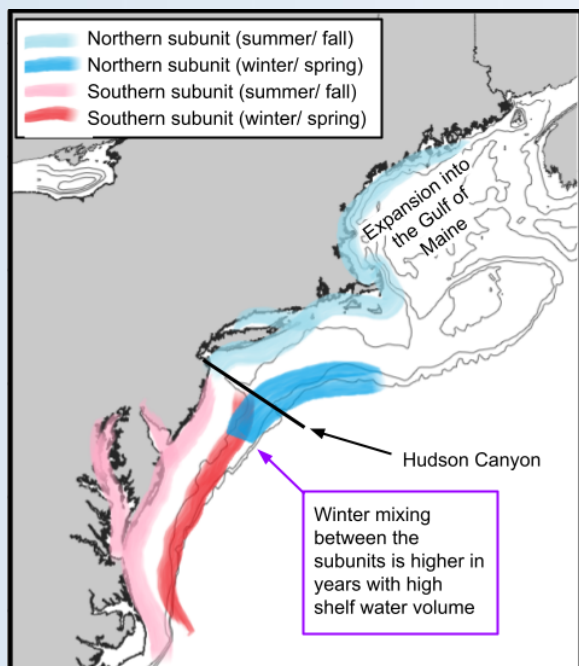




Black Sea Bass (*Centropristis striata*) Ecosystem & Socioeconomic Profile Report Card

Spring 2025

This is a short-form update to the full Ecosystem and Socioeconomic Profile [1] highlighting the recent status of environmental, ecological, and socioeconomic factors. Black sea bass is an important Mid-Atlantic stock with high commercial value and recreational engagement. Overfishing is not occurring and the stock is not overfished. Winter bottom temperature is used in the stock assessment model as a factor that influences recruitment to incorporate the observed link between cold temperature and smaller year classes [2].



2024 in Review

Fishing Community Observations

- Steady or increasing availability
- Concerns about high discards
- Restrictive and complex regulations limit fishing opportunities
- For additional information, see [3], [4], and [5]

Commercial Fishery

- Number of active vessels declined in 2024, but total landed pounds increased from 2023
- Total revenue decreased slightly along with average prices (\$/lb)
- Average revenue per vessel increased

Recreational Fishery

- Targeted trips, catch, and landings all down from 2023 [3]
- However, number of trips is still above the historic average
- Recreational catch-per-angler index not yet updated for 2024

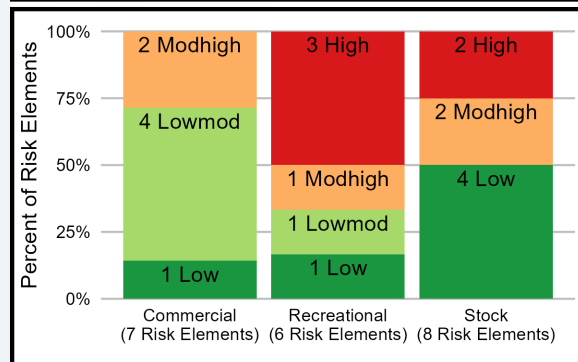
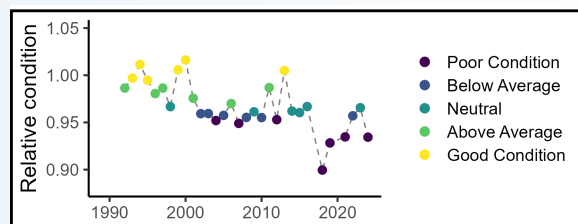
Ecosystem

- The stock assessment models the stock as two subunits, divided at the Hudson Canyon (see right)
- Cold winter in the north but near average in the south
- Poor or below average fish condition (i.e., weight at a given length; see below)

Key Points from the Mid-Atlantic Risk Assessment

According to the [Mid-Atlantic 2024 EAFM risk assessment update](#) [6], Black Sea Bass scored high and/or moderately high risk in the following elements (elements with low or low-moderate scores not described here):

- Moderate-high to high risk to the stock due to:
 - Very high exposure to changes in climate
 - Observed and potential changes in distribution; northward shift into the Gulf of Maine
 - Dependence on threatened estuarine habitat
 - Decline in the biomass of benthic invertebrate prey
 - Decline in black sea bass body condition
- High risk to the recreational fishery due to:
 - Catch exceeding harvest limits in several years
 - High regulatory complexity; frequent changes and varying interstate regulations; regulatory changes in allocations
- Moderate-high risk to the commercial fishery due to:
 - Commercial revenue in wind development areas
 - High discards & discard mortality



| Indicator | Status In | Implications | Time Series* |
|---|---|--|--------------|
| Mean winter (Feb-Mar) bottom temperature (C) | North: Below threshold South: Near long-term average | Cold winter temperatures may increase the mortality of young-of-the-year fish, resulting in smaller year classes. 2024 temperature in the northern subunit (north of Hudson Canyon) was colder than black sea bass's lower threshold of 8C. Bottom temperature data comes from GLORYS, a modeled product (Jean-Michel et al., 2021). | |
| Shelf water volume (km3) | No data for 2024 | Shelf water volume (Fratantoni et al., 2015) is a proxy for suitable winter habitat; higher shelf water volume indicates less suitable habitat, potentially leading to northern fish migrating into the southern subunit. The shelf water volume dataset is created from in situ data, and there has been no winter sampling since 2021, highlighting the need for additional indicators to inform stock subunit mixing. | |
| Black sea bass MRIP recreational trips (millions of annual trips) | Above long-term average | Recent trip numbers are near an all-time high, but have decreased from 2023. Catch (not shown) generally reflects trip patterns, while landings (not shown) have remained steady. High regulatory complexity is likely contributing to recreational fishing trends. | |
| Commercial revenue per vessel (2024 USD) | Above long-term average | Commercial revenue per vessel follows an overall increasing trend most likely driven by the continued decline of active vessels and an overall increase in total commercial landed pounds over the past decade. | |
| Number of commercial vessels (#) | Below long-term average | The number of active vessels has been decreasing since 2017, which could impact revenue distributions and fleet composition. | |

* The y-axis units are included in the "Indicator" column of the table. In all figures, the dashed line represents the time series mean, and the solid green lines indicate ± 1 standard deviation. Commercial data were derived from the commercial dealer database hosted at the Greater Atlantic Regional Office. All dollar values have been adjusted to 2024 real dollars using the [Gross Domestic Implicit Price Deflator](#).

We welcome your observations! Please contact northeast.ecosystem.highlights@noaa.gov with any on-the-water insights or changes observed in the black sea bass fishery and nesc.esc.leads@noaa.gov with questions or comments on the information presented in this report.

References

1. R. Tabandera, A. Tyrell, M. McMahan, & P. Perez, Black sea bass ecosystem considerations and indicator development. (2024). <https://doi.org/10.25923/EZ9G-AF05>.
2. NEFSC, *Report of the black sea bass (Centropristis striata) research track stock assessment working group* (2023).
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6. MAFMC, *Mid-Atlantic EAFM risk assessment: 2024* (2024).
7. P. S. Fratantoni, T. Holzwarth, & M. H. Taylor, *Description of oceanographic conditions on the northeast U.S. Continental shelf during 2014*. (2015).
8. L. Jean-Michel, G. Eric, B.-B. Romain, G. Gilles, M. Angélique, D. Marie, B. Clément, H. Mathieu, L. G. Olivier, R. Charly, C. Tony, T. Charles-Emmanuel, G. Florent, R. Giovanni, B. Mounir, D. Yann, & L. T. Pierre-Yves, The Copernicus Global 1/12° Oceanic and Sea Ice GLORYS12 Reanalysis. *Frontiers in Earth Science*, **9** (2021) 698876. <https://doi.org/10.3389/feart.2021.698876>.