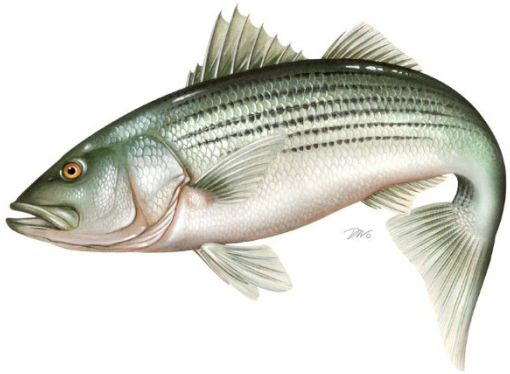
- American Eel
- American Lobster
- Atlantic Cobia
- Atlantic Croaker
- Atlantic Herring
- Atlantic Menhaden
- Atlantic Striped Bass
- Atlantic Sturgeon
- Black Drum
- Black Sea Bass
- Bluefish
- Coastal Sharks
- Horseshoe Crab
- Jonah Crab
- Northern Shrimp
- Red Drum
- Scup
- Shad & River Herring
- Spanish Mackerel
- Spiny Dogfish
- Spot
- Spotted Seatrout
- Summer Flounder
- Tautog
- Weakfish
- Winter Flounder

# ASMFC Stock Status Overview

*This document provides an overview of stock status for the Commission's 27 managed species or species groups. Graphs contain the most recent information available and have been vetted through the relevant species technical committee. Where biomass data is lacking, other fishery indicators are used (i.e., landings, fishing mortality rates). Time frames differ based on data availability.*

October 2022



*Vision: Sustainable and Cooperative Management of Atlantic Coastal Fisheries*

# Quick Guide to ASMFC Species Stock Status

(Current as of October 2022)

| SPECIES | | OVERFISHED | OVERFISHING | ASSESSMENT & MANAGEMENT OVERVIEW |
|---|---|---|---|---|
|  | American Eel | Depleted | Unknown | Stock status based on 2017 stock assessment update. Measures implemented in 2013/2014 to reduce fishing mortality and prevent expansion of the fishery. Benchmark assessment to be peer reviewed in November/December. |
| American Lobster  | Gulf of Maine/ Georges Bank (GOM/GBK) | Not Depleted | N | Stock status based on 2020 benchmark assessment; abundance and recruitment near record highs. Addendum initiated with the goal of increasing protection to the spawning stock. |
| | Southern New England | Depleted | N | Stock status based on 2020 benchmark assessment; abundance and recruitment lowest on record. |
|  | American Shad | Depleted | Unknown | Stock status based on 2020 benchmark assessment. Species depleted on coastwide basis, with recovery limited by restricted access to spawning habitat. Amendment 3 established 2013 moratorium unless river-specific sustainability can be documented. |
|  | Atlantic Croaker | Unknown | Unknown | 2020 TLA triggered management action for the Mid-Atlantic and South Atlantic regions; changes to recreational and commercial fishery regulations initiated. Benchmark assessment scheduled for 2024. |
|  | Atlantic Herring | Y | N | Stock status based on 2022 assessment update (management track). SSB at 21% SSB target; 2023 specifications to be set by Board in November 2022 |
|  | Atlantic Menhaden | N | N | Rebuilt. Stock status based on 2020 assessment; use of ERPs approved by Board in August 2020. Single-species assessment update scheduled for 2022. |

# Quick Guide to ASMFC Species Stock Status

(Current as of October 2022)

| SPECIES | | OVERFISHED | OVERFISHING | ASSESSMENT & MANAGEMENT OVERVIEW |
|---|---|---|---|---|
|  | **Atlantic Striped Bass** | **Y** | **Y** | **Stock status based on 2018 benchmark assessment. Measures implemented in 2020 to achieve an 18% reduction in total removals and end overfishing. Amendment 7 approved in May 2022. Assessment update to be presented to Board in November 2022.** |
|  | **Atlantic Sturgeon** | **Depleted** | N | **Stock status based on 2017 benchmark assessment; slow recovery has been occurring since 1998 and total mortality is sustainable. 40+ year moratorium implemented in 1998; listed in 2012 under the ESA.** |
|  | **Black Drum** | **N** | **N** | **Stock status based on 2015 benchmark assessment; biomass declining slowly, though estimated to be well above that necessary to produce MSY. Possession and size limits implemented to prevent expansion of fishery. Benchmark assessment scheduled for 2022.** |
|  | **Black Sea Bass** | **N** | **N** | **Stock status based on 2021 management track stock assessment; SSB estimated to be 2.2 times the biomass target. Management track stock assessment scheduled for 2023.** |
|  | **Bluefish** | **Y** | **N** | **Stock status based on 2021 management track stock assessment; updated reference points indicate stock is overfished. Reduced commercial quota and more restrictive recreational measures were implemented in 2020 in response to stock status. Amendment 2 (2021) establishes 7-year rebuilding program. Research track stock assessment scheduled for 2022.** |

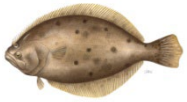
# Quick Guide to ASMFC Species Stock Status

(Current as of October 2022)

| SPECIES | | OVERFISHED | OVERFISHING | ASSESSMENT & MANAGEMENT OVERVIEW |
|---|---|---|---|---|
|  | **Coastal Sharks** | **Varies by species & species complex** | | |
|  | **Cobia** | **N** | **N** | **Rebuilt. Stock status based on 2020 benchmark stock assessment.** |
|  | **Horseshoe Crab** | **Unknown** | **Unknown** | **Stock status based on 2019 benchmark assessment; NE region and DE Bay stocks stable; NY region stock poor; and SE region stock good. Coastwide abundance has fluctuated, with many surveys decreasing after 1998 but increasing in recent years. ARM Framework used since 2013 to set harvest levels for horseshoe crabs of DE Bay origin. Addendum being considered to adopt revised ARM Framework.** |
|  | **Jonah Crab** | **Unknown** | **Unknown** | **First range-wide assessment scheduled for 2023; measures implemented to prevent the harvest of immature crabs and cap fishery to limit expansion.** |
|  | **Northern Shrimp** | **Depleted** | **N** | **Stock status based on 2021 stock assessment update; abundance, biomass, SSB, and recruitment are at near time-series lows. Environmental conditions continue to be unfavorable to rebuilding. Fishing moratorium in place since 2014 to protect remaining spawning population.** |
| **Red Drum**  | **Northern Region** | **Unknown** | **No** | **Stock status based on 2018 benchmark assessment; sSPR above target and threshold SPRs. Model simulations underway to support next benchmark stock assessment. Benchmark assessment scheduled for late 2023/early 2024.** |
| | **Southern Region** | **Unknown** | **No** | |
|  | **River Herring** | **Depleted** | **Unknown** | **Stock status based on 2017 assessment update. Amendment 2 established 2012 moratorium unless river-specific sustainability can be documented.** |

# Quick Guide to ASMFC Species Stock Status

(Current as of October 2022)

| SPECIES | | OVERFISHED | OVERFISHING | ASSESSMENT & MANAGEMENT OVERVIEW |
|---|---|---|---|---|
|  | Scup | N | N | Rebuilt. Stock status based on 2021 management track stock assessment; SSB estimated to be two times its target. Next management track assessment is scheduled for 2023. |
|  | Spanish Mackerel | N | N | Rebuilt. Stock based on 2012 stock assessment. Benchmark assessment scheduled for 2023. |
|  | Spiny Dogfish | N | N | Stock status based on 2018 assessment update; research and management track assessments scheduled for 2022. |
|  | Spot | Unknown | Unknown | 2020 TLA triggered management action for the Mid-Atlantic and South Atlantic regions; changes to recreational and commercial fishery regulations initiated. Benchmark assessment scheduled for 2024. |
|  | Spotted Seatrout | Unknown | Unknown | No range-wide assessment. Omnibus Amendment includes measures to protect spawning stock & establishes 12” minimum size limit. |
|  | Summer Flounder | N | N | Stock status based on 2021 management track stock assessment. SSB increasing and at 86% of the biomass target. The next management track assessment is scheduled for 2023. |
| Tautog  | Massachusetts – Rhode Island | N | N | Stock status based on 2021 assessment update, which found improvements in all regions. |
| | Long Island Sound | N | N | |
| | New Jersey – New York Bight | Y | N | |
| | Delaware – Maryland – Virginia | N | N | |

# Quick Guide to ASMFC Species Stock Status

(Current as of October 2022)

| SPECIES | | OVERFISHED | OVERFISHING | ASSESSMENT & MANAGEMENT OVERVIEW |
|---|---|---|---|---|
|  | **Weakfish** | **Depleted** | **N** | **Stock status based on 2019 assessment update. Species depleted since 2003; population experiencing high levels of natural mortality, preventing stock recovery. Since 2009, harvest limited to a one fish recreational creel limit and a 100 pound commercial bycatch limit.** |
|  | **Gulf of Maine** | **Unknown** | **N** | **Stock status based on 2020 assessment update; abundance indices relatively flat over full time series with little change to size structure. Management track assessment scheduled for 2022.** |
| | **South New England/ Mid-Atlantic** | **Y** | **N** | **Stock status based on 2020 assessment update; SSB at record lows despite sustained low levels of fishing mortality. Recruitment has declined sharply since 1980s and remains near time series low.** |

**What Does a Status Mean?**

**Unknown** - There is no accepted stock assessment to estimate stock status.
**Depleted** - Reflects low levels of abundance though it is unclear whether fishing mortality is the primary cause for reduced stock size
**Overfished** - Occurs when stock biomass falls below the threshold established by the FMP, impacting the stock's reproductive capacity to replace fish removed through harvest, and that decline is driven primarily by fishing mortality.
**Overfishing** - Removing fish from a population at a rate that exceeds the threshold established in the FMP, impacting the stock's reproductive capacity to replace fish removed through harvest.
**Benchmark stock assessment** - A full analysis and review of stock condition, focusing on the consideration of new data sources and newer or improved assessment models. This assessment is generally conducted every 3-5 years and undergoes a formal peer review by a panel of independent scientists who evaluate whether the data and the methods used to produce the assessment are scientifically sound and appropriate for management use.
**Stock assessment update** - Incorporates data from the most recent years into a peer-reviewed assessment model to determine current stock status (abundance and overfishing levels)
**Management track assessments** – Part of the Northeast Fisheries Science Center's (NEFSC) stock assessment process and provide routine, scheduled, and updated advice to directly inform management actions. Management track assessments ensure that stock status is updated on a regular and predictable basis.

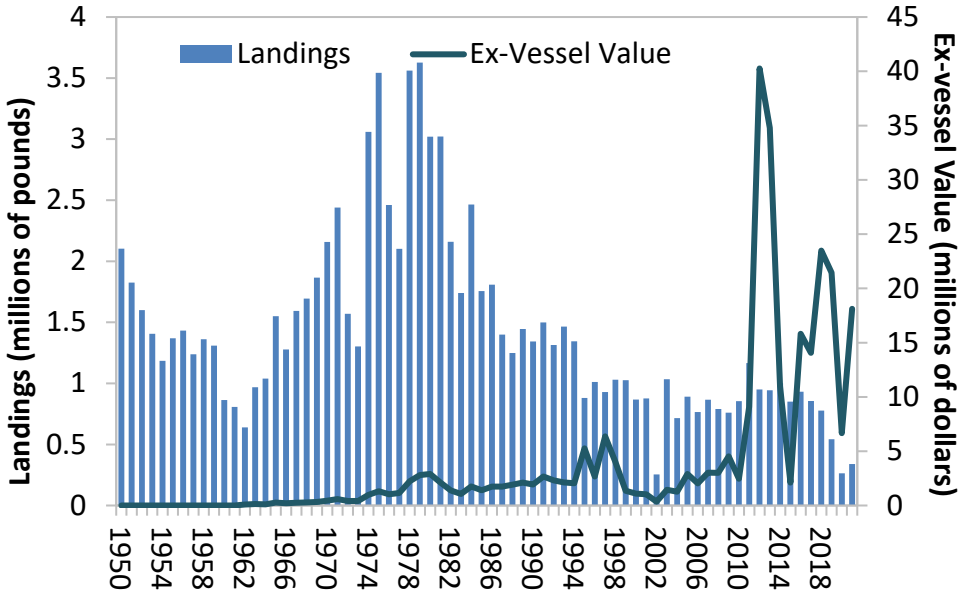
**Research track assessments** – Part of the NEFSC's stock assessment process and are complex scientific efforts that are designed to be carried out over several years. They can (1) focus on research topics or on one or more individual stocks, (2) evaluate an issue or new model that could apply to many stocks and/or (3) consider extensive changes in data, model, or stock structure. Research assessments can provide the basis for future management assessments.

**List of Acronyms**

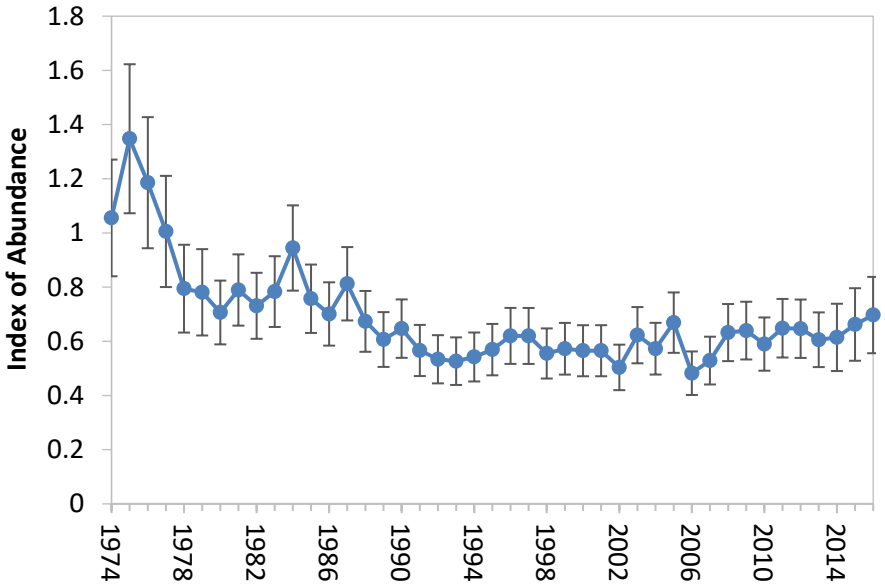
ARM – Adaptive Resource Management
ERPs – ecological reference points
ESA – Endangered Species Act
MARI – Massachusetts-Rhode Island
MSY – maximum sustainable yield
SPRs – spawning potential ratio
SSB – spawning stock biomass
TLA – Traffic Light Analysis

# Overview of Stock Status
# American Eel, *Anguilla rostrata*

**American Eel Commercial Landings and Ex-Vessel Value**
Source: ACCSP Data Warehouse, 2022




**40+ Year Index of Abundance of Yellow American Eel along the Atlantic Coast, 1974-2016**
Source: ASMFC American Eel Stock Assessment Update, 2017




**Timeline of Management Actions:** FMP (1999); Addendum I (2006); Addendum II (2008); Addendum III (2013); Addendum IV (2014); Addendum V (2018)

**Management Considerations:**

**Condition:** Depleted; benchmark assessment update to be presented to Board in November 2022

**FMP Stock Rebuilding Goals:** Protect and enhance the abundance of American eel in inland and territorial waters of the Atlantic states and jurisdictions, contribute to the viability of the American eel spawning population, and provide for sustainable fisheries by preventing overharvest.

**FMP Status:** FMP approved in 2000. Addendum I (2006) requires mandatory reporting of catch and effort data. Addendum II (2008) advocates for increased emphasis on improving upstream and downstream passage for American eel. Addenda III (2013) and IV (2014) seek to reduce mortality and increase conservation of American eel stocks across all life stages. Addendum III establishes new management measures for both the commercial (glass, yellow, and silver) and recreational eel fisheries, and implements fishery-independent and -dependent monitoring requirements. Addendum IV (2014) established a 907,671 pound coastwide quota for yellow eel fisheries, reduced Maine's glass eel quota to 9,688 pounds (2014 landings), and allowed for the continuation of New York's silver eel weir fishery in the Delaware River. Addendum V (2018) replaces Addendum IV's measures, increasing the yellow eel coastwide cap starting in 2019 to 916,473 pounds, adjusting the method (management trigger) to reduce total landings to the coastwide cap when the cap has been exceeded, and

removing the implementation of state-by-state allocations if the management trigger is met. The Addendum also maintains Maine's glass eel quota of 9,688 pounds.

**Primary Management Measures:** Recreational fisheries are managed by minimum size limits and possession limits. Commercial fisheries are managed by quotas.

**Trend Analysis of Regional and Coastwide Indices of American Eel Abundance by Young-of-the-year (YOY) and Yellow Eel Life Stages**

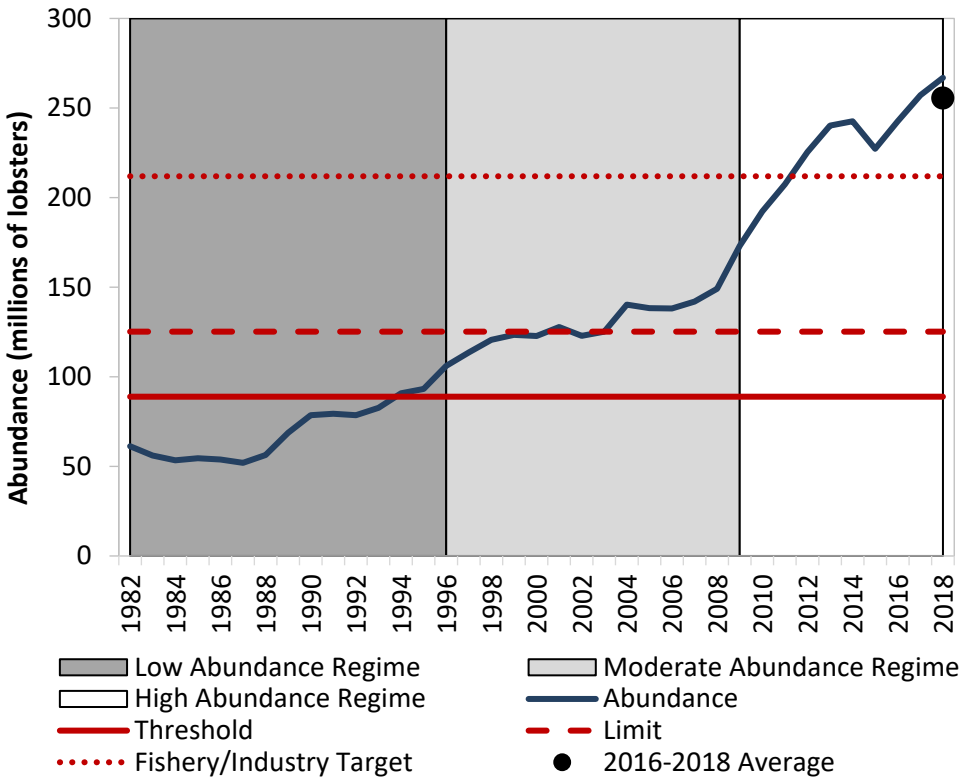
| Region | Life Stage | Time Period | 2012 Trend | 2017 Trend |
|---|---|---|---|---|
| Gulf of Maine | YOY | 2001–2016 | NS | NS |
| Southern New England | YOY | 2000–2016 | NS | NS |
| | Yellow | 2001–2010 | NS | - |
| Hudson River | YOY | 1974–2009 | ↓ | - |
| | Yellow | 1980–2016 | ↓ | ↓ |
| Delaware Bay/ Mid-Atlantic Coastal Bays | YOY | 2000–2016 | NS | NS |
| | Yellow | 1999–2016 | NS | NS |
| Chesapeake Bay | YOY | 2000–2016 | NS | NS |
| | Yellow | 1990–2009 | ↑ | ↑ |
| South Atlantic | YOY | 2001–2015 | NS | ↓ |
| | Yellow | 2001–2016 | ↓ | ↓ |
| Atlantic Coast | YOY (short-term) | 2000–2016 | NS | NS |
| | YOY (long-term) | 1987–2013 | NS | NS |
| | Yellow (40+ year) | 1974–2016 | NS | ↓ |
| | Yellow (30-year) | 1987–2016 | ↓ | ↓ |
| | Yellow (20-year) | 1997–2016 | NS | NS |

The arrows indicate the direction of the trend if a statistically significant trend was detected (P-value < α; α = 0.05). NS = no significant trend detected. A dash (-) = indices that data were not updated.

# Overview of Stock Status
# American Lobster, *Homarus americanus*

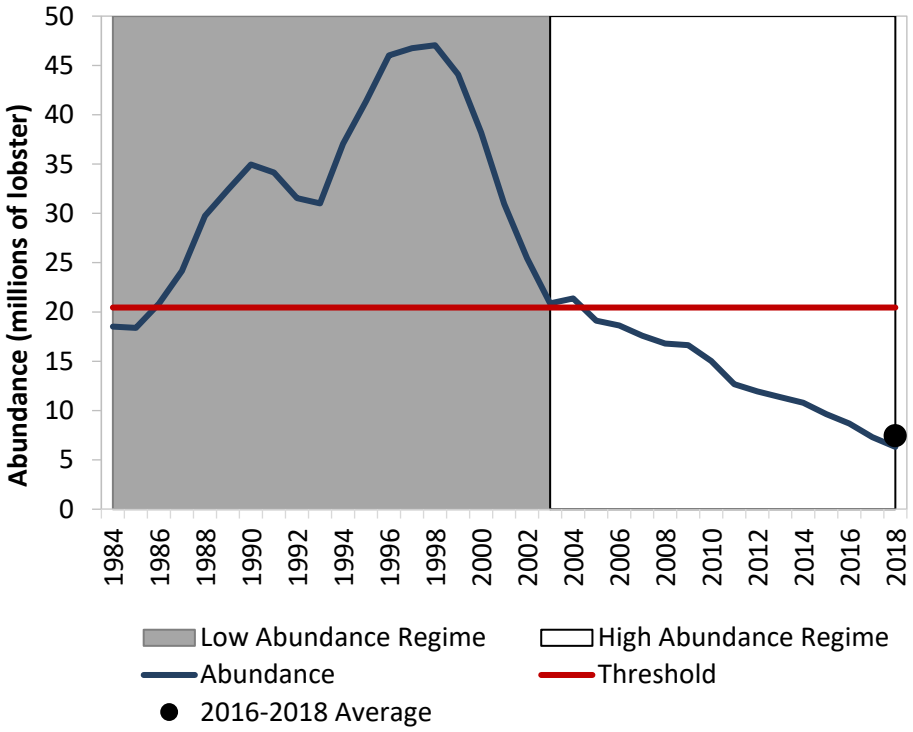
**GOM/GBK Stock Abundance for Relative to Reference Points**

Source: 2020 American Lobster Benchmark Stock Assessment Report




**SNE Stock Abundance Relative to Reference Points**

Source: 2020 American Lobster Benchmark Stock Assessment Report




**Timeline of Management Actions:** Amendment 3 (‘97); Addendum I (‘99); Addendum II (‘01); Addendum III (‘02); Addenda IV & V (‘04); Addenda VI & VII (‘05); Addenda VIII & IX (’06); Addenda X & XI (‘07); Addendum XIII (‘08); Addendum XII, XIV & XV (‘09); Addendum XVI (‘10); Addenda XVII & XVIII (’12); Addenda XIX – XXII (’13); Addendum XXIII (’14); Addendum XXIV ('15); Addendum XXVI (’18); Addendum XXIX (’22).

**<u>Management Considerations:</u>**

**Condition:**

Gulf of Maine/Georges Bank – Not overfished nor experiencing overfishing.

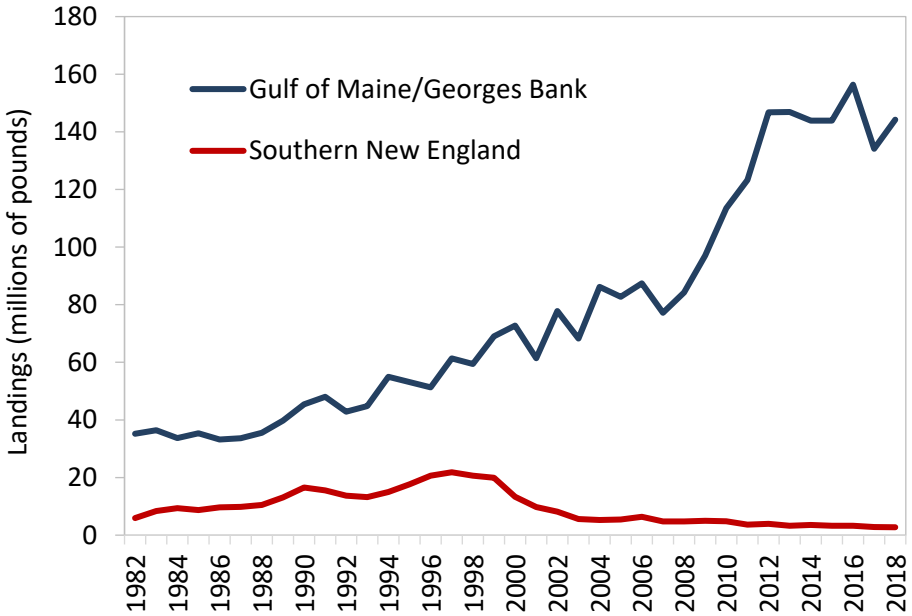
Southern New England – Depleted and not experiencing overfishing. Abundance is below threshold.

October 2022

**Stock Rebuilding Goals:**
Extensive research has highlighted the influence of the environment on American lobster life history and population dynamics. As a result, the 2020 benchmark stock assessment analyzed environmental time series were analyzed for regime shifts, which indicate a significant difference in the lobster's environment and population dynamics from one time period to another. Regime shifts can change a stock's productivity, impacting the stock's level of recruitment and its ability to support different levels of catch. Temperature time series were also analyzed to quantify the effect of temperature on survey catchability of lobster and correct trends in abundance estimated from surveys by accounting for temperature-driven changes in catchability through time.

**FMP Status:**
Amendment 3 and Addenda I – XXVI established 7 management areas and specific management measures to meet the rebuilding schedule by 2022. Addendum XII establishes guidelines for areas implementing a transferable trap program. Addendum XIII finalizes the Outer Cape Cod's effort control plan. Addendum XIV alters the LCMA trap transfer program. Addendum XV establishes limited entry for LCMA 1 federal water fishermen. Addendum XVI establishes new biological reference points to determine stock status for three stock units. Addendum XVII institutes a 10% reduction in exploitation by all fishing sectors and all gear types starting January 1, 2013 as the first phase in the Board's efforts to rebuild the Southern New England stock. Addenda XVIII and XIX address the second phase of rebuilding efforts by proposing area-specific measures to scale the scope of the Southern New England fishery to the size of the resource. Addendum XX establishes bottom-sharing in Closed Area 2 in order to protect large concentrations of egg-bearing females and prevent gear conflicts. Addenda XXI and XXII implement changes to the trap transferability program for Areas 2 and 3. Addendum XXIII addresses habitat considerations and Addendum XXIV addresses inconsistencies between federal and Commission regulations on transfers. Addendum XXVI expands the mandatory harvester reporting data elements, improves the spatial resolution of harvester data, establishes a 5-year timeline for implementation of 100% harvester reporting, and prioritizes the development of electronic harvester reporting, as well as improves biological sampling requirements by establishing a baseline of ten sampling trips per year in the American lobster/Jonah crab fishery. In April 2022, the Board approved Addendum XXIX to Amendment 3 to the FMP. The Addendum requires the implementation of electronic tracking requirements for federally-permitted vessels in the American lobster and Jonah crab fishery, with the goal of collecting high resolution spatial and temporal effort data. Through this action the Board seeks to significantly improve stock assessment, identify areas where lobster fishing effort might present a risk to endangered North Atlantic right whales, and document the footprint of the fishery to help reduce spatial conflicts with other ocean uses like wind energy development and aquaculture.

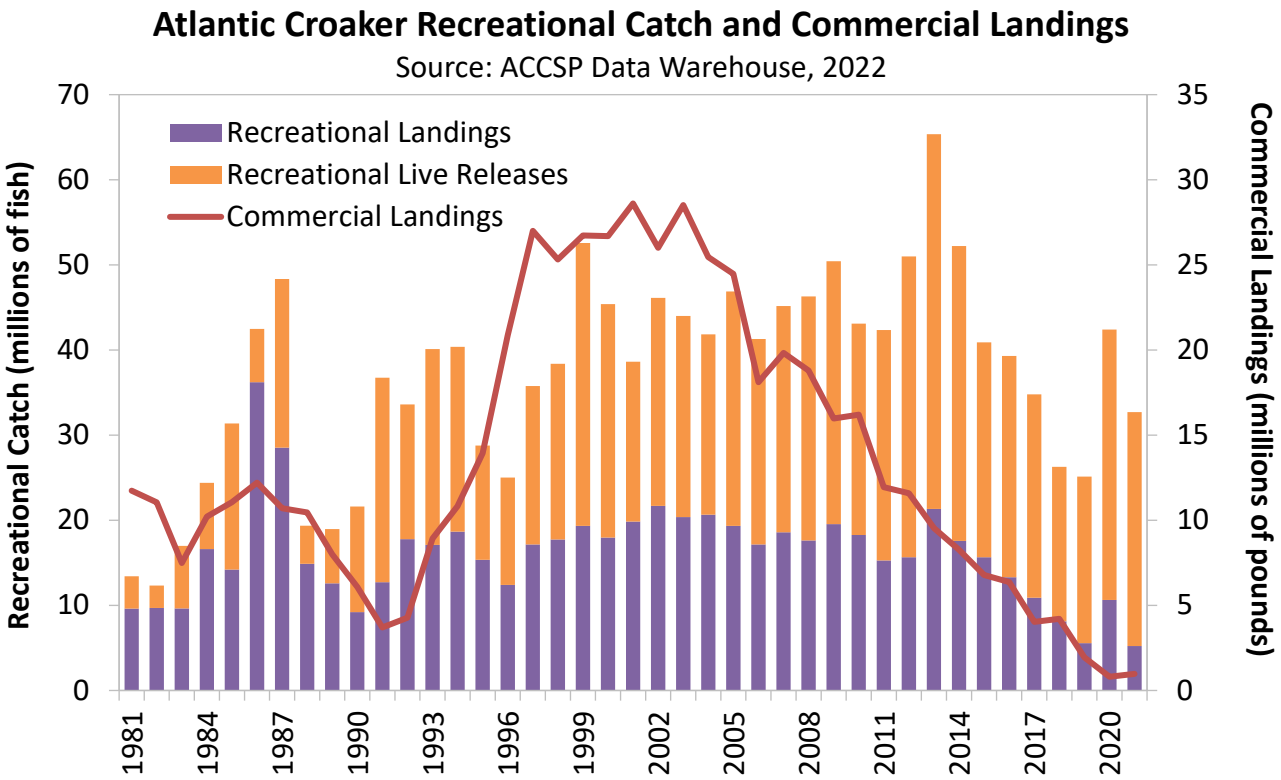
**American Lobster Landings by Area**
Source: 2020 American Lobster Benchmark Stock Assessment Report



**Pending Action:**
Following its review of the 2020 Benchmark Stock Assessment and Peer Review Report, the Board reinitiated development of Draft Addendum XXVII, with a focus on developing a trigger mechanism that would automatically implement management measures to improve protection of the GOM/GBK spawning stock if the trigger is reached. This management action is intended to be proactive in response to signs of reduced larval settlement and juvenile recruitment. In January 2022, the Draft Addendum was approved for public comment, but the ISFMP Policy Board decided to postpone public hearings until June 2022. The Board will review public comment and consider final action in November 2022.

**Primary Management Measures:** Lobster is managed through 7 specific management areas. Each area has unique regulations that can include minimum/maximum size limits, trap limits, and v-notching definitions.

# Overview of Stock Status
## Atlantic Croaker, *Micropogonias undulatus*




**Management Considerations:**

**Condition:** Unknown; The 2022 TLA was conducted, but due to missing data from survey recalibrations and impacts on sampling efforts due to the COVID-19 pandemic, stock condition was unable to be determined.

**FMP Stock Rebuilding Goals (Addendum I):**
Fishing Mortality (F) Threshold = $F_{MSY}$ (or a reasonable proxy thereof)
F Target ($F_{target}$) = a fraction of the F threshold. F target is the rebuilding rate. Exceeding F threshold constitutes overfishing.

Biomass target (rebuilding level) = $B_{MSY}$ (or a reasonable proxy thereof).
Biomass threshold = a fraction of the biomass target.
Falling below B threshold constitutes overfished.

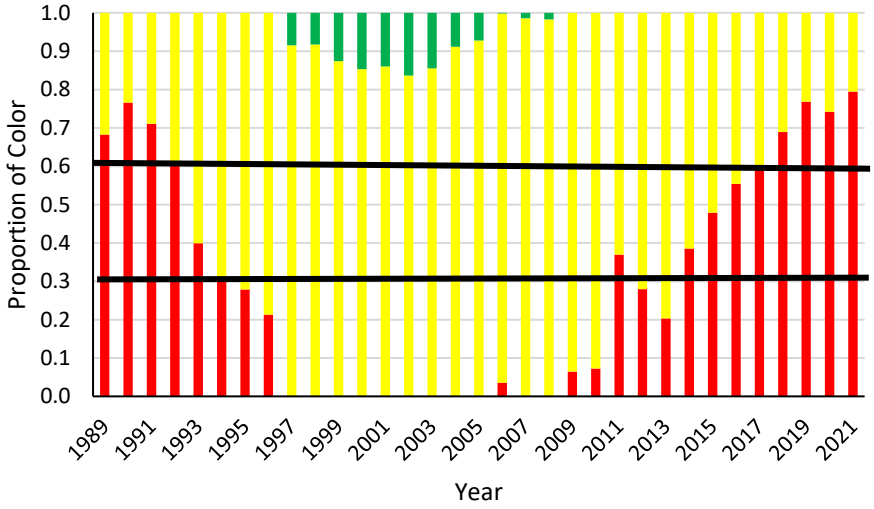
**Timeline of Management Actions:** FMP (1987); Amendment 1 (2005); Addendum I (2011); Addendum II (2014); Addendum III (2020)

**FMP Status:** Amendment 1 revised FMP goals and objectives and established biological reference points. Addendum I revised the management area to assess the stock on a coastwide basis and adopted biological reference points. Addendum II established the TLA to assess stock trends and initiate management response. Addendum III updates the TLA's management trigger mechanism, management responses to TLA triggers, and evaluation of the fishery's response to measures implemented if triggers occur.

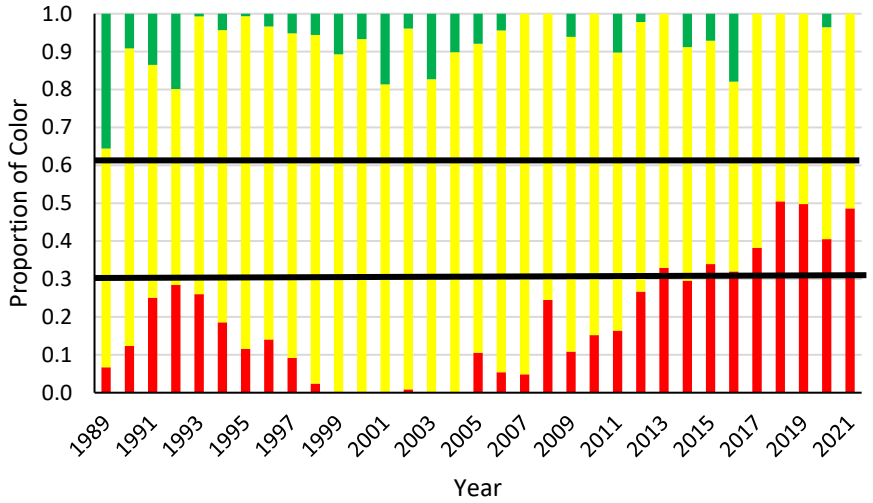
**Primary Management Measures:** In each non-assessment year, the Atlantic Croaker Technical Committee uses the TLA to evaluate changes in stock trends and the fishery. Coastwide management actions are triggered if both characteristics (harvest and abundance) in either region exceed threshold levels of red for 3 of the 4 most recent years. In 2020, the TLA indicated a moderate level of concern for the harvest metric in the Mid-Atlantic and South Atlantic regions, and for abundance in the Mid-Atlantic region, triggering a management response for non-*de minimis* states. Management measures currently in place include a 50 fish recreational bag limit and commercial fishery modifications to reduce the 10 year harvest average by 1%.

# Overview of Stock Status
## Atlantic Croaker, *Micropogonias undulatus*

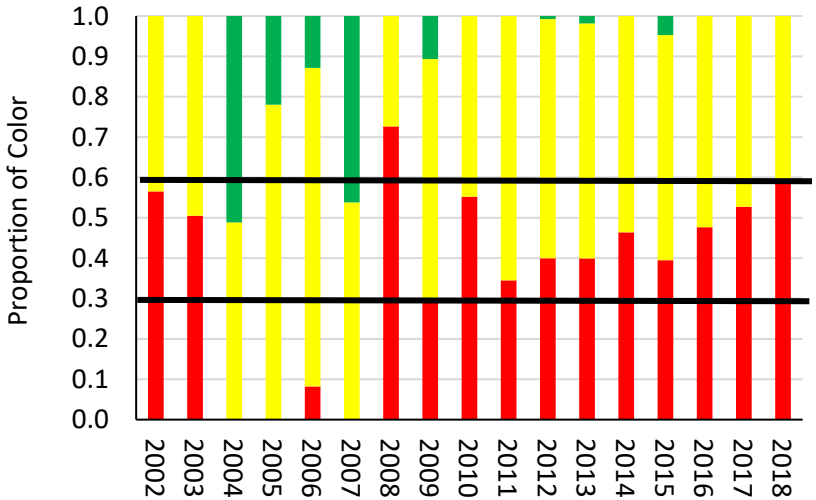
### Harvest Composite TLA of Mid-Atlantic (NJ-VA) Recreational and Commercial Landings



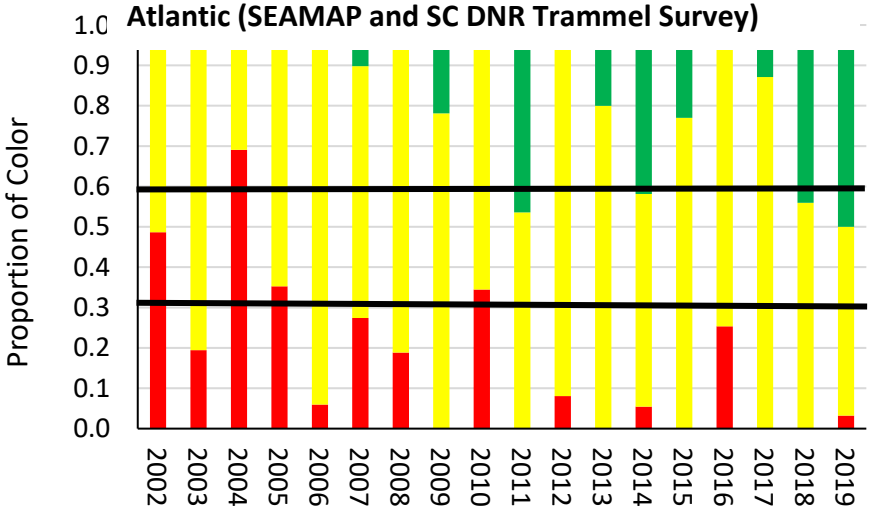

### Harvest Composite TLA of South Atlantic (NC-FL) Recreational and Commercial Landings using a 2002-2012 reference period




### Adult (age 2+) Abundance Composite for the Mid-Atlantic (NEFSC and ChesMMAP surveys)



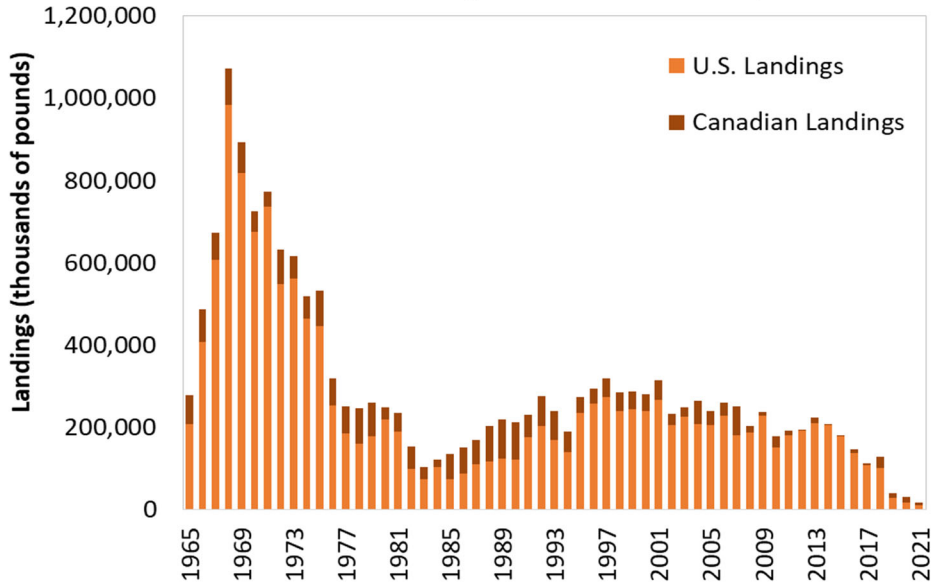

### Adult (age 2+) Abundance Composite for the South Atlantic (SEAMAP and SC DNR Trammel Survey)



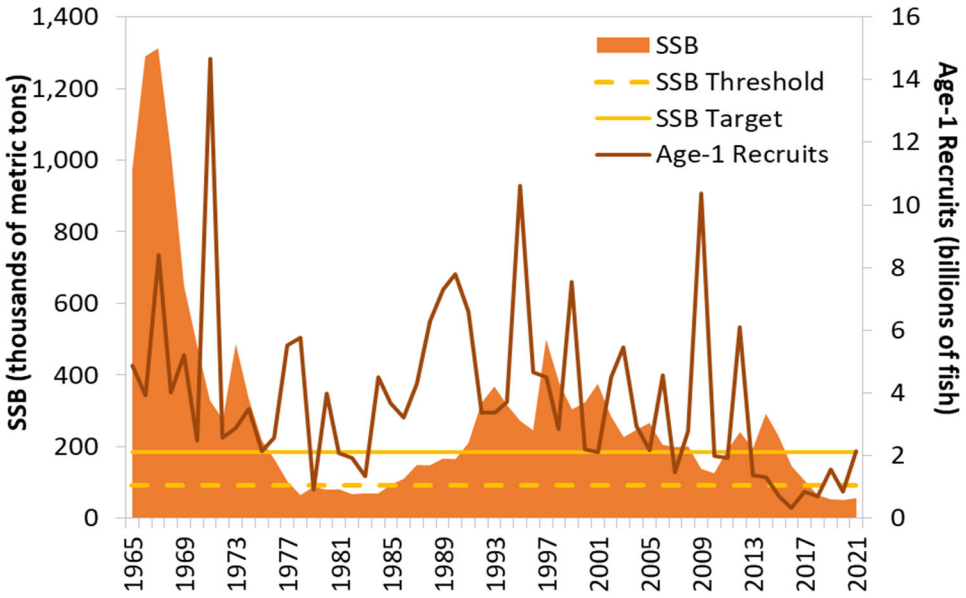

Management response is triggered when the proportion of red exceeds the 30% threshold level (moderate concern).for three of the last four years in both fishery characteristics (harvest and abundance metrics). 60% threshold represents a significant concern. Resulting management action varies based on which threshold has been exceeded.

# Overview of Stock Status
# Atlantic Herring, *Clupea Harengus*

**Atlantic Herring Landings**
Source: NEFSC Management Track Assessment, 2022




**Atlantic Herring Spawning Stock Biomass and Recruitment**
Source: NEFSC Management Track Assessment, 2022




**Timeline of Management Actions:** FMP (1993); Amendment 1 (1999); Amendment 2 (2006); Technical Addendum I (2006); Addendum I (2009); Addendum II (2010); Addendum V (2012); Addendum VI (2013); Amendment 3 (2016); Addendum I (2017); Addendum II (2019)

**Management Considerations:**
**Condition:** Overfished but overfishing is not occurring.

**FMP Reference Points and Current Values:**
SSB Target = 185,750 mt; SSB Threshold = 92,875 mt; 2021 SSB = 39,091 mt
Fishing Mortality Threshold ($F_{MSY}$) = 0.5; 2021 F = 0.153
2021 Recruitment = 2.14 billion fish (below median of 2.82 billion fish)

**FMP Status:**
Amendment 3, approved in February 2016, refines the spawning closure monitoring system and modifies the fixed gear set-aside. The Amendment consolidates prior amendments (and associated addenda) and recent management decisions into a single document; it is now the guiding management document for the Area 1A Atlantic Herring fishery. Addendum I to Amendment 3 includes management measures to stabilize the rate of catch in Area 1A and distribute the seasonal quota throughout Trimester 2 (June through September). Addendum II to Amendment 3 strengthens spawning protections in Area 1A (inshore Gulf of Maine) by initiating a closure when a lower percentage of the population is spawning, extending the closure for a longer time, and modifying the trigger level necessary to reclose the fishery.

**Primary Management Measures:**
For the 2022 fishing season, the Council and the Commission set the ACL at 9.0 million pounds (4,098 mt), which was later adjusted to 8.4 million pounds (3,813 mt) to account for overages in 2020. The ACL is further subdivided into sub-ACLs by the Atlantic herring management areas as follows (accounting for adjustments due to 2020 catch overages/underages): Area 1A = 2.4 million pounds (1,075 mt), Area 1B = 0 pounds (0 mt), Area 2 = 2.9 million pounds (1,295 mt), and Area 3 = 4.0 million pounds (1,817 mt). After adjusting for the 30 mt fixed gear set-aside and the 8% buffer (Area 1A closes at 92% of the sub-ACL), the 2022 Area 1A sub-ACL is 961 mt. There is no research-set-aside for 2022. The Board established the following seasonal allocations for the 2022 Area 1A sub-ACL: 72.8% available from June 1 – September 30 and 27.2% available from October 1 – December 31. Directed fisheries within a management area close when 92% of the sub-ACL has been harvested, and the stock-wide fishery closes when 95% of the ACL is projected to be reached.

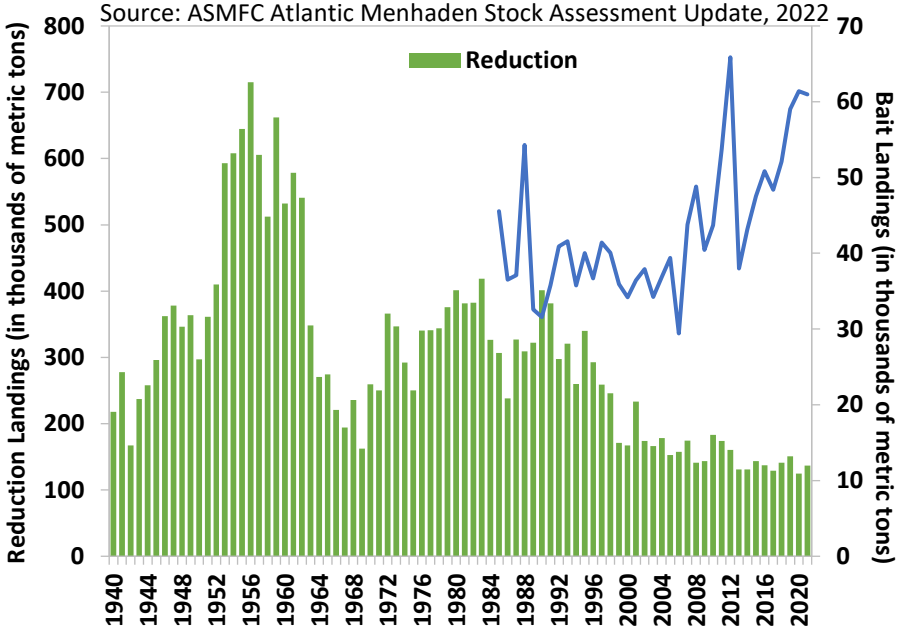
# Overview of Stock Status
# Atlantic Herring, *Clupea Harengus*

**Pending Action:**
In February 2020, the Board approved for public comment Draft Addendum III to consider new approaches for managing the Area sub-ACL under low quota scenarios for the 2020 fishing season and consider expanding landing provisions for permit holders within the days out program. In May 2020, the Board postponed final action on Addendum III until a final rule for the Council's Amendment 8 has been published and until the Council and Commission leadership conduct discussions on coordination of Atlantic herring management. NOAA Fisheries published the final rule on the Council's Amendment 8 in January 2021 and coordination discussions between Council and Commission leadership are still ongoing.

# Overview of Stock Status
# Atlantic Menhaden, *Brevoortia tyrannus*

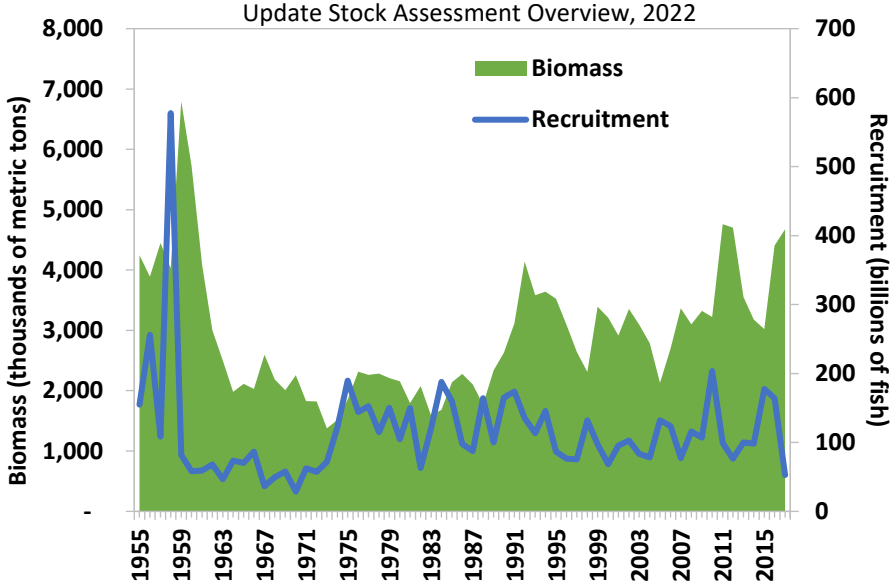
**Atlantic Menhaden Bait and Reduction Landings**

Source: ASMFC Atlantic Menhaden Stock Assessment Update, 2022



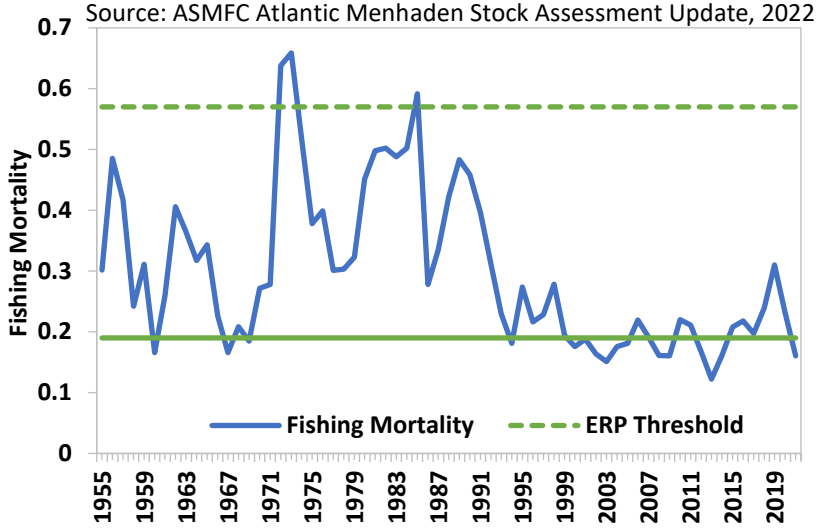

**Atlantic Menhaden Biomass and Recruitment**

Source: ASMFC Atlantic Menhaden Single-Species Update Stock Assessment Overview, 2022



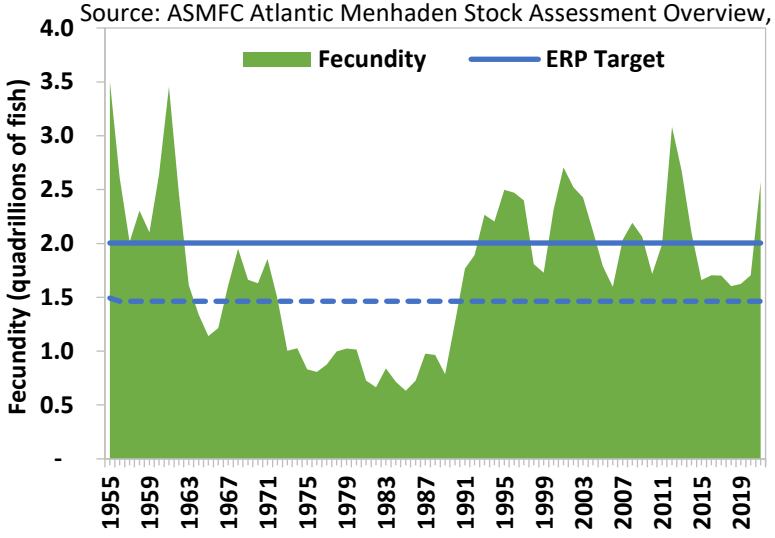

**Atlantic Menhaden Fishing Mortality**

Source: ASMFC Atlantic Menhaden Stock Assessment Update, 2022




**Atlantic Menhaden Fecundity**

Source: ASMFC Atlantic Menhaden Stock Assessment Overview, 2022




October 2022

# Overview of Stock Status
# Atlantic Menhaden, *Brevoortia tyrannus*

**Timeline of Management Actions:** FMP (1981); FMP Revision (1991); Amendment 1 (2001); Addendum I (2004); Addendum II (2005); Addendum III (2006); Addendum IV (2009); Addendum V (2011); Amendment 2 (2012); Technical Addendum I (2013); Addendum I (2016); Amendment 3 (2017)

## Management Considerations

**Condition**: Not overfished and not experiencing overfishing (2022 single-species update stock assessment and 2020 ecological reference points (ERP) benchmark stock assessment)

**FMP Stock Rebuilding Goals:**

ERP Fishing Mortality Target = 0.19
ERP Fishing Mortality Threshold = 0.57
Current Fishing Mortality (2022) = 0.16

ERP Fecundity Target = 2.004 quadrillions of eggs
ERP Fecundity Threshold = 1.493 quadrillions of eggs
Current Fecundity (2022) = 2.570 quadrillions of eggs

**FMP Status:** Amendment 3, approved in November 2017, maintained the single-species biological reference points through 2019, and addresses allocation, quota transfers, quota rollovers, incidental catch, the episodic events set aside program, and the Chesapeake Bay reduction fishery cap. Amendment 3 also changes fishery allocations in order to strike an improved balance between gear types and jurisdictions. The Amendment allocates a baseline quota of 0.5% to each jurisdiction, and then allocates the rest of the total allowable catch (TAC) based on historic landings between 2009 and 2011 (see accompanying table). This measure provides fishing opportunities to states that currently have little quota while still recognizing historic landings in the fishery. The Amendment also maintains the quota transfer process, prohibits the rollover of unused quota, maintains the 6,000 lb trip limit for non-directed and small-scale gears following the closure of a directed fishery, and sets aside 1% of the TAC for episodic events in the states of New York through Maine.

| Amendment 3 Quota Allocations | |
|---|---|
| **State** | **Allocations (%)** |
| **Maine** | 0.52% |
| **New Hampshire** | 0.50% |
| **Massachusetts** | 1.27% |
| **Rhode Island** | 0.52% |
| **Connecticut** | 0.52% |
| **New York** | 0.69% |
| **New Jersey** | 10.87% |
| **Pennsylvania** | 0.50% |
| **Delaware** | 0.51% |
| **Maryland** | 1.89% |
| **Potomac River Fisheries Commission** | 1.07% |
| **Virginia** | 78.66% |
| **North Carolina** | 0.96% |
| **South Carolina** | 0.50% |
| **Georgia** | 0.50% |
| **Florida** | 0.52% |
| **Total** | 100% |

In August 2020, the Board approved the following Ecological Reference Points (ERPs) for the management of Atlantic menhaden: ERP target: The maximum fishing mortality rate (*F*) on Atlantic menhaden that sustains Atlantic striped bass at their biomass target when striped bass are fished at their *F* target and the ERP threshold: The maximum *F* on Atlantic menhaden that keeps Atlantic striped bass at their biomass threshold when striped bass are fished at their *F* target.

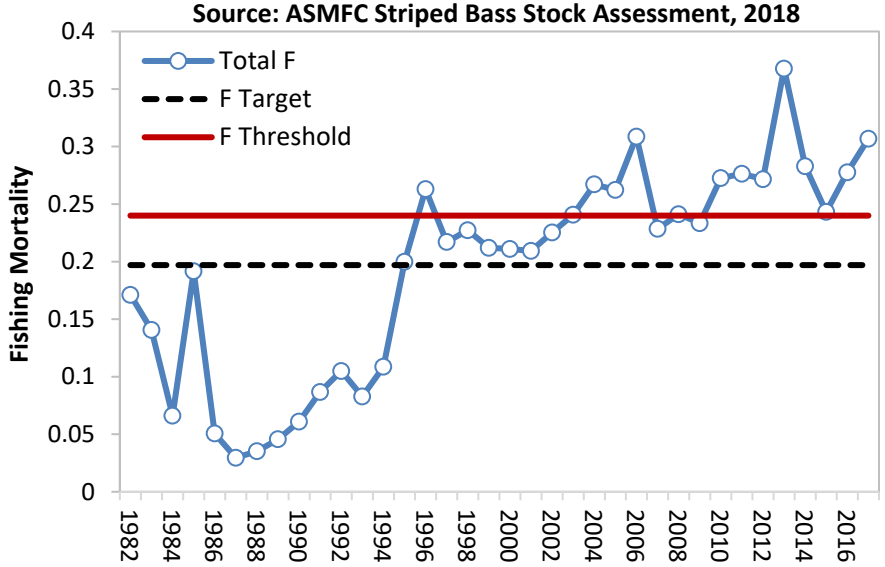
The current TAC for the 2021 and 2022 fishing seasons is 194,400 mt. The 2021-2022 TAC represents a 10% reduction from 2018-2020 TAC level. The Board approved the current TAC in October 2020 based on the ERPs approved in August 2020; this TAC level is estimated to have a 58.5% chance of being at or above the ERP F target in 2021, and a 52% chance of being at or above the ERP F target in 2022. It has a 0% chance of being above the F threshold in both years. According to the latest assessment results, the 2022 estimate of fecundity, a measure of reproductive potential, was above both the ERP FEC target and threshold, indicating the stock is not overfished.

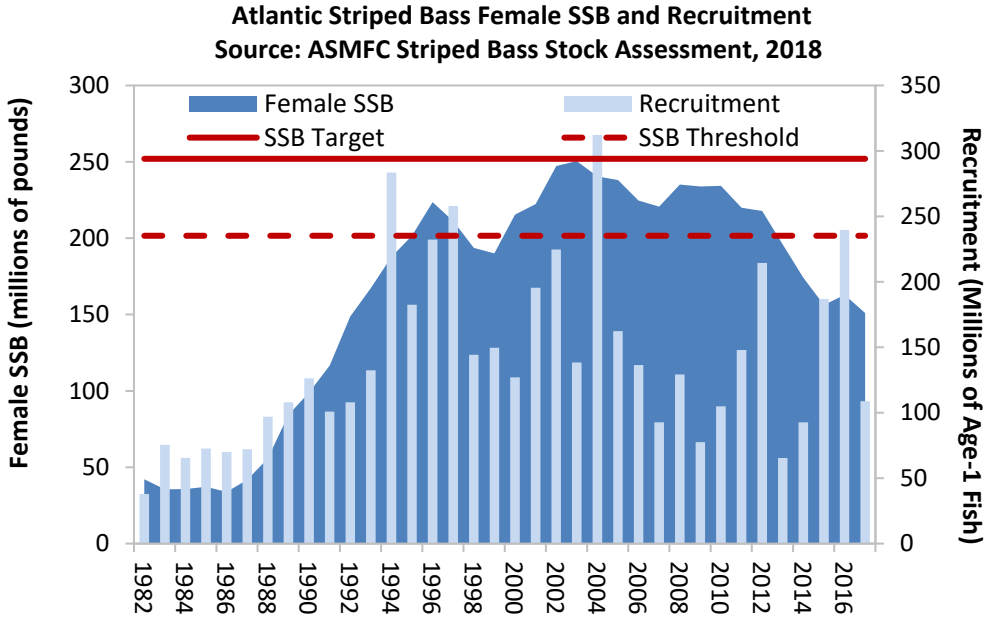
# Overview of Stock Status
# Atlantic Menhaden, *Brevoortia tyrannus*

**Primary Management Measures:** The Atlantic Menhaden Management Board (Board) approved a total allowable catch (TAC) of 194,400 metric tons (mt) for the 2021 and 2022 fishing seasons, which represents a 10% reduction from the 2018-2020 TAC level. The 2021-2022 TAC was set based on ERPs. See accompanying table for state percent shares of the TAC. States must close their fisheries when the state-specific portion of the TAC has been reached.

**Pending Action:**
Since the implementation of Amendment 3 in 2017, dynamics in the commercial menhaden fishery have changed, most notably the rise of landings in the Gulf of Maine and an increase in quota transfers to the New England region; an increase in landings under the Incidental Catch/Small Scale Fisheries (IC/SSF) provision; and an annual reliance by some states on the episodic event set aside (EESA) program. In August 2021, the Board initiated Draft Addendum I to Amendment 3 to consider changes to commercial allocations, the EESA program, and the IC/SSF provision. The Board will consider the Addendum's approval in November 2022.

# Overview of Stock Status
# Atlantic Striped Bass, *Morone saxatilis*




**Timeline of Management Actions:** FMP (1981); Amendment 6 (2003); Addendum I (2007); Addendum II (2010); Addendum III (2012); Addendum IV (2014); Addendum VI (2019)

**Management Considerations**

**Condition:** Overfished and overfishing occurring (2018 Benchmark Stock Assessment and Peer Review)

**FMP Stock Control Rules:**

| | |
|---|---|
| $SSB_{target}$ = 252 million pounds | $F_{target}$ = 0.20 |
| $SSB_{threshold}$ = 202 million pounds | $F_{threshold}$ = 0.24 |
| SSB = 151 million pounds | $F_{2017}$ = 0.31 |

**FMP Status:** Amendment 7 was approved in May 2022 and establishes new requirements for the following components of the FMP: management triggers, conservation equivalency, measures to address recreational release mortality, and the stock rebuilding plan. All provisions of Amendment 7 are effective immediately except for gear restrictions. States must implement gear restrictions by January 1, 2023. Amendment 7 consolidates the prior Amendment (6) and its associated addenda into a single document and is now the comprehensive document for Atlantic striped bass management in state waters. Amendment 7 implements a more conservative recruitment trigger, provides more formal guidance around uncertainty in the management process, and implements measures designed to reduce recreational release mortality. Amendment 7 also addresses the upcoming 2022 stock assessment and how it will inform efforts to meet the 2029 stock rebuilding deadline, which is required since the stock was declared overfished in 2019 by the last stock assessment. Amendment 7 maintains the same commercial and recreational measures from Addendum VI to Amendment 6, which were designed to achieve an 18% reduction in removals to address the overfishing status of striped bass: all state commercial quotas were reduced by 18%, and recreational fisheries implemented a 1 fish bag limit and a 28”to less than 35” slot limit for the ocean region and a 1 fish bag limit and an 18” minimum size limit for Chesapeake Bay. Until these measures are changed through future management action, Amendment 7 maintains all approved state implementation plans and conservation equivalency programs from Addendum VI.

# Overview of Stock Status
# Atlantic Striped Bass, *Morone saxatilis*

**Primary Management Measures:** Commercial harvest is managed through state-by-state quotas (for ocean and bay fisheries), minimum size limits, and seasons. The recreational fishery is managed through bag and size limits (and seasons in some states).

**Pending Management Action:**

The Board initiated Addendum I to Amendment 7 in August 2021 to consider allowing the voluntary transfer of commercial striped bass quota between states/jurisdictions that have commercial quota. The Board deferred consideration of Draft Addendum I until November 2022.

October 2022

# Overview of Stock Status
# Atlantic Sturgeon, *Acipenser oxyrinchus*

**Management Considerations:**

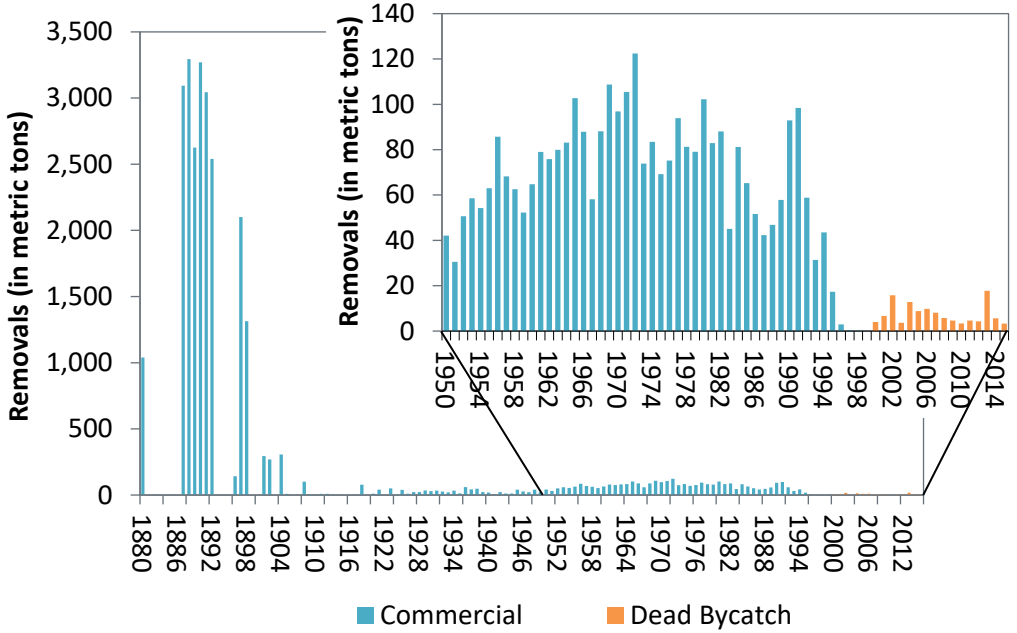
**Condition:**
Depleted (ASMFC Benchmark Stock Assessment 2017); NOAA Fisheries listed Atlantic sturgeon under the Endangered Species Act in 2012.

**FMP Stock Rebuilding Goals:**
To have at least 20 protected age classes of females in each spawning stock.

**FMP Rebuilding Schedule:**
Approximately 20 to 40 years from initiation of Amendment 1 (1998), depending on a number of factors, including individual spawning stock's maturity rate; longevity; geographic area; and length of prior fishery closures.

**FMP Status:**
FMP approved in 1990 and Amendment 1 approved in 1998 to initiate a moratorium. Addendum I was approved in 2001; Addendum II in May 2005; Addendum III in November 2006. Combined, all three Addenda permit the importation of non-indigenous Atlantic sturgeon as well as the development of private Atlantic sturgeon aquaculture facilities in Florida and North Carolina. Addendum IV, approved in 2012, updates habitat information and identifies areas of concern and research needs.

**Coastwide Atlantic Sturgeon Commercial Landings and Dead Bycatch, 1880–2014**
Inserted graph provides same information but for a more recent timeframe, 1950–2014
Source: ASMFC Atlantic Sturgeon Benchmark Stock Assessment, 2017




**Timeline of Management Actions:** FMP (1990); Amendment 1 (1998); Addendum I (2001); Addendum II (2005); Addendum III (2006); Addendum IV (2012)

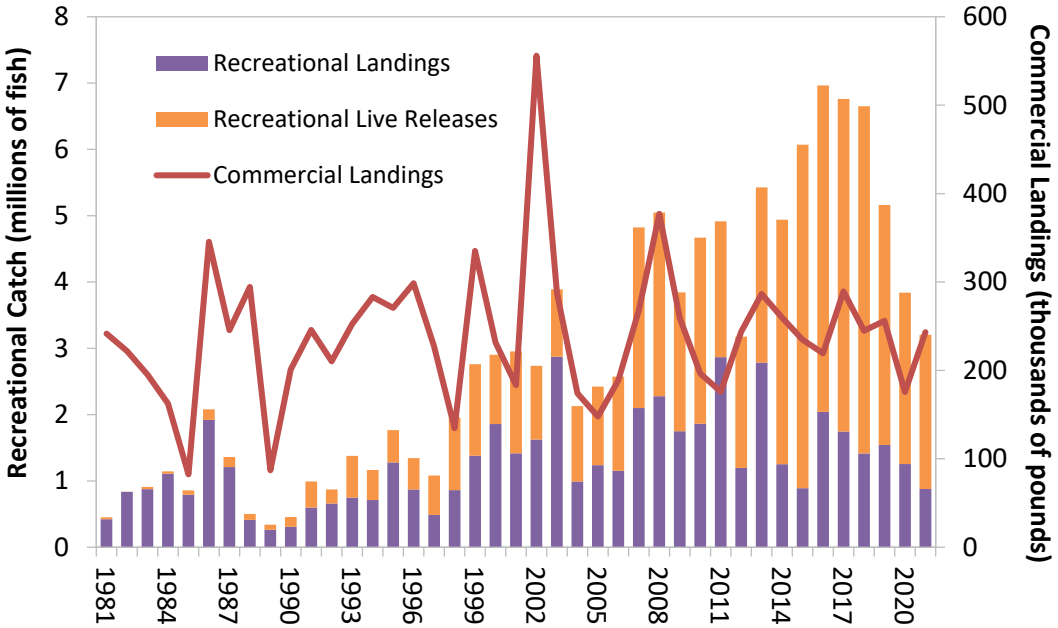
**Primary Management Measures:**
Amendment 1 mandated all Atlantic coastal states enact a moratorium on harvest and possession of Atlantic sturgeon. Exemptions to the moratorium on possession are detailed in the FMP.

| | Mortality Status | Biomass/Abundance Status | |
|---|---|---|---|
| **Population** | **Probability that Z > $Z_{50\%EPR}$ 80%** | **Relative to Historic Levels** | **Average probability of terminal year of indices > 1998* value** |
| **Coastwide** | 7% | Depleted | 95% |
| **Gulf of Maine** | 74% | Depleted | 51% |
| **New York Bight** | 31% | Depleted | 75% |
| **Chesapeake Bay** | 30% | Depleted | 36% |
| **Carolina** | 75% | Depleted | 67% |
| **South Atlantic** | 40% | Depleted | Unknown (no suitable indices) |

# Overview of Stock Status
# Black Drum, *Pogonias cromis*

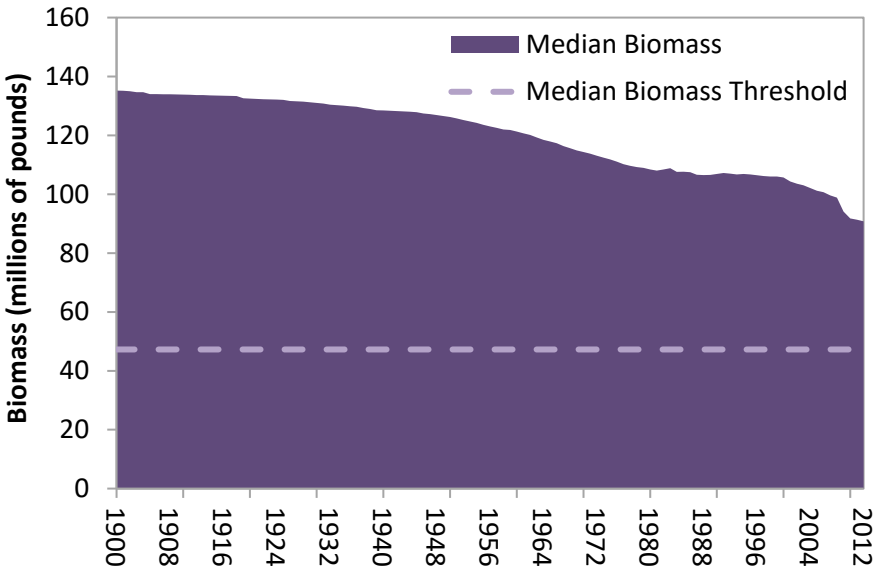
**Black Drum Commercial Landings & Recreational Catch**

Source: ACCSP Data Warehouse, 2022




**Black Drum Biomass**

ASMFC Black Drum Benchmark Assessment, 2015




**Timeline of Management Actions:** FMP (2013); Addendum I (2018)

**Management Considerations**

**Condition:** Not overfished and not experiencing overfishing

**FMP Stock Rebuilding Goals:** None

**FMP Rebuilding Schedule:** None

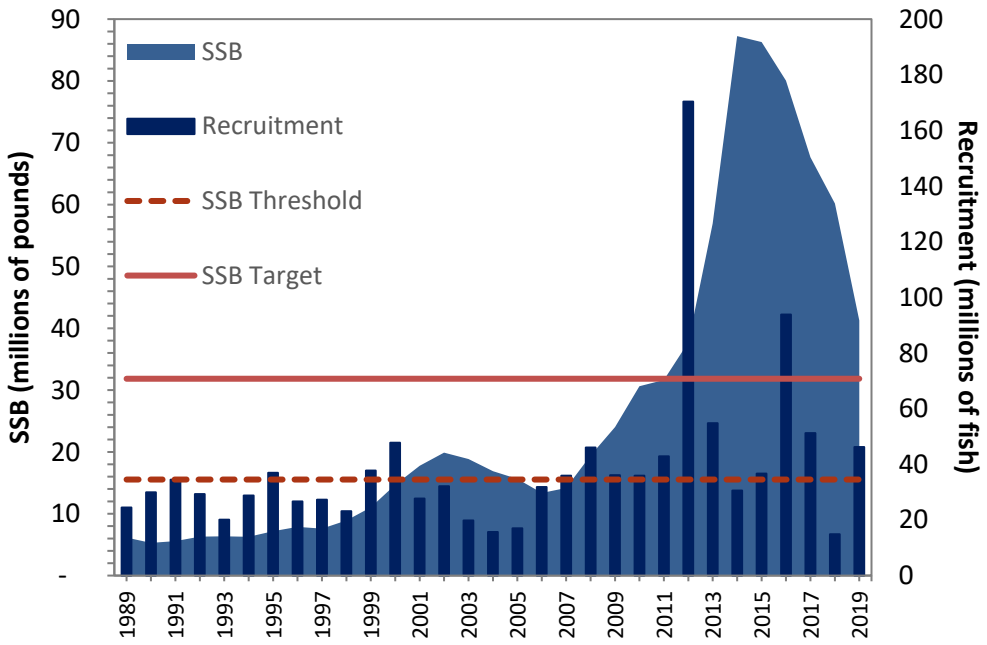
**FMP Status:** The Black Drum FMP was approved in June 2013. Addendum I allows Maryland to reopen its black drum commercial fishery in the Chesapeake Bay with a daily vessel limit of up to 10 fish and a 28-inch minimum size.

**Primary Management Measures:** The FMP requires all states to maintain current regulations for black drum and to implement a maximum possession limit and a minimum size limit of no less than 14 inches. The FMP also establishes a management framework to address future concerns or changes in the fishery or population.

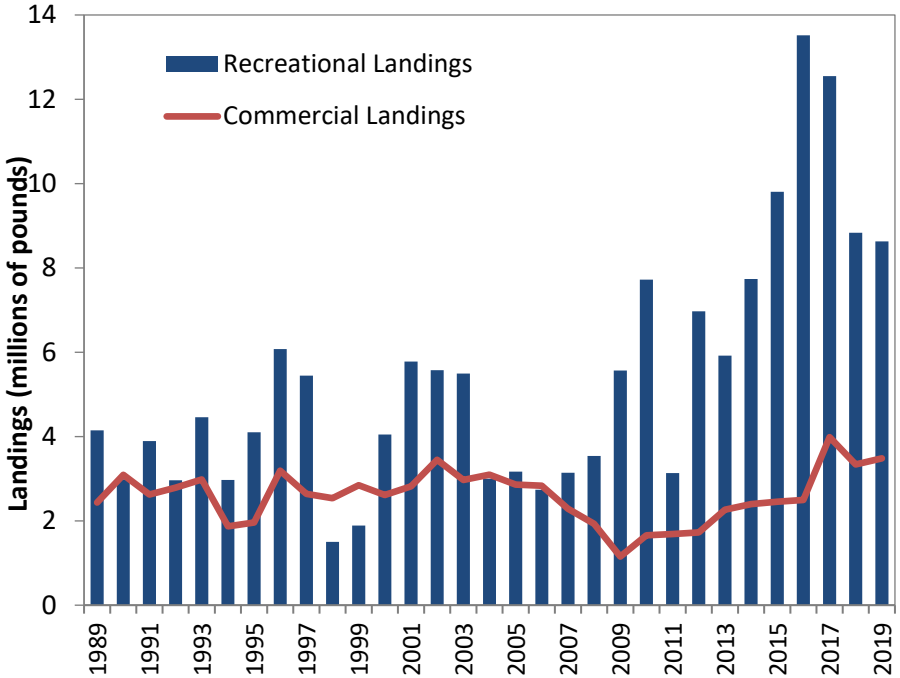
October 2022

# Overview of Stock Status
# Black Sea Bass, *Centropristis striata*

**Black Sea Bass Spawning Stock Biomass (SSB) and Recruitment**
Source: Northeast Fisheries Science Center, 2021




**Black Sea Bass Commercial and Recreational Landings**
Source: Northeast Fisheries Science Center, 2021




**Timeline of Management Actions:** FMP ('96); Amendment 10 ('97); Amendment 11 ('98); Amendment 12 ('99); Amendment 13 ('02); Addenda XII & XIII ('04); Addendum XVI ('05); Addendum XIX ('07); Addendum XX ('09); Addendum XXI ('11); Addendum XXII ('12); Addendum XXIII ('13); Addendum XXV ('14); Addendum XXVII ('16); Addenda XXX, XXXI and XXXII ('18); Addendum XXXIII ('21)

**Management Considerations:**

**Condition:** Not overfished nor experiencing overfishing.

**Biological Reference Points:**

Spawning Stock Biomass Threshold (1/2 $SSB_{MSY\ PROXY}$) = 16 million pounds

Spawning Stock Biomass Target = $SSB_{MSY}$ = $SSB_{35\%}$ = 32 million pounds

Spawning Stock $Biomass_{2019}$ = 41 million pounds

Fishing Mortality Threshold ($F_{MSY\ PROXY}$=$F_{40\%}$)= 0.46

Fishing $Mortality_{2019}$= 0.39

May 2022

# Overview of Stock Status
# Black Sea Bass, *Centropristis striata*

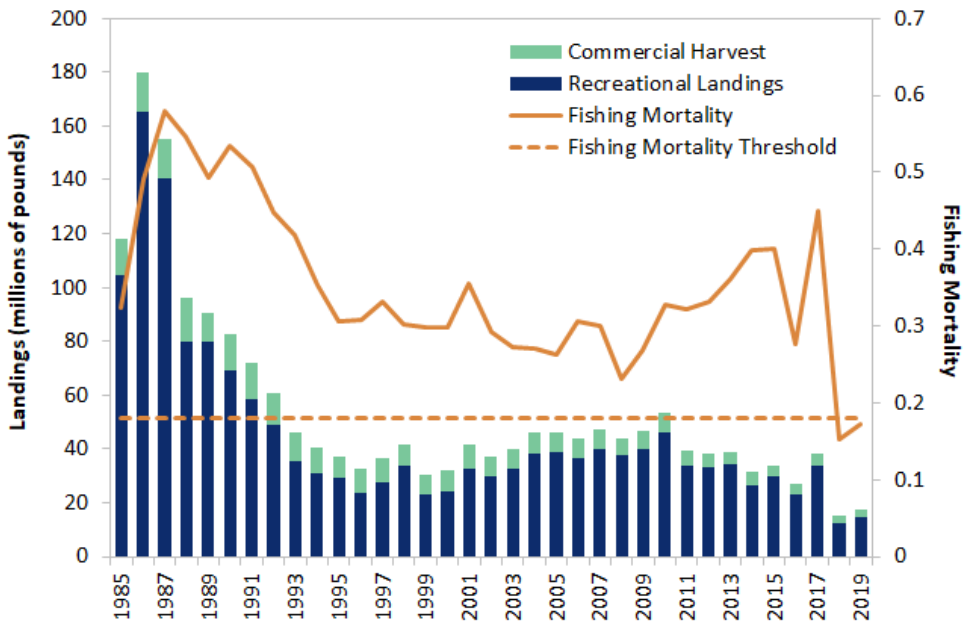
**FMP Status:**
Joint management with Mid-Atlantic Fishery Management Council (Council). Addendum XIII (2004) allows the TAL to be set for up to three years in a given year. Addendum XIX (2007) sets the current state-by-state shares for the commercial fishery. Addendum XXII (2012) modifies the management measures for the 2012 recreational black sea bass fishery. Addendum XXVII (2016) continues use of regional management measures for the recreational fishery. Addendum XXX (2018) establishes a regional allocation of the coastwide Recreational Harvest Limit (RHL) using a combination of exploitable biomass information and historical harvest. Addendum XXXI (2018) allows the use of conservation equivalency for recreational management starting in 2020 and recommended NOAA Fisheries implement transit provisions in Block Island Sound, allowing non-federally permitted recreational and commercial vessels to transit federal waters while in possession of black sea bass legally harvested from state waters. Addendum XXXII (2018) establishes an annual specifications process for developing recreational management measures, and Addendum XXXIII (2021) adjusted commercial quotas based partially on regional biomass and made changes to federal management.

**Primary Management Measures:**
Annual total allowable landings (TAL) divided into a state-by-state commercial quota (49% of TAL) and recreational harvest limit (51% of TAL). Coastwide commercial management measures include minimum fish and mesh sizes, as well as pot/trap specifications. The recreational fishery allocates the coastwide Recreational Harvest Limit (RHL) to the three management regions of Massachusetts through New York (61.35% of RHL), New Jersey (30.24%), and Delaware through North Carolina (8.41%).

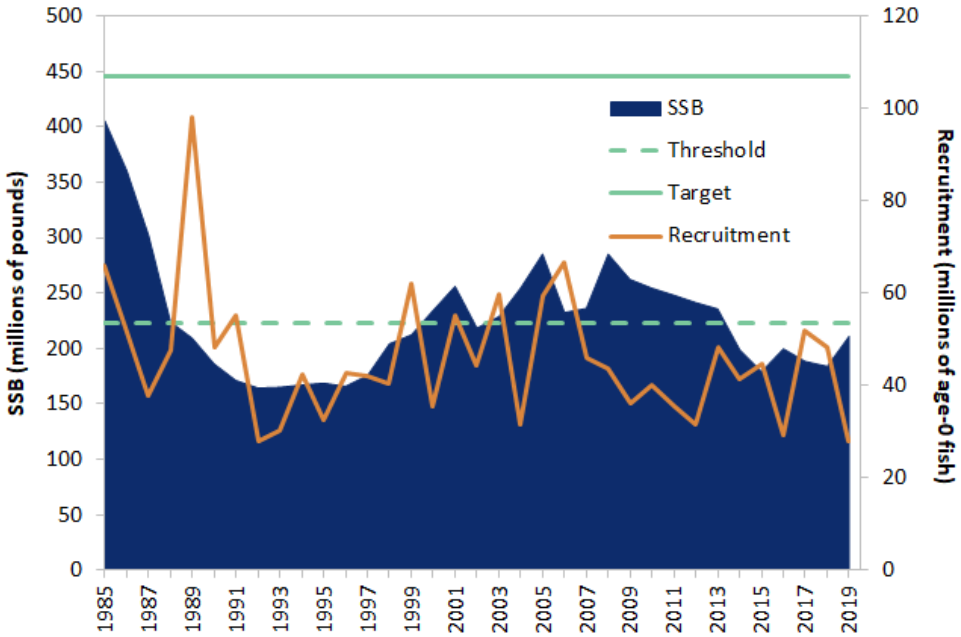
The Board and MAFMC approved changes to the commercial and recreational allocations of summer flounder, scup, and black sea bass. These changes are intended to better reflect the current understanding of the historic proportions of catch and landings from the commercial and recreational sectors. For all three species, these changes result in a shift in allocation from the commercial to the recreational sector. However, because the summer flounder and black sea bass fisheries will be transitioning from landings-based to catch-based allocations, the current and revised allocations for those species are not directly comparable. The Council and Board also approved an option to allow future changes to commercial/recreational allocations, annual quota transfers, and other measures addressed in the amendment to be made through framework actions/addenda. The Commission's Business Session, which represents its 15 state members, gave its final approval of the amendment, based on the Board's recommendations, at its Winter 2022 Meeting. These changes are expected to take effect on January 1, 2023.

# Overview of Stock Status
# Bluefish, *Pomatomus saltatrix*

**Bluefish Commercial and Recreational Landings**
Source: Northeast Fisheries Science Center, 2021




**Bluefish Spawning Stock Biomass (SSB) and Recruitment**
Source: Northeast Fisheries Science Center, 2021




**Timeline of Management Actions:** FMP (1980); Amendment 1 (1998); Addendum I (2012); Amendment 2 (2021)

**Management Considerations**

**Condition:** Overfished and not experiencing overfishing

**Biological Reference Points:**

Spawning Stock Biomass Target = 445 million pounds
Spawning Stock Biomass threshold = 222 million pounds
Spawning Stock Biomass$_{2019}$ = 211 million pounds

Fishing Mortality Threshold ($F_{MSY\ PROXY=}\ F_{35\%\ SPR}$) = 0.181
Fishing Mortality$_{2019}$ = 0.172

**FMP Status:** Joint management with the MAFMC. Addendum I establishes a coastwide sampling program to improve the quantity and quality of information available for use in future bluefish stock assessments. In August 2021, the Commission approved the Bluefish Allocation and Rebuilding Amendment. Amendment 2 updates the FMP goals and objectives; initiates a 7-year rebuilding plan; establishes new allocations between commercial (14% of the acceptable biological catch or ABC) and recreational fisheries (86% of the ABC); implements new state-by-state commercial allocations; revises the quota transfers process between the

recreational and commercial fisheries; and revises how the FMP accounts for management uncertainty. The amendment was implemented for the 2022 fishing year.

**Management Measures:** Annual total allowable landings (TAL) are divided into a commercial quota (17% of TAL) and a recreational harvest limit (83% of TAL). The commercial fishery is controlled through state-by-state quotas based on historic landings from 1981-1989. The recreational fishery is managed under a coastwide 3-fish bag limit for private anglers and shore-based fishermen, and a 5-fish bag limit for for-hire fishermen. The Commission and Council approved an acceptable biological catch (ABC) limit of 16.28 million pounds for the 2021 fishing season. After accounting for discards, the ABC translates to a commercial quota of 2.77 million pounds and a recreational harvest limit of 8.34 million pounds.

# Overview of Stock Status
# Coastal Sharks

**Management Considerations**

**Condition:** See accompanying table for stock status information by species and species group.

**Timeline of Management Actions:** FMP (2008); Addendum I (2000); Addenda II & III (2013); Addendum IV (2016); Addendum V (2018)

**Primary Management Measures**

Commercial and recreational fishermen are prohibited from possessing silky, tiger, blacktip, spinner, bull, lemon, nurse, scalloped hammerhead, great hammerhead, and smooth hammerhead shark species from May 15 – July 15 from VA-NJ to protect pupping females. All fishermen, with the exception of commercial fishermen who land smooth dogfish, are required to keep fins attached to the carcass through landing. Addendum I modifies the FMP to allow commercial fishermen to process (remove the fins from) smooth dogfish at sea from March – June of each year but requires a 5-95% fin-to-carcass ratio for all dressed smooth dogfish carcasses. Addendum II modifies the FMP to allow commercial fishermen to process smooth dogfish year round but requires a 12-88% fin-to-carcass ratio. Addendum III updates species groupings to ensure consistency with NOAA Fisheries and increases the recreational size limit for hammerhead sharks. Addendum IV requires smooth dogfish carcasses to be landed with corresponding fins attached if the trip does not meet the 25% catch composition requirement. Addendum V allows the Board to respond to changes in the stock status of coastal shark populations and adjust regulations through Board action rather than an addendum, ensuring greater consistency between state and federal shark regulations.

Recreational fishermen are prohibited from harvesting any species that is illegal to land in federal waters. Recreational fishing is controlled through minimum size limits with a 6.5' fork length size limit for the hammerhead species group; and a 4.5' fork length size limit for all other species except for Atlantic sharpnose, finetooth, blacknose, smooth dogfish, and bonnethead, which do not have size limits. Additionally, in April 2019, the Board approved minimum size

**Coastal Sharks Stock Status Information by Species and Species Groups**

| Species or Complex Name | Stock Status | | References/Comments |
|---|---|---|---|
| | Overfished | Overfishing | |
| **Pelagic** | | | |
| Porbeagle | Yes | No | Porbeagle Stock Assessment, ICCAT Standing Committee on Research and Statistics Report ('09); Rebuilding ends in 2108 (HMS Am. 2) |
| Blue | No | No | ICCAT Standing Committee on Research and Statistics Report ('15) |
| Shortfin Mako | Yes | Yes | ICCAT Standing Committee on Research and Statistics Report ('17) |
| All other | Unknown | Unknown | |
| **Aggregated Large Coastal Sharks (LCS)** | | | |
| Atlantic Blacktip | Unknown | Unknown | SEDAR 11 ('06) |
| Aggregated Large Coastal Sharks Atlantic Region | Unknown | Unknown | SEDAR 11 ('06); difficult to assess as a species complex due to various life history characteristics/lack of available data |
| **Non-Blacknose Small Coastal Sharks (SCS)** | | | |
| Atlantic | No | No | SEDAR 34 ('13) |
| Bonnethead | Unknown | Unknown | SEDAR 34 ('13) |
| Finetooth | No | No | SEDAR 13 ('07) |
| **Hammerhead** | | | |
| Scalloped | Yes | Yes | SEFSC Scientific Review by Hayes et al. ('09); Rebuilding ends in 2023 (HMS Am. 5a) |
| **Blacknose** | | | |
| Blacknose | Yes | Yes | SEDAR 21 ('10); Rebuilding ends in 2043 (HMS Am. 5a) |
| **Smoothhound** | | | |
| Atlantic Smooth | No | No | SEDAR 39 ('15) |
| **Research** | | | |
| Sandbar | Yes | No | SEDAR 21 ('10) |
| **Prohibited** | | | |
| Dusky | Yes | Yes | SEDAR 21 ('16); Rebuilding ends in 2107 (HMS Am. 5b) |
| All other | Unknown | Unknown | |

# Overview of Stock Status
# Coastal Sharks

limits for shortfin mako (5.92' fork length size for males, 6.92' fork length size for females) to be consistent with regulations set in federal waters in response to the 2017 stock assessment that found the resource is overfished and experiencing overfishing. Recreational anglers can only harvest sharks caught with a handline or rod & reel.

| Coastal Shark Management Groups | |
|---|---|
| **Species Group** | **Species within Group** |
| **Prohibited** | Sand tiger, bigeye sand tiger, whale, basking, white, dusky, bignose, Galapagos, night, reef, narrowtooth, Caribbean sharpnose, smalltail, Atlantic angel, longfin mako, bigeye thresher, sharpnose sevengill, bluntnose sixgill, bigeye sixgill |
| **Research** | Sandbar |
| **Non-blacknose Small Coastal** | Atlantic sharpnose, finetooth, bonnethead |
| **Blacknose** | Blacknose |
| **Aggregated Large Coastal** | Silky, tiger, blacktip, spinner, bull, lemon, nurse |
| **Hammerhead** | Scalloped hammerhead, great hammerhead, smooth hammerhead |
| **Pelagic** | Shortfin mako, porbeagle, common thresher, oceanic whitetip, blue |
| **Smoothhound** | Smooth dogfish, Florida smoothhound |

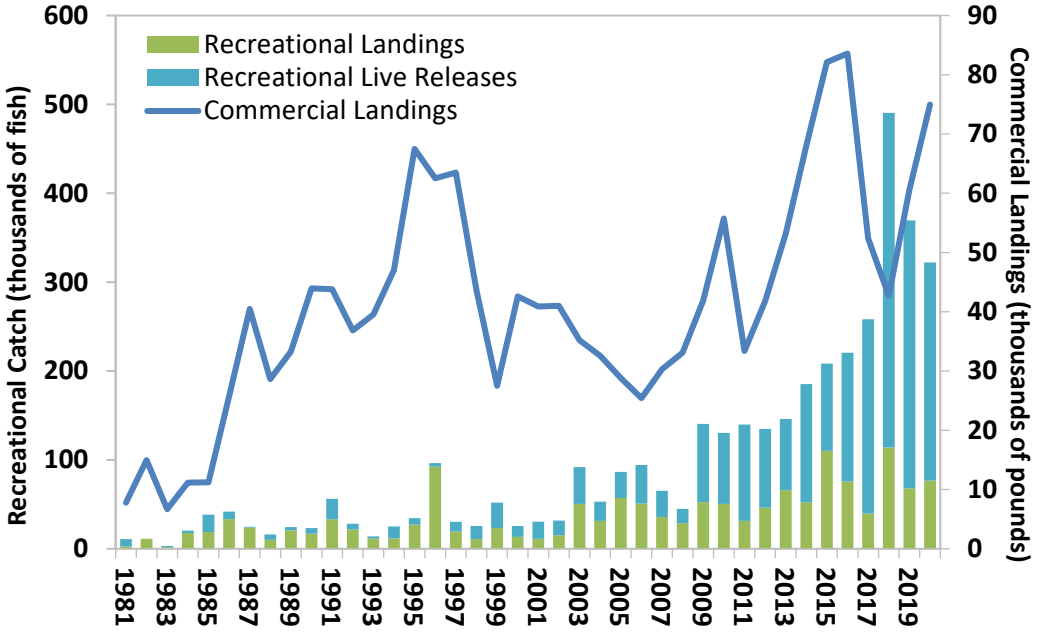
The commercial fishery is managed based on MSY using quotas and possession limits to control harvest level and effort. Sharks are split into eight commercial species groups based on fisheries, biology, and stock status — prohibited, research, small coastal, blacknose, aggregated large coastal, hammerhead, pelagic, and smoothhound (see table for species by species grouping). ASMFC does not set quotas for the blacknose, hammerhead, SCS, LCS, or pelagic species groups but rather opens and closes the fishery in response to the federal quota. As of 2016, smooth dogfish are subject to the state-share allocation, developed under Addendum II. Fishing effort for the smoothhound, blacknose, hammerhead, SCS, LCS, and pelagic species groups is controlled through possession limits; fishermen may harvest species within these groups as long as the fishery is open and all sharks are caught according to the regulations contained in the FMP.

Commercial fishermen must have a general state commercial fishing license or permit to harvest sharks. Dealers are required to hold a federal Commercial Shark Dealer permit to buy and sell sharks. Federal dealer permits are required in order to monitor the quota as efficiently as possible and reduce the chance of quota overages. Fishermen may use handlines, gillnets, trawl nets, shortlines, pound nets/fish traps, and weirs to harvest sharks commercially. Captains and vessel owners must use circle hooks and attend a Protected Species Safe Handling, Release, and Identification Workshop offered by NOAA Fisheries in order to harvest sharks using shortlines. The fishing season will open on January 1, 2022 with a commercial possession limit of 55 large coastal sharks (LCS) other than sandbar sharks per vessel per trip (i.e. aggregated LCS and hammerhead shark management groups) and 8 blacknose sharks per vessel trip. As agreed upon by the Commission's Coastal Sharks Management Board, the Commission will follow NOAA Fisheries for in-season changes to the commercial retention limit.

# Overview of Stock Status
# Cobia, *Rachycentron canadum*

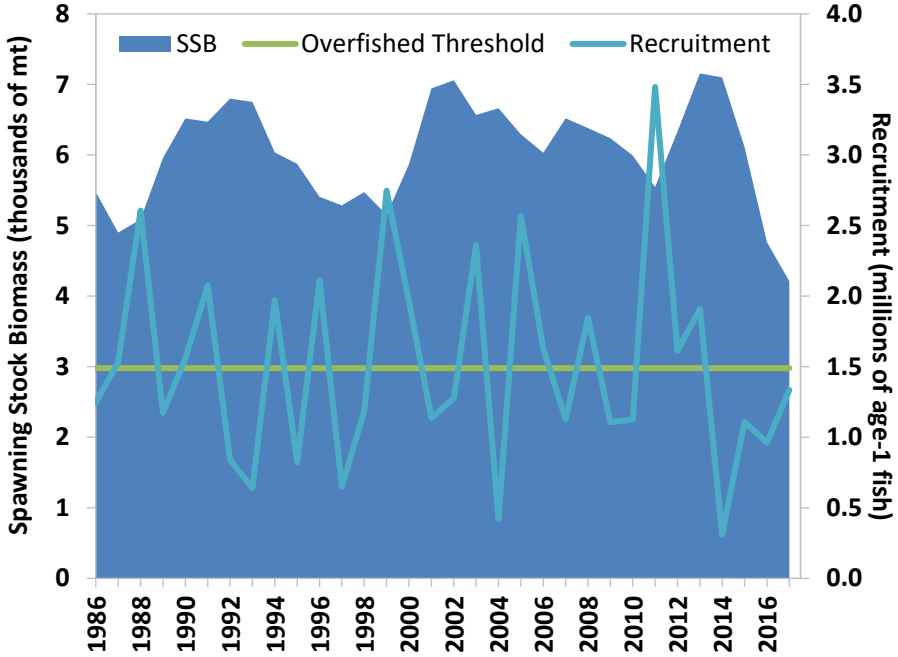
**Atlantic Cobia Recreational and Commercial Landings**

Source: NOAA Fisheries, Fisheries Statistics Division, 2021; ACCSP Data Warehouse, 2021




**Atlantic Cobia Spawning Stock Biomass & Recruitment**

Source: SouthEast Data, Assessment and Review 58, 2021




**Timeline of Management Actions:** FMP (2017); Amendment 1 (2019); Addendum I (2020)

**Management Considerations**

**Condition:** Two cobia stocks are currently recognized off the Atlantic coast; the Atlantic Migratory Group (Atlantic cobia) occurring from New York to Georgia, and the Gulf of Mexico Migratory Group (Gulf cobia) occurring throughout the Gulf of Mexico and extending to Florida's east coast. Atlantic cobia is neither overfished nor experiencing overfishing. The 2019 SEDAR Benchmark Assessment utilized $SSB_{F40\%}$ as the overfished threshold and $F_{40\%}$ as the overfishing threshold. SSB remains above the overfished threshold, but the fishing mortality rate has not exceeded the overfishing threshold.

**Biological Reference Points from 2019 SEDAR Benchmark Assessment:**

2017 SSB = 4,212 mt

$SSB_{F40\%}$ = 2,979 mt

2017 F = 0.17

$F_{40\%}$ = 0.69

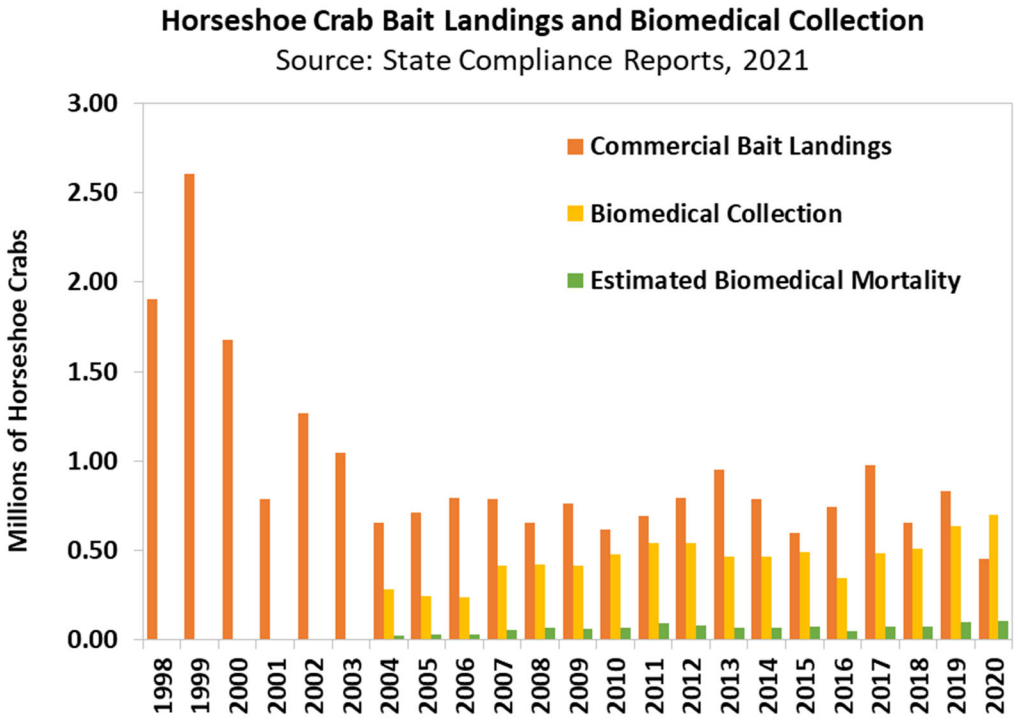
October 2020

# Overview of Stock Status
# Cobia, *Rachycentron canadum*

**Primary Management Measures:**
Amendment 1 (2019) establishes management measures that transition the FMP from complementary management with the Councils to sole management by the Commission. Amendment 1 establishes mechanisms to set harvest quotas and sector allocations, define stock status criteria, and recommend management measures to be implemented by NOAA Fisheries in federal waters. Due to the re-calibration of recreational data used in the 2019 assessment, the Board initiated an addendum to reevaluate allocation and *de minimis* measures.

In October 2020, the Board approved Addendum I to Amendment 1. The Addendum was initiated in response to the 2020 quota, which is based on the results of the 2020 Atlantic cobia benchmark stock assessment. The Addendum changed the allocation between commercial and recreational sectors, taking into consideration the change in recreational estimates. The addendum also adjusted the commercial quota closure trigger and *di minimis* recreational and commercial regulations.

# Overview of Stock Status
# Horseshoe Crab, *Limulus polyphemus*




**Please note the following details regarding biomedical collection numbers:**
* Biomedical collection numbers, which are annually reported to the Commission, include all horseshoe crabs brought to bleeding facilities except those that were harvested as bait and counted against state quotas.
* Most of the biomedical crabs collected are returned to the water after bleeding; a 15% mortality rate is estimated for all bled crabs.

**Timeline of Management Actions:** FMP (1998); Addendum I (2000); Addendum II (2001); Addendum III (2004); Addendum IV (2006); Addendum V (2008); Addendum VI (2010); Addendum VII (2012)

**Management Considerations**
**Condition:** Unknown

**FMP Status:** FMP approved in 1998. Addendum I (2000) required states to cap harvest at 25% below the 1995-1997 levels and encouraged retention of more restrictive measures. Addendum II (2001) allowed state-to-state quota transfers. Addendum III (2004) capped annual harvest in NJ and DE at 150,000 crabs/state and set MD's annual quota at its 2001 landings level (170,653 crabs); these states also prohibited bait harvest and landings from May 1 to June 7. Addendum IV (2006) established a male-only harvest of up to 100,000 crabs annually from June 8 to December 31 through September 2008 in NJ and DE, and set an annual closed season in MD waters from January 1 through June 7 through 2008. Addendum IV further restricted VA's ocean harvest to no more than 40% of its quota and required that the sex ratio of the harvest comprise at least 2 to 1 males to females. Its provisions were extended to April 2013 through Addenda V & VI. Addendum VII (2012) implements the Adaptive Resource Management (ARM) Framework that incorporates both shorebird and horseshoe crab abundance levels when considering the optimized horseshoe crab harvest level for the Delaware Bay area. In 2021, the ARM Framework was updated to incorporate the most current modeling and scientific information available for horseshoe crabs and red knots. The Board accepted the ARM Revision in January 2022, and initiated Draft Addendum VIII to consider its use in setting Delaware Bay harvest specifications.

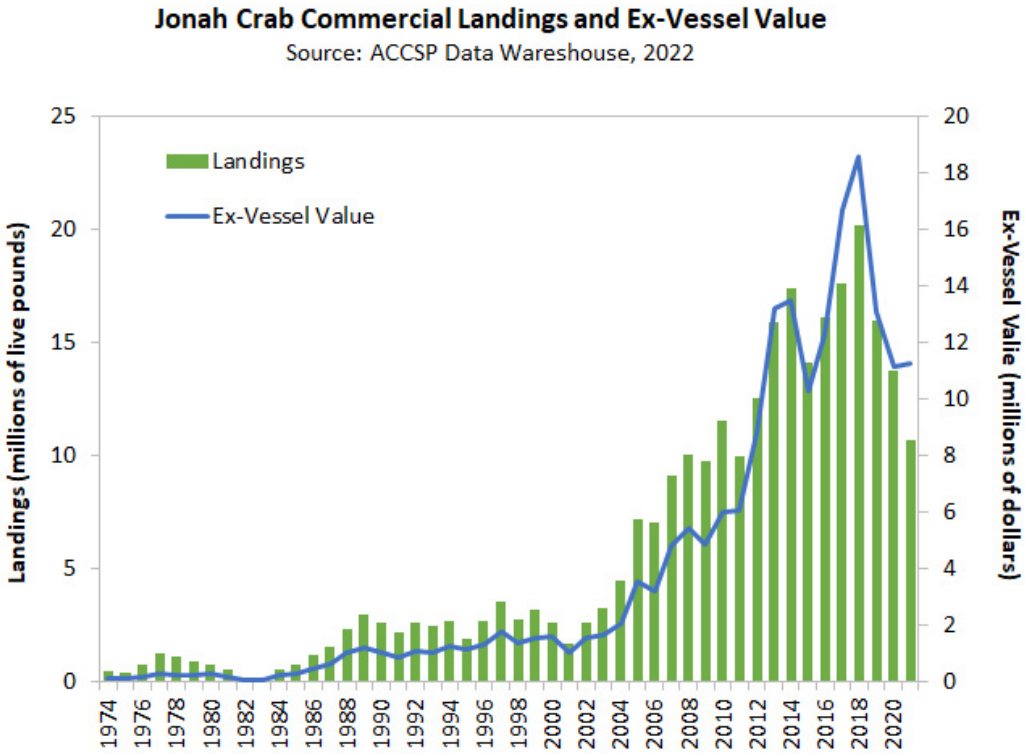
**Number of Surveys Below the Index-based 1998 Reference Point in the Terminal (Final) Year of ARIMA Model**

| Region | 2009 Benchmark | 2013 Update | 2019 Benchmark | 2019 Stock Status |
|---|---|---|---|---|
| Northeast | 2 out of 3 | 5 out of 6 | 1 out of 2 | Neutral |
| New York | 1 out of 5 | 3 out of 5 | 4 out of 4 | Poor |
| Delaware Bay | 5 out of 11 | 4 out of 11 | 2 out of 5 | Neutral |
| Southeast | 0 out of 5 | 0 out of 2 | 0 out of 2 | Good |
| Coastwide | 7 out of 24 | 12 out of 24 | 7 out of 13 | Neutral |

**Primary Management Measures**: Using the ARM Framework, the Board approved a 500,000 male-only crab harvest for the 2013-2022 fishing seasons. The harvest limit is allocated by state quota to the states which harvest horseshoe crabs of Delaware Bay origin (NJ, DE, MD, and VA).

# Overview of Stock Status
# Jonah Crab, *Cancer borealis*

**Timeline of Management Actions:** FMP (‘15); Addendum I (‘16); Addendum II (’17); Addendum III (’18); Addendum IV (’22)




**<u>Management Considerations:</u>**
**Condition:** Unknown

**FMP Stock Rebuilding Goals:** None.

**FMP Status:** The goals of the Interstate FMP (approved by the American Lobster Management Board in August 2015) are to promote conservation, reduce the possibility of recruitment failure, and allow full utilization of the resource by the industry. The plan lays out specific management measures in the commercial fishery, including a 4.75” minimum size with zero tolerance and a prohibition on the retention of egg-bearing females. The FMP also specifies the fishery be strictly whole crab except for those individuals who can prove a history of claw landings in the states of New Jersey through Virginia. To prevent the fishery from being open access, the FMP states that participation in the trap fishery is limited to lobster permit holders or those who can prove a history of crab-only pot fishing. All others must obtain an incidental permit. In the recreational fishery, the FMP sets a possession limit of 50 whole crabs per person per day and prohibits the retention of egg-bearing females. To address a lack of data on the Jonah crab fishery, the FMP implements fishery-dependent data collection. The Plan requires both harvester and dealer reporting along with port and sea sampling.

Addendum I (2016) establishes a bycatch limit of 1,000 crabs per trip for non-trap and non-lobster trap gear. In doing so, the Addendum caps incidental landings of Jonah crab across all non-directed gear types with a uniform bycatch allowance.

Addendum II (2017) establishes a coastwide standard for claw harvest to respond to concerns regarding the equity of the claw provision established in the FMP. The Addendum also establishes a definition of bycatch based on a percent composition of catch in order to minimize the expansion of a small-scale fishery under the bycatch allowance.

Addendum III (2018) addresses concerns regarding deficits in existing reporting requirements by expanding the mandatory harvester reporting data elements, improving the spatial resolution of harvester data, establishing a 5-year timeline for implementation of 100% harvester reporting, and prioritizing the development of electronic harvester reporting. In addition, the Addendum improves biological sampling requirements by establishing a

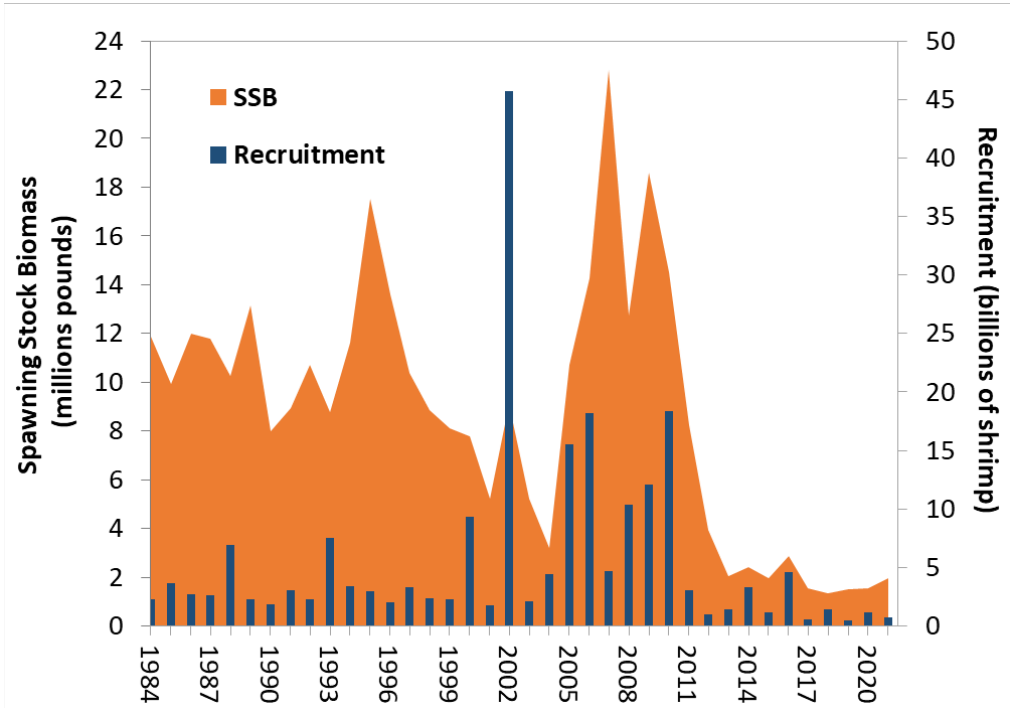
baseline of ten sampling trips per year in the American lobster/Jonah crab fishery, and encourages states with more than 10% of coastwide landings in either the lobster or Jonah crab fisheries to conduct additional sampling trips.

In April 2022, the Board approved Addendum IV to the FMP. The Addendum implements electronic tracking requirements for federally-permitted vessels in the American lobster and Jonah crab fishery, with the goal of collecting high resolution spatial and temporal effort data. Through this action the Board seeks to significantly improve stock assessment, identify areas where lobster fishing effort might present a risk to endangered North Atlantic right whales, and document the footprint of the fishery to help reduce spatial conflicts with other ocean uses like wind energy development and aquaculture.

# Overview of Stock Status
# Northern Shrimp, *Pandalus borealis*

**Northern Shrimp Spawning Stock Biomass and Recruitment**

Source: ASMFC Stock Assessment Update, 2021




**Timeline of Management Actions:** FMP (1986); Amendment 1 (2004); Amendment 2 (2011); Addendum I (2012); Amendment 3 (2017); Addendum I (2018)

**Management Considerations:**

**Condition:** Depleted; abundance and biomass indices lowest on record; recruitment indices also very low

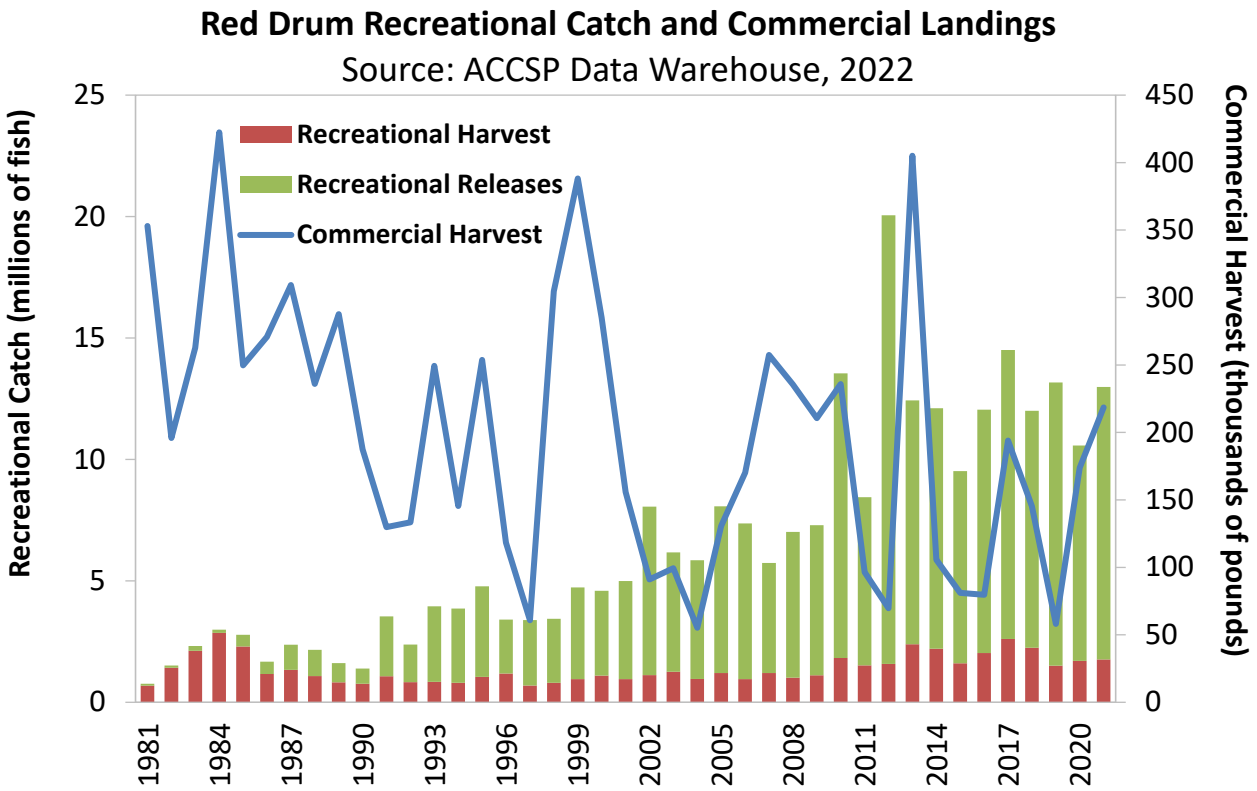
**FMP Status:** Amendment 3 is designed to improve management of the northern shrimp resource in the event the fishery reopens. The Amendment refines the FMP objectives and provides the flexibility to use the best available information to define the status of the stock and set the total allowable catch (TAC). Additionally, it implements a state-specific allocation program to better manage effort in the fishery; 80% of the annual TAC will be allocated to Maine, 10% to New Hampshire, and 10% to Massachusetts. Addendum I provides states the authority to allocate their state-specific quota between gear types in the event the fishery reopens.

A fishing moratorium for northern shrimp was first implemented in 2014 to protect the remaining spawning population and reduce pressure on the collapsed stock. The results of the 2021 Stock Assessment Update indicate that the population remains depleted. Given the continued poor condition of the resource, the extremely low likelihood of being able to fish sustainably, and the value of maximizing spawning potential to rebuild the stock if environmental conditions improve, the moratorium was extended through 2024.

**Primary Management Measures:** Fishery specifications are set annually and primarily consist of seasonal closures, gear restrictions, and catch controls.

January 2022

**Overview of Stock Status**
**Red Drum, *Sciaenops ocellatus***




**Timeline of Management Actions**: FMP (1984); Amendment 1 (1991); Amendment 2 (2002); Addendum I (2013)

**Management Considerations**

**Condition:** Northern (NJ-NC) and southern (SC-FL) stocks are assessed separately. Overfishing is not occurring in either stock, and no overfished status could be estimated due to data limitations on older fish. Work on a new stock assessment underway using a new methodology to simulate the full red drum population. Due to the work and modeling expertise needed for the simulation assessment, the benchmark assessment has been postponed until 2024. The simulation population modeling is scheduled to be completed in 2022.

**FMP Stock Rebuilding Goals:**
Fishing Mortality Threshold = F at 30% static spawning potential ratio (SPR)
Fishing Mortality Target = F at 40% static SPR

**FMP Rebuilding Schedule:** None

May 2022

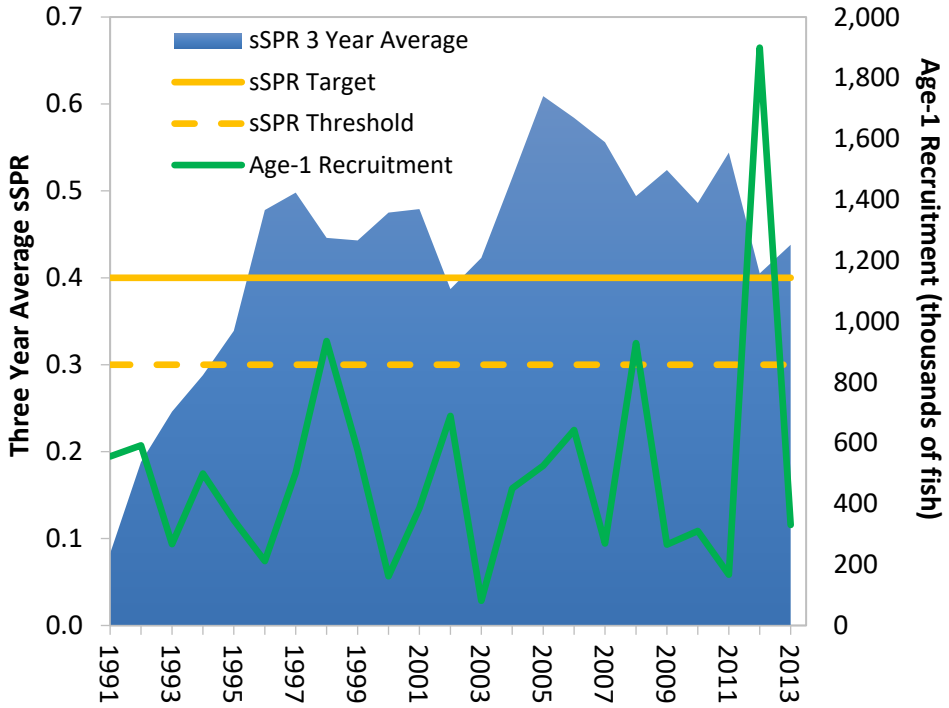
# Overview of Stock Status
# Red Drum, *Sciaenops ocellatus*

**FMP Status:** SAFMC transferred management authority of red drum through Amendment 2, which aims to achieve a sufficient escapement rate and restore the age and size structure of the Atlantic coast population. Addendum I outlines habitat needs and concerns of the species.

**Primary Management Measures:** All states have implemented recreational bag and size limits to attain the management goal of 40% SPR, including a maximum total length of 27 inches for all fisheries. States must maintain current or more restrictive commercial fishery regulations.

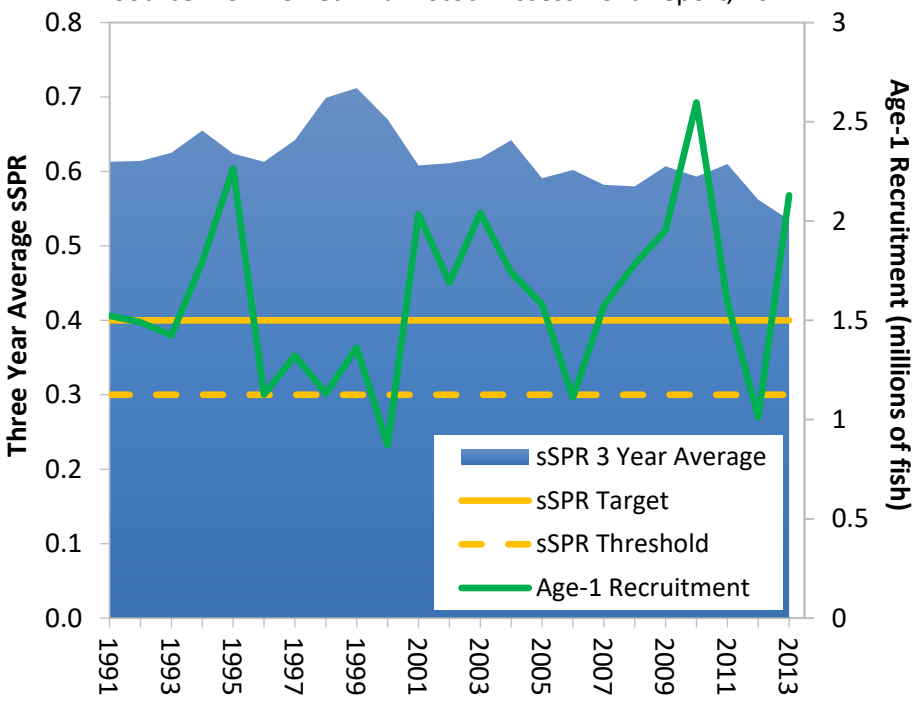
**Red Drum Northern Stock 3-Year Average sSPR & Age -1 Recruitment**

Source: ASMFC Red Drum Stock Assessment Report, 2017



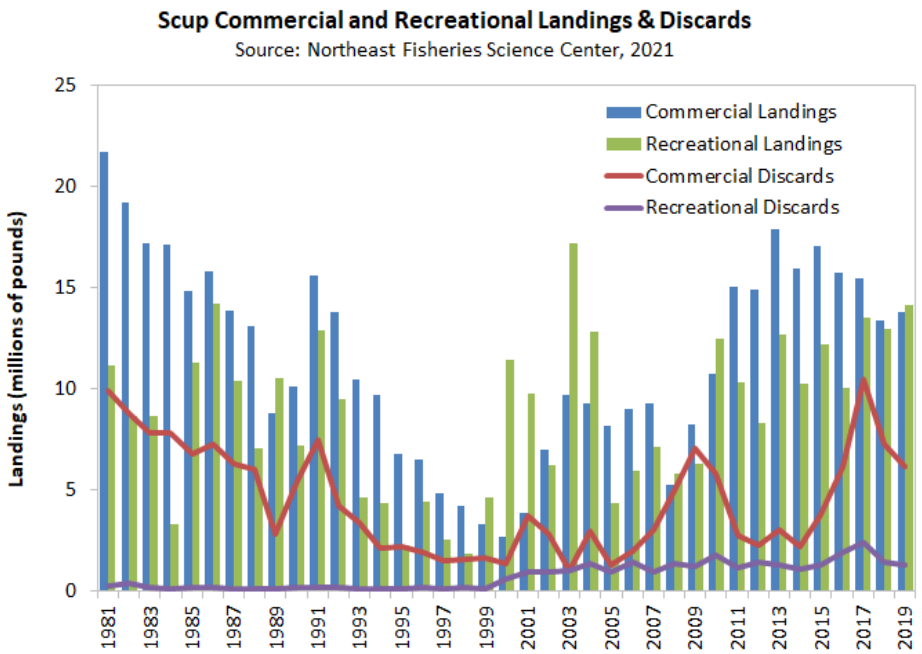

**Red Drum Southern Stock Three Year Average Static Spawning Potential Ratio (sSPR) & Age-1 Recruitment**

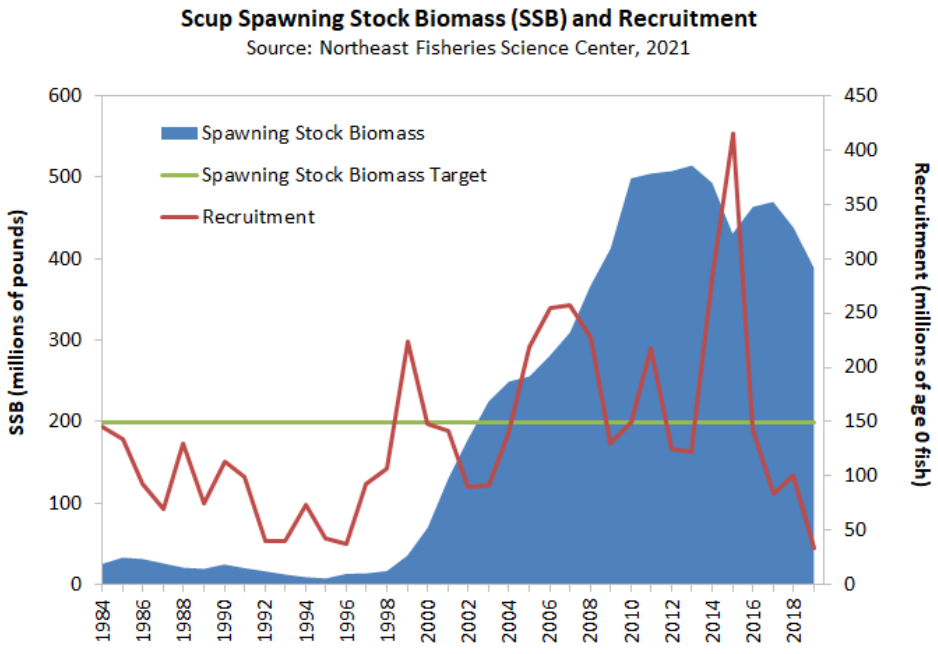
Source: ASMFC Red Drum Stock Assessment Report, 2017




May 2022

# Overview of Stock Status
# Scup, *Stenotomus chrysops*




**Timeline of Management Actions:** FMP (1996); Amendment 13 (2002); Addendum IX (2003); Addenda XI & XIII (2004); Addendum XVI (2005); Amendment 14 (2007); Addendum XX (2009); Addendum XXIX (2017); Addendum XXXI (2018); Addendum XXXII (2018)

**Management Considerations:**

**Condition:** The 2021 scup management track assessment concluded that the scup stock was not overfished, and overfishing was not occurring in 2019 relative to the updated biological reference points calculated through the assessment.

**Biological Reference Points:**

Spawning Stock Biomass threshold (1/2 $SSB_{MSY\ PROXY}$) = 99 million pounds

Spawning Stock Biomass target = $SSB_{MSY}$ = $SSB_{40\%}$ = 198 million pounds

$Spawning\ Stock\ Biomass_{2019}$ = 389 million pounds

Fishing Mortality Threshold ($F_{MSY\ PROXY}$=$F_{40\%}$) = 0.200

$Fishing\ Mortality_{2019}$ = 0.136

**FMP Status:** Joint management with MAFMC through Amendment 13 (2002). Addendum XIII (2004) allows TALs to be set for up to 3 years without annual review. Amendment 14 (2007) set a rebuilding plan for scup. Addendum XX (2009) provides commercial quota transfer provisions in the summer months. Addendum XXIX (2017) shortens the length of the commercial scup summer period and extends the length of the winter II period. Through Addendum XXXI (2018), the Commission recommended NOAA Fisheries implement transit provisions in Block Island Sound. Additionally, the Addendum expands the suite of tools available for managing summer flounder, scup and black sea bass, and reduces inconsistencies between state and federal regulations.

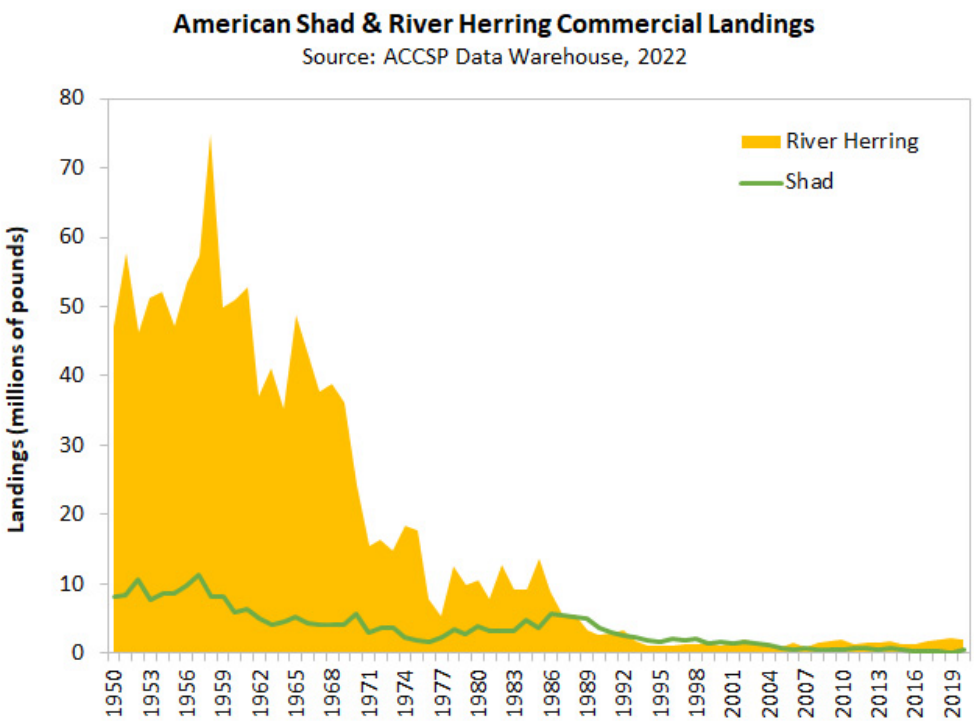
January 2022

# Overview of Stock Status
# Scup, *Stenotomus chrysops*

**Primary Management Measures:** Total annual quotas are divided between the recreational fishery (22%) and the commercial fishery (78%). Recreational fishery management measures are developed annually and include a combination of minimum size limits, bag limits, and fishing seasons. A coastwide quota regulates the winter period (October-April), while state-by-state quotas regulate the summer period (May-September). Specific management measures for the commercial fishery include minimum size limits, minimum mesh requirements for trawls, pot and trap escape vent requirements and closed seasons.

The Board and MAFMC approved changes to the commercial and recreational allocations of summer flounder, scup, and black sea bass. These changes are intended to better reflect the current understanding of the historic proportions of catch and landings from the commercial and recreational sectors. For all three species, these changes result in a shift in allocation from the commercial to the recreational sector. The Council and Board also approved an option to allow future changes to commercial/recreational allocations, annual quota transfers, and other measures addressed in the amendment to be made through framework actions/addenda. The Commission's Business Session, which represents its 15 state members, will consider final approval of the amendment, based on the Board's recommendations, at its Winter 2022 Meeting in late January. These changes are expected to take effect on January 1, 2023.

# Overview of Stock Status
# Shad & River Herring




**Management Considerations:**

**Condition:** Depleted on a coastwide basis, overfishing status unknown

**FMP Stock Rebuilding Goals:** Protect, enhance, and restore East Coast migratory spawning stocks of American shad, hickory shad, and river herring in order to achieve stock restoration and maintain sustainable levels of spawning stock biomass.

**FMP Rebuilding Schedule:** None.

**FMP Status:** Amendments 2 (River Herring Management) & 3 (American Shad Management) establish 2012 and 2013 moratoria unless sustainability can be documented.

**Primary Management Measures:**
Shad - Amendment 3 establishes a 2013 moratorium unless sustainability can be documented. Commercial ocean-intercept fishery for American shad is closed. Limited ocean bycatch of American shad is permitted. All jurisdictions shall not exceed an aggregate 10 fish daily creel limit in the recreational fisheries for hickory shad.

River Herring – Amendment 2 establishes a 2012 moratorium unless sustainability can be documented.

**Timeline of Management Actions:** FMP (1985); Amendment 1 (1999); Amendment 2 – River Herring (2009); Amendment 3 – American Shad (2010)

# Overview of Stock Status
# Shad & River Herring

| Summary of American Shad Stock & Habitat Conditions | | | | |
|---|---|---|---|---|
| System | Historic Riverine Habitat Currently Unobstructed | Abundance Trends (2005-2017) | Adult Status* | |
| | | | Total Mortality Rate | Abundance |
| Merrymeeting Bay | 50.02% | YOY: No trend<br>Adults: No data | Unknown | Unknown |
| Merrimack | 17.83% | YOY: No data<br>Adults: Increasing trend | Unknown | Unknown |
| Pawcatuck | 19.21% | YOY: No data<br>Adults: Increasing trend | Unknown | Unknown |
| Connecticut | 45.19% | YOY: No trend<br>Adults: Conflicting trends between indices (1 increasing, 1 no trend) | Unsustainable | Unknown |
| Hudson | 89.24% | YOY: No trend<br>Adults: No trend | Sustainable | Depleted |
| Delaware | 72.05% | YOY: No trends (2 indices)<br>Adults: Conflicting trends between indices (1 increasing, 1 no trend) | Unsustainable | Unknown |
| Nanticoke | 100% | YOY: Declining trend<br>Adults: No trends (2 indices) | Unknown | Unknown |
| Susquehanna & Upper Chesapeake | 4.38% | YOY: No trend<br>Adults: No trends (2 indices) | Unknown | Unknown |
| Patuxent | 100% | YOY: No data<br>Adults: No trend | Unknown | Unknown |
| Potomac | 90.02% | YOY: No trend<br>Adults: No trends (2 indices) | Unsustainable | Unknown |
| Rappahannock | 95.98% | YOY: Increasing trend<br>Adults: No trends (2 indices) | Sustainable | Unknown |
| York | 87.42% | YOY: Conflicting trends between indices (1 increasing, 2 no trends)<br>Adults: No trend | Sustainable | Unknown |
| James | 72.77% | YOY: No trend<br>Adults: No trends (2 indices) | Unknown | Unknown |
| Albemarle Sound | 58.92% | YOY: Increasing trend<br>Adults: Conflicting trends between indices (2 no trends, 1 increasing) | Sustainable | Not overfished |
| Tar-Pamlico | 75.68% | YOY: No data<br>Adults: No trend | Unknown | Unknown |
| Neuse | 90.05% | YOY: No data<br>Adults: Conflicting trends between indices (1 increasing, 1 no trend) | Sustainable | Unknown |
| Cape Fear | 46.59% | YOY: No data<br>Adults: Increasing trends (2 indices) | Unknown | Unknown |
| Winyah Bay | 73.13% | YOY: No data<br>Adults: Conflicting trends (1 increasing, 2 no trend) | Unknown | Unknown |
| Santee-Cooper | 20.95% | YOY: No data<br>Adults: Conflicting trends between indices (1 increasing, 2 no trend) | Unknown | Unknown |
| ACE Basin | 82.28% | YOY: No data<br>Adults: No trend | Unknown | Unknown |
| Savannah | 59.19% | YOY: No data<br>Adults: No trends (2 indices) | Unknown | Unknown |
| Altamaha | 82.24% | YOY: No data<br>Adults: Conflicting trends between indices (1 increasing, 1 no trend) | Unknown | Unknown |
| St Johns | 90.04% | YOY: No trend<br>Adults: Increasing trend | Unknown | Unknown |
| Coastwide | 55.42% | YOY: NA<br>Adult: Conflicting trends between indices | Unknown | Depleted |

* The status determinations identified in the table for total mortality and abundance are for adults only. System-specific data on juvenile American shad as they transition from young-of-the-year (YOY) to mature spawning adults are unavailable, which can impact overall status determinations.

May 2022

# Overview of Stock Status
# Shad & River Herring

## Abundance Trends of Select Alewife & Blueback Herring Stocks along the Atlantic Coast

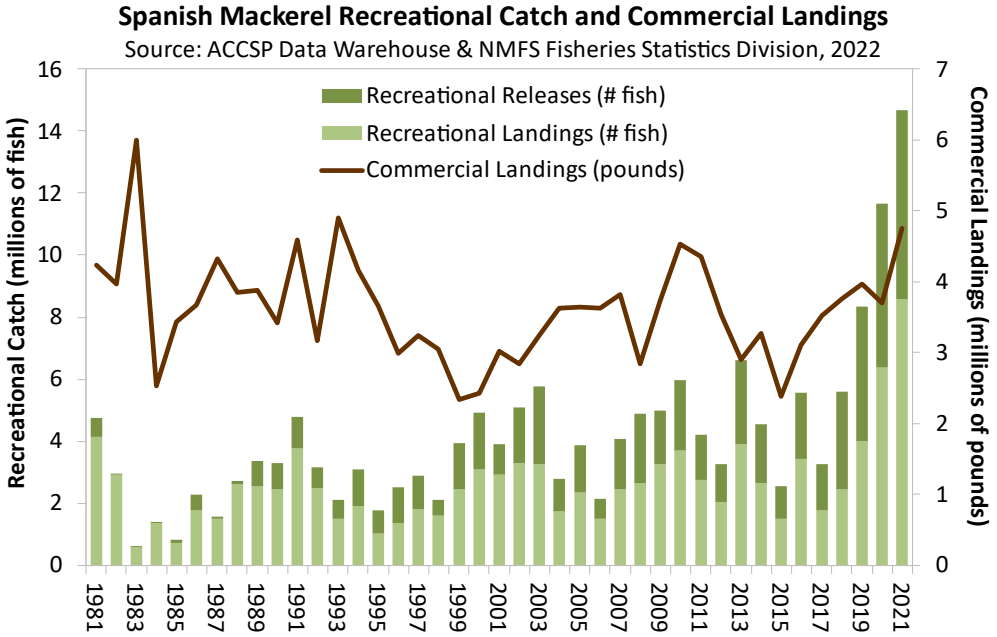
**Source: 2017 River Herring Stock Assessment Update**

| State | River | Trends (2006-2015) |
|---|---|---|
| NE U.S. Continental Shelf (NMFS Bottom Trawl)^ | | Increasing[A,B] |
| ME | Androscoggin | Increasing[A] |
| | Kennebeck | Increasing[RH] |
| | Sebasticook | Increasing[RH] |
| | Damariscotta | Increasing[A] |
| | Union | No Trend[A] |
| NH | Cocheco | Increasing[A,B] |
| | Exeter | Stable[RH] |
| | Lamprey | Increasing[RH] |
| | Oyster | Decreasing[RH] |
| | Taylor | No Returns[RH] |
| | Winnicut | Unknown[A,B] |
| MA | Mattapoisett | Increasing[A] |
| | Monument | Increasing[A,B] |
| | Nemasket | Increasing[A] |
| | Parker | Stable[A] |
| | Stony Brook | Unknown[A] |
| RI | Buckeye | Increasing[A] |
| | Gilbert | Stable[A] |
| | Nonquit | Decrease[A] |
| CT | Bride Brook | Increasing[A] |
| | Connecticut | Stable[B] |
| | Farmington | Unknown[A,B] |
| | Mianus | No Trend[A], Increasing[B] |
| | Mill Brook | No Trend[A] |
| | Naugatuck | Unknown[A,B] |
| | Shetucket | No Trend[A], Stable[B] |
| NY | Hudson | Increasing[RH] |
| NJ, DE,PA | Delaware | No Trend[A,B] |
| MD, DE | Nanticoke | Stable[A], No Trend[B] |
| VA, MD, DC | Potomac | Stable[A], Unknown[B] |
| VA | James | Unknown[A,B] |
| | Rappahannock | No Trend[A], Increasing[B] |
| | York | Unknown[A,B] |
| NC | Alligator | Unknown[A,B] |
| | Chowan | No Trend[A], Stable[B] |
| | Scuppernog | Unknown[A,B] |
| SC | Santee-Cooper | No Trend[B] |
| FL | St. Johns River | Unknown[B] |

^NE shelf trends are from the spring, coastwide survey data which encounters river herring more frequently than the fall survey. A = Alewife only; B= Blueback herring only; A,B = Alewife and blueback herring by species; RH = alewife and blueback herring combined.

May 2022

# Overview of Stock Status
# Spanish Mackerel, *Scomberomorus maculatus*




**Management Considerations:**

**Condition:** Not overfished and overfishing is not occurring

**FMP Stock Rebuilding Goals:**

Biomass threshold = (1-M)* $B_{MSY}$

Fishing mortality threshold = $F_{30\%SPR}$

**FMP Status:** Complementary management with the SAFMC; FMP approved in 1990. The Omnibus Amendment to the FMPs for Spanish Mackerel, Spot, and Spotted Seatrout (2011) updates the Spanish Mackerel FMP with compliance measures and Commission standards, as well as modifies the Commission's management program to be consistent with federal management in the exclusive economic zone. The plan also provides mechanisms to review and track federal management changes. Addendum I (2013) modifies minimum size for select gear types and seasons.

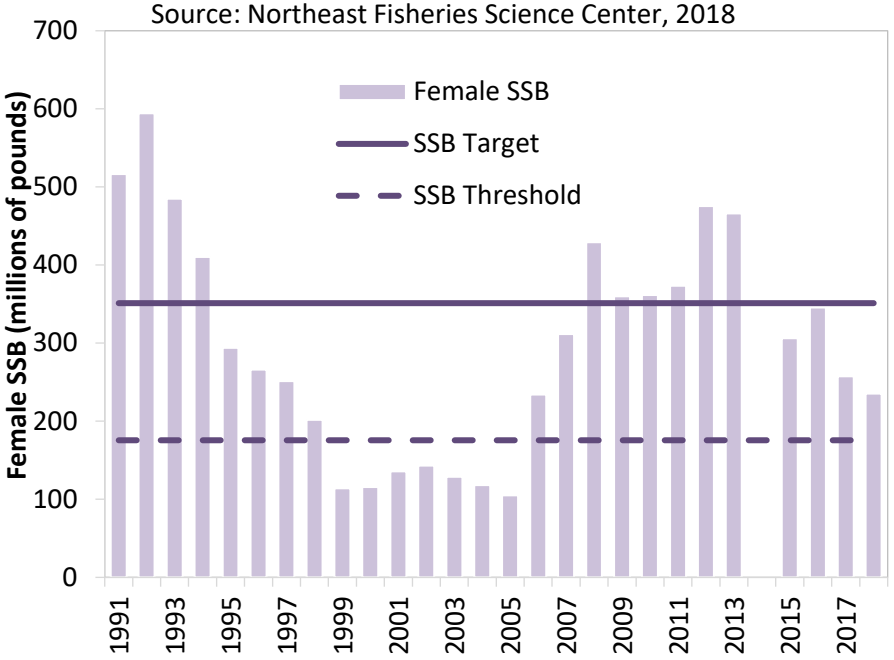
**Primary Management Measures:** The annual catch limit (ACL) was set at 5.29 million pounds (based on previous MRIP estimates from the Coastal Household Telephone Survey) in the most recent Amendment 18 to the Federal FMP. The ACL is allocated on a 55/45 basis between the commercial and recreational fisheries. The commercial fishery is controlled mainly through an annual quota and trip limits, while the recreational fishery is primarily managed through a maximum bag limit of 15 fish and a minimum size limit of 12” fork length or 14” total length. In addition, both Amendment 18 and the Omnibus Amendment include accountability measures for payback of overages if the total ACL is exceeded and the stock is overfished.

**Timeline of Management Actions:** FMP (1990); Omnibus Amendment (2011); Addendum I (2013)

# Overview of Stock Status
# Spiny Dogfish, *Squalus acanthias*

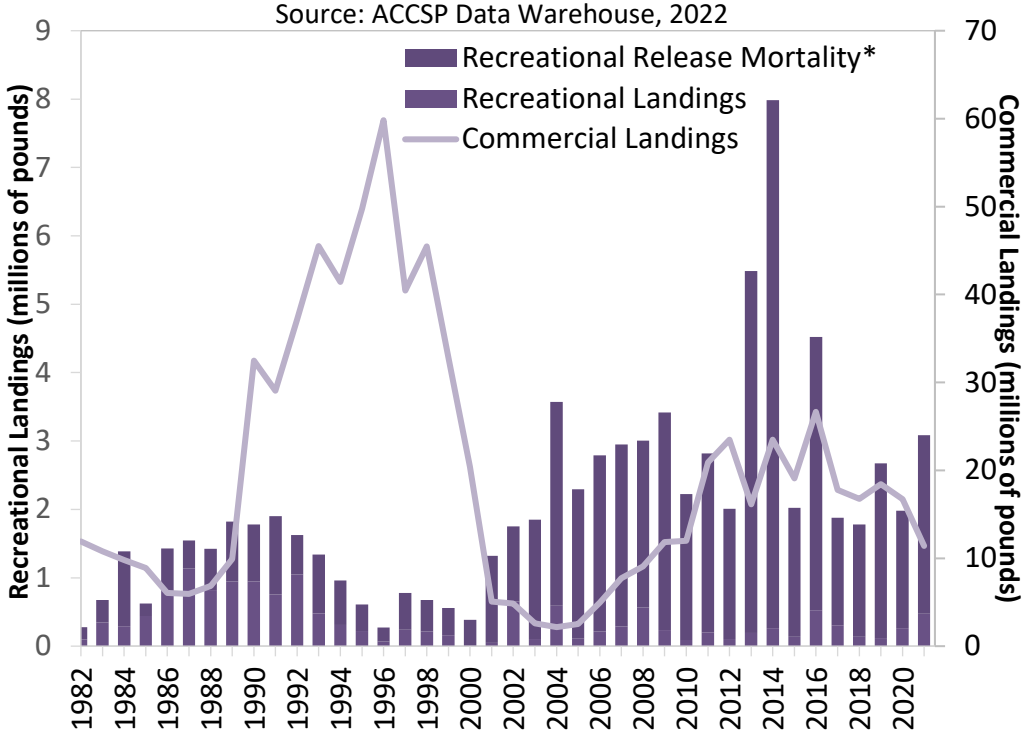
**Spiny Dogfish Female Spawning Stock Biomass**

Source: Northeast Fisheries Science Center, 2018




**Spiny Dogfish Commercial and Recreational Landings**

Source: ACCSP Data Warehouse, 2022




*Recreational release mortality assumes 20% of the fish released alive die.

**Timeline of Management Actions:** Emergency Action ('00); FMP ('03); Addendum I ('05); Addendum II ('08); Addendum III ('11); Addendum IV ('12); Addendum V ('14); Addendum VI ('19)

**Management Considerations**

**Condition:** Rebuilt; not overfished and overfishing is not occurring. Spawning stock biomass is estimated to be at 67% of the target at 235 million pounds.

**FMP Reference Points:**

Female SSB threshold (1/2 SSB max) = 79,644 mt (175 million pounds)

Female SSB target (100% SSB max) = 159,288 mt (351 million pounds)

Fishing Mortality Threshold ($F_{threshold}$) = 0.2439

Fishing Mortality Target ($F_{MSY}$) = 0.2439

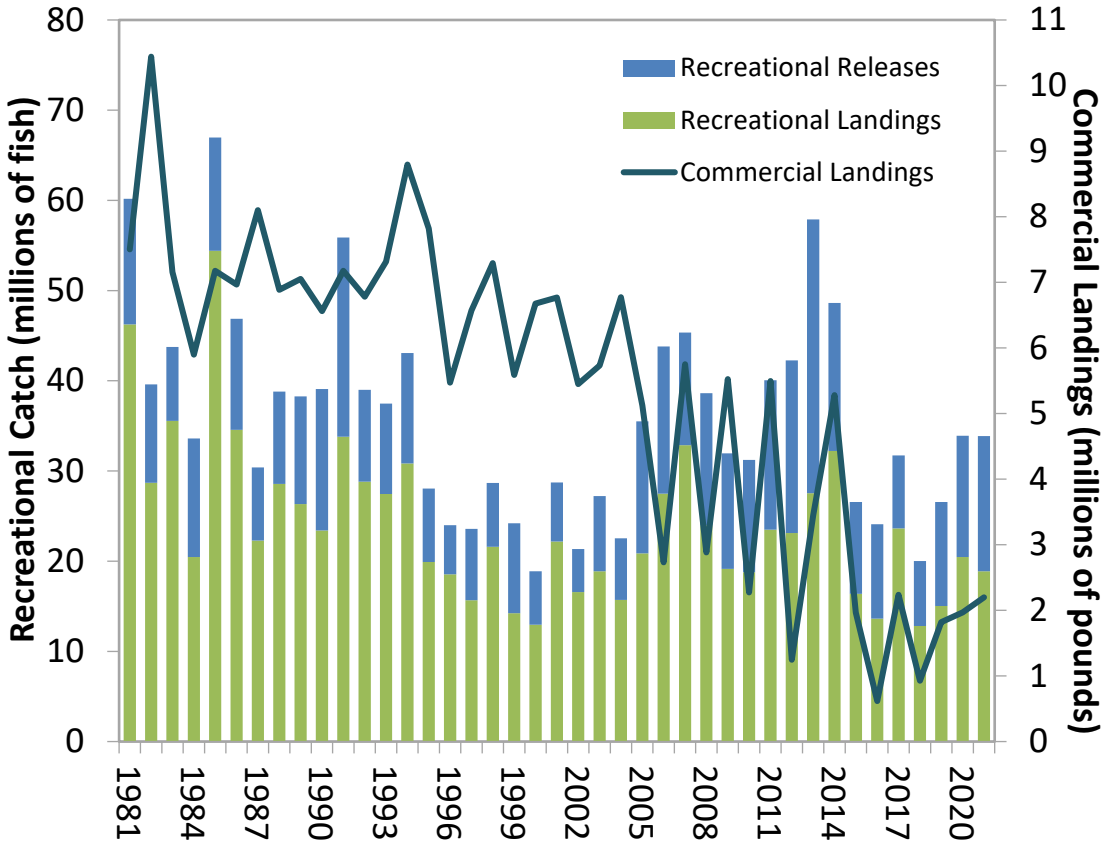
**FMP Status:** The 2002 FMP established annual quota and possession limit system; Addendum I allowed Board to set multi-year specifications; Addendum II established regional allocation of the annual quota with 58% to states from ME–CT; Addendum III established state shares for NY–NC; Addendum IV aligned the F threshold definition with the federal plan; and Addendum V prohibits processing at-sea, including the removal of fins.

**Primary Management Measures:** Spiny dogfish is managed under an annual quota with possession limits for the commercial fishery only, with, a commercial quota of 29.6 million pounds for the 2021/2022 and 2022/2023 fishing years. The Board voted to increase the maximum possession limit for the northern region states (ME-CT) from 6,000 to 7,500 pounds per day in January 2022, consistent with the recommendations of the Mid-Atlantic and New England Fishery Management Councils. NOAA Fisheries indicated that the regulatory change would be implemented for the 2022 fishing year starting May 1.

October 2022

# Overview of Stock Status
## Spot, *Leiostomus xanthurus*

**Spot Commercial Landings & Recreational Catch**
Source: ACCSP Data Warehouse, 2022




**Timeline of Management Actions:** FMP (1987); Omnibus Amendment (2011); Addendum I (2014); Addendum III (2020).

**Management Considerations**

**Condition:** Unknown; The TLA was recently updated in 2020 to incorporate additional fishery-independent surveys, age and length information, an updated reference period, regional characteristics, and an updated management trigger mechanism. These changes will better represent trends in adult abundance of spot than previous methods.

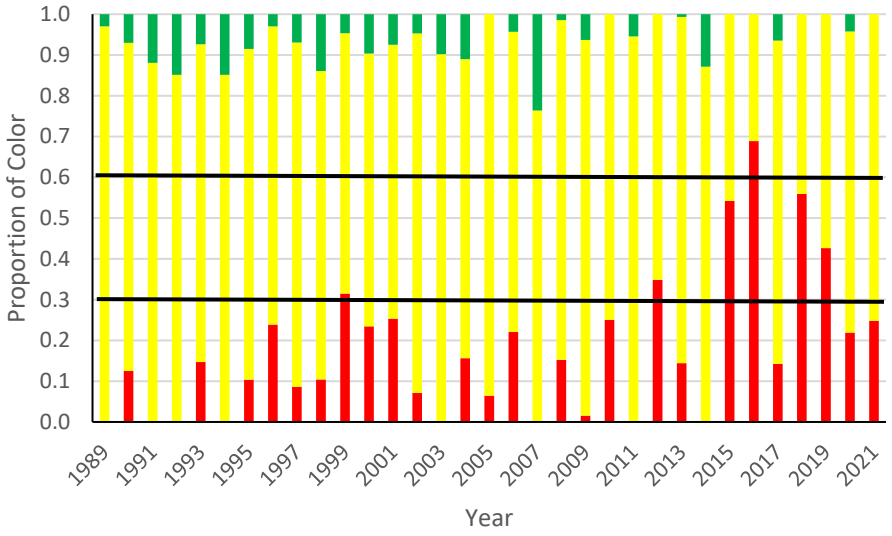
**FMP Stock Rebuilding Goals and Rebuilding Schedule:** None

**FMP Status:** FMP approved in 1987. The Omnibus Amendment to the FMPs for Spanish Mackerel, Spot, and Spotted Seatrout (2011) updates the Spot FMP with compliance measures and Commission standards that were developed in response to the Atlantic Coastal Fisheries Cooperative Management Act (e.g., adaptive management, *de minimis* criteria). Addendum II established the TLA to assess stock trends and initiate management response. Addendum III updates the TLA's management trigger mechanism, management responses to TLA triggers, and evaluation of the fishery's response to measures implemented if triggers occur.

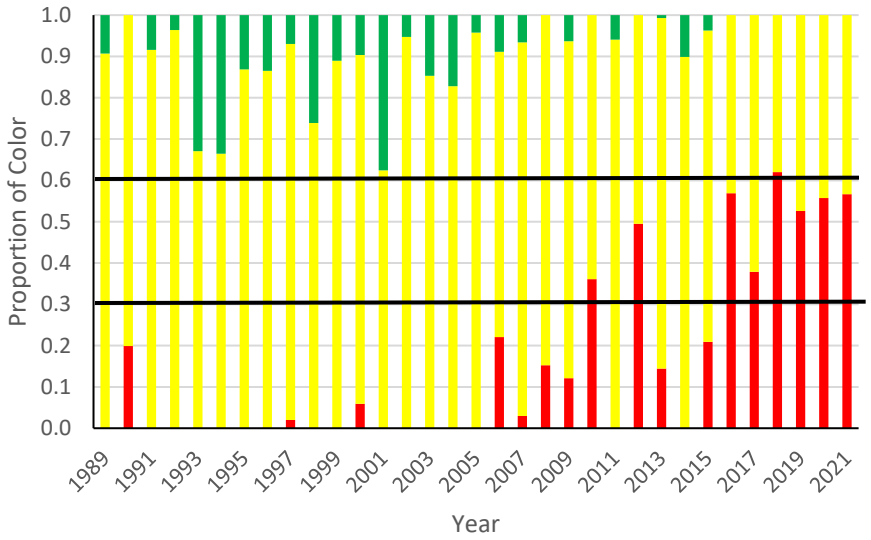
**Primary Management Measures:** Addendum II established the traffic light approach to assess stock trends and initiate management response, and Addendum III updated the TLA to add more surveys, regional measures, and outline management responses. Coastwide management actions are triggered if both characteristics (harvest and abundance) in either region exceed threshold levels of red for 2 of the 3 most recent years. In 2020, the actions were triggered at the moderate level of concern for the harvest metric in the Mid-Atlantic and South Atlantic regions, and for abundance in the Mid-Atlantic region. Non-*de minimis* states were required to implement a 50-fish bag limit and a 1% reduction in the 10-year average of their state's commercial fishery landings by the end of 2021.

# Overview of Stock Status
## Spot, *Leiostomus xanthurus*

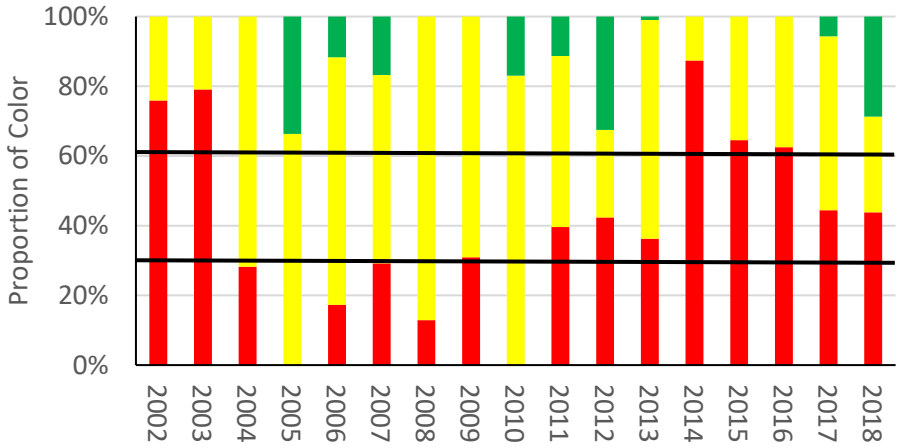
### Harvest Composite of Mid-Atlantic (NJ-VA) Recreational and Commercial Landings



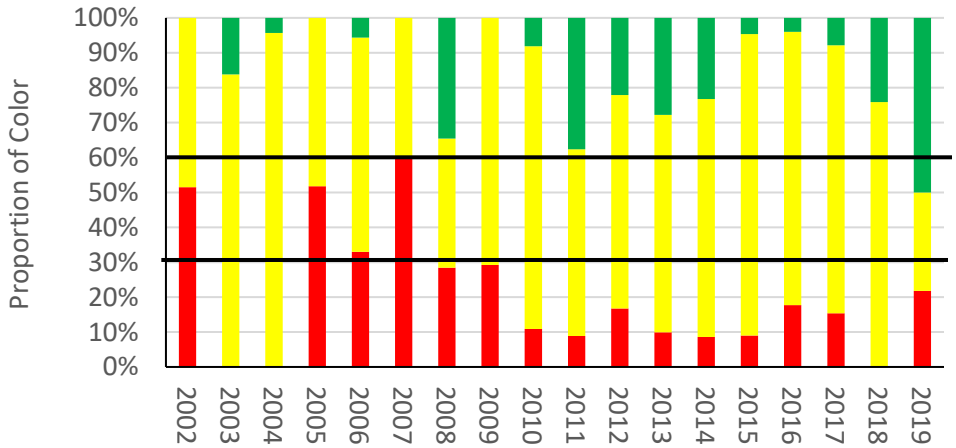

### Harvest Composite of South Atlantic (NC-FL) Recreational and Commercial Landings




### Adult (age 1+) Abundance Composite for the Mid-Atlantic (NJ-VA) (NEFSC and ChesMMAP Surveys)




### Adult (age 1+) Abundance Composite for the South Atlantic (SEAMAP and NCDMF Program 195)

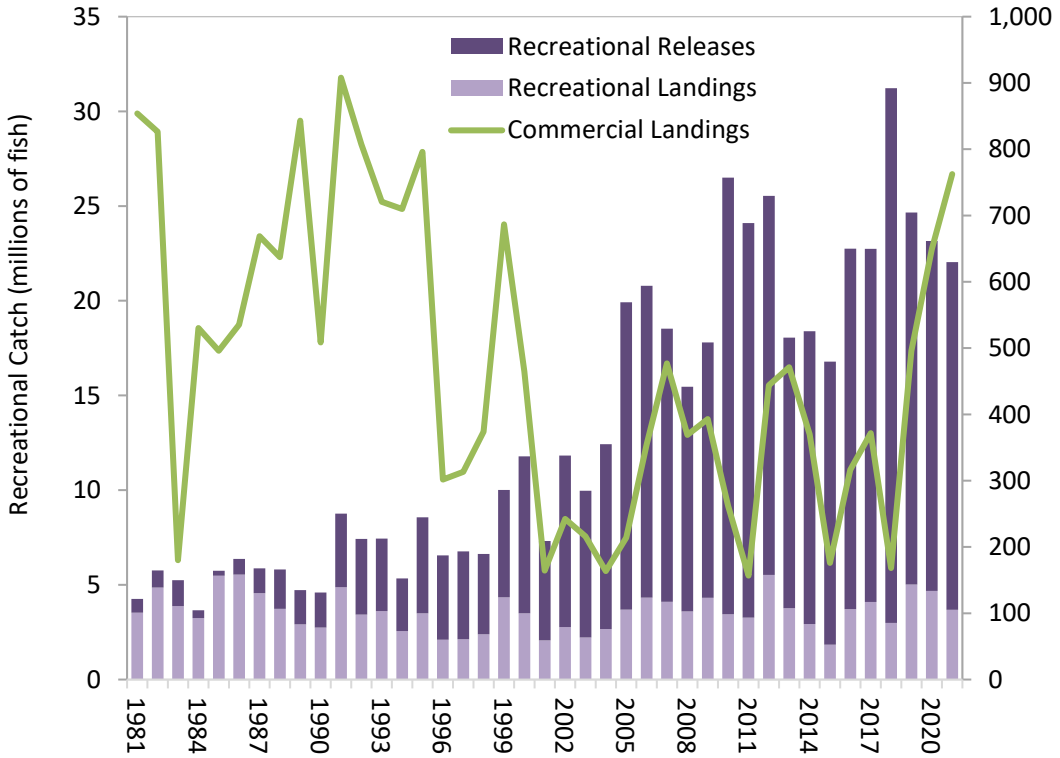



Management response is triggered when the proportion of red exceeds the 30% threshold level (moderate concern) for two of the last three years in both fishery characteristics (harvest and abundance metrics). 60% threshold represents a significant concern. Resulting management action varies based on which threshold has been exceeded. There are no 2019, 2020, and 2021 data points in the Mid-Atlantic Adult Abundance composite due to ongoing ChesMMAP recalibration. There is no 2020 or 2021 data points in the South Atlantic Adult Abundance Composite due to no spring SEAMAP survey sampling in those years.

# Overview of Stock Status
# Spotted Seatrout, *Cynoscion nebulosus*

**Spotted Seatrout Commercial Landings & Recreational Catch**

Source: ACCSP Data Warehouse & NMFS Fisheries Statistics Division, 2022




**Timeline of Management Actions:** FMP (1985); Amendment 1 (1991); Omnibus Amendment (2011)

**Management Considerations**

**Condition:** Unknown

**FMP Stock Rebuilding Goals:** Maintaining Spawning Potential Ratio (SPR) of at least 20%

**FMP Rebuilding Schedule:** None

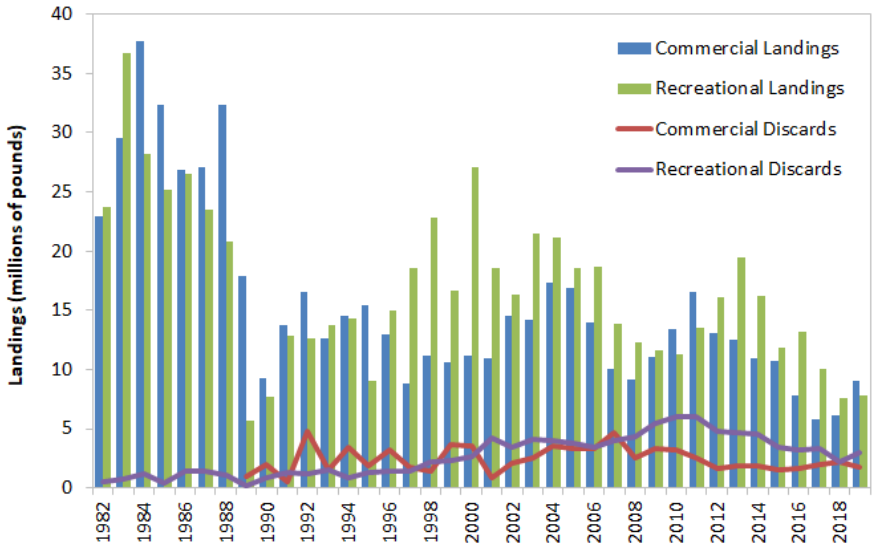
**FMP Status:** FMP approved in 1984; Amendment I approved in 1991. The Omnibus Amendment to the Interstate Fishery Management Plans (FMPs) for Spanish Mackerel, Spot, and Spotted Seatrout, approved in August 2011, updates the Spotted Seatrout FMP with compliance measures and Commission standards that were developed in response to the Atlantic Coastal Fisheries Cooperative Management Act (e.g., adaptive management, *de minimis* criteria).

**Primary Management Measures:** Coastwide management measures, adopted in the Omnibus Amendment and implemented in July 2012, include a coastwide minimum size of 12 inches total length and comparable mesh size requirements. The Omnibus Amendment retained the goal of a 20% SPR. North Carolina and Florida have a goal of 30% and 35% SPR, respectively, while South Carolina and Georgia have adopted the ASMFC's recommended goal of 20% SPR.

# Overview of Stock Status
# Summer Flounder, *Paralichthys dentatus*

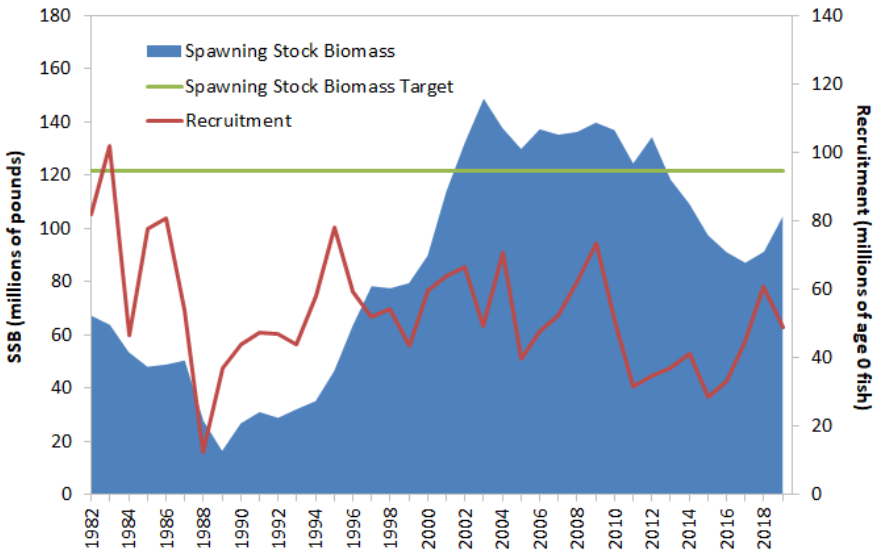
**Summer Flounder Commercial and Recreational Landings & Discards**

Source: Northeast Fisheries Science Center, 2021




**Summer Flounder Spawning Stock Biomass (SSB) and Recruitment**

Source: Northeast Fisheries Science Center, 2021




**Timeline of Management Actions:** FMP ('82); Amendment 13 ('03); Addenda VIII & XV ('04); Addenda XVI & XVII ('05); Addendum XVIII ('06); Addendum XIX ('07); Addendum XXV ('14); Addendum XXVI ('15); Addendum XXVII ('16); Addendum XXVIII ('17); Addendum XXXI ('18); Addendum XXXII ('18); Summer Flounder Commercial Issues Amendment ('19)

**Management Considerations:**

**Condition:** Not overfished nor experiencing overfishing.

**Biological Reference Points:**

Spawning Stock Biomass Threshold (1/2 $SSB_{MSY\ PROXY}$) = 61 million pounds

Spawning Stock Biomass Target = $SSB_{MSY}$ = $SSB_{35\%}$ = 122 million pounds

Spawning Stock $Biomass_{2019}$ = 104 million pounds

Fishing Mortality Threshold ($F_{MSY\ PROXY}$=$F_{35\%}$)= 0.422

Fishing $Mortality_{2019}$= 0.340

**FMP Status:** Joint management with Mid-Atlantic Fishery Management Council through Amendment 13 (1998). Addendum VIII (2004) outlines state-specific recreational allocation strategy. Addendum XVII (2005) provides additional management strategies in setting recreational regulations. Addendum XVIII (2006) allows states to voluntarily maintain their 2005 recreational management measures. Addendum XXVII (2016) approves continuation of the 2016 recreational fishery with a modification to summer flounder regions. Addendum XXVIII (2017) maintains regional management for the 2017 recreational fishery, including a one-inch increase in size limit and reduced possession limits to stay within the 2017 recreational harvest limit. Addendum XXXI (2018) recommends NOAA Fisheries implement transit provisions in Block Island Sound. Addendum XXXII (2018) establishes an annual specifications process for developing recreational management measures. The Summer Flounder Commercial Issues Draft Amendment revises the management program's goals and objectives for summer flounder and implements new state-specific commercial allocations.

# Overview of Stock Status
# Summer Flounder, *Paralichthys dentatus*

**Primary Management Measures:** Annual total allowable landings (TAL) divided into a state-by-state commercial quota (60% of TAL) and recreational harvest limit (40% of TAL). Coastwide commercial management measures include minimum fish and mesh sizes. Recreational bag/size limits and seasons are determined on a state-by-state basis using conservation equivalency.

The Board and MAFMC approved changes to the commercial and recreational allocations of summer flounder, scup, and black sea bass. These changes are intended to better reflect the current understanding of the historic proportions of catch and landings from the commercial and recreational sectors. For all three species, these changes result in a shift in allocation from the commercial to the recreational sector. However, because the summer flounder and black sea bass fisheries will be transitioning from landings-based to catch-based allocations, the current and revised allocations for those species are not directly comparable. The Council and Board also approved an option to allow future changes to commercial/recreational allocations, annual quota transfers, and other measures addressed in the amendment to be made through framework actions/addenda. The Commission's Business Session, which represents its 15 state members, will consider final approval of the amendment, based on the Board's recommendations, at its Winter 2022 Meeting in late January. These changes are expected to take effect on January 1, 2023.

# Overview of Stock Status
# Tautog, *Tautoga onitis*

**Management Considerations:**

**Condition:** Stock status in 2020 varied by region but was generally improved from the 2016 update. Overfishing is not occurring in any of the four regions, and only the New Jersey-New York Bight population is overfished.

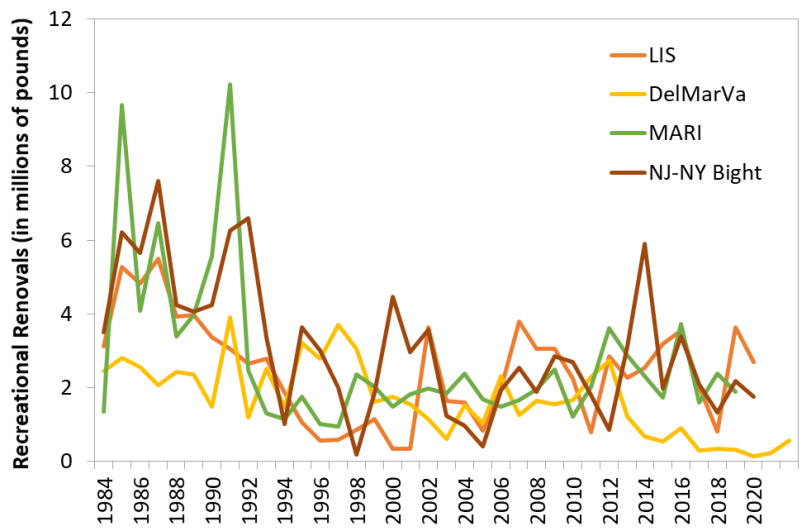
**FMP Stock Rebuilding Goals (as proposed by 2021 assessment update and used in Amendment 1):** See accompanying table

**FMP Status:** Amendment 1 established regional $F_{target}$ for 2018 and beyond. All states in the management unit are required to implement measures to achieve their respective $F_{target}$, though there is no consistent schedule required to achieve those targets. However, if the current fishing mortality exceeds the regional threshold, the Board must initiate corrective action within one year. A stock rebuilding schedule can be established via an addendum. All states have implemented the tagging program in 2021.

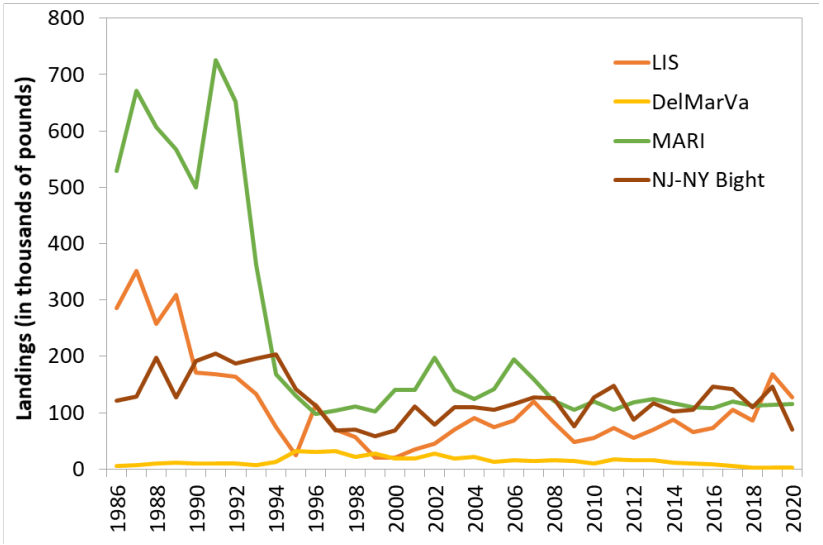
**Primary Management Measures:** Tautog is managed as four regional stocks: Massachusetts – Rhode Island (MARI), Long Island Sound (LIS), New Jersey – New York Bight (NJ-NYB), and Delaware – Maryland – Virginia (DelMarVa). Under Amendment 1, the four regions will implement measures to achieve the regional fishing mortality target with at least a 50% probability. Additionally, the Amendment establishes a commercial harvest tagging program to address an illegal, unreported and undocumented fishery.

**Timeline of Management Actions:** FMP (1996); Addendum I (1997); Addendum II (1999); Addendum III (2002); Addenda IV & V (2007); Addendum VI (2011); Amendment 1 (2017)

**Recreational Removals (harvest + dead releases) of Tautog by Region**
Source: ASMFC Regional Stock Assessment Update, 2021




**Commercial Landings of Tautog by Region**
Source: ASMFC Regional Stock Assessment Update, 2021



# Overview of Stock Status
# Tautog, *Tautoga onitis*

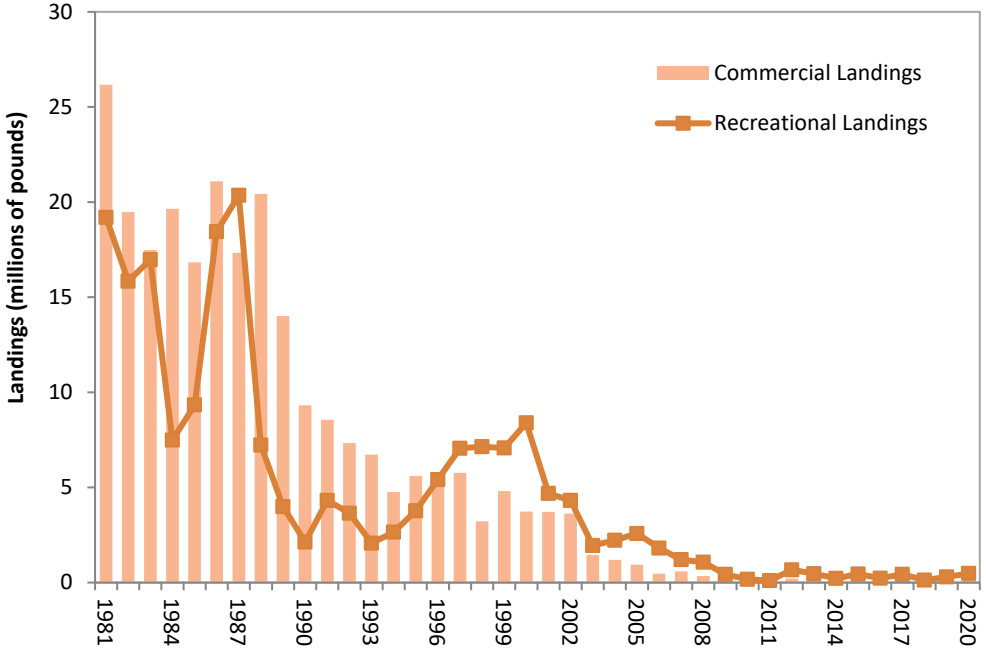
## Tautog Biological Reference Points and Stock Status by Region

Source: ASMFC Stock Assessment Update, 2021

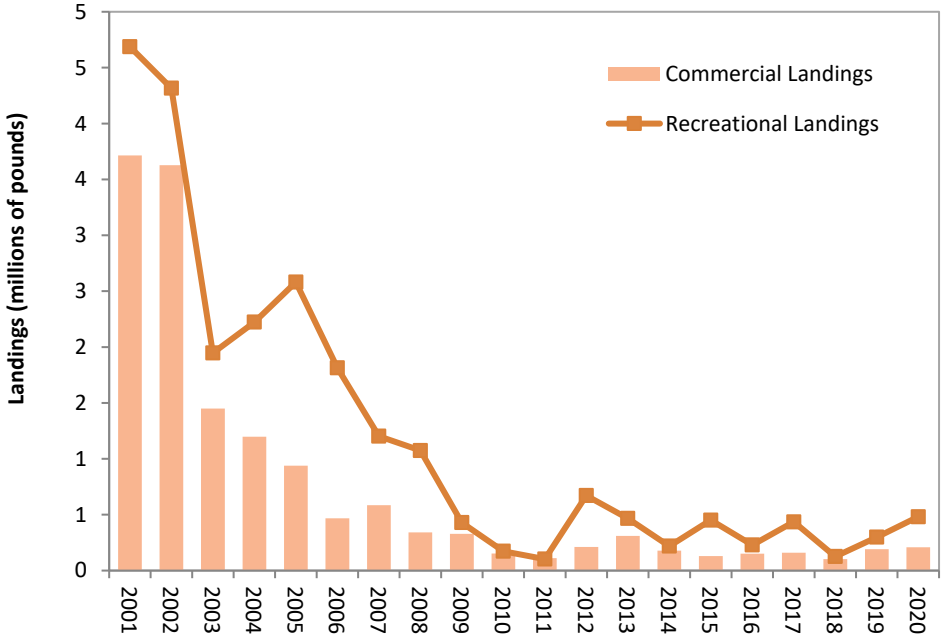
| Stock Region | Spawning Stock Biomass (in millions of pounds) | | | Fishing Mortality | | | Stock Status |
|---|---|---|---|---|---|---|---|
| | Target | Threshold | 2020 Estimate | Target | Threshold | 3-year Average | |
| **MARI** | 10.09 | 7.57 | 14.90 | 0.28 | 0.49 | 0.23 | Not overfished; overfishing not occurring |
| **LIS** | 14.83 | 11.12 | 14.70 | 0.26 | 0.38 | 0.30 | Not overfished; overfishing not occurring |
| **NJ-NYB** | 14.45 | 10.78 | 10.54 | 0.19 | 0.30 | 0.26 | Overfished; overfishing not occurring |
| **DelMarVa** | 9.90 | 7.40 | 9.66 | 0.17 | 0.27 | 0.06 | Not overfished; overfishing not occurring |

# Overview of Stock Status
# Weakfish, *Cynoscion regalis*

**Weakfish Commercial and Recreational Landings**
**Source: ACCSP Data Warehouse, 2021**




**Weakfish Commercial and Recreational Landings: Last 20 Years**
**Source: ACCSP Data Warehouse, 2021**

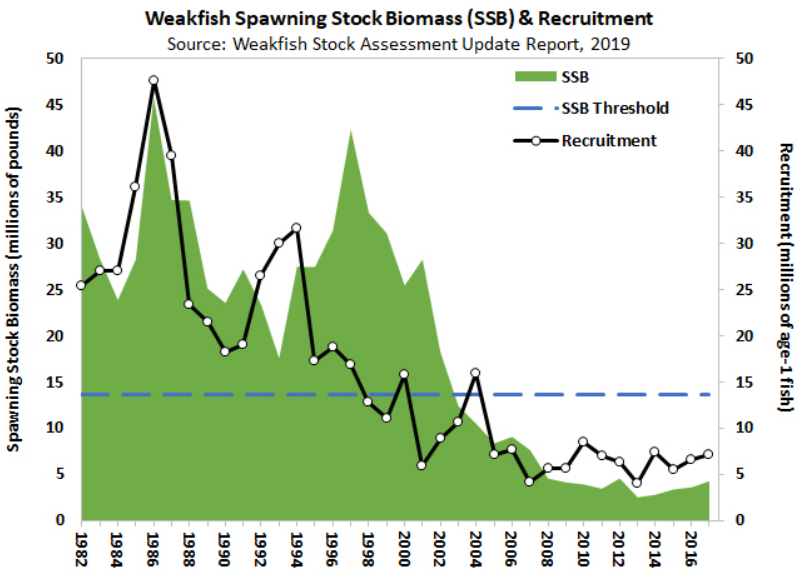


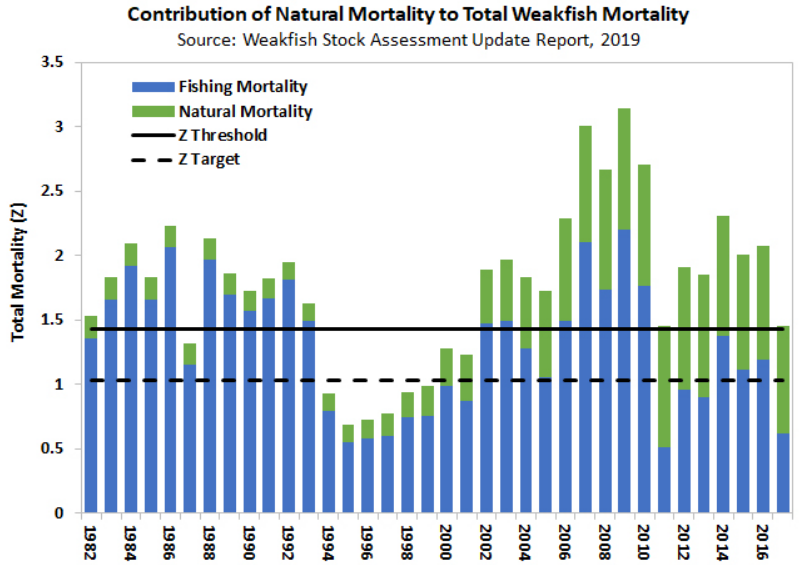

**Management Considerations:**
**Condition:** Depleted, overfishing not occurring
**FMP Stock Control Rules:**
SSB Threshold = 20% Maximum Spawning Potential (MSP; i.e., SSB that is 20% of an unfished stock)
SSB Target = 30% MSP (i.e., SSB that is 30% of an unfished stock)

**FMP Rebuilding Schedule:** 6-year rebuilding period if SSB falls below the threshold level in any given year.

**FMP Status:** Amendment 4 (2002) established overfishing and overfished definitions, provided alternative recreational management options, and increased the commercial bycatch limit. Addendum I (2005) replaced Amendment 4's biological sampling program. Addendum II (2007) implemented several measures (i.e., reduced creel and bycatch limits, landings triggers) to control expansion of the fishery in the event that stock status improved. Addendum III (2007) altered the bycatch reduction device certification requirements for consistency with the SAFMC's Shrimp FMP. In response to the 2009 stock assessment, Addendum IV

# Overview of Stock Status
# Weakfish, *Cynoscion regalis*




(2009) implemented a one fish recreational creel limit, 100 pound commercial trip and bycatch limits, and a 100 undersized fish allowance for finfish trawls, in addition to all previous measures. The addendum also replaced the fishing mortality reference points with percentage-based spawning stock biomass reference points.

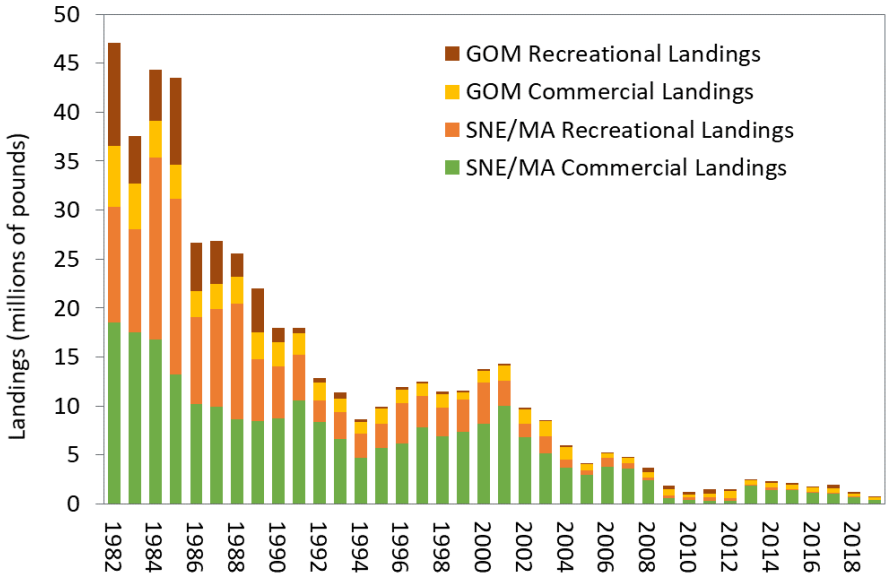
**Primary Management Measures:** The commercial fishery is controlled through minimum size limit, trip limit, closed season, closed area, mesh size, bycatch limit, and bycatch reduction device requirements. The recreational fishery is managed through bag limit and minimum size limit requirements.

**Timeline of Management Actions:** FMP (1985); Amendment 1 (1992); Amendment 2 (1994); Amendment 3 (1996); Amendment 4 (2002); Addendum I (2005); Addenda II & III (2007); Addendum IV (2009)

# Overview of Stock Status
# Winter Flounder, *Pseudopleuronectes americanus*

**Winter Flounder Commercial & Recreational Landings by Stock Unit**

Source: Northeast Fisheries Science Center, 2020




**SOUTHERN NEW ENGLAND/MID-ATLANTIC STOCK (SNE/MA)**

**Management Considerations:**

**Condition:** Overfished and overfishing is not occurring. Stock is at 28% of target SSB.

**SNE/MA Stock Reference Points:**

$F_{MSY}$ = 0.284

MSY (mt) = 3,906

SSB Target ($B_{MSY}$) (mt) = 12,322

SSB Threshold (½$SSB_{MSY}$) (mt) = 6,161

SSB (mt) = 3,638

**GULF OF MAINE STOCK (GOM)**

**Management Considerations:**

**Condition:** Stock biomass status is unknown and overfishing is not occurring.

**GOM FMP Stock Reference Points:**

$E_{MSY}$ = 0.23

**Timeline of Management Actions:** FMP & Addendum I (‘92); Addendum II (‘98); Amendment 1 (‘05); Addendum I (‘09); Addendum II (‘12); Addendum III (‘13)

**Primary Management Measures:**

Winter flounder are managed as two separate stocks in state waters: Southern New England/Mid-Atlantic (SNE/MA) and Gulf of Maine (GOM), with commercial and recreational specifications set by the Board (Addendum III, 2013). In 2021, the Board maintained commercial and recreational management measures for the GOM and SNE/MA stocks. Currently, the possession limit for non-federally permitted commercial fishermen is 500 lbs per trip in the GOM (Addendum II, 2012) and 50 lbs or 38 fish in SNE/MA. Gear requirements mandate use of a minimum 6.5” square or diamond mesh in the cod-end. Recreational measures include possession limits and seasons. In the GOM, recreational measures include an eight fish bag limit and 12” size limit. Recreational measures for the SNE/MA include a two fish bag limit and a 12” size limit, with an open season March-December.