FISHERY MANAGEMENT PLAN UPDATE
COBIA
AUGUST 2026

STATUS OF THE FISHERY MANAGEMENT PLAN

Fishery Management Plan History

FMP Documentation:	SAFMC FMP	February 1983
	Amendment 1	September 1985
	Amendment 2	August 1987
	Amendment 3	August 1989
	Amendment 5	August 1990
	Amendment 6	December 1992
	Amendment 8	April 1998
	Amendment 11	December 1999
	Amendment 18	January 2012
	Amendment 20b	March 2015
	Framework Amendment 4	September 2017
	Amendment 31	March 2019
	ASMFC FMP	November 2017
	Amendment 1	August 2019
	Addendum 1	October 2020
	Addendum II	August 2024
Comprehensive Review:	2027	

The Gulf of Mexico Fishery Management Council (GMFMC) and the South Atlantic Fishery Management Council (SAFMC) approved and implemented the Fishery Management Plan (FMP), Final Environmental Impact Statement, Regulatory Impact Review and Final Regulations for the Coastal Migratory Pelagic (CMP) Resources FMP in 1983 which included all Cobia (*Rachycentron canadum*) in the Gulf of Mexico and South Atlantic (GMFMC/SAFMC 1983). This plan managed Cobia as one unit stock across the entire jurisdictional area of the GMFMC and SAFMC. The stated management objective for Cobia in the plan was to institute management measures necessary to increase yield per recruit and average size and to prevent overfishing. To achieve this, a minimum size limit was established for the Fishery Conservation Zone (FSC), which is analogous to the Exclusive Economic Zone (EEZ) of today, also referred to as "federal waters". The FMP was first amended in 1985 with the adoption of Amendment 1 which established the fishing year as January 1 through December 31 and established a minimum size limit for Cobia (GMFMC, SAFMC 1985).

Amendment 2 to the FMP was approved in 1987 and established a permit for charter boats fishing for coastal migratory pelagics (GMFMC, SAFMC 1987a). Amendment 3 prohibited drift gill nets as a gear that could be used to harvest coastal pelagic species (GMFMC, SAFMC 1987b). Amendment 5 addressed the issue of average annual catches from 1981–1986 exceeding the established MSY level and defined the overfishing limit for the Cobia stock, as well as set the procedure for rebuilding if the stock was found to be overfished (GMFMC, SAFMC 1990). Amendment 6 (GMFMC/SAFMC 1992) specified that minimum size for Cobia would be measured fork length (FL) and increased Maximum Sustainable Yield (MSY) based on results of stock assessment analyses (Isely 1992; MSAP 1992).

In 1998, Amendment 8 extended the management area for Cobia through the Mid-Atlantic Fishery Management Council's (MAFMC) jurisdiction which also extended the bag limit and minimum size limit (GMFMC, SAFMC 1996). Overfishing was defined as a fishing mortality (F) rate greater than a static Spawning Potential Ratio (SPR) threshold of 30% and if exceeded, then required that fishing mortality be

reduced to rates corresponding to management target levels. Optimum yield (OY) was defined as being equal to MSY. Amendment 11 (SAFMC 1998) redefined OY as the amount of harvest that can be taken by United States fishermen while maintaining the SPR at or above 40% of a static SPR. It also redefined the overfishing level as a fishing mortality rate in excess of the fishing mortality at 30% of a static SPR and established a threshold level for all the species in the coastal migratory pelagic unit as 10% of the static SPR.

Amendment 18 separated Cobia into two stocks at the jurisdiction boundary between the GSFMC and the SAFMC (GMFMC, SAFMC 2011). The Atlantic stock range was east of the Florida Keys through New York. Annual Catch Limits (ACL) were established for both stocks as required under the federal Magnuson-Stevens Act. The ACL for the Atlantic stock was set to 1,571,399 lb with a 92% recreational and 8% commercial sector allocation. Amendment 20B (GMFMC, SAFMC 2014) modified the stock boundary based on the results of the 2013 stock assessment (SEDAR 2013) to the Florida-Georgia state line. A new ACL was set at 690,000 lb for the 2015 fishing season and 670,000 lb for every year after. Accountability Measures (AM) required under the federal Magnuson Stevens-Act were established to ensure that ACLs are not exceeded, and that stock does not become overfished. Accountability measures require the councils to take action to limit the harvest of the species if an ACL is exceeded. For Cobia, the recreational AMs did not allow for in-season closures if the ACL was met or projected to be met; rather, measures were to be taken the following season to limit the harvest to keep the 3-year running average of landings at or below the ACL. If the total ACL was exceeded, the AMs require that the length of the recreational season the following year be reduced to constrain harvest to the ACL for that year. The commercial AMs required an in-season closure if the commercial ACL was met or projected to be met. If the stock was overfished, and the total ACL is exceeded, then the sector-specific ACL for the following year will be reduced by the appropriate sector-specific overage.

Framework Amendment 4 (SAFMC 2016) to Amendment 20B to the CMP FMP was approved by the council in September 2016 and the final rule went into effect in September 2017. The amendment increased the recreational minimum size limit of Cobia to 36 in FL, reduced the bag limit to one fish per person per day and implemented a vessel limit. The recreational AM were modified to allow for a reduction in vessel limit before a season reduction was implemented. The framework amendment also maintained the existing commercial minimum size limit and established a two fish per-person per-day or six fish per-vessel per-day (whichever is more restrictive) commercial trip limit.

Amendment 31 (SAFMC 2018) to the CMP FMP was approved by the council in June of 2018 and the final rule went into effect March of 2019. The amendment removed the Atlantic migratory group Cobia (Georgia through New York) from federal management under the Magnuson-Stevens Act and transferred sole management of Atlantic Cobia to the Atlantic States Marine Fisheries Commission (ASMFC). The amendment also implemented comparable regulations to the CMP FMP in the federal waters under the Atlantic Coastal Act in order to ensure that Atlantic Cobia continues to be managed in federal waters.

The ASMFC approved the Interstate FMP for Atlantic Migratory Group Cobia in November of 2017 (ASFMC 2017). The interstate plan established Recreational Harvest Limits (RHL) for the Atlantic states based on the federal recreational and commercial ACLs. The plan provided states with flexibility in management of the species by allowing the states to define their own season and vessel limits to constrain harvest to the RHL. At a minimum, states must comply with the size limits and bag limits established in Framework Amendment 4 and not exceed the vessel limits for commercial and recreational vessels (SAFMC 2016). State landings will be evaluated against the RHLs every three years to ensure that management measures are constraining coastwide harvest to the Federal ACLs.

To accommodate the removal of Atlantic Cobia from federal management, ASMFC approved Amendment 1 in August 2019. Amendment 1 changed several portions of the Commission's FMP that were previously dependent on the CMP FMP and instituted a long-term strategy for managing in the absence of a federal plan (ASMFC 2019). Several of these changes established processes for the Commission to carry out

management responsibilities previously performed by the South Atlantic Council. Amendment 1 recommended to NOAA Fisheries that fishing in federal waters be regulated according to the state of landing. Amendment 1 changed the units used to measure and evaluate the recreational fishery from pounds to numbers of fish. Amendment 1 also transitioned responsibilities of monitoring and closing commercial harvest to the Commission and established *de minimis* criteria for the commercial fishery (ASMFC 2019).

When SEDAR 58 was accepted for management, the ASMFC South Atlantic Board approved an increase in the annual total harvest based on the assessment results and harvest projections (SEDAR 2020). Addendum 1 to Amendment 1 was initiated after approval of the assessment. The Board approved the Addendum in October 2020. Addendum 1 modified the sector allocations from a 92% recreational, 8% commercial split to 96% recreational, 4% commercial, respectively (ASMFC 2020). The change was primarily based on new recreational catch estimates that resulted from changes in survey methodology by the Marine Recreational Information Program; estimates were, on average, two times higher than previously estimated. The new commercial allocation allowed the fishery to operate at the current level with some room for landings to increase as the stock range expands further north. Additionally, Addendum 1 modified the calculation of the commercial trigger to determine when an in-season coastwide commercial closure occurs and modified *de minimis* measures including an adjustment to the commercial allocation set aside and the recreational regulations (ASMFC 2020).

In August 2024, the ASMFC approved Addendum II to Amendment I of the Interstate FMP for Atlantic Migratory Group Cobia. The addendum modifies the recreational allocation framework by implementing a regional approach, with two regions defined as Rhode Island through Virginia (northern region) and North Carolina through Georgia (southern region) (ASMFC 2024). The regional structure aims to reduce uncertainty in harvest estimates by pooling data across multiple states. Additionally, the addendum allows for quicker updates to allocations should data be revised. Addendum II also extends the evaluation period for comparing harvest to the RHL from every 3 years to every 5 years, providing states more time to implement and assess management before adjustments are triggered.

To ensure compliance with interstate requirements, North Carolina also manages this species under the North Carolina Interjurisdictional Fisheries Management Plan (IJ FMP). The goal of the IJ FMP is to adopt fishery management plans, consistent with N.C. law, approved by the MAFMC, SAFMC, or the ASMFC by reference and implement corresponding fishery regulations in North Carolina to provide compliance or compatibility with approved fishery management plans and amendments, now and in the future. The goal of these plans, established under the Magnuson-Stevens Fishery Conservation and Management Act (federal council plans) and the Atlantic Coastal Fisheries Cooperative Management Act (Atlantic States Marine Fisheries Commission plans) are like the goals of the Fisheries Reform Act of 1997 to "ensure long-term viability" of these fisheries (NCDMF 2022).

Management Unit

The management unit for Atlantic Cobia is defined as all waters north of the Florida-Georgia line through New York from coastal estuarine waters eastward to the offshore boundaries of the EEZ (ASMFC 2019).

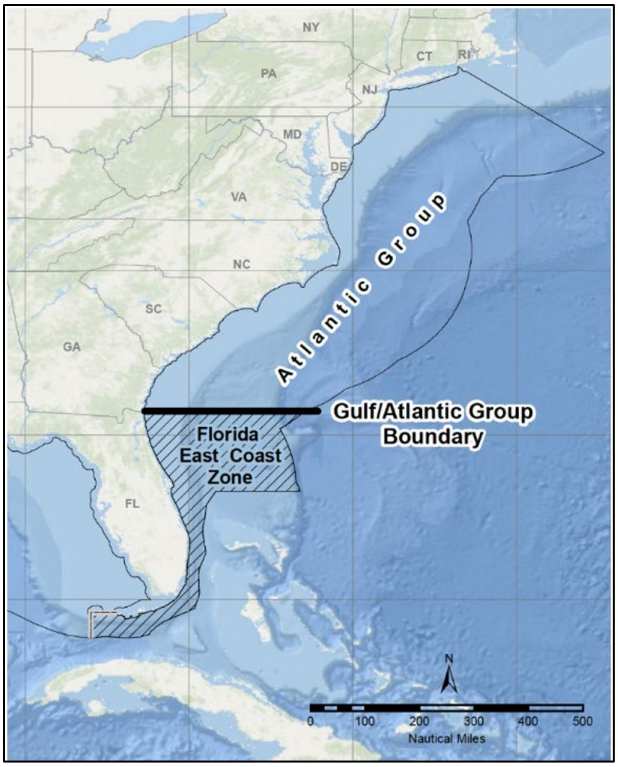

Figure 1. South Atlantic Fishery Management Council Cobia Group Management Boundaries (SEDAR 2020)

Goal and Objectives

The goal of Amendment 1 to the Interstate FMP (ASMFC 2019) is to provide for an efficient management structure that implements coastwide management measures, providing equitable and sustainable access to the Atlantic Cobia resource throughout the management unit in a timely manner.

The following objectives are intended to support the goal of Amendment 1.

- Provide a flexible management system to address future changes in resource abundance, scientific information, and fishing patterns among user groups or area.
- Implement management measures that allow stable, sustainable harvest of Atlantic Cobia in both state and federal waters.
- Establish a harvest specification procedure that will allow flexibility to respond quickly to stock assessment results or problems in the fishery, while also providing opportunities for public input on potential significant changes to management.
- Promote continued, cooperative collection of biological, economic, and social data required to effectively monitor and assess the status of the Atlantic Cobia resource and evaluate management efforts.
- Manage the Atlantic Cobia fishery to protect both young individuals and established breeding stock.
- Develop research priorities that will further refine the Atlantic Cobia management program to maximize the biological, social, and economic benefits derived from the Atlantic Cobia population.

DESCRIPTION OF THE STOCK

Biological Profile

Cobia is the sole member of the family Rachycentridae. It is a fast growing and moderately long-lived species with a maximum reported age of 16 years with a worldwide distribution in tropical, subtropical, and warm-temperature waters (SEDAR 2018). In the western Atlantic, Cobia occur from Nova Scotia, Canada south to Argentina including the Caribbean Sea. Off the coast of the United States, they are most abundant in nearshore coastal waters from Virginia south through the Gulf of Mexico. They migrate in the spring and fall from inshore and offshore habitats, as well as up and down the Atlantic coast (Perkinson et al. 2019; Crear et al. 2020; Gallagher 2020). Tagging and genetics studies have shown there is the potential for a resident sub-stock off Virginia and northern North Carolina (Darden et al. 2014; Perkinson et al. 2019; Gallagher 2020)

Spawning along the Atlantic coast occurs from April through July, peaking in May and June around inlets and in high salinity estuarine waters (Brown-Peterson et al. 2001). In North Carolina, spawning peaks in June, coinciding with water temperatures of 20–25°C (Smith 1995; Lefebrve and Denson 2012; Perkinson et al. 2019). Larval fish settle in the estuaries along the southeast and mid-Atlantic coasts and utilize them as nursery areas. Cobia can grow to as large as 14 in FL in their first year of life and move offshore as the water temperatures cool in the fall. Most Cobia are mature by age-2 and at 31 in FL (Smith 1995). Females can spawn multiple times in a season and can produce millions of eggs in a single year. Cobia can grow as large as 100 lb but are typically encountered by fisherman in the 25- to 40-lb range. Cobia are typically bottom feeders, consuming fish and crabs, but they have been known to consume prey as large as turtles. Cobia are structure oriented and can be found near channel markers, sea walls and jetties, or floating objects like larger marine animals such as leatherback sea turtles and rays.

Stock Status

Results of the 2020 benchmark assessment indicate that Cobia are not overfished, and overfishing is not occurring (SEDAR 2020; Figures 2 and 3). An operational assessment updating the benchmark assessment began in late 2025 and is scheduled to be completed in 2027.

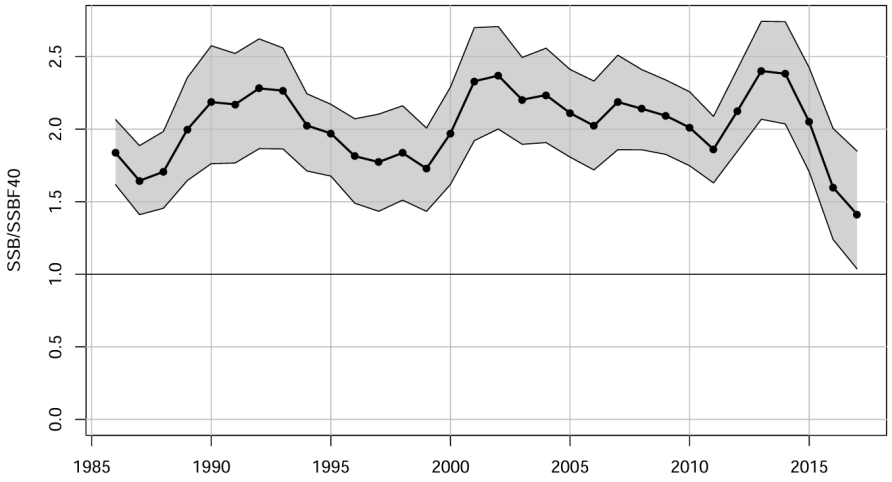

Figure 2. Spawning Stock Biomass (SSB) relative to the established reference point $SSBF_{40\%}$ for Cobia from SEDAR 58 (SEDAR 2020). The shaded gray error bands indicate 5th and 95th percentiles of the Monte Carlo Bootstrap trials.

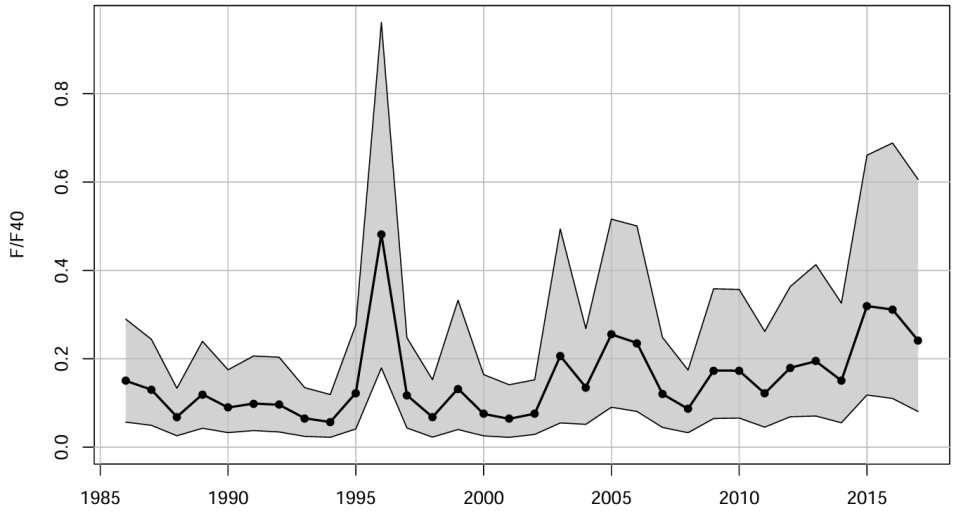

Figure 3. Fishing mortality relative to established reference point $F_{40\%}$ for Cobia from SEDAR 58 (SEDAR 2020). The shaded gray error bands indicate 5th and 95th percentiles of the Monte Carlo Bootstrap trials.

Stock Assessment

Cobia were assessed during South East Data, Assessment, and Review (SEDAR) 58 using data through 2017 (SEDAR 2020); this was a benchmark assessment. SEDAR 58 began with a stock identification workshop in April 2018. The workshop maintained the Florida-Georgia state line as the stock boundary since this border is within a transition zone that occurs from the southern boundary of Brevard County, FL to Brunswick, GA (SEDAR 2018).

SEDAR 58 assessed the Atlantic stock of Cobia using data from 1986–2017 (SEDAR 2020). This assessment included several modifications from the previous assessment (SEDAR 2013). Though more years of data were added to the end of the assessment, overall, the time series was shorted such that the model was started in the year when the best data became available.

The data available for Cobia included life history information, commercial and recreational landings and discards, commercial and recreational length and age composition, and the head boat logbook index. The Beaufort Assessment Model (BAM) was selected by the Assessment Workshop as the primary assessment model. The BAM uses a statistical catch-at-age formulation which allows for forward-projecting a fish population through time. The base run of the BAM indicated that Cobia were not overfished in the terminal year ($SSB_{2017}/SSB_{40\%} = 1.41$; Figure 2) and overfishing was not occurring ($F_{2015\text{-}2017}/F_{40\%} = 0.29$; Figure 3). Sensitivity runs of the model confirmed these values were consistent.

Sources of uncertainty in the assessment included the lack of a fishery-independent index of abundance and the fact that the sole index used in the model was from a fishery-dependent source. Because the fishery operates in such a way that a trip consists of very few fish, the reliability of fishery-dependent indices as a true indicator of the stock should be approached with caution since they may not track actual abundance well and issues can be exacerbated by management measures. The spawner-recruit relationship was also not well defined and annual recruitment was based on a fixed value. MSY-based management quantities rely heavily on this value, so results should be considered with this uncertainty in mind.

DESCRIPTION OF THE FISHERY

Current Regulations

Under the Interstate Plan, North Carolina must implement seasons and/or vessel limits that constrain harvest to the RHL. State landings will be evaluated against the RHL by averaging landings over a 5-year period. The acceptance of SEDAR 58 in 2020 for management meant an increase in the number of fish available for harvest, and the shift of harvest allocation to the recreational sector through Addendum I. Addendum II establishes regional allocations, assigning 68.7% of the recreational quota to the northern region and 31.3% to the southern region. Quota for the 2024–2026 fishing seasons was set in August 2023. With the adoption of Addendum II, the two established regions will share a recreational quota of 76,908 fish and a commercial quota of 73,116 lb.

North Carolina enforces a 36-in FL minimum size limit and a one-fish per-person per-day possession limit with a season from May 1 to December 31. Vessel limits for private vessels are set to two fish per-vessel from May 1 to June 30 and one fish per-vessel from June 1 to December 31. Charter and for-hire vessels may harvest up to four fish per vessel from May 1 to December 31. The commercial fishery is managed under a 36-in FL minimum size limit and two-fish per-person per-day possession limit, not to exceed six fish per vessel.

Commercial Fishery

Commercial landings of Cobia in North Carolina are available from 1950 to the present. Monthly landings were not available until 1972. North Carolina instituted mandatory reporting of commercial landings through their Trip Ticket Program starting in 1994. Landings data collected since 1994 are considered the most reliable. Since 1994, commercial landings have ranged from 15,463 lb in 1999 to 52,684 lb in 2015 (Figure 4). Over the last decade, commercial landings have averaged 28,937 lb (Table 1). In 2025, 17,871 lb were landed commercially in North Carolina.

Table 1. Recreational harvest and releases and commercial harvest of Cobia from North Carolina, 2016–2025.

Year	Recreational			Commercial	
	Number Landed	Number Released	Weight Landed (lb)	Weight Landed (lb)	Total Weight Landed (lb)
2016	26,421	39,237	838,363	48,252	886,615
2017	25,025	125,251	872,861	20,842	893,703
2018	25,331	68,219	685,962	20,629	706,591
2019	10,090	38,285	254,963	21,553	276,516
2020*	15,067	51,158	407,883	38,344	446,227
2021	10,970	40,136	356,340	29,301	385,641
2022	12,330	46,777	306,411	32,711	339,122
2023	629	32,590	12,523	31,301	43,824
2024	3,631	23,992	103,272	28,561	131,833
2025	12,950	49,799	379,830	17,871	397,701
Mean	14,244	51,544	421,841	28,937	450,777

*2020 recreational data contains imputed data as a result of impacts on sampling from COVID.

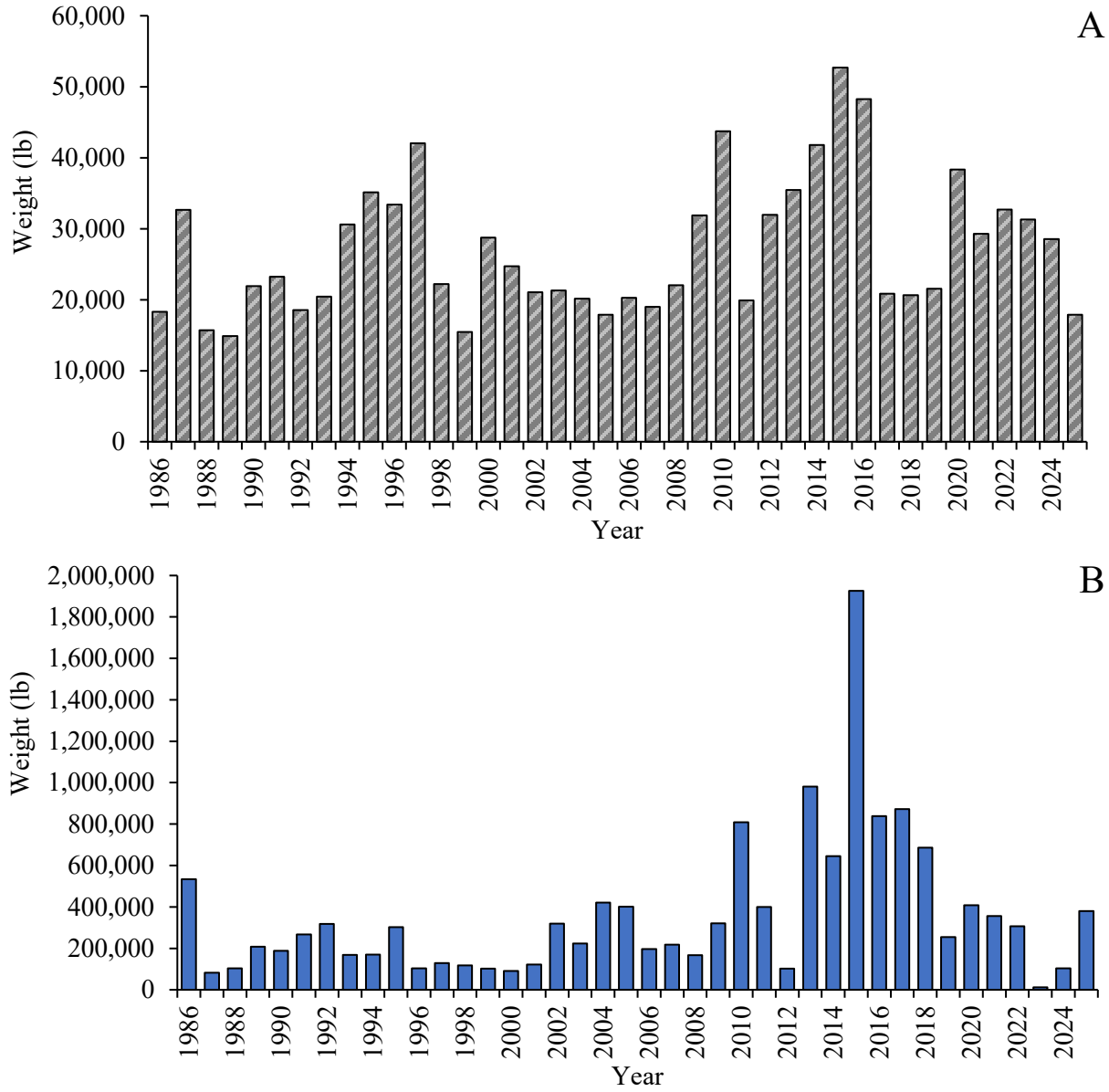

Figure 4. Annual commercial (A) and recreational (B) landings for Cobia in North Carolina from 1986–2025.

The primary fisheries associated with Cobia in North Carolina are the ocean gill net, snapper-grouper, and coastal pelagic troll fisheries. The primary commercial gear used to harvest Cobia has changed over time. From 1950 to the late 1970s, Cobia were primarily landed out of the haul seine fishery. Most landings that occurred during the 1980s came from the pelagic troll and hook-and-line fisheries with modest landings from the haul seine and anchored gill net fisheries. Since 1994, most landings have occurred from the gill net and hook-and-line fisheries with gill nets being the top gear during most of those years. In 2025, gill nets accounted for 49% of the landings, while 37% of the landings were from the hook-and-line (Figure 5).

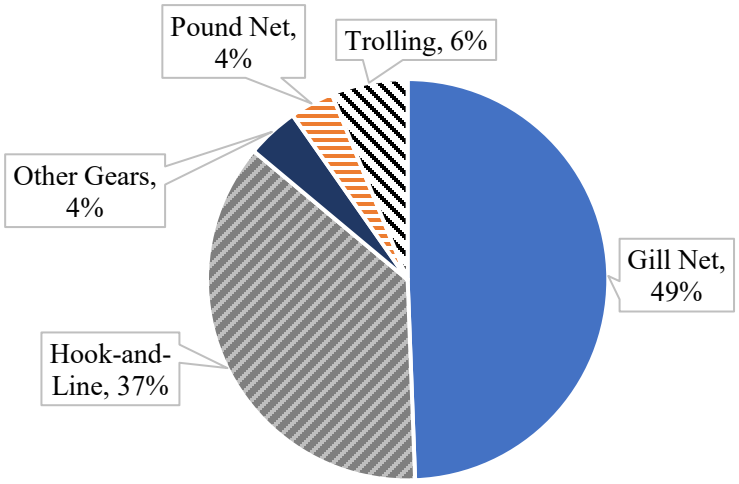

Figure 5. Commercial harvest of Cobia in 2025 by gear type. Other gears can include beach seines, trawls, crab and fish pots, flynets, fyke nets, spears, longlines, and haul seines.

From 2017–2019, gill-net landings were below average because the Cobia season closed in early September. SEDAR 58 resulted in an increase to the commercial quota in 2020. Since then, gill-net landings have increased relative to 2017–2019. This is because fishermen have been able to land Cobia incidentally caught during the fall king mackerel fishery. Total landings in 2025 were the lowest in the last decade (Table 2). This was likely due to the strong winds preventing fishing and the timing of migration changing over the past couple years.

Table 2. Commercial harvest of Cobia (weight in pounds) by gear, 2016–2025.

	Gear					
Year	Gill Nets	Hook & Line	Trolling	Pound Nets	Other*	Total
2016	32,809	9,041	2,314	3,434	656	48,252
2017	11,768	4,765	1,056	2,541	712	20,842
2018	8,965	7,040	2,552	1,636	436	20,629
2019	9,417	7,752	3,221	473	690	21,553
2020	29,202	3,175	3,780	1,294	894	38,344
2021	21,451	4,146	2,078	1,060	567	29,301
2022	23,028	4,267	3,909	941	541	32,686
2023	21,390	7,006	1,825	557	524	31,302
2024	15,016	9,764	2,291	900	589	28,560
2025	8,828	6,553	1,104	633	753	17,871
Mean	20,595	6,758	2,659	1,738	666	

*Other can include beach seines, trawls, crab and fish pots, flynets, fyke nets, spears, longlines, and haul seines.

Recreational Fishery

Historically, recreational fisherman targeted Cobia from a vessel by anchoring and fishing either dead or live bait, or both near inlets and deep-water sloughs inshore (Manooch 1984). Fish were also harvested from shore or off piers using dead or live bait, most commonly menhaden. In the early 2000s, fisherman began outfitting their vessels with towers to gain a higher vantage point to spot and target free swimming Cobia along tidelines and around bait aggregations. This method of sight fishing actively targets Cobia in the nearshore coastal zone and has become the primary mode of fishing in most parts of the state.

Recreational harvest estimates are available from 1981 to the present. Recreational estimates across all years have been updated and are now based on the MRIP new Fishing Effort Survey-based calibrated estimates. For more information on recreational estimates and the survey see Recreational Fishing Data.

Cobia is enthusiastically pursued by recreational anglers in North Carolina. Over the last 10 years, excluding 2023, recreational harvest has averaged 93% of the total harvest. North Carolina recreational Cobia landings have been lower the last several years relative to previous years. Weather conditions, including persistent winds, have hindered fishing efforts by reducing the number of fishable days, most noticeably in 2023 with only 12,523 lb landed (Table 1; Figure 4). The North Carolina Cobia fishery is a pulse fishery, with the primary wave fish historically arriving in early June and being available for about 6 weeks. In recent years, anecdotal observations suggest the Cobia are migrating to Chesapeake Bay much earlier, in April and May, and are residing in North Carolina for a shorter period of time. Recreational harvest in 2023 is the lowest in the full time series, landing only 12,523 lb. The second lowest year of harvest was 1987, landing 81,833 lb (Table 1).

The North Carolina Division of Marine Fisheries (DMF) offers award citations for exceptional catches of Cobia. Harvested Cobia that weigh greater than 40 lb, and Cobia captured and released that measure greater than 33 in FL (prior to May 1, 2021) or 36 in FL (currently), are eligible for an award citation. Since 1991, just over 10,900 citations have been awarded for Cobia. On average, 11% of citations have been from released fish; in 2024, 16% were from releases. From 1991 through 2017 the number of award citations for Cobia was variable but steadily increased. The last few years have seen fewer citations (Figure 6).

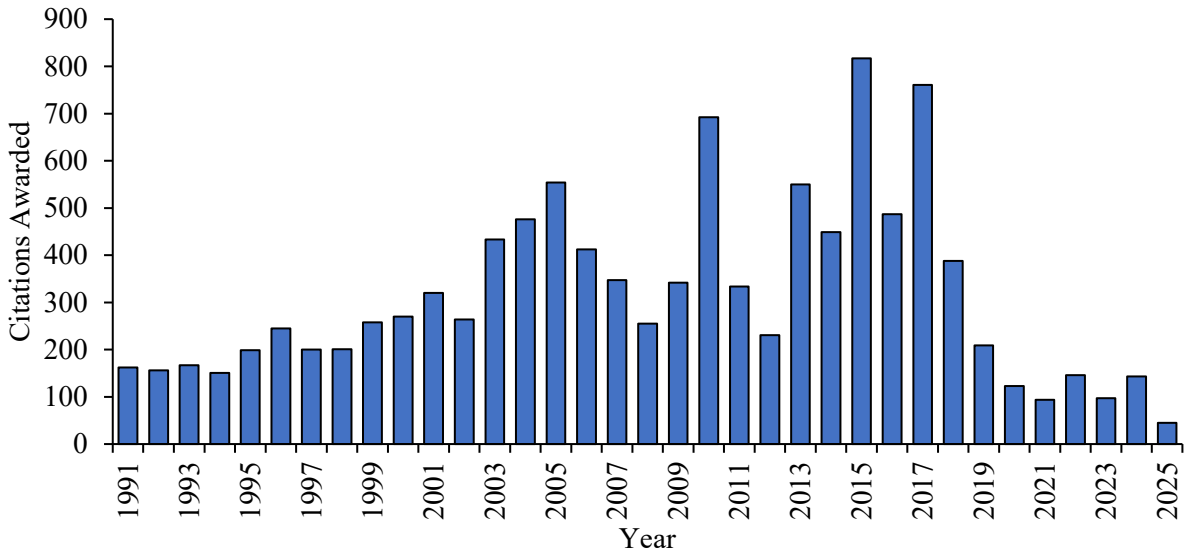

Figure 6. North Carolina Saltwater Fishing Tournament citations awarded for Cobia from 1991–2025.

MONITORING PROGRAM DATA

Fishery-Dependent Monitoring

Fishery dependent length-frequency information for the commercial Cobia fishery in North Carolina is collected by fish house samplers, the majority of which come DMF Program 438 (Offshore Live Bottom Fishery), as well as Program 431 (Sciaenid Pound Nets) and Program 434 (Ocean Gill Net Fishery). Length-frequency information for the recreational Cobia fishery is collected through the DMF Carcass Collection Program and MRIP. Fourty-six Cobia were measured from the commercial fishery in 2025 with an average FL of 37 in (Table 3). Cobia landed in the commercial fishery ranged from 18 to 58 in FL (Figure 7B).

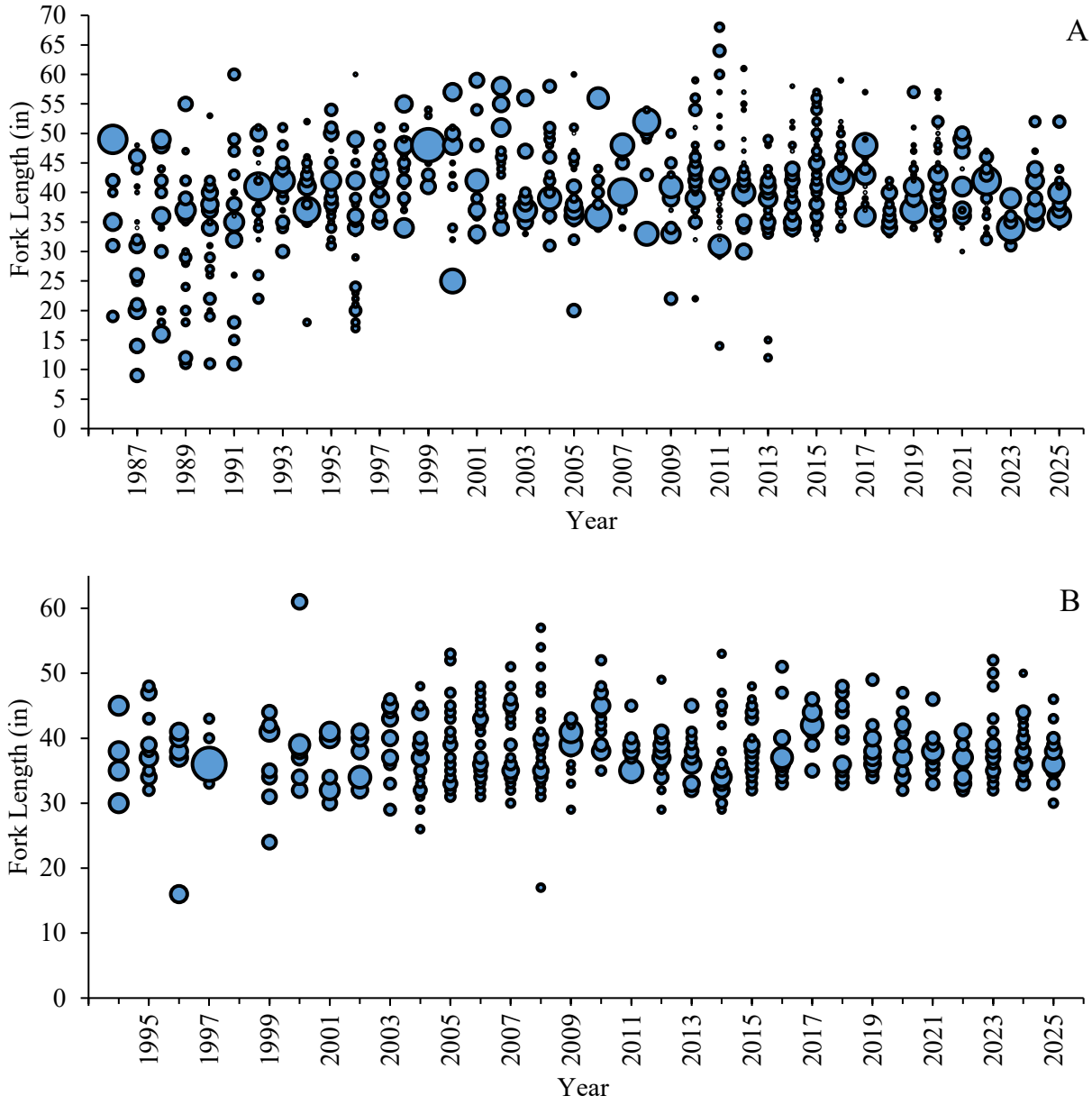

Figure 7. (A) Recreational length frequency of Cobia harvested from 1986–2025 and (B) Commercial length frequency (FL, in) of Cobia harvested from 1994–2025. Bubbles represent fish at length, and the bubble size is proportional to the number of fish at that length.

Six Cobia were measured by MRIP in 2025 with an average FL of 34 in (Table 3). Cobia harvested in the recreational fishery have ranged from 9 to 68 in FL (Figure 7A). A total of four Cobia were measured through the carcass collection program in 2025, with an average FL of 44 in (Table 4). Size trends in commercially landed fish for most years appear to correspond with sizes observed in the recreational fishery (Table 3). The length distribution of the recreational fishery was similar to the commercial fishery in 2024 (Figure 8).

Table 3. Mean, minimum, and maximum lengths (FL, in) of Cobia sampled from the commercial fisheries and the recreational fisheries (MRIP).

	Commercial				Recreational (MRIP)			
Year	Mean Length	Minimum Length	Maximum Length	Total Number Measured	Mean Length	Minimum Length	Maximum Length	Total Number Measured
2006	39	32	49	23	43	34	57	12
2007	40	31	52	24	44	34	49	8
2008	40	18	57	28	45	33	55	5
2009	39	34	44	5	38	23	51	8
2010	43	34	52	30	43	23	59	58
2011	38	34	46	11	42	14	68	21
2012	37	29	41	23	39	30	62	11
2013	37	19	48	18	39	12	50	34
2014	36	30	53	32	39	33	58	41
2015	39	32	48	33	44	32	58	65
2016	39	33	51	12	43	35	59	54
2017	42	36	46	9	43	36	58	27
2018	39	33	48	18	41	33	57	60
2019	39	28	49	17	40	34	57	30
2020	40	33	58	20	41	33	57	67
2021	37	31	47	16	43	31	50	9
2022	37	32	42	12	42	32	48	17
2023	39	33	52	37	34	31	39	9
2024	39	33	51	46	40	35	52	15
2025	38	30	46	23	34	52	40	6

Table 4. Mean, minimum, and maximum lengths (FL, in) of Cobia sampled from the NCDMF Carcass Collection Program 2016–2025.

Year	Mean Length	Minimum Length	Maximum Length	Total Number Measured
2016	44	36	63	12
2017	41	33	48	38
2018	37	23	47	39
2019	45	35	57	42
2020	41	34	49	9
2021	41	35	49	28
2022	39	33	46	26
2023	40	29	49	19
2024	40	32	53	55
2025	44	39	48	4

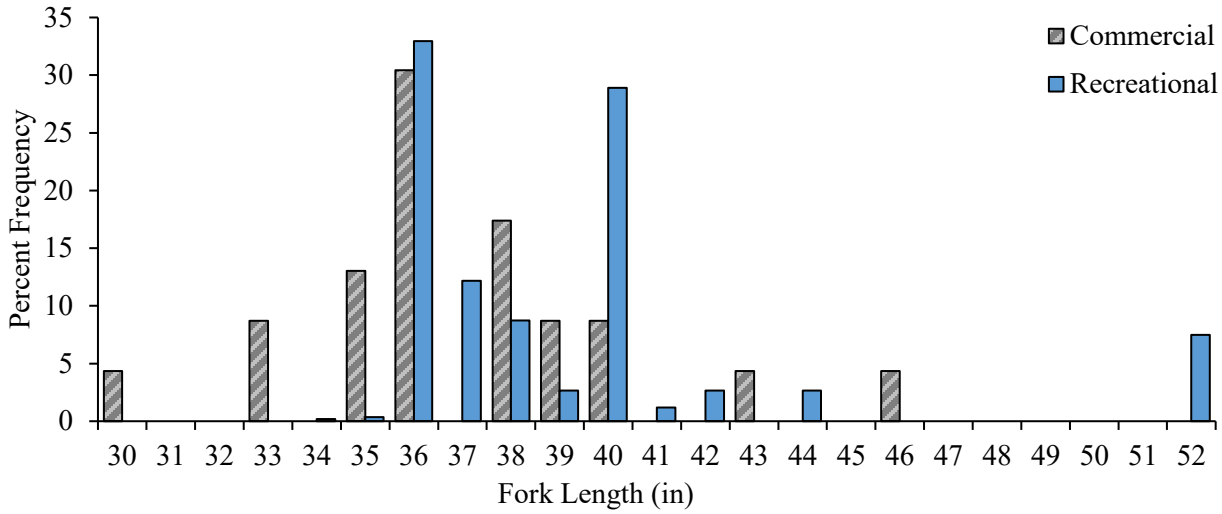

Figure 8. Percent frequency distribution of commercial and recreational length frequency distribution from Cobia harvested in North Carolina, 2025. Note: Percent frequencies are calculated independently within each sector allowing for comparison of size distribution rather than total catch volume

In order to describe the age structure of harvest and indices, Cobia age structures are collected from various fishery-independent and dependent sources throughout the year. Up until 2018, aging structures were sent to the NOAA Beaufort Age Lab for analysis. In 2025, 11 Cobia were aged (Table 5).

Table 5. Summary of Cobia age samples collected from both dependent (commercial and recreational fisheries) and independent (surveys) sources, 2008–2025.

Year	Minimum Age	Maximum Age	Total Number Aged
2008	0	1	7
2009	1	1	4
2010	0	12	13
2011	0	1	6
2012	1	4	5
2013	1	1	1
2014			0
2015	1	1	1
2016	0	11	20
2017	0	13	50
2018	0	15	66
2019	0	12	72
2020	1	10	30
2021	0	12	43
2022	0	11	38
2023	0	9	55
2024	0	9	74
2025	0	7	11

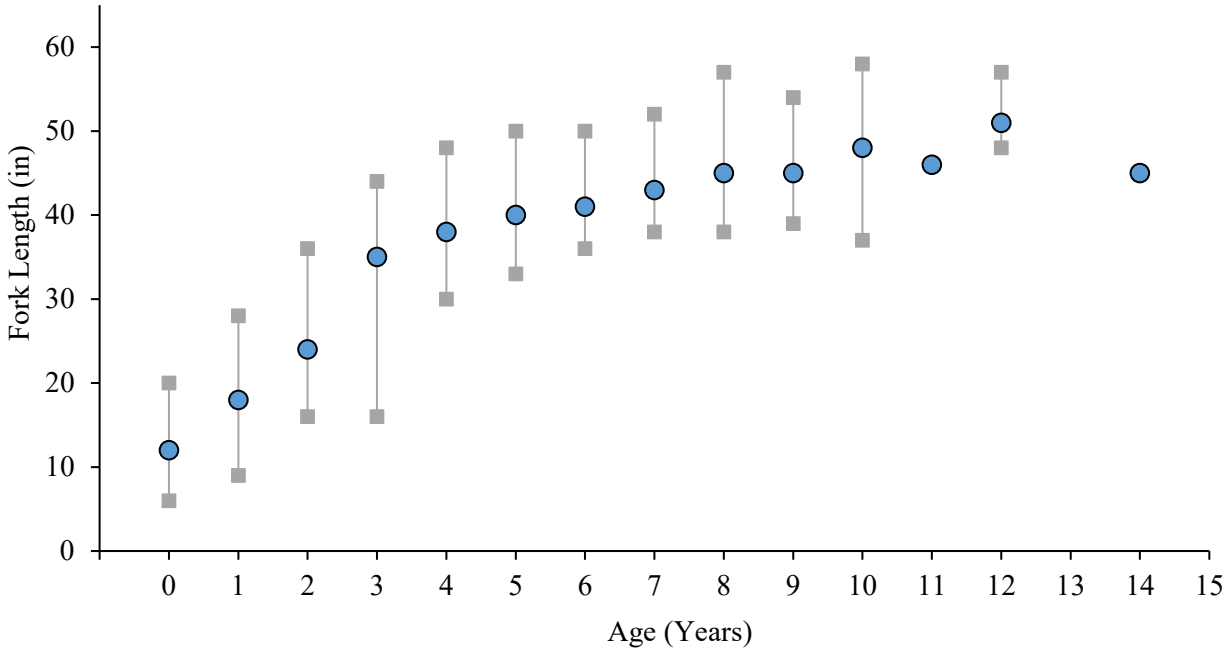

Figure 9. Cobia length at age based on all age samples collected from 2018–2025. Blue circles represent the mean size at a given age while the grey squares represent the minimum and maximum observed size for each age.

Fishery-Independent Monitoring

Currently, the DMF does not have any fishery-independent sampling programs that target Cobia. Very few DMF sampling programs observe Cobia.

In 2001, the DMF initiated a fisheries-independent gill net survey in Pamlico Sound (Program 915). The objective of this program is to provide annual, independent, relative abundance indices for key estuarine species in the nearshore Pamlico Sound. The survey employs a stratified random sampling design and utilizes multiple mesh gill nets (3.0-in to 6.5-in stretched mesh, by ½-in increments). A total of 175 Cobia have been captured in the Pamlico Sound Independent Gill Net Survey from 2001–2025. Cobia ranged in size from 6 to 38 in FL and had a mean size of 19 in FL. Additionally, Cobia have been caught by the independent gill net survey sampling south of Pamlico Sound. The 'Rivers' portion of the survey (Neuse, Pamlico, Tar, and Pungo rivers) was initiated in 2003, the 'Southern' portion (Cape Fear and New rivers) in 2008, and the 'Central' portion (White Oak River through Back Sound) in 2018. Eighty-nine Cobia have been caught in this sampling, ranging in size from 8 to 30 in FL, with a mean size of 16 in FL. While this data has not been used to create an index of abundance, the gill net sampling program is one of the few programs on the Atlantic coast that catches smaller Cobia, providing important life history information that may not otherwise be obtained. For the upcoming Benchmark Stock Assessment (projected to be completed in 2027), a small portion of the Program 915 in the Pamlico Sound is being considered as a juvenile or sub-adult index.

In 2007, the DMF began a longline survey (Program 365) designed to provide a fishery independent abundance index for adult red drum in the Pamlico Sound and mouth of the Neuse River. Since the survey began, 23 Cobia have been sampled, ranging in size from 24 to 44 in FL, with a mean length of 33 in FL.

Tagging Program

Cobia were added to the North Carolina multi-species tagging program in May of 2017. Cobia have been tagged each year since using both volunteer anglers and DMF staff throughout the coastal waters of the

state along with some tags released in Chesapeake Bay. All Cobia are tagged with red high reward tags ($100 reward) to maximize returns. Tagging of Cobia will allow for information to be gathered on migration patterns and exploitation rates. Tagging of Cobia has occurred along the coast ranging from Wilmington to Chesapeake Bay.

The total number of Cobia tagged from 2017 to 2025 is 832 fish (Table 6; Figure 10). There were 117 recaptures (Table 6; Figure 10). The time series average was 297 days at large with an average distance travelled of 64 mi (Table 6). Most recaptures occur within the state of NC and VA as Cobia tend to migrate north in the spring along the NC coast with movement into the Chesapeake Bay common during the summer months. The maximum distance travelled was 696 mi for a Cobia tagged north of the Chesapeake Bay bridge in August of 2019 and recaptured 564 days later in February of 2021 off Fort Pierce, Florida (Figure 10). The maximum days between a release and a recapture was 1,558 days or just over 4 years (Table 6). The total number of recaptures include recaptures of tags deployed in previous years. Summary data for the total number of days out and distance traveled include only the fish from that respective year.

Table 6. Summary of Cobia tagged as part of the DMF multi-species tagging program, 2017–2025.

Year Tagged	Total Fish Tagged	Total Fish Recaptured	Average Days Out	Max Days Out	Average Distance Traveled (mi)	Max Distance Traveled (mi)
2017	81	6	501	1,198	157	681
2018	215	24	427	1,558	106	370
2019	127	35	332	1,420	131	696
2020	30	18	357	357	3	3
2021	47	10	308	1,065	36	157
2022	41	4	512	646	45	91
2023	41	5	45	45	55	55
2024	157	9	179	388	34	144
2025	93	6	12	12	8	8

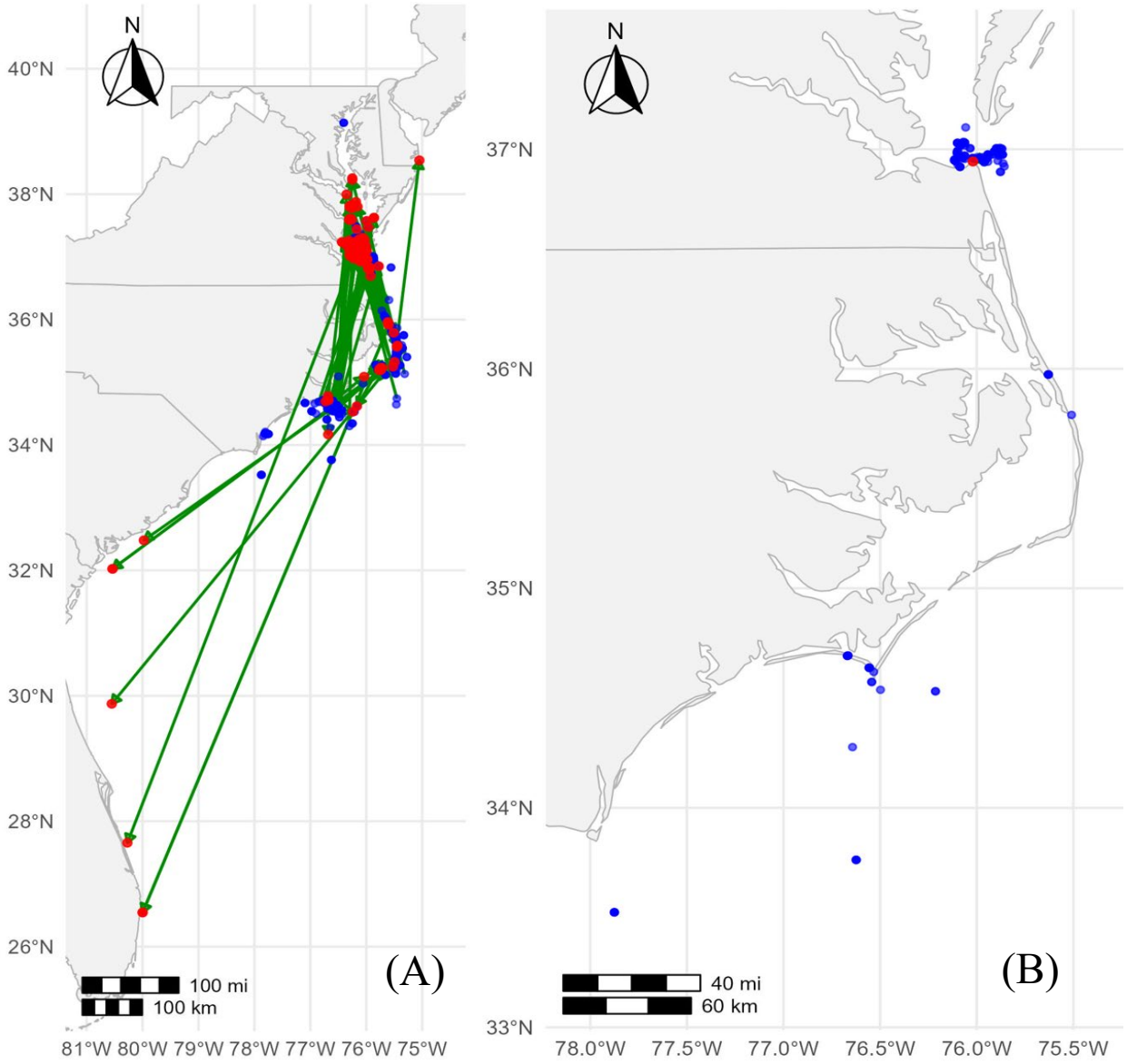

Figure 10. (A) Cobia tagging release and recapture locations (2017–2025) and (B) Cobia tagging release and recapture locations (2025 only). Blue circles represent tagging locations and red circles represent recapture locations.

RESEARCH NEEDS

Current research needs for Cobia can be found in the most recent SEDAR 58 stock assessment report (SEDAR 2020) and Amendment 1 to the Interstate FMP (ASMFC 2019). Below is a list of state prioritized research needs based off the recommendations from SEDAR 58, Amendment 1 to the Interstate Plan, and input from DMF lead staff.

- Institute fisheries independent sampling programs to obtain estimates of Cobia abundance.
- Better characterize the life history of Cobia including age sampling of the recreational sector, update age- and length-at-maturity, batch fecundity, spawning seasonality, and spawning frequency information.
- Obtain more precise and timely estimates of harvest from the Atlantic Cobia recreational fishery.
- Investigate release mortality and fishing mortality within the commercial and recreational fisheries.
- Increase reporting of recreational harvest and better characterize the recreational and for-hire fisheries.

MANAGEMENT

As of March 2019, Cobia is managed solely under the ASMFC Interstate Plan requirements. The interstate plan, including Amendment 1 and Addendum 1 to the FMP, aim to maintain SSB above a threshold which allows for surplus recruitment to the stock.

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