# ATLANTIC STATES MARINE FISHERIES COMMISSION REVIEW OF THE INTERSTATE FISHERY MANAGEMENT PLAN

# **FOR**

# SPANISH MACKEREL (Scomberomorus maculatus)

# **2020 FISHING YEAR**



Prepared by the Plan Review Team Approved December 2021



Sustainable and Cooperative Management of Atlantic Coastal Fisheries

# **Table of Contents**

I.	Status of the Plan	1
II.	Status of the Stocks	3
III.	Status of the Fishery	3
IV.	Status of Assessment Advice	4
V.	Status of Research and Monitoring	4
VI.	Status of Management Measures	5
VII.	Implementation of FMP Compliance Requirements for 2019	8
VIII.	Recommendations of the Plan Review Team	9
IX.	References	9
Χ.	Figures	. 11
XI.	Tables	. 14

#### I. Status of the Plan

<u>Date of FMP Approval</u>: Original FMP – November 1990

Amendments: Omnibus Amendment to Spanish Mackerel, Spot, and

Spotted Seatrout (Amendment 2) – August 2011

Addendum: Addendum I – August 2013

<u>Management Area</u>: The Atlantic coast distribution of the resource from Rhode Island through the east coast of Florida

<u>Active Boards/Committees</u>: Sciaenids Management Board; Spanish Mackerel Plan Review Team; South Atlantic Species Advisory Panel

The Fishery Management Plan (FMP) for Coastal Migratory Pelagic Resources (1983 and subsequent amendments) and the <a href="Interstate Fishery Management Plan for Spanish Mackerel">Interstate Fishery Management Plan for Spanish Mackerel</a> (1990) manage Atlantic group Spanish mackerel in federal and state Atlantic waters from Rhode Island through the east coast of Florida. All states in that range, excluding Pennsylvania, have a declared interest in the Interstate FMP for Spanish mackerel. The Sciaenids Management Board serves to manage Spanish mackerel for the Commission. The Interstate FMP for Spanish mackerel is a flexible document intended to track the federal FMP; thus, the South Atlantic Fishery Management Council (SAFMC) has the lead on Atlantic group Spanish mackerel management.

Amendment 1 to the Spanish mackerel FMP, as part of an Omnibus Amendment to the ISFMP Management Plans for Spanish Mackerel, Spot, and Spotted Seatrout, was approved in August 2011. This primary objective of this amendment was to bring the FMPs for all three species under the authority of ACFCMA to provide more efficient and effective management and changes to management for the future. In addition, the amendment made the Commission's Spanish mackerel FMP consistent with federal Spanish mackerel requirements determined by the SAFMC.

<u>Addendum I</u> was approved in August 2013 to allow for a two-year pilot program (2013 and 2014) that allowed states to reduce the minimum size limit of Spanish mackerel for the commercial pound net fishery from 11.5 inches from 12 inches for July through September.

The goals of the ISFMP are to complement federal management in state waters, to conserve the Atlantic group Spanish mackerel resource throughout its range and to achieve compatible management among the states that harvest Spanish mackerel. In accordance with the 2011 Omnibus Amendment, the updated FMP's objectives are to:

- 1. Manage the Spanish mackerel fishery by restricting fishing mortality to rates below the threshold fishing mortality rates to provide adequate spawning potential to sustain long-term abundance of the Spanish mackerel populations.
- 2. Manage the Spanish mackerel stock to maintain the spawning stock biomass above the target biomass levels.

- 3. Minimize endangered species bycatch in the Spanish mackerel fishery.
- 4. Provide a flexible management system that coordinates management activities between state and federal waters to promote complementary regulations throughout Spanish mackerel's range which minimizes regulatory delay while retaining substantial ASMFC, Council, and public input into management decisions; and which can adapt to changes in resource abundance, new scientific information and changes in fishing patterns among user groups or by area.
- 5. Develop research priorities that will further refine the Spanish mackerel management program to maximize the biological, social, and economic benefits derived from the Spanish mackerel population. See Table 1 for state Spanish mackerel regulations in 2020-2021.

In 2019, several inconsistencies between the two FMPs were brought to the Board's attention, but the Board decided to postpone any changes to the Commission's Spanish mackerel FMP until after completion of the next stock assessment in 2022. As the SAFMC has the lead on Atlantic Spanish mackerel management, the limits summarized below are those of the federal FMP.

The SAFMC manages Atlantic group Spanish mackerel with guidance from its Scientific and Statistical Committee (SSC). The SAFMC determines needed adjustments to regulatory measures, including allowable catch, bag limits, size limits, and trip limits. The SAFMC deliberations are assisted by a Mackerel Cobia Committee that includes representatives from the Mid-Atlantic Fishery Management Council, and an Advisory Panel with South Atlantic and Mid-Atlantic industry representation. Since the Coastal Migratory Pelagic Resources FMP is a joint plan with the Gulf of Mexico Fishery Management Council (GMFMC), any plan amendments to this FMP must be approved by both Councils. Actions that can be completed through the Coastal Migratory Pelagics FMP's framework procedure and only address Atlantic group Spanish mackerel, do not require approval from the GMFMC.

The federal FMP divides the commercial fishery defines quotas for the Atlantic and Gulf migratory groups. Within the Atlantic migratory group, there are two zones- the Northern (consisting of the states from New York through North Carolina) and the Southern (South Carolina to the Miami-Dade/Monroe County border, Florida). For the Atlantic migratory group in the 2020/2021 year, in accordance with CMP Framework Amendment 2, the full commercial quota was 3.33 million pounds with allocations of 662,670 pounds and 2,667,330 pounds to the Northern and Southern zones, respectively. An adjusted Southern quota of 2,417,330 pounds was used to determine trip limit reductions in the Southern commercial zone. The 2020-2021 fishing year began on March 1st, 2020 and closed on July 22, 2020 in the Northern Zone. The Southern Zone reduced the commercial trip limit on January 29, 2020, to 500 lbs. until March 1, 2020.

The federal commercial trip limit is a year-round 3,500 pound daily possession/landings limit for the states from New York through North Carolina, with South Carolina through Florida's commercial trip limit varying depending on the percent of quota remaining. Following the implementation of Amendment 20B and CMP Framework Amendment 2, the federal trip limit

for the Southern zone (SC through FL) decreases as quota is caught. When 75% of the "adjusted" Southern zone quota<sup>1</sup> (1,812,998 pounds ww) is caught, the trip limit is reduced from 3,500 pounds to 1,500 pounds. When 100% of the adjusted Southern zone quota (2,417,330 pounds ww) is caught, the commercial trip limit is further reduced to 500 pounds. When 100% of the Southern zone commercial quota is met, harvest is prohibited for the remainder of the fishing year in federal waters, with limited commercial harvest remaining open in some state waters. In both the Northern and Southern zones, the recreational bag limit is set at 15 fish. The minimum size limit for both fisheries is 12 inches fork length (the total length equivalent, 14 inches, is used for some state waters).

#### II. Status of the Stocks

The most recent stock assessment on Spanish mackerel was completed in 2012 through the Southeast Data, Assessment, and Review (SEDAR) process (SEDAR 28, 2012). It reported that the Spanish mackerel stock was neither overfished nor experiencing overfishing. The terminal year spawning stock biomass was estimated to be  $SSB_{2011}/MSST=2.29$ , the fishing level (exploitation rate) for the ending three years was estimated to be  $F_{2009-2011}/F_{MSY}=0.526$ , and the terminal year fishing mortality rate was estimated to be  $F_{2011}/F_{MSY}=0.521$ . The estimated total biomass declined significantly in the mid-1970s and was below  $B_{MSY}$  between years 1983 and 2000 before increasing in trend again through 2009 (Figure 1). Total biomass then decreased in trend in the last three years of the time series but remained above  $B_{MSY}$  (Figure 1). The overfishing ratio ( $F/F_{MSY}$ ) showed that fishing mortality rate estimates increased in the mid-1970s and the stock experienced overfishing in year 1980 (Figure 2). Fishing morality rates then decreased again in 1981 and became stable but variable through 1994 before decreasing in trend again through 2011 (Figure 2).

#### III. Status of the Fishery

On July 1, 2018, the Marine Recreational Information Program recalibrated recreational harvest estimates from the Coastal Household Telephone Survey (CHTS) to the mail-based Fishing Effort Survey (FES). Estimates used in this report are those of the CHTS, but Figure 3 shows a comparison of CHTS and FES estimates. FES estimates will be incorporated into management after the next stock assessment. Data based on either survey can be referenced at: <a href="https://www.st.nmfs.noaa.gov/st1/recreational/queries/">https://www.st.nmfs.noaa.gov/st1/recreational/queries/</a>.

Spanish mackerel are an important recreational and commercial fishery in South Atlantic waters, with limited and sporadic recreational landings north of Maryland (Tables 2 and 4). While the fishery is managed according to a March – February fishing year, landings summarized in this report are shown by calendar year, unless otherwise stated. Total landings of Spanish mackerel in 2020 are estimated at 5.4 million pounds (compared to the 6.06 million pound ACL). The commercial fishery harvested approximately 68% of the total and the recreational fishery about 32%, according to CHTS recreational harvest estimates.

<sup>&</sup>lt;sup>1</sup> The adjusted quota is the Southern zone quota minus 250,000 lbs.

From 1950 to 2020, commercial landings of Atlantic coast Spanish mackerel have ranged between 1.8 and 11.1 million pounds, although landings have been stable hovering around the 10 year average of 3.6 million pounds. Coastwide commercial landings have generally been below 4 million pounds since 1995 (exception of 2010 and 2011; landings of 4.52 and 4.35 million pounds, respectively); this coincided with the entanglement net ban in Florida. Gill nets were the dominant commercial gear in Florida prior to the ban. After the ban was instituted, the use of cast nets increased. The 2020 commercial landings were 3.7 million pounds (Figure 4), of which 2.5 million pounds (69% of coastwide commercial harvest) were landed in Florida and approximately 1 million pounds (28%) were landed in North Carolina (Table 2).

Recreational anglers harvested 1.3 million Spanish mackerel (1.7 million pounds) in 2020, 58% above the past 5-year mean (Tables 3 and 4). The number of recreationally harvested fish appears to show a cyclical trend, with low harvests in the early to mid-80s and mid to late 90s, interspersed with higher harvests (Figure 5). Florida and North Carolina have historically accounted for the majority of recreational landings in both number and weight, with 43% and 33% of the total number of fish caught, respectively. The number of recreational releases of Spanish mackerel has generally increased over time, reaching the highest amount in the time series of 1 million fish in 2020 (Table 5, Figure 5). Live releases comprised 43% of the total recreational catch, above the previous 10-year average (2010-2019) is 39%.

#### IV. Status of Assessment Advice

The most recent stock assessment was completed in 2012 through the Southeast Data, Assessment, and Review (SEDAR) process (SEDAR, 2012). The input data (through 2011) were applied to two assessment models, with the primary model being a statistical catch at age model called the Beaufort Assessment Model (BAM); while a secondary surplus-production model (ASPIC) provided a comparison of model results. The Review Panel concluded that the statistical catch at age model was the most appropriate model to characterize the stock status for management purposes.

The SSC reviewed the assessment during its December 2012 meeting and accepted the SEDAR 28 Spanish mackerel stock assessment as best available science. The SSC concurred with the Review Panel's conclusion that the stock is not experiencing overfishing and the stock is not overfished.

The next stock assessment is currently ongoing through the SEDAR process and is set to be completed in 2022. This assessment will incorporate FES recreational harvest estimates.

#### V. Status of Research and Monitoring

The National Marine Fisheries Service (NMFS) Southeast Fisheries Science Center (SEFSC) continues to monitor length and weight at age and size frequencies, fishing mortality, and migration; collect age data and catch per unit effort by area, season, fishery, and gear; monitor shrimp trawl bycatch; investigate methods to predict year class strength; calculate estimates of recruitment, and develop conservation gear to reduce bycatch. The NMFS is also collecting discard data through a bycatch logbook in the mackerel and snapper-grouper fisheries. The Gulf and South Atlantic Fisheries Development Foundation and several states (North Carolina, South

Carolina, Georgia, and Florida) have evaluated finfish bycatch in the southeastern shrimp trawl fishery, including bycatch of Spanish mackerel. The South Atlantic component of the Southeast Area Monitoring and Assessment Program (SEAMAP) collects Spanish mackerel data in its coastal trawl survey from Cape Hatteras to Cape Canaveral. Additionally, the Northeast Area Monitoring and Assessment Program (NEAMAP) began regular spring and fall surveys between Martha's Vineyard and Cape Hatteras in the fall of 2007.<sup>2</sup>

Abundance trends continue to be monitored primarily through fishery-dependent sources. The states and the SEFSC monitor catch data through the cooperative commercial statistics collection program and the recreational fisheries survey. Commercial trip reports are tallied more frequently in the winter and early spring by the state of Florida and NMFS as the commercial quota is approached.

North Carolina also conducts fishery independent monitoring. Three fishery independent gill net surveys were initiated by the North Carolina Division of Marine Fisheries in May of 2001, 2003 and 2008, respectively. These surveys utilize a stratified random sampling scheme designed to characterize the size and age distribution for key estuarine species in Atlantic Ocean (ended in 2015) and Pamlico Sound as well as the Pamlico, Pungo, Neuse, Cape Fear and New Rivers. The overall Spanish mackerel CPUE from these surveys was extremely low and therefore lacks the desired precision and confidence needed for the data to be used for management purposes.

#### VI. Status of Management Measures

#### 2008 Framework Adjustment (Federal)

In February 2008, NOAA Fisheries finalized a framework adjustment to change the beginning date for trip limits in the Atlantic Spanish mackerel fishery off the east coast of Florida. The 3,500 pound trip limit begins March 1 each year to correspond with the beginning of the fishing year (as changed in Amendment 15).

#### Omnibus Amendment (Interstate)

In August 2011, the Management Board approved an amendment to the Spanish Mackerel FMP to address three issues: compliance measures, consistency with federal management in the exclusive economic zone, and alignment with Commission standards. Through the Omnibus Amendment, the following fisheries management measures are required for states within the management unit range:

#### Recreational Fishery

- 12" Fork Length (FL) or 14" Total Length (TL) minimum size limit
- 15 fish creel limit
- Must be landed with head and fins intact
- Calendar year season
- Prohibited gear: Drift gill nets prohibited south of Cape Lookout, NC

<sup>&</sup>lt;sup>2</sup> Many states and regional surveys experienced an interruption in sampling efforts in both recreational and commercial fishery surveys during the 2020 calendar year.

 Decrease in the recreational quota the following year via reduced bag limits if the Total Annual Catch Limit (ACL) is exceeded and stock is overfished.

#### Commercial Fishery

- Prohibited: purse seines; drift gill nets south of Cape Lookout, NC
- 12" FL or 14" TL minimum size limit
- March 1 end of February season
- Trip limits (per vessel, per day)

NY-GA: 3500 lbs

FL: 3500 lbs, 3/1-11/30;

3500 lbs Mon-Fri & 1500 lbs Sat-Sun, 12/1 until 75% adjusted quota taken; 1500 lbs, when 75% adjusted quota taken until 100% adjusted quotas taken; 500 lbs after 100% of adjusted quotas taken (the adjusted quota compensates for estimated catches of 500 lbs per vessel per day to the end of the season)

 Commercial quotas decreased the following year if Total ACL is exceeded and stock is overfished

Since approval of the Omnibus Amendment, several changes (described below) have been made to the federal FMP that are not currently reflected in the Commission management through the Omnibus Amendment. The Board has been informed of these changes and will consider changes to better align Commission and federal management documents following the next stock assessment in 2022.

#### Amendment 18 (Federal)

In August 2011, the Gulf of Mexico and South Atlantic, Fishery Management Councils approved Amendment 18 to the joint FMP for Coastal Migratory Pelagics. The primary action under consideration established Annual Catch Limits (ACLs) and Accountability Measures (AMs) for the cobia, king mackerel, and Spanish mackerel. The amendment designates ACLs and Annual Catch Targets (ACTs) for each of the two migratory groups of Spanish mackerel (Atlantic and Gulf). For the Atlantic migratory group, the commercial sector ACL is set equivalent to the commercial sector quota of 3.13 million pounds. The AM for the commercial sector is that the commercial sector will close when the commercial quota is reached or projected to be reached. In addition, current trip limit adjustments will remain in place. When the commercial sector closes, harvest and possession of Spanish mackerel would be prohibited for persons aboard a vessel for which a commercial permit for Spanish mackerel has been issued.

For the recreational sector, the ACT is set to 2.32 million pounds, while the ACL is set at 2.56 million pounds. Regarding the AM, if the stock ACL is exceeded in any year, the bag limit will be reduced the next fishing year by the amount necessary to ensure recreational landings achieve the recreational ACT, but do not exceed the recreational ACL in the following fishing year. A payback will be assessed if the Atlantic migratory group Spanish mackerel is determined to be overfished and the stock ACL is exceeded. The payback will include a reduction in the sector ACT for the following year by the amount of the overage by that sector in the prior fishing year.

#### Addendum I

In August 2013, the Commission's South Atlantic State-Federal Fisheries Management Board approved Addendum I to the Omnibus Amendment to for Spanish mackerel, Spot, and Spotted Seatrout.

Addendum I to the Omnibus Amendment establishes a pilot program that would allow states to reduce the Spanish mackerel minimum size limit for the commercial pound net fishery to  $11 \, \%$  inches during the summer months of July through September for the 2013 and 2014 fishing years only. The measure is intended to reduce waste of these shorter fish, which are discarded dead in the summer months, by converting them to landed fish that will be counted against the quota.

The Addendum responds to reports about the increased incidence of Spanish mackerel ¼ to ½ inch short of the 12 inch fork length minimum size limit in pound nets during the summer months. While the fish are alive in the pound, once the net is bunted and bailing commences, they die before being released. This may be due to a combination of temperature, stress and crowding. While individual fishermen have experimented with different wall or panel mesh sizes depending on the target species, there is no consistent use of cull panels. Those who have used cull panels have noted the difficulty and lack of success in being able to release the undersized fish quickly enough to prevent dead discards during this time of year.

The measures in Addendum I only applied for the 2013 and 2014 fishing seasons. In August 2015, the South Atlantic Board formally extended the provisions of Addendum I for the 2015 and 2016 fishing seasons. Reports by North Carolina, the only state to reduce their minimum size, will be reviewed annually.

#### Amendment 20A (Federal)

Effective July 2014, this Amendment addresses the sale of bag limit caught Spanish mackerel. The amendment rose from concerns that the recreational sales of bag limit caught fish, which are counted toward commercial quotas, are contributing to early closures of the commercial sector. In addition potential double counting of these fish could be causing erroneous landings estimates. In response, the Amendment prohibits bag limit sales with the exception of recreationally caught fish from state permitted tournaments in the South Atlantic region. This amendment also included an action to remove income requirements for federal CMP permits.

#### South Atlantic CMP Framework Action (Federal)

Effective December 2014, this action allows Spanish mackerel, harvested with gillnet gear in the South Atlantic EEZ off Florida (north of the Miami-Dade/Monroe County line) that is in excess of the trip limit, to be transferred to another federally permitted vessel that has not yet harvested the trip limit. The Framework stipulates that the transfer can only occur if: 1) allowable gillnet gear was used to harvest Spanish mackerel; 2) the transfer takes place in federal waters between vessels with valid commercial permits; 3) the receiving vessel does not have more than 3 gillnets aboard after the transfer; 4) all fish remain entangled in the meshes of the net until the transfer; 5) the quantity of the fish transferred does not exceed the daily trip limit; and 6) there is only one transfer per vessel per day.

## CMP Framework Amendment 1 (Federal)

This Framework Amendment, effective December 2014, increases the Atlantic Spanish mackerel ACL to 6.063 million pounds. The modification to the ACL followed the 2013 stock assessment which concluded that the stock is not overfished and overfishing is not occurring. The Amendment divides the ACL between the commercial sector (3.33 million pounds) and the recreational sector (2.727 million pounds).

#### Amendment 20B (Federal)

Effective March 2015, this Amendment separates commercial quotas of Atlantic Spanish mackerel between a Northern zone (north of NC/SC line) and a Southern zone (South of NC/SC line). The Amendment arose from concerns that the commercial quota could be filled by fishermen in one state before fish are available to fishermen in another state. In order to prevent this from happening, a zone is closed when its respective quota is met. Quota for each zone was based on landings from 2002/2003-2011/2012.

## CMP Framework Amendment 2 (Federal)

Implemented July 2015, this Amendment modifies the commercial trip limit system in the Southern zone. The rule establishes a trip limit of 3,500 lbs for Spanish mackerel in Federal waters offshore of South Carolina, Georgia, and Florida. When 75% of the adjusted southern zone commercial quota is caught, the commercial trip limit is reduced to 1,500 lbs. When 100% of the adjusted southern zone commercial quota is met, the commercial trip limit is further reduced to 500 lbs. This limit remains until the end of the year or the total Southern zone commercial quota is met.

#### CMP Framework Amendment 5 (Federal)

Implemented August 2017, this Framework Amendment allows commercially permitted vessels to operate as private recreational vessels when the commercial season is closed for Spanish or king mackerel.

#### VII. Implementation of FMP Compliance Requirements for 2020

All states must implement the requirements specified in section 5 (5.1 Mandatory Compliance Elements for States; 5.1.1 Mandatory Elements of State Programs; 5.1.1.1 Regulatory Requirements). The PRT found no deviations among states from the FMP.

#### De Minimis Requests

A state qualifies for *de minimis* status if its previous three-year average combined commercial and recreational catch is less than 1% of the previous three-year average coastwide combined commercial and recreational catch. Those states that qualify for *de minimis* are not required to implement any monitoring requirements, as none are included in the plan.

The states of Rhode Island, New Jersey, and Delaware request *de minimis* status. All states meet the requirements of *de minimis*.

#### **Regulation Changes**

Virginia amended Chapter 4 VAC 20-540-10 et seq., "Pertaining to Spanish Mackerel and King Mackerel," to establish closure procedures in state waters for the Spanish mackerel commercial fishery to coincide with federal waters closures as announced by the South Atlantic Fishery Management Council. The purpose of these amendments is to comply with the federal fishery management plan for this species. This change was effective September 1, 2020.

#### VIII. Recommendations of the Plan Review Team

Additional research recommendations can be found in the most recent stock assessment found here. The PRT had the additional research recommendations:

- Understanding the dynamics across the regions is important for future management
  considering. Consider extending management measures into the New England region
  (as far north as Massachusetts) as consistent catches and anecdotal sightings of Spanish
  mackerel have occurred in parts of this area and are increasing in frequency. Also
  determine whether more northerly fish are of the same stock as fish further south, and
  the impact of the potential regions in future stock assessments.
- A need for understanding the life history components for Spanish mackerel, particularly from fishery independent surveys. Length, sex, age, and CPUE data are needed for improved stock assessment accuracy. Data collection is needed for all states, particularly from Virginia north. Evaluation of weight and especially length at age of Spanish mackerel.
- Investigate discard mortality in both the commercial and recreational fisheries. Specific
  information should include an estimate of total amount caught and distribution of catch
  by area, season, and type of gear.

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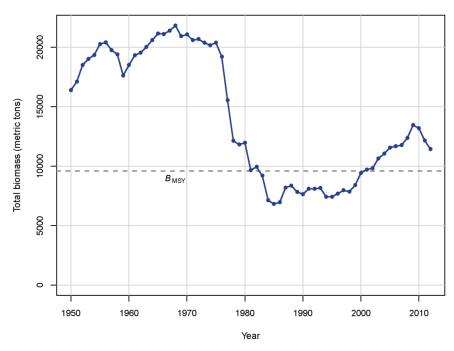
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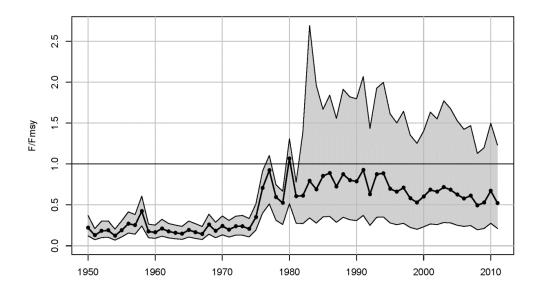
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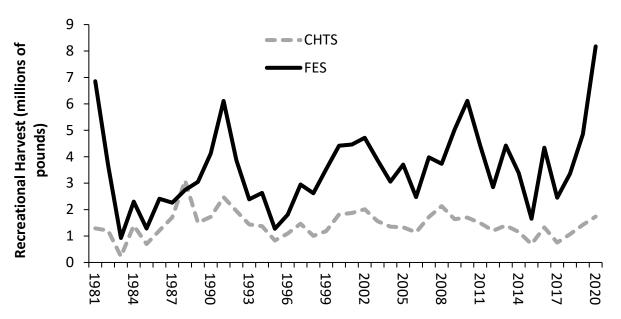
# X. Figures



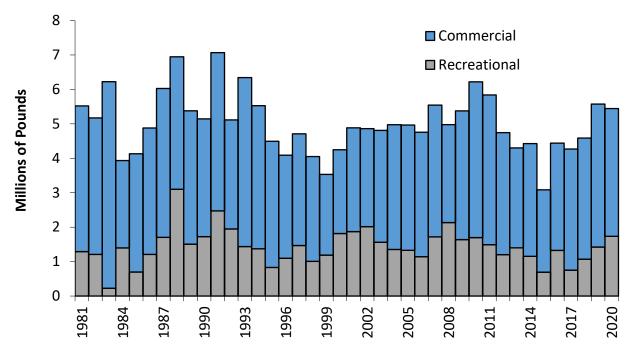
**Figure 1.** Estimated total biomass (metric tons) at start of year. Horizontal dashed line indicates B<sub>MSY</sub> (SEDAR, 2012).



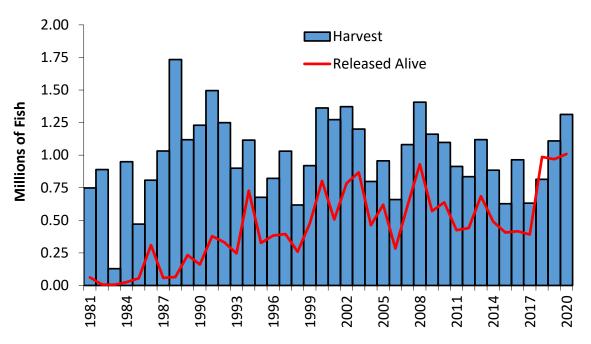
**Figure 2.** Estimated time series of Atlantic group Spanish mackerel fishing mortality rate (F) relative to F<sub>MSY</sub> benchmark. Solid line indicates estimates from base run of the Beaufort Assessment Model; gray error bands indicate 5<sup>th</sup> and 95<sup>th</sup> percentiles of the Monte Carlo Bootstrap analysis trials (SEDAR, 2012).



**Figure 3.** Recreational harvest in pounds, estimated using the Coastal Household Telephone Survey (CHTS) and the mail-based Fishing Effort Survey (FES). (Source: personal communication with NOAA Fisheries, Fisheries Statistics Division. [10/28/2021])



**Figure 4.** Commercial and recreational harvest (CHTS) (pounds) of Spanish mackerel, 1981-2020. (Recreational data available from 1981-present only; see Tables 2 and 4 for sources and recent values)



**Figure 5.** Recreational harvest and releases (numbers of fish; CHTS) of Spanish mackerel, 1981-2020. (See Tables 3 and 5 for sources and recent values)

# XI. Tables

**Table 1.** Summary of state regulations for Spanish mackerel in 2020.

Notes: A commercial license is required to sell Spanish mackerel in all states; other general gear restrictions apply to the harvest of Spanish mackerel. Purse seines and drift gill nets are prohibited south of Cape Lookout, NC.

State	Recreational	Commercial
NY	14" TL, 15 fish	14" TL. 3,500 lbs trip limit.
NJ	14" TL, 10 fish	14" TL. 3,500 lbs trip limit.
DE	14" TL, 15 fish	14" TL. 3,500 lbs trip limit.
MD	14" TL, 15 fish	14" TL. 3,500 lbs trip limit. March-Feb.
PRFC	14" TL, 15 fish	14" TL. Closure if/when MD and VA fisheries close.
VA	12" FL or 14" TL,	12" or 14" TL. 3,500 lb trip limit. 500 lb trip limit if/when
	15 fish	harvest in federal waters closes.
NC	12" FL, 15 fish	12" FL; 3,500 lb trip limit for combined Spanish and king
		mackerel landings. 500 lb trip limit if/when harvest in
		federal waters closes by proclamation.
SC	12" FL, 15 fish	12" FL. 3500 lbs until 75% of adjusted Atlantic Southern
		Zone quota taken, then 1500 lbs until 100% of adjusted
		quota is taken, then 500 lbs. until the end of year or
		commercial quota is met. If quota is met, then
		commercial sector is closed to harvest. Requires open
		access permit for Spanish mackerel.
GA	12" FL, 15 fish	12" FL. 3500 lbs until 75% of adjusted Atlantic Southern
		Zone quota taken, then 1500 lbs until 100% of adjusted
		quota is taken, then 500 lbs. until the end of year or
		commercial quota is met. If quota is met, then
		commercial sector is closed to harvest.
FL	12" FL, 15 fish.	12" FL or 14" TL. Trip limits: April 1 until Nov. 30 – 3500
	Cast nets less	lb; Dec. 1 until 75% of adjusted quota reached – 3500 lb
	than 14' and	Monday – Friday & 1500 lb Saturday – Sunday; >75%
	beach or haul	adjusted quota until quota filled – 1500 lb; > 100% of
	seines within 2"	adjusted quota – 500 lb.
	stretched mesh	Restricted Species Endorsement Required
	allowed	Allowed gear: beach or haul seine, cast net, hook and
		line, or spearing.

**Table 2.** Commercial landings (pounds, calendar year) of Spanish mackerel by state, 2011-2020. (Source: ACCSP for 2019 and earlier for all jurisdictions, except PRFC; annual compliance reports for 2020 and for all PRFC years. Confidential values are shown as "C". Total and north of New York values adhere to the ACCSP rule of 3, i.e. totals are reflective of the true total if 0 or at least 3 states' data are confidential in a given year. Otherwise, they are sums of nonconfidential data. Data dating back to 1950 are available upon request to ACCSP.)

Year	N of NY	NY	NJ	DE	MD	PRFC
2011	1,795	1,147	305	С	5,088	675
2012	2,135	2,293	2,806	С	3,634	270
2013	471	4,467	265	С	2,395	302
2014	43	2,550	292	С	1,632	12
2015	С	1,357	2,746	С	2,222	6
2016	С	813	1,997	С	16,205	548
2017	652	1,053	462	С	815	4,704
2018	951	1,283	С	С	3,071	420
2019	1,521	5,683	С	С	С	45,385
2020	678	3,021	С	С	С	10,092
Year	VA	NC	SC	GA	FL	Total
<b>Year</b> 2011	<b>VA</b> 35,601	<b>NC</b> 871,217	<b>SC</b>	<b>GA</b>	<b>FL</b> 3,432,932	<b>Total</b> 4,348,760
2011	35,601	871,217	С	С	3,432,932	4,348,760
2011 2012	35,601 18,047	871,217 916,439	C C	C C	3,432,932 2,596,917	4,348,760 3,542,542
2011 2012 2013	35,601 18,047 7,602	871,217 916,439 620,752	C C	C C	3,432,932 2,596,917 2,265,390	4,348,760 3,542,542 2,901,643
2011 2012 2013 2014	35,601 18,047 7,602 7,859	871,217 916,439 620,752 673,974	C C C	C C C	3,432,932 2,596,917 2,265,390 2,585,281	4,348,760 3,542,542 2,901,643 3,272,586
2011 2012 2013 2014 2015	35,601 18,047 7,602 7,859 14,472	871,217 916,439 620,752 673,974 561,407	C C C C	C C C C	3,432,932 2,596,917 2,265,390 2,585,281 1,807,967	4,348,760 3,542,542 2,901,643 3,272,586 2,390,206
2011 2012 2013 2014 2015 2016	35,601 18,047 7,602 7,859 14,472 32,547	871,217 916,439 620,752 673,974 561,407 601,526	C C C C C	C C C C C	3,432,932 2,596,917 2,265,390 2,585,281 1,807,967 2,461,178	4,348,760 3,542,542 2,901,643 3,272,586 2,390,206 3,114,947
2011 2012 2013 2014 2015 2016 2017	35,601 18,047 7,602 7,859 14,472 32,547 21,476	871,217 916,439 620,752 673,974 561,407 601,526 816,017	C C C C C C	C C C C C C	3,432,932 2,596,917 2,265,390 2,585,281 1,807,967 2,461,178 2,672,655	4,348,760 3,542,542 2,901,643 3,272,586 2,390,206 3,114,947 3,517,969

**Table 3.** Recreational harvest (numbers) of Spanish mackerel by state, state, 2011-2020 State values shown were estimated using effort information from the Coastal Household Telephone Survey (CHTS). Coastwide totals are also shown as recalibrated estimates using effort information from the mail-based Fishing Effort Survey (FES). (Source: personal communication with NOAA Fisheries, Fisheries Statistics Division. [10/28/2021])

Year	N of NY	NY	NJ	DE	MD	VA
2011					10,554	35,054
2012					2,962	11,847
2013				31	2,905	61,260
2014	145				5,494	15,776
2015					11,366	12,072
2016				9	11,465	75,068
2017			3,188	27	14,613	12,609
2018	119	0	6,052	352	13,002	50,670
2019	117	5,114	3,213	728	53,603	191,803
2020	3,366	1,146	1,087	92	53,138	90,741
Year	NC	SC	GA	FL	<b>CHTS Total</b>	FES Total
<b>Year</b> 2011	<b>NC</b> 367,086	<b>SC</b> 87,109	<b>GA</b> 7,486	<b>FL</b> 406,068	<b>CHTS Total</b> 913,357	<b>FES Total</b> 2,757,220
	+					
2011	367,086	87,109	7,486	406,068	913,357	2,757,220
2011 2012	367,086 491,238	87,109 80,204	7,486 2,119	406,068 246,866	913,357 835,236	2,757,220 2,062,107
2011 2012 2013	367,086 491,238 497,329	87,109 80,204 22,414	7,486 2,119 1,299	406,068 246,866 534,042	913,357 835,236 1,119,280	2,757,220 2,062,107 3,897,654
2011 2012 2013 2014	367,086 491,238 497,329 398,398	87,109 80,204 22,414 80,935	7,486 2,119 1,299 1,903	406,068 246,866 534,042 381,839	913,357 835,236 1,119,280 884,635	2,757,220 2,062,107 3,897,654 2,650,952
2011 2012 2013 2014 2015	367,086 491,238 497,329 398,398 388,157	87,109 80,204 22,414 80,935 133,446	7,486 2,119 1,299 1,903 527	406,068 246,866 534,042 381,839 82,064	913,357 835,236 1,119,280 884,635 627,632	2,757,220 2,062,107 3,897,654 2,650,952 1,491,591
2011 2012 2013 2014 2015 2016	367,086 491,238 497,329 398,398 388,157 424,341	87,109 80,204 22,414 80,935 133,446 78,100	7,486 2,119 1,299 1,903 527 1,510	406,068 246,866 534,042 381,839 82,064 373,760	913,357 835,236 1,119,280 884,635 627,632 964,253	2,757,220 2,062,107 3,897,654 2,650,952 1,491,591 3,439,134
2011 2012 2013 2014 2015 2016 2017	367,086 491,238 497,329 398,398 388,157 424,341 439,654	87,109 80,204 22,414 80,935 133,446 78,100 16,300	7,486 2,119 1,299 1,903 527 1,510 8,007	406,068 246,866 534,042 381,839 82,064 373,760 137,559	913,357 835,236 1,119,280 884,635 627,632 964,253 631,957	2,757,220 2,062,107 3,897,654 2,650,952 1,491,591 3,439,134 1,778,721

**Table 4.** Recreational harvest (pounds) of Spanish mackerel by state, state, 2011-2020. State values shown were estimated using effort information from the Coastal Household Telephone Survey (CHTS). Coastwide totals are also shown as recalibrated estimates using effort information from the mail-based Fishing Effort Survey (FES). (Source: personal communication with NOAA Fisheries, Fisheries Statistics Division. [10/28/2021])

Year	N of NY	NY	NJ	DE	MD	VA
2011					22,630	41,325
2012					5,223	17,806
2013				43	6,949	68,165
2014					12,440	17,597
2015					16,820	10,746
2016				8	18,995	71,869
2017			3,516	42	17,379	16,482
2018	691		5,187	512	30,432	83,306
2019	207	7,368	6,218	711	88,848	236,118
2020	5,778	1,807	1,256	95	78,208	110,065
Year	NC	SC	GA	FL	<b>CHTS Total</b>	<b>FES Total</b>
2011	470,541	70.005	0.430	072 222	4 400 700	
	470,341	73,605	9,439	873,222	1,490,762	4,420,710
2012	665,201	98,316	4,536	411,935	1,490,762 1,203,016	4,420,710 2,847,807
2012 2013	· · · · · ·		-	· -		
	665,201	98,316	4,536	411,935	1,203,016	2,847,807
2013	665,201 625,035	98,316 50,866	4,536 2,159	411,935 646,996	1,203,016 1,400,212	2,847,807 4,422,624
2013 2014	665,201 625,035 449,709	98,316 50,866 126,345	4,536 2,159 2,356	411,935 646,996 544,792	1,203,016 1,400,212 1,153,238	2,847,807 4,422,624 3,386,462
2013 2014 2015	665,201 625,035 449,709 431,082	98,316 50,866 126,345 108,423	4,536 2,159 2,356 1,879	411,935 646,996 544,792 124,199	1,203,016 1,400,212 1,153,238 693,150	2,847,807 4,422,624 3,386,462 1,654,337
2013 2014 2015 2016	665,201 625,035 449,709 431,082 411,353	98,316 50,866 126,345 108,423 74,475	4,536 2,159 2,356 1,879 2,853	411,935 646,996 544,792 124,199 746,876	1,203,016 1,400,212 1,153,238 693,150 1,326,428	2,847,807 4,422,624 3,386,462 1,654,337 4,342,763
2013 2014 2015 2016 2017	665,201 625,035 449,709 431,082 411,353 459,982	98,316 50,866 126,345 108,423 74,475 23,556	4,536 2,159 2,356 1,879 2,853 14,135	411,935 646,996 544,792 124,199 746,876 215,961	1,203,016 1,400,212 1,153,238 693,150 1,326,428 751,053	2,847,807 4,422,624 3,386,462 1,654,337 4,342,763 2,449,417

**Table 5.** Recreational releases (numbers) of Spanish mackerel by state, state, 2011-2020. State values shown were estimated using effort information from the Coastal Household Telephone Survey (CHTS). Coastwide totals are also shown as recalibrated estimates using effort information from the mail-based Fishing Effort Survey (FES). (Source: personal communication with NOAA Fisheries, Fisheries Statistics Division. [10/28/2021])

Year	N of NY	NY	NJ	DE	MD	VA
2011						28,526
2012						17,150
2013				94		5,583
2014					881	3,450
2015					357	4,224
2016	426			213		14,072
2017			4,440		3,029	4,911
2018		2,252	6,566	2	1,067	39,619
2019	3,009	12,166	9,526	1,020	24,856	138,937
2020	15,196	1,395	6,258	388	24,280	57,725
Year	NC	SC	GA	FL	<b>CHTS Total</b>	FES Total
<b>Year</b> 2011	<b>NC</b> 170,926	<b>SC</b> 67,144	<b>GA</b> 10,131	<b>FL</b> 147,399	<b>CHTS Total</b> 424,126	<b>FES Total</b> 1,471,139
			_			
2011	170,926	67,144	10,131	147,399	424,126	1,471,139
2011 2012	170,926 234,905	67,144 98,371	10,131	147,399 88,592	424,126 440,742	1,471,139 1,196,851
2011 2012 2013	170,926 234,905 289,216	67,144 98,371 24,862	10,131 1,724	147,399 88,592 365,107	424,126 440,742 684,862	1,471,139 1,196,851 2,723,231
2011 2012 2013 2014	170,926 234,905 289,216 240,731	67,144 98,371 24,862 36,082	10,131 1,724 851	147,399 88,592 365,107 208,266	424,126 440,742 684,862 490,261	1,471,139 1,196,851 2,723,231 1,899,889
2011 2012 2013 2014 2015	170,926 234,905 289,216 240,731 216,011	67,144 98,371 24,862 36,082 99,530	10,131 1,724 851 466	147,399 88,592 365,107 208,266 85,973	424,126 440,742 684,862 490,261 406,561	1,471,139 1,196,851 2,723,231 1,899,889 1,065,319
2011 2012 2013 2014 2015 2016	170,926 234,905 289,216 240,731 216,011 187,878	67,144 98,371 24,862 36,082 99,530 69,882	10,131 1,724 851 466 137	147,399 88,592 365,107 208,266 85,973 143,453	424,126 440,742 684,862 490,261 406,561 416,061	1,471,139 1,196,851 2,723,231 1,899,889 1,065,319 2,130,960
2011 2012 2013 2014 2015 2016 2017	170,926 234,905 289,216 240,731 216,011 187,878 228,851	67,144 98,371 24,862 36,082 99,530 69,882 57,040	10,131 1,724 851 466 137 5,585	147,399 88,592 365,107 208,266 85,973 143,453 87,006	424,126 440,742 684,862 490,261 406,561 416,061 390,862	1,471,139 1,196,851 2,723,231 1,899,889 1,065,319 2,130,960 1,492,251