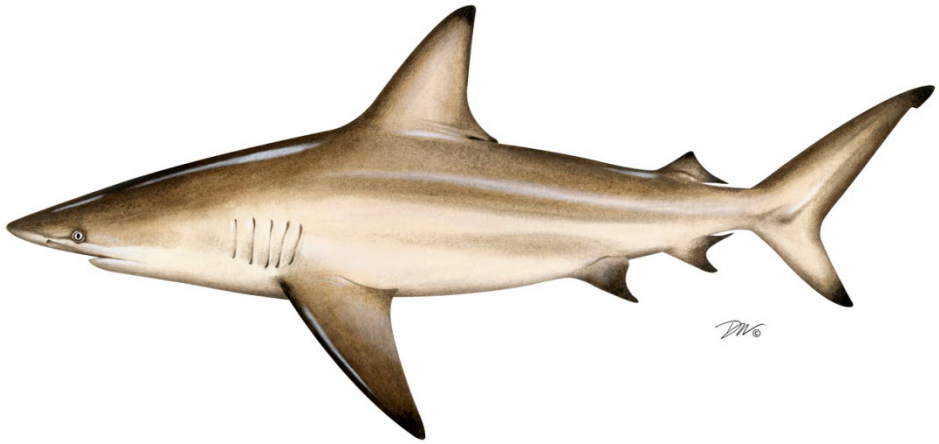
# ATLANTIC STATES MARINE FISHERIES COMMISSION

## REVIEW OF THE INTERSTATE FISHERY MANAGEMENT PLAN

## FOR COASTAL SHARKS

### 2022 AND 2023 FISHING YEARS



Prepared by the Coastal Sharks Plan Review Team

**Approved November 2024**

*Sustainable and Cooperative Management of Atlantic Coastal Fisheries*

**REVIEW OF THE ASMFC FISHERY MANAGEMENT PLAN AND STATE COMPLIANCE FOR COASTAL SHARKS FOR THE 2022 AND 2023 FISHERY**

**Management Summary**

| | |
|---|---|
| Date of FMP Approval: | August 2008 |
| Amendments: | None |
| Addenda: | Addendum I (September 2009)<br>Addendum II (May 2013)<br>Addendum III (October 2013)<br>Addendum IV (August 2016)<br>Addendum V (October 2018) |
| Management Unit: | Entire coastwide distribution of the resource from the estuaries eastward to the inshore boundary of the EEZ |
| States With Declared Interest: | Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Delaware, Maryland, Virginia, North Carolina, South Carolina, Georgia, Florida |
| Active Boards/Committees: | Coastal Shark Management Board, Advisory Panel, Technical Committee, and Plan Review Team |

## I. Status of the Fishery Management Plan

The Atlantic States Marine Fisheries Commission (ASMFC; Commission) adopted its first fishery management plan (FMP) for coastal sharks in 2008. Coastal sharks were initially managed under this plan as six different complexes: prohibited, research, small coastal, non-sandbar large coastal, pelagic and smooth dogfish. The Board does not actively set quotas for any shark species. The Commission follows National Oceanic and Atmospheric Administration's (NOAA Fisheries) openings and closures for small coastal sharks, non-sandbar large coastal shark, and pelagic sharks. Species in the prohibited category may not be possessed or taken. Sandbar sharks may only be taken with a shark fishery research permit. All species must be landed with their fins attached to the carcass by natural means. This was adjusted through subsequent addenda listed below. The Interstate Fishery Management Plan for Coastal Sharks (FMP) established the following goals and objectives.

GOAL
The goal of the Interstate Fishery Management Plan for Coastal Sharks is "to promote stock rebuilding and management of the coastal shark fishery in a manner that is biologically, economically, socially, and ecologically sound."

OBJECTIVES

In support of this goal, the following objectives for the FMP include:

1. Reduce fishing mortality to rebuild stock biomass, prevent stock collapse, and support a sustainable fishery.
2. Protect essential habitat areas such as nurseries and pupping grounds to protect sharks during particularly vulnerable stages in their life cycle.
3. Coordinate management activities between state and federal waters to promote complementary regulations throughout the species' range.
4. Obtain biological and improved fishery related data to increase understanding of state water shark fisheries.
5. Minimize endangered species bycatch in shark fisheries.

The FMP has been adapted through the following addenda:

Addendum I (September 2009)

Approved in September 2009, Addendum I modified the FMP to allow commercial fishermen to process (remove the fins of) smooth dogfish at sea from March – June of each year, but also requires a 5-95% fin to carcass ratio for all dressed smooth dogfish carcasses. This Addendum also removed recreational smooth dogfish possession limits, as well as the two-hour gill-net check requirement for commercial fishermen, which applied to all shark species.

Addendum II (May 2013)

Approved in May 2013, Addendum II modified Addendum I to allow commercial fishermen to process (remove the fins of) smooth dogfish at sea year-round but requires a 12-88% fin-to-carcass ratio for all dressed smooth dogfish carcasses. This ratio was consistent with the Shark Conservation Act of 2010. Addendum II also allocates state-shares of the upcoming federal smoothhound shark quota based on historical landings from 1998-2010.

Addendum III (October 2013)

Addendum III modifies the species groups to ensure consistency with NOAA Fisheries. It creates two new species groups (Blacknose and Hammerhead Species Groups). The addendum also increases the recreational minimum size limit for all hammerhead species to 78 in fork length (FL).

Addendum IV (August 2016)

Addendum IV allows smooth dogfish carcasses to be landed with corresponding fins removed from the carcass as long as the total retained catch, by weight, is composed of at least 25% smooth dogfish, consistent with federal management measures.

Addendum V (October 2018)

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. Addendum V allows the Board to change a suite of commercial and recreational measures, such as recreational size and possession limits, season length, and area closures (recreational and commercial), in addition to

the current specifications for just the commercial fishery, throughout the year when needed. Under this provision, if the Board chooses to adjust measures through Board action, the public will be able to provide comment prior to Board meetings, as well as at Board meetings at the discretion of the Board Chair. Additionally, the Board can still implement changes in shark regulations through an addendum.

In 2019, in response to measures implemented by NOAA Fisheries through Amendment 11 for Federal Highly Migratory Species (HMS) Permit Holders, the Board approved changes to the recreational size limit for Atlantic shortfin mako sharks in state waters, specifically, a 71 in straight line FL for males and an 83 in straight line FL for females. These measures were implemented in response to the 2017 Atlantic shortfin mako shark stock assessment that found the resource is overfished and experiencing overfishing. The states were required to implement the changes to the recreational minimum size limit for Atlantic shortfin mako sharks by January 1, 2020.

Additionally in 2019, the Board moved to require non-offset circle hooks for the recreational shark fishery in state waters with an implementation date of July 1, 2020. The Board chose to do so after NOAA Fisheries requested that the states implement a circle hook requirement for the recreational fishery consistent with the measures approved in HMS Amendment 11.

In May 2022 the Board approved a zero retention limit in state waters for Atlantic shortfin mako sharks for both recreational and commercial fisheries. These measures are consistent with those implemented by NOAA Fisheries for federal HMS permit holders. This action was taken in response to the 2019 Atlantic shortfin mako shark stock assessment update that indicates the resource is overfished and experiencing overfishing, with a rebuild date of 2070.

In May 2024, the Board established a zero possession limit for oceanic whitetip sharks for recreational and commercial fisheries, consistent with the NOAA Fisheries final rule prohibiting the retention and possession of oceanic whitetip in US waters of the Atlantic Ocean, effective February 2, 2024.

**Table 1. List of commercial 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 and bigeye sixgill sharks |
| Research | Sandbar sharks |
| Non-Blacknose Small Coastal | Atlantic sharpnose, finetooth, and bonnethead sharks |
| Blacknose | Blacknose sharks |
| Aggregated Large Coastal | Silky, tiger, blacktip, spinner, bull, lemon, and nurse sharks |
| Hammerhead | Scalloped hammerhead, great hammerhead and smooth hammerhead |
| Pelagic | Shortfin mako*, porbeagle, common thresher, oceanic whitetip*, and blue sharks |
| Smoothhound | Smooth dogfish and Florida smoothhound sharks |

*Zero retention limits are in place for these species

## II. Status of the Stocks

Stock status is assessed by species or by species complex if there are not enough data for an individual assessment. Eleven species have been assessed domestically, three species have been assessed internationally, and the rest have not been assessed. Table 2 describes the current stock status of all assessed shark species along with references for the stock assessments.

The first part of a research track assessment of the hammerhead complex (SEDAR 77) was completed in 2024. Based on the 2009 stock assessment for the Northwest Atlantic and Gulf of Mexico populations of scalloped hammerhead sharks (*Sphyrna lewini*), which indicated the Northwest Atlantic stock is overfished and experiencing overfishing (Hayes et al. 2009), NOAA Fisheries established a scalloped hammerhead rebuilding plan that ends in 2023. Since the assessment, research has determined that in the U.S. Atlantic, a portion of animals considered scalloped hammerheads are actually a cryptic species, recently named the Carolina hammerhead (*Sphyrna gilberti*; Quattro et al. 2013). Little to no species-specific information exists regarding the distribution, abundance and life history of the two species, therefore for now, both species are currently managed under the name scalloped hammerhead. The SEDAR 77 assessment preliminarily indicates that the scalloped hammerhead shark was not overfished and overfishing was not occurring in the terminal year (2019). For smooth hammerheads it suggests overfishing most likely is not occurring and the stock has been rebuilding since 2000. The assessment found that for the great hammerhead shark the stock is overfished, and no overfishing is occurring in the terminal year. The final assessment results are expected in December 2024.

In December 2020, Southeast Data and Assessment Review SEDAR completed a benchmark assessment of the Atlantic blacktip shark (*Carcharhinus limbatus*) stock (SEDAR 65), which indicates the stock is not overfished and not experiencing overfishing.

In June 2020, the International Commission on the Convention of Atlantic Tunas (ICCAT)'s Standing Committee on Research and Statistics (SCRS) completed an assessment of Porbeagle sharks (*Lamna nasus*), which indicates the stock is overfished and not experiencing overfishing. As a result of the previous 2009 assessment, NOAA Fisheries established a 100-year rebuilding plan for porbeagle sharks; the expected rebuilding date is 2108.

The 2017 ICCAT assessment of the North Atlantic population of shortfin mako sharks (*Isurus oxyrinchus)* indicates that the stock is overfished and overfishing is occurring. Multiple models were explored and new data sources were integrated. Combined probability of overfishing occurring and the stock being in an overfished state was 90% across all models.

The 2017 stock assessment (SEDAR 54) for sandbar sharks (*Carcharhinus plumbeus*) indicates the stock is overfished and not experiencing overfishing. This assessment used a new approach (Stock Synthesis) instead of the State Space Age Structure Production Model that was used in the previous assessment (SEDAR 21). A replication analysis conducted using the prior model

(updated with data through 2015) resulted in the same stock status as the new model (overfished, no overfishing occurring). The rebuilding date for sandbar sharks is 2070.

The 2016 stock assessment update (SEDAR 21) for Atlantic dusky sharks (*Carcharhinus obscurus*) indicates the stock is overfished and experiencing overfishing. This latest review functioned as an update to the 2011 assessment, so no new methodology was introduced. However, all model inputs were updated with more recent data (i.e., 2010-2015 effort, observer, and survey data). The rebuilding date for dusky sharks is 2107.

In 2015, a benchmark stock assessment (SEDAR 39) was conducted for the smoothhound complex, including smooth dogfish (*Mustelus canis*), the only species of smoothhound occurring in the Atlantic. The assessment indicates Atlantic smooth dogfish are not overfished and not experiencing overfishing.

The North Atlantic blue shark (*Prionace glauca*) stock was assessed by ICCAT's SCRS in 2015. Similar to the results of the previous 2008 stock assessment, the assessment indicated the stock is not overfished and not experiencing overfishing. However, scientists acknowledge there is a high level of uncertainty in the data inputs and model structural assumptions; therefore, the assessment results should be interpreted with caution.

SEDAR 34 (2013) assessed the status of Atlantic sharpnose sharks (*Rhizoprionodon terraenovae*) and bonnetheads (*Sphyrna tiburo*). The Atlantic sharpnose shark stock is not overfished and not experiencing overfishing. The stock status of bonnethead stocks (Atlantic and Gulf of Mexico) is considered unknown. Assessment results indicated the stock is not overfished with no overfishing occurring, however all available data pointed towards separate stocks. As the assessment framework would not allow stocks to be split, the assessment continued under a single stock scenario. The results of the assessment were rejected by reviewers noting that the stocks need to be assessed independently. A benchmark assessment is recommended for both stocks of bonnetheads.

A 2011 benchmark assessment (SEDAR 21) of blacknose sharks (*Carcharhinus acrontus*) indicated the stock is overfished and experiencing overfishing. As described in the Magnuson-Stevens Act, NOAA Fisheries must establish a rebuilding plan for an overfished stock. As such, the rebuilding date for blacknose sharks is 2043.

The 2007 SEDAR 13 assessed the SCS complex, finetooth (*Carcharhinus isodon*), Atlantic sharpnose, and bonnethead sharks (SEDAR 2007). The SEDAR 13 peer reviewers considered the data to be the 'best available at the time' and determined the status of the SCS complex to be adequate. Finetooth, Atlantic sharpnose, and bonnethead were all considered to be not overfished and not experiencing overfishing.

Stock assessments are scheduled for sandbar sharks (assessment update) and bull sharks in 2025.

**Table 2. Stock Status of Atlantic Coastal Shark 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 (2020); Rebuilding ends in 2108 (HMS Am. 2) |
| Blue | No | No | ICCAT Standing Committee on Research and Statistics Report (2015) |
| Shortfin Mako | Yes | Yes | ICCAT Standing Committee on Research and Statistics Report (2017) |
| All other pelagic sharks | Unknown | Unknown | |
| **Aggregated Large Coastal Sharks (LCS)** | | | |
| Atlantic Blacktip | No | No | SEDAR 65 (2020) |
| Aggregated Large Coastal Sharks - Atlantic Region | Unknown | Unknown | SEDAR 11 (2006); difficult to assess as a species complex due to various life history characteristics/ lack of available data |
| **Non-Blacknose Small Coastal Sharks (SCS)** | | | |
| Atlantic Sharpnose | No | No | SEDAR 34 (2013) |
| Bonnethead | Unknown | Unknown | SEDAR 34 (2013) |
| Finetooth | No | No | SEDAR 13 (2007) |
| **Hammerhead** | | | |
| Scalloped | No* | No* | SEDAR 77 (2024) |
| Smooth | Unknown* | No* | SEDAR 77 (2024); Stock assessment suggests rebuilding has been occurring since 2000. |
| Great | Yes* | No* | SEDAR 77 (2024) |
| **Blacknose** | | | |
| Blacknose | Yes | Yes | SEDAR 21 (2010); Rebuilding ends in 2043 (HMS Am. 5a) |
| **Smoothhound** | | | |
| Atlantic Smooth Dogfish | No | No | SEDAR 39 (2015) |
| **Research** | | | |
| Sandbar | Yes | No | SEDAR 54 (2017); Rebuilding ends 2070 (HMS Am. 2) |
| **Prohibited** | | | |
| Dusky | Yes | Yes | SEDAR 21 update (2016); Rebuilding ends in 2108 (HMS Am. 5b) |
| All other prohibited sharks | Unknown | Unknown | |

*The results of SEDAR 77 assessment are considered preliminary.

## III. Status of the Fishery

***Specifications (Opening, closures, quotas)***

NOAA Fisheries sets quotas for coastal sharks through the 2006 Consolidated Atlantic Highly Migratory Species Fishery Management Plan and its amendments. The opening dates, closure dates, and quotas are detailed in Table 3. All non-prohibited coastal shark management groups opened on January 1, 2023. NOAA Fisheries closes commercial shark fisheries when 80% of the available quota is reached, and when 100 percent of the quota is expected to be reached by the end of the calendar year. When the fishery closes in federal waters, the Interstate FMP dictates

that the fishery also closes in state waters. For 2022 and 2023, the fishery did not close for any of the species groups before December 31.

**Table 3. Commercial quotas and opening dates for the 2023 shark fishing season**

| Region or Sub-region | Management Group | 2022 Annual Adjusted Quota* | Quota Linkages | Commercial Retention Limits for Directed Shark Limited Access Permit Holders (in-season adjustments are possible) | Season Opening Dates |
|---|---|---|---|---|---|
| Atlantic | Aggregated Large Coastal Sharks | 168.9 mt dressed weight (dw) (372,552 lb dw) | Linked | 55 LCS other than sandbar sharks per vessel per trip. If the quota is landed too quickly, NMFS will consider in-season reduction as needed | January 1, 2023 |
| | Hammerhead Sharks | 27.1 mt dw (59,736 lb dw) | | | |
| | Non-Blacknose Small Coastal Sharks | 264.1 mt dw (582,333 lb dw) | Linked (South of 34°N. lat. only) | N/A | January 1, 2023 |
| | Blacknose Sharks (South of 34° N. lat. only) | 17.2 mt dw (37,921 lb dw) | | 8 blacknose sharks per vessel per trip (applies to directed and incidental permit holders) | |
| | Smoothhound sharks | 1,802.6 mt dw (3,973,902 lb dw) | Not Linked | N/A | January 1, 2023 |
| No regional quotas | Non-Sandbar LCS Research | 50.0 mt dw (110,230 lb dw) | Linked | N/A | January 1, 2023 |
| | Sandbar Shark Research | 90.7 mt dw (199,943 lb dw) | | | |
| | Blue Sharks | 273.0 mt dw (601,856 lb dw) | Not Linked | N/A | |
| | Porbeagle Sharks | 1.7 mt dw (3,748 lb dw) | | | |
| | Pelagic Sharks Other Than Porbeagle or Blue | 488.0 mt dw (1,075,856 lb dw) | | | |

*1 mt dw = 2,204.6 lb dw

### *Commercial Landings*

In previous years, commercial landings data have been provided in the annual NOAA Fisheries Stock Assessment and Fisheries Evaluation (SAFE) Report. However, 2022 and 2023 data have not yet been published in the SAFE report. Preliminary estimates of commercial landings from NOAA fisheries are provided in Tables 4-7.

**Table 4. Preliminary 2022 Atlantic commercial shark landings and retention limits, Atlantic Region. Source: NOAA HMS, January 26, 2023.**

| Shark Management Group | 2022 Quota (dressed weight, dw) | Estimated Landings through 12/31/2022 (dw) | % of 2022 Quota | 2021 Landings through Same Reporting Period (dw) |
|---|---|---|---|---|
| Aggregated Large Coastal (quota linked to Hammerhead) | 168.9 mt (372,552 lb) | 91.6 mt (202,045 lb) | 54% | 80.2 mt (176,753 lb) |
| Hammerhead[2] (quota linked to Agg. LCS) | 33.9 mt [2] (74,736 lb) | 26.8 mt (58,981 lb) | 79% | 19.5 mt (42,933 lb) |
| Non-Blacknose Small Coastal (quota linked to Blacknose south of 34° N. lat. only) | 264.1 mt (582,333 lb) | 64.2 mt (141,644 lb) | 23% | 105.2 mt (231,876 lb) |
| Blacknose (South of 34° N. lat. only) | 17.2 mt (37,921 lb) | 4.2 mt (9,364 lb) | 25% | 6.8 mt (15,056 lb) |
| Smoothhound | 1,802.6 mt (3,973,902 lb) | 302.1 mt (665,921 lb) | 17% | 374.4 mt (825,432 lb) |

2 - On June 28, 2022, NOAA Fisheries transferred 6.8 mt dw from the western Gulf of Mexico hammerhead shark management group to the Atlantic hammerhead shark management group (87 FR 38676). The numbers above reflect this transfer.

**Table 5. Preliminary 2022 Atlantic commercial shark landings and retention limits, No regional quotas. Source: NOAA HMS, January 26, 2023.**

| Shark Management Group | 2022 Quota | Estimated Landings through 12/31/2022 | % of 2022 Quota | 2021 Landings through Same Reporting Period (dw) |
|---|---|---|---|---|
| Shark Research Fishery (Aggregated LCS) | 50.0 mt (110,230 lb) | 2.3 mt (4,983 lb) | 5% | 7.6 mt (16,804 lb) |
| Shark Research Fishery (Sandbar only) | 90.7 mt (199,943 lb) | 39.4 mt (86,809 lb) | 43% | 49.0 mt (108,131 lb) |
| Blue | 273.0 mt (601,856 lb) | <1 mt (<2,200 lb) | <1% | < 1.0 mt (< 2,200 lb) |
| Porbeagle | 1.7 mt (3,748 lb) | 0 mt (0 lb) | 0% | < 1.0 mt (< 2,200 lb) |
| Pelagic Sharks Other Than Porbeagle or Blue[3] | 488.0 mt (1,075,856 lb ) | 23.4 mt (51,545 lb) | 5% | 35.8 mt (78,932 lb) |

3 – As of July 5, 2022, the shortfin mako shark retention limit in all commercial and recreational Atlantic HMS fisheries is zero (87 FR 39373, July 1, 2022).

**Table 6. Preliminary 2023 Atlantic commercial shark landings, Atlantic region. Source: NOAA HMS, February 20, 2024.**

| Shark Management Group | 2023 Quota (dressed weight, dw) | Estimated Landings through 12/31/2023 (dw) | % of 2023 Quota | 2022 Landings through Same Reporting Period (dw) |
|---|---|---|---|---|
| Aggregated LCS (quota linked to Hammerhead) | 168.9 mt (372,552 lb) | 120.3 mt (265,198 lb) | 71% | 91.6 mt (202,045 lb) |
| Hammerhead (quota linked to Agg. LCS) | 27.1 mt (59,736 lb) | 24.1 mt (53,203 lb) | 89% | 26.8 mt (58,981 lb) |
| Non-Blacknose Small Coastal (quota linked to Blacknose south of 34° N. lat. only) | 264.1 mt (582,333 lb) | 85.2 mt (187,938 lb) | 32% | 64.2 mt (141,644 lb) |
| Blacknose (South of 34° N. lat. only) | 17.2 mt (37,921 lb) | 5.9 mt (13,104 lb) | 35% | 4.2 mt (9,364 lb) |
| Smoothhound | 1,802.6 mt (3,973,902 lb) | 410.0 mt (903,951 lb) | 23% | 302.1 mt (669,540 lb) |

**Table 7. Preliminary 2023 Atlantic commercial shark landings, No regional quotas. Source: NOAA HMS, February 20, 2024.**

| Shark Management Group | 2023 Quota (dressed weight, dw) | Estimated Landings through 12/31/2023 (dw) | % of 2023 Quota | 2022 Landings through Same Reporting Period (dw) |
|---|---|---|---|---|
| Shark Research Fishery (Aggregated LCS) | 50.0 mt (110,230 lb) | 2.7 mt (5,911 lb) | 6% | 2.3 mt (4,983 lb) |
| Shark Research Fishery (Sandbar only) | 90.7 mt (199,943 lb) | <23 mt (<50,706 lb) | <25% | 39.4 mt (86,809 lb) |
| Blue | 273.0 mt (601,856 lb) | <2 mt (<4,408 lb) | <1% | <1 mt (<2,200 lb) |
| Porbeagle | 1.7 mt (3,748 lb) | <1 mt (<2,204 lb) | <59% | 0 mt (0 lb) |
| Pelagic Sharks other than Porbeagle or Blue[2] | 488.0 mt (1,075,856 lb) | 20.1 mt (44,323 lb) | 4% | 25.9 mt (57,172 lb) |

### *Recreational Landings*

The NOAA Fisheries SAFE Report has not provided data for 2022 and 2023 recreational shark landings. Recreational harvest data for 2021 are provided in Appendix 2.

For 2022 and 2023, recreational data provided in state compliance reports are summarized in Tables 8 and 9.

**Table 8. Recreational harvest estimates reported by state in 2022. Values are numbers of sharks. Most estimates are from the Marine Recreational Information Program (MRIP) and have high percent standard error (PSE).**

| Species | MA | RI | CT | NY | NJ | DE | MD | VA | NC | SC | GA | FL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Blacktip** | | | | | | | | | | 50,875 | 50 | |
| **Lemon** | | | | | | | | | | | 11,782 | |
| **Spinner** | | | | | | | 1 | | | 80 | | |
| **Total Aggregated LCS** | | | | | | | | | | | | 127,981 |
| **Blacknose** | | | | | | | | | | 50 | | 10,700 |
| **Bonnethead** | | | | | | | | | | 5,489 | 6,297 | |
| **Atl. Sharpnose** | | | | | | | 3 | 37 | | 9,409 | 6,097 | |
| **Total SCS** | | | | | | | | | 1,698 | | | 51,098 |
| **Shortfin Mako** | | | | | | | 1 | | | | | |
| **Thresher** | | | | 772 | | | 2 | | | | | |
| **Smooth dogfish** | 4,022 | 1,590 | 766 | 8,730 | 15 | 1,112 | 2 | 5 | | | | |

**Table 9. Recreational harvest reported by state in 2023. Values are numbers of sharks. Most estimates are from the Marine Recreational Information Program (MRIP) and have high PSE.**

| Species | MA | RI | CT | NY | NJ | DE | MD | VA | NC | SC | GA | FL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Blacktip** | | | | | | | | | | | 661 | |
| **Total Aggregated LCS** | | | | | | | | | 19 | | | 9,289 |
| **Blacknose** | | | | | | | | | | | | 5,929 |
| **Bonnethead** | | | | | | | | | | 6,196 | 5,362 | |
| **Finetooth** | | | | | | | | | | 615 | | |
| **Atl. Sharpnose** | | | | | | | | | | 3,957 | 13,019 | |
| **Total SCS** | | | | | | | | | 3,771 | | | 230,486 |
| **Blue** | | | | | | | | | | | | |
| **Porbeagle** | 56 | | | | | | | | | | | |
| **Smooth dogfish** | 2,860 | 6,005 | 6,235 | 2,195 | 8,272 | 5 | | 2,246 | 2,808 | | | |

## IV. Status of Research and Monitoring

Under the Interstate Fishery Management for Coastal Sharks, the states are not required to conduct any fishery-dependent or independent monitoring; however, states are encouraged to submit any information collected while surveying for other species. This section describes the research and monitoring efforts through the 2023 fishing year, where available.

The Cooperative Atlantic States Shark Pupping and Nursery (COASTSPAN) Survey appears in multiple state monitoring efforts. The survey monitors the presence of young-of-year and juvenile sharks along the east coast. It is managed and coordinated by NOAA's Northeast Fisheries Science Center (NEFSC) through the Apex Predators Program based at the NEFSC's Narragansett Laboratory in Rhode Island. Longline and gillnet sampling, along with mark-recapture techniques are used to determine relative abundance, distribution, and migration of sharks utilizing nursery grounds from Massachusetts to Florida. In 2023, COASTSPAN program participants were the Virginia Institute of Marine Science, South Carolina Department of Natural Resources, and University of North Florida (samples Georgia and north Florida state waters). Standardized indices of abundance from COASTPAN surveys are used in the stock assessments for large and small coastal sharks.

***Massachusetts***

DMF continued its research on the fine-scale predatory behavior of white sharks off the coast of Massachusetts. 34 white sharks were tagged with acoustic transmitters off the Outer Cape; 2 of these also carried acceleration data logging camera tags for up to two days. When combined with collaborative tagging efforts off Canada (1), New York (1), New Jersey (1), North Carolina (3), South Carolina (36), and Florida (1), this brings the total to 357 individuals tagged since 2009. These data will be used to examine swimming patterns (e.g., traveling, resting, hunting, foraging, mating), bioenergetics, and, ultimately, provide estimates of the intensity of white shark predation on gray seals.

***Rhode Island***

The RI Division of Fish & Wildlife, Marine Fisheries Section (RIDEM DMF) has conducted a monthly and seasonal trawl survey since 1979 within Narragansett Bay, Rhode Island Sound and Block Island Sound. Smooth dogfish are the only coastal shark species captured in the trawl survey regularly. A summary of fishery-independent monitoring for coastal sharks is summarized in Figure 3 below. The Fall survey catches smooth dogfish most frequently, with indices from the Fall and Monthly surveys greater than the Spring survey in recent years.

RIDEM DMF has been improving Rhode Island's monitoring efforts on coastal sharks. An acoustic receiver array is now established in RI state waters, which will detect tagged fish within 0.5-1 km of a receiver. The receiver array is traditionally deployed from mid-April through mid-November/early December. To date, the array has detected sand tiger sharks, white sharks, smooth dogfish, blue sharks, shortfin mako sharks, thresher sharks, and sandbar sharks. Additional sampling is also being conducted through a Baited Remote Underwater Video System (BRUVS) survey and shark tagging efforts to understand their residence time in RI state waters. The BRUVS is intended to monitor various species, including sharks. The tagging is directed at the pelagic shark complex.

In 2022, RIDEM DMF began a state waters observing program with gillnet harvesters. Data are reviewed to assess catch rates for coastal shark species when encountered in commercial gillnets.

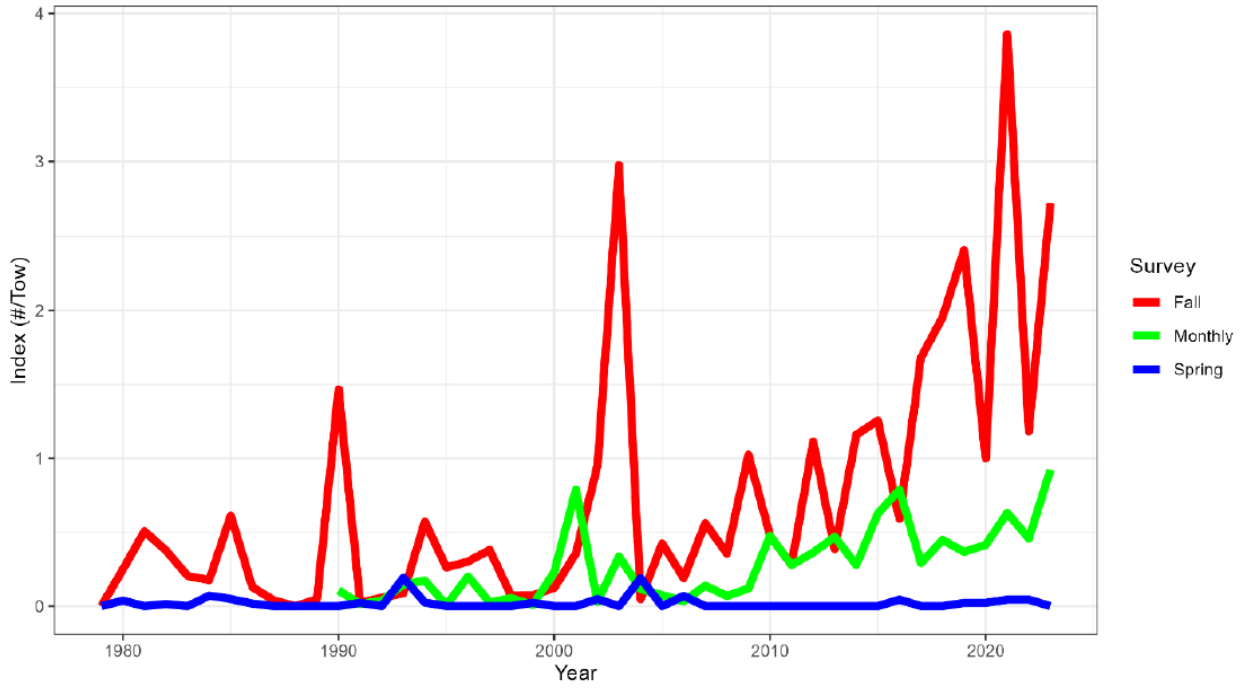



**Figure 3. Smooth dogfish (*Mustelus canis*) annual mean number per tow from the RIDEM DMF bottom trawl surveys.**

***Connecticut***

The Connecticut Department of Energy and Environmental Protection (CT DEEP) monitors the abundance of marine resources in nearby coastal waters with the Long Island Sound Trawl Survey. Spring (April, May and June) and fall (September and October) surveys are conducted each year. Other than smooth dogfish, coastal sharks are not typically encountered by the Long Island Sound Trawl Survey. In 2023 however, two sand tiger sharks were caught in the fall survey. The first, caught in September, was 1380 mm TL and weighed 14.59 kg. The second, caught in October, was 1180 mm TL and weighed 10.02 kg. Smooth dogfish are caught most often in the fall and the fall indices are presented below. (Figure 4). Due to the COVID-19 pandemic, the Long Island Sound Trawl Survey was not conducted in 2020 but resumed in 2021. More information on the Long Island Sound Trawl Survey report can be found here.

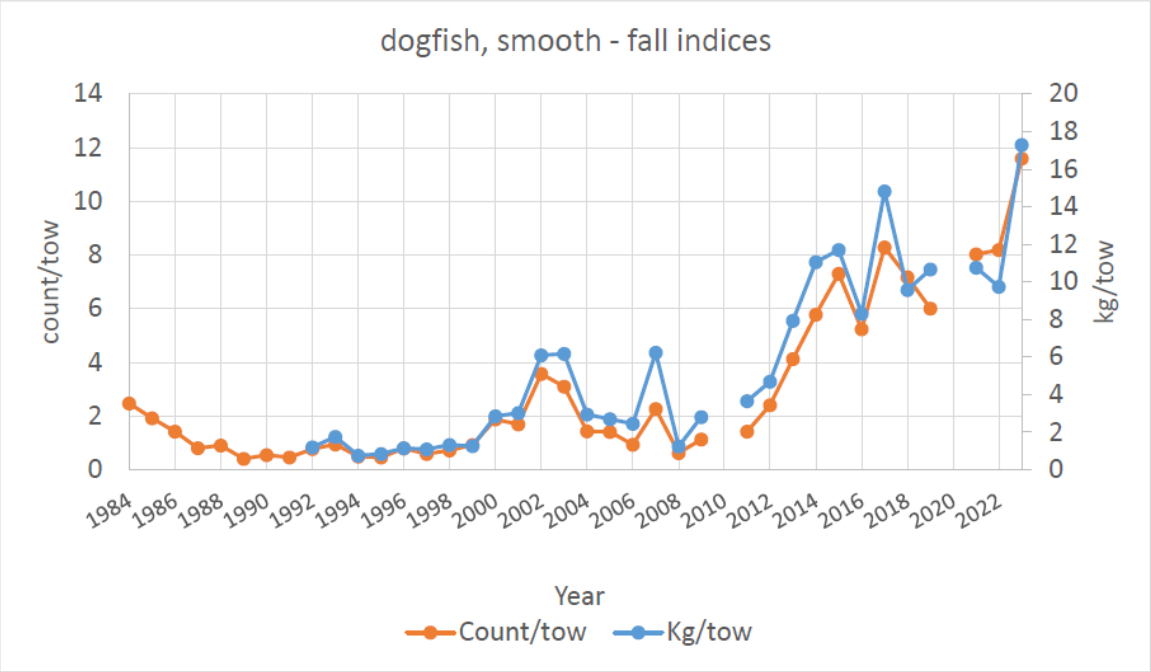



**Figure 4. CT DEEP Long Island Sound Trawl Survey Smooth Dogfish Indices**

***New York***

NYSDEC started a near shore multispecies ocean trawl survey fall of 2017. Three trips were completed, and seven sharks were captured on the near shore survey in 2023. Additionally, six research permits were issued in 2023 for the collection of information on sharks. Combined, researchers sampled 15 different shark species from May – September. A total of 216 sharks were sampled and released under the purview of their permits. Information on each shark (morphometrics and sex), as well location, date, biological samples collected, telemetry gear deployed, and final disposition of the animals were recorded. Collectively, these permitholders deployed 139 acoustic tags: 54 mTags, 17 PIT tags, and 16 satellite tags on the sharks sampled in 2023.

***New Jersey***

New Jersey does not currently conduct any fishery-independent monitoring programs specifically for Atlantic coastal sharks, but does encounter sharks from the state's Ocean Stock Assessment Survey. The New Jersey Ocean Trawl Survey did not sample in 2021 due to the ongoing COVID-19 pandemic. Survey operations resumed in 2022. In 2023, the Survey caught a total of 2,023 pounds of coastal sharks (Table 10).

Sharks sampled by the New Jersey Ocean Stock Assessment Survey are collected by a 30-meter otter trawl every January, April, June, August, and October since 1989. Tows are approximately 1 nautical mile and are performed via a stratified random sampling design. Latitudinal strata are identical to those used by the National Marine Fisheries Service groundfish survey. Longitudinal boundaries are defined by the 18-30, 30-60, and 60-90-foot isobaths. Smooth Dogfish are cumulatively weighed and measured by total length in centimeters. All other shark

species are sorted by gender, weighed individually, and measured by total length in centimeters.

**Table 10. Atlantic Coastal Sharks caught in the NJ 2023 Ocean Stock Assessment Survey**

| Species | Weight (lbs)2023 |
|---|---|
| ATLANTIC ANGEL SHARK | 41 |
| ATLANTIC SHARPNOSE SHARK | 38 |
| DUSKY SHARK | 4 |
| SAND TIGER | 241 |
| SANDBAR SHARK | 17 |
| SMOOTH DOGFISH | 1,597 |
| SPINNER SHARK | 1 |
| THRESHER SHARK | 14 |
| WHITE SHARK | 70 |
| Grand Total | 2,023 |

***Delaware***

Delaware conducts a 30 ft adult trawl survey and a 16 ft juvenile trawl survey in the Delaware Bay. In the adult trawl survey, the smoothhound is the most common shark species caught (Figure 5), with the sand tiger shark (Figure 6) and sandbar shark (Figure 7) taken in low numbers. Thresher, atlantic angel, Atlantic sharpnose (Figure 8) and Dusky Shark have been rarely caught in the past. Sand tiger shark catch per nautical mile increased in 2023. Sandbar shark catch per nautical mile increased slightly in 2023 relative to 2022. Smoothhound catch per nautical mile decreased in 2023, remaining relatively low compared to the early 2000s. In the juvenile trawl, the species caught include sand tiger sharks (Figure 11), sandbar sharks (Figure 12) and smoothhound (Figure 13). Apart from smoothhound, the capture of coastal sharks in the juvenile trawl is a rare occurrence.

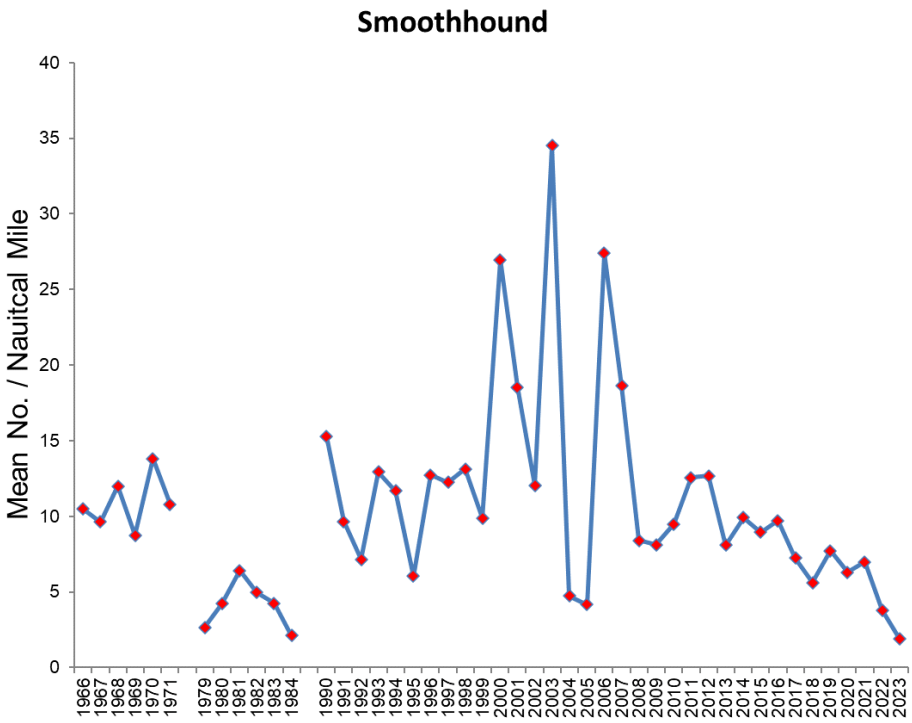



**Figure 5. Smooth dogfish relative abundance (mean number per nautical mile), time series (1966 – 2023) as measured in 30-foot trawl sampling in the Delaware Bay.**

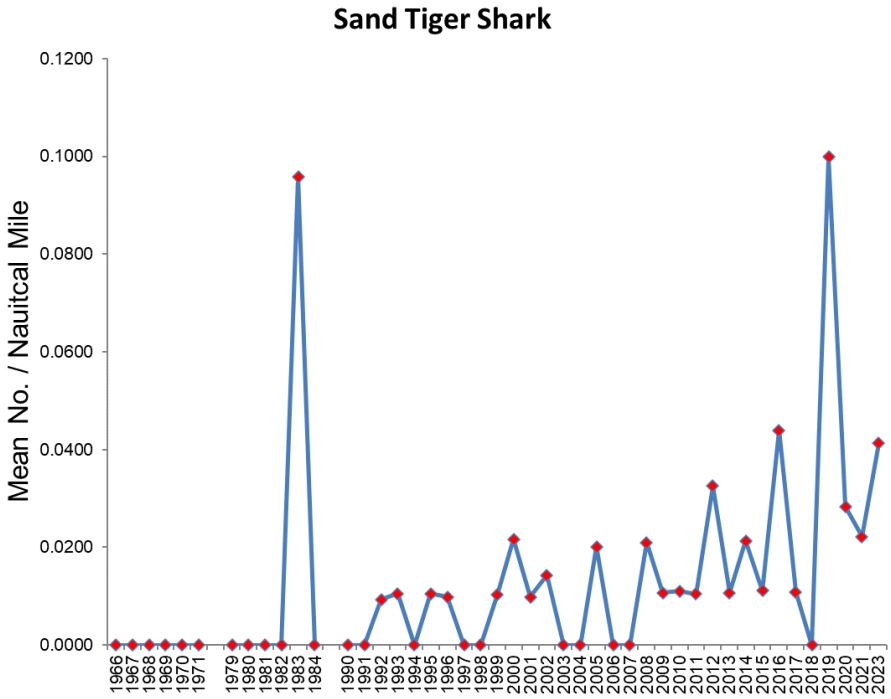



**Figure 6. Sand tiger shark relative abundance (mean number per nautical mile), time series (1966 – 2023) as measured in 30-foot trawl sampling in the Delaware Bay.**

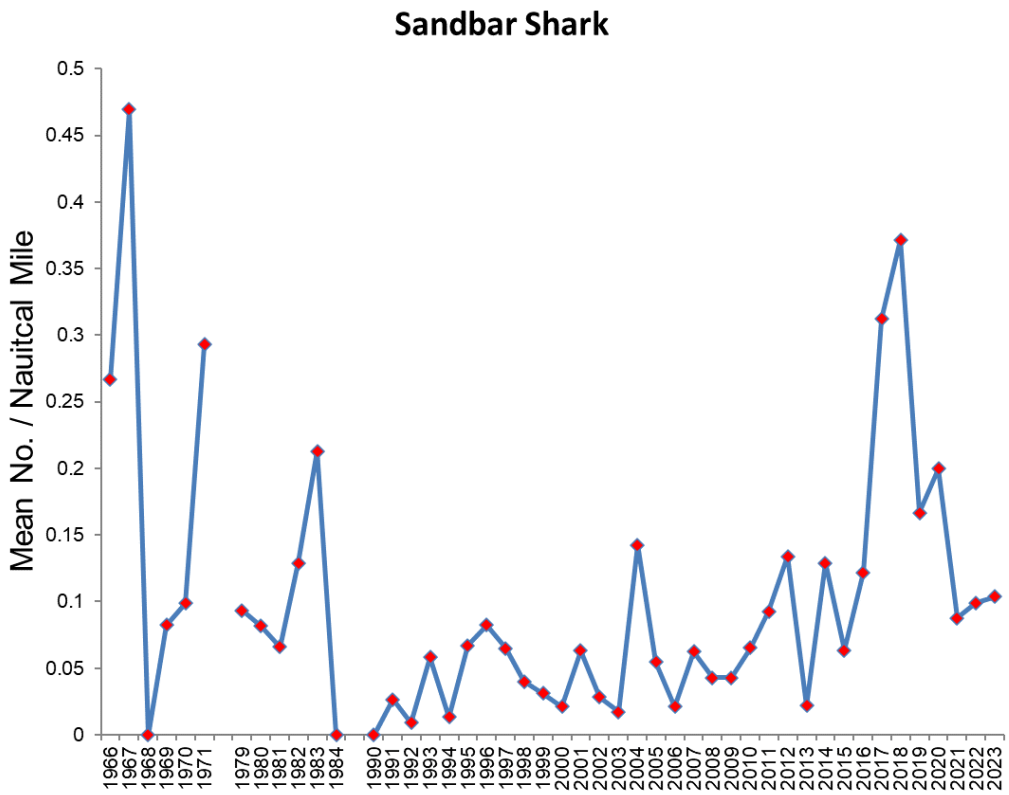



**Figure 7. Sandbar shark relative abundance (mean number per nautical mile), time series (1966 – 2023) as measured in 30-foot trawl sampling in the Delaware Bay.**

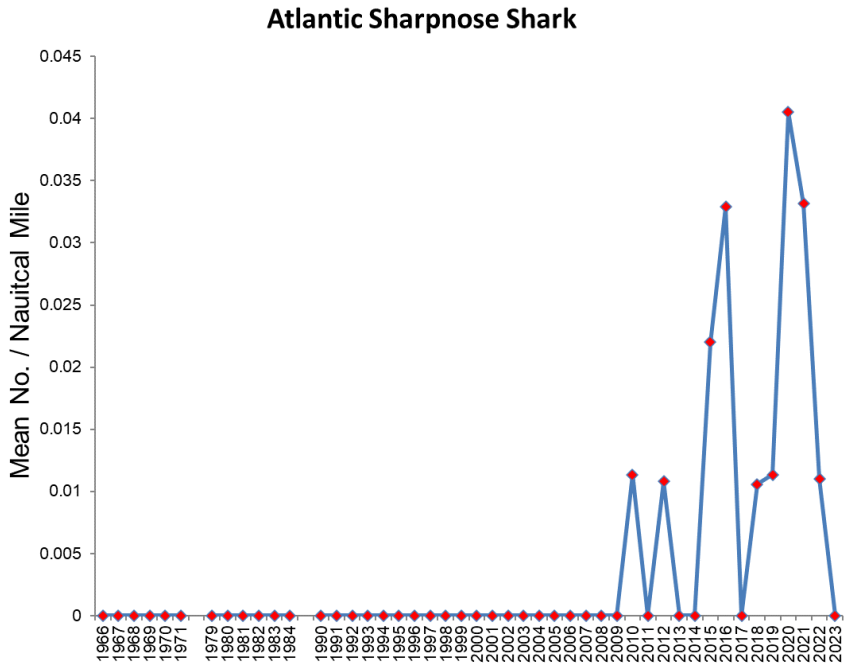



**Figure 8. Atlantic sharpnose shark relative abundance (mean number per nautical mile), time series (1966 – 2023) as measured in 30-foot trawl sampling in the Delaware Bay.**

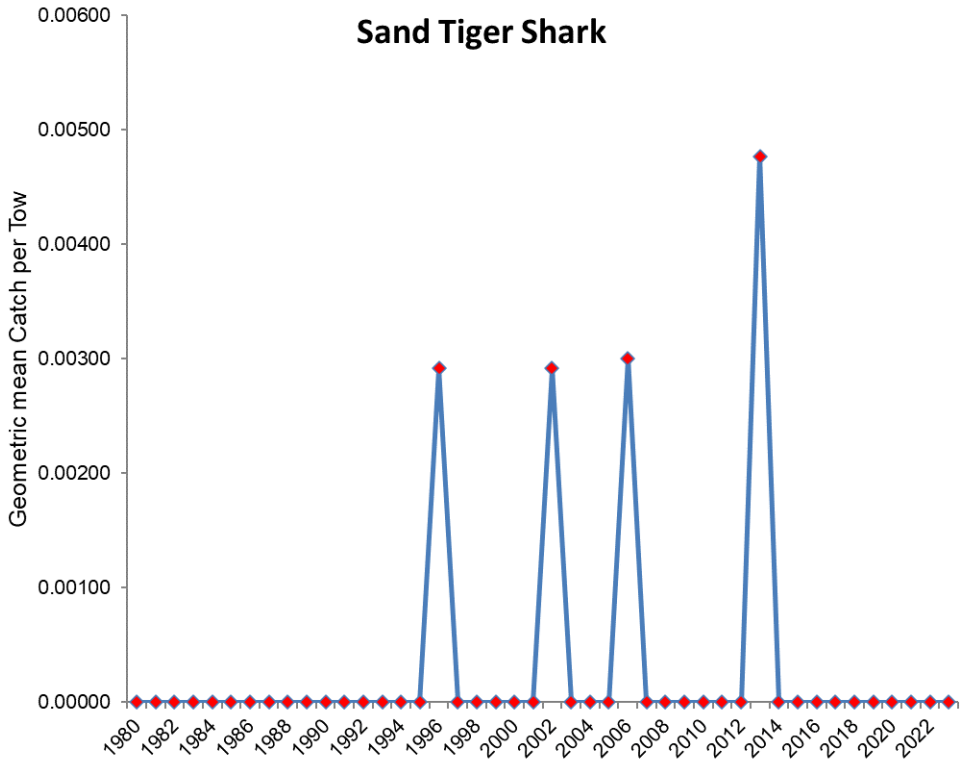



**Figure 9. Index of sand tiger shark, time series (1980 – 2023) as measured by 16-foot trawl sampling in the Delaware Estuary.**

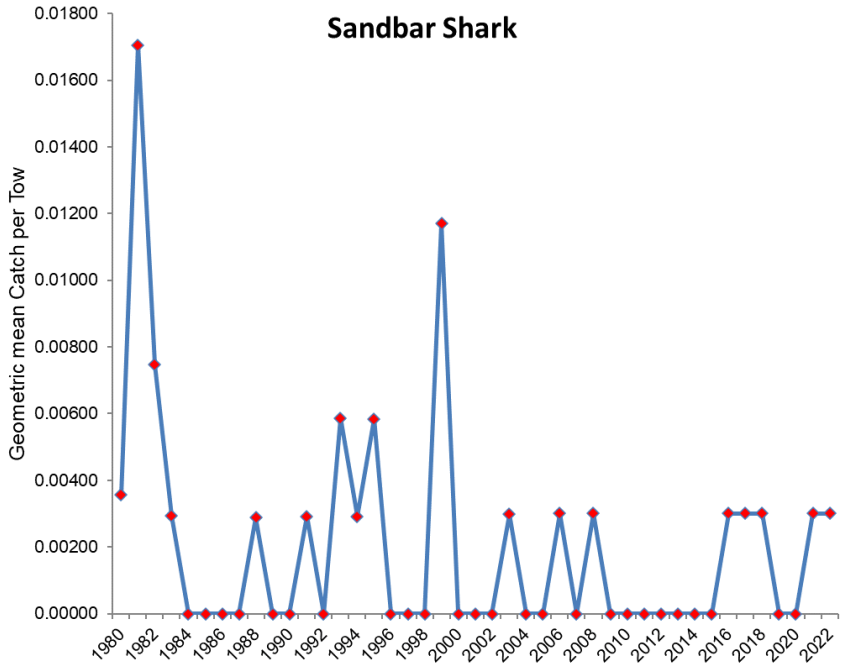



**Figure 10. Index of sandbar shark, time series (1980 – 2023) as measured by 16-foot trawl sampling in the Delaware Estuary.**

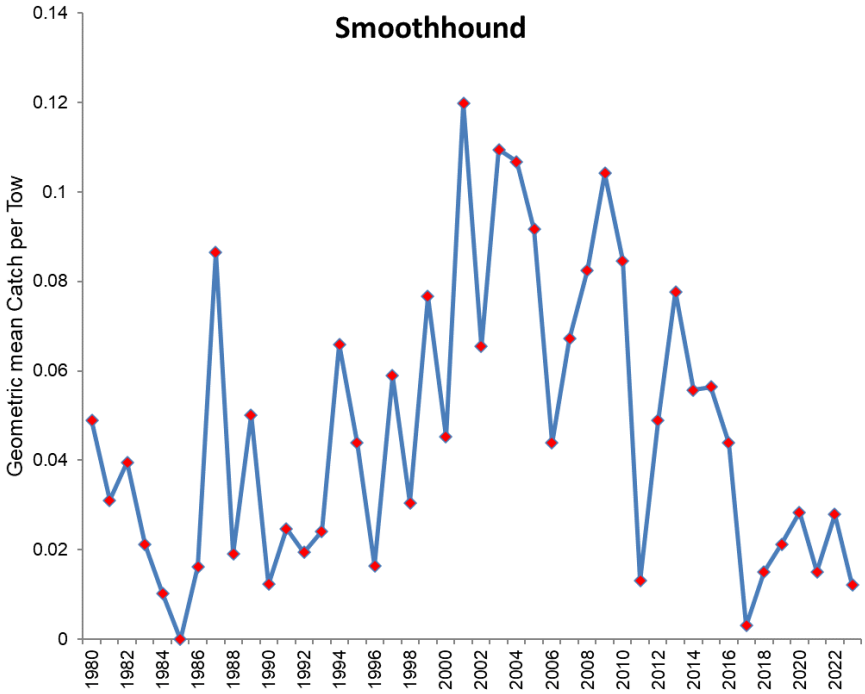



**Figure 11. Index of young-of-year smooth dogfish abundance, time series (1980 – 2023) as measured by 16-foot trawl sampling in the Delaware Estuary.**

***Maryland***

No fishery-independent monitoring for Atlantic coastal sharks was conducted in Maryland state waters.

***Virginia***

The Virginia Institute of Marine Science Shark Research Program began in 1973 and is one of the longest running longline surveys in the world. The program has provided data on habitat utilization, age, growth, reproduction, trophic interactions, basic demographics, and relative abundance for dominant shark species. Cruise times have been variable over the time series, but sampling generally has occurred monthly from May through October. The survey utilizes a fixed station design with six core sampling locations, although additional auxiliary locations have been sampled frequently over the years.

Beginning in 2012, a separate longline survey conducted by the Virginia Institute of Marine Science designed specifically to target young-of-year sandbar sharks in the lower Chesapeake Bay and Eastern Shore was initiated. The new survey follows a stratified random sampling design, rather than a fixed survey design, and falls under the broader COASTSPAN umbrella survey.

In 2023, Atlantic sharpnose shark was the most commonly encountered species by the offshore survey followed by sandbar shark, spinner shark, blacktip shark, tiger shark, sand tiger shark, and scalloped hammerhead A single blacknose shark, dusky shark, and silky shark were also collected (Table 11). Seasonal patterns in survey catches were also evident with June and

September showing the highest and lowest overall catches of sharks, respectively, followed by July, August, and May.

Monthly COASTSPAN catches of neonate sandbar shark (<= 71 cm TL) in the lower Chesapeake Bay were highest in June followed by July and August. In the coastal lagoons of the Eastern Shore, peak neonate catch occurred in August followed by June and July (Table 12). As in previous years, neonate total catch in 2023 was higher in the coastal lagoons of the Eastern Shore when compared to that of the lower Chesapeake Bay.

**Table 11. Monthly catch summaries for key shark species encountered during offshore longline cruise conducted by VASMAP, 2023 pooled across the standard six sampling sites. Effort is expressed as total longline soak time of 100 hooks.**

| Month | Effort (hrs) | Sand Tiger | Sandbar | Tiger | Atlantic Sharpnose | Spinner | Blacknose | Blacktip | Scalloped Hammerhead | Dusky | Silky | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| May | 12.2 | 0 | 11 | 0 | 0 | 5 | 0 | 0 | 2 | 0 | 1 | 19 |
| Jun | 28.2 | 2 | 4 | 0 | 40 | 3 | 0 | 7 | 0 | 0 | 0 | 56 |
| Jul | 27.8 | 1 | 3 | 0 | 26 | 0 | 0 | 2 | 0 | 0 | 0 | 32 |
| Aug | 27.8 | 0 | 1 | 3 | 12 | 1 | 1 | 0 | 0 | 1 | 0 | 19 |
| Sep | 28.6 | 0 | 8 | 1 | 2 | 6 | 0 | 0 | 0 | 0 | 0 | 17 |
| Total | 3 | 27 | 4 | 80 | 15 | 1 | 1 | 9 | 2 | 1 | 1 | 143 |

**Table 12. Neonate catch summaries for each monthly COASTSPAN cruise in 2023, pooled across the sampling sites with the lower Chesapeake Bay and coastal lagoons of the Eastern Shore. Effort is expressed as total longline soak time of 50 hooks.**

**Lower Chesapeake Bay**

| Month | Effort (hrs) | Neonate |
|---|---|---|
| Jun | 9.8 | 28 |
| Jul | 10.0 | 26 |
| Aug | 10.0 | 7 |
| Total | | 61 |

**Lagoons, Eastern Shore**

| Month | Effort (hrs) | Neonate |
|---|---|---|
| Jun | 7.5 | 72 |
| Jul | 7.5 | 54 |
| Aug | 7.5 | 79 |
| Total | | 205 |

***North Carolina***

*Fishery-Dependent*

Fishery-dependent sampling of North Carolina commercial fisheries has been ongoing since 1982 (conducted under Title III of the Interjurisdictional Fisheries Act and funded in part by the U.S. Department of Commerce, National Marine Fisheries Service). Predominate fisheries sampled includes the ocean gill net, estuarine gill net, ocean trawl, long haul seine/swipe net, beach seine, and pound net fisheries. Shark species were sampled from 18 commercial trips in 2023. From these trips, 234 sharks comprised of six species were sampled (Table 13).

**Table 13. North Carolina 2023 fishery-dependent shark sampling summary by species for total number of individuals and total sampled weight.**

| Shark Species | #Total Individuals | Weight (kg) |
|---|---|---|
| Atlantic Sharpnose | 153 | 352.5 |
| Blacktip | 58 | 548.4 |
| Hammerhead, unidentified | 1 | 114.8 |
| Smoothhound | 18 | 22.7 |
| Spinner | 2 | 113.3 |
| Tiger | 2 | 70.7 |
| Total | 234 | 1,222.4 |

*Fishery-Independent*

The NCDMF has two fishery-independent surveys that collect coastal sharks: A gill net survey (Program 915) and a red drum long line survey (Program 365). Program 915 was initiated in 2001. The objective of this project is to provide annual relative abundance indices for key estuarine species in the near shore, Pamlico Sound, Pamlico, Pungo, Neuse, New, and Cape Fear rivers. The survey employs a stratified random sampling design and utilizes multiple mesh gill nets (3.0 in to 6.5 in stretched mesh, by 0.5 in increments). Program 365 was initiated in 2007 for developing an index of abundance for adult red drum. This project also allows for capture and tagging of Atlantic coastal sharks in collaboration with the NOAA Fisheries Cooperative Shark Tagging Program.

Twelve species of shark were encountered in Program 915 in 2023, with Atlantic sharpnose (n=307) representing the highest abundance (Table 14). Nine sharks, including six blacktip and three spinner sharks, were caught in Program 365 in 2023.

**Table 14. Summary of shark captures from NCDMF fishery-independent gill net survey for 2023.**

| Shark Species | Number Measured | Minimum TL (mm) | Maximum TL (mm) | Average TL (mm) |
|---|---|---|---|---|
| Atlantic Sharpnose Shark | 307 | 232 | 1,360 | 517 |
| Bignose Shark | 12 | 600 | 851 | 688 |
| Blacknose Shark | 10 | 493 | 1,338 | 998 |
| Blacktip Shark | 35 | 263 | 1,670 | 1,042 |
| Bonnethead Shark | 139 | 405 | 1,210 | 711 |
| Bull Shark | 38 | 488 | 1,026 | 651 |
| Dusky Shark | 8 | 591 | 854 | 714 |
| Finetooth Shark | 6 | 494 | 1,312 | 1,051 |
| Sandbar Shark | 190 | 251 | 2,045 | 822 |
| Scalloped Hammerhead | 6 | 325 | 1,400 | 550 |
| Smooth Dogfish | 18 | 289 | 826 | 632 |
| Spinner Shark | 5 | 616 | 1,493 | 977 |

***South Carolina***

Currently, data are collected from estuarine waters by the SCDNR Cooperative Atlantic States Shark Pupping and Nursery Habitat survey (COASTSPAN), the SCDNR trammel net survey, and the Coastal Longline Survey. The COASTSPAN survey monitors the presence and abundance of young-of-year and juvenile sharks in the estuaries and bays of South Carolina. The survey operates from April-September using gillnets, longlines and drumlines to sample index stations. Species captured are measured, sexed, tagged and released, and physical and water quality parameters are recorded (Table 15).

The SCDNR trammel net survey is designed to sample recreationally important species in shallow estuarine waters. Sharks are not a target species, but their abundance as well as length and sex data are recorded (Table 15). Stations selected based on suitable habitats are randomly sampled using a multi-panel net to encircle a section of marsh. Species captured are measured, sexed if possible, and released. In addition, physical and water quality data are recorded for each sample location.

The presence and abundance of juvenile and adult coastal sharks in the bays, sounds and coastal waters of South Carolina are documented by the Coastal Longline Survey. This survey uses a stratified-random approach to sample for adult red drum and coastal sharks. The survey operates annually from August to December using longlines to sample suitable habitat for targeted species. Species captured are measured, sexed, tagged, and released, and physical and water quality parameters are recorded. The data gathered from these programs are shared with the NMFS Apex Predators Program and are utilized in stock assessments and management decisions in South Carolina.

**Table 15. Number of sharks captured and tagged by South Carolina Department of Natural Resources' Cooperative Atlantic States Shark Pupping and Nursery Habitat Survey (COASTSPAN), Trammel Net Survey, and Coastal Longline survey in 2023.**

| | COASTSPAN | | Trammel Net | | Coastal Longline Survey | |
|---|---|---|---|---|---|---|
| Shark Species | Captured | Tagged | Captured | Tagged | Captured | Tagged |
| Atlantic Sharpnose | 190 | 0 | 87 | 0 | 826 | 0 |
| Blacknose | 1 | 1 | 0 | 0 | 74 | 74 |
| Blacktip | 38 | 25 | 13 | 0 | 72 | 61 |
| Bonnethead | 209 | 167 | 196 | 0 | 22 | 17 |
| Bull | 8 | 6 | 1 | 0 | 11 | 8 |
| Dusky | 0 | 0 | 0 | 0 | 0 | 0 |
| Finetooth | 310 | 167 | 32 | 0 | 96 | 88 |
| Great Hammerhead | 0 | 0 | 0 | 0 | 1 | 1 |
| Lemon | 18 | 15 | 18 | 0 | 4 | 2 |
| Nurse | 0 | 0 | 0 | 0 | 2 | 1 |
| Sand Tiger | 7 | 5 | 0 | 0 | 1 | 1 |
| Sandbar | 116 | 103 | 1 | 0 | 148 | 134 |
| Scalloped/Carolina Hammerhead | 123 | 6 | 2 | 0 | 2 | 1 |
| Smooth Dogfish | 0 | 0 | 0 | 0 | 0 | 0 |
| Spinner | 1 | 1 | 0 | 0 | 8 | 8 |
| Tiger | 0 | 0 | 0 | 0 | 1 | 1 |

### *Georgia*

*Fishery-Dependent*

Although a directed fishery for sharks does not exist in Georgia waters, there is a fishery-dependent sampling project conducted by the Coastal Resources Division (CRD) that can result in the incidental capture of coastal sharks. The Marine Sportfish Carcass Recovery Project, a partnership with recreational anglers along the Georgia coast, is used to collect biological data from finfish. In 2023, no coastal shark species were included.

*Fishery-Independent*

Georgia has several fishery-independent surveys that sample in areas where coastal shark species are encountered and one survey specifically designed to sample sub-adult sharks in Georgia's inshore waters.

- *Coastal Longline Survey (SEAMAP):* The Coastal Longline Survey is designed to sample adult Red Drum and coastal sharks. Sampling occurs in inshore and nearshore waters of southeast Georgia from mid-June through mid-December. Sampling gear consists of a bottom set 926 m, 600 lb test monofilament mainline configured with 60, 0.5 m gangions made of 200 lb test monofilament. Each gangion consists of a longline snap and a 15/0 circle hook. Soak time for each set is 30 minutes. During 2023, CRD staff deployed 140 sets consisting of 8,400 hooks and 70 hours of soak time. A total of 416 sharks were captured, representing 11 species (Table 15).

- *Shark Nursery Survey (COASTSPAN):* The University of North Florida assumed field operations for this survey in 2016. Data for the complete time series are maintained by the NMFS Apex Predators Program in Narragansett, RI (contact: Cami McCandless).
- *Ecological Monitoring Trawl Survey (EMTS):* The EMTS is designed to sample penaeid shrimp, blue crab, and other marine organisms typically encountered in the trawl for management and monitoring purposes. Each month, a 40 ft flat otter trawl with neither a turtle excluder device nor bycatch reduction device is deployed at 36 stations across six estuaries. At each station, a standard 15-minute tow is made. During 2023, 318 tows/observations were conducted, totaling 78.98 hours of tow time. A total of 48 sharks, representing 4 species, were captured during 2023 (Table 16). It should be noted that the EMTS was not performed in 2023 after mid-September due to a mechanical issue.
- *Marine Sportfish Population Health Survey (MSPHS)*: The MSPHS is a multi-faceted ongoing survey used to collect information on the biology and population dynamics of recreationally important finfish. Sampling is ongoing in three Georgia estuaries: the Altamaha River System, St. Andrew, and Wassaw. During the June to August period, young-of-the-year Red Drum in the three estuaries are collected using gillnets to gather data on relative abundance and location of occurrence. Between September and November, fish populations in the Altamaha River System and Wassaw Estuary are monitored using trammel nets to gather data on relative abundance and size composition. In 2023, a total of 324 gillnet and 225 trammel net sets were made, resulting in the capture of 277 individuals representing 7 species of coastal sharks (Table 16).

**Table 16. Numbers of coastal sharks captured in Georgia fishery-independent surveys in 2021 by species and by survey.**

| | CLS | EMTS | MSPHS |
|---|---|---|---|
| SHARK, ATLANTIC SHARPNOSE | 182 | 12 | 9 |
| SHARK, BLACKNOSE | 141 | --- | --- |
| SHARK, BLACKTIP | 13 | 1 | 1 |
| SHARK, BONNETHEAD | 12 | 34 | 230 |
| SHARK, BULL | 2 | --- | 1 |
| SHARK, FINETOOTH | 6 | --- | 24 |
| SHARK, LEMON | --- | --- | 11 |
| SHARK, NURSE | 3 | --- | --- |
| SHARK, SANDBAR | 38 | 1 | --- |
| SHARK, SCALLOPED HAMMERHEAD | 4 | --- | --- |
| SHARK, SPINNER | 7 | --- | 1 |
| SHARK, TIGER | 7 | --- | --- |
| ALL SPECIES COMBINED | 416 | 48 | 277 |

***Florida***

Florida Fish and Wildlife Conservation Commission had no fisheries-independent monitoring programs for coastal sharks during the 2023 calendar year.

## V. Status of Management Measures and Issues

Coastal Sharks are managed under the Interstate FMP for Coastal Sharks, which was adopted in August 2008 and effective in January 1, 2009, Addendum I (2009), Addendum II (2013), Addendum III (2013), Addendum IV (2016), and Addendum V (2018). The FMP addresses the management of 41 species and establishes a suite of management measures for recreational and commercial shark fisheries in state waters (0 – 3 miles from shore). Addendum V provided the Board the ability 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.

As described in more detail above, the Board approved changes to the recreational size limit for Atlantic shortfin mako sharks and changes to the gear requirements for recreational shark fishing in state waters in 2019. In 2022, the Board approved a zero retention limit in state waters for Atlantic shortfin mako sharks for both recreational and commercial fisheries. All of these measures are consistent with those implemented by NOAA Fisheries for federal HMS permit holders based on the ICCAT recommendations.

ASMFC will continue to respond to changes in the Atlantic Highly Migratory Species FMP and make changes as necessary to the interstate FMP.

## VI. Implementation of FMP Compliance Requirements for 2023

Addendum III to the Coastal Sharks FMP was implemented in March 2014, which modified the recreational minimum size limits and the commercial species groupings in the FMP. The Board annually sets specifications, generally maintaining complimentary management with federal waters measures.

In 2019, the Board approved the requirement for non-offset, corrodible, non-stainless steel circle hooks, except when fishing with flies or artificial lures. In 2022, the Board adopted a zero retention limit for Atlantic shortfin mako sharks for recreational and commercial state waters fisheries.

Appendix 1 provides an overview of required coastal shark fishery regulations. All states must demonstrate through the inclusion of regulatory language that these recreational and commercial management measures were implemented.

### *Recreational Size Limits*

**Table 17. Recreational minimum size limits, 2022 and 2023.**

| No Minimum Size | Minimum Fork Length 54 inches | | Minimum Fork Length 78 inches |
|---|---|---|---|
| Smoothhound | Tiger | Nurse | Great hammerhead |
| Atlantic sharpnose | Blacktip | Porbeagle | Scalloped hammerhead |
| Bonnethead | Spinner | Thresher | Smooth hammerhead |
| | Bull | Oceanic whitetip | |
| | Lemon | Blue | |
| | Blacknose | Finetooth | |

***Commercial Species Groupings***

This FMP establishes eight commercial 'species groups' for management (Table 1): Prohibited, Research, Smoothhound, Non-Blacknose Small Coastal, Blacknose, Aggregated Large Coastal, Hammerhead, and Pelagic. These groupings apply to all commercial shark fisheries in state waters.

## VII. PRT Recommendations

***State Compliance***

- Delaware and Maryland did not report shark landings by month including number of trips.
- Georgia's regulations do not establish a zero-retention limit for shortfin mako sharks. All federally-permitted harvesters are required to comply with the federal regulations, including the zero-retention limit for shortfin mako, regardless of where they are fishing.
- With the exceptions noted above, the PRT determined that all states have implemented regulations consistent with the FMP requirements.

***De Minimis Status***

The Coastal Sharks FMP does not establish specific *de minimis* guidelines that would exempt a state from regulatory requirements contained in this plan. *De minimis* shall be determined on a case-by case basis. *De minimis* often exempts states from monitoring requirements in other fisheries but this plan does not contain any monitoring requirements.

*De minimis* guidelines are established in other fisheries when implementation and enforcement of a regulation is deemed unnecessary for attainment of the fishery management plan's objectives and conservation of the resource. Due to the unique characteristics of the coastal shark fishery, namely the large size of sharks compared to relatively small quotas, the taking of a single shark could contribute to overfishing of a shark species or group. Therefore, exempting a state from any of the regulatory requirements contained in this plan could threaten attainment of this plans' goals and objectives.

Massachusetts is the only state that has been granted *de minimis* status. Massachusetts can continue to have *de minimis* status until their landings patterns change or they request a discontinuation. In some cases, it is unnecessary for states with *de minimis* status to implement all regulatory requirements in the FMP. Massachusetts has implemented all regulations with two exceptions: it is exempt from the possession limit and closures of the aggregated large coastal and hammerhead shark fisheries.

## VIII. Research Recommendations

Research recommendations were identified in 2018 in the Commission's Fisheries Research Priorities document (p. 42).

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## APPENDIX 1. OVERVIEW OF COASTAL SHARK REGULATIONS FOR 2023

*Coastal Sharks FMP Regulatory Requirements*

1. Recreational seasonal closure (Section 4.2.1)
    a. Recreational anglers are prohibited from possessing silky, tiger, blacktip, spinner, bull, lemon, nurse, scalloped hammerhead, great hammerhead, and smooth hammerhead in the state waters of Virginia, Maryland, Delaware and New Jersey from May 15 through July 15—regardless of where the shark was caught.
    b. Recreational fishermen who catch any of these species in federal waters may not transport them through the state waters of VA, MD, DE, and NJ during the seasonal closure.
2. Recreationally permitted species (Section 4.2.2)
    a. Recreational anglers are allowed to possess aggregated large coastal sharks, hammerheads, tiger sharks, SCS, and pelagic sharks. Authorized shark species include: aggregated LCS (blacktip, bull, spinner, lemon, and nurse); hammerhead (great hammerhead, smooth hammerhead, scalloped hammerhead); tiger sharks; SCS (blacknose, finetooth, Atlantic sharpnose, and bonnethead sharks); and, pelagic sharks (blue, common thresher, oceanic whitetip, and porbeagle). Sandbar sharks and silky sharks (and all prohibited species of sharks) are not authorized for harvest by recreational anglers.
3. Landings Requirements (Section 4.2.3)
    a. All sharks (with exception) caught by recreational fishermen must have heads, tails, and fins attached naturally to the carcass. Anglers may still gut and bleed the carcass by making an incision at the base of the caudal peduncle as long as the tail is not removed. Filleting sharks at sea is prohibited.
    b. All sharks (with exception) harvested by commercial fishermen within state boundaries must have the tails and fins attached naturally to the carcass through landing. Fins may be cut as long as they remain attached to the carcass (by natural means) with at least a small portion of uncut skin. Sharks may be eviscerated and have the heads removed. Sharks may not be filleted or cut into pieces at sea.
    c. Exception: Fishermen holding a valid state commercial permit may process smooth dogfish sharks at sea out to 50 miles from shore, as long as the total weight of smooth dogfish shark fins landed or found on board a vessel does not exceed 12 percent of the total weight of smooth dogfish shark carcasses landed or found on board.
4. Recreational Minimum Size Limits (Section 4.2.4)
    a. Sharks caught in the recreational fishery must have a fork length of at least 4.5 feet (54 inches) with the exception of Atlantic sharpnose, bonnethead, and

smoothhound which have no minimum size. Hammerhead species must have a fork length (FL) of 6.5 feet (78 inches).

5. Authorized Recreational Gear (Section 4.2.5)
    a. Recreational anglers may catch sharks only using a handline or rod & reel. Handlines are defined as a mainline to which no more than two gangions or hooks are attached. A handline must be retrieved by hand, not by mechanical means.
    b. Non-offset, corrodible, non-stainless steel circle hooks are required when fishing for sharks recreationally, in state waters. The only exception is when fishing with flies or artificial lures.
6. Possession limits in one twenty-four hour period (Section 4.2.7 and 4.3.6)
    a. Recreational and commercial possession limits as specified in Table 18.
    b. Smooth dogfish harvest is not limited in state waters and recreational shore-anglers may harvest an unlimited amount of smooth dogfish.
7. Commercial Seasonal Closure (Section 4.3.2)
    a. All commercial fishermen are prohibited from possessing silky, tiger, blacktip, spinner, bull, lemon, nurse, scalloped hammerhead, great hammerhead, and smooth hammerhead in the state waters of Virginia, Maryland, Delaware and New Jersey from May 15 through July 15. Fishermen who catch any of the above species in a legal manner in federal waters may transit through the state waters listed above if all gear is stowed.
8. Quota Specification (Section 4.3.4)
    a. When NOAA Fisheries closes the fishery for any species, the commercial landing, harvest, and possession of that species will be prohibited in state waters until NOAA Fisheries reopens the fishery.
9. Permit requirements (Section 4.3.8)
    a. State: Commercial shark fishermen must hold a state commercial license or permit in order to commercially catch and sell sharks in state waters.
    b. Federal: A federal Commercial Shark Dealer Permit is required to buy and sell any shark caught in state waters.
    c. Display and research permit is required to be exempt from seasonal closure, quota, possession limit, size limit, gear, and prohibited species restrictions. States are required to include annual information for all sharks taken for display throughout the life of the shark.
10. Authorized commercial gear (Section 4.3.8.3)
    a. Commercial fishermen can only use one of the following gear types (and are prohibited from using any gear type not listed below) to catch sharks in state waters.

i. **Rod & reel.**
ii. **Handlines.** Handlines are defined as a mainline to which no more than two gangions or hooks are attached. A handline is retrieved by hand, not by mechanical means, and must be attached to, or in contact with, a vessel.
iii. **Small Mesh Gillnets.** Defined as having a stretch mesh size smaller than 5 inches.
iv. **Large Mesh Gillnets.** Defined as having a stretch mesh size equal to or greater than 5 inches.
v. **Trawl nets.**
vi. **Shortlines.** Shortlines are defined as fishing lines containing 50 or fewer hooks and measuring less than 500 yards in length. A maximum of 2 shortlines are allowed per vessel.
vii. **Pounds nets/fish traps.**
viii. **Weirs.**

11. Bycatch Reduction Measures (Section 4.3.10)

    a. Any vessel using a shortline must use corrodible circle hooks. All shortline vessels must practice the protocols and possess the recently updated federally required release equipment for pelagic and bottom longlines for the safe handling, release, and disentanglement of sea turtles and other non-target species, all captains and vessel owners must be certified in using handling and release equipment.

12. Smooth Dogfish

    a. Each state must identify their percentage of the overall quota (Addendum II, 3.1)

    b. Smooth dogfish must make up at least 25%, by weight, of total catch on board at time of landing. Trips that do not meet the 25% catch composition requirement can land smooth dogfish, but fins must remain naturally attached to the carcass (Addendum IV, 3.0; modifies Addendum II Section 3.5).

**Table 18. Possession/retention limits for shark species in state waters**

| | | |
|---|---|---|
| **Recreational** | *Shore-angler* | 1 shark (of any species except prohibited) per person per day; plus one Atlantic sharpnose, and one bonnethead. No limit on smoothhound. |
| | *Vessel-fishing* | 1 shark (of any species except prohibited) per vessel per trip; plus one Atlantic sharpnose, and one bonnethead per person per vessel. No limit on smoothhound. |
| **Commercial** | *Directed permit* | Variable possession limit for aggregated large coastal sharks and hammerhead shark management groups. The Commission will follow NMFS for in-season changes to the possession limit. The possession limit range is 0-55, the default is 45 sharks per trip. No limit for SCS or pelagic sharks. |
| | *Incidental permit* | 3 aggregated LCS per vessel per trip and 16 pelagic or SCS (combined) per vessel per trip |

**APPENDIX 2.**

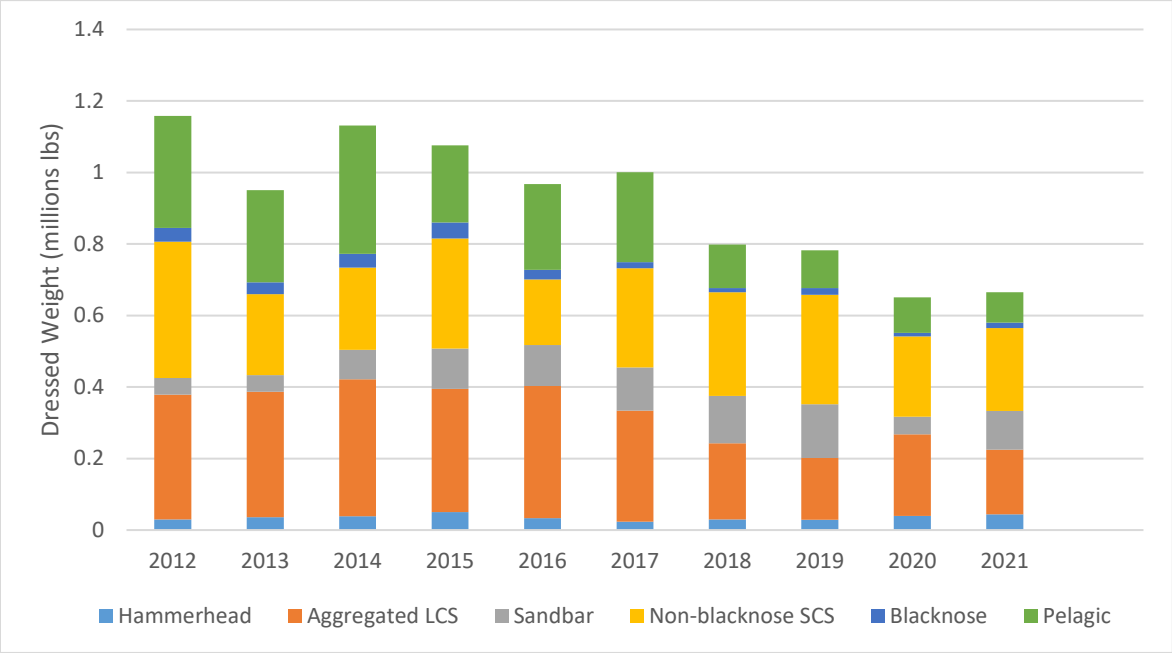


**Figure A1: Commercial landings of coastal sharks off the east coast of the United States by species group, 2012-2021. Source: NOAA Fisheries Stock Assessment and Fisheries Evaluation Report, June 2023.**

**Table A1. Estimated recreational harvest of Atlantic shark species by species group in numbers of fish, 2012-2021. Source: NOAA Fisheries Stock Assessment and Fisheries Evaluation Report, June 2023.**

| Species | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
|---|---|---|---|---|---|---|
| **Blacktip** | 6,520 | 1,527 | 500 | 224 | 1,506 | 673 |
| **Bull** | 26 | 3,750 | 32 | 0 | 17 | 0 |
| **Lemon** | 1,207 | 764 | 0 | 4 | 0 | 0 |
| **Nurse** | 21 | 2 | 5 | 13 | 2 | 1 |
| **Spinner** | 761 | 623 | 153 | 66 | 27 | 61,359 |
| **Tiger** | 2,061 | 0 | 1 | 0 | 0 | 1 |
| **Unclassified** | 732 | 625 | 7,544 | 83,129 | 37,790 | 384 |
| **LCS Total** | **11,328** | **7,291** | **8,235** | **83,436** | **39,342** | **62,635** |
| **Hammerhead Total** | **799** | **0** | **0** | **2** | **5** | **0** |
| **Blue shark[1]** | 30.8 | 21.9 | 15.2 | 16.7 | 8.4 | 9.3 |
| **Mako, shortfin[1]** | 167.5 | 192.4 | 125.1 | 25.2 | 24.5 | 21.8 |
| **Oceanic whitetip[1]** | 0 | 0 | 0 | < 0.1 | 0 | < 0.1 |
| **Porbeagle[1]** | 4.3 | 7.7 | 2.8 | 11.8 | 4.9 | 1.2 |
| **Thresher[1]** | 74.3 | 92 | 96.6 | 108.8 | 54.1 | 3.3 |
| **Pelagic Total[1]** | **276.9** | **314** | **239.7** | **162.5** | **91.9** | **35.6** |

| | | | | | | |
|---|---|---|---|---|---|---|
| **Blacknose** | 225 | 13 | 13 | 83 | 661 | 2,917 |
| **Bonnethead** | 37,832 | 18,239 | 37,168 | 31,086 | 28,861 | 34,840 |
| **Finetooth** | 0 | 1,219 | 0 | 176 | 113 | 166 |
| **Atlantic sharpnose** | 155,023 | 38,784 | 24,468 | 40,144 | 34,256 | 72,912 |
| **SCS Total** | **193,080** | **58,255** | **61,649** | **71,489** | **63,891** | **110,835** |
| **Smoothhound** | **145,689** | **58,446** | **40,736** | **56,375** | **61,129** | **37,534** |

[1]Pelagic shark data for 2016-2020 is Atlantic only, but reported in metric tons whole weight.

**Table A2. Estimated recreational mortality (harvest and dead discards) of prohibited Atlantic shark species in numbers of fish, 2016-2021. Source: NOAA Fisheries Stock Assessment and Fisheries Evaluation Report, March 2022.**

| Species | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
|---|---|---|---|---|---|---|
| **Atlantic angel** | 113 | 98 | 31 | 29 | 24 | 12 |
| **Basking** | 8 | 4 | 8 | 3 | 3 | 12 |
| **Bigeye sand tiger** | 0 | 0 | 0 | 0 | 0 | 0 |
| **Bigeye sixgill** | 0 | 0 | 0 | 0 | 0 | 0 |
| **Bigeye thresher** | 28 | 21 | 13 | 24 | 2 | 3 |
| **Bignose** | 1 | 0 | 0 | 0 | 1 | 1 |
| **Caribbean reef** | 0 | 0 | 1 | 0 | 0 | 37 |
| **Caribbean sharpnose** | 0 | 0 | 0 | 0 | 0 | 0 |
| **Dusky** | 29 | 22 | 121 | 19 | 4 | 36 |
| **Galapagos** | 0 | 0 | 0 | 0 | 0 | 0 |
| **Longfin mako** | 15 | 14 | 4 | 14 | 0 | 4 |
| **Narrowtooth** | 0 | 0 | 0 | 0 | 0 | 0 |
| **Night** | 8 | 31 | 74 | 83 | 0 | 6 |
| **Sand tiger** | 26 | 9 | 48 | 20 | 23 | 11 |
| **Sevengill** | 0 | 0 | 0 | 0 | 0 | 0 |
| **Sixgill** | 0 | 1 | 0 | 0 | 0 | 0 |
| **Whale** | 0 | 0 | 0 | 0 | 0 | 0 |
| **White** | 0 | 10 | 5 | 3 | 1 | 3 |
| **Prohibited Total** | **228** | **210** | **305** | **195** | **58** | **125** |

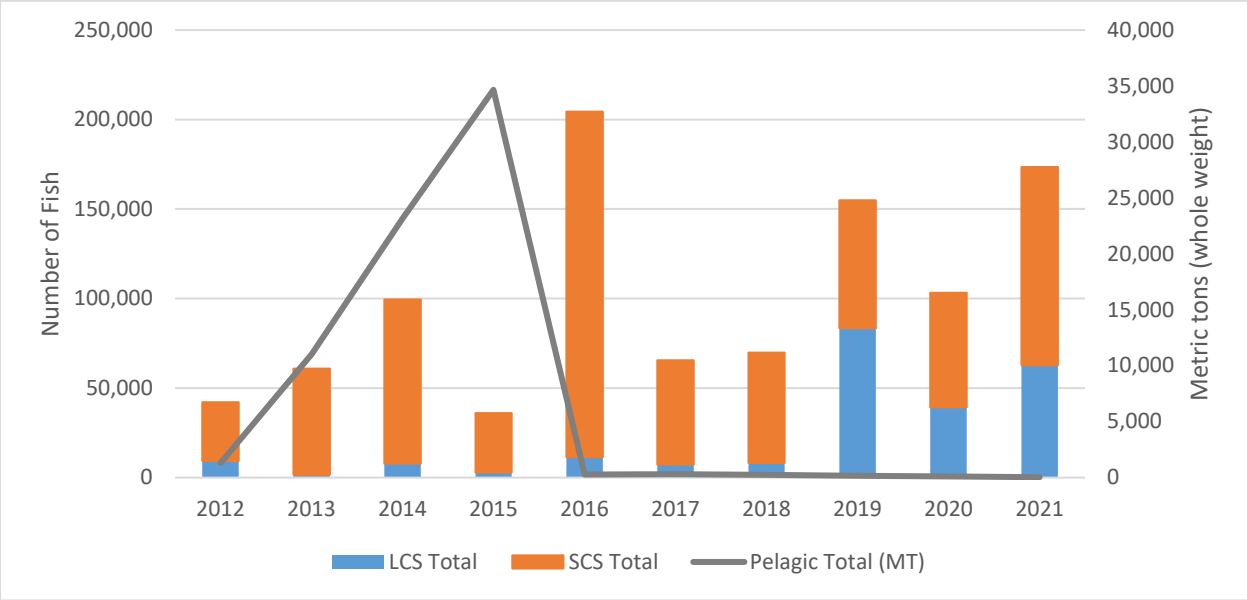


**Figure A2. Estimated recreational harvest for LCS, pelagic, and SCS by species group, in numbers of fish, 2012-2020. Source: NOAA Fisheries Stock Assessment and Fisheries Evaluation Report, June 2023.**