

Chapter III: MARINE RECREATIONAL FISHERY STATISTICS

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PROGRAM NARRATIVE

The Coastal Angling Program

The mission of the Coastal Angling Program (CAP) is to systematically collect recreational fisheries data using the best available scientific methods to accurately quantify and describe recreationally important marine fisheries of North Carolina.

Effective fisheries management requires accurate information on the number and size distributions of fisheries stocks. The Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA) mandates a national program for management of fishery resources in the ocean zone known as the Exclusive Economic Zone (EEZ), or the area between 3 to 200 miles from shore. The MSFCMA also requires fishery management plans consider both recreational and commercial fisheries as well as their harvests.

The North Carolina Fisheries Reform Act of 1997 mandated the development of fishery management plans (FMPs) for fisheries of importance to North Carolina. The data collected and the estimates of finfish harvest and angler participation generated by CAP play a key role in the FMP development process. These data and estimates also play a critical role in DMF's compliance with the MSFCMA and the North Carolina Fisheries Reform Act.

To accomplish this mission, CAP oversees the following data collection initiatives:

- Marine Recreational Information Program
- Anadromous Creel Surveys
- Recreational Saltwater Activity Mail Surveys

The information in this chapter covers the **Marine Recreational Information Program**. This chapter is designed to help understand how the data are collected and what types of data are available within this program. This summary should also allow individuals to more precisely choose the information that is most applicable to their specific needs.

MARINE RECREATIONAL INFORMATION PROGRAM

Introduction

The Magnuson-Stevens Fishery Conservation and Management Act of 1976 established the need for a nationally consistent and systematic method of collecting both recreational and commercial harvest data to ensure the sustainable management of United States fisheries. Data on marine recreational fisheries were not collected in a systematic manner by the National Oceanic and Atmospheric Administration (NOAA) Fisheries on a continuing basis until the establishment of the Marine Recreational Fisheries Statistics Survey (MRFSS) in 1979. Dockside interviews began at this time across all Atlantic states, and the first results of these interviews would become available starting in 1981.

From its inception in 1979, MRFSS would undergo several important improvements, eventually evolving into the Marine Recreational Information Program currently in use. Several key changes are listed below:

- In 2006, the National Academies of Science, Engineering, and Medicine (NASEM) published an independent review of the MRFSS and identified under-coverage, inefficiency, and bias issues within the MRFSS survey and estimation methodologies and recommended a redesigning of the survey.
- In 2008, the Marine Recreational Information Program (MRIP) was established to implement improvements in survey and estimation methodologies.
- In 2011, North Carolina conducted a pilot study to explore additional improvements to the sampling design.
- In 2013, the dockside surveys were improved to sample throughout the day (24-hour coverage) and remove any potential bias by controlling the movement of field staff to alternative sampling sites. Before this improvement, samplers were allowed to move from their assigned site to more active fishing locations but could not statistically account for this movement when calculating estimates.
- In 2016, the Atlantic states' sampling efforts begin to be coordinated through the Atlantic Coastal Cooperative Statistics Program (ACCSP).
- In 2018, the Fishing Effort Survey (FES), which is administered by mail, replaced the Coastal Household Telephone Survey (CHTS).
- In 2019, Atlantic states begin to collect data on electronic tablets instead of on paper.

MRIP is a national program that uses several surveys to obtain catch and effort data for marine finfish at the regional level. MRIP evolved from the MRFSS and included improvements in survey and estimation methodologies to remove sources of bias. Prior to 2018, MRIP consisted of two complementary surveys: 1) the CHTS, a random-digit-dialing landline telephone survey within the coastal zones of each state to determine the number of fishing households and the numbers of fishing trips taken and 2) the Access Point Angler Intercept Survey (APAIS) for obtaining catch rates and species composition from anglers fishing in shore-based, charter boat, and private boat fishing modes. The data from the two surveys were combined to provide estimates of the total

number of fish caught, released, and harvested; weight of the harvest; total number of trips; and the number of people participating in marine recreational fishing.

The APAIS component of MRIP was improved in 2013 to sample throughout the day (24-hour coverage) and remove any potential bias by controlling the movement of field staff to alternative sampling sites. Before this improvement, samplers were allowed to move from their assigned site to more active fishing locations but could not statistically account for this movement when calculating estimates. MRIP also implemented the FES in 2018 to address the NASEM concerns of under-coverage of the angling public, declining number of households using landline telephones, reduced response rates, and memory recall issues of the CHTS.

Now, MRIP consists of two complementary surveys: 1) a mail survey of households (FES) in coastal counties to obtain fishing effort information and 2) an intercept survey of anglers (APAIS) at shore side access sites to obtain catch rates and species composition. The data from the two surveys are combined to provide estimates of the total number of fish caught, released, and harvested; the weight of the harvest; the total number of trips; and the number of people participating in marine recreational fishing. For-hire fishing effort is captured through telephone interviews of for-hire captains. All states on the Atlantic and Gulf coasts participate in the FES and APAIS except for Texas and Louisiana.

Dockside Interviews

The intercept survey gathers catch and demographic data from marine recreational anglers who have just completed fishing in one of five fishing modes (the type of place or platform from which marine recreational fishing occurred):

- Charter boat
- Private/rental boat
- Beach/bank
- Man-made structure
- Head boat

The intercept survey in North Carolina continuously samples angler catches throughout the year. Intercept sampling is separated by mode and wave (two-month period).

A complete statewide list of access sites for marine recreational fishing is continuously updated at <https://apps-st.fisheries.noaa.gov/msd/>. Sites are chosen for interviewing by randomly selecting from access sites that are weighted by estimates of expected fishing activity. The sites are weighted to ensure that each angler trip has a representative probability of being included in the sample. Sampling is distributed among weekdays, weekends, and holidays.

Anglers are intercepted, screened, and interviewed at assigned access sites upon completion of their fishing trips. Data are recorded on standard APAIS coding forms (*see Appendix 2*). At heavy use sites, every attempt is made to intercept and interview all anglers. If that is not possible, angler counts are obtained to augment interviews. In 2005, NCDMF began routine sampling of head boats to obtain length data from discards.

Each intercept interview consists of:

- an introduction to the survey,
- an oral interview concerning the fishing trip just completed,
- thorough examination of the respondent's catch (visually inspect for correct species identification), and
- measurement of lengths and weights from all the fish in the respondent's catch (or if necessary, a random sample).

Interview procedures vary slightly among fishing modes:

- Private/rental/charter boat anglers are interviewed at boat ramps, marina slips, and hoists while they are leaving their boats or dockside while they are cleaning their boats.
- Anglers fishing from natural shorelines can be widely distributed along beaches and banks with multiple access points. Samplers often have to move from angler to angler within the defined boundaries of the site to obtain interviews.
- Man-made structures commonly have a single exit point where samplers can easily intercept departing anglers.
- Head boat sampling is conducted onboard the vessel at sea.

Interview procedures have been developed to allow separate recording of information on:

- catch unavailable for identification (Type B catch),
- available catch that cannot be easily subdivided among anglers,
- catch obtained during multiple-day boat trips, and
- at-sea discards from head boats.

Fish that are available for identification, enumeration, weighing, and measuring by the interviewers are called landings or Type A catch. Fish not brought ashore in whole form but used as bait, filleted, discarded dead, or are otherwise unavailable for inspection are called Type B1 catch. Finally, fish released alive are called Type B2 catch. Type A and Type B1 together comprise harvest, while all three types (A, B1, and B2) represent total catch.

Species such as flounder and kingfish are morphologically ambiguous and cannot be reliably identified to the species level by the angler. As such, discards are identified to the nearest taxonomic category and estimates of released catch are produced at the genus level. Because there are no sources of information with an appropriate timeline or area resolution that can be used to partition the released estimates of ambiguous congener species into their constituent species, Type A catch is used to delineate between them. For example, a ratio of Southern Flounder, Summer Flounder, and Gulf Flounder to total flounder observed is determined from the Type A catch at the estimation level (i.e., state, year, wave, area). These proportions of Southern, Summer, and Gulf Flounder are applied to the estimates of left-eyed flounder released (unobserved Type B2) catch to produce estimates of discards for each of the specific flounder species. An identical approach is applied to Kingfish (e.g., Gulf, Southern, Northern) as well as Spotted Seatrout and Weakfish.

For the Type B catch (fish not available for the interviewer's examination), information is only recorded for individual anglers. Beginning in 2005, head boat anglers were sampled at sea,

allowing accurate identification of Type B catch for the first time. For the Type A catch (fish available for inspection), grouped catch is allowed, except when in beach/bank mode. This is a concession to the fact that multiple anglers often will keep all their catch in a single container, and at the end of the trip, they are not sure who caught which fish.

Fishing Effort Survey

The FES mail survey employs a dual-frame design with two non-overlapping frames: 1) state residents sampled from the United States Postal Service computerized delivery sequence (CDS) file and 2) non-residents sampled from state-specific lists of licensed saltwater anglers. Non-residents are defined as individuals who were licensed to fish in one of the target states but lived in a different state. Sampling from the CDS uses a stratified design in which households with licensed anglers are identified prior to data collection. The address frame for each state is stratified into coastal and non-coastal strata defined by geographic proximity to the coast. For each wave and stratum, a simple random sample of addresses are selected from the CDS and matched to addresses of anglers who are licensed to fish within their state of residence. Non-resident anglers were sampled directly from state license databases. The sample frame for each of the targeted states consisted of unique household addresses that were not in the targeted state but had at least one person with a license to fish in the targeted state during the wave.

The FES mail survey (*see Appendix 3*) collects fishing effort data for all household residents, including the number of saltwater fishing trips by fishing mode (shore and private boat). The FES is a self-administered mail survey, administered for six, two-month reference waves annually. The initial survey mailing is sent one week prior to the end of the reference wave so that materials are received right at the end of that wave. This initial mailing is delivered by regular, first-class mail and includes a cover letter stating the purpose of the survey, a survey questionnaire, a postage-paid return envelope, and a \$2 cash incentive. One week after the initial mailing, a follow-up, thank you and reminder postcard is mailed via regular first-class mail to all sampled addresses. For addresses that could be matched to a landline telephone number, an automated voice message is also delivered as a reminder to complete and return the questionnaire. Three weeks after the initial survey mailing, a final mailing is delivered to all addresses that have not yet responded to the survey.

Effort Estimates

In the MRIP, fishing effort is defined as the estimated number of fishing trips taken by individual anglers. The number of individual fishing trips is estimated for each state, coastal county, mode, and bimonthly wave. Total effort represents residents who are coastal, non-coastal, and out-of-state. Data from the mail survey of households are used to calculate the mean number of trips per household in each fishing mode during each wave.

The FES estimates fishing effort by residents of sampled states in number of angler-trips. The basic approach uses a Horvitz-Thompson total estimator with sample weights that reflect sample inclusion probabilities, a nonresponse adjustment, and a post-stratification adjustment to known population totals. A final adjustment that accounts for non-resident (i.e., out of frame) fishing

activity is applied to estimate total effort by fishing mode. This adjustment is derived from the APAIS.

After the final effort estimates are generated, they are stratified into primary fishing areas to produce effort estimates by state, mode, wave, and area. An area is defined by the distance offshore where the fishing took place. The areas are inland, ocean ≤ 3 miles, and ocean > 3 miles, although this can vary from state to state (see *Appendix III.4 for complete definitions and discussion*). Within each state, wave, and mode, trips are allocated to a primary fishing area in proportion to the number of interviewed anglers in that state, wave, and mode who made trips in that area. The intent is to produce effort estimates at a level that is suitable for multiplication with catch per angler trip estimates from the intercept survey.

Catch Estimates

The catch of each finfish species is estimated for each sub-region, state, fishing mode, primary fishing area, and wave. The total number of fish caught in a particular fishing mode and area of fishing is estimated from:

- the estimated number of fishing trips taken in that state, wave, mode, and area; and
- the mean number of fish caught per trip taken in that state, wave, mode, and area.

Not all fish that are caught by intercepted anglers are available for the interviewer's inspection. The intercept interview and the estimation procedures distinguish between those fish brought ashore in whole form, and those not brought ashore in whole form:

- Fish that are available for identification, enumeration, weighing and measuring by the interviewers are called landings or Type A catch.
- Fish not brought ashore in whole form but used as bait, filleted, or discarded dead are called Type B1 catch (Type A and Type B1 together comprise harvest).
- Fish released alive are called Type B2 catch.

Catch per trip estimates and expanded catch estimates are made for these three types of catch. Total catch is the sum of Type A catch, Type B1 catch, and Type B2 catch. The purpose is to distinguish between those species identified and measured by trained interviewers, and those species reported to the interviewers by anglers. Anglers occasionally misidentify species; therefore, their reported measurements are subject to several types of bias.

As noted above, only individual interviews are allowed for Type B catch, while for Type A catch some amount of clustering is allowed and accounted for in the estimation. Self-weighting estimators of catch per trip were used, meaning that the site selection methodology (giving sites with more anglers a higher probability of being sampled) ensures all angler trips have an equal probability of being included in the sample.

Lengths and weights are obtained by sampling the fish caught and brought ashore in whole form by intercepted anglers. Therefore, estimated weights can only be calculated directly for Type A catch fish. Since the size composition of the remainder of the total catch (Type B1 catch and Type B2 catch) is unknown and may differ from that of the fish represented in Type A catch, estimating the weight of the remainder of the catch is not possible without assumptions.

In estimating the weight of harvested fish (Type A and B1 catch), we assume that the mean weight of the Type B1 catch is equal to that of the Type A catch for each sub-region, state, mode, primary area, wave, and species.

Most of the trips sampled in the intercept survey are completed trips with anglers being interviewed only at the end of the fishing trip. Some incomplete trips are sampled in the shore mode which are converted into complete trips by multiplying the recorded catch per hour by the anticipated total trip length. Once catch per trip estimates have been produced for each sub-region, state, wave, mode, area, species, and catch type, they can be multiplied by the appropriate effort estimate to produce estimates of total catch. For estimates of total harvest weight, these total catch estimates are in turn multiplied by the average weight per measured fish in the appropriate mode and area.

Catch estimates are obtained using information from both the dockside interviews and mail/telephone surveys using the following formula:

$$(\text{Angler Trips}) * (\text{Average Catch Per Angler Trip}) = \text{Total Catch}$$

where trips equal the total number of finfish trips by mode and area, average catch per trip is the mean catch by species, mode, and area, and total catch is the total of each species by mode and area.

Catch estimates have been calibrated by NOAA to create a fully compatible timeseries of data that spans from 1981 to the present.

Precision of Estimates

The harvest numbers and pounds presented in this chapter are estimates and measures of precision are necessary in order to interpret the estimates correctly. Precision refers to the variability in the data relative to the estimate. Measures of precision begin with estimating the variance of the estimate. The square root of the variance returns the standard error which is a commonly used measure of precision.

The standard error is necessary for calculating confidence intervals around an estimate. Confidence intervals are typically calculated with 95% confidence, meaning that we have a 95% certainty that the true population value is within this range. Confidence intervals are well suited for graphing variation around estimates. Confidence intervals are calculated as:

$$\text{estimate} \pm 1.96 * \text{standard error}.$$

The standard error is also used to calculate the percent standard error (PSE). A small PSE indicates a more precise estimate than does a large PSE. A PSE of 20% or less is generally considered acceptable in fisheries data. PSE values as calculated as:

$$\text{PSE} = \text{standard error} / \text{estimate} * 100.$$

SURVEY LIMITATIONS

Rare Event and Pulse Species

Species that seldom occur in recreational catches are referred to as rare event species. They include such species as Tripletail, Atlantic Tarpon, Swordfish, Gulf Flounder, etc. Pulse fisheries target species such as Cobia that are highly migratory and only occur seasonally in North Carolina waters, as well as species such as Red Snapper which have a very limited recreational season. For both rare event and pulse fishery species, samplers are unable to intercept enough anglers with these species in their catch to produce precise estimates of catch.

Anadromous Species

The MRIP is only conducted in saltwater and brackish water areas, along with tidal portions of sounds, bays, and rivers. Freshwater areas are not included in the survey. Alternative methods for assessing recreational catch of freshwater resident species and anadromous species such as American Shad, Hickory Shad, and Striped Bass must be considered (*see Chapter IV*).

CONTACTS

The MRIP is administered by the NOAA Fisheries Office of Science & Technology, Fisheries Statistics Division. Several states, including North Carolina, manage the dockside sampling portion of the survey. Catch and effort estimates by year and species are available back to 1981. In North Carolina, this project is supported, in part, by the US Fish and Wildlife Service through the Sport Fish restoration Program, Grant F-31. For additional information regarding the survey or to request data not presented in this report, please contact:

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Table III.1 North Carolina marine recreational finfish harvest by species/group.

Species/Group	Number Harvested		Pounds Harvested	
	2023	2022	2023	2022
Amberjacks	25,393	5,494	407,891	79,771
Barracudas	2,428	1,939	25,677	29,368
Bass, Sea	272,964	159,979	460,175	256,867
Bass, Striped ¹	0	0	0	0
Bluefish	1,261,404	1,533,911	1,492,689	1,645,410
Bonito, Atlantic	72,973	12,301	268,260	70,411
Cobia	629	12,330	12,523	306,411
Croaker, Atlantic	597,690	1,110,382	201,056	481,721
Dolphin	292,185	117,803	2,129,648	962,267
Drum, Black	348,374	264,634	973,869	1,710,528
Drum, Red	232,133	336,280	1,120,661	1,615,108
Flounder, Southern	77,885	70,945	192,168	166,102
Flounder, Summer	20,164	10,591	34,192	22,151
Groupers	47,993	4,498	342,872	54,664
Grunts	43,570	32,829	63,988	20,701
Jacks	55,564	13,135	82,516	22,876
Kingfishes	3,003,875	5,594,758	1,316,752	1,631,041
Mackerel, King	79,987	38,512	1,130,711	375,164
Mackerel, Spanish	1,204,175	1,898,755	1,216,236	1,841,527
Perch, Silver	3,811	4,432	1,092	776
Pigfish	490,705	1,190,673	197,723	448,404
Pinfish	1,328,754	1,016,021	352,853	151,153
Pompano, Florida	91,178	584,682	70,418	105,344
Porgies	22,117	5,287	20,354	8,994
Puffers	1,945,427	1,902,765	964,014	966,751
Seatrout, Spotted	1,002,906	1,963,400	1,923,165	3,756,040
Sharks	12,245	2,153	25,234	16,909
Sharks, Dogfishes	55,431	5,214	272,276	14,461
Sheepshead	263,328	387,924	619,265	1,024,623
Snappers	155,816	60,797	180,881	135,665
Spot	855,729	1,197,145	300,052	375,168
Tuna, Bluefin ^{2,3}	103	35	19,311	9,018
Tuna, Yellowfin	30,588	38,924	895,304	1,450,166
Tunny, Little	31,443	38,772	168,654	234,922
Wahoo	20,434	9,657	379,586	232,436
Weakfish	75,329	112,095	89,115	105,060

¹ Striped Bass landings reflect Atlantic Ocean catches only.

² Landings for Bluefin Tuna shown by Highly Migratory Species fishing year (January 1 through December 31).

³ Bluefin Tuna are collected from a catch card program, not MRIP, and are therefore not included in the Recreational Total Pounds Harvested value.

NOTE: The number and pounds of finfish listed represent estimated harvest; finfish released alive are not included. Recreational finfish catches from head boats are not included in this table. The National Marine Fisheries Service collected head boat data separately in 2017.

Table III.2 North Carolina marine recreational finfish overall harvest and released finfish.

Year	Number Harvested	Pounds Harvested	Number Released
2023	16,481,811	19,948,674	57,116,843
2022	21,414,770	21,258,305	77,102,244
2021	21,978,023	19,039,915	60,060,649
2020	18,954,501	24,915,542	53,523,311
2019	22,991,602	23,819,357	58,780,769
2018	16,167,035	20,064,976	62,467,785
2017	24,992,736	27,434,020	73,343,486
2016	29,612,819	28,782,892	79,311,111
2015	32,029,176	29,382,094	76,359,197
2014	35,266,582	26,160,399	79,350,225

Table III.3 North Carolina marine recreational fishing trip estimates by mode (numbers).

Year	Beach/Bank	Charter Boat	Manmade	Private/Rental Boat	Total
2023	5,334,761	355,612	5,938,745	4,166,632	15,795,750
2022	5,981,160	148,488	9,249,542	5,196,023	20,575,213
2021	5,397,877	158,800	7,905,354	4,482,582	17,944,614
2020	5,542,658	214,822	5,228,098	5,413,655	16,399,233
2019	6,711,048	160,692	6,022,357	4,645,743	17,539,840
2018	6,879,419	147,992	5,317,495	4,279,401	16,624,306
2017	9,756,701	149,438	7,501,407	5,044,731	22,452,276
2016	10,015,663	140,575	6,142,216	4,860,391	21,158,845
2015	8,742,675	114,043	6,473,202	4,992,920	20,322,840
2014	6,455,196	96,432	7,478,913	4,895,957	18,926,498

Table III.4 Coastal counties ranked by number of fishing trips in North Carolina for each year.

Year	County	Estimated Trips	PSE
2023	DARE	5,873,927	10
	CARTERET	4,707,159	7
	BRUNSWICK	1,146,499	13
	PENDER	1,087,628	17
	NEW HANOVER	1,071,037	13
2022	DARE	7,611,822	10
	CARTERET	6,164,562	7
	ONslow	2,576,100	17
	NEW HANOVER	1,377,374	18
	BRUNSWICK	890,821	12
2021	DARE	6,090,215	8
	CARTERET	4,824,475	8
	ONslow	1,614,677	13
	BRUNSWICK	1,370,609	12
	PENDER	1,288,971	15
2020	DARE	5,573,533	8
	CARTERET	4,554,771	9
	NEW HANOVER	1,507,697	11
	BRUNSWICK	1,101,258	11
	ONslow	1,069,869	11
2019	DARE	7,354,026	9
	CARTERET	5,295,986	7
	ONslow	1,203,816	16
	BRUNSWICK	1,154,589	15
	NEW HANOVER	1,057,175	13
2018	DARE	7,187,646	10
	CARTERET	3,864,159	8
	BRUNSWICK	1,256,637	15
	HYDE	1,198,122	36
	NEW HANOVER	1,076,808	13
2017	DARE	10,469,975	12
	CARTERET	5,719,582	6
	NEW HANOVER	1,538,761	12
	ONslow	1,192,732	18
	PENDER	1,078,504	33
2016	DARE	9,861,251	7
	CARTERET	5,069,328	8
	BRUNSWICK	1,621,461	13
	NEW HANOVER	1,401,464	16
	ONslow	961,766	18
2015	DARE	8,556,337	13
	CARTERET	5,041,544	9
	NEW HANOVER	1,751,151	12
	BRUNSWICK	1,657,700	13
	ONslow	1,070,111	17
2014	DARE	6,321,030	7
	CARTERET	4,742,811	7
	BRUNSWICK	1,932,597	17
	ONslow	1,886,791	10
	NEW HANOVER	1,724,734	13

Table III.5 Directed trips for major species in North Carolina by year.

Species/Group	2023		2022		2021		2020		2019	
	Trips	PSE	Trips	PSE	Trips	PSE	Trips	PSE	Trips	PSE
Amberjacks	41,474	22	15,337	32	17,839	22	33,020	28	18,384	32
Barracudas	12,614	27	7,318	21	18,794	25	25,784	25	25,651	38
Bass, Sea	848,390	9	1,225,466	16	684,862	11	643,220	9	604,696	10
Bass, Striped ¹	18,355	74	116,610	89	26,562	66	5,575	49	28,346	50
Bluefish	2,190,836	9	3,051,267	9	1,803,957	10	2,413,181	7	2,699,198	9
Bonito, Atlantic	70,182	31	42,155	40	46,390	24	38,808	31	25,061	37
Cobia	120,292	22	185,183	18	166,810	21	312,696	29	187,491	21
Croaker, Atlantic	1,146,067	9	2,096,344	9	2,167,915	9	1,232,119	13	1,213,097	8
Dolphin	170,724	18	82,203	17	138,823	14	143,188	12	173,192	13
Drum, Black	521,520	14	552,130	20	631,590	12	505,090	9	584,856	13
Drum, Red	2,337,167	10	3,549,392	8	3,120,360	7	3,282,914	9	2,687,752	10
Flounder, Southern	84,611	27	82,423	23	128,111	33	117,467	18	129,363	18
Flounder, Summer	22,170	55	12,480	34	11,816	45	22,075	32	26,646	24
Groupers	83,561	28	49,771	26	34,072	18	37,318	22	16,005	29
Grunts	110,160	30	53,059	26	53,711	26	25,820	22	28,016	35
Jacks	68,834	19	76,837	26	46,523	43	79,562	26	70,311	30
Kingfishes	1,471,614	9	2,362,388	9	2,416,602	11	2,081,293	11	2,208,273	10
Mackerel, King	404,696	13	504,070	15	460,692	12	509,011	13	384,858	13
Mackerel, Spanish	1,269,590	10	1,614,173	10	1,303,075	10	1,098,206	9	1,320,690	11
Perch, Silver	32,607	32	88,129	40	97,129	49	50,336	28	72,037	21
Pigfish	506,510	11	831,152	14	521,758	14	342,287	11	461,144	12
Pinfish	2,449,286	7	2,646,356	10	2,188,157	9	1,523,456	7	1,950,971	7
Pompano, Florida	312,499	27	538,958	21	654,386	18	518,913	27	688,384	18
Porgies	27,469	43	8,110	49	26,673	33	8,407	32	15,841	37
Puffers	1,270,025	10	1,333,232	11	747,407	10	730,700	15	1,280,586	13
Seatrout, Spotted	2,169,753	8	3,484,759	9	2,778,386	7	3,215,043	7	2,867,512	6
Sharks	606,293	13	659,432	21	595,844	10	540,966	12	511,818	13
Sharks, Dogfishes	202,301	26	25,225	43	48,143	62	75,565	13	172,527	44
Sheepshead	601,430	12	670,829	19	582,413	16	303,465	12	311,630	14
Snappers	76,465	31	38,951	26	53,389	26	30,509	20	23,465	31
Spot	1,002,083	11	1,185,012	11	1,118,836	11	833,461	11	1,062,156	10
Tuna, Bluefin	15,436	37	14,355	74	6,323	51	25,619	33	13,507	32
Tuna, Yellowfin	28,785	22	42,658	28	48,775	19	70,031	21	48,751	24
Tunny, Little	57,466	20	73,488	21	66,589	19	175,456	18	115,587	22
Wahoo	57,601	22	34,309	32	47,063	24	73,485	23	43,329	19
Weakfish	207,172	17	387,900	17	268,131	20	168,832	21	112,100	18

¹ Striped Bass landings reflect Atlantic Ocean catches only.

NOTE: Directed trips are defined as trips that either targeted or caught one of the listed species.

Table III.5 Directed trips for major species in North Carolina by year (continued).

Species/Group	2018		2017		2016		2015		2014	
	Trips	PSE	Trips	PSE	Trips	PSE	Trips	PSE	Trips	PSE
Amberjacks	19,875	35	24,525	36	53,459	22	90,736	37	21,881	26
Barracudas	21,974	32	16,482	36	10,188	35	15,801	40	6,637	42
Bass, Sea	495,216	11	1,039,820	9	953,779	13	815,686	9	840,380	9
Bass, Striped ¹	28,388	42	33,198	35	166,707	45	84,416	99	115,779	81
Bluefish	3,031,288	10	3,607,642	17	3,215,530	8	3,304,015	11	2,975,448	6
Bonito, Atlantic	18,257	30	30,551	60	15,679	34	20,128	52	28,278	33
Cobia	294,837	17	297,397	18	348,421	17	323,583	16	249,890	17
Croaker, Atlantic	1,093,754	9	1,529,511	9	1,538,692	9	2,164,315	7	2,060,194	8
Dolphin	245,040	13	197,705	15	282,195	14	313,234	14	172,691	20
Drum, Black	773,315	14	1,116,780	20	888,866	16	1,009,945	13	581,627	18
Drum, Red	3,478,377	14	4,177,390	17	3,591,001	12	3,338,696	14	2,812,586	9
Flounder, Southern	160,632	15	180,380	14	239,686	13	190,903	16	184,178	15
Flounder, Summer	63,083	25	93,785	28	64,793	27	99,133	22	134,547	18
Groupers	6,426	28	21,112	28	37,721	29	51,609	20	36,935	28
Grunts	20,808	41	33,249	30	47,667	44	36,088	30	16,909	37
Jacks	69,054	23	82,945	38	225,167	20	126,635	24	126,555	30
Kingfishes	1,660,806	12	2,295,765	9	2,769,147	11	2,634,029	12	2,596,146	9
Mackerel, King	417,690	15	387,664	13	289,037	15	376,312	12	420,680	13
Mackerel, Spanish	1,072,569	10	1,040,206	14	996,722	10	923,412	9	1,117,060	9
Perch, Silver	33,798	32	148,394	23	196,467	35	58,405	29	96,719	25
Pigfish	492,024	11	689,082	16	854,721	10	994,797	10	966,077	10
Pinfish	1,986,620	7	2,728,141	7	2,770,699	7	2,857,190	8	3,211,496	7
Pompano, Florida	631,684	15	727,233	17	664,506	17	771,005	19	619,091	15
Porgies	5,529	42	40,179	40	37,693	55	35,051	37	12,902	40
Puffers	490,330	28	946,254	14	1,458,494	14	1,732,754	14	448,769	19
Seatrout, Spotted	1,606,853	11	2,587,553	7	2,397,634	8	1,524,968	11	2,216,556	8
Sharks	667,070	15	894,405	11	690,280	11	799,999	11	989,493	9
Sharks, Dogfishes	64,213	28	65,906	46	143,952	32	284,234	47	204,476	28
Sheepshead	350,785	14	526,915	19	260,311	17	324,644	15	280,575	19
Snappers	6,501	36	39,251	39	29,989	58	21,513	45	15,585	43
Spot	948,789	10	1,187,369	13	981,491	11	1,694,669	11	2,269,868	8
Tuna, Bluefin	16,583	81	29,276	34	49,167	16	11,728	61	19,834	44
Tuna, Yellowfin	54,138	27	89,525	17	120,076	20	40,563	25	42,991	24
Tunny, Little	95,959	22	131,006	17	120,801	15	92,064	31	87,970	38
Wahoo	47,741	20	74,666	19	83,613	23	99,224	24	70,998	26
Weakfish	97,928	24	143,710	16	281,719	15	416,219	20	235,197	15

¹ Striped Bass landings reflect Atlantic Ocean catches only.

NOTE: Directed trips are defined as trips that either targeted or caught one of the listed species.

Table III.6 Amberjack, Greater recreational catch in North Carolina by year.

Year	Harvest Pounds	PSE (lb)	Harvest Number	PSE (num)	Release Number	PSE (release)	Mean Length (inches)	Mean Weight (lb)
2023	405,535	45	22,085	44	30,009	41	32.64	18.36
2022	79,265	26	5,387	30	7,694	64	29.78	14.72
2021	159,419	30	8,946	29	3,301	35	32.50	17.82
2020	212,826	35	10,714	35	12,326	43	34.03	19.86
2019	81,769	41	4,236	39	4,980	50	32.89	19.30
2018	227,441	40	11,742	43	2,243	56	34.23	19.37
2017	157,091	28	6,653	27	6,229	32	35.09	23.61
2016	305,372	33	18,608	33	31,318	42	32.01	16.41
2015	360,417	25	16,436	23	10,128	84	34.28	21.93
2014	94,629	33	5,004	36	1,935	56	33.31	18.91

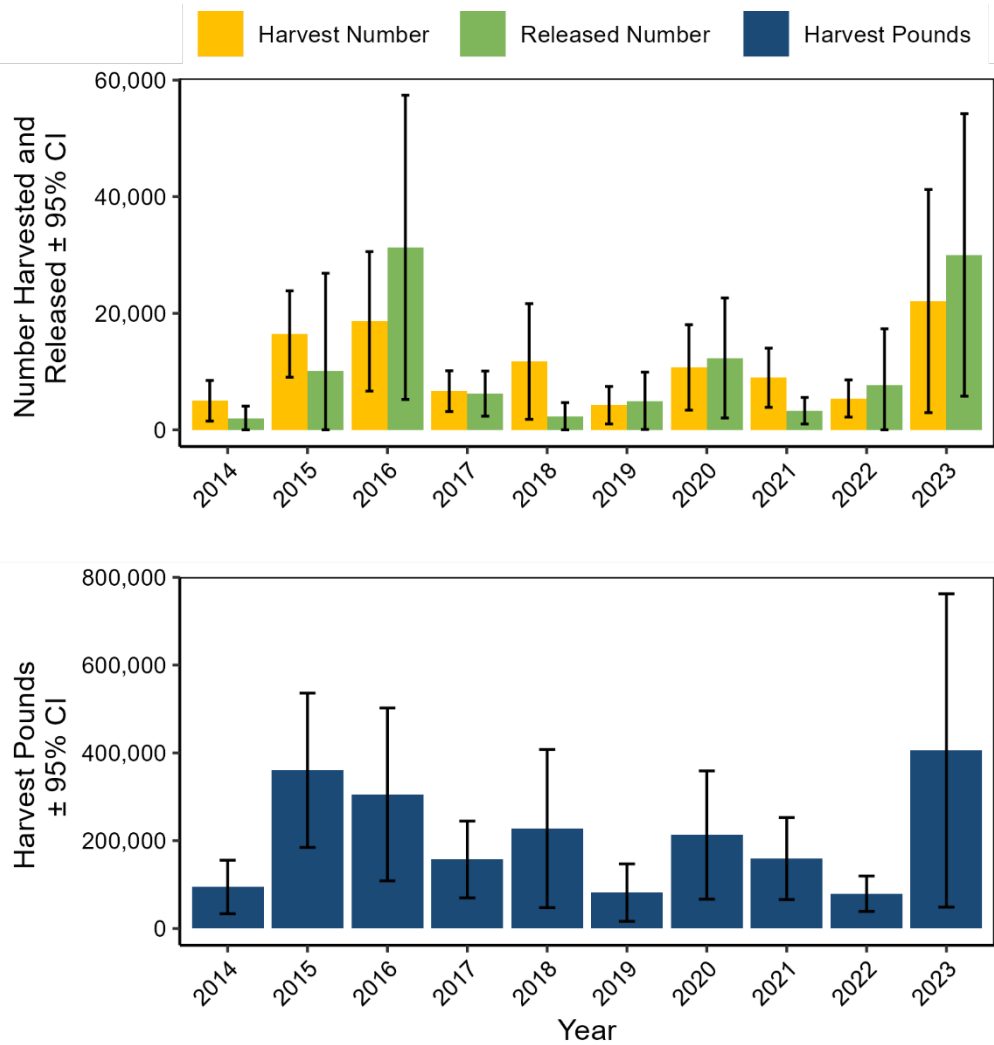


Figure III.1 Amberjack, Greater recreational catch in North Carolina by year.

Table III.7 Amberjack, Greater recreational catch by state, 2023.

State	Harvest Pounds	PSE (lb)	Harvest Number	PSE (num)	Release Number	PSE (release)	Mean Length (inches)	Mean Weight (lb)
East Florida	577,306	30	36,218	29	5,898	89	30.13	15.94
Georgia	269	108	16	108	6	106	30.94	16.98
North Carolina	405,535	45	22,085	44	30,009	41	32.64	18.36
South Carolina	42,114	61	2,784	60	19,282	82	30.97	15.13
Virginia	6,660	97	472	97	41	96	29.56	14.11

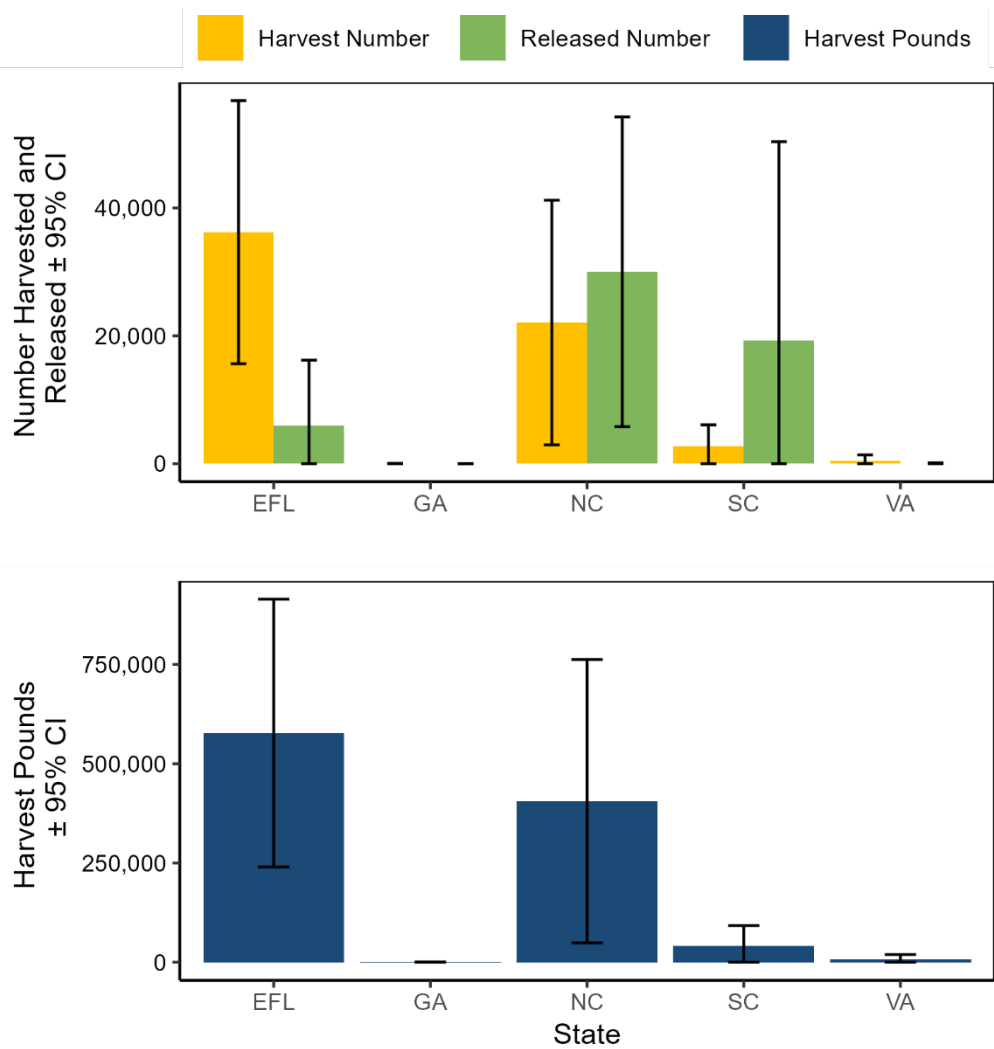


Figure III.2 Amberjack, Greater recreational catch by state, 2023.

Table III.8 Barracuda, Great recreational catch in North Carolina by year.

Year	Harvest Pounds	PSE (lb)	Harvest Number	PSE (num)	Release Number	PSE (release)	Mean Length (inches)	Mean Weight (lb)
2023	25,677	26	2,428	25	8,680	44	34.13	10.58
2022	29,368	34	1,939	30	3,177	40	38.75	15.15
2021	33,469	25	2,936	24	21,844	48	35.84	11.40
2020	72,196	34	7,694	34	15,723	39	33.87	9.38
2019	15,529	31	1,661	29	30,700	43	32.93	9.35
2018	52,304	35	5,848	37	19,937	55	33.03	8.94
2017	76,501	80	2,771	58	15,683	40	46.95	27.61
2016	27,950	54	2,420	55	5,599	42	35.72	11.55
2015	22,806	40	3,844	46	9,561	42	27.51	5.93
2014	36,960	84	2,564	80	2,358	58	41.31	14.41

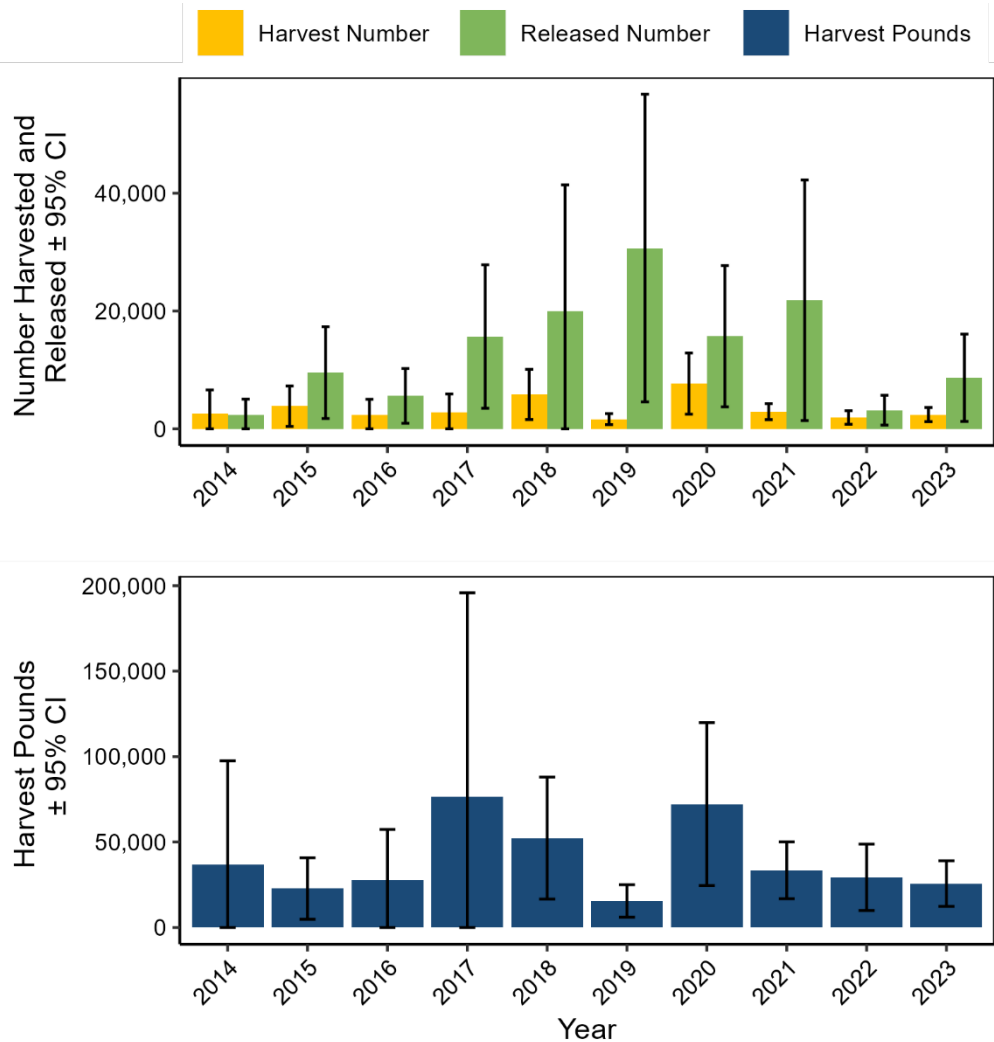


Figure III.3 Barracuda, Great recreational catch in North Carolina by year.

Table III.9 Barracuda, Great recreational catch by state, 2023.

State	Harvest Pounds	PSE (lb)	Harvest Number	PSE (num)	Release Number	PSE (release)	Mean Length (inches)	Mean Weight (lb)
East Florida	1,230,394	16	279,903	22	461,961	16	23.87	4.40
Georgia	88,962	79	7,497	78	3,860	92	36.54	11.87
North Carolina	25,677	26	2,428	25	8,680	44	34.13	10.58
South Carolina	167,137	102	11,685	101	21,655	55	40.05	14.30
Virginia	0	-	0	-	86	84	-	-

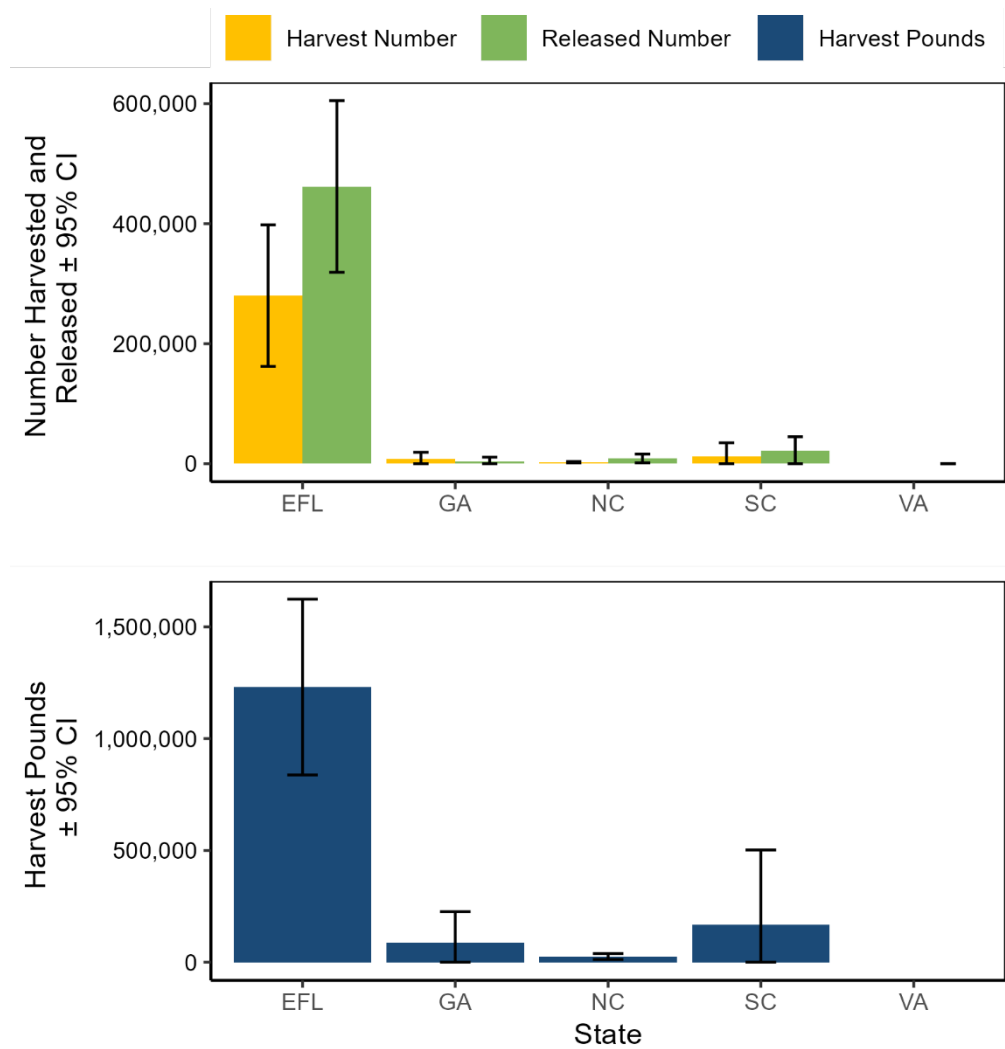


Figure III.4 Barracuda, Great recreational catch by state, 2023.

Table III.10 Bass, Black Sea recreational catch in North Carolina by year.

Year	Harvest Pounds	PSE (lb)	Harvest Number	PSE (num)	Release Number	PSE (release)	Mean Length (inches)	Mean Weight (lb)
2023	458,951	27	270,479	27	3,764,788	13	14.64	1.70
2022	253,302	39	151,867	33	4,675,553	17	14.64	1.67
2021	79,195	31	50,612	30	2,172,902	11	14.57	1.56
2020	195,098	27	133,096	27	2,438,922	11	13.92	1.47
2019	220,377	52	151,999	50	2,802,990	18	14.28	1.45
2018	116,825	32	86,153	33	2,223,800	17	13.57	1.36
2017	539,910	31	316,925	29	6,190,501	14	14.74	1.70
2016	302,925	32	194,512	31	5,536,050	14	14.46	1.56
2015	455,100	32	319,653	33	5,036,500	19	14.02	1.42
2014	563,662	32	332,594	32	5,022,908	16	14.72	1.69

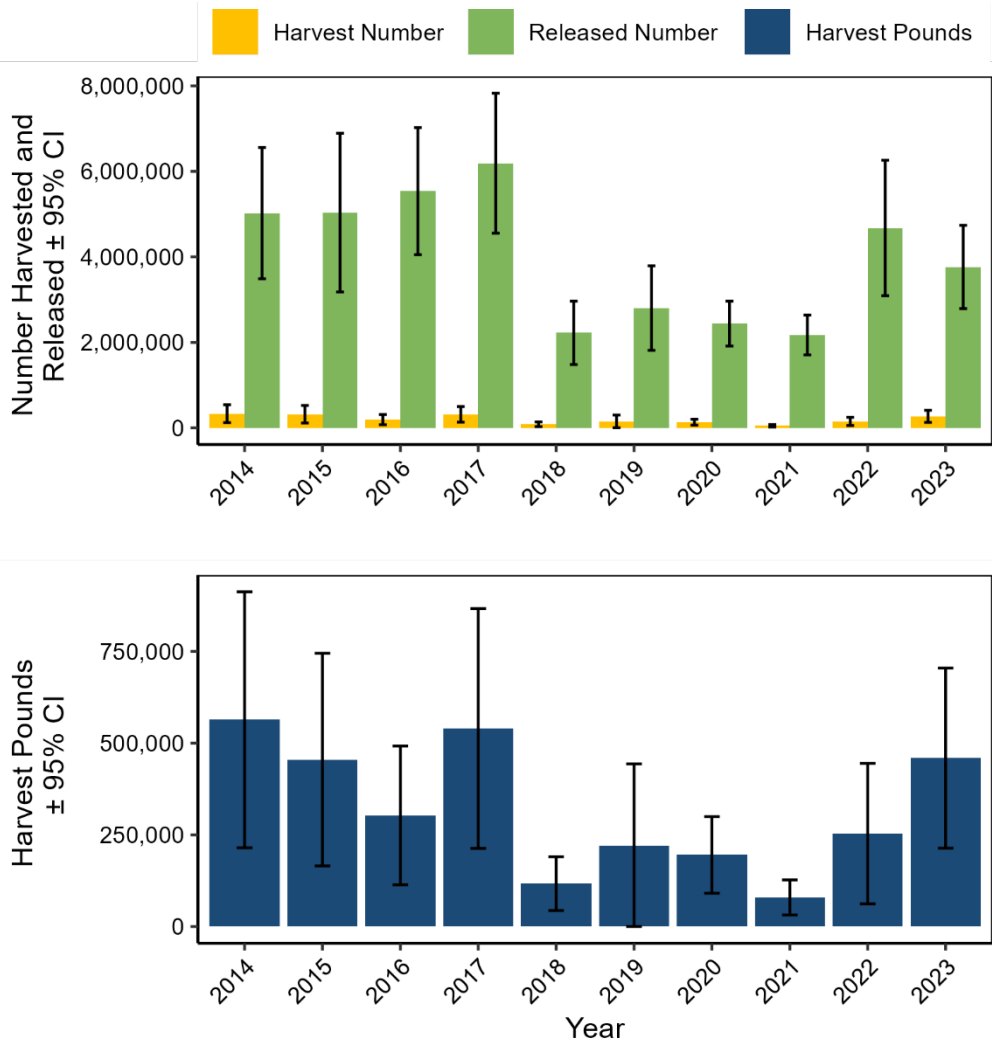


Figure III.5 Bass, Black Sea recreational catch in North Carolina by year.

Table III.11 Bass, Black Sea recreational catch by state, 2023.

State	Harvest Pounds	PSE (lb)	Harvest Number	PSE (num)	Release Number	PSE (release)	Mean Length (inches)	Mean Weight (lb)
Connecticut	529,986	17	252,255	18	2,613,880	16	17.26	2.1
Delaware	365,792	29	304,147	30	1,201,893	29	14.04	1.2
East Florida	104,601	43	84,099	39	963,083	24	13.35	1.24
Georgia	47,564	53	37,127	49	269,861	25	13.42	1.28
Maine	2,902	94	1,547	94	548	61	16.81	1.88
Maryland	293,693	34	213,270	32	884,362	18	14.12	1.38
Massachusetts	921,629	23	404,197	21	2,546,905	19	17.07	2.28
New Hampshire	0	-	0	-	23,662	100	-	-
New Jersey	2,074,924	17	1,659,627	16	10,927,885	12	14	1.25
New York	1,597,046	19	817,666	19	10,797,509	19	16.61	1.95
North Carolina	458,951	27	270,479	27	3,764,788	13	14.64	1.7
Rhode Island	566,092	15	270,468	14	3,447,730	16	17.12	2.09
South Carolina	35,512	61	36,890	64	1,570,407	18	12.35	0.96
Virginia	1,004,356	47	547,783	44	2,792,809	20	16.01	1.83

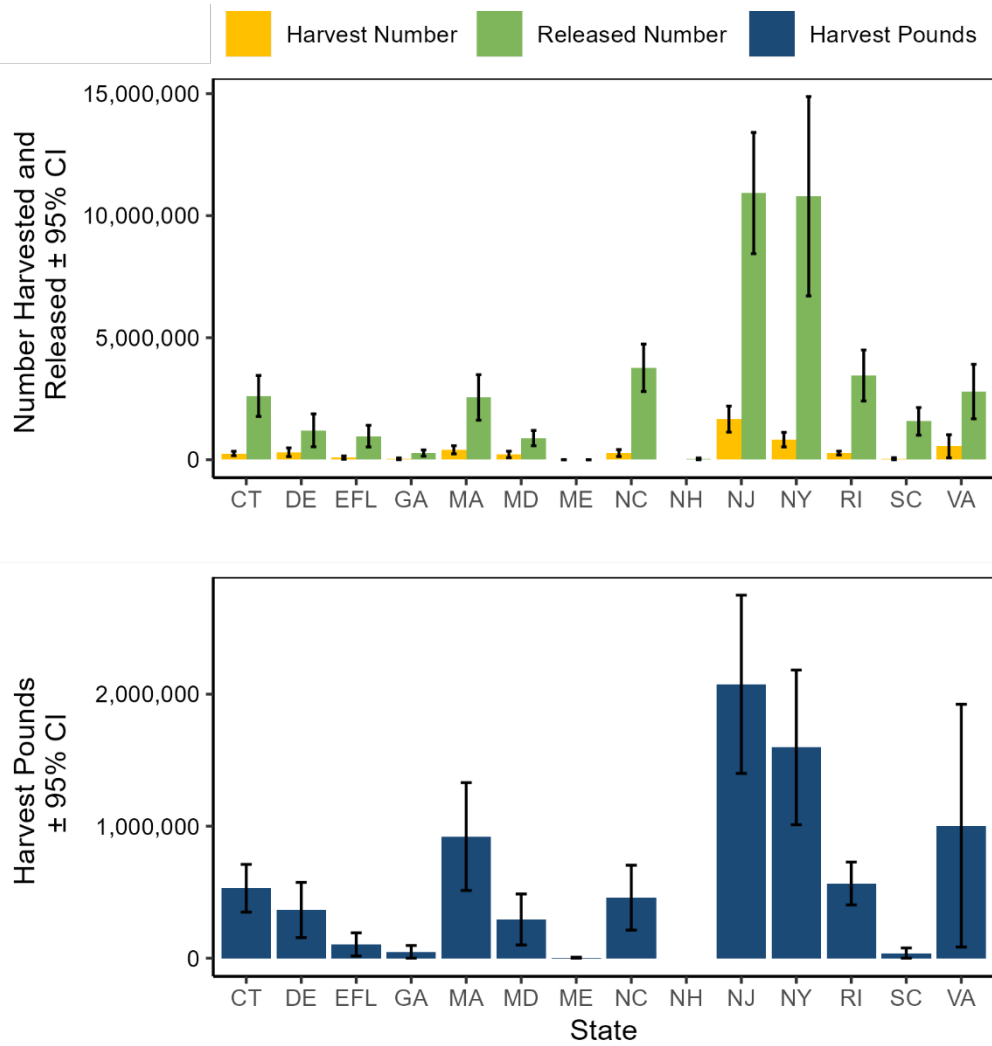


Figure III.6 Bass, Black Sea recreational catch by state, 2023.

Table III.12 Bass, Striped¹ recreational catch in North Carolina by year.

Year	Harvest Pounds	PSE (lb)	Harvest Number	PSE (num)	Release Number	PSE (release)	Mean Length (inches)	Mean Weight (lb)
2023	0	-	0	-	25,403	98	-	-
2022	0	-	0	-	34,518	100	-	-
2021	0	-	0	-	27,665	66	-	-
2020	0	-	0	-	3,520	23	-	-
2019	0	-	0	-	4,521	47	-	-
2018	366	100	25	100	15,850	50	33.98	14.44
2017	0	-	0	-	48,410	41	-	-
2016	15,962	100	4,177	100	84,545	33	20.09	3.82
2015	-	-	-	-	-	-	-	-
2014	0	-	0	-	2,122	100	-	-

¹ Includes Striped Bass harvested from the Atlantic Ocean during Waves 1 and 6 only.

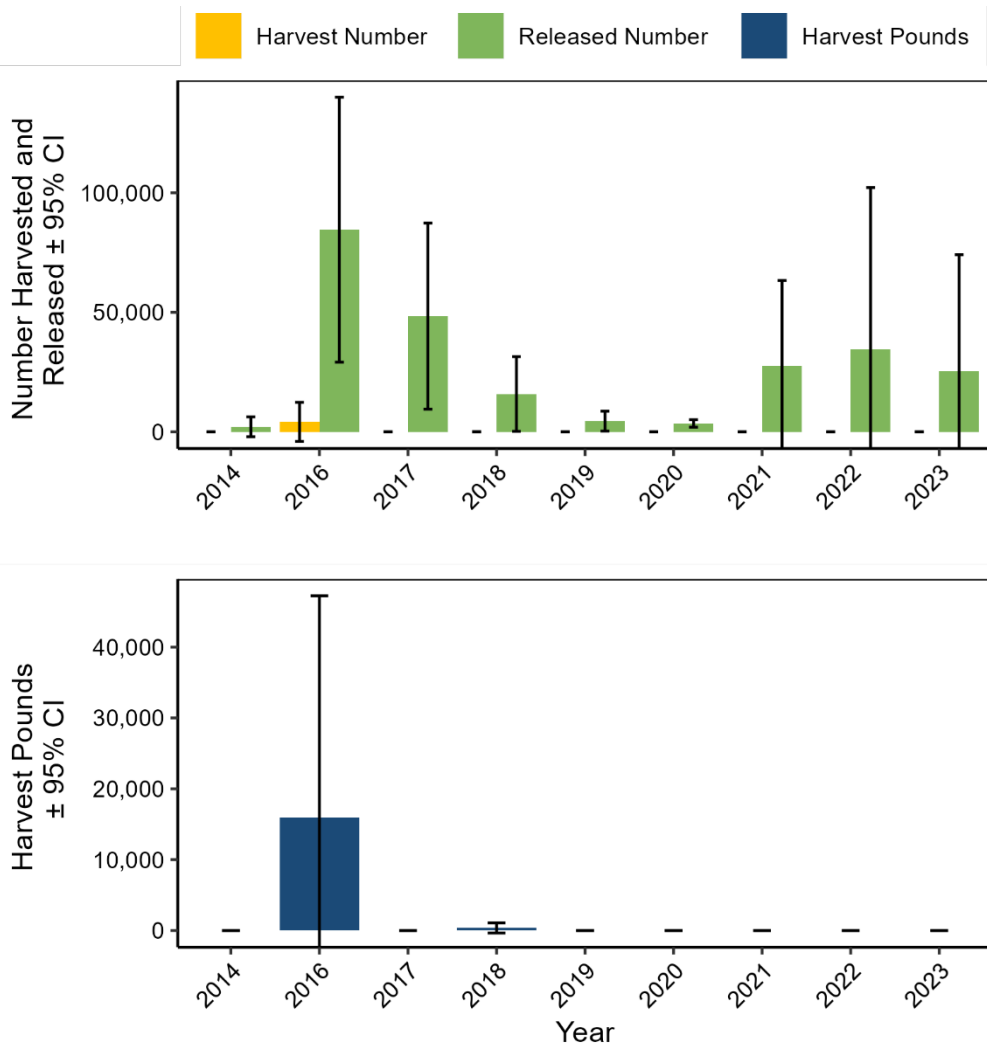


Figure III.7 Bass, Striped recreational catch in North Carolina from the Atlantic Ocean by year.

Table III.13 Bass, Striped¹ recreational catch by state, 2023.

State	Harvest Pounds	PSE (lb)	Harvest Number	PSE (num)	Release Number	PSE (release)	Mean Length (inches)	Mean Weight (lb)
Connecticut	8,309	51	910	47	109,685	19	28.21	9.13
Delaware	0	-	0	-	35,248	46	-	-
Maine	149,690	31	18,155	31	524,894	25	27.4	8.25
Maryland	28,213	106	2,509	106	27,873	20	29.55	11.24
Massachusetts	1,395,156	22	147,176	22	1,158,527	23	28.42	9.48
New Hampshire	112,920	50	11,993	50	231,512	30	28.05	9.42
New Jersey	3,710,836	25	372,844	25	5,000,345	34	28.32	9.95
New York	2,374,425	47	224,714	48	1,726,835	34	29.46	10.57
North Carolina	0	-	0	-	25,403	68	-	-
Rhode Island	149,194	45	13,324	39	454,463	24	29.44	11.2

¹Includes Striped Bass harvested from the Atlantic Ocean during Waves 1 and 6 only.

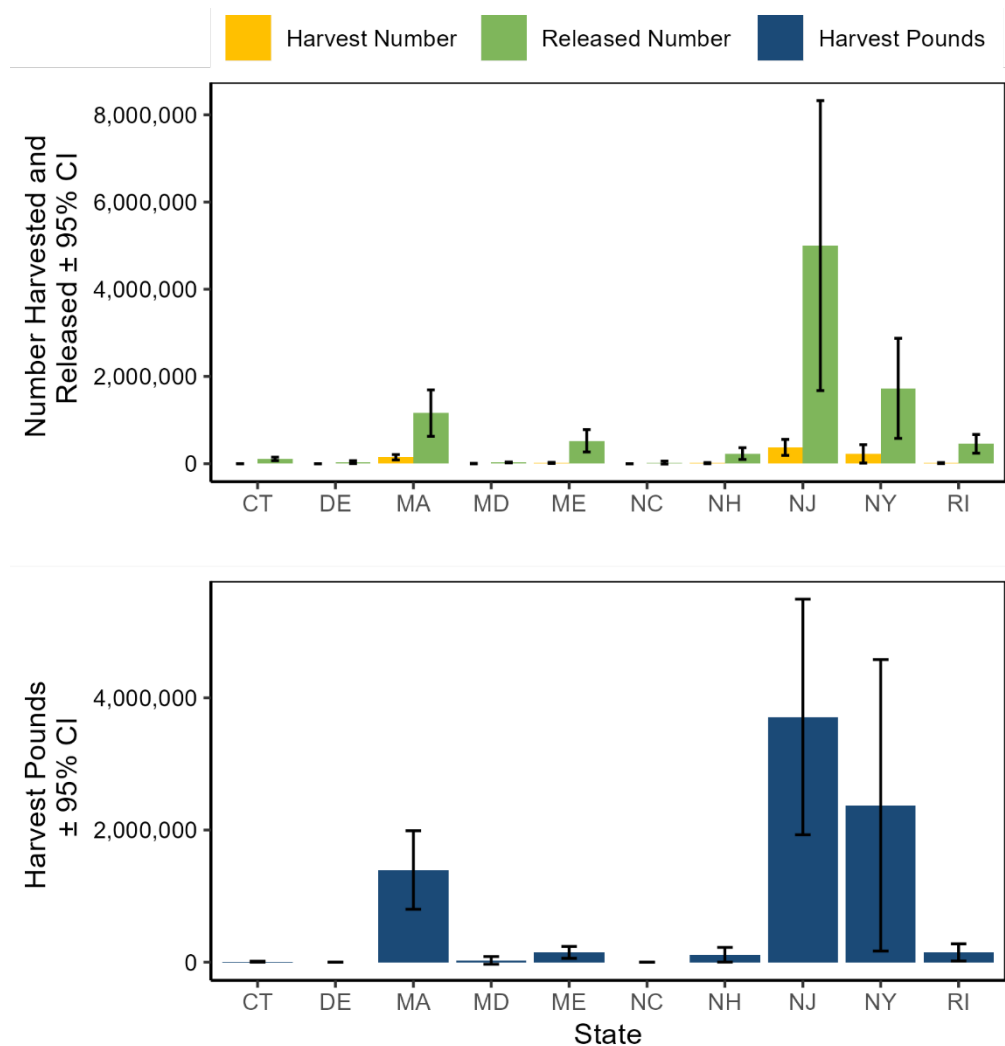


Figure III.8 Bass, Striped recreational catch from the Atlantic Ocean by state, 2023.

Table III.14 Bluefish recreational catch in North Carolina by year.

Year	Harvest Pounds	PSE (lb)	Harvest Number	PSE (num)	Release Number	PSE (release)	Mean Length (inches)	Mean Weight (lb)
2023	1,492,689	13	1,261,404	12	4,775,374	12	13.04	1.18
2022	1,645,410	17	1,533,911	15	9,336,045	23	11.77	1.07
2021	1,031,760	14	982,389	14	3,539,333	22	12.53	1.05
2020	2,124,224	22	2,108,296	21	6,557,751	20	12.49	1.01
2019	3,011,480	22	2,752,589	23	7,162,431	22	12.95	1.09
2018	2,630,685	12	3,304,587	13	7,912,210	16	11.34	0.80
2017	3,634,502	28	3,173,218	18	8,255,510	30	12.31	1.15
2016	3,356,049	17	4,489,223	17	6,802,960	19	11.27	0.75
2015	3,754,577	14	4,123,461	14	6,356,252	15	12.00	0.91
2014	3,764,005	14	4,418,858	13	5,862,762	13	12.03	0.85

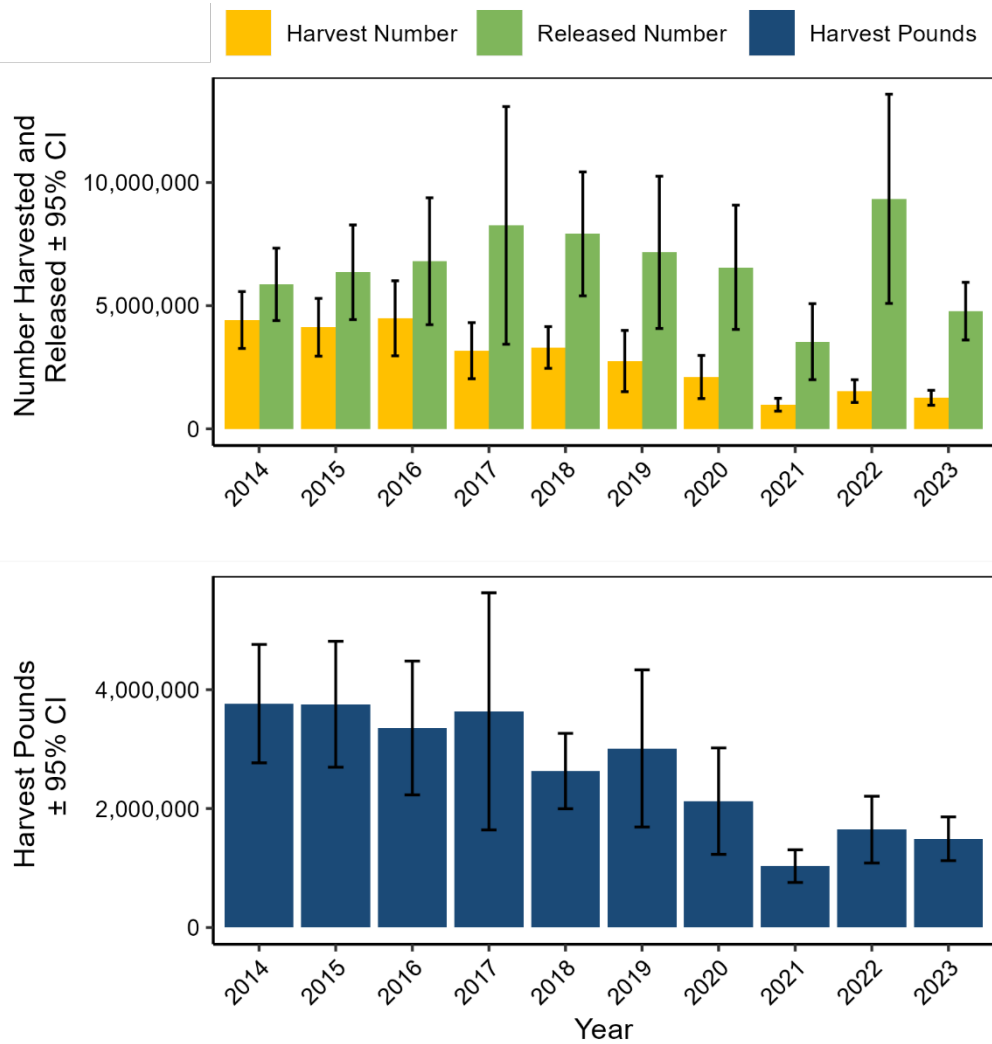


Figure III.9 Bluefish recreational catch in North Carolina by year.

Table III.15 Bluefish recreational catch by state, 2023.

State	Harvest Pounds	PSE (lb)	Harvest Number	PSE (num)	Release Number	PSE (release)	Mean Length (inches)	Mean Weight (lb)
Connecticut	878,736	21	169,992	28	747,449	24	19.43	5.17
Delaware	125,318	42	40,123	38	503,723	26	18.26	3.12
East Florida	1,268,330	33	753,806	31	2,799,237	52	15.06	1.68
Georgia	40,873	42	47,510	42	226,062	25	11.89	0.86
Maine	14,816	65	1,722	69	220,251	35	27.73	8.61
Maryland	373,220	30	210,655	41	462,370	33	13.26	1.77
Massachusetts	1,409,298	22	177,623	24	924,332	29	25.10	7.93
New Hampshire	13,757	68	1,629	59	12,529	40	26.15	8.44
New Jersey	939,417	25	539,405	24	1,962,251	21	13.62	1.74
New York	3,133,569	24	666,846	22	1,808,436	17	20.49	4.70
North Carolina	1,492,689	13	1,261,404	12	4,775,374	12	13.04	1.18
Rhode Island	865,389	30	141,138	32	452,778	33	23.44	6.13
South Carolina	220,193	18	316,982	19	2,003,091	34	11.00	0.69
Virginia	250,620	37	224,759	33	558,213	27	12.29	1.12

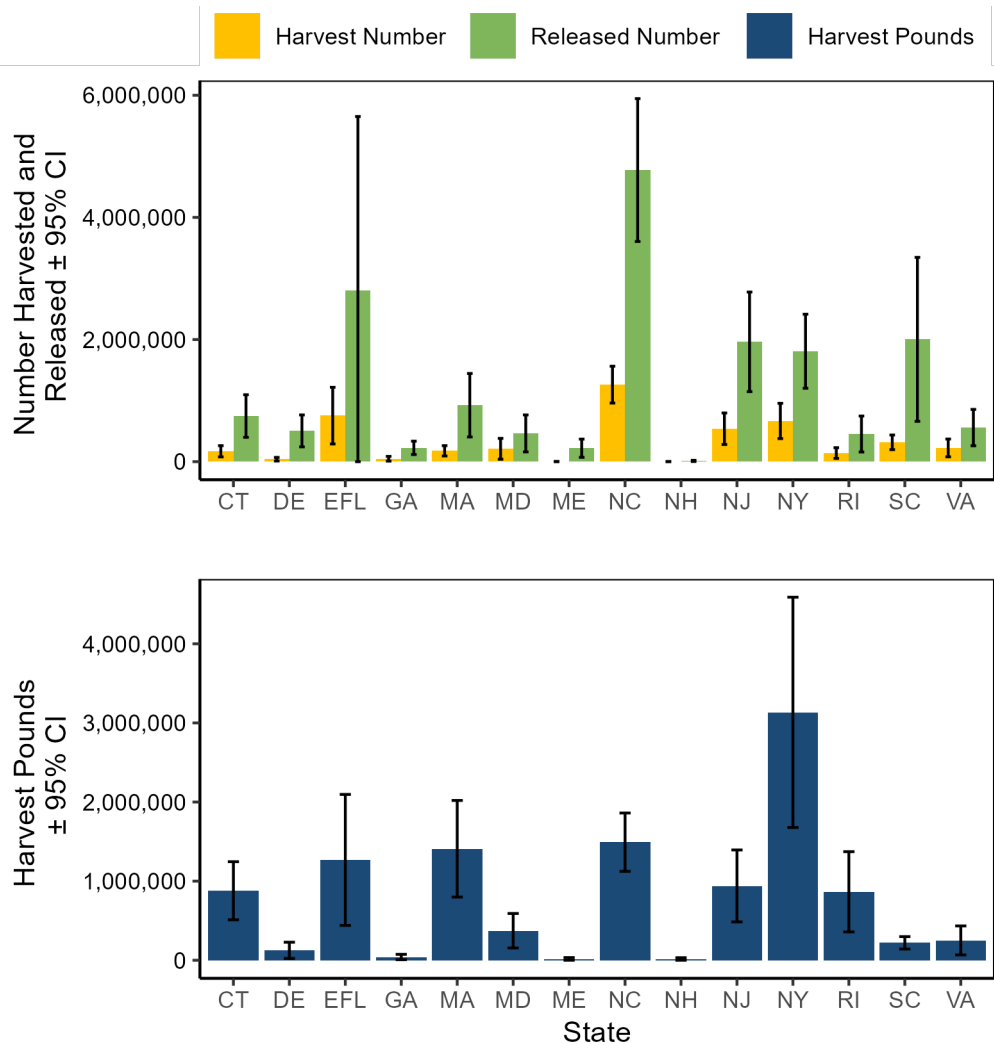


Figure III.10 Bluefish recreational catch by state, 2023.

Table III.16 Bonito, Atlantic recreational catch in North Carolina by year.

Year	Harvest Pounds	PSE (lb)	Harvest Number	PSE (num)	Release Number	PSE (release)	Mean Length (inches)	Mean Weight (lb)
2023	268,260	37	72,973	40	31,929	70	17.75	3.68
2022	70,411	46	12,301	45	11,762	71	20.89	5.72
2021	104,789	29	20,177	27	7,793	44	20.65	5.19
2020	179,803	48	52,337	51	23,817	55	17.83	3.44
2019	122,931	49	35,874	67	24,033	66	17.06	3.43
2018	42,879	50	12,576	42	11,745	66	18.07	3.41
2017	9,578	53	1,999	46	40,094	76	18.80	4.79
2016	22,127	60	3,411	65	10,196	45	21.49	6.49
2015	102,408	43	16,973	45	1,325	61	21.57	6.03
2014	91,228	54	18,380	49	59,925	63	20.07	4.96

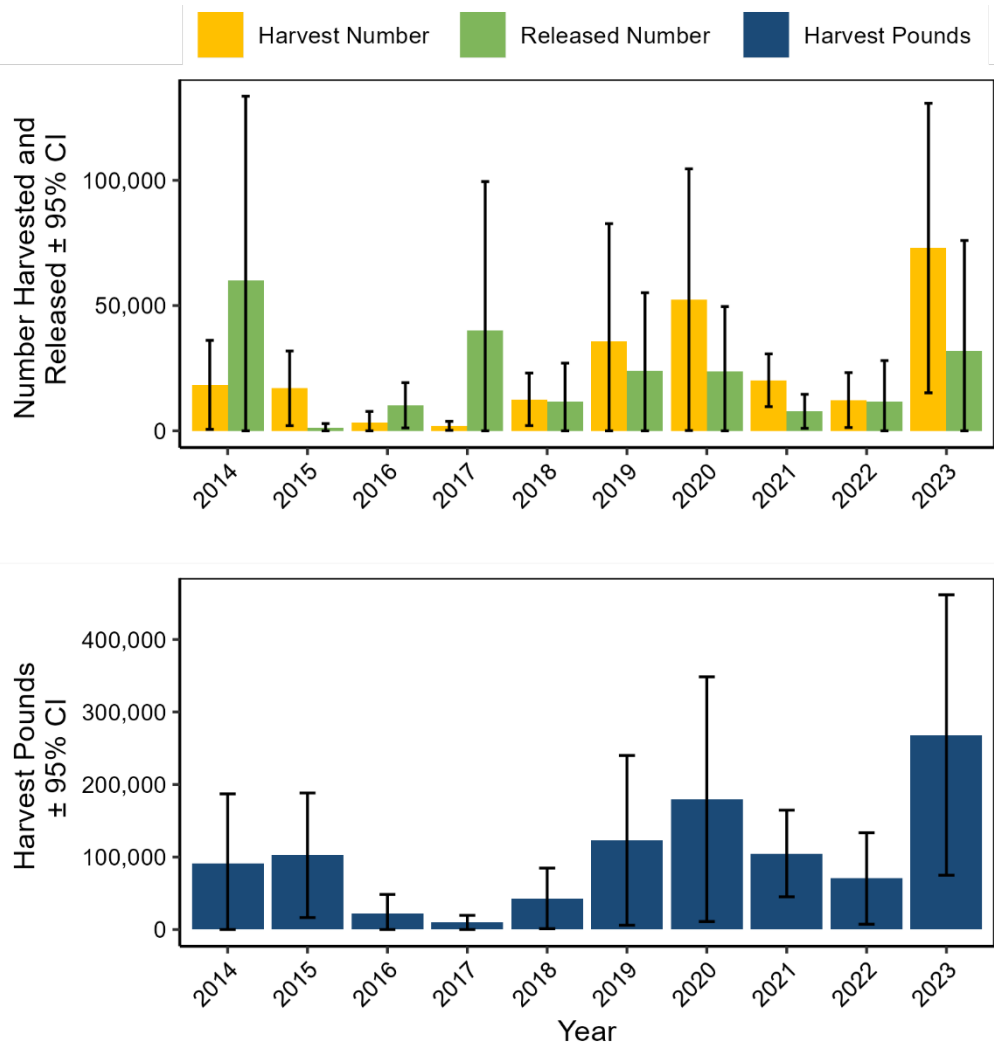


Figure III.11 Bonito, Atlantic recreational catch in North Carolina by year.

Table III.17 Bonito, Atlantic recreational catch by state, 2023.

State	Harvest Pounds	PSE (lb)	Harvest Number	PSE (num)	Release Number	PSE (release)	Mean Length (inches)	Mean Weight (lb)
Connecticut	2,537	87	1,275	87	6,343	76	14.88	1.99
Delaware	1,319	86	571	86	88	86	15.82	2.31
Georgia	6,440	92	1,273	69	2,273	103	20.06	5.06
Maryland	10,018	70	4,576	59	0	-	15.28	2.19
Massachusetts	32,188	53	12,169	52	10,913	60	15.63	2.65
New Hampshire	0	-	0	-	2,972	95	-	-
New Jersey	48,539	54	27,179	46	25,322	51	14.46	1.79
New York	74,764	45	25,921	39	7,618	94	16.47	2.88
North Carolina	268,260	37	72,973	40	31,929	70	17.75	3.68
Rhode Island	44,504	34	23,891	33	27,654	62	14.43	1.86
South Carolina	1,491	90	751	90	0	-	15.63	1.98
Virginia	5,805	110	2,803	110	0	-	15.75	2.07

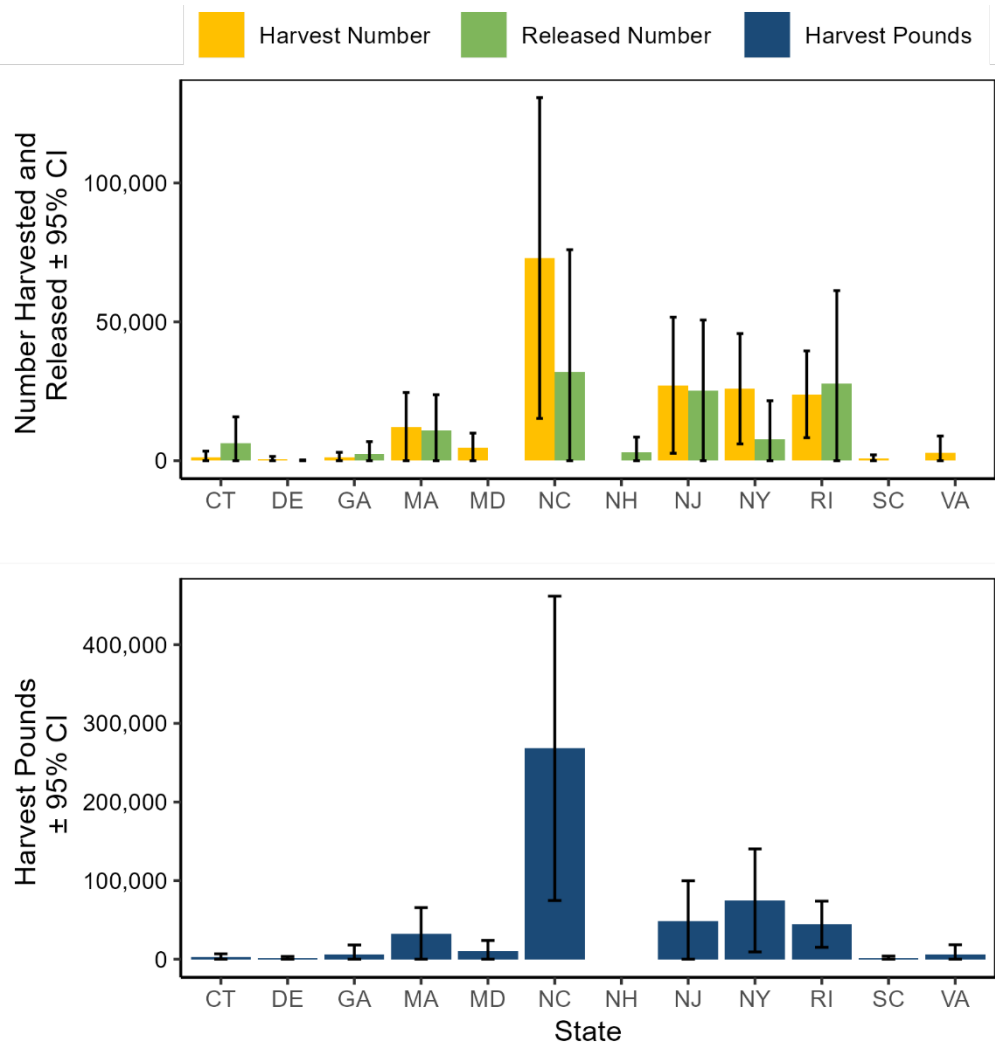


Figure III.12 Bonito, Atlantic recreational catch by state, 2023.

Table III.18 Cobia recreational catch in North Carolina by year.

Year	Harvest Pounds	PSE (lb)	Harvest Number	PSE (num)	Release Number	PSE (release)	Mean Length (inches)	Mean Weight (lb)
2023	12,523	51	629	53	32,590	40	35.90	19.92
2022	306,411	45	12,330	47	46,777	27	41.76	24.85
2021	356,340	48	10,970	39	40,136	33	42.76	32.48
2020	407,883	34	15,067	38	51,158	24	40.85	27.07
2019	254,963	37	10,090	39	38,285	23	40.26	25.27
2018	685,962	29	25,331	33	68,219	23	40.66	27.08
2017	872,861	45	25,025	46	125,251	44	43.45	34.88
2016	838,363	45	26,421	45	39,237	27	42.69	31.73
2015	1,925,762	30	47,110	28	44,254	31	44.15	40.88
2014	645,427	36	24,601	36	32,184	29	39.27	26.24

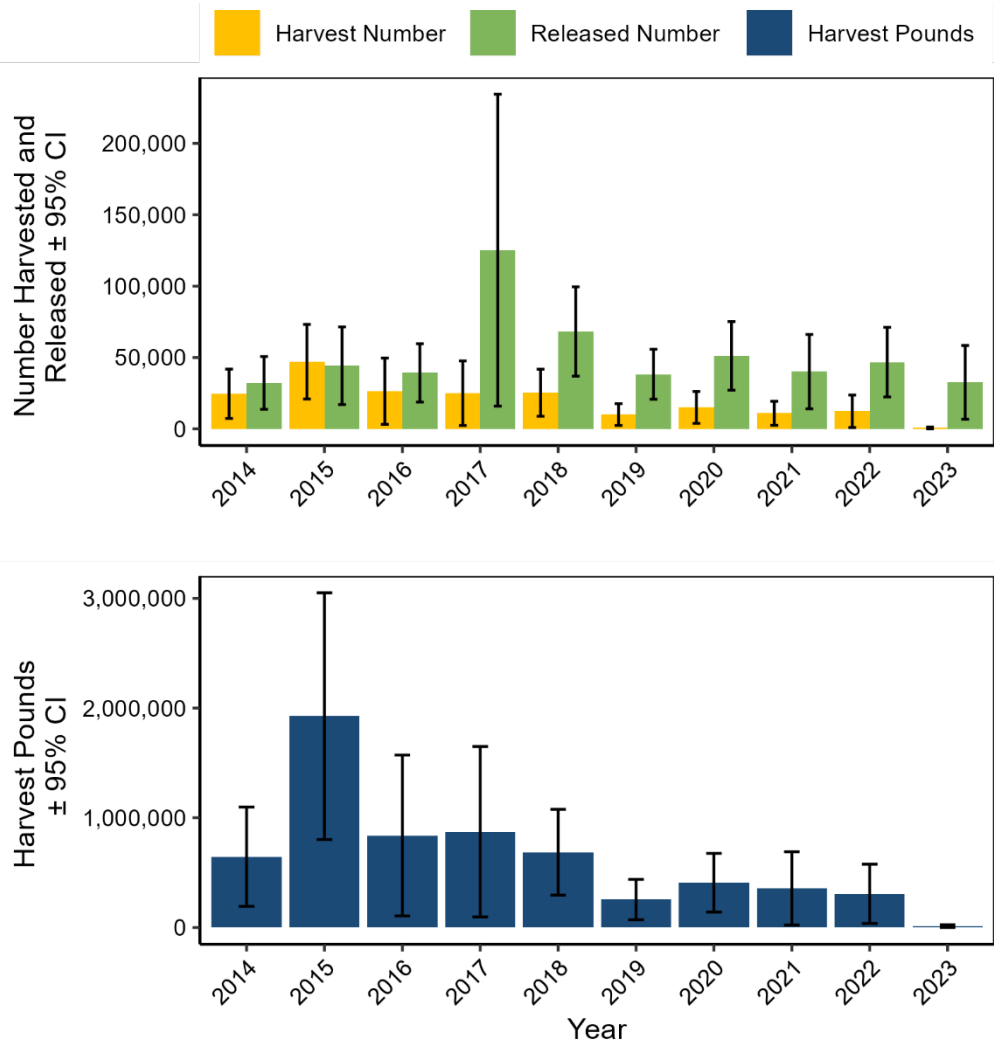


Figure III.13 Cobia recreational catch in North Carolina by year.

Table III.19 Cobia recreational catch by state, 2023.

State	Harvest Pounds	PSE (lb)	Harvest Number	PSE (num)	Release Number	PSE (release)	Mean Length (inches)	Mean Weight (lb)
East Florida	549,835	39	26,030	40	157,328	29	37.35	21.12
Georgia	212,679	56	11,368	56	28,894	46	35.82	18.71
Massachusetts	0	-	0	-	1,554	100	-	-
New Jersey	0	-	0	-	3,582	88	-	-
North Carolina	12,523	51	629	53	32,590	40	35.9	19.92
Rhode Island	0	-	361	72	450	100	-	-
South Carolina	87,486	65	4,129	62	39,864	41	36.99	21.19
Virginia	2,467,557	38	81,824	34	141,956	38	41.25	30.16

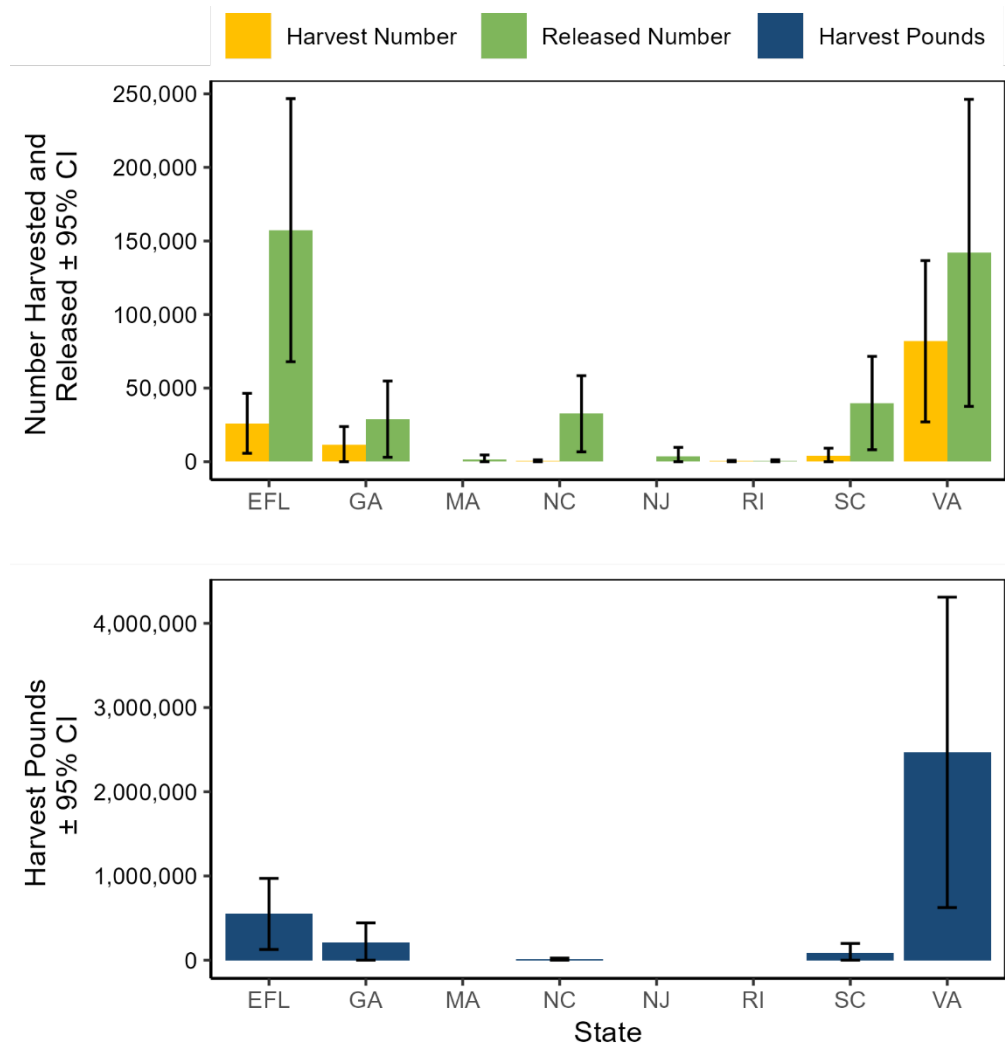


Figure III.14 Cobia recreational catch by state, 2023.

Table III.20 Croaker, Atlantic recreational catch in North Carolina by year.

Year	Harvest Pounds	PSE (lb)	Harvest Number	PSE (num)	Release Number	PSE (release)	Mean Length (inches)	Mean Weight (lb)
2023	201,056	20	597,690	24	4,722,440	16	9.10	0.34
2022	481,721	28	1,110,382	28	7,914,042	18	9.30	0.43
2021	376,121	14	1,066,533	14	9,539,047	12	8.85	0.35
2020	223,685	21	673,377	22	5,560,605	14	8.92	0.33
2019	224,337	23	651,268	21	3,634,211	12	9.02	0.34
2018	164,644	16	472,917	16	4,311,368	13	8.89	0.35
2017	237,160	17	666,930	17	4,631,445	13	9.03	0.36
2016	443,728	17	1,109,570	16	7,254,382	15	9.26	0.40
2015	557,735	16	1,437,019	15	9,632,560	11	9.22	0.39
2014	758,751	17	1,935,961	22	10,347,332	14	9.11	0.39

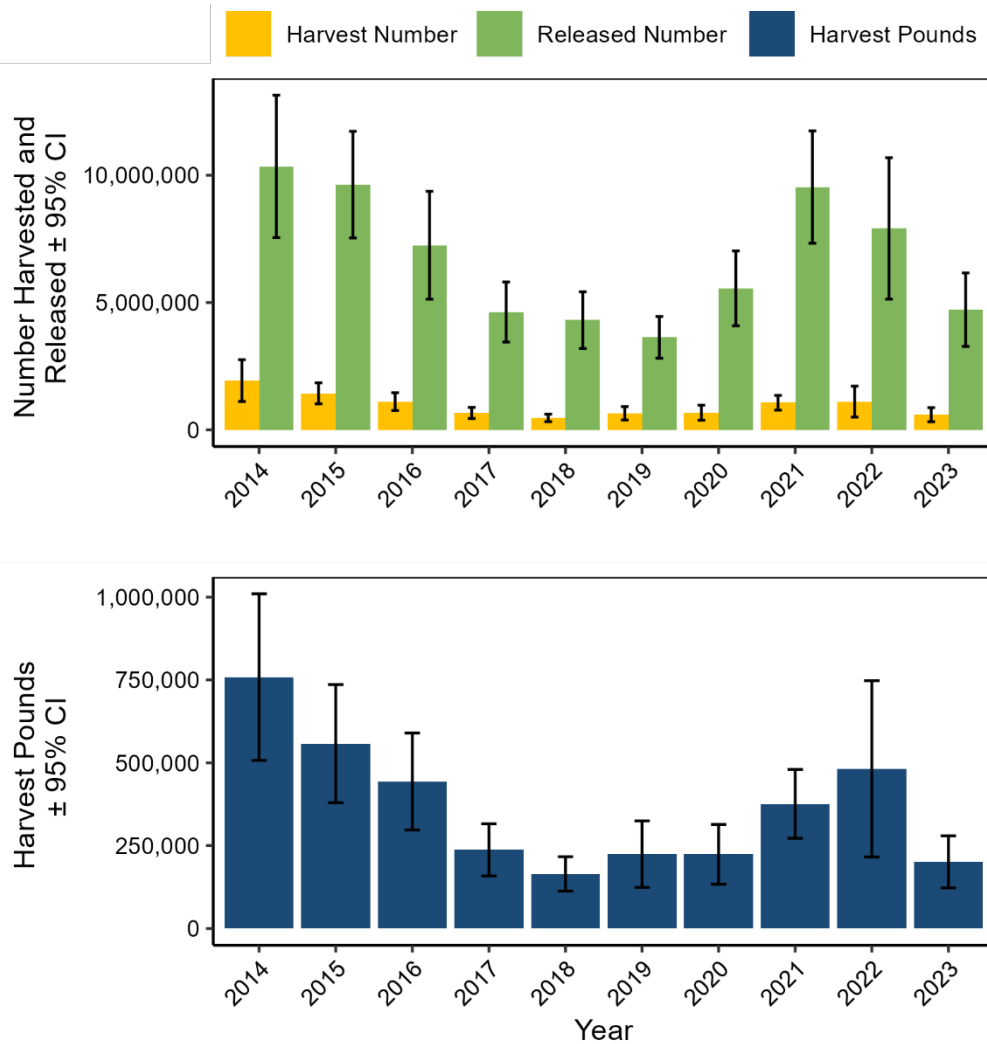


Figure III.15 Croaker, Atlantic recreational catch in North Carolina by year.

Table III.21 Croaker, Atlantic recreational catch by state, 2023.

State	Harvest Pounds	PSE (lb)	Harvest Number	PSE (num)	Release Number	PSE (release)	Mean Length (inches)	Mean Weight (lb)
Delaware	42,567	39	86,227	35	588,623	20	9.57	0.49
East Florida	584,977	44	890,684	37	1,166,700	24	11.25	0.66
Georgia	116,558	32	535,875	33	1,643,243	16	7.39	0.22
Maryland	40,788	58	151,628	56	2,939,081	15	7.75	0.27
Massachusetts	0	-	0	-	531	103	-	-
New Jersey	31,709	52	104,481	56	1,380,298	32	8.25	0.3
New York	0	-	0	-	1,076	101	-	-
North Carolina	201,056	20	597,690	24	4,722,440	16	9.1	0.34
South Carolina	313,242	22	779,691	23	13,901,122	20	9.32	0.4
Virginia	499,010	21	2,364,942	23	8,537,665	22	7.85	0.21

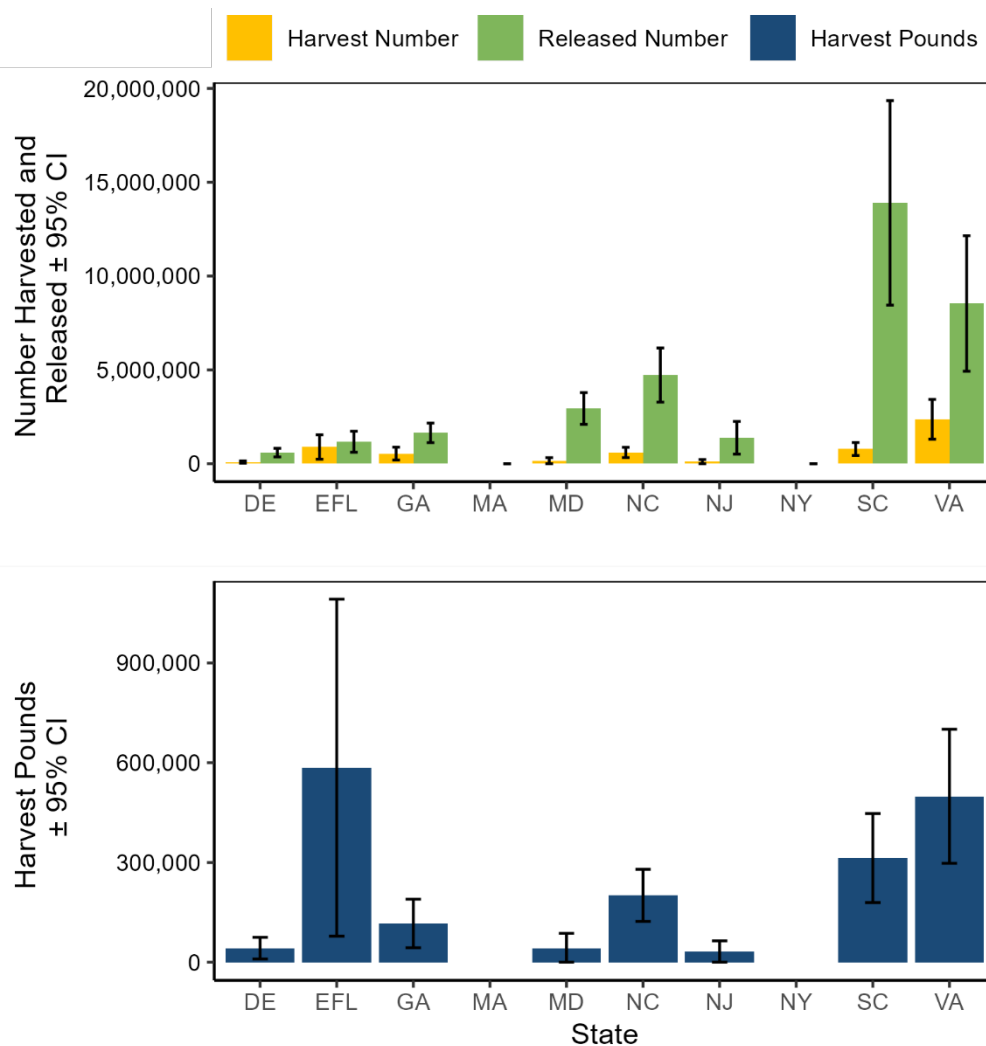


Figure III.16 Croaker, Atlantic recreational catch by state, 2023.

Table III.22 Dolphinfish recreational catch in North Carolina by year.

Year	Harvest Pounds	PSE (lb)	Harvest Number	PSE (num)	Release Number	PSE (release)	Mean Length (inches)	Mean Weight (lb)
2023	2,129,648	32	292,185	28	35,353	67	26.92	7.29
2022	962,267	25	117,803	25	521	91	27.86	8.17
2021	1,945,342	19	268,012	17	25,108	72	26.16	7.26
2020	2,149,038	22	262,372	19	26,902	62	27.95	8.19
2019	3,147,384	20	458,086	19	35,286	51	25.70	6.87
2018	3,318,532	15	495,435	16	27,959	42	25.58	6.70
2017	2,223,509	21	279,932	21	3,035	39	28.02	7.94
2016	5,099,647	19	480,860	17	2,520	61	31.10	10.61
2015	5,610,008	25	740,023	23	73,872	80	27.04	7.58
2014	2,933,166	26	403,203	27	6,731	56	26.99	7.27

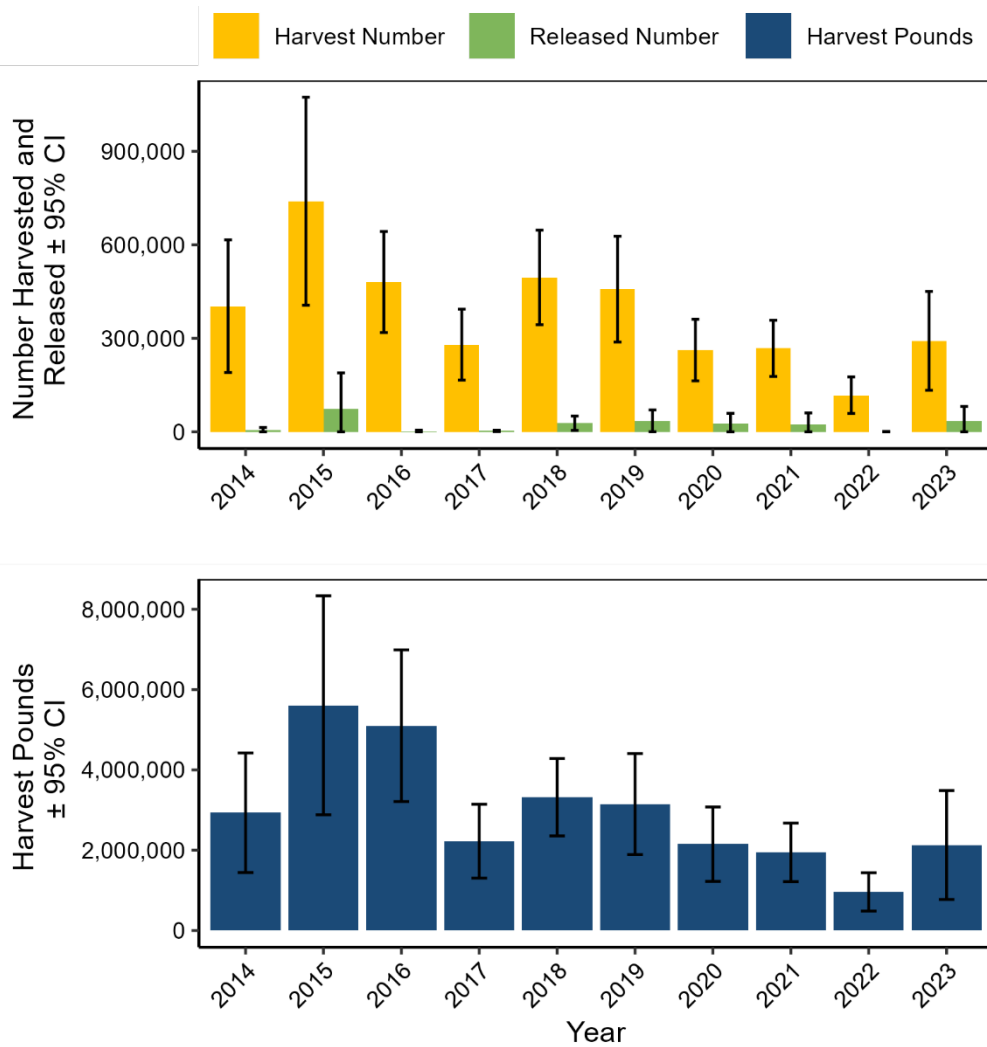


Figure III.17 Dolphinfish recreational catch in North Carolina by year.

Table III.23 Dolphinfish recreational catch by state, 2023.

State	Harvest Pounds	PSE (lb)	Harvest Number	PSE (num)	Release Number	PSE (release)	Mean Length (inches)	Mean Weight (lb)
Connecticut	10,509	88	4,205	91	0	-	18.69	2.5
Delaware	29,188	56	26,189	61	5,560	64	14.25	1.11
East Florida	2,627,826	16	481,865	16	513,603	26	24.76	5.45
Maryland	353,670	36	100,800	39	8,676	31	20.65	3.51
Massachusetts	0	-	0	-	6,646	102	-	-
New Jersey	112,058	49	60,821	51	39,243	60	16.79	1.84
New York	57,624	62	20,575	58	13,693	104	18.54	2.8
North Carolina	2,129,648	32	292,185	28	35,353	67	26.92	7.29
Rhode Island	112,040	48	67,892	46	14,215	58	15.59	1.65
South Carolina	1,872,689	63	177,645	61	2,061	101	31.84	10.54
Virginia	182,321	53	82,289	60	0	-	17.56	2.22

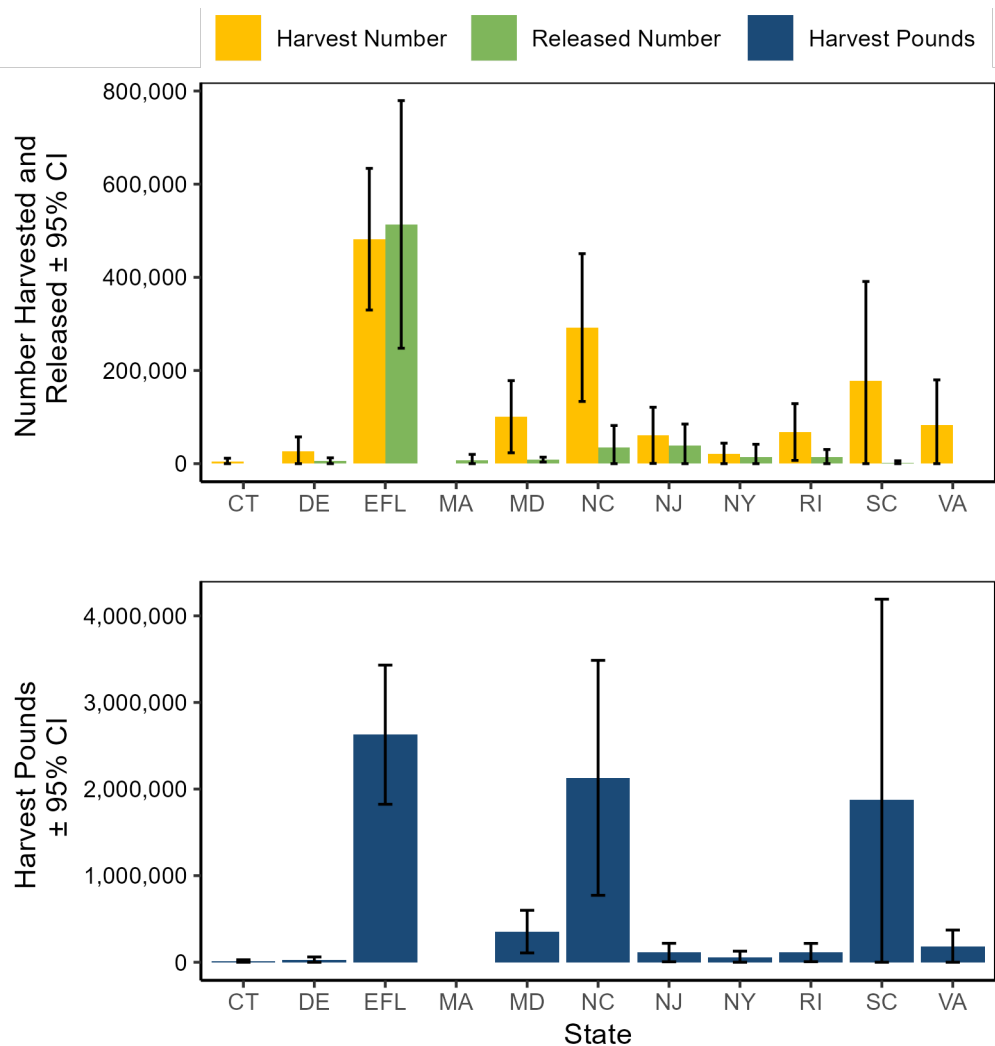


Figure III.18 Dolphinfish recreational catch by state, 2023.

Table III.24 Drum, Black recreational catch in North Carolina by year.

Year	Harvest Pounds	PSE (lb)	Harvest Number	PSE (num)	Release Number	PSE (release)	Mean Length (inches)	Mean Weight (lb)
2023	973,869	37	348,374	40	591,980	21	16.78	2.80
2022	1,710,528	56	264,634	44	647,304	32	19.31	6.46
2021	359,481	18	121,454	19	681,121	29	16.34	2.96
2020	612,932	16	213,320	15	704,357	19	16.30	2.87
2019	404,452	20	156,401	20	756,749	17	15.67	2.59
2018	428,273	28	134,624	27	1,450,855	22	16.46	3.18
2017	856,081	47	355,544	48	2,336,352	22	16.04	2.41
2016	1,322,547	47	459,078	56	2,530,596	30	16.60	2.88
2015	780,876	19	276,126	20	1,791,758	22	16.91	2.83
2014	230,834	33	109,307	38	1,964,749	27	15.04	2.11

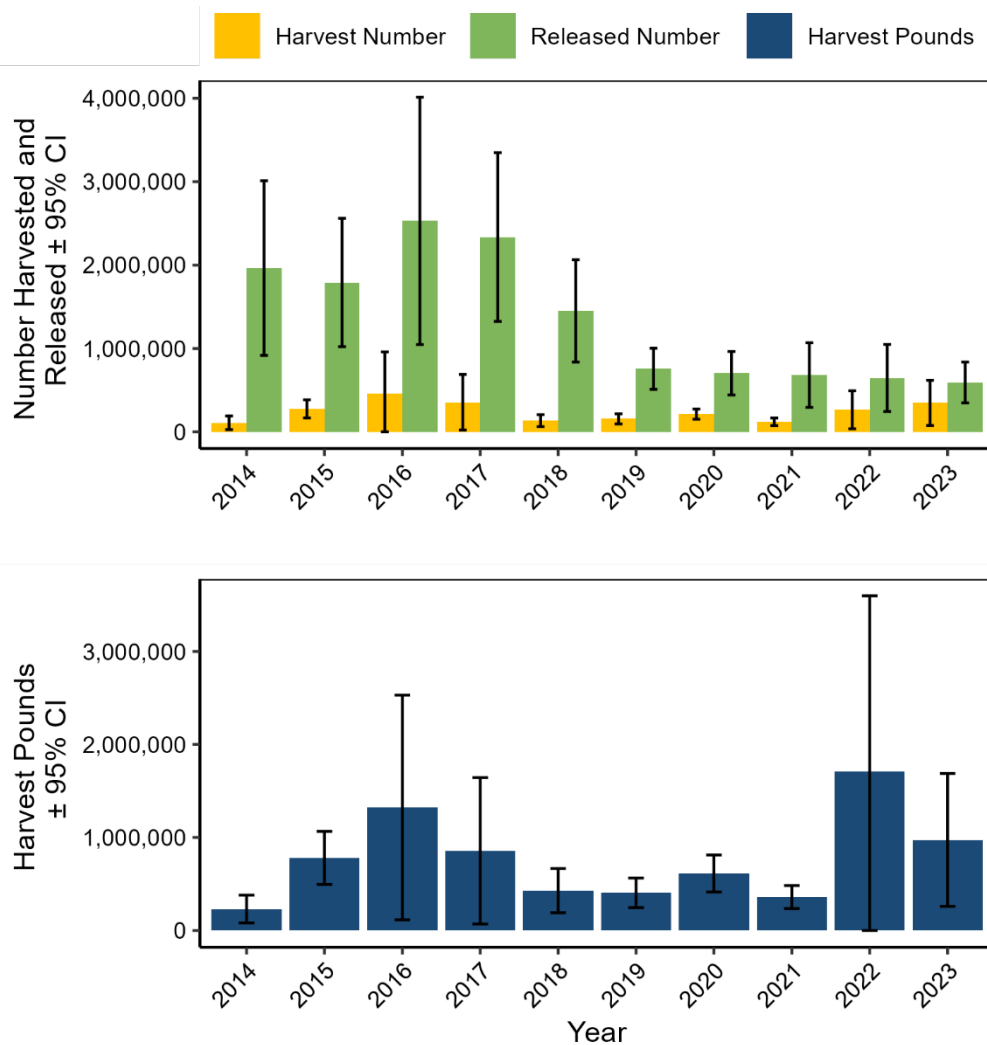


Figure III.19 Drum, Black recreational catch in North Carolina by year.

Table III.25 Drum, Black recreational catch by state, 2023.

State	Harvest Pounds	PSE (lb)	Harvest Number	PSE (num)	Release Number	PSE (release)	Mean Length (inches)	Mean Weight (lb)
Delaware	115	87	7	80	29,231	49	28.41	15.44
East Florida	3,097,376	33	657,786	24	960,813	27	18.44	4.71
Georgia	285,898	39	67,430	38	291,336	37	17.54	4.24
Maryland	10,697	68	1,202	75	3,908	62	22.82	8.9
New Jersey	0	-	0	-	18,252	86	-	-
North Carolina	973,869	37	348,374	40	591,980	21	16.78	2.8
South Carolina	433,013	25	142,438	22	791,140	18	16.78	3.04
Virginia	351,895	71	18,587	56	71,964	36	30.46	18.93

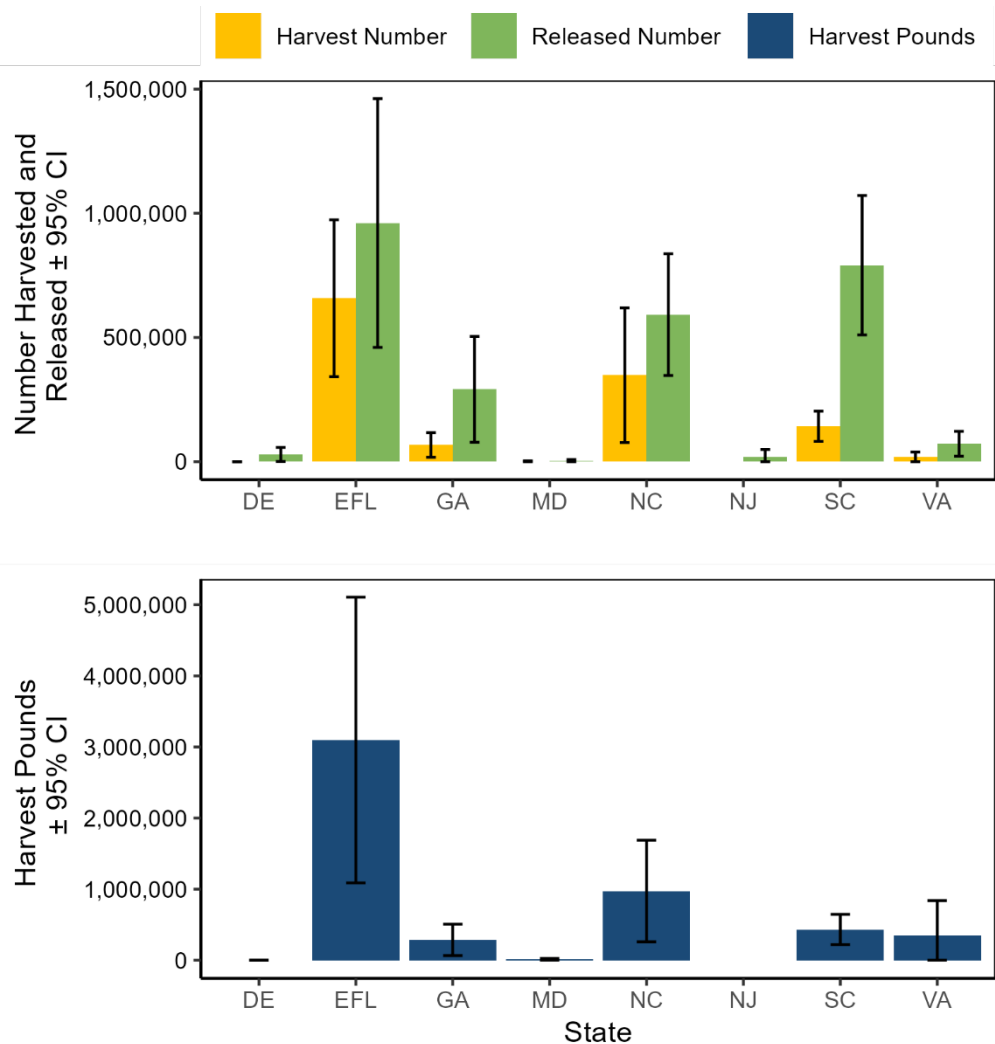


Figure III.20 Drum, Black recreational catch by state, 2023.

Table III.26 Drum, Red recreational catch in North Carolina by year.

Year	Harvest Pounds	PSE (lb)	Harvest Number	PSE (num)	Release Number	PSE (release)	Mean Length (inches)	Mean Weight (lb)
2023	1,120,661	16	232,133	14	1,439,370	14	22.57	4.83
2022	1,615,108	15	336,280	15	2,160,742	16	21.98	4.80
2021	1,479,550	12	325,662	11	2,545,371	19	22.00	4.54
2020	1,758,789	12	413,419	11	2,686,150	13	21.23	4.25
2019	436,219	24	97,186	23	2,976,601	17	21.51	4.49
2018	1,452,358	19	299,577	19	1,729,260	15	22.66	4.85
2017	1,475,852	18	353,716	17	2,165,656	13	21.36	4.17
2016	633,496	18	169,195	22	3,203,452	30	20.15	3.74
2015	567,730	26	143,876	24	1,308,072	27	20.66	3.95
2014	1,674,595	18	324,303	19	1,086,967	13	22.90	5.16

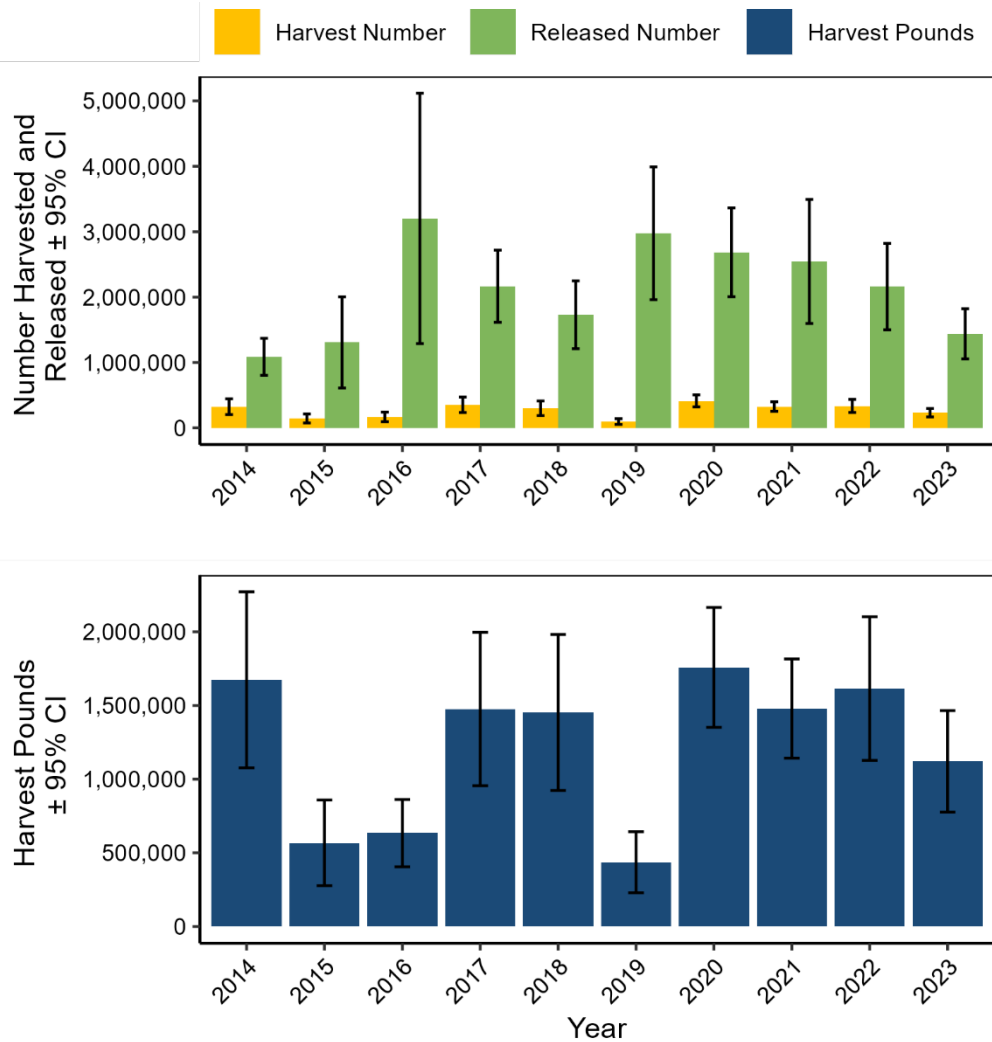


Figure III.21 Drum, Red recreational catch in North Carolina by year.

Table III.27 Drum, Red recreational catch by state, 2023.

State	Harvest Pounds	PSE (lb)	Harvest Number	PSE (num)	Release Number	PSE (release)	Mean Length (inches)	Mean Weight (lb)
Delaware	0	-	0	-	595	96	-	-
East Florida	1,527,754	22	407,618	21	4,760,870	14	20.62	3.75
Georgia	826,719	23	366,498	18	1,450,988	19	17.07	2.26
Maryland	53,253	47	17,896	45	98,500	48	18.66	2.98
New Jersey	0	-	0	-	881	102	-	-
North Carolina	1,120,661	16	232,133	14	1,439,370	14	22.57	4.83
South Carolina	688,722	16	280,527	15	2,320,184	14	17.78	2.46
Virginia	588,763	33	137,063	31	1,145,885	25	21.45	4.3

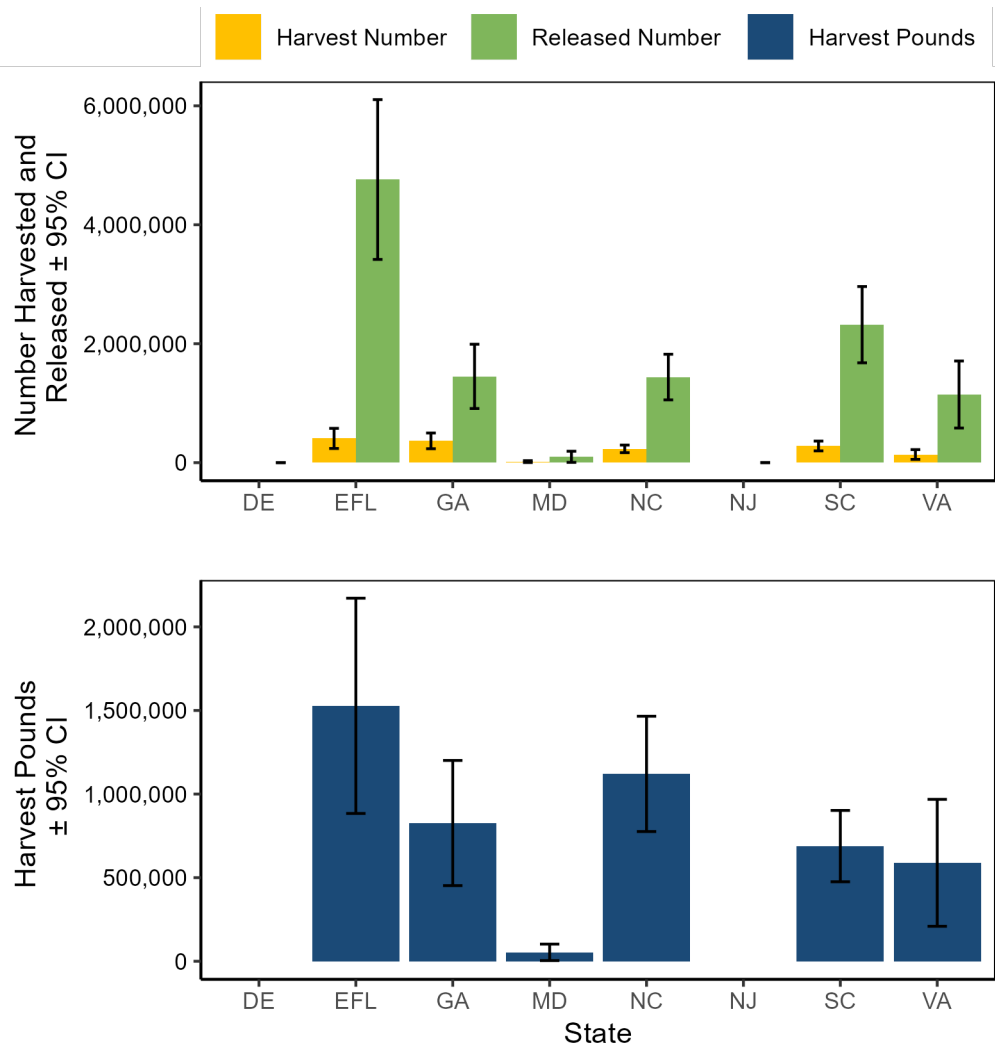


Figure III.22 Drum, Red recreational catch by state, 2023.

Table III.28 Flounder, Southern recreational catch in North Carolina by year.

Year	Harvest Pounds	PSE (lb)	Harvest Number	PSE (num)	Release Number ¹	PSE (release) ¹	Mean Length (inches)	Mean Weight (lb)
2023	192,168	30	77,885	28	2,185,629	-	17.97	2.47
2022	166,102	26	70,945	28	2,792,144	-	18.37	2.34
2021	560,440	36	266,421	38	1,940,051	-	16.96	2.10
2020	398,769	21	152,244	19	1,678,494	-	17.83	2.62
2019	387,203	23	163,045	19	1,353,286	-	17.61	2.37
2018	495,289	18	217,805	19	1,002,753	-	17.25	2.27
2017	451,126	17	221,321	19	1,849,805	-	16.60	2.04
2016	695,713	17	299,273	16	2,159,865	-	17.37	2.32
2015	558,303	18	249,166	18	1,697,523	-	17.08	2.24
2014	447,337	17	209,228	17	1,821,798	-	16.97	2.14

¹ Flounder releases are not recorded to species; released number was calculated by assigning a ratio of observed flounder by species to reported flounder genus release estimates. PSEs are not available for this analysis.

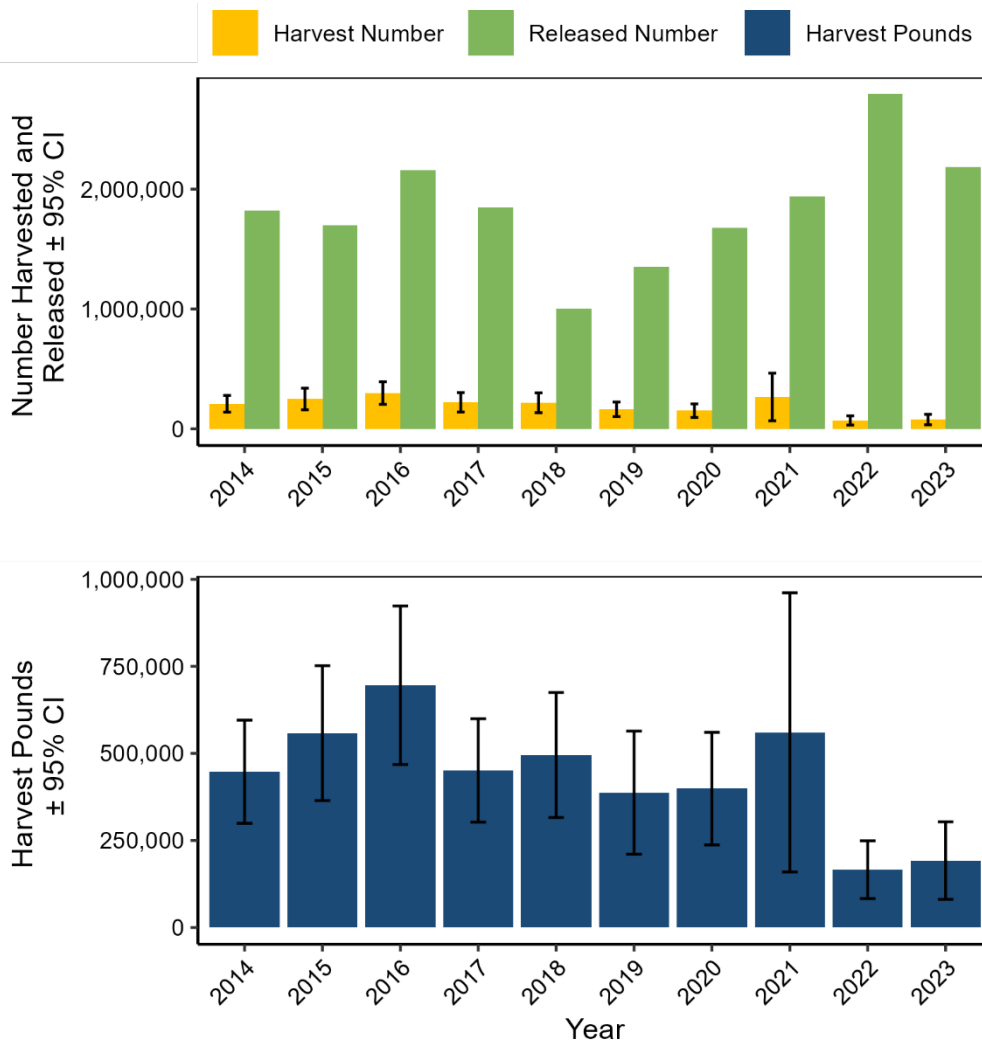


Figure III.23 Flounder, Southern recreational catch in North Carolina by year.

Table III.29 Flounder, Southern recreational catch by state, 2023.

State	Harvest Pounds	PSE (lb)	Harvest Number	PSE (num)	Release Number ¹	PSE (release) ¹	Mean Length (inches)	Mean Weight (lb)
East Florida	494,955	24	306,450	25	-	-	15.72	1.62
Georgia	264,192	22	170,505	23	-	-	15.00	1.55
Maryland	76	111	35	111	-	-	17.48	2.18
North Carolina	192,168	30	77,885	28	-	-	17.97	2.47
South Carolina	995,387	27	458,540	27	-	-	17.15	2.17
Virginia	2,800	115	1,282	115	-	-	17.48	2.18

¹ Released flounder are not always recorded to species level. Numbers released are not shown by state.

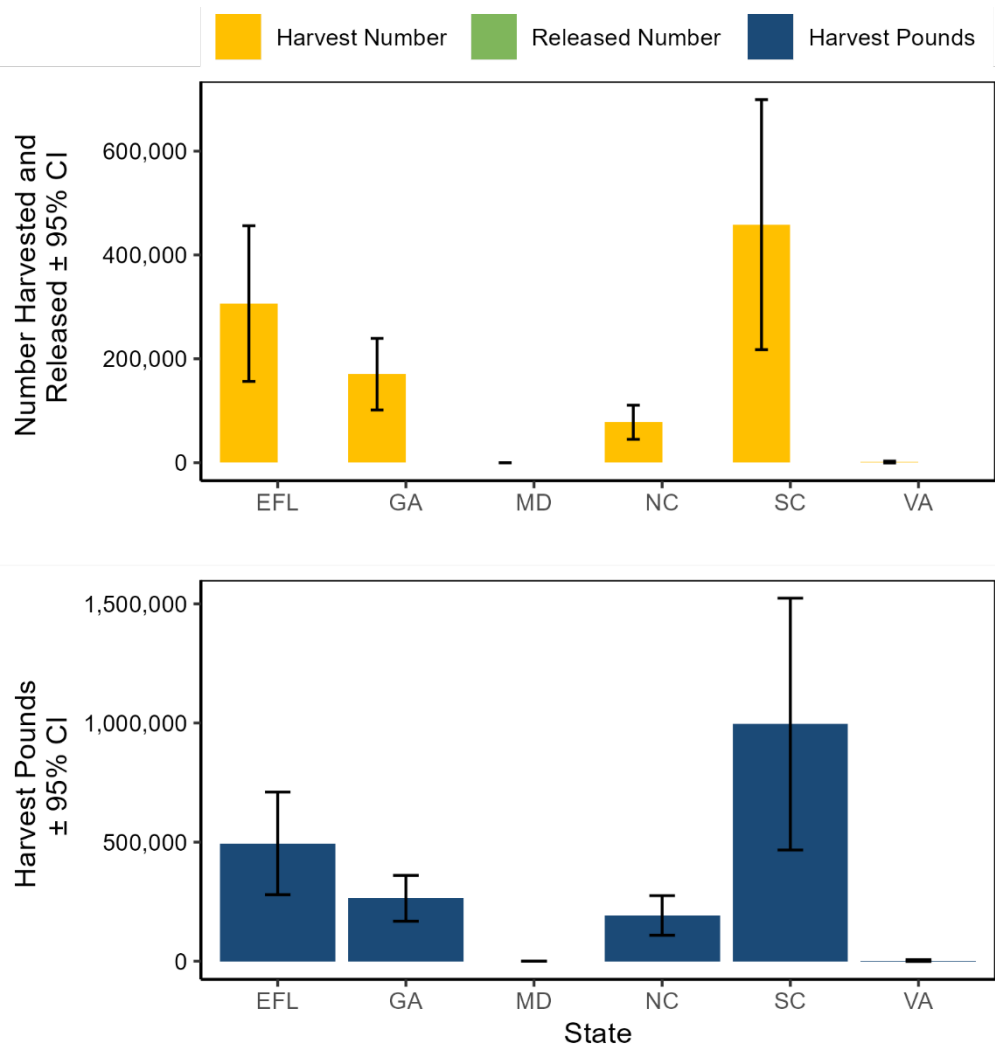


Figure III.24 Flounder, Southern recreational catch by state, 2023.

Table III.30 Flounder, Summer recreational catch in North Carolina by year.

Year	Harvest Pounds	PSE (lb)	Harvest Number	PSE (num)	Release Number ¹	PSE (release) ¹	Mean Length (inches)	Mean Weight (lb)
2023	34,192	60	20,164	59	511,094	-	16.13	1.70
2022	22,151	36	10,591	35	314,007	-	17.25	2.09
2021	27,492	39	13,863	37	1,187,109	-	16.96	1.98
2020	37,935	30	24,699	31	705,247	-	15.52	1.54
2019	52,872	31	34,895	32	467,943	-	15.91	1.52
2018	92,032	25	57,913	26	440,676	-	15.88	1.59
2017	147,426	29	91,193	28	1,069,534	-	16.16	1.62
2016	110,392	27	65,494	27	702,365	-	16.20	1.69
2015	157,437	24	99,263	23	882,672	-	15.98	1.59
2014	215,294	22	150,201	21	1,444,072	-	15.58	1.43

¹Flounder releases are not recorded to species; released number was calculated by assigning a ratio of observed flounder by species to reported flounder genus release estimates. PSEs are not available for this analysis.

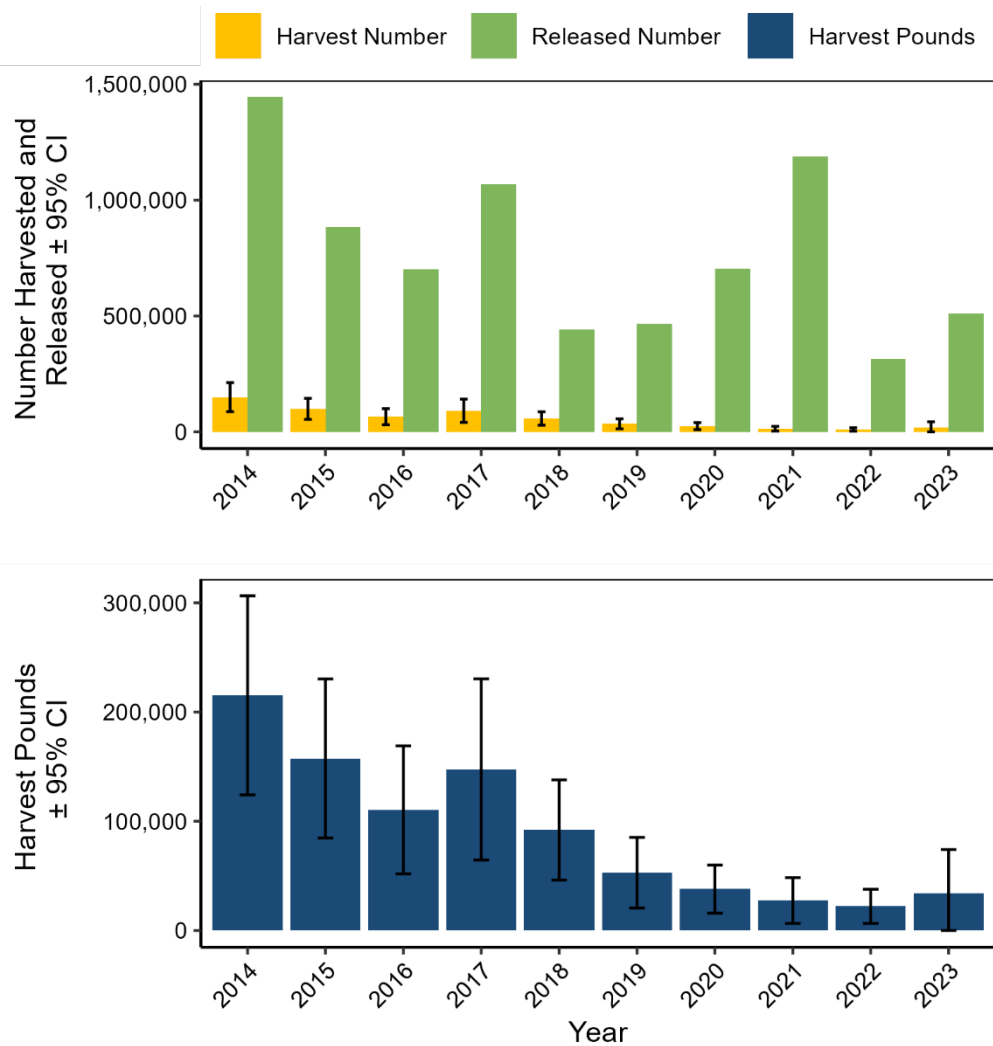


Figure III.25 Flounder, Summer recreational catch in North Carolina by year.

Table III.31 Flounder, Summer recreational catch by state, 2023.

State	Harvest Pounds	PSE (lb)	Harvest Number	PSE (num)	Release Number ¹	PSE (release) ¹	Mean Length (inches)	Mean Weight (lb)
Connecticut	277,231	27	71,480	27	-	-	21.44	3.88
Delaware	366,576	23	127,477	23	-	-	19.18	2.88
East Florida	3,584	73	2,058	71	-	-	15.96	1.74
Maryland	151,535	28	68,567	27	-	-	17.65	2.21
Massachusetts	311,114	33	113,339	33	-	-	18.56	2.75
New Hampshire	3,594	103	1,130	103	-	-	20.65	3.18
New Jersey	4,038,788	12	1,581,974	12	-	-	18.73	2.55
New York	1,931,498	18	581,912	18	-	-	20.38	3.32
North Carolina	34,192	60	20,164	59	-	-	16.13	1.70
Rhode Island	288,602	17	101,143	17	-	-	19.21	2.85
Virginia	1,150,089	16	497,752	17	-	-	17.97	2.31

¹Released flounder are not always recorded to species level. Numbers released are not shown by state.

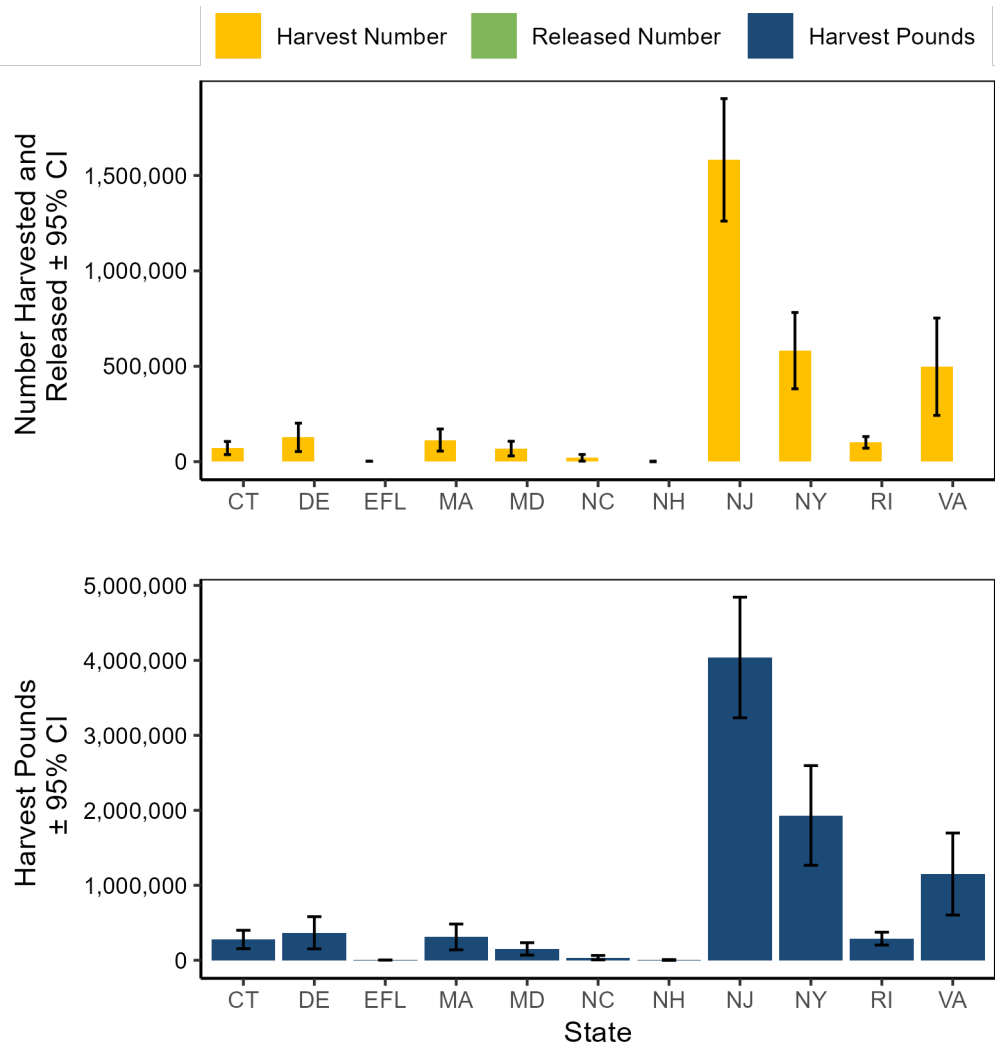


Figure III.26 Flounder, Summer recreational catch by state, 2023.

Table III.32 Grouper, Gag recreational catch in North Carolina by year.

Year	Harvest Pounds	PSE (lb)	Harvest Number	PSE (num)	Release Number	PSE (release)	Mean Length (inches)	Mean Weight (lb)
2023	131,302	67	13,634	71	41,953	27	27.62	9.63
2022	53,621	67	4,319	61	46,844	41	28.59	12.42
2021	75,472	27	8,405	24	23,431	26	26.40	8.98
2020	7,194	38	950	47	18,694	35	24.86	7.57
2019	81,372	60	7,569	57	9,684	58	26.80	10.75
2018	1,326	54	171	54	1,070	75	25.38	7.78
2017	48,086	96	3,688	96	17,832	34	29.50	13.04
2016	52,660	73	3,890	62	27,599	39	29.86	13.54
2015	47,547	75	3,447	66	73,193	34	30.16	13.79
2014	14,596	55	1,484	60	23,751	42	27.34	9.83

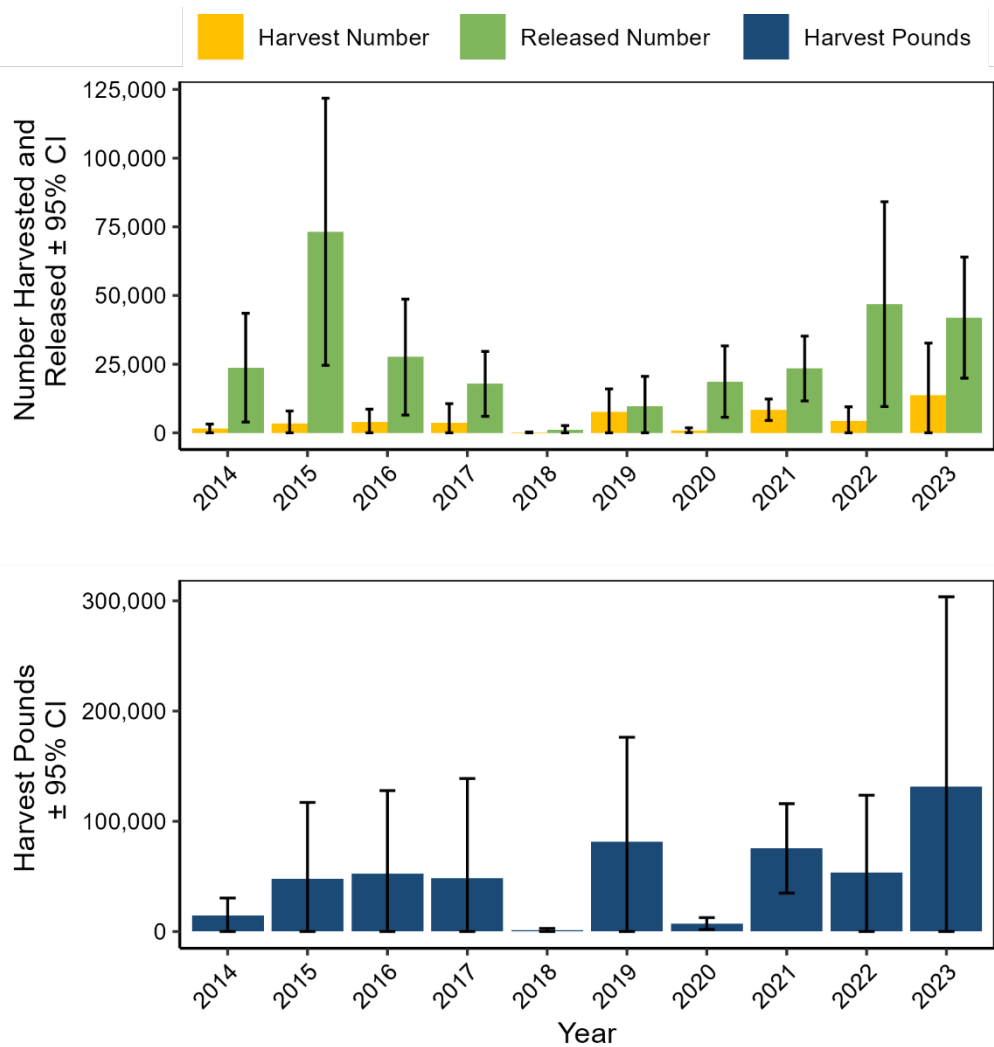


Figure III.27 Grouper, Gag recreational catch in North Carolina by year.

Table III.33 Grouper, Gag recreational catch by state, 2023.

State	Harvest Pounds	PSE (lb)	Harvest Number	PSE (num)	Release Number	PSE (release)	Mean Length (inches)	Mean Weight (lb)
East Florida	306,283	62	16,955	54	56,471	32	32.9	18.06
Georgia	41,714	97	3,345	96	1,270	48	28.25	12.47
North Carolina	131,302	67	13,634	71	41,953	27	27.62	9.63
South Carolina	41,677	64	4,046	61	7,890	44	26.51	10.3
Virginia	0	-	0	-	82	96	-	-

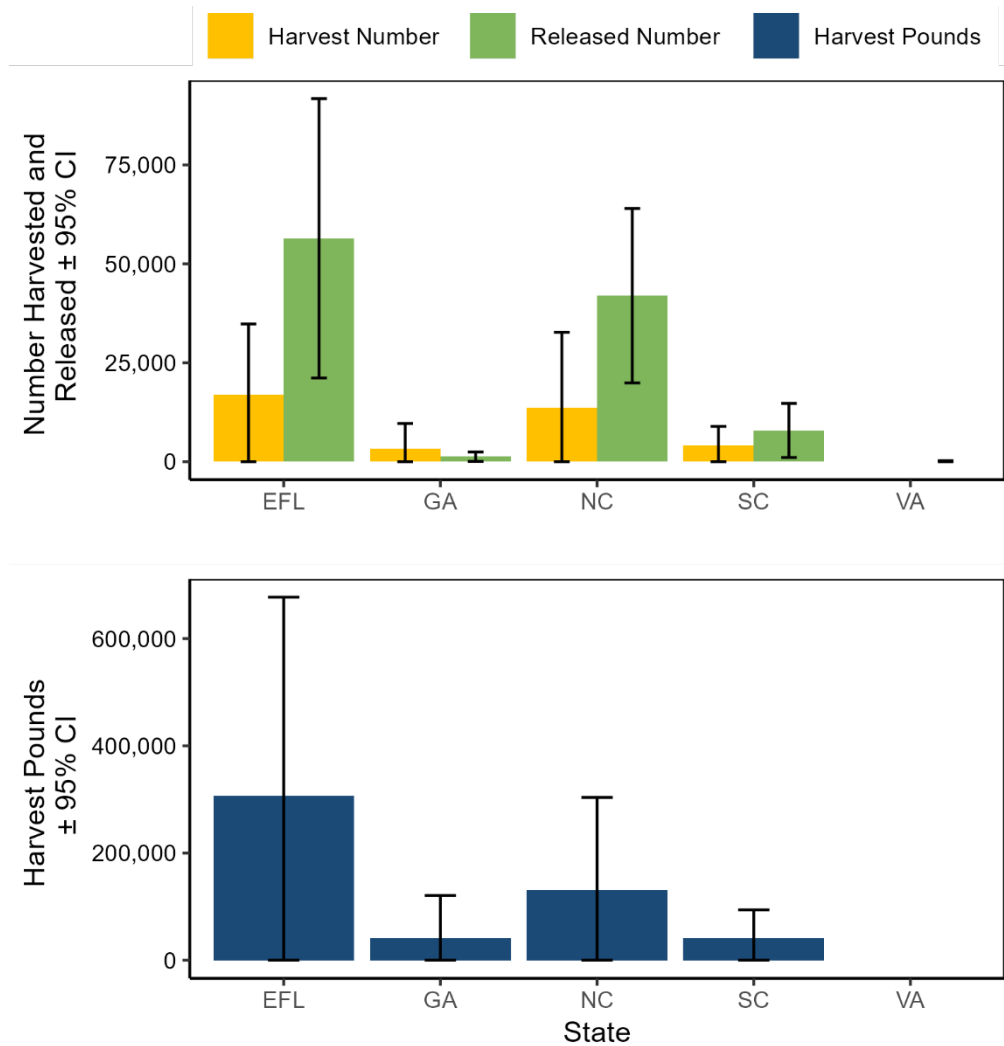


Figure III.28 Grouper, Gag recreational catch by state, 2023.

Table III.34 Grunt, White recreational catch in North Carolina by year.

Year	Harvest Pounds	PSE (lb)	Harvest Number	PSE (num)	Release Number	PSE (release)	Mean Length (inches)	Mean Weight (lb)
2023	63,597	31	42,656	30	162,934	40	12.10	1.49
2022	20,257	36	19,597	45	52,092	45	10.59	1.03
2021	32,327	33	21,849	30	13,810	61	12.04	1.48
2020	82,979	48	54,012	45	32,186	54	12.20	1.54
2019	88,164	54	78,808	54	51,294	58	10.97	1.12
2018	16,551	34	11,486	33	6,551	39	11.99	1.44
2017	58,656	43	36,459	42	49,159	61	12.55	1.61
2016	85,197	41	49,190	39	72,791	67	12.75	1.73
2015	75,878	36	42,614	34	30,399	49	12.71	1.78
2014	85,941	60	48,030	59	4,406	52	13.36	1.79

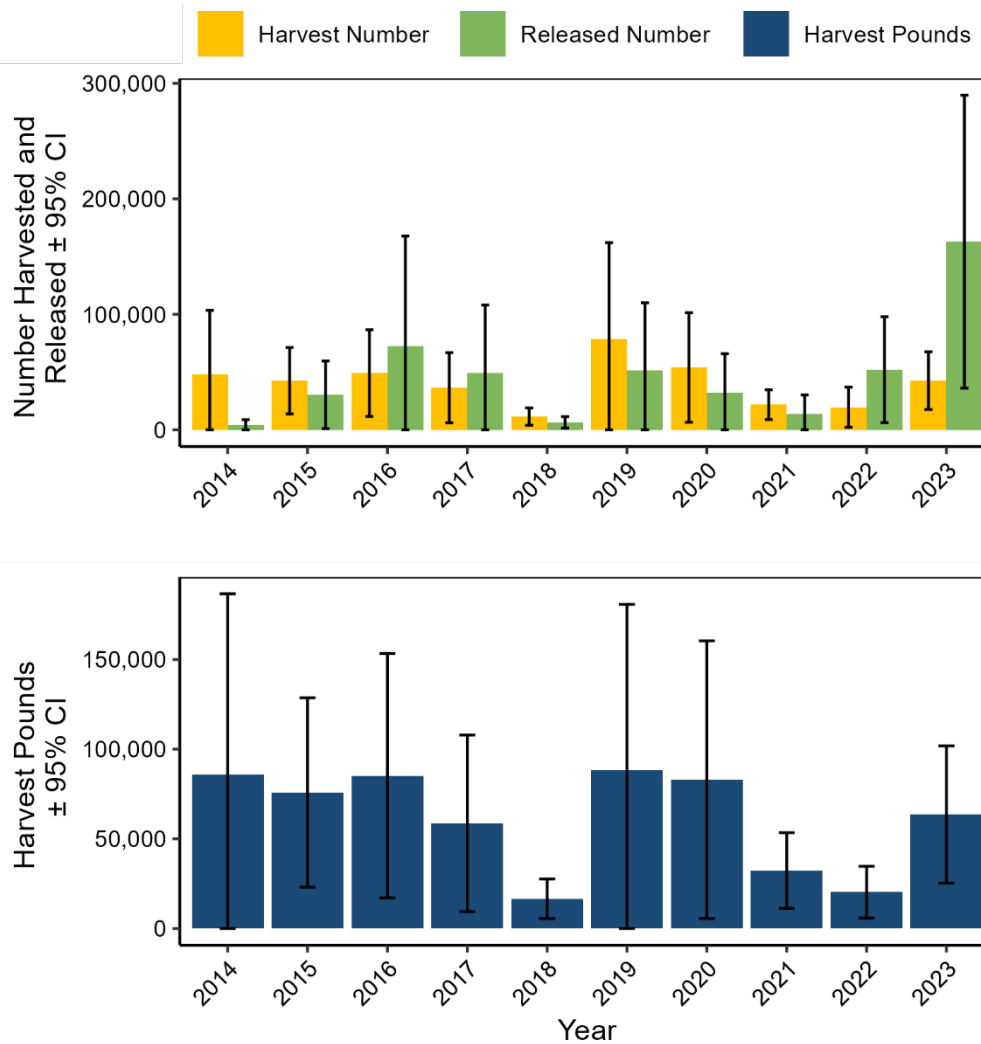


Figure III.29 Grunt, White recreational catch in North Carolina by year.

Table III.35 Grunt, White recreational catch by state, 2023.

State	Harvest Pounds	PSE (lb)	Harvest Number	PSE (num)	Release Number	PSE (release)	Mean Length (inches)	Mean Weight (lb)
East Florida	367,917	52	476,654	35	233,174	41	9.86	0.77
Georgia	17	104	5	104	0	-	15.75	3.42
North Carolina	63,597	31	42,656	30	162,934	40	12.10	1.49
South Carolina	35,956	68	19,721	70	4,141	70	13.03	1.82

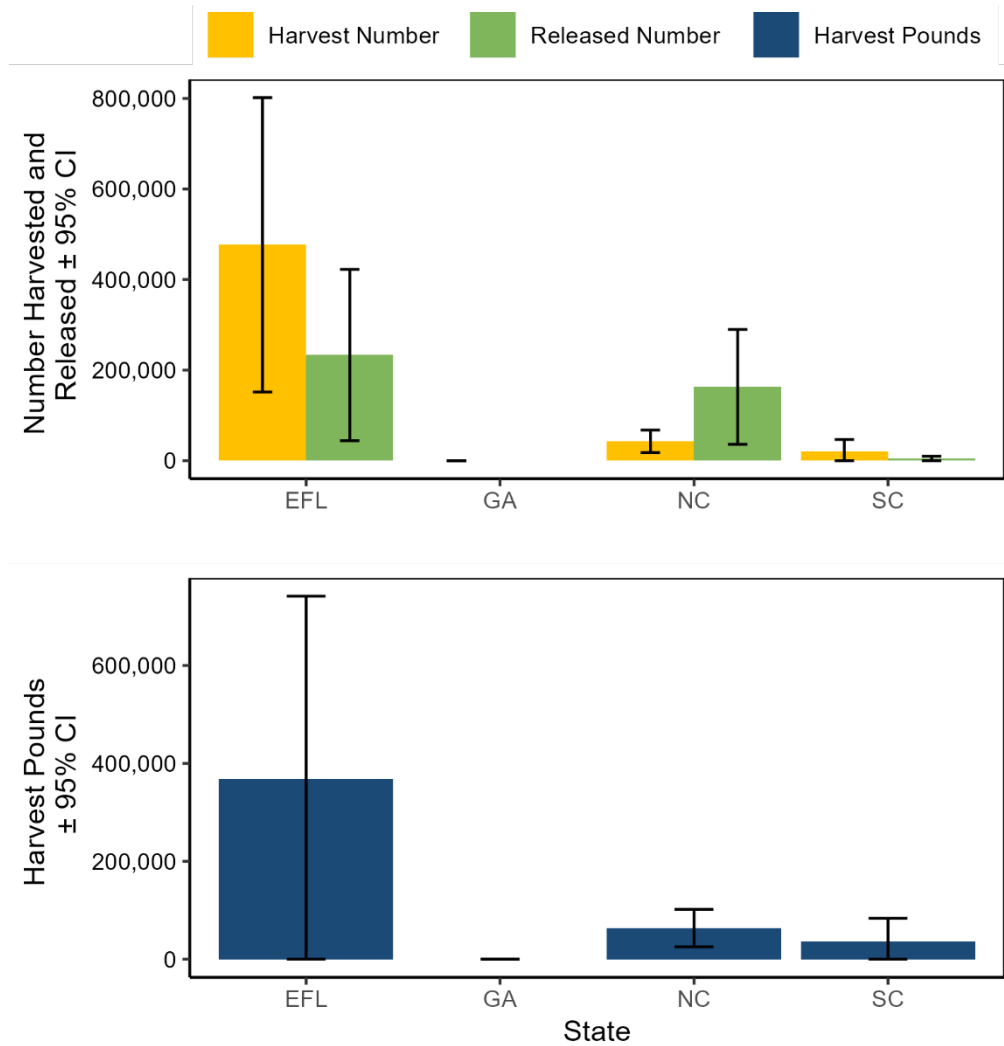


Figure III.30 Grunt, White recreational catch by state, 2023.

Table III.36 Kingfish, Gulf recreational catch in North Carolina by year.

Year	Harvest Pounds	PSE (lb)	Harvest Number	PSE (num)	Release Number ¹	PSE (release) ¹	Mean Length (inches)	Mean Weight (lb)
2023	67,515	37	113,917	40	344,469	-	11.12	0.59
2022	612,823	43	958,034	45	1,623,392	-	11.52	0.64
2021	341,573	30	436,241	29	1,344,430	-	12.25	0.78
2020	109,237	32	144,127	27	1,116,175	-	12.08	0.76
2019	440,502	70	730,866	72	1,962,566	-	11.09	0.60
2018	161,101	38	247,241	39	854,690	-	11.58	0.65
2017	271,422	30	364,215	27	993,057	-	11.93	0.75
2016	262,512	35	504,926	37	1,345,381	-	10.83	0.52
2015	372,465	29	589,899	28	1,098,398	-	11.28	0.63
2014	550,685	33	852,684	28	2,329,105	-	11.37	0.65

¹ Kingfish releases are not recorded to species; released number was calculated by assigning a ratio of observed kingfish by species to reported kingfish genus release estimates. PSEs are not available for this analysis.

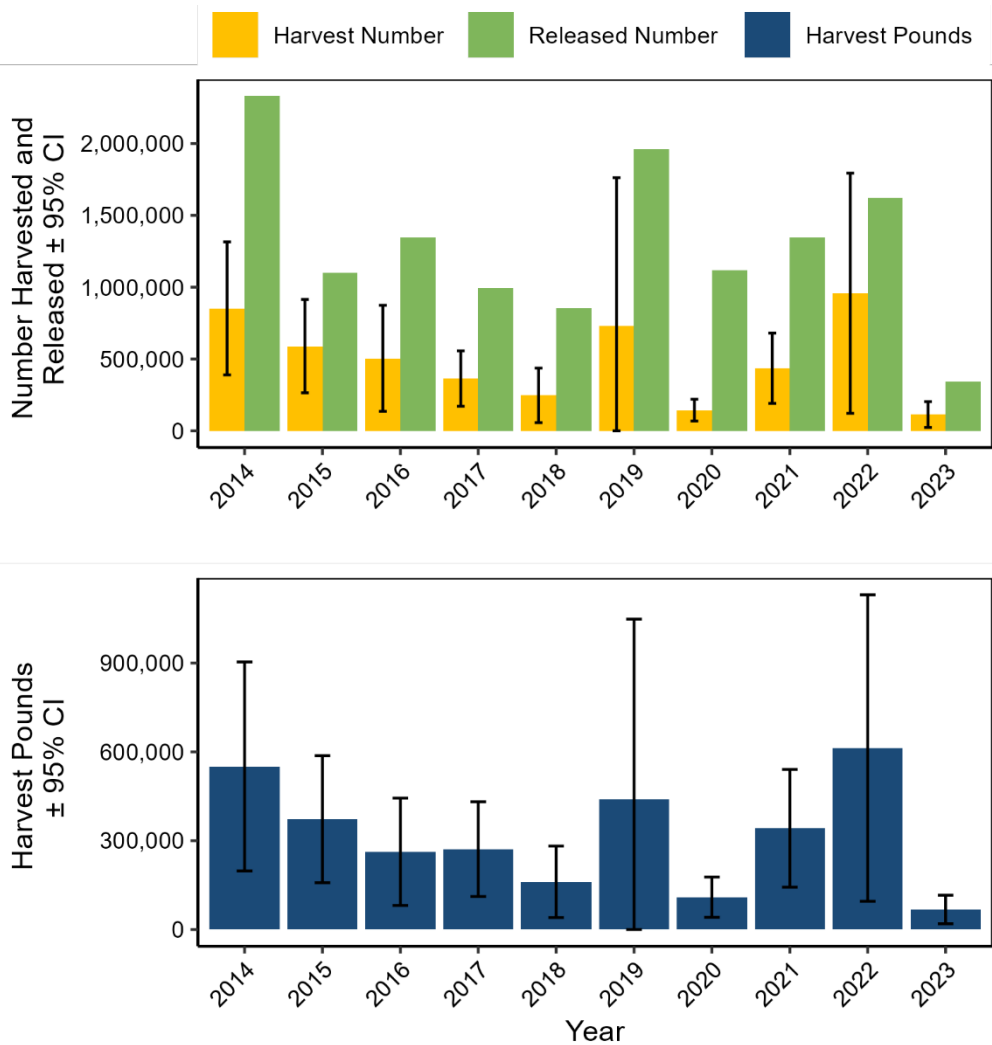


Figure III.31 Kingfish, Gulf recreational catch in North Carolina by year.

Table III.37 Kingfish, Gulf recreational catch by state, 2023.

State	Harvest Pounds	PSE (lb)	Harvest Number	PSE (num)	Release Number ¹	PSE (release) ¹	Mean Length (inches)	Mean Weight (lb)
East Florida	610,417	73	879,050	69	-	-	11.88	0.69
North Carolina	67,515	37	113,917	40	-	-	11.12	0.59
South Carolina	29,306	33	85,654	36	-	-	9.72	0.34

¹ Released kingfish are not always recorded to species level. Numbers released are not shown by state.

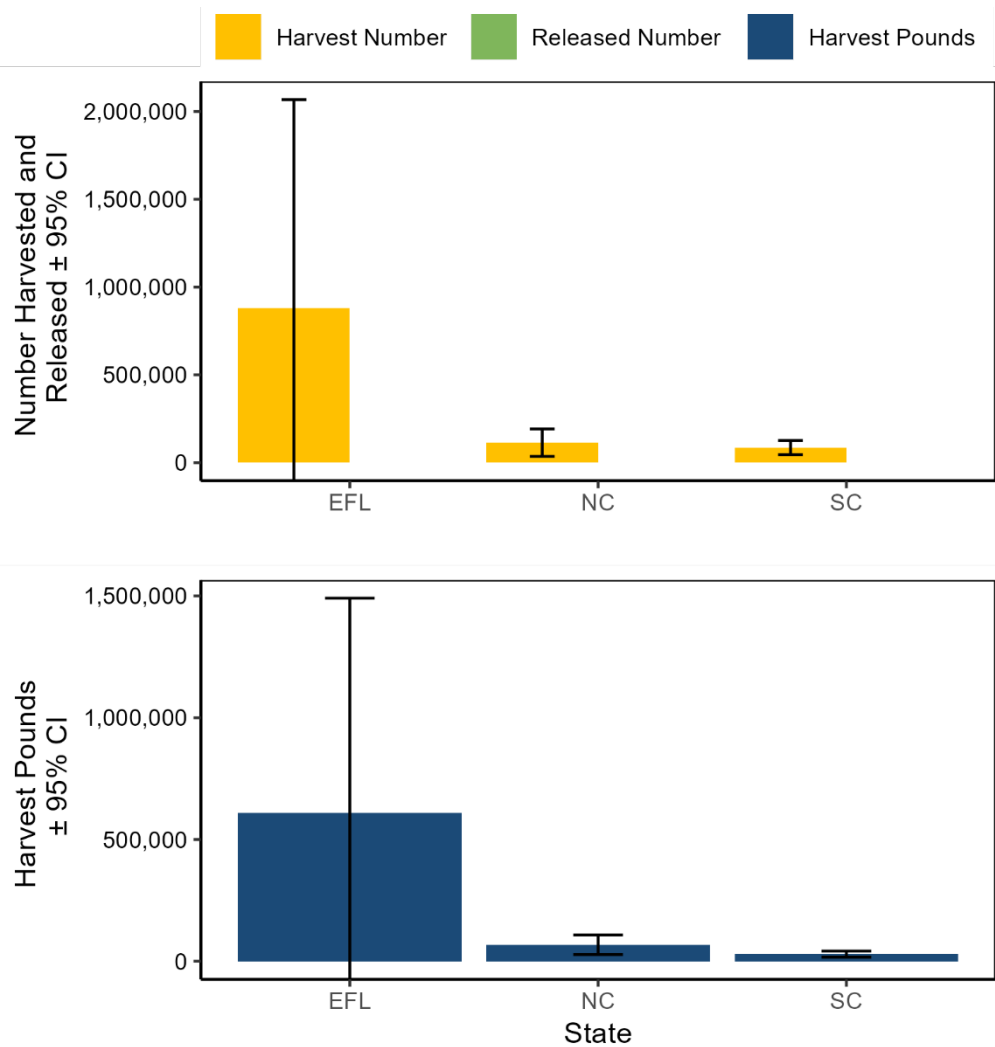


Figure III.32 Kingfish, Gulf recreational catch by state, 2023.

Table III.38 Kingfish, Northern recreational catch in North Carolina by year.

Year	Harvest Pounds	PSE (lb)	Harvest Number	PSE (num)	Release Number ¹	PSE (release) ¹	Mean Length (inches)	Mean Weight (lb)
2023	123,529	63	181,969	63	94,242	-	11.73	0.68
2022	253,673	62	452,182	64	571,736	-	11.15	0.56
2021	3,018	56	5,799	56	16,561	-	10.60	0.52
2020	8,508	77	14,421	77	32,505	-	11.64	0.59
2019	1,050	103	2,381	103	2,983	-	10.94	0.44
2018	5,808	68	16,413	62	32,834	-	9.23	0.35
2017	59,681	50	59,267	46	121,968	-	13.23	1.01
2016	1,075	72	1,972	64	8,228	-	10.82	0.55
2015	9,085	55	16,981	65	51,689	-	10.92	0.53
2014	2,775	70	5,219	74	15,795	-	11.19	0.53

¹ Kingfish releases are not recorded to species; released number was calculated by assigning a ratio of observed kingfish by species to reported kingfish genus release estimates. PSEs are not available for this analysis.

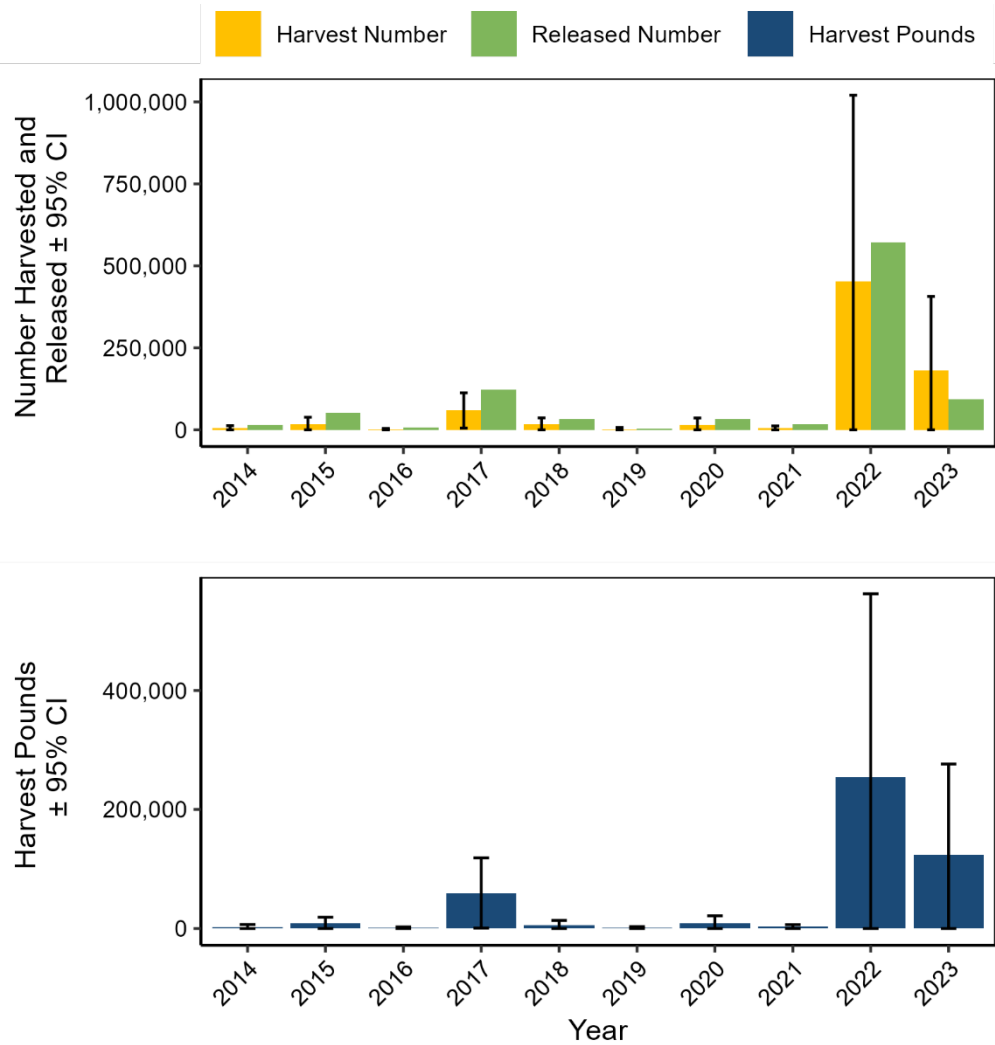


Figure III.33 Kingfish, Northern recreational catch in North Carolina by year.

Table III.39 Kingfish, Northern recreational catch by state, 2023.

State	Harvest Pounds	PSE (lb)	Harvest Number	PSE (num)	Release Number ¹	PSE (release) ¹	Mean Length (inches)	Mean Weight (lb)
Connecticut	6,102	95	3,120	93	-	-	15.45	1.96
Delaware	542	78	1,565	73	-	-	10.77	0.35
East Florida	332	94	753	94	-	-	11.14	0.44
Maryland	6,379	69	15,967	71	-	-	9.89	0.40
Massachusetts	809	77	776	70	-	-	12.81	1.04
New Jersey	2,376	99	5,389	99	-	-	9.96	0.44
New York	13,343	92	57,303	97	-	-	8.14	0.23
North Carolina	123,529	63	181,969	63	-	-	11.73	0.68
Rhode Island	6,252	57	4,684	52	-	-	13.79	1.33
Virginia	83,183	72	121,754	69	-	-	11.09	0.68

¹ Released kingfish are not always recorded to species level. Numbers released are not shown by state.

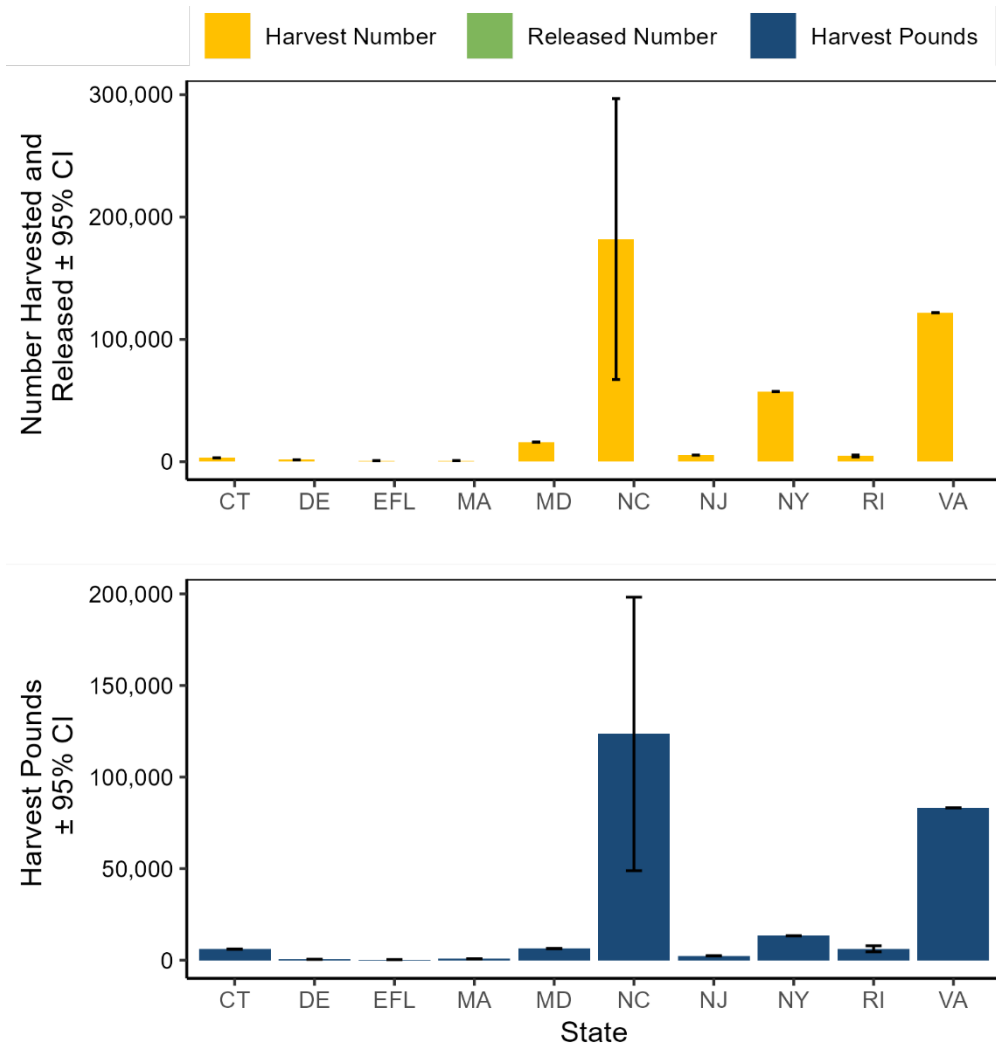


Figure III.34 Kingfish, Northern recreational catch by state, 2023.

Table III.40 Kingfish, Southern recreational catch in North Carolina by year.

Year	Harvest Pounds	PSE (lb)	Harvest Number	PSE (num)	Release Number ¹	PSE (release) ¹	Mean Length (inches)	Mean Weight (lb)
2023	1,125,707	21	1,862,093	22	2,378,504	-	11.58	0.60
2022	764,545	26	1,392,621	27	2,002,064	-	11.03	0.55
2021	1,239,058	29	1,809,068	28	4,227,894	-	11.46	0.68
2020	334,824	20	553,204	19	2,312,410	-	11.20	0.61
2019	439,552	24	767,259	29	2,186,455	-	10.96	0.57
2018	312,829	20	497,134	20	1,293,208	-	11.48	0.63
2017	584,459	22	1,116,869	23	2,957,592	-	11.01	0.52
2016	771,534	26	1,422,584	27	2,723,152	-	11.23	0.54
2015	1,138,715	28	2,103,634	30	3,699,227	-	10.77	0.54
2014	1,544,862	46	2,477,383	44	4,614,725	-	11.66	0.62

¹ Kingfish releases are not recorded to species; released number was calculated by assigning a ratio of observed kingfish by species to reported kingfish genus release estimates. PSEs are not available for this analysis.

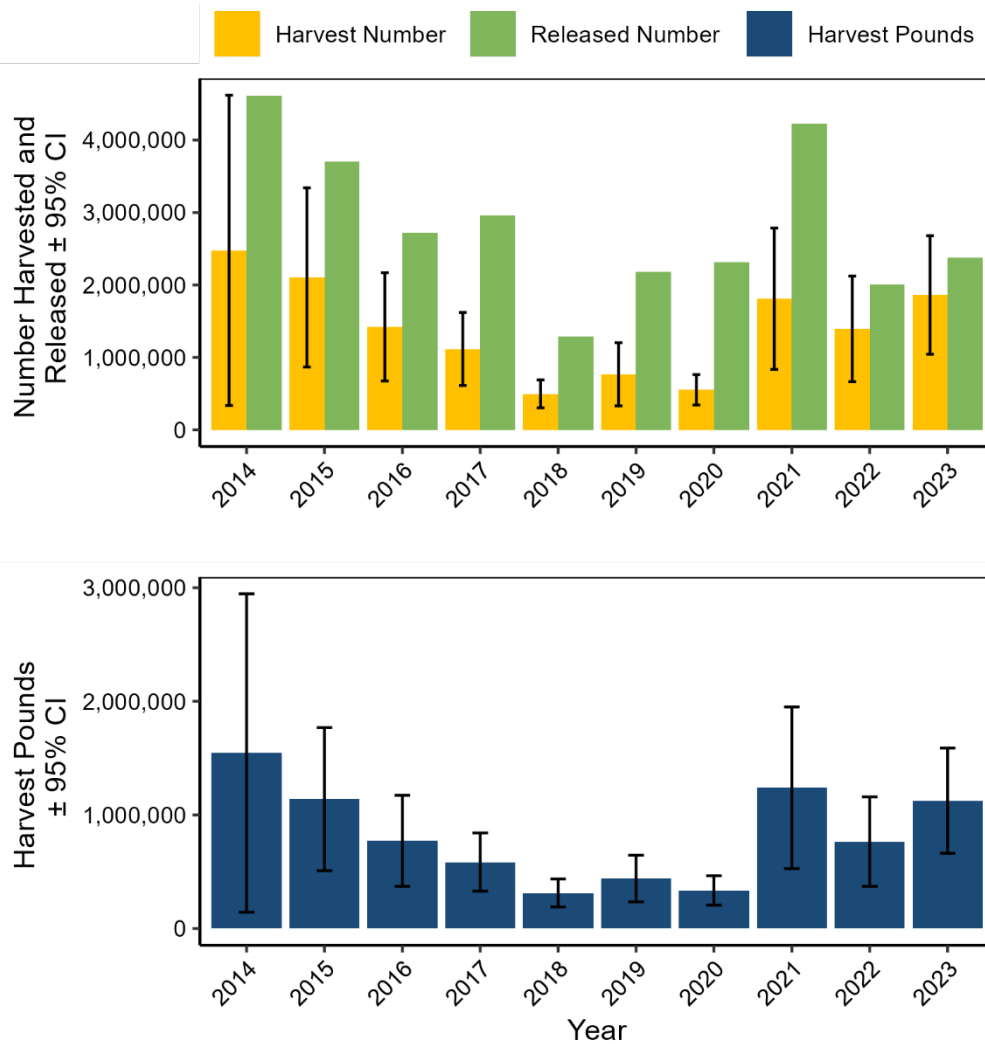


Figure III.35 Kingfish, Southern recreational catch in North Carolina by year.

Table III.41 Kingfish, Southern recreational catch by state, 2023.

State	Harvest Pounds	PSE (lb)	Harvest Number	PSE (num)	Release Number ¹	PSE (release) ¹	Mean Length (inches)	Mean Weight (lb)
Delaware	1,098	68	2,507	68	-	-	10.23	0.44
East Florida	347,712	27	641,529	28	-	-	11.01	0.54
Georgia	757,408	18	1,604,354	20	-	-	10.27	0.47
Maryland	995	78	1,810	82	-	-	10.45	0.55
Massachusetts	1,987	101	4,506	101	-	-	8.98	0.44
New Jersey	39,430	101	73,906	101	-	-	10.92	0.53
North Carolina	1,125,707	21	1,862,093	22	-	-	11.58	0.60
South Carolina	554,635	22	1,059,106	22	-	-	10.90	0.52
Virginia	2,222,677	106	3,751,450	106	-	-	11.10	0.59

¹ Released kingfish are not always recorded to species level. Numbers released are not shown by state.

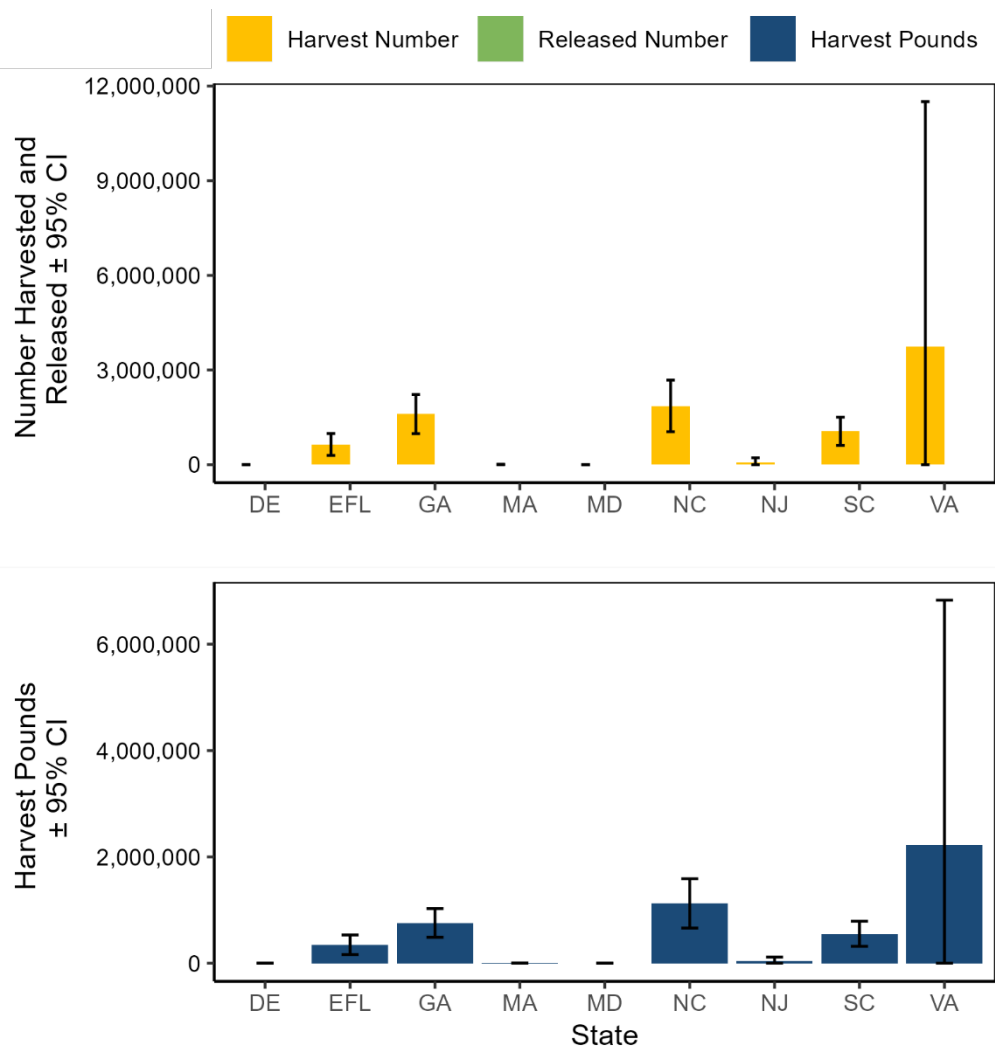


Figure III.36 Kingfish, Southern recreational catch by state, 2023.

Table III.42 Mackerel, King recreational catch in North Carolina by year.

Year	Harvest Pounds	PSE (lb)	Harvest Number	PSE (num)	Release Number	PSE (release)	Mean Length (inches)	Mean Weight (lb)
2023	1,130,711	32	79,987	30	74,061	76	35.58	14.14
2022	375,164	43	38,512	32	12,996	46	31.78	9.74
2021	563,082	18	58,174	17	24,069	29	31.67	9.68
2020	1,376,229	20	146,423	20	70,879	32	31.62	9.40
2019	1,446,939	25	184,962	24	115,350	42	29.71	7.82
2018	1,018,459	30	102,675	19	75,614	33	30.28	9.92
2017	1,261,775	32	110,339	23	94,655	29	31.89	11.44
2016	963,139	42	108,151	43	43,909	32	30.37	8.91
2015	1,168,255	52	95,705	37	16,877	52	33.29	12.21
2014	1,213,096	23	72,288	23	35,075	93	38.71	16.78

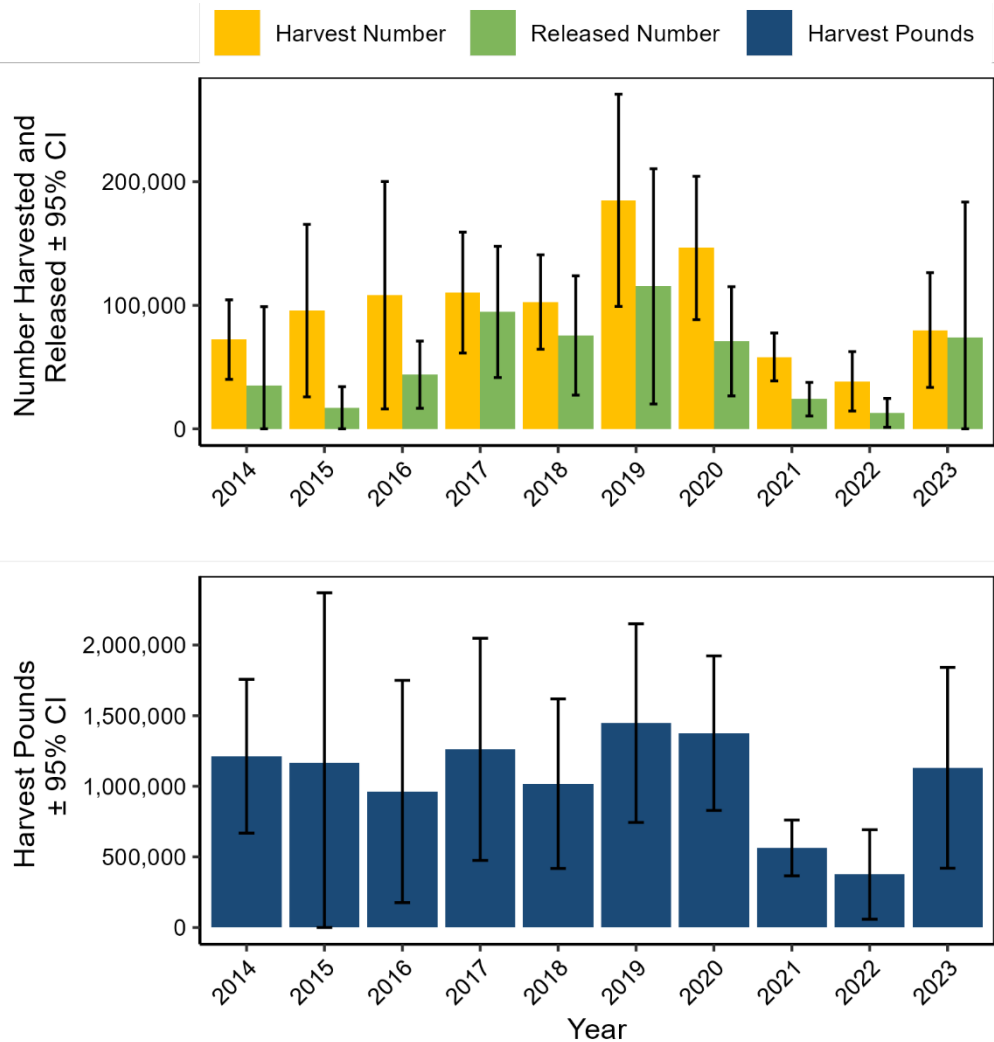


Figure III.37 Mackerel, King recreational catch in North Carolina by year.

Table III.43 Mackerel, King recreational catch by state, 2023.

State	Harvest Pounds	PSE (lb)	Harvest Number	PSE (num)	Release Number	PSE (release)	Mean Length (inches)	Mean Weight (lb)
East Florida	4,045,474	15	432,912	14	88,528	27	31.42	9.34
Georgia	430,420	46	35,944	40	6	104	34.31	11.97
New Jersey	134	99	21	99	42	99	26.18	6.39
North Carolina	1,130,711	32	79,987	30	74,061	76	35.58	14.14
Rhode Island	0	-	0	-	233	97	-	-
South Carolina	228,059	43	12,610	44	4,900	66	38.83	18.09

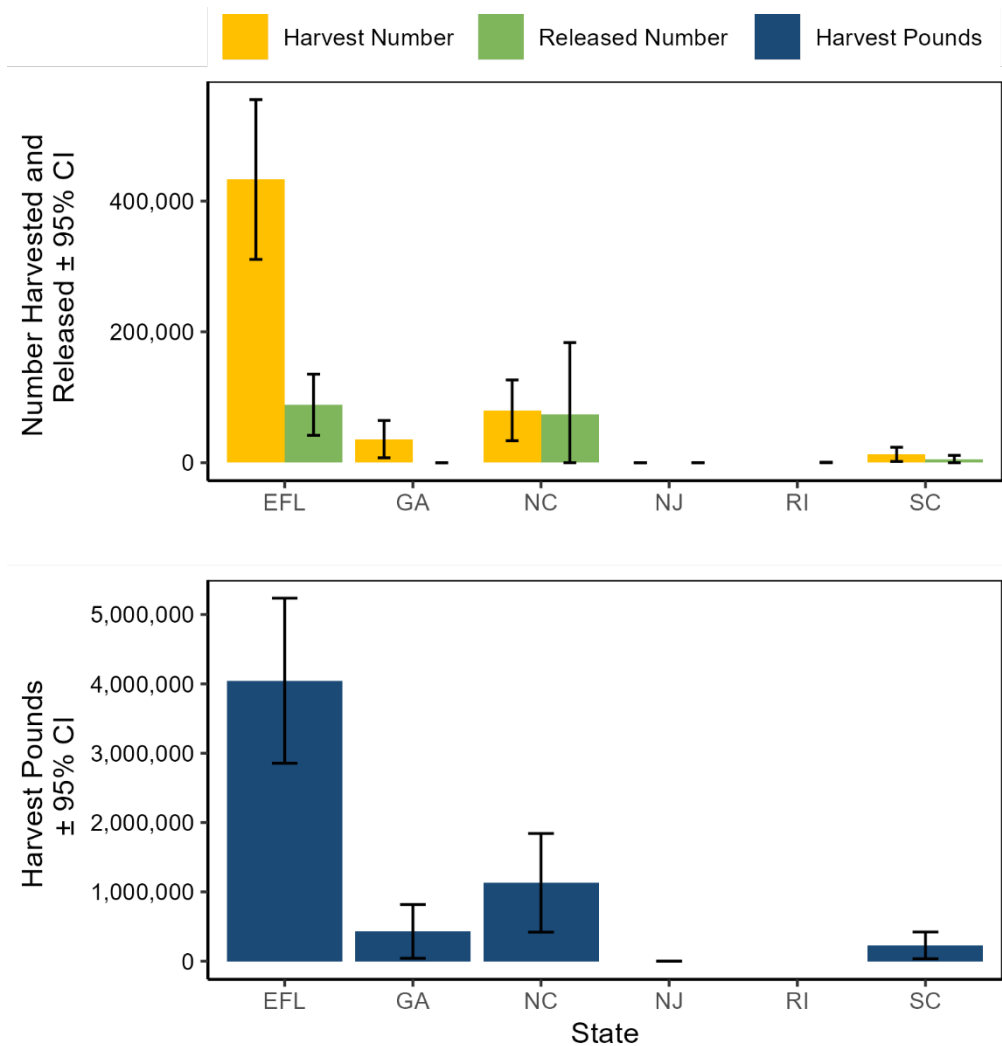


Figure III.38 Mackerel, King recreational catch by state, 2023.

Table III.44 Mackerel, Spanish recreational catch in North Carolina by year.

Year	Harvest Pounds	PSE (lb)	Harvest Number	PSE (num)	Release Number	PSE (release)	Mean Length (inches)	Mean Weight (lb)
2023	1,216,236	12	1,204,175	13	1,293,628	17	14.43	1.01
2022	1,841,527	16	1,898,755	17	2,268,283	30	14.11	0.97
2021	1,894,535	17	1,312,929	15	1,294,525	20	15.82	1.44
2020	1,843,314	14	1,286,131	14	1,267,210	27	15.60	1.43
2019	1,694,247	22	1,478,890	20	1,340,366	22	14.99	1.15
2018	1,156,702	14	1,012,889	14	1,019,418	30	15.04	1.14
2017	1,094,778	18	995,706	18	688,062	21	14.76	1.10
2016	907,400	16	918,352	16	546,950	20	14.25	0.99
2015	981,867	16	835,011	14	514,714	18	14.75	1.18
2014	1,193,442	15	1,028,925	15	814,064	21	14.85	1.16

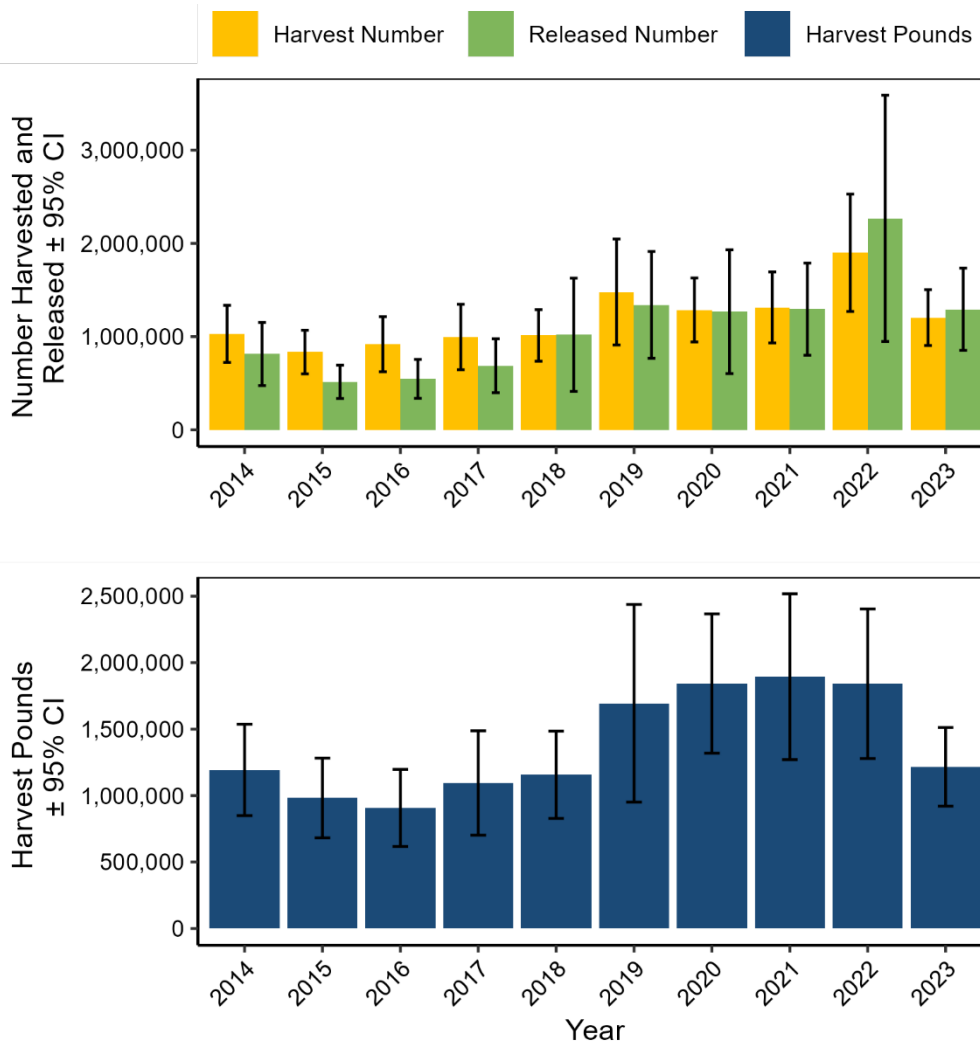


Figure III.39 Mackerel, Spanish recreational catch in North Carolina by year.

Table III.45 Mackerel, Spanish recreational catch by state, 2023.

State	Harvest Pounds	PSE (lb)	Harvest Number	PSE (num)	Release Number	PSE (release)	Mean Length (inches)	Mean Weight (lb)
Delaware	23,909	70	18,420	75	351	86	15.18	1.3
East Florida	2,283,714	25	1,394,829	22	890,686	32	17.07	1.64
Georgia	148,235	74	118,092	75	61,330	60	15.25	1.26
Maryland	83,661	40	63,833	43	30,105	62	15.38	1.31
Massachusetts	0	-	0	-	3,644	55	-	-
New Jersey	56,701	61	45,690	62	52,803	70	15.39	1.24
New York	2,985	73	3,573	72	11,370	74	12.94	0.84
North Carolina	1,216,236	12	1,204,175	13	1,293,628	17	14.43	1.01
Rhode Island	0	-	0	-	2,000	89	-	-
South Carolina	857,266	32	944,745	30	1,487,206	31	14.09	0.91
Virginia	497,525	25	498,878	26	297,903	41	14.8	1

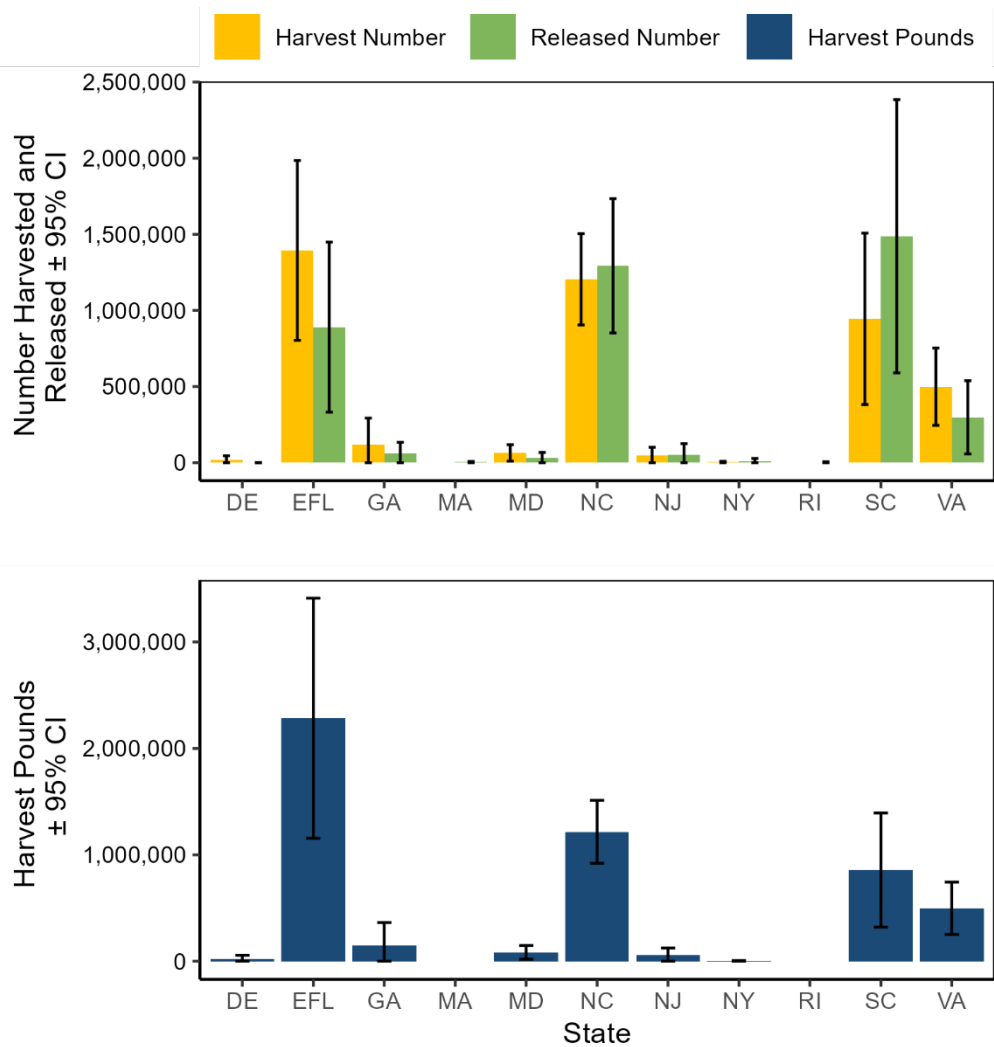


Figure III.40 Mackerel, Spanish recreational catch by state, 2023.

Table III.46 Perch, Silver recreational catch in North Carolina by year.

Year	Harvest Pounds	PSE (lb)	Harvest Number	PSE (num)	Release Number	PSE (release)	Mean Length (inches)	Mean Weight (lb)
2023	1,092	76	3,811	72	93,074	53	8.20	0.29
2022	776	52	4,432	59	157,214	40	7.26	0.18
2021	34,609	90	156,481	90	135,156	32	7.44	0.22
2020	3,838	54	21,049	56	85,350	31	7.09	0.18
2019	7,520	40	32,444	49	244,868	30	6.90	0.23
2018	1,594	54	6,595	55	84,721	39	7.40	0.24
2017	24,532	45	133,676	44	441,052	37	7.28	0.18
2016	11,275	48	55,040	46	499,616	26	7.54	0.20
2015	8,832	65	41,707	65	98,138	36	7.57	0.21
2014	19,567	56	91,219	58	561,115	56	7.10	0.21

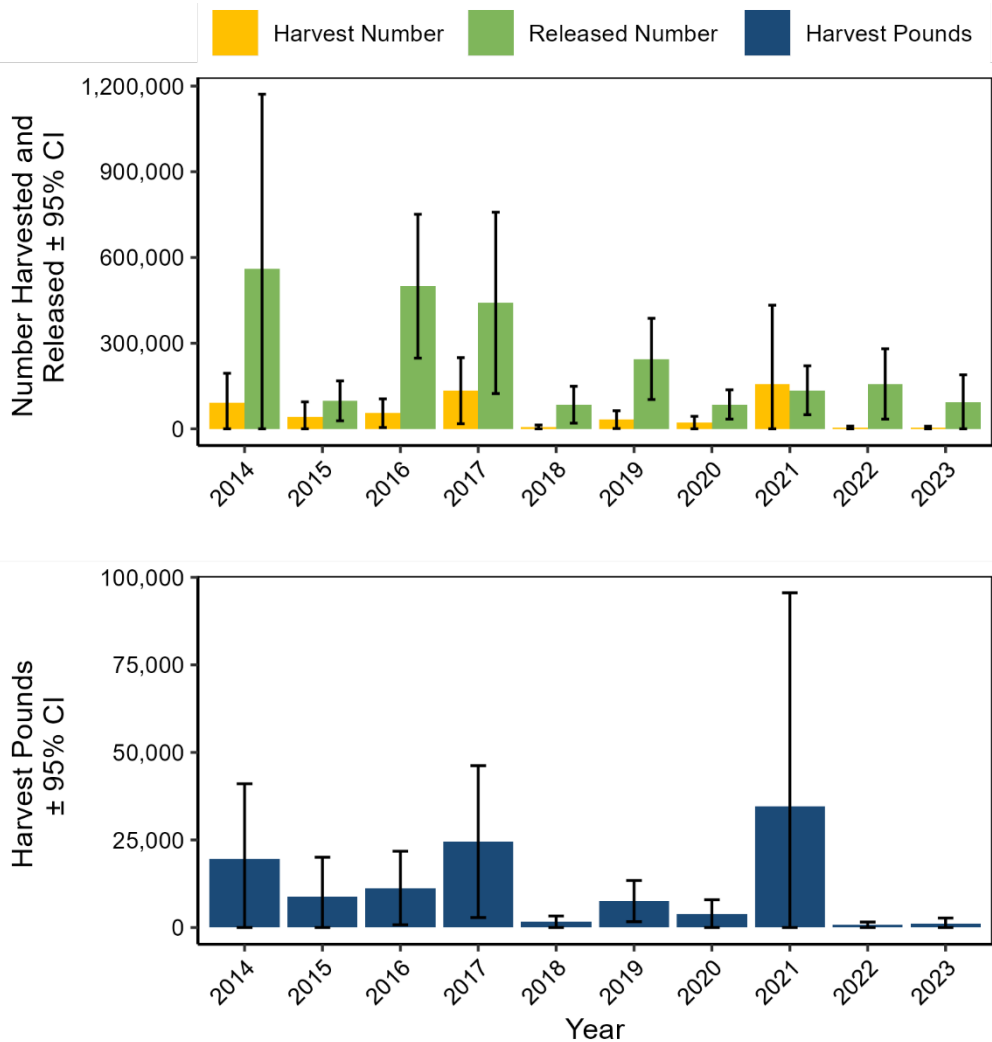


Figure III.41 Perch, Silver recreational catch in North Carolina by year.

Table III.47 Perch, Silver recreational catch by state, 2023.

State	Harvest Pounds	PSE (lb)	Harvest Number	PSE (num)	Release Number	PSE (release)	Mean Length (inches)	Mean Weight (lb)
East Florida	4,913	72	18,170	71	134,479	63	7.57	0.27
Georgia	17,293	44	70,714	40	572,018	35	7.34	0.24
Maryland	0	-	0	-	28,953	88	-	-
North Carolina	1,092	76	3,811	72	93,074	53	8.2	0.29
South Carolina	29,561	83	107,095	82	242,334	46	7.82	0.28
Virginia	1,030	97	2,668	97	142,128	66	9.71	0.39

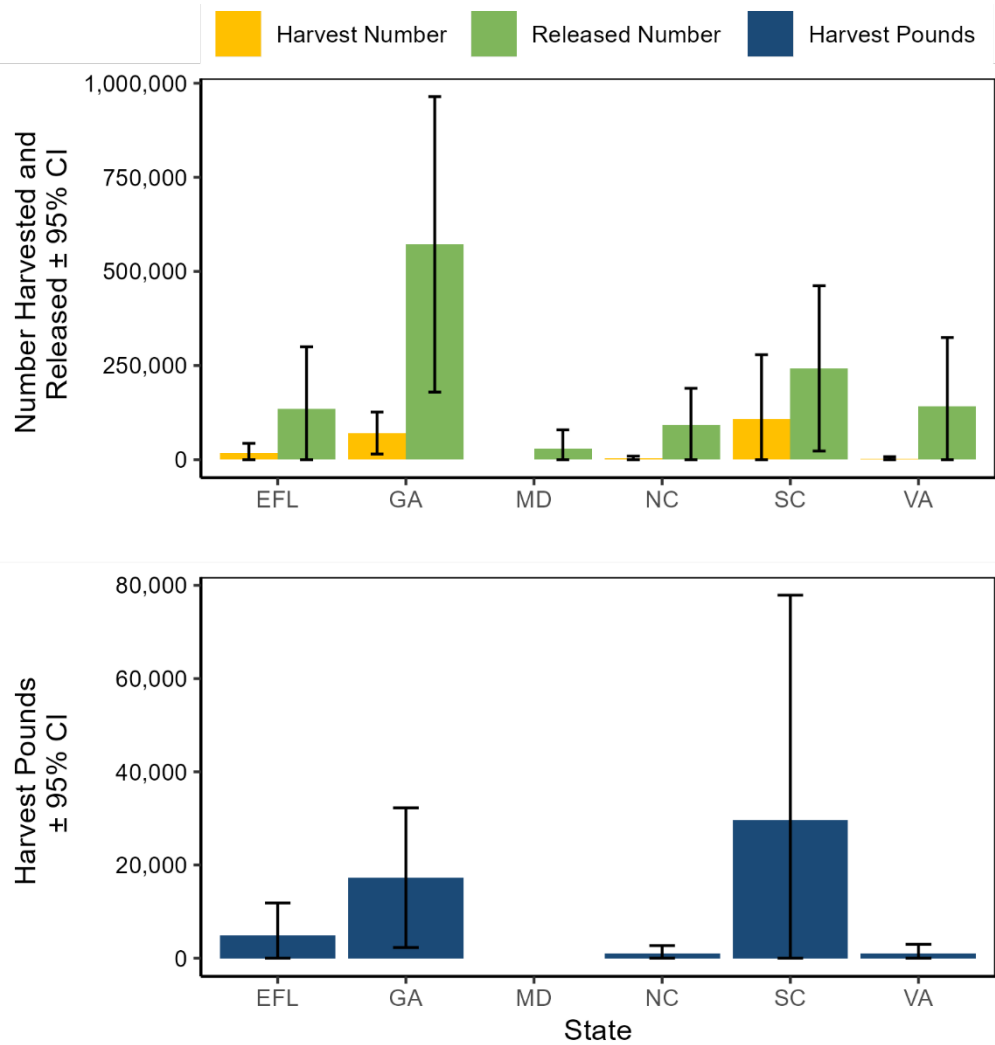


Figure III.42 Perch, Silver recreational catch by state, 2023.

Table III.48 Pigfish recreational catch in North Carolina by year.

Year	Harvest Pounds	PSE (lb)	Harvest Number	PSE (num)	Release Number	PSE (release)	Mean Length (inches)	Mean Weight (lb)
2023	197,723	21	490,705	20	1,230,152	16	7.94	0.40
2022	448,404	32	1,190,673	31	2,179,940	22	8.22	0.38
2021	119,332	20	301,906	17	1,149,108	16	8.16	0.40
2020	147,533	23	454,825	22	855,547	18	7.89	0.32
2019	146,570	21	432,005	22	1,639,294	31	7.95	0.34
2018	163,686	21	418,174	22	1,385,059	15	8.35	0.39
2017	218,003	28	656,096	28	2,025,949	20	8.01	0.33
2016	443,062	24	1,316,198	23	2,452,668	14	7.98	0.34
2015	567,572	24	1,593,393	25	3,332,936	14	8.26	0.36
2014	354,667	24	1,278,934	27	2,764,971	17	7.25	0.28

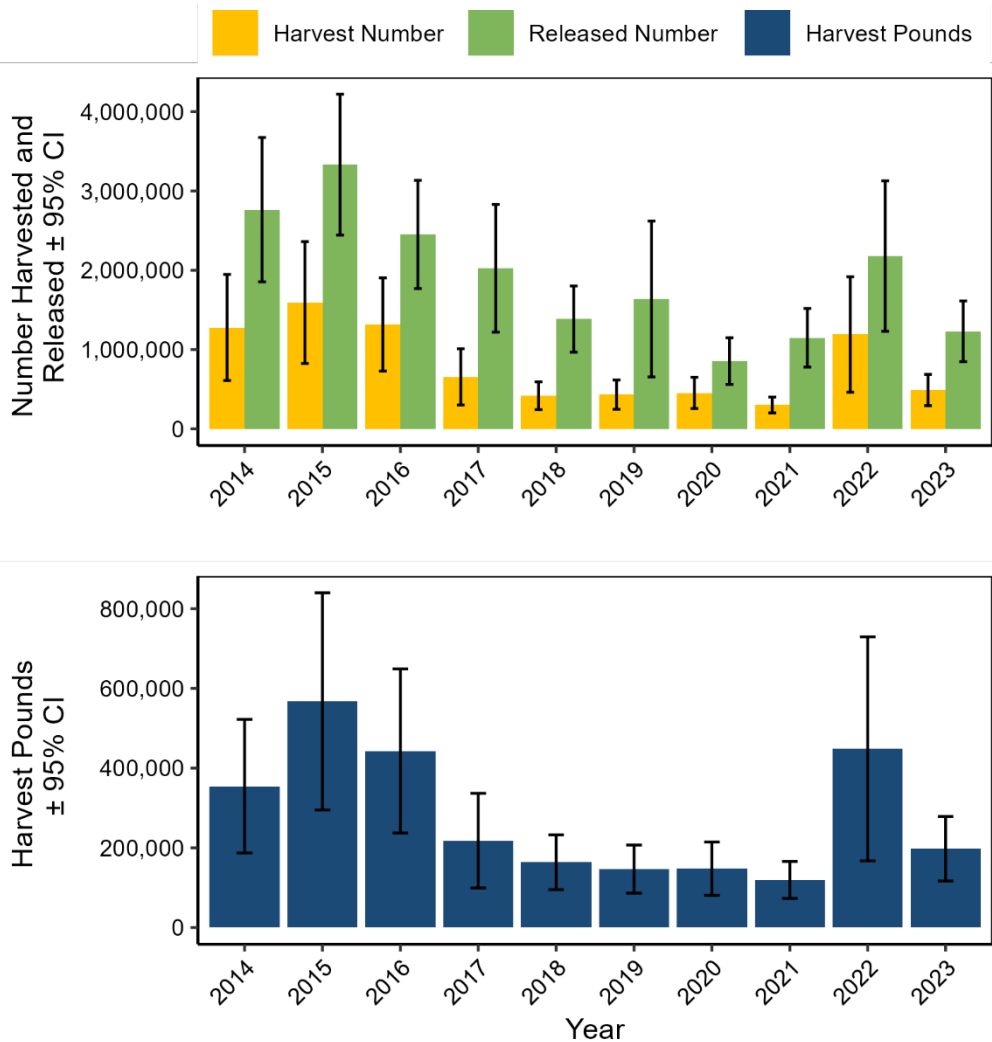


Figure III.43 Pigfish recreational catch in North Carolina by year.

Table III.49 Pigfish recreational catch by state, 2023.

State	Harvest Pounds	PSE (lb)	Harvest Number	PSE (num)	Release Number	PSE (release)	Mean Length (inches)	Mean Weight (lb)
Delaware	10,649	69	48,304	69	17	116	6.16	0.22
East Florida	83,911	35	202,280	35	749,691	26	8.57	0.41
Georgia	41,121	53	97,306	49	73,642	34	8.13	0.42
Maryland	5	58	18	50	26,519	64	6.82	0.28
New Jersey	0	-	0	-	8,303	100	-	-
North Carolina	197,723	21	490,705	20	1,230,152	16	7.94	0.4
South Carolina	22,433	27	56,748	28	714,501	43	7.97	0.4
Virginia	8,209	68	26,240	73	747,003	36	7.43	0.31

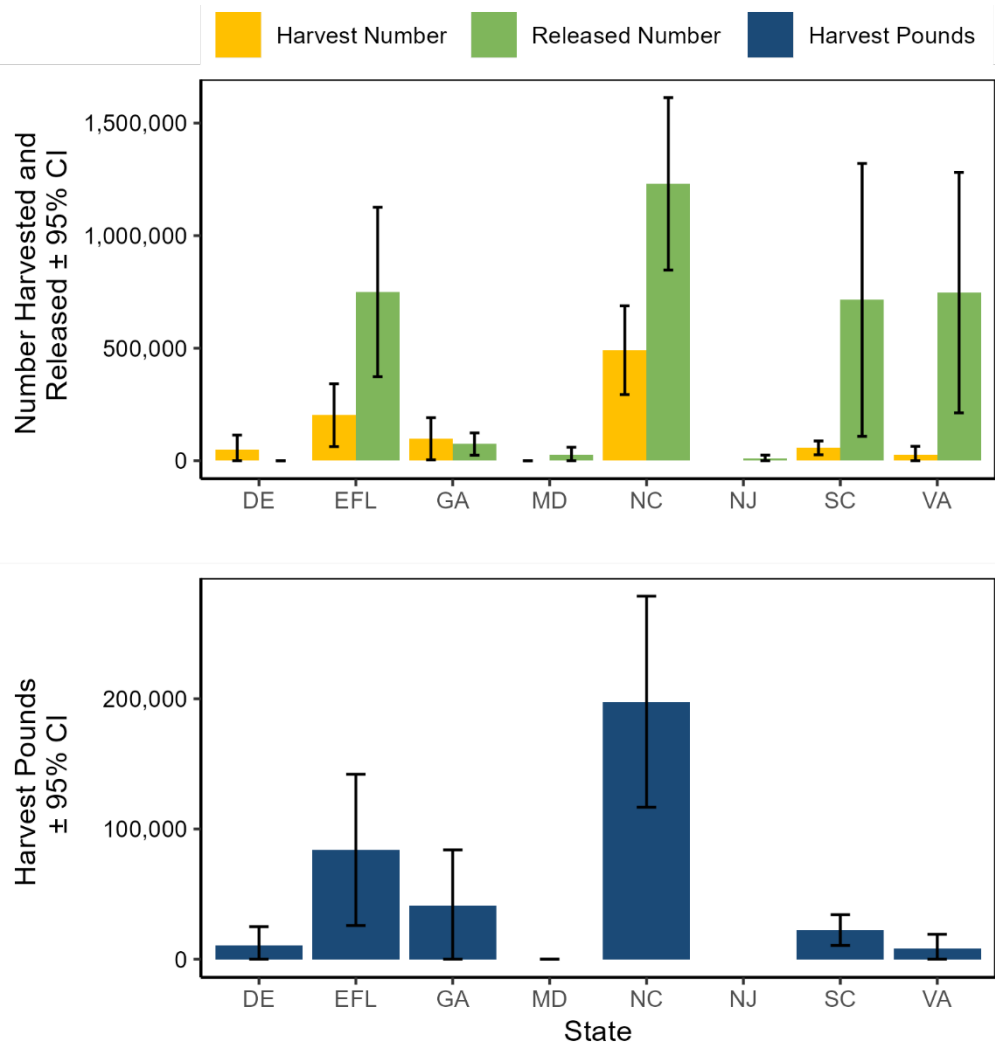


Figure III.44 Pigfish recreational catch by state, 2023.

Table III.50 Pinfish recreational catch in North Carolina by year.

Year	Harvest Pounds	PSE (lb)	Harvest Number	PSE (num)	Release Number	PSE (release)	Mean Length (inches)	Mean Weight (lb)
2023	352,853	20	1,328,754	20	12,293,983	12	6.90	0.27
2022	151,153	25	1,016,021	25	11,083,511	13	6.27	0.15
2021	167,331	25	1,079,719	26	7,778,171	11	5.60	0.15
2020	170,160	34	869,751	30	6,926,966	12	6.15	0.20
2019	217,718	24	955,550	25	9,076,843	11	6.64	0.23
2018	188,046	19	886,712	19	9,646,310	11	6.38	0.21
2017	283,455	24	917,956	24	13,677,930	17	6.95	0.31
2016	246,720	20	1,236,741	20	16,905,448	14	6.34	0.20
2015	449,239	24	1,597,032	21	14,915,393	11	6.81	0.28
2014	281,547	16	1,453,062	17	19,323,896	11	5.98	0.19

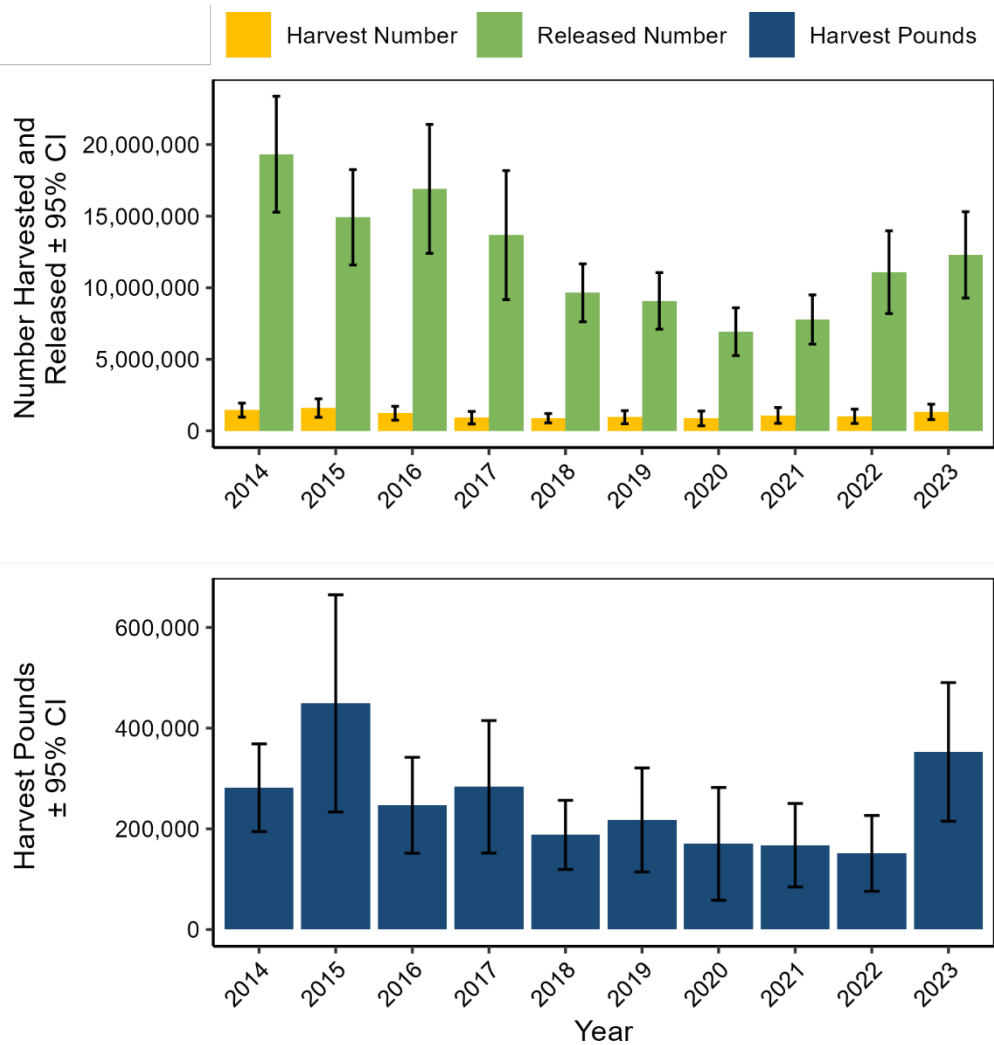


Figure III.45 Pinfish recreational catch in North Carolina by year.

Table III.51 Pinfish recreational catch by state, 2023.

State	Harvest Pounds	PSE (lb)	Harvest Number	PSE (num)	Release Number	PSE (release)	Mean Length (inches)	Mean Weight (lb)
Delaware	0	-	0	-	2,028	72	-	-
East Florida	84,118	28	327,982	32	1,020,198	25	6.5	0.26
Georgia	25,223	49	85,966	50	593,911	63	7.36	0.29
Maryland	10	10	9	10	53	10	5.75	1.1
Massachusetts	31	101	41	101	35	103	11.3	0.75
New Jersey	0	-	0	-	2,149	101	-	-
New York	32	93	37	93	0	-	10.39	0.85
North Carolina	352,853	20	1,328,754	20	12,293,983	12	6.9	0.27
South Carolina	89,684	34	283,145	31	5,907,673	17	6.97	0.32
Virginia	84,795	91	143,650	89	710,589	64	8.73	0.59

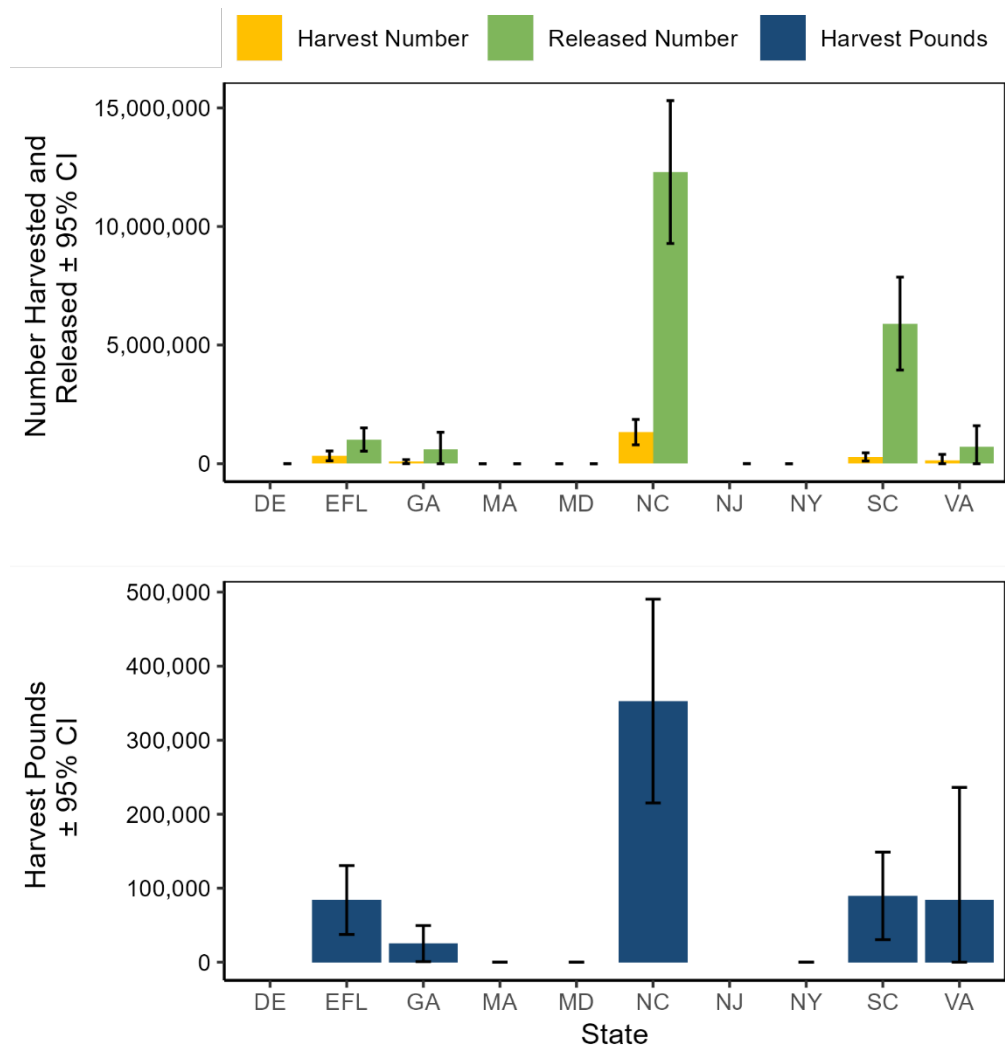


Figure III.46 Pinfish recreational catch by state, 2023.

Table III.52 Pompano, Florida recreational catch in North Carolina by year.

Year	Harvest Pounds	PSE (lb)	Harvest Number	PSE (num)	Release Number	PSE (release)	Mean Length (inches)	Mean Weight (lb)
2023	70,418	41	91,178	41	876,901	47	9.05	0.77
2022	105,344	44	584,682	45	1,724,601	30	6.35	0.18
2021	218,191	44	348,053	36	1,153,404	27	8.18	0.63
2020	406,980	59	441,569	36	832,361	28	9.30	0.92
2019	769,603	46	1,734,862	50	1,668,678	35	7.76	0.44
2018	245,670	42	318,702	37	1,267,505	23	8.65	0.77
2017	290,660	54	730,412	54	1,681,692	32	7.41	0.40
2016	258,769	55	411,634	43	1,446,589	27	8.48	0.63
2015	306,213	43	722,558	36	883,312	26	7.01	0.42
2014	360,398	34	646,308	33	1,112,888	22	8.46	0.56

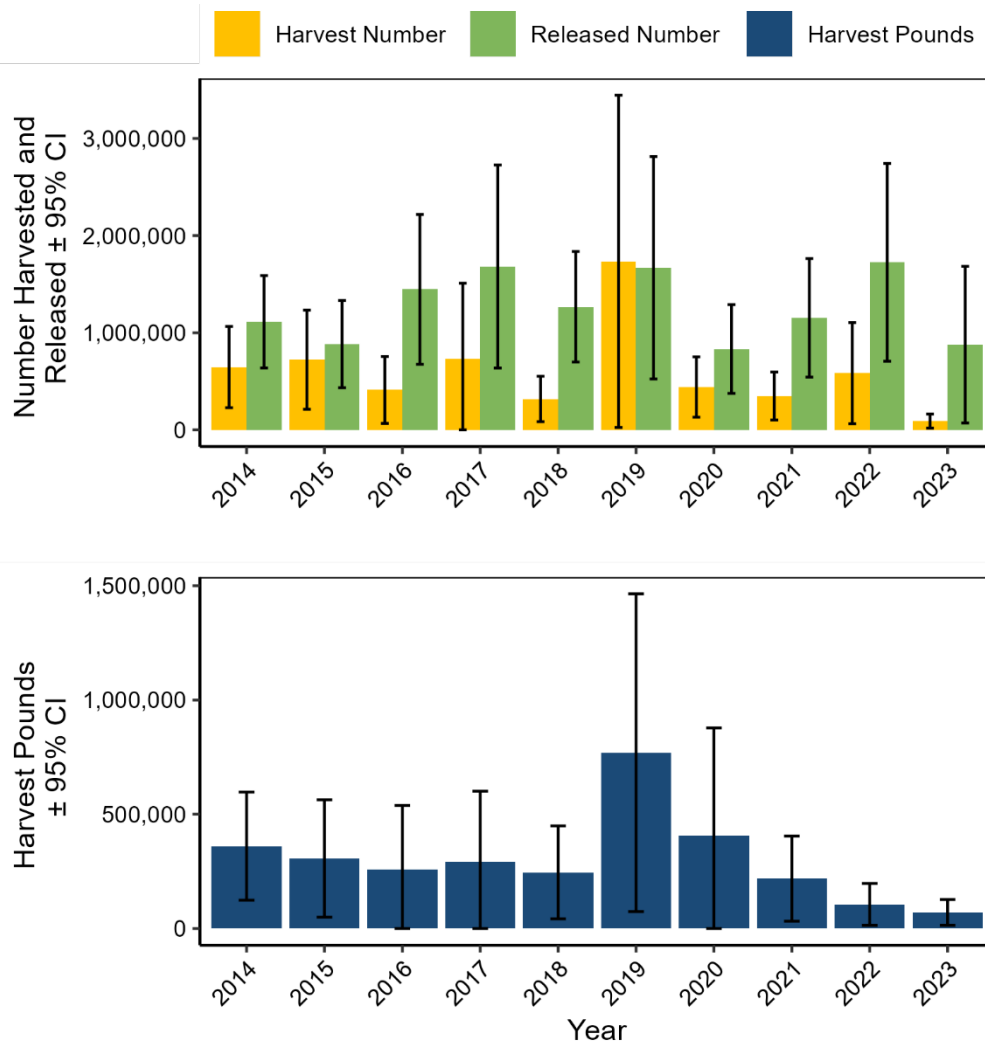


Figure III.47 Pompano, Florida recreational catch in North Carolina by year.

Table III.53 Pompano, Florida recreational catch by state, 2023.

State	Harvest Pounds	PSE (lb)	Harvest Number	PSE (num)	Release Number	PSE (release)	Mean Length (inches)	Mean Weight (lb)
Delaware	2,046	97	1,138	97	0	-	13.39	1.80
East Florida	1,482,734	23	975,738	24	760,242	29	12.38	1.52
Georgia	7,847	74	5,932	74	9,177	60	11.93	1.32
North Carolina	70,418	41	91,178	41	876,901	47	9.05	0.77
South Carolina	302,293	23	214,889	23	3,313,377	32	11.84	1.41
Virginia	5,995	104	3,334	104	7,408	74	13.39	1.80

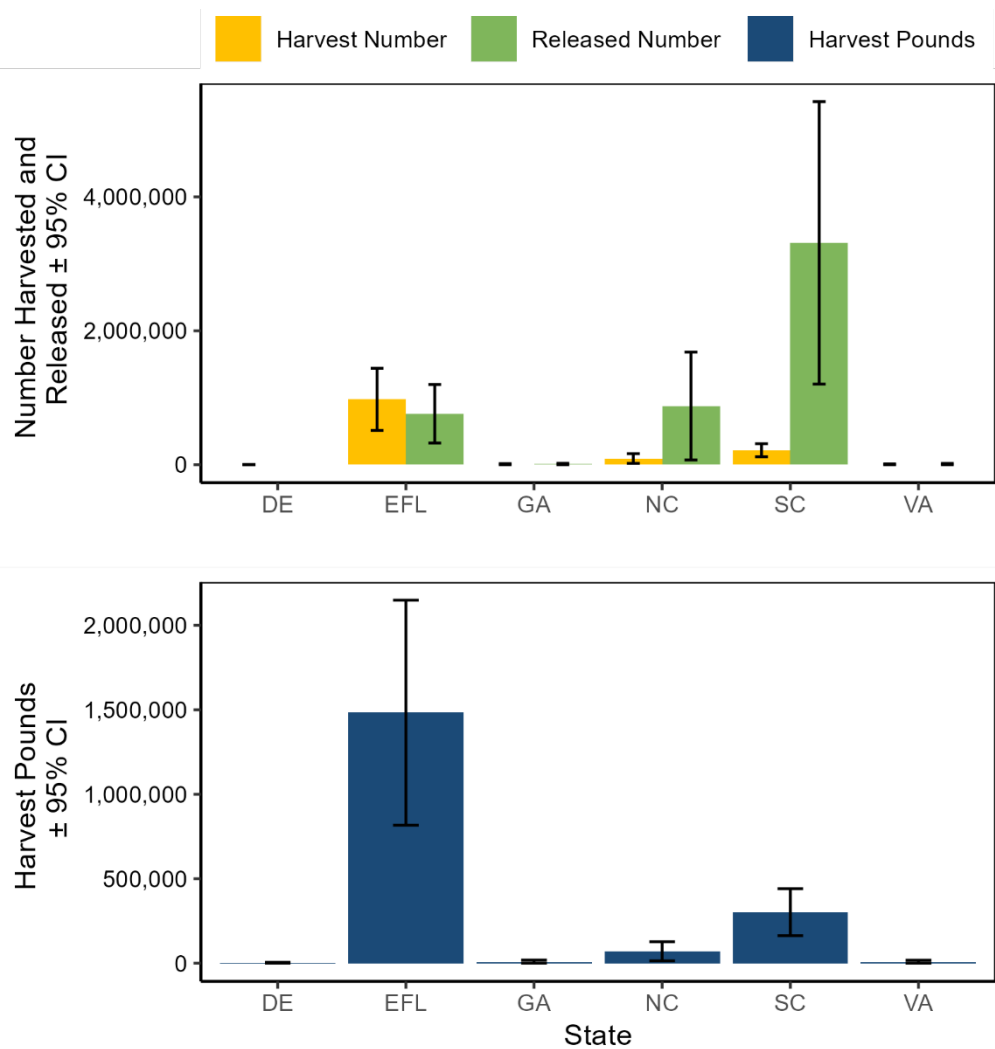


Figure III.48 Pompano, Florida recreational catch by state, 2023.

Table III.54 Puffer, Northern recreational catch in North Carolina by year.

Year	Harvest Pounds	PSE (lb)	Harvest Number	PSE (num)	Release Number	PSE (release)	Mean Length (inches)	Mean Weight (lb)
2023	964,014	18	1,922,514	17	2,215,709	16	8.31	0.50
2022	966,751	30	1,902,264	30	2,650,698	18	8.26	0.51
2021	229,518	23	507,976	21	1,100,095	20	7.65	0.45
2020	507,458	22	1,164,950	22	1,097,409	23	7.96	0.44
2019	1,016,972	30	2,394,588	30	2,240,965	19	7.83	0.42
2018	148,220	60	325,810	57	407,924	24	7.82	0.45
2017	258,605	25	518,342	27	1,878,428	41	8.27	0.50
2016	782,983	22	1,627,063	22	1,927,787	18	8.18	0.48
2015	1,334,104	28	2,752,120	31	3,645,599	18	8.23	0.48
2014	248,174	40	490,259	39	419,798	31	9.04	0.51

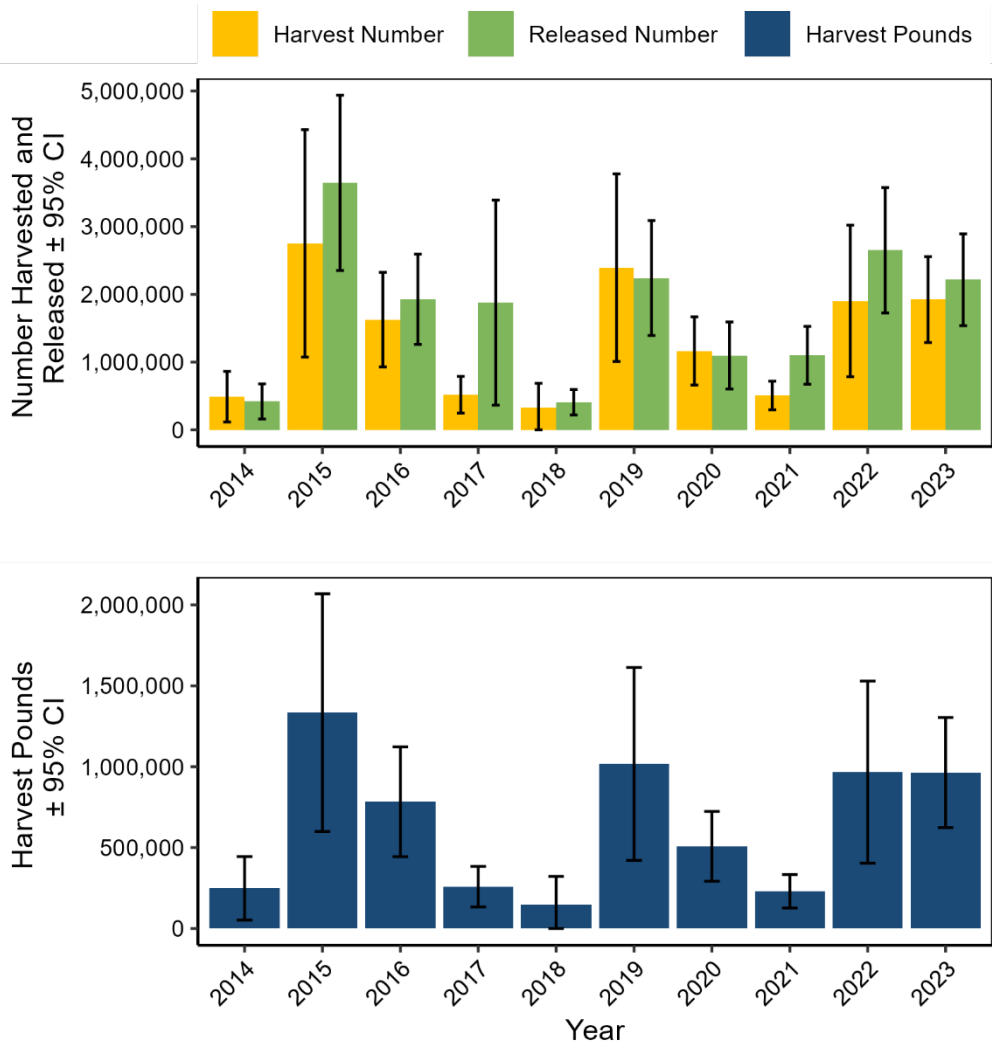


Figure III.49 Puffer, Northern recreational catch in North Carolina by year.

Table III.55 Puffer, Northern recreational catch by state, 2023.

State	Harvest Pounds	PSE (lb)	Harvest Number	PSE (num)	Release Number	PSE (release)	Mean Length (inches)	Mean Weight (lb)
Connecticut	0	-	0	-	2,219	99	-	-
Delaware	0	-	0	-	30,496	60	-	-
Maryland	833	103	3,779	103	47,518	57	6.5	0.22
Massachusetts	0	-	0	-	5,773	99	-	-
New Jersey	8,197	72	25,284	72	108,121	34	6.92	0.32
New York	16,652	46	46,224	63	680,944	42	6.68	0.36
North Carolina	964,014	18	1,922,514	17	2,215,709	16	8.31	0.5
Rhode Island	0	-	3,487	103	36,917	50	-	-
South Carolina	32,341	29	67,882	28	46,307	41	8.17	0.48
Virginia	45,539	77	95,013	67	781,689	59	7.57	0.48

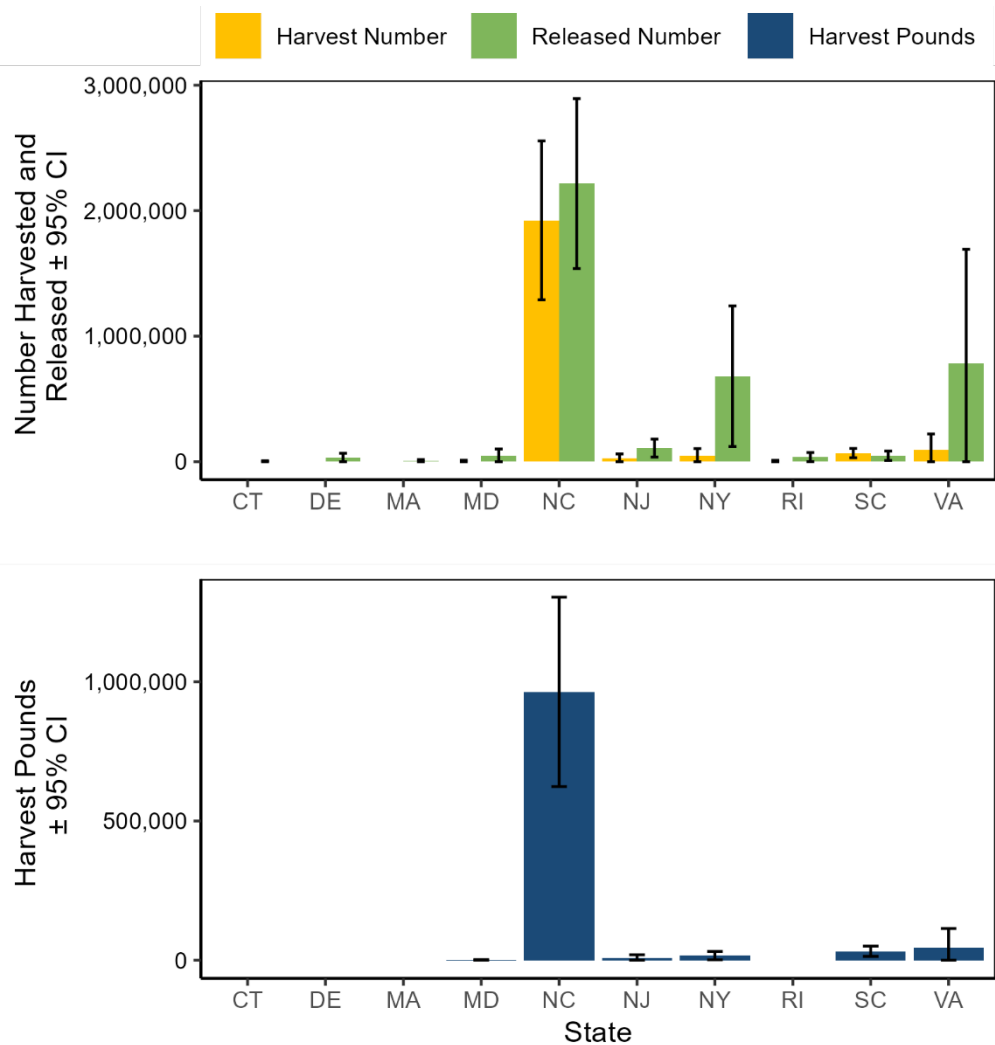


Figure III.50 Puffer, Northern recreational catch by state, 2023.

Table III.56 Seatrout, Spotted recreational catch in North Carolina by year.

Year	Harvest Pounds	PSE (lb)	Harvest Number	PSE (num)	Release Number	PSE (release)	Mean Length (inches)	Mean Weight (lb)
2023	1,923,165	12	1,002,906	12	4,566,788	17	17.26	1.92
2022	3,756,040	15	1,963,400	14	10,860,575	22	17.43	1.91
2021	2,241,421	12	1,223,508	11	6,284,614	19	17.02	1.83
2020	3,632,315	11	2,053,354	11	6,155,571	11	16.95	1.77
2019	3,334,163	12	1,937,250	11	7,161,183	12	16.70	1.72
2018	658,555	18	449,473	19	15,238,355	44	15.74	1.47
2017	2,157,198	15	1,217,834	15	5,147,567	15	16.96	1.77
2016	1,724,492	14	978,624	13	6,475,193	18	16.75	1.76
2015	430,579	23	249,260	22	4,824,088	23	16.91	1.73
2014	1,451,592	16	725,086	14	3,949,284	14	17.55	2.00

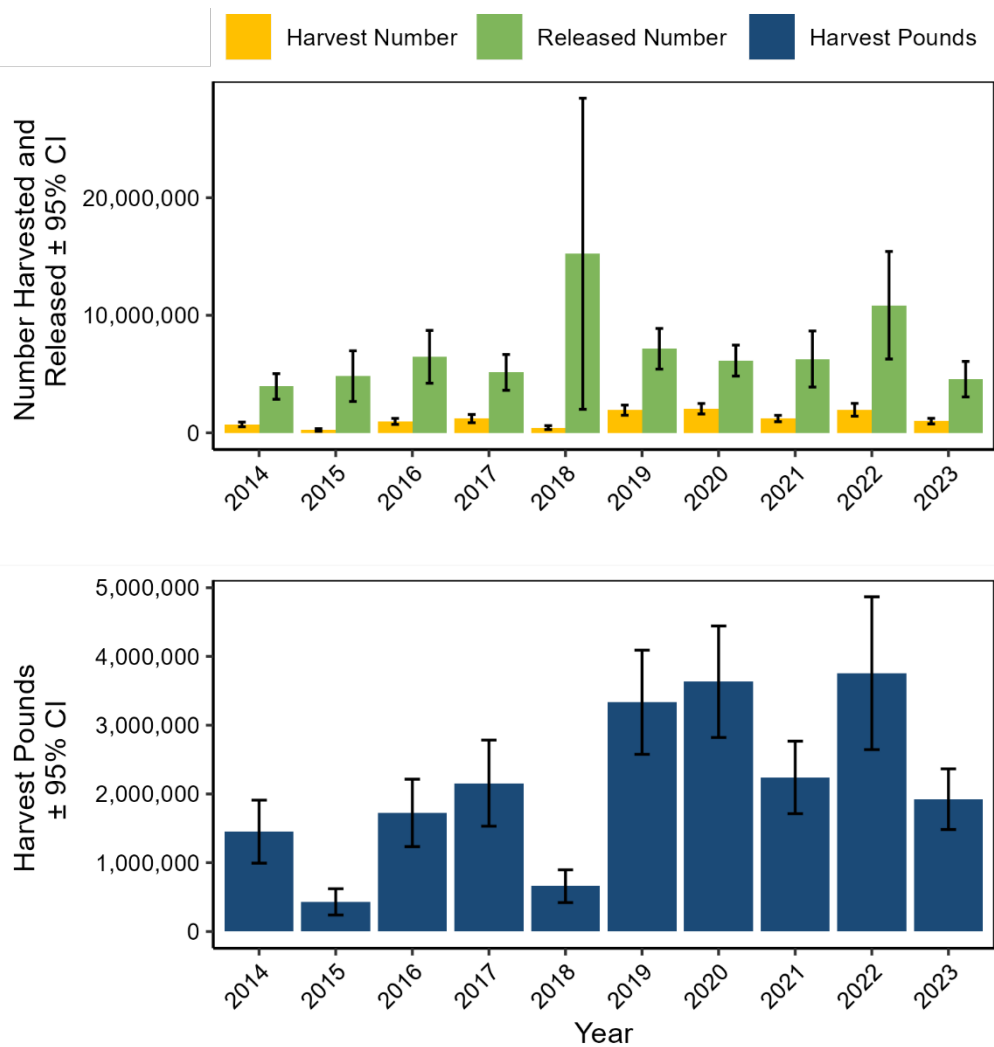


Figure III.51 Seatrout, Spotted recreational catch in North Carolina by year.

Table III.57 Seatrout, Spotted recreational catch by state, 2023.

State	Harvest Pounds	PSE (lb)	Harvest Number	PSE (num)	Release Number	PSE (release)	Mean Length (inches)	Mean Weight (lb)
Delaware	0	-	0	-	19,472	94	-	-
East Florida	313,986	19	222,214	19	2,825,335	14	16.07	1.41
Georgia	669,434	16	497,679	16	1,644,289	16	15.26	1.35
Maryland	47,091	67	21,533	60	49,493	50	17.97	2.19
North Carolina	1,923,165	12	1,002,906	12	4,566,788	17	17.26	1.92
South Carolina	463,895	22	304,452	22	1,068,702	16	15.9	1.52
Virginia	938,451	33	410,505	32	3,557,195	46	18.12	2.29

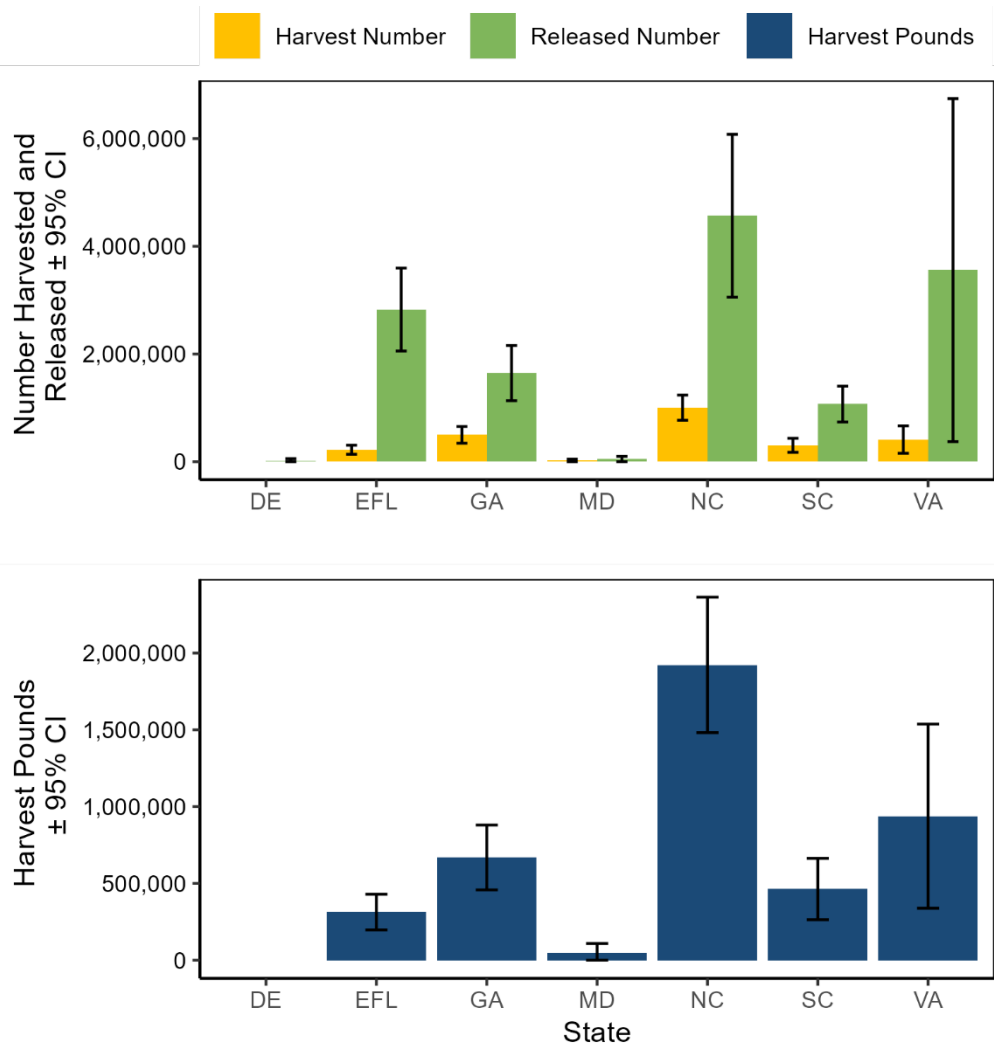


Figure III.52 Seatrout, Spotted recreational catch by state, 2023.

Table III.58 Shark, Dogfish family recreational catch in North Carolina by year.

Year	Harvest Pounds	PSE (lb)	Harvest Number	PSE (num)	Release Number	PSE (release)	Mean Length (inches) ¹	Mean Weight (lb) ¹
2023	272,276	41	55,431	42	751,861	45	-	-
2022	14,461	43	5,214	42	72,063	49	-	-
2021	117,447	90	21,587	87	411,720	96	-	-
2020	16,763	71	3,073	64	511,128	89	-	-
2019	50,477	61	8,962	58	276,623	37	-	-
2018	43,732	70	7,514	65	186,918	64	-	-
2017	5,616	88	683	86	78,761	42	-	-
2016	359,844	63	33,490	63	149,818	22	-	-
2015	38,340	81	8,314	68	777,052	57	-	-
2014	11,978	88	1,992	85	709,206	39	-	-

¹Multiple species of sharks are reported for this category, mean length and weight by individual species of shark are available upon request.

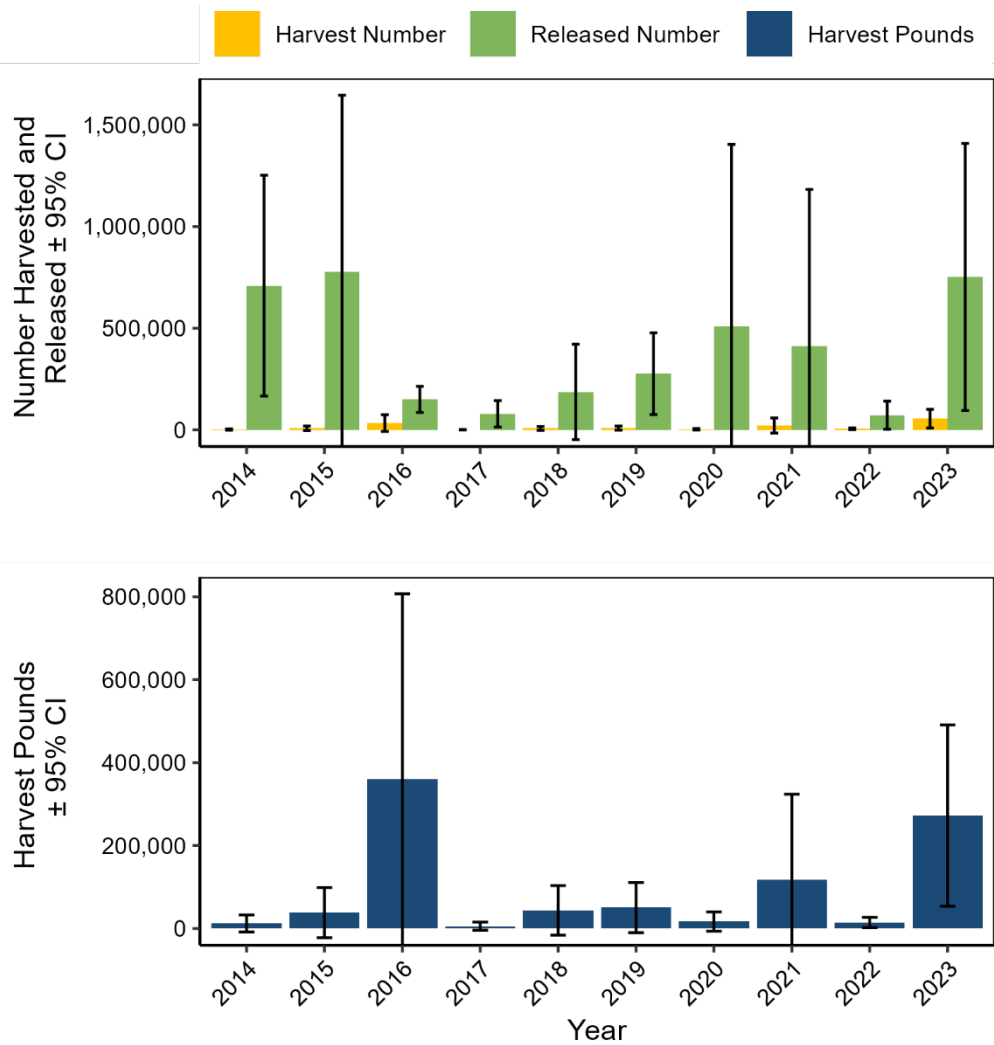


Figure III.53 Shark, Dogfish family recreational catch in North Carolina by year.

Table III.59 Shark, Dogfish family recreational catch by state, 2023.

State	Harvest Pounds	PSE (lb)	Harvest Number	PSE (num)	Release Number	PSE (release)	Mean Length (inches) ¹	Mean Weight (lb) ¹
Connecticut	59,820	59	6,235	62	314,896	34	-	-
Delaware	61	50	51	77	157,165	38	-	-
Georgia	0	-	0	-	1,391	0	-	-
Maine	0	-	0	-	26,514	4	-	-
Maryland	0	-	0	-	63,259	1	-	-
Massachusetts	14,805	64	3,531	53	257,002	18	-	-
New Hampshire	20,594	1	2,112	3	53,600	20	-	-
New Jersey	85,739	29	10,401	20	1,158,075	11	-	-
New York	21,001	44	3,224	34	1,737,983	38	-	-
North Carolina	272,276	29	55,431	28	751,861	43	-	-
Rhode Island	7,255	88	6,015	92	140,342	13	-	-
Virginia	8,916	0	2,341	1	133,248	0	-	-

¹ Multiple species of sharks are reported for this category, mean length and weight by individual species of shark are available upon request.

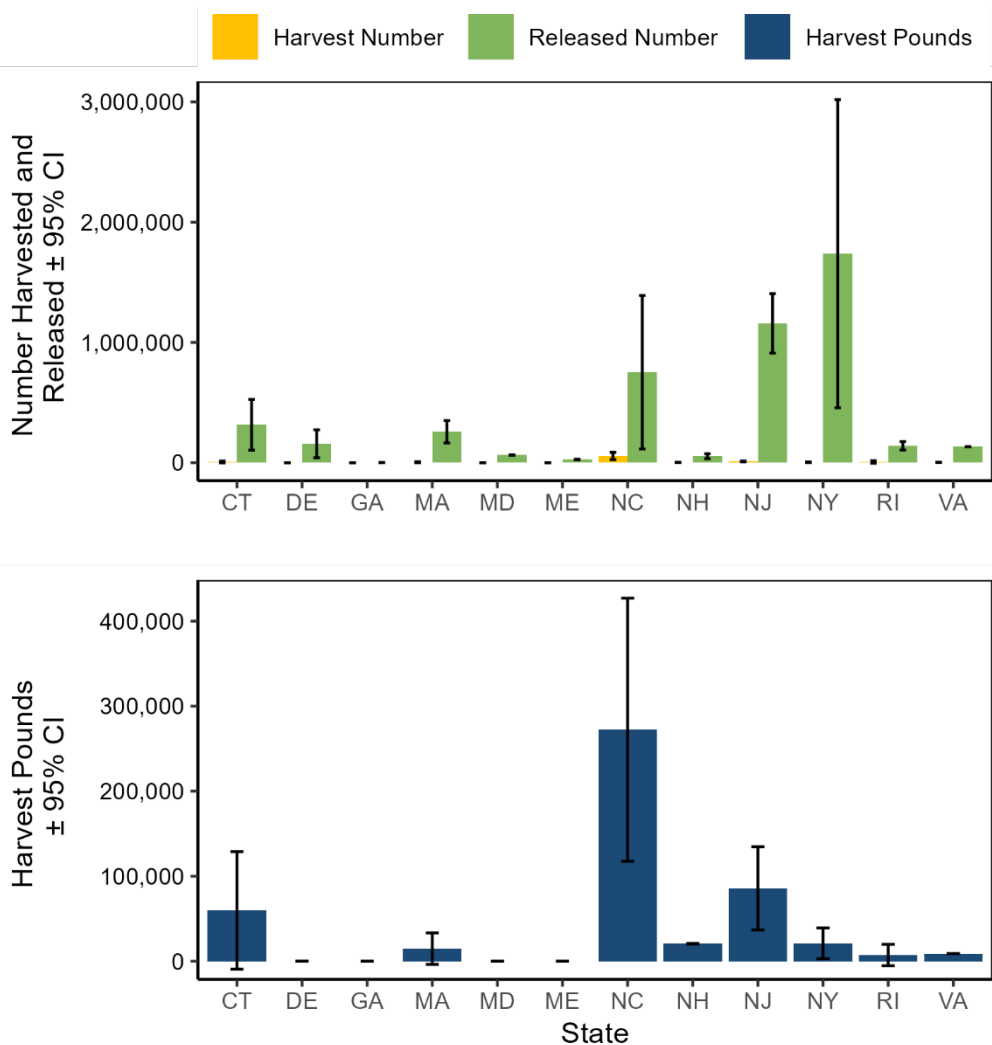


Figure III.54 Shark, Dogfish family recreational catch by state, 2023.

Table III.60 Shark, Pelagic recreational catch in North Carolina by year.

Year	Harvest Pounds	PSE (lb)	Harvest Number	PSE (num)	Release Number	PSE (release)	Mean Length (inches) ¹	Mean Weight (lb) ¹
2023	-	-	-	-	-	-	-	-
2022	-	-	-	-	-	-	-	-
2021	-	-	111	71	20	71	-	-
2020	0	-	0	-	38	37	-	-
2019	0	-	0	-	888	41	-	-
2018	160,155	82	2,043	82	38	40	-	-
2017	4,917	44	66	48	33	106	-	-
2016	0	-	0	-	3,512	0	-	-
2015	479,443	49	5,097	49	987	82	-	-
2014	2,082	28	26	31	296	82	-	-

¹ Multiple species of sharks are reported for this category, mean length and weight by individual species of shark are available upon request.

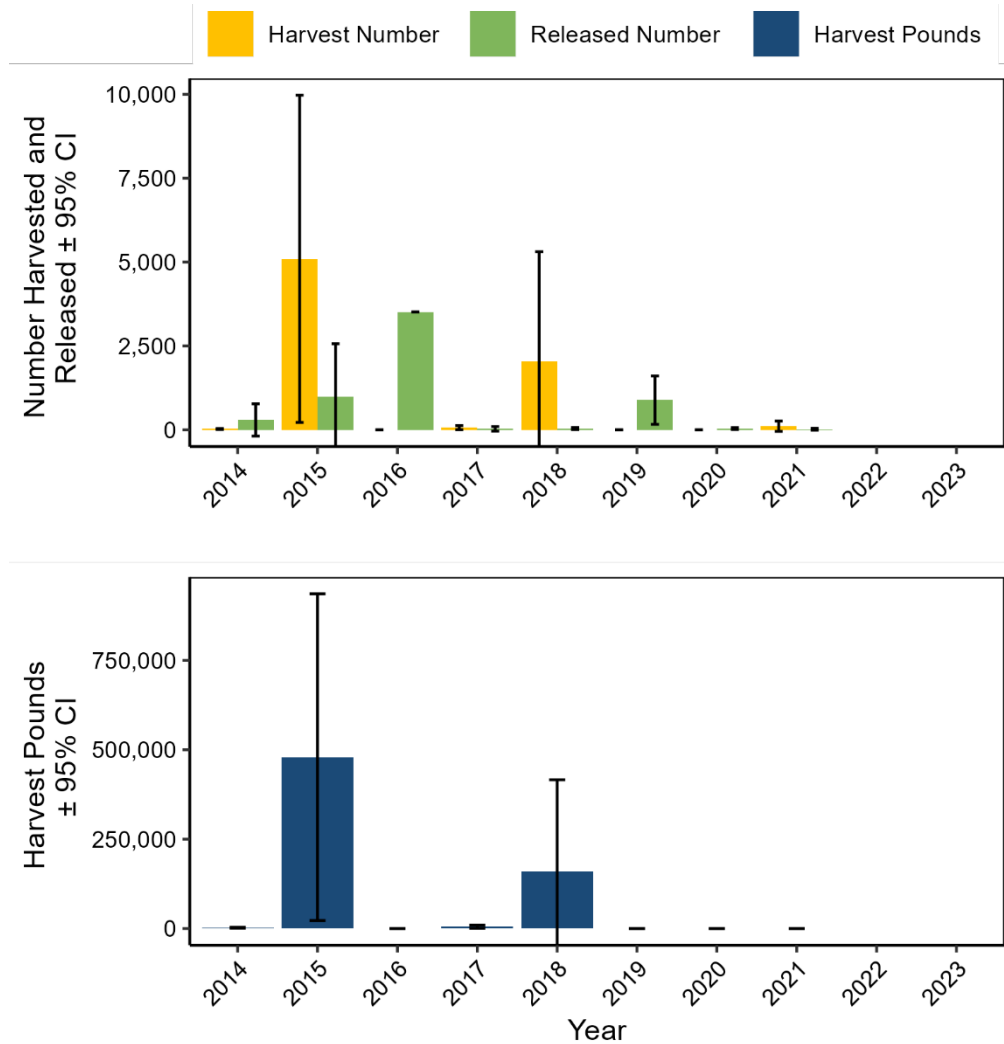


Figure III.55 Shark, Pelagic recreational catch in North Carolina by year.

Table III.61 Shark, Pelagic recreational catch by state, 2023.

State	Harvest Pounds	PSE (lb)	Harvest Number	PSE (num)	Release Number	PSE (release)	Mean Length (inches) ¹	Mean Weight (lb) ¹
Connecticut	-	-	0	-	105	0	-	-
East Florida	-	-	0	-	730	0	-	-
Massachusetts	-	-	56	0	8,078	10	-	-
New Hampshire	-	-	154	16	419	19	-	-
New Jersey	-	-	1,135	0	7,928	6	-	-
New York	-	-	0	-	5,895	0	-	-
Rhode Island	-	-	0	-	1,192	0	-	-

¹ Multiple species of sharks are reported for this category, mean length and weight by individual species of shark are available upon request.

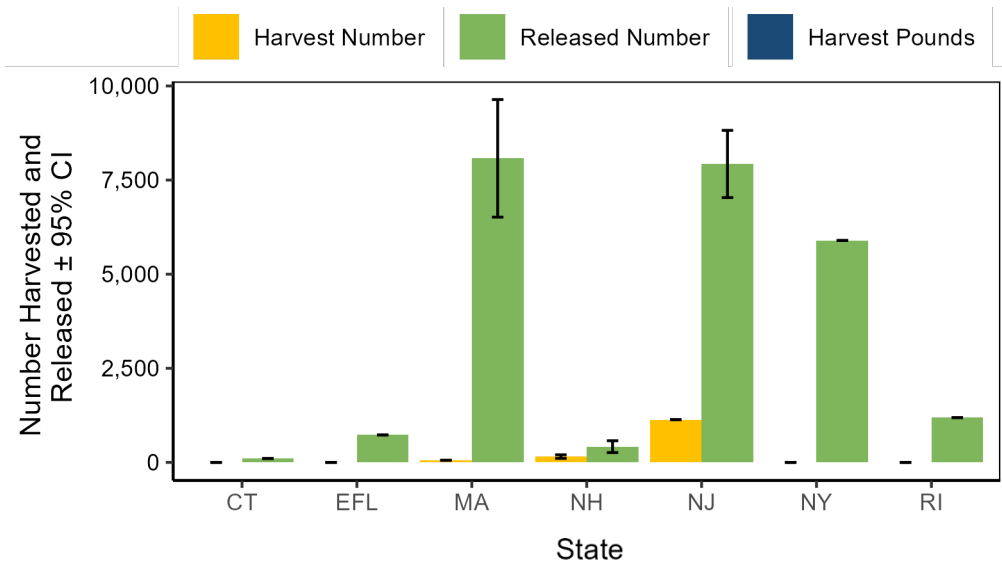


Figure III.56 Shark, Pelagic recreational catch by state, 2023.

Table III.62 Sheepshead recreational catch in North Carolina by year.

Year	Harvest Pounds	PSE (lb)	Harvest Number	PSE (num)	Release Number	PSE (release)	Mean Length (inches)	Mean Weight (lb)
2023	619,265	16	263,328	14	734,253	20	13.43	2.35
2022	1,024,623	18	387,924	17	570,444	18	13.71	2.64
2021	928,130	19	324,540	16	873,080	17	13.78	2.86
2020	592,774	21	247,390	24	518,140	21	13.40	2.40
2019	590,150	25	221,419	22	312,479	26	13.91	2.67
2018	735,738	20	343,772	22	524,967	18	12.82	2.14
2017	810,633	20	282,480	19	910,841	23	13.87	2.87
2016	375,328	25	149,085	26	212,471	23	13.77	2.52
2015	520,382	21	181,554	22	160,447	23	14.20	2.87
2014	389,583	21	185,267	20	224,062	20	12.60	2.10

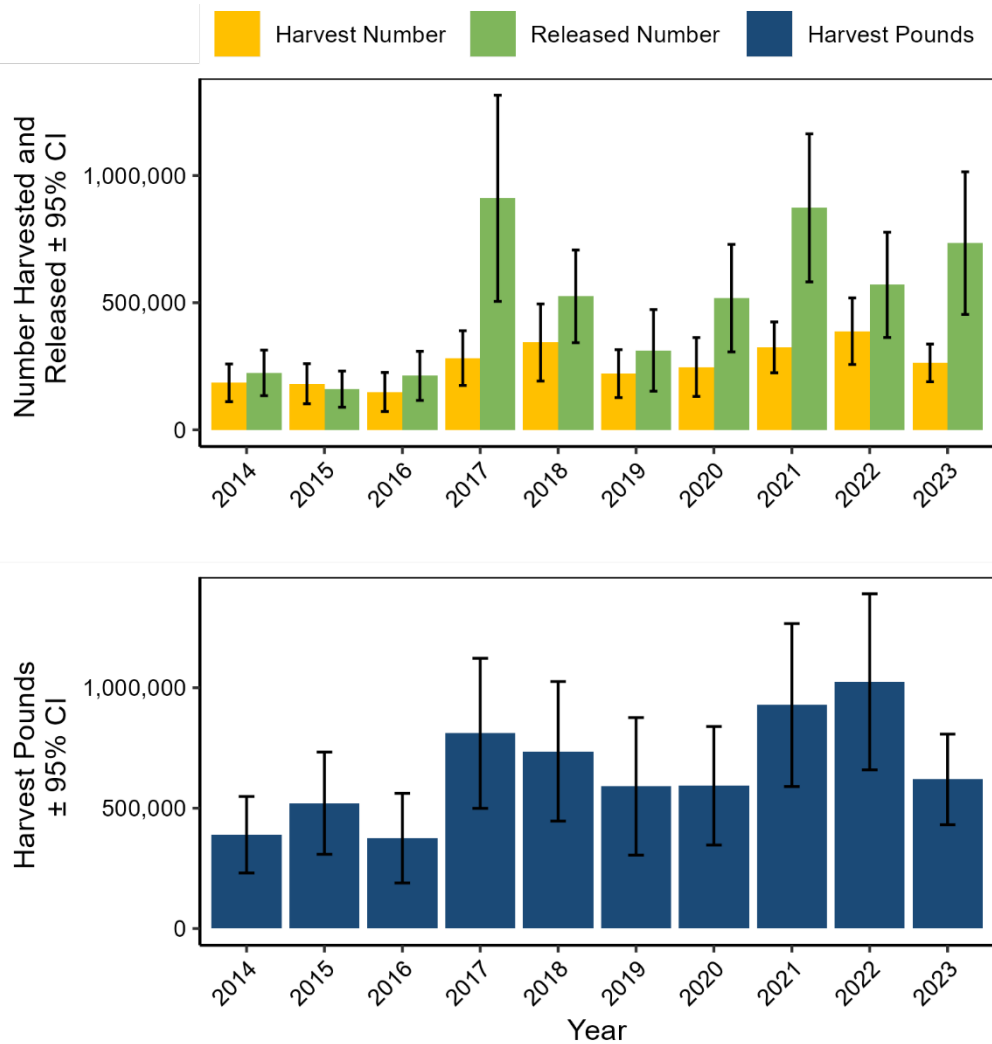


Figure III.57 Sheepshead recreational catch in North Carolina by year.

Table III.63 Sheepshead recreational catch by state, 2023.

State	Harvest Pounds	PSE (lb)	Harvest Number	PSE (num)	Release Number	PSE (release)	Mean Length (inches)	Mean Weight (lb)
Delaware	145,926	76	27,452	74	107,366	41	17.69	5.32
East Florida	1,713,701	22	750,180	22	1,142,751	19	13.44	2.28
Georgia	316,449	31	178,702	29	201,444	37	12.17	1.77
Maryland	31,823	52	9,752	55	2,424	48	14.04	3.26
New Jersey	223,981	44	50,474	43	28,707	65	17.22	4.44
North Carolina	619,265	16	263,328	14	734,253	20	13.43	2.35
Rhode Island	0	-	0	-	350	100	-	-
South Carolina	351,572	24	106,655	24	449,408	22	15.25	3.3
Virginia	435,969	48	86,338	43	56,318	38	17.07	5.05

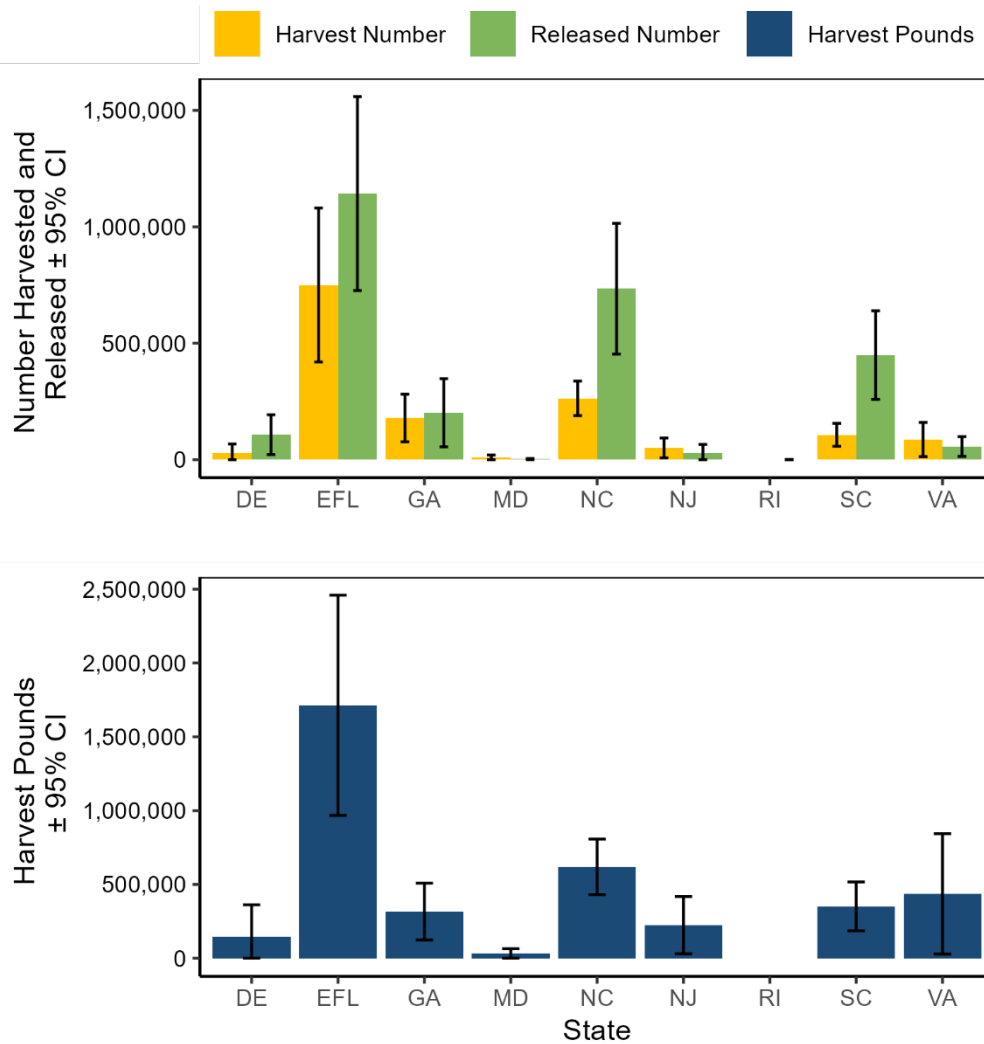


Figure III.58 Sheepshead recreational catch by state, 2023.

Table III.64 Spot recreational catch in North Carolina by year.

Year	Harvest Pounds	PSE (lb)	Harvest Number	PSE (num)	Release Number	PSE (release)	Mean Length (inches)	Mean Weight (lb)
2023	300,052	31	855,729	26	2,737,778	21	7.80	0.35
2022	375,168	35	1,197,145	34	2,331,484	24	8.07	0.31
2021	435,231	22	1,199,080	19	2,357,567	20	7.96	0.36
2020	297,813	18	920,512	18	1,673,676	18	8.12	0.32
2019	851,998	28	2,822,884	28	2,356,120	27	7.68	0.30
2018	597,511	24	2,068,865	24	2,062,163	19	8.37	0.29
2017	909,796	51	2,418,331	45	1,902,281	28	8.07	0.38
2016	558,799	25	1,928,716	25	1,831,415	22	7.95	0.29
2015	833,390	21	2,572,738	20	2,984,629	15	8.06	0.32
2014	2,877,483	26	8,343,467	24	4,043,710	12	8.24	0.34

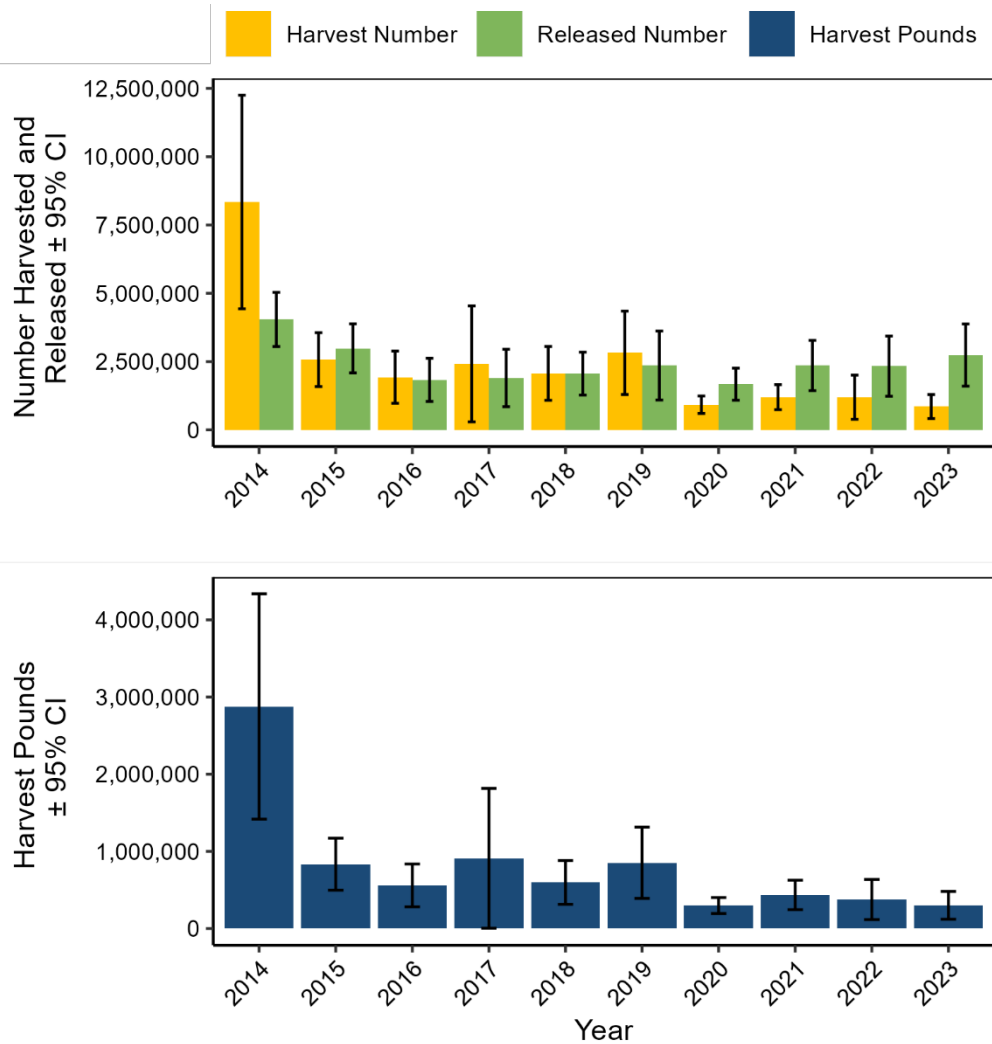


Figure III.59 Spot recreational catch in North Carolina by year.

Table III.65 Spot recreational catch by state, 2023.

State	Harvest Pounds	PSE (lb)	Harvest Number	PSE (num)	Release Number	PSE (release)	Mean Length (inches)	Mean Weight (lb)
Delaware	242,352	41	669,372	40	342,448	28	7.77	0.36
East Florida	7,255	60	20,366	59	112,604	56	8.77	0.36
Georgia	11,987	44	43,413	43	118,198	45	7.79	0.28
Maryland	638,790	19	3,083,906	18	4,060,882	15	6.66	0.21
New Jersey	26,194	43	94,585	42	1,044,086	66	7.23	0.28
New York	18,234	87	99,879	86	422,964	88	6.32	0.18
North Carolina	300,052	31	855,729	26	2,737,778	21	7.80	0.35
Rhode Island	290	86	1,932	91	539	103	6.05	0.15
South Carolina	245,398	26	749,849	25	1,338,634	22	7.79	0.33
Virginia	770,060	23	3,265,598	22	4,192,568	18	7.00	0.24

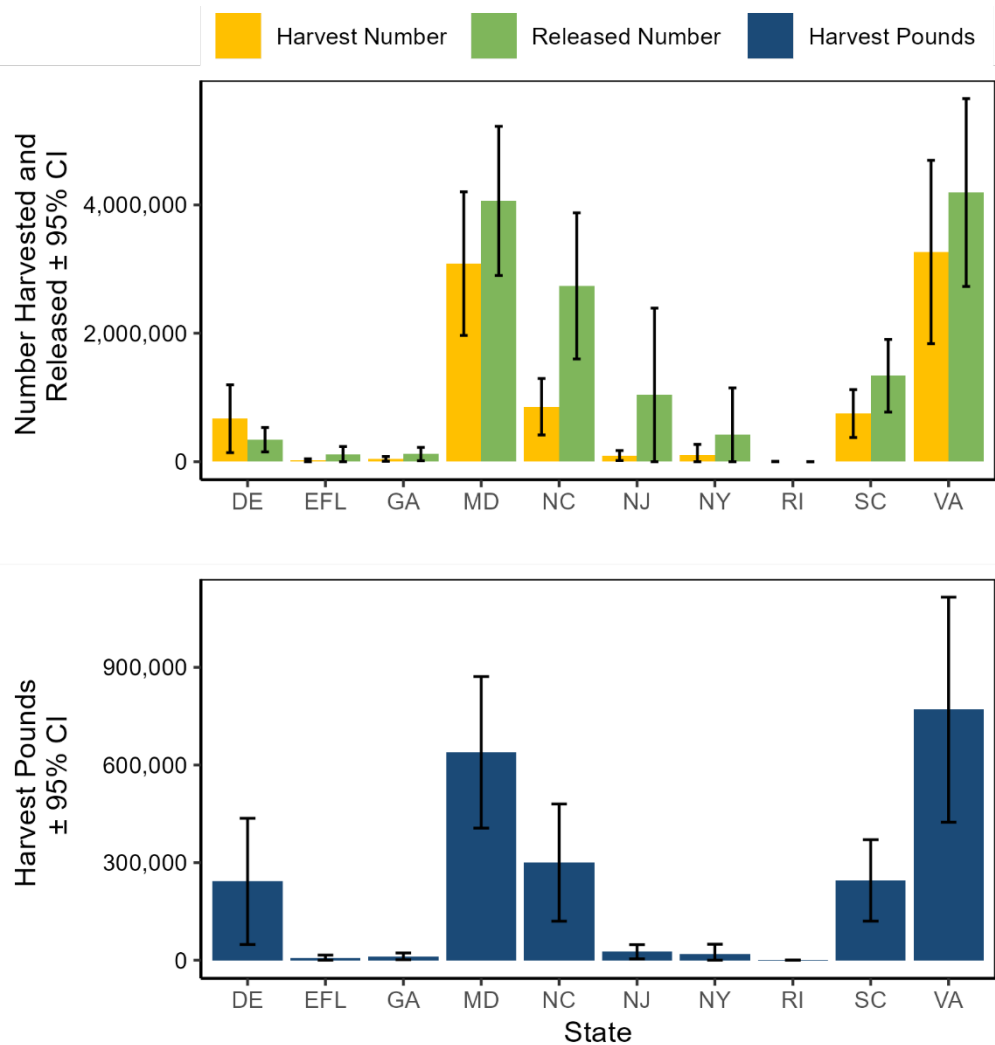


Figure III.60 Spot recreational catch by state, 2023.

Table III.66 Tuna, Yellowfin recreational catch in North Carolina by year.

Year	Harvest Pounds	PSE (lb)	Harvest Number	PSE (num)	Release Number	PSE (release)	Mean Length (inches)	Mean Weight (lb)
2023	895,304	32	30,588	31	467	49	34.65	29.27
2022	1,450,166	29	38,924	26	6,890	81	38.40	37.26
2021	1,365,679	22	49,158	21	3,509	82	34.39	27.78
2020	2,429,665	18	83,766	18	32,574	84	35.10	29.01
2019	1,190,484	20	44,864	20	2,333	53	33.88	26.54
2018	1,977,741	27	61,171	31	3,739	46	36.23	32.33
2017	4,040,504	20	118,659	22	17,812	29	37.67	34.05
2016	3,164,911	24	80,458	23	28,643	64	39.33	39.34
2015	1,079,798	24	38,199	25	2,196	44	34.99	28.27
2014	1,392,966	25	44,151	25	7,460	37	36.53	31.55

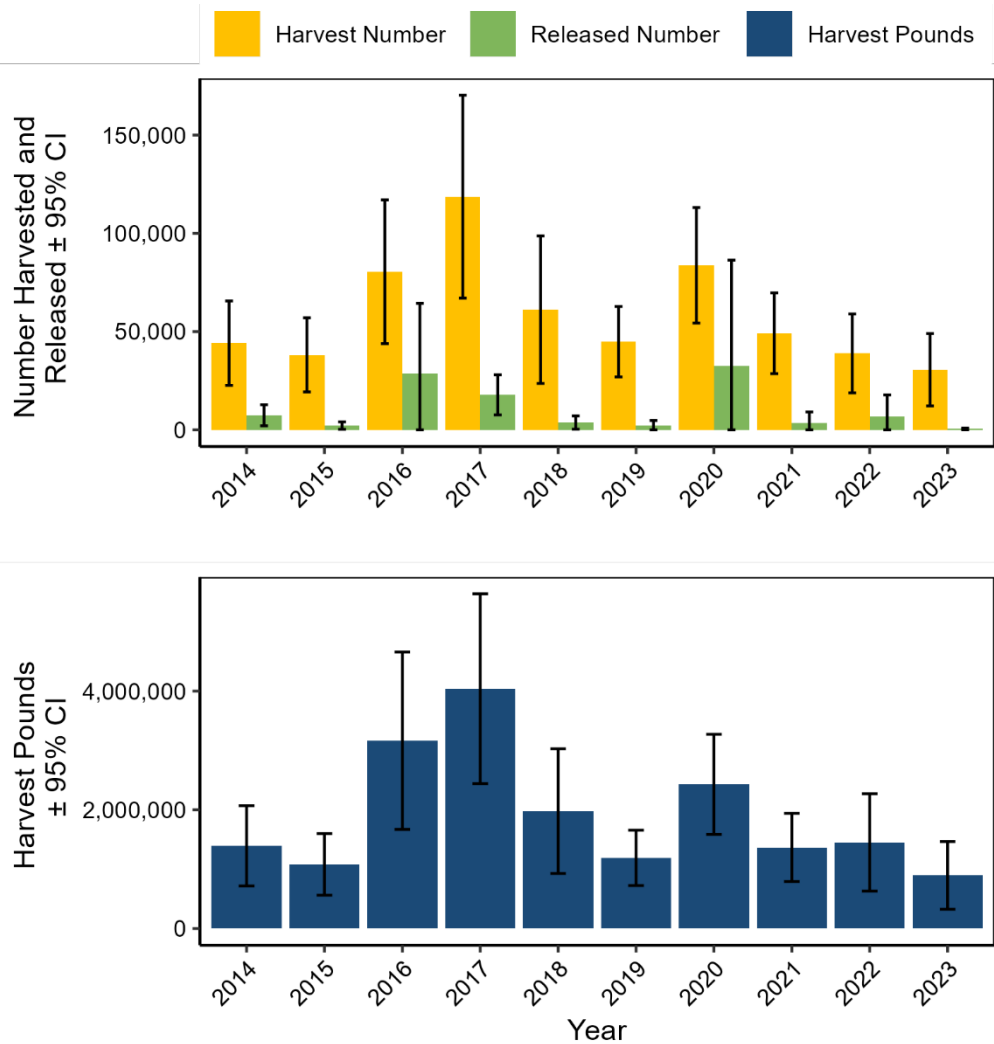


Figure III. 61 Tuna, Yellowfin recreational catch in North Carolina by year.

Table III.67 Tuna, Yellowfin recreational catch by state, 2023.

State	Harvest Pounds	PSE (lb)	Harvest Number	PSE (num)	Release Number	PSE (release)	Mean Length (inches)	Mean Weight (lb)
Connecticut	112,413	39	3,305	40	0	-	37.86	34.01
East Florida	195,944	100	8,966	100	0	-	29.66	21.85
Maryland	637,432	50	16,588	50	13,416	107	39.17	38.43
Massachusetts	214,810	98	5,550	97	3,663	98	39.74	38.70
New Jersey	625,368	44	27,235	45	58	100	30.21	22.96
New York	2,122,854	54	55,765	52	5,352	98	39.06	38.07
North Carolina	895,304	32	30,588	31	467	49	34.65	29.27
Rhode Island	514,516	33	13,148	31	725	56	39.88	39.13
Virginia	981,128	91	24,076	91	0	-	40.05	40.75

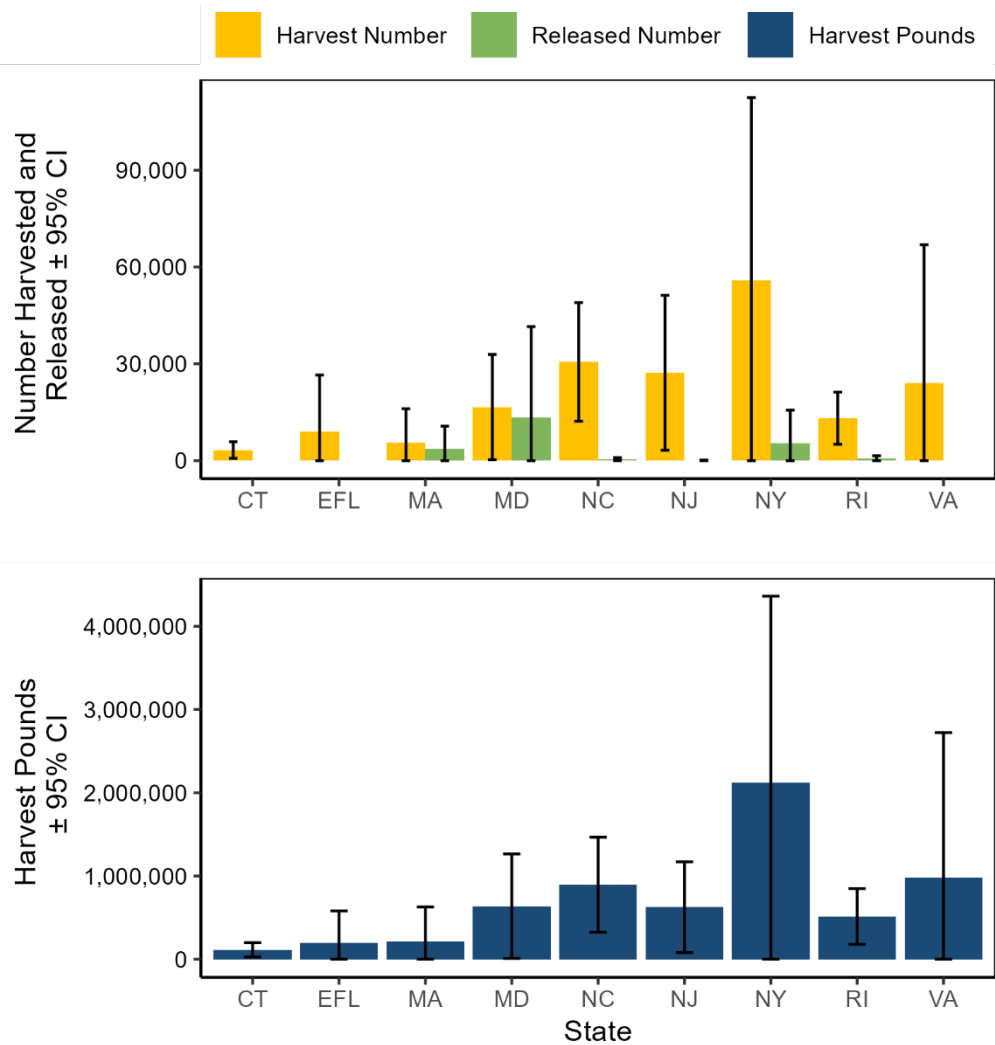


Figure III.62 Tuna, Yellowfin recreational catch by state, 2023.

Table III.68 Tunny, Little (False Albacore) recreational catch in North Carolina by year.

Year	Harvest Pounds	PSE (lb)	Harvest Number	PSE (num)	Release Number	PSE (release)	Mean Length (inches)	Mean Weight (lb)
2023	168,654	20	31,443	22	25,405	38	21.10	5.36
2022	234,922	25	38,772	27	127,255	41	21.96	6.06
2021	118,784	17	17,096	16	52,788	23	22.90	6.95
2020	594,794	31	92,899	32	171,564	21	22.38	6.40
2019	185,094	24	27,360	23	80,205	28	22.29	6.77
2018	315,758	35	47,892	30	110,716	34	21.82	6.59
2017	334,363	37	39,213	36	119,648	21	23.98	8.53
2016	337,842	25	41,076	24	145,700	33	23.65	8.22
2015	207,889	46	22,855	38	87,239	29	24.26	9.10
2014	189,270	36	27,469	43	273,165	38	22.17	6.89

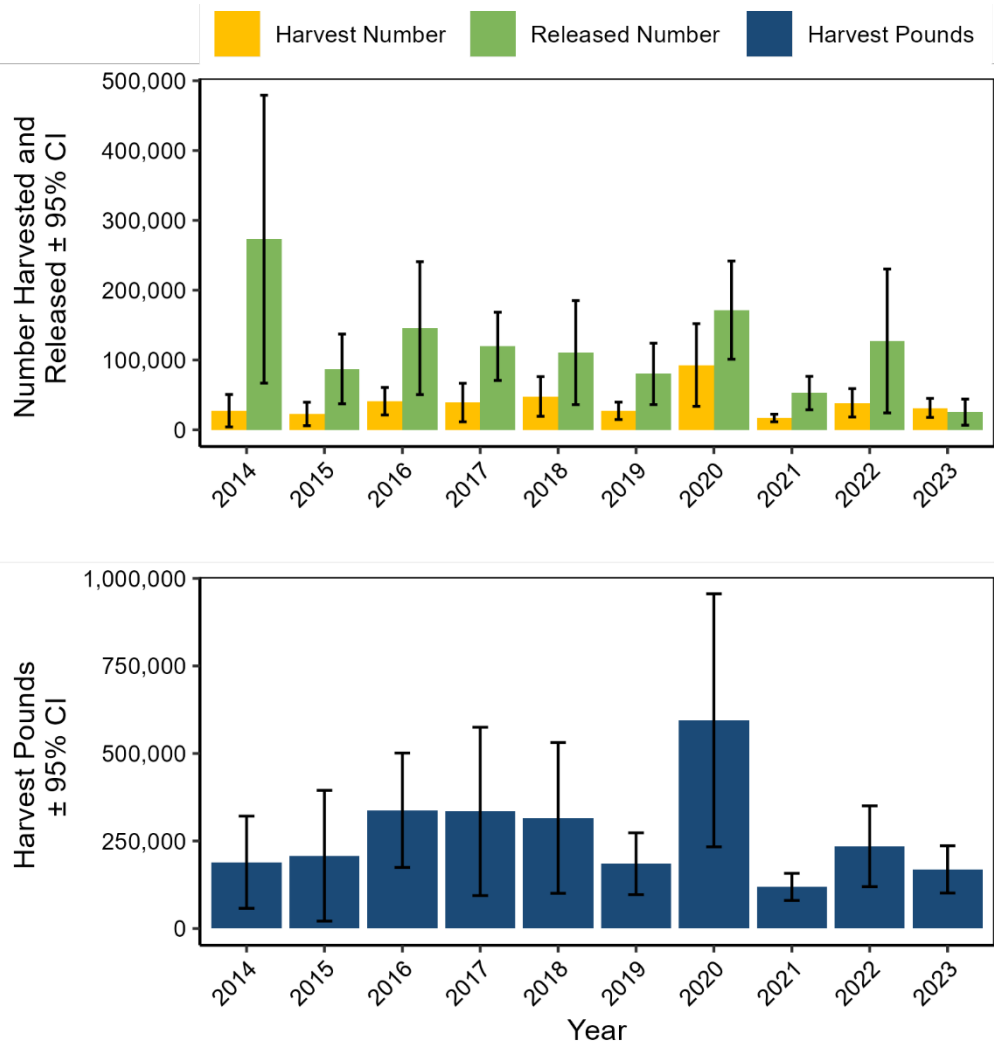


Figure III. 63 Tunny, Little (False Albacore) recreational catch in North Carolina by year.

Table III.69 Tunny, Little (False Albacore) recreational catch by state, 2023.

State	Harvest Pounds	PSE (lb)	Harvest Number	PSE (num)	Release Number	PSE (release)	Mean Length (inches)	Mean Weight (lb)
Connecticut	11,205	66	1,717	65	199,754	44	23.37	6.53
Delaware	511	26	445	26	199	91	12.57	1.15
East Florida	3,987,996	18	512,500	16	429,676	20	23.94	7.78
Georgia	1,416	84	85	73	0	-	29.67	16.61
Maryland	0	-	0	-	2,507	63	-	-
Massachusetts	46,967	72	7,148	71	225,714	25	22.85	6.57
New Jersey	3,314	88	576	89	71,943	62	20.99	5.75
New York	5,058	91	879	87	23,941	44	21.92	5.75
North Carolina	168,654	20	31,443	22	25,405	38	21.1	5.36
Rhode Island	73,851	52	12,040	52	55,981	30	22.72	6.13
South Carolina	34,704	74	6,583	69	2,887	79	21.17	5.27

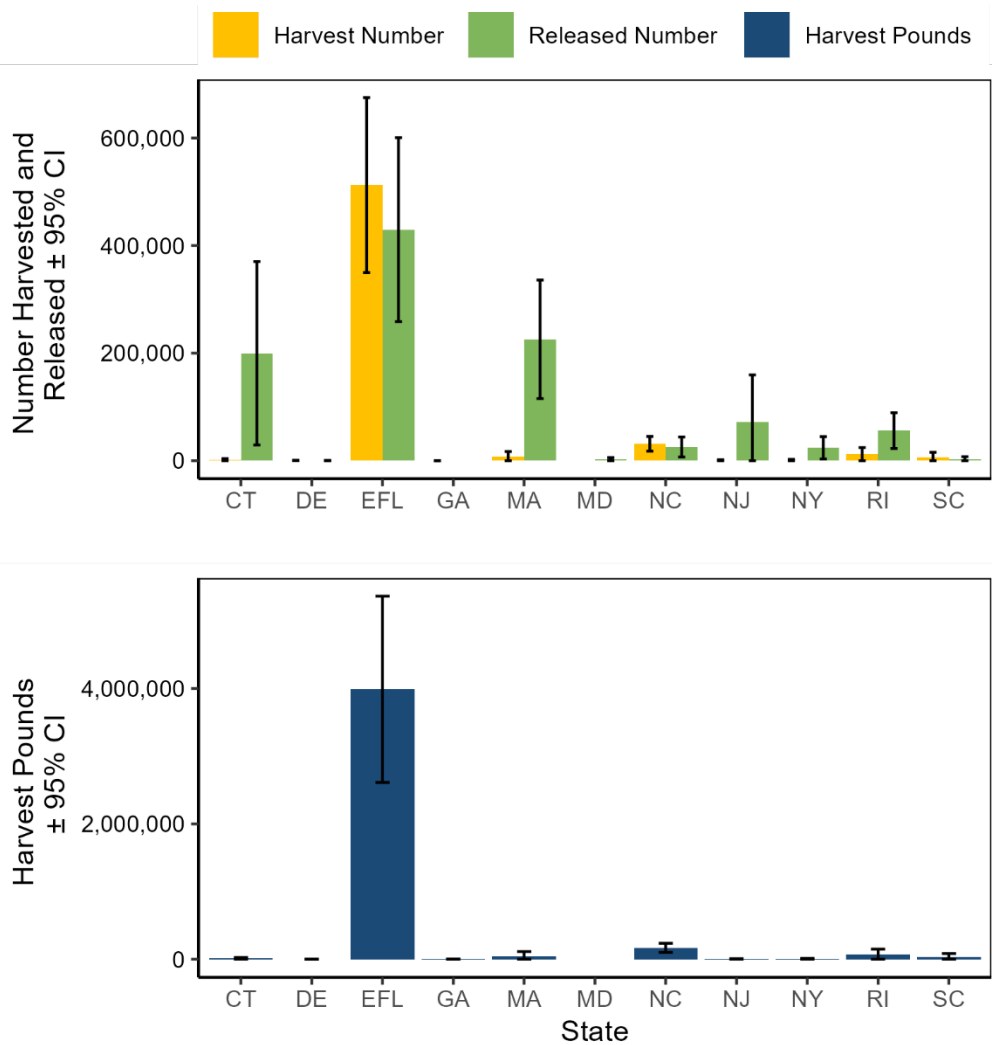


Figure III.64 Tunny, Little (False Albacore) recreational catch by state, 2023.

Table III.70 Wahoo recreational catch in North Carolina by year.

Year	Harvest Pounds	PSE (lb)	Harvest Number	PSE (num)	Release Number	PSE (release)	Mean Length (inches)	Mean Weight (lb)
2023	379,586	24	20,434	27	148	105	43.34	18.58
2022	232,436	27	9,657	27	0	-	47.35	24.07
2021	244,048	29	9,760	32	0	-	46.01	25.01
2020	462,937	20	19,055	23	87	99	46.85	24.30
2019	454,391	17	17,098	18	23	100	47.14	26.58
2018	280,644	25	10,690	26	182	94	47.70	26.25
2017	842,604	31	30,305	29	0	-	48.77	27.80
2016	1,056,969	23	39,565	22	5	110	48.06	26.71
2015	983,232	23	36,920	25	608	101	47.91	26.63
2014	804,473	28	29,362	27	22	103	48.24	27.40

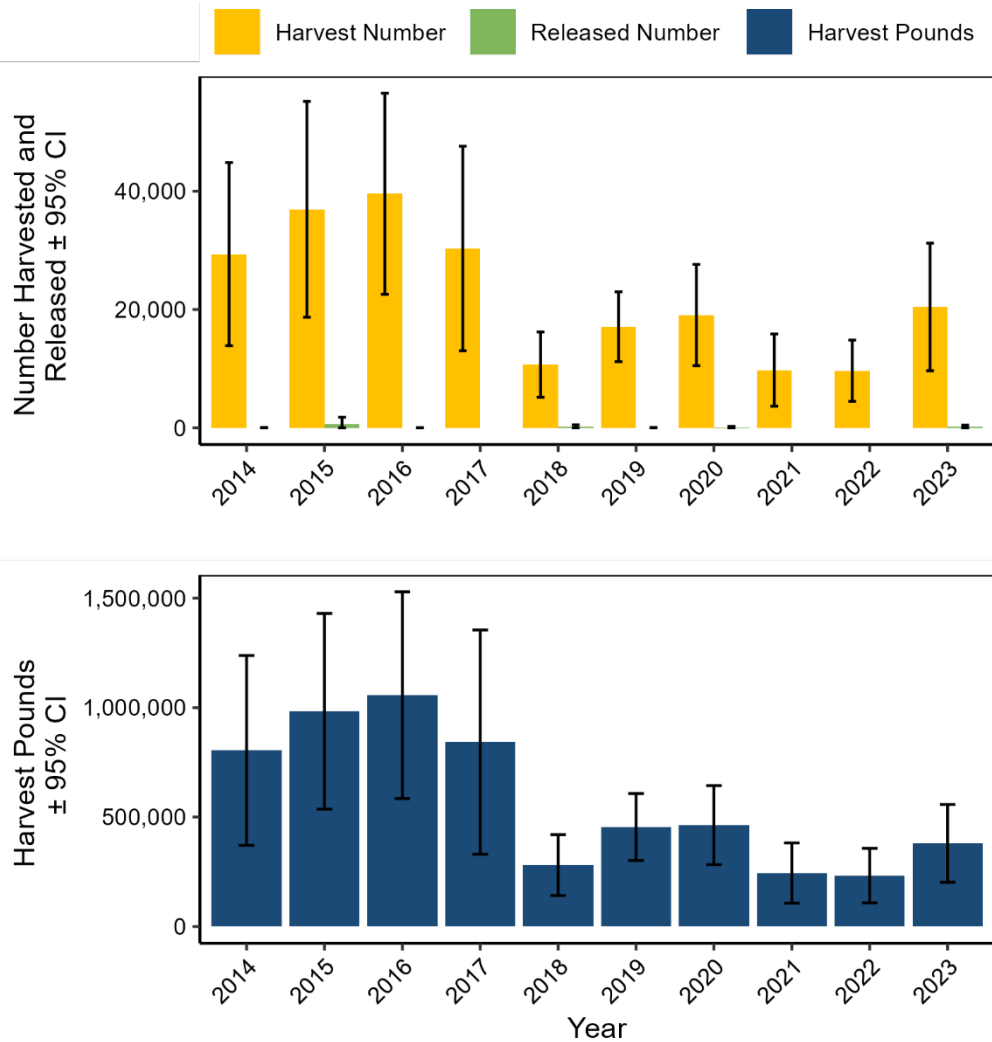


Figure III.65 Wahoo recreational catch in North Carolina by year.

Table III.71 Wahoo recreational catch by state, 2023.

State	Harvest Pounds	PSE (lb)	Harvest Number	PSE (num)	Release Number	PSE (release)	Mean Length (inches)	Mean Weight (lb)
Delaware	0	-	0	-	17	91	-	-
East Florida	929,182	37	54,530	33	3,048	71	41.45	17.04
Maryland	27,433	73	943	69	0	-	48.86	29.1
North Carolina	379,586	24	20,434	27	148	105	43.34	18.58
South Carolina	351,015	64	16,242	64	0	-	45.02	21.61

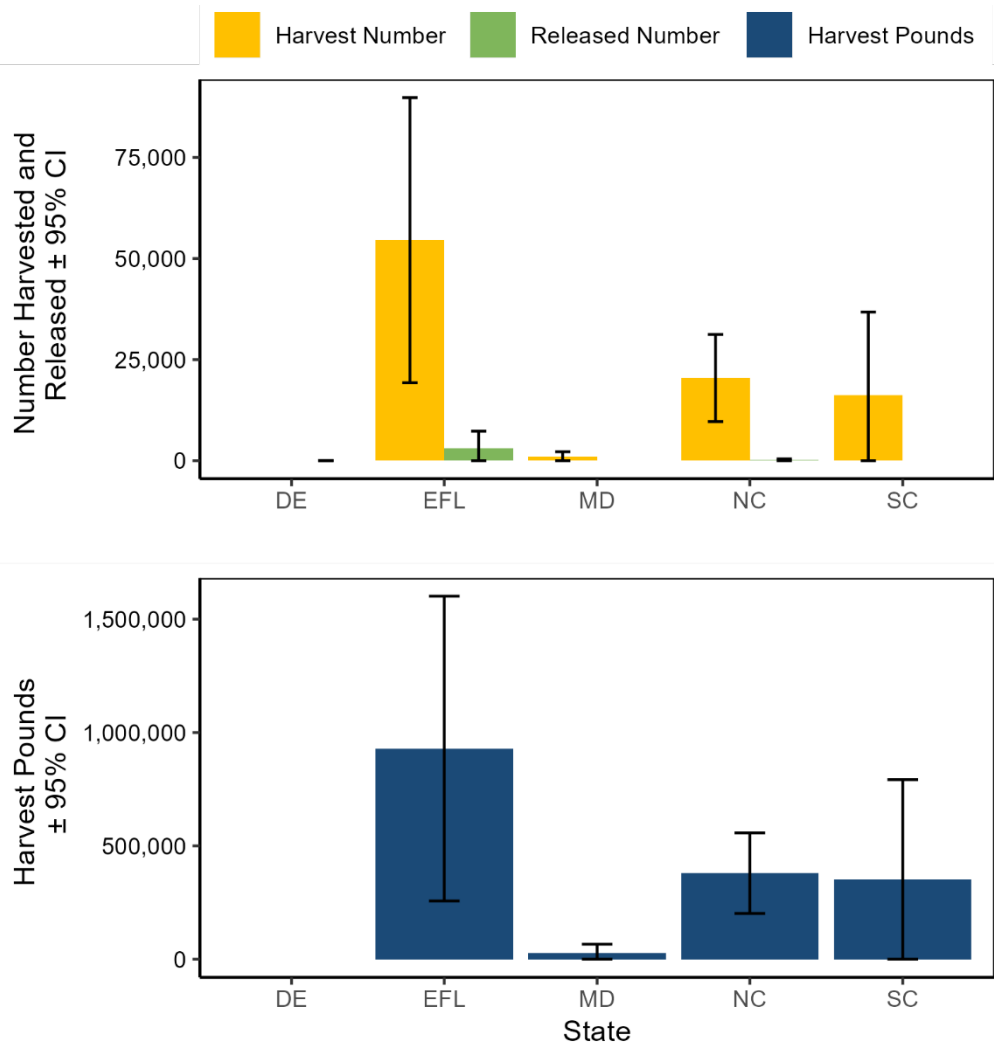


Figure III.66 Wahoo recreational catch by state, 2023.

Table III.72 Weakfish recreational catch in North Carolina by year.

Year	Harvest Pounds	PSE (lb)	Harvest Number	PSE (num)	Release Number	PSE (release)	Mean Length (inches)	Mean Weight (lb)
2023	89,115	21	75,329	22	833,559	31	14.57	1.18
2022	105,060	20	112,095	22	1,921,985	43	13.33	0.94
2021	103,449	20	91,032	19	1,028,640	25	14.08	1.14
2020	105,729	35	82,124	32	342,015	24	15.03	1.29
2019	43,252	22	39,061	21	244,643	23	14.48	1.11
2018	29,924	40	30,935	40	299,496	52	13.40	0.97
2017	55,944	26	51,795	24	351,433	27	14.18	1.08
2016	83,702	26	77,341	26	1,091,422	27	13.99	1.08
2015	157,269	26	143,543	27	1,608,036	31	14.05	1.10
2014	70,988	24	71,912	25	1,067,230	31	13.83	0.99

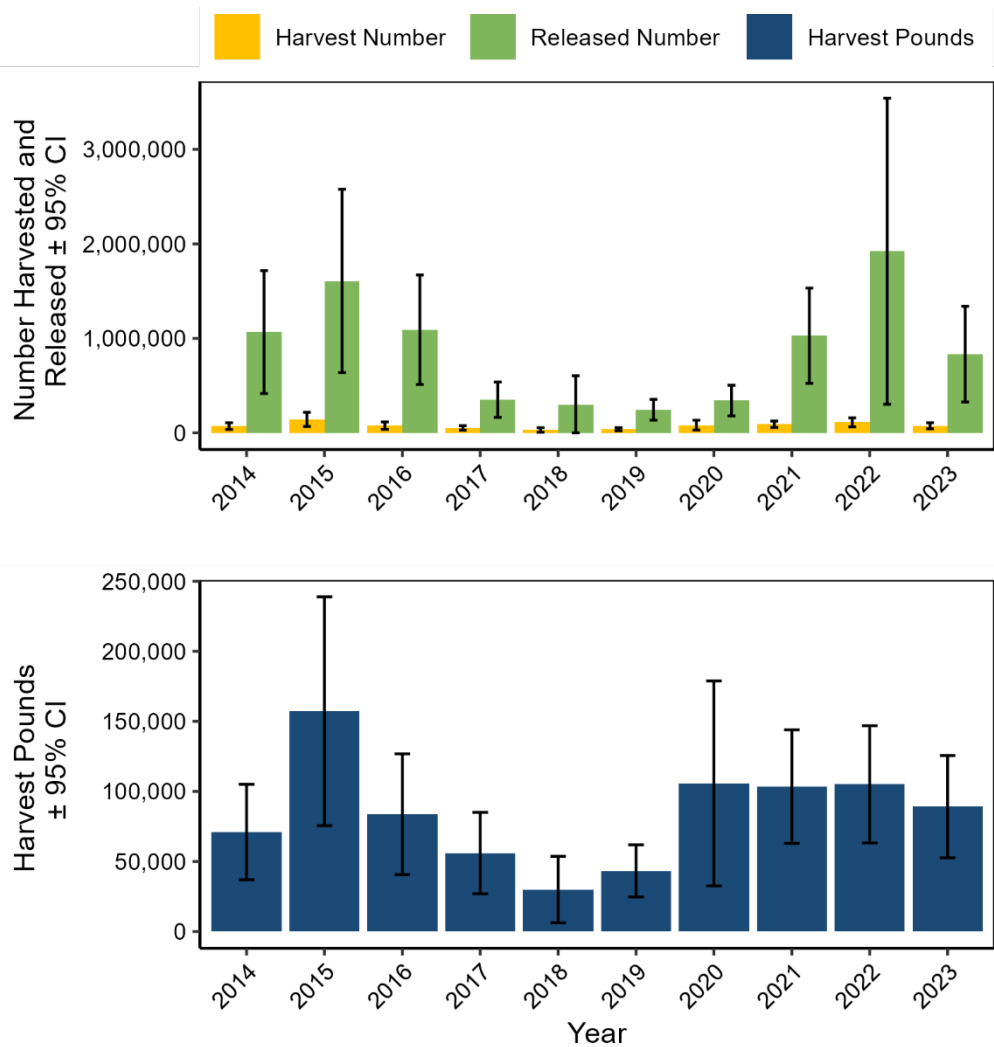


Figure III.67 Weakfish recreational catch in North Carolina by year.

Table III.73 Weakfish recreational catch by state, 2023.

State	Harvest Pounds	PSE (lb)	Harvest Number	PSE (num)	Release Number	PSE (release)	Mean Length (inches)	Mean Weight (lb)
Connecticut	1,851	68	3,624	92	14,122	94	10.19	0.51
Delaware	18,812	47	9,342	38	123,276	30	17.05	2.01
East Florida	87,368	57	114,377	59	71,268	79	12.71	0.76
Georgia	10,455	72	8,403	72	63,818	52	14.82	1.24
Maryland	29,493	67	21,455	80	31,359	82	13.23	1.37
Massachusetts	79	104	40	104	640	97	17.95	1.96
New Jersey	27,038	54	9,707	41	522,443	46	18.69	2.79
New York	122,696	33	32,346	30	244,415	45	21.88	3.79
North Carolina	89,115	21	75,329	22	833,559	31	14.57	1.18
Rhode Island	30,964	54	9,951	48	13,328	41	20.16	3.11
South Carolina	215,795	32	176,118	30	678,493	33	14.85	1.23
Virginia	12,598	49	7,926	47	271,814	38	15.88	1.59

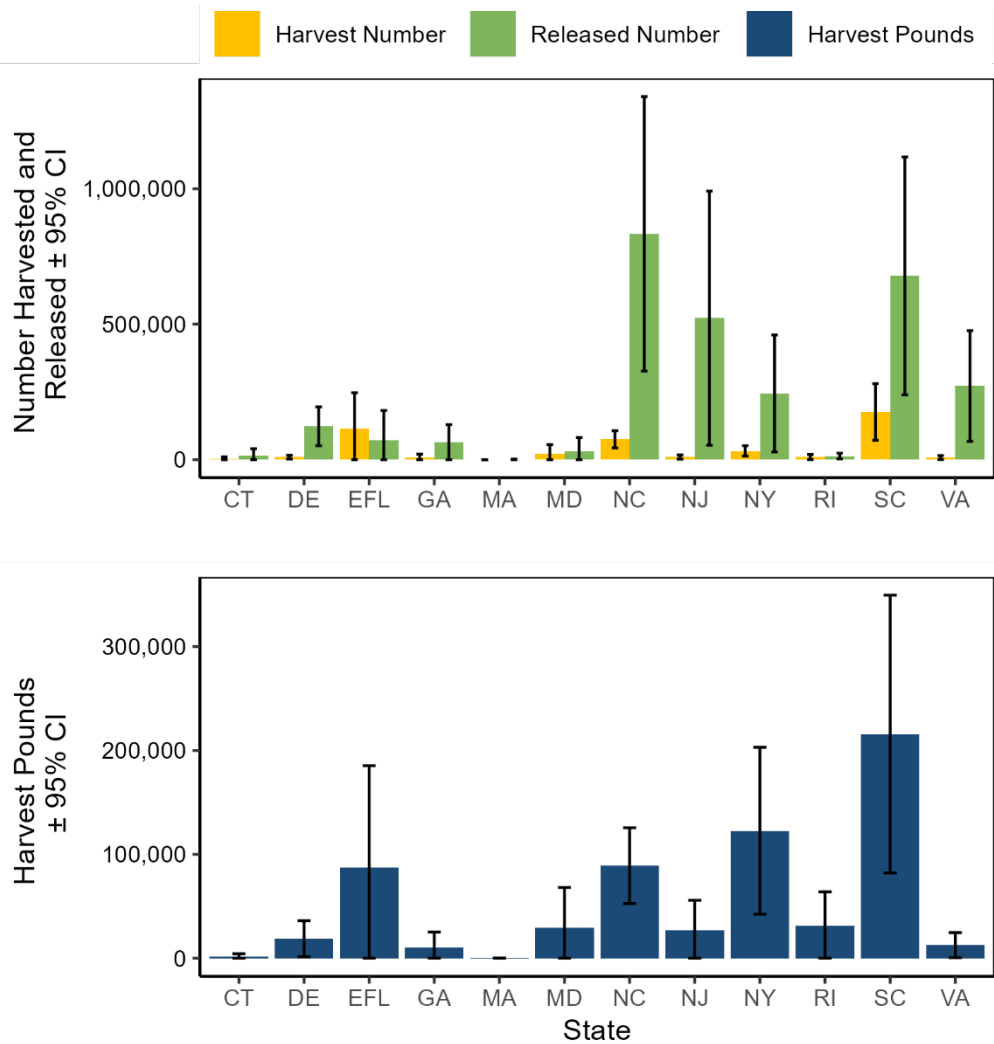


Figure III.68 Weakfish recreational catch by state, 2023.

Table III.74 Large coastal shark recreational catch in North Carolina by year.

Year	Harvest Pounds	PSE (lb)	Harvest Number	PSE (num)	Release Number	PSE (release)	Mean Length (inches) ¹	Mean Weight (lb) ¹
2023	62	97	19	97	46,662	40	-	-
2022	0	-	0	-	18,735	77	-	-
2021	594	89	6	89	22,142	89	-	-
2020	551	96	26	69	8,591	30	-	-
2019	3,745	65	60	65	30,032	39	-	-
2018	235	94	39	78	4,916	52	-	-
2017	27,367	79	910	76	43,041	39	-	-
2016	1,100	95	12	95	27,885	64	-	-
2015	2,667	102	25	72	139,486	86	-	-
2014	10,194	94	556	92	20,639	26	-	-

¹ Multiple species of sharks are reported for this category, mean length and weight by individual species of shark are available upon request.

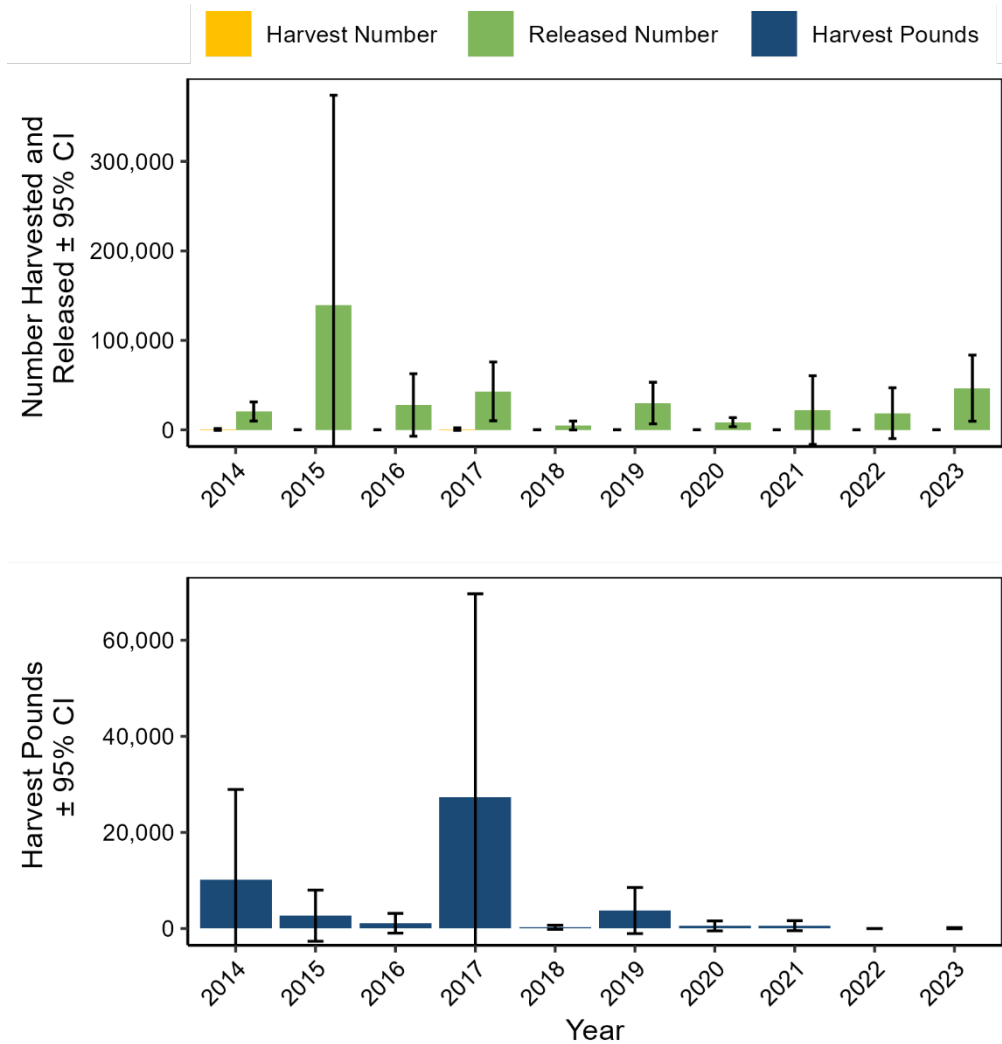


Figure III.69 Large coastal shark recreational catch in North Carolina by year.

Table III.75 Large coastal shark recreational catch by state, 2023.

State	Harvest Pounds	PSE (lb)	Harvest Number	PSE (num)	Release Number	PSE (release)	Mean Length (inches) ¹	Mean Weight (lb) ¹
Delaware	0	-	0	-	12,623	24	-	-
East Florida	81,775	86	4,234	94	208,653	5	-	-
Georgia	0	-	0	-	154,209	27	-	-
Maryland	0	-	0	-	151,389	0	-	-
Massachusetts	0	-	0	-	855	0	-	-
New Jersey	0	-	0	-	55,367	13	-	-
New York	0	-	0	-	20,343	73	-	-
North Carolina	62	0	19	0	46,662	0	-	-
Rhode Island	0	-	171	100	2,249	12	-	-
South Carolina	0	-	0	-	3,745	0	-	-
Virginia	0	-	0	-	10,420	0	-	-

¹ Multiple species of sharks are reported for this category, mean length and weight by individual species of shark are available upon request.

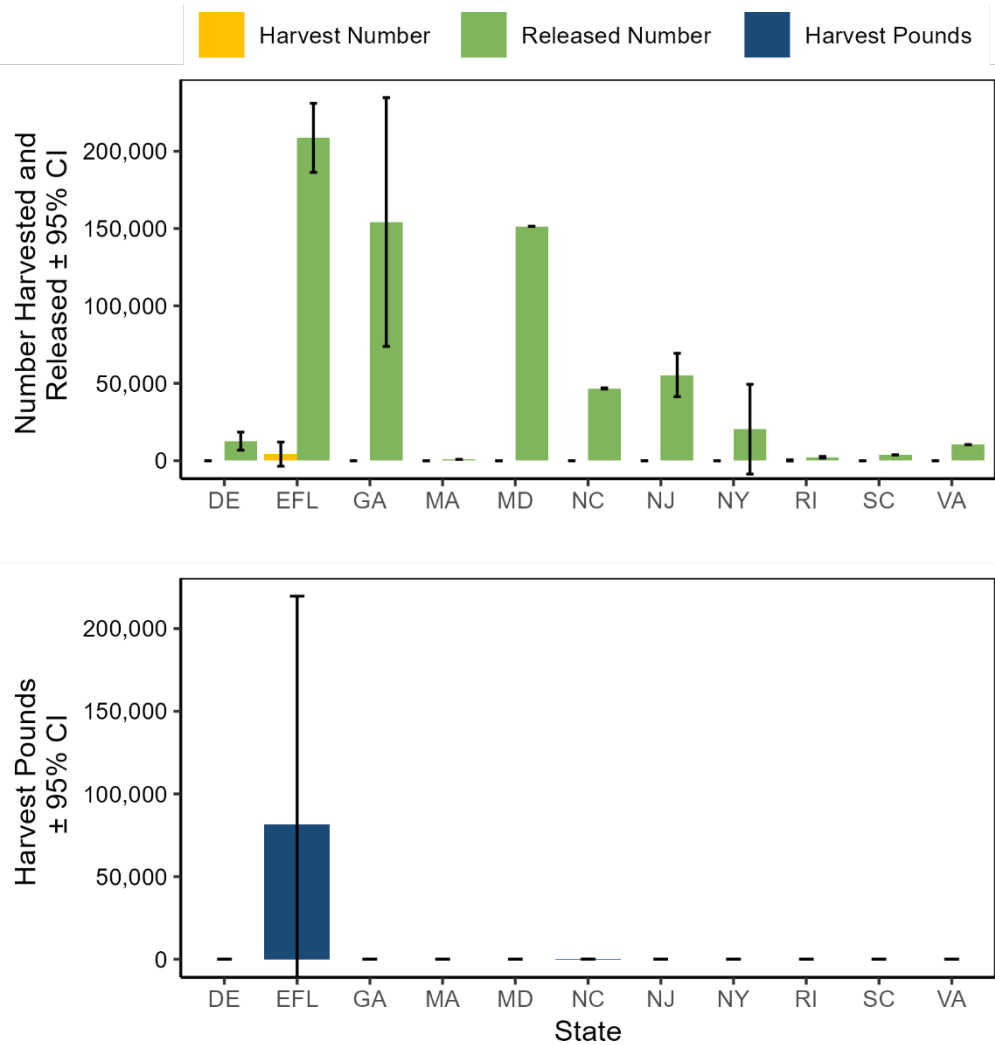


Figure III.70 Large coastal shark recreational catch by state, 2023.

Table III.76 Small coastal shark recreational catch in North Carolina by year.

Year	Harvest Pounds	PSE (lb)	Harvest Number	PSE (num)	Release Number	PSE (release)	Mean Length (inches) ¹	Mean Weight (lb) ¹
2023	25,172	47	3,771	43	65,203	29	-	-
2022	16,909	46	1,698	43	30,202	31	-	-
2021	24,241	51	3,556	55	21,045	42	-	-
2020	21,114	52	5,074	67	16,563	46	-	-
2019	106,765	74	13,736	68	34,952	30	-	-
2018	9,097	37	1,678	34	4,496	47	-	-
2017	19,256	37	5,768	55	58,440	68	-	-
2016	2,545	60	514	64	133,214	57	-	-
2015	38,499	41	6,656	38	15,866	67	-	-
2014	24,060	38	7,420	52	2,043	53	-	-

¹ Multiple species of sharks are reported for this category, mean length and weight by individual species of shark are available upon request.

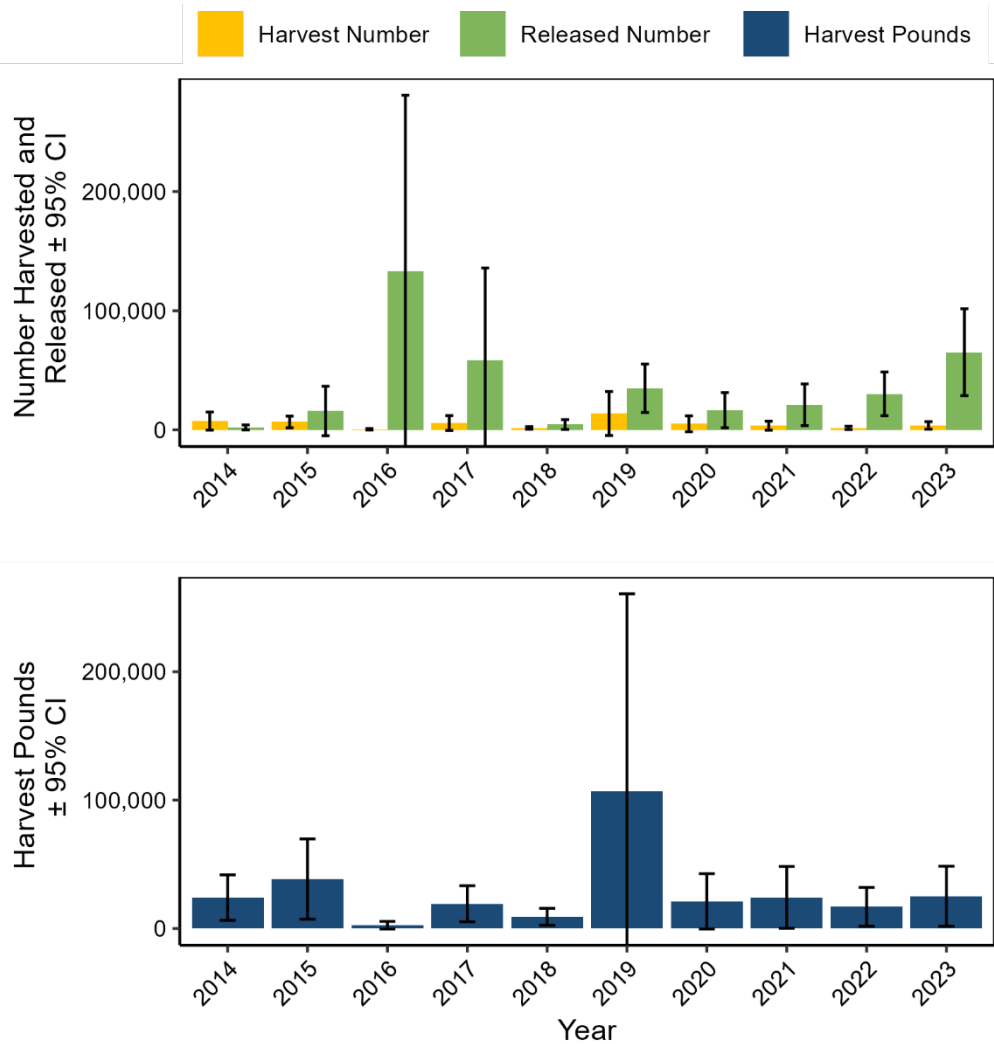


Figure III.71 Small coastal shark recreational catch in North Carolina by year.

Table III.77 Small coastal shark recreational catch by state, 2023.

State	Harvest Pounds	PSE (lb)	Harvest Number	PSE (num)	Release Number	PSE (release)	Mean Length (inches) ¹	Mean Weight (lb) ¹
Delaware	0	-	0	-	11	0	-	-
East Florida	267,962	7	40,841	8	476,823	7	-	-
Georgia	170,249	15	19,043	15	489,006	24	-	-
Maryland	0	-	0	-	1,966	0	-	-
North Carolina	25,172	45	3,771	40	65,203	14	-	-
South Carolina	86,020	8	10,769	9	62,604	2	-	-
Virginia	0	-	0	-	1,069	0	-	-

¹ Multiple species of sharks are reported for this category, mean length and weight by individual species of shark are available upon request.

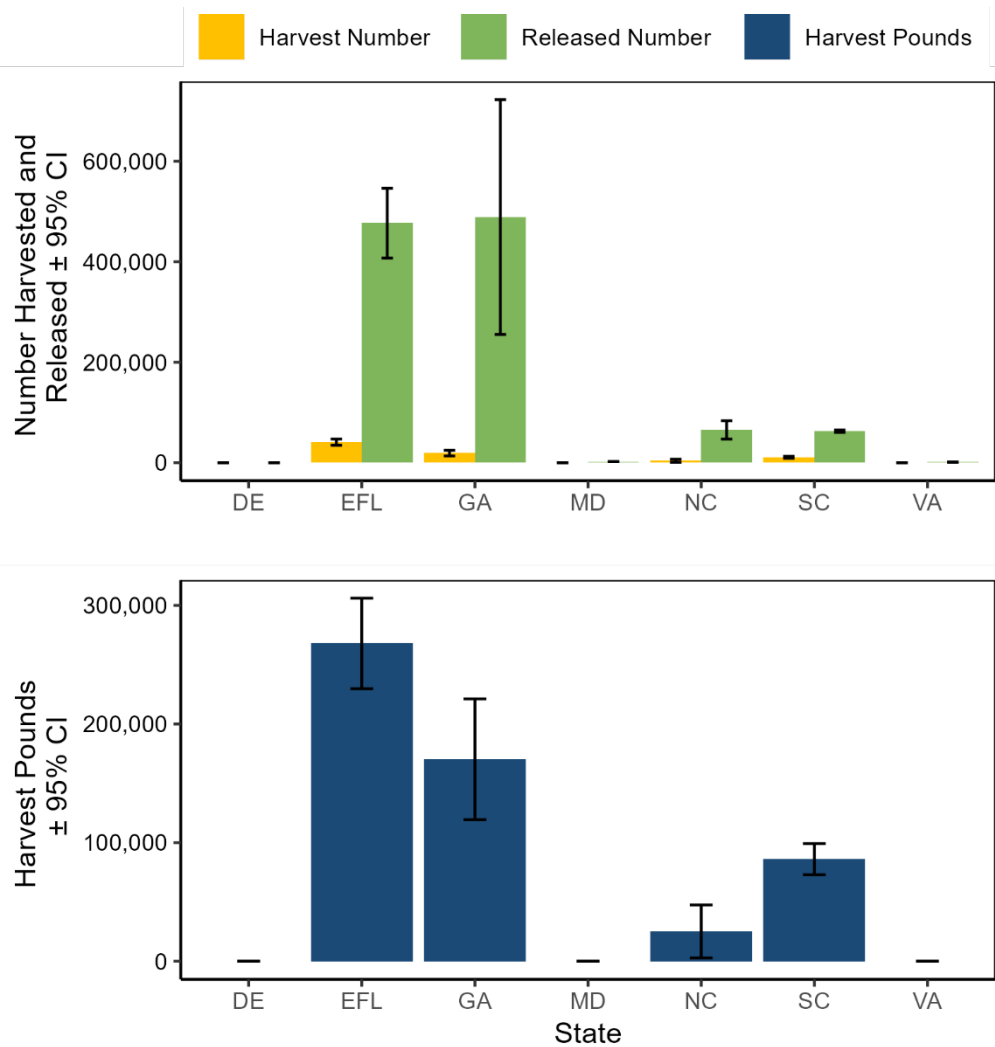


Figure III.72 Small coastal shark recreational catch by state, 2023

Table III.78 Reported North Carolina highly migratory species landings (numbers).

Year	Blue Marlin	White Marlin	Sailfish	Swordfish	Total
2023	30	0	4	14	48
2022	27	0	4	25	56
2021	32	1	1	17	51
2020	21	1	5	12	39
2019	28	3	8	66	105
2018	28	1	9	10	48
2017	16	3	3	5	27
2016	23	0	4	5	32
2015	23	2	0	0	25
2014	15	0	0	0	15
Grand Total	243	11	38	154	446

Table III.79 Reported North Carolina recreational Atlantic Bluefin Tuna landings¹ (numbers).

Year	Manteo/Oregon Inlet	Hatteras	Ocracoke	Morehead City	Wilmington South	Call-In	Total
2023	56	46	0	2	0	2	106
2022	15	1	0	0	18	1	35
2021	19	5	-	3	-	5	32
2020	12	2	0	0	0	3	17
2019	50	0	0	0	0	19	69
2018	32	0	0	0	0	1	33
2017	37	2	0	0	0	-	39
2016	62	10	0	0	0	2	74
2015	28	13	0	0	0	3	44
2014	62	3	0	2	0	2	69

¹ Does not include trophy category.

Table III.80 Atlantic Coast saltwater fishing trips by state and mode, 2023.

State	Charter Boat	Heatboat	Private/Rental Boat	Shore	Total
Connecticut	23,757	16,568	1,628,954	1,945,167	3,614,446
Delaware	4,927	7,827	608,874	1,741,790	2,363,417
East Florida	267,588	-	13,729,009	28,992,734	42,989,330
Georgia	28,172	-	1,671,167	3,363,329	5,062,668
Maine	17,679	8,633	680,020	1,669,809	2,376,141
Maryland	156,961	24,545	2,970,057	4,711,299	7,862,861
Massachusetts	96,035	67,888	2,718,851	3,761,649	6,644,423
New Hampshire	10,943	35,871	334,051	400,649	781,514
New Jersey	54,012	95,969	5,814,727	8,571,083	14,535,792
New York	18,042	193,846	5,481,771	7,300,892	12,994,551
North Carolina	355,612	-	4,166,632	11,273,505	15,795,750
Rhode Island	21,049	18,178	1,411,051	1,675,406	3,125,684
South Carolina	119,804	-	3,232,232	7,315,157	10,667,193
Virginia	34,074	18,974	2,900,661	5,372,610	8,326,320

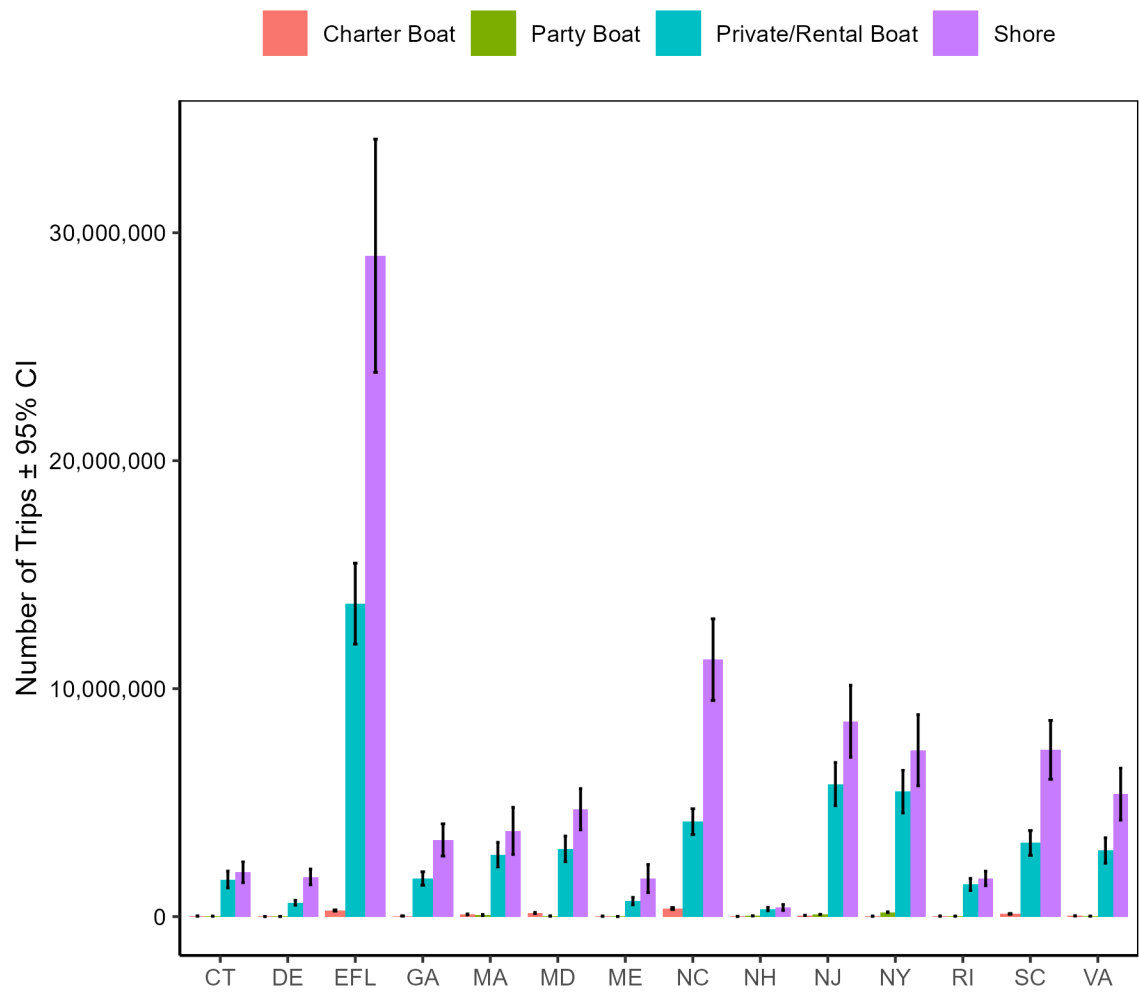


Figure III.73 Atlantic Coast saltwater fishing trips by state and mode, 2023.

Appendix III.1 NCDMF highly migratory species reporting stations.

Reporting Station	Location	Phone
Anchorage Marina	Atlantic Beach	252-726-4423
Captain Stacy's Fishing Center	Atlantic Beach	252-726-4675
Chasin Tails Outdoors Bait & Tackle	Atlantic Beach	252-240-3474
Seawater Marina	Atlantic Beach	252-726-1637
Olde Towne Yacht Club	Beaufort	252-726-3066
Town Creek Marina	Beaufort	252-728-6111
Hurricane Fishing Center	Calabash	910-579-3660
Harker's Island Fishing Center	Harker's Island	252-728-3907
Hatteras Harbor Marina	Hatteras	252-986-2166
Oden's Dock	Hatteras	252-986-2555
Teach's Lair Marina	Hatteras	252-986-2460
Holden Beach Marina	Holden Beach	910-842-5447
Oregon Inlet Fishing Center	Manteo	252-441-6301
Pirates Cove	Manteo	252-473-3906
Shallowbag Bay Marina	Manteo	252-305-8726
EJW Outdoors	Morehead City	252-247-4725
Carolina Princess	Morehead City	252-726-5479
Portside Marina	Morehead City	252-726-7678
Ocean Isle Fishing Center	Ocean Isle	910-575-3474
Anchorage Marina	Ocracoke	252-928-6661
New River Marina	Sneads Ferry	910-327-2106
Southport Marina	Southport	910-457-9900
Outer Banks Marina	Wanchese	252-473-9991
Creeside Yacht Club	Wilmington	910-350-0023
Bridge Tender Marina	Wrightsville Beach	910-256-6550
DMF HMS Technician	Mobile	252-495-1803
DMF Call-in	Main Office	800-682-2632

Appendix III.2 North Carolina APAIS Intercept Form.

2019 APAIS - North Carolina Intercept Form
OMB NO. 0648-0659
EXPIRES 03-31-2019

FOR EMERGENCY USE ONLY

1. FORM

2. ASSIGNMENT NO.

3. INTERVIEWER ID

4. DATE: MM/DD

5. INTERCEPT NO.

6. INTERVIEW TIME *Time this interview was completed*

7. STATE CODE

8. COUNTY CODE

9. SITE CODE

10. INTERVIEW STATUS (Key Item = *)

1 Questionnaire Complete

2 Refused Non-Key Item

5 Refused Key Item

READ PRIVACY ACT: This study is being conducted in accordance with the privacy act of 1974. You are not required to answer any question that you consider to be an invasion of your privacy.

***11. Would you say you were fishing from ...**

SHORE

0 Pier

1 Dock

2 Jetty, Breakwater

3 Bridge, Causeway

4 Other Man-made Structure (Specify)

5 Beach or Bank (Additional hours required in Q16)

BOAT

6 Headboat

7 Charterboat

8 Private Boat

9 Rental Boat

17. What species were you primarily fishing for today?

No Particular Species/Anything

1st Target

2nd Target

11a. Did you see any sea turtles while fishing today?

1 Yes, alive

2 Yes, dead

3 No

18. Not counting today, within the past 12 months, that is since (insert month) of last year, how many days have you gone saltwater sport finishing in this state or from a boat launched in this state?

No. of days

998 Don't Know

999 Refused

***12. Was most of your (specify mode) fishing effort today in the ...**

1 Atlantic Ocean

Other (enter DMF waterbody code and code Q13 as "8").

***13. Was that ...**

1 Three Miles or Less From Shore

2 More Than Three Miles

8 Waterbody Does Not Apply

19. Not counting today, within the past 2 months, how many days?

No. of days

98 Don't Know

99 Refused

13a. Were you fishing near an Artificial Reef?

01 No

88 SH

If yes, enter reef code 98=unknown

***20. What is your state and county of residence? If county unknown, ask: What city or town do you live in?**

State Code; Name: _____

County Code; Name: _____

13b. What was the length of the boat used (in feet)? Boat length

21. What is the ZIP code of your residence?

99997 Foreign Country

99998 Don't Know

99999 Refused

14. What type of gear was primarily used? (Select one only)

01 Hook and Line

02 Dip Net, A-frame

03 Cast Net

04 Gill Net

05 Seine

06 Trawl

07 Trap

08 Spear

09 Hand

10 Other (Specify) _____

98 Unknown

99 Refused

23a. Gender

Male

Female

15a. To the nearest half-hour, how many hours have you spent (specify mode) fishing today? That is, how many hours have you actually spent with your gear in the water?

No. of Hours

Codes: If, "Don't Know" = 99.8 If, Refused = 99.9

23b. How old were you on your last birthday?

Age

Refused

15b. [If on boat] To the nearest half-hour, how many hours have you spent on the boat, away from the dock, today?

No. of Hours

Codes: If, "Don't Know" = 99.8 If, Refused = 99.9

Not Applicable - SH mode

16. [Ask, only if "Beach" or "Bank"] How many additional hours do you expect to fish from shore today? That is, how many more hours will you actually have your gear in the water?

No. of Hours

Codes: If, "Don't Know" = 99.8 If, Refused = 99.9

Not fishing from Beach or Bank

Note: NCDMF stopped using paper surveys and transitioned to electronic methods in 2019.

Appendix III.2 North Carolina MRIP Intercept Form (continued).

24. In the event that my supervisor wishes to verify that I have been conducting interviews here today, may I please have your name and phone number?

Angler Name

Phone Day or Night

(If name and/or phone number not given, Q10 = Status 2)
 Name and/or phone number not given
 Angler aged 16 years or younger (Check both boxes)

BOX B. [If headboat ride-along:] Is this one of the anglers you monitored for discard (Type 9) catch? Yes No Not a HB ride

*25. **UNAVAILABLE CATCH** Did you catch any fish that are not here for me to look at? For example, any that you may have thrown back or used for bait? **NOT GROUP CATCH** - Only catch from Angler being interviewed.

Disposition Codes for Q25			
1 - Thrown back alive	3 - Eaten/plan to eat	5 - Sold/plan to sell	7 - Some other purpose
2 - Thrown back - not legal	4 - Used/plan to use for bait	6 - Thrown back dead/plan to throw away	

TYPE 2 RECORDS: (CATCH UNAVAILABLE IN WHOLE FORM; FILLETS ARE UNAVAILABLE CATCH.)

Species Name	Species Code	# of Fish	Disp.
1.			
2.			
3.			
4.			
5.			

*26. Did you catch any fish while you were fishing that I might be able to look at?

1 Yes
 2 No - Code Q27, Q28, Q29 as "Not Applicable"
 3 Yes, BUT fish on another angler's form - Record interview # where fish are listed

Code Q27, Q28, Q29 as "Not Applicable"

*29. How many anglers including yourself have their catch here? Please do not include anyone who did not catch fish. Only count those who have their catch here.

No. of Contributors 88 Not Applicable

BOX C. If Q11 is SH mode, code Q30 as "888," and Code Box D as "8."

*27. Did you catch these yourself or did someone else catch some of them?

1 All Caught by Angler - Code Q28, Q29 as "Not Applicable"
 2 Other Contributors 8 Not Applicable

*30. How many people fished on your boat today?

No. of People 888 Shore Mode

*28. Can you separate out your individual catch?

1 Yes - Code 29 as "Not Applicable"
 2 No 8 Not Applicable

*BOX D. If response to Q30 is 001, code as "Not Applicable." Otherwise, is this the first angler from this boat that I have interviewed?

1 Yes 8 Not Applicable
 2 No - Record interview # of 1st angler in the fishing party.

*BOX E: Is this charter/headboat on the Good List? Yes No Vessel name or registration: _____

Check box if vessel has no name AND no registration number. If checked, Q10 (Status) = 5.

*31. **AVAILABLE CATCH** - ASK: May I look at your fish? What do you plan to do with the MAJORITY of the (species)?

Disposition Codes for Q31		NOTES/COMMENTS:
5 - Sold/plan to sell	6 - Plan to throw away	
3 - Eaten/plan to eat	7 - Some other purpose	
4 - Used/plan to use for bait		

TYPE 3 RECORDS: (INDIVIDUAL CATCH AVAILABLE IN WHOLE FORM)

Species Name	Species Code	# of Fish	Length (mm)	Weight (kg)	Disp.
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					
15.					

Note: NCDMF stopped using paper surveys and transitioned to electronic methods in 2019.

Appendix III.3 North Carolina Fishing Effort Survey.

HOUSEHOLD MEMBER 4

11 What is this person's gender?
 Male
 Female

12 How old is this person?
If less than 1 year, mark 0 years
 Age in years

13 Is this person of Hispanic, Latino, or Spanish origin?
 Yes, of Hispanic origin
 No, not of Hispanic origin

14 What is this person's race? Mark one or more boxes.
 White
 Black, African-American
 Asian
 American Indian or Alaska Native
 Native Hawaiian or other Pacific Islander

Please think only about recreational saltwater fishing in North Carolina.

15 How many days did this person go recreational saltwater fishing from the SHORE in North Carolina?
The shore includes docks, bridges, causeways, beaches, banks, or any other shore-based place or area. Do not include freshwater fishing.
 Did not recreational saltwater fish from shore in last 12 months → **Go to question 16**
 Number of days saltwater shore fishing in January and February of 2018
 Number of days saltwater shore fishing in last 12 months, including January and February

16 How many days did this person go recreational saltwater fishing from a private or rental BOAT that returned to shore in North Carolina?
Do not include freshwater trips or trips where a paid captain or crew helped locate and catch fish.
 Did not recreational saltwater fish from private boat in last 12 months
 Number of days saltwater boat fishing in January and February of 2018
 Number of days saltwater boat fishing in last 12 months, including January and February

If you have more people in your household, continue to Household Member 5. If you have answered for all people in your household, please return your survey.

HOUSEHOLD MEMBER 5

11 What is this person's gender?
 Male
 Female

12 How old is this person?
If less than 1 year, mark 0 years
 Age in years

13 Is this person of Hispanic, Latino, or Spanish origin?
 Yes, of Hispanic origin
 No, not of Hispanic origin

14 What is this person's race? Mark one or more boxes.
 White
 Black, African-American
 Asian
 American Indian or Alaska Native
 Native Hawaiian or other Pacific Islander

Please think only about recreational saltwater fishing in North Carolina.

15 How many days did this person go recreational saltwater fishing from the SHORE in North Carolina?
The shore includes docks, bridges, causeways, beaches, banks, or any other shore-based place or area. Do not include freshwater fishing.
 Did not recreational saltwater fish from shore in last 12 months → **Go to question 16**
 Number of days saltwater shore fishing in January and February of 2018
 Number of days saltwater shore fishing in last 12 months, including January and February

16 How many days did this person go recreational saltwater fishing from a private or rental BOAT that returned to shore in North Carolina?
Do not include freshwater trips or trips where a paid captain or crew helped locate and catch fish.
 Did not recreational saltwater fish from private boat in last 12 months
 Number of days saltwater boat fishing in January and February of 2018
 Number of days saltwater boat fishing in last 12 months, including January and February

Please return your survey in the enclosed postage-paid envelope.
 RTI International
 5265 Capital Boulevard, Raleigh NC 27690-1652

North Carolina

Weather and Outdoor Activity Survey



Public reporting burden for this collection of information is estimated to average 10 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other suggestions for reducing this burden to Rob Andrews, NOAA Fisheries Service, 1315 East-West Hwy., Silver Spring, MD 20910.

No personally identifiable information will be collected through this survey. Responses will only be associated with a unique, randomly assigned identification code. Any public release of survey data will be without identification as to its source or in aggregate statistical form. All survey data will be stored on secured, password protected servers, and all transfer of survey data will utilize secure file transfer protocols.

Appendix III.3 North Carolina Fishing Effort Survey (continued).

This survey should be filled out by an adult member of the household. Complete and return this form even if no one in your household participates in any of these activities.

START HERE

Please carefully follow the steps below when completing this survey.

Example

• Use only a blue or black ink pen that does not blot the paper

• Make solid marks inside the response boxes

• Do not make other marks on the survey

RIGHT WAY **WRONG WAY**

1 How do members of this household obtain information about the weather, including current weather conditions, forecasts, and warnings? Mark all that apply.

Television
 Radio
 Newspaper
 Internet
 Other

2 During the past 12 months, has anyone in this household had to evacuate or seek shelter due to a severe weather event, such as a tornado, hurricane, or thunderstorm?

Yes
 No

3 In your area, how often do the advanced warnings you get for severe weather events allow you enough time to prepare properly?

All the Time
 Some of the time
 Rarely
 Never

4 During the past 12 months, has anyone in this household visited a public beach, national seashore, coastal state park, or other coastal nature reserve or protected area?

Yes
 No

5 During the past 12 months, has anyone in this household been freshwater fishing in North Carolina?

Yes
 No

6 During the past 12 months, has anyone in this household been saltwater fishing in North Carolina?

Yes
 No

7 Which of the following best describes how your household receives telephone calls?

All are received on cell phones
 Most are received on cell phones
 Some are received on cell phones and some on landline phones
 Most are received on landline phones
 All are received on landline phones
 No calls are received on cell phones or landline phones

8 Which of the following best describes this house, apartment, or mobile home?

Owned with a mortgage or loan
 Owned (without a mortgage)
 Rented
 Occupied without payment or rent

9 How long have you lived at this address?

1 year or less
 Less than 5 years, more than 1 year
 5 years or more

10 How many people, including all adults and children, live in this household?

Number of people

Please answer the next section for each member of your household, starting with yourself. Please answer for all people in your home, including people who fish and people who do not fish.

If you have more than 5 people living at this address, answer for the oldest members of the household.

Please use the calendars to help answer questions 15 and 16.

January							February						
S	M	T	W	T	F	S	S	M	T	W	T	F	S
	1	2	3	4	5	6					1	2	3
7	8	9	10	11	12	13	4	5	6	7	8	9	10
14	15	16	17	18	19	20	11	12	13	14	15	16	17
21	22	23	24	25	26	27	18	19	20	21	22	23	24
28	29	30	31				25	26	27	28			

HOUSEHOLD MEMBER 1 (YOU)

11 What is your gender?

Male
 Female

12 How old are you?
If less than 1 year, mark 0 years

Age in years

13 Are you of Hispanic, Latino, or Spanish origin?

Yes, of Hispanic origin
 No, not of Hispanic origin

14 What is your race? Mark one or more boxes.

White
 Black, African-American
 Asian
 American Indian or Alaska Native
 Native Hawaiian or other Pacific Islander

Please think only about recreational saltwater fishing in North Carolina.

15 How many days did you go recreational saltwater fishing from the SHORE in North Carolina?

The shore includes docks, bridges, causeways, beaches, banks, or any other shore-based place or area. Do not include freshwater fishing.

Did not recreational saltwater fish from shore in last 12 months → **Go to question 16**

Number of days saltwater shore fishing in January and February of 2018

Number of days saltwater shore fishing in last 12 months, including January and February

16 How many days did you go recreational saltwater fishing from a private or rental BOAT that returned to shore in North Carolina?

Do not include freshwater trips or trips where a paid captain or crew helped locate and catch fish.

Did not recreational saltwater fish from private boat in last 12 months

Number of days saltwater boat fishing in January and February of 2018

Number of days saltwater boat fishing in last 12 months, including January and February

If you have more people in your household, continue to Household Member 2. If you have answered for all people in your household, please return your survey.

HOUSEHOLD MEMBER 2

11 What is this person's gender?

Male
 Female

12 How old is this person?
If less than 1 year, mark 0 years

Age in years

13 Is this person of Hispanic, Latino, or Spanish origin?

Yes, of Hispanic origin
 No, not of Hispanic origin

14 What is this person's race? Mark one or more boxes.

White
 Black, African-American
 Asian
 American Indian or Alaska Native
 Native Hawaiian or other Pacific Islander

Please think only about recreational saltwater fishing in North Carolina.

15 How many days did this person go recreational saltwater fishing from the SHORE in North Carolina?

The shore includes docks, bridges, causeways, beaches, banks, or any other shore-based place or area. Do not include freshwater fishing.

Did not recreational saltwater fish from shore in last 12 months → **Go to question 16**

Number of days saltwater shore fishing in January and February of 2018

Number of days saltwater shore fishing in last 12 months, including January and February

16 How many days did this person go recreational saltwater fishing from a private or rental BOAT that returned to shore in North Carolina?

Do not include freshwater trips or trips where a paid captain or crew helped locate and catch fish.

Did not recreational saltwater fish from private boat in last 12 months

Number of days saltwater boat fishing in January and February of 2018

Number of days saltwater boat fishing in last 12 months, including January and February

If you have more people in your household, continue to Household Member 3. If you have answered for all people in your household, please return your survey.

HOUSEHOLD MEMBER 3

11 What is this person's gender?

Male
 Female

12 How old is this person?
If less than 1 year, mark 0 years

Age in years

13 Is this person of Hispanic, Latino, or Spanish origin?

Yes, of Hispanic origin
 No, not of Hispanic origin

14 What is this person's race? Mark one or more boxes.

White
 Black, African-American
 Asian
 American Indian or Alaska Native
 Native Hawaiian or other Pacific Islander

Please think only about recreational saltwater fishing in North Carolina.

15 How many days did this person go recreational saltwater fishing from the SHORE in North Carolina?

The shore includes docks, bridges, causeways, beaches, banks, or any other shore-based place or area. Do not include freshwater fishing.

Did not recreational saltwater fish from shore in last 12 months → **Go to question 16**

Number of days saltwater shore fishing in January and February of 2018

Number of days saltwater shore fishing in last 12 months, including January and February

16 How many days did this person go recreational saltwater fishing from a private or rental BOAT that returned to shore in North Carolina?

Do not include freshwater trips or trips where a paid captain or crew helped locate and catch fish.

Did not recreational saltwater fish from private boat in last 12 months

Number of days saltwater boat fishing in January and February of 2018

Number of days saltwater boat fishing in last 12 months, including January and February

If you have more people in your household, continue to Household Member 4. If you have answered for all people in your household, please return your survey.

Appendix III.4 Glossary of terminology in MRIP survey.

Avidity: The frequency of fishing activity, measured as number of days on which fishing trips were made.

Type A catch: Fish that were caught, were landed whole, and were available for identification and enumeration by the interviewers. In addition, the fish were potentially available for weighing and measuring.

Type B catch: Fish that were caught but were either not kept or not available for identification.

Type B1 catch: Fish that were caught and filleted, released dead, given away, or disposed of in some way other than Types A or B2.

Type B2 catch: Fish that were caught and released alive.

Total catch: The number of fish caught but not necessarily brought ashore, may be obtained by summing catch types A and B or by summing catch types A, B1, and B2. The total number of fish removed from the fishery resource may be obtained by summing catch types A and B1.

Coastal counties: All counties in the coastal states of the United States with some portion within 25 miles of the coastline were included in the Fishing Effort Survey. This boundary was extended to 50 miles in the South Atlantic and Gulf of Mexico from May through October. The boundary was extended further in North Carolina to 50 miles November through April and 100 miles May through October.

Coastal resident: An angler who lived in a coastal county included in the Fishing Effort Survey.

Coastal state: A state bordering on the Atlantic or Pacific Ocean, the Gulf of Mexico or the Caribbean Sea. State also includes a Territory or Commonwealth.

Congener: An organism of the same taxonomic genus as another.

EEZ (U.S. Exclusive Economic Zone): The MFCMA defines this zone as contiguous to the Territorial Sea of all the United States and its possessions and extending seaward 200 nautical miles measured from the baseline from which the Territorial Sea is measured.

Fishery Management Plan (FMP): A plan developed by a Regional Fishery Management Council and the Secretary of the Department of Commerce to manage a fishery resource pursuant to the Magnuson Fishery Conservation and Management Act of 1976.

Fishing access site: Fishing access site refers to the name and location of the place where anglers were intercepted. Each intercept site was given a unique name and code number. The fishing access site did not define the mode of fishing since anglers may have used more than one mode at any given site.

Fishing trip: Fishing during part or all of 1 day in one mode. An angler who fished from both a pier and a beach on the same day made one fishing trip since the pier and the beach are both in the shore mode. However, an angler who fished from a head boat in the morning and from a pier in the afternoon is counted as having made two fishing trips--a head boat trip and a shore trip.

Hours fished: The amount of time an angler actively fished in a mode with fishing gear in the water. If an angler spent time fishing at other sites on the same day, that time was also included provided the fishing was done in the same mode. Not included was the travel time in a boat or travel time between sites.

Household: A household consisted of all persons who occupied a housing unit. The unit must have been intended for year-round use, not seasonal or migratory use.

Intercept survey or creel census: Interviewing anglers and examining their catch upon completion of their fishing trip, or under certain circumstances, while they were still fishing.

Length and weight of fish: Length and weight measurements were obtained from a sample of fish brought ashore in whole form by intercepted anglers. If more than 10 fish of the same species were brought ashore in whole form, 10 fish were randomly selected to be weighed and measured. If 10 or less fish of the same species were brought ashore in whole form, each fish was weighed and measured. For fish with a forked tail, fork length was measured from the tip of the longest jaw or the snout, whichever was terminal with the mouth closed, to the center of the fork. For fish with a non-forked tail, total length was measured from the tip of the longest jaw or the snout, whichever was terminal with the mouth closed, to the tip of the caudal lobe or fin. Weight was measured to the nearest tenth of a kilogram (1 kilogram is approximately 2.2 pounds). Length was measured to the nearest millimeter (1 millimeter is approximately 0.039 inches).

Marine recreational anglers: Those people who fished in marine waters primarily for recreational purposes. Their catch was primarily for home consumption, although occasionally a part or all of their catch may have been sold and entered commercial channels. Specifically, for this survey, marine recreational anglers were defined as follows: In the telephone household survey, an angler was anyone who had been marine recreational fishing in the 12 months prior to telephone household contact, and an eligible angler was anyone who had been marine recreational fishing 2 months prior to the telephone household contact. In the intercept survey an eligible angler was anyone just completing a finfishing trip, or in certain cases, someone who was still fishing.

Marine recreational fishing: Fishing primarily with hook and line for pleasure, amusement, relaxation, or home consumption. If part or all of the catch was sold, the monetary returns constituted an insignificant part of the person's income.

Mode of fishing: The type of place or platform from which marine recreational fishing occurs. There are four modes:

1. **Shore:** A shore may be:

Pier, dock: A structure built over the water and supported by pillars.

Jetty: A kind of wall, usually made of rocks, built out into the water or parallel to the shore to restrain currents or protect a harbor.

Breakwater: An offshore structure used to protect a harbor or breach from the forces of waves.

Bridge: An elevated or raised way across wet ground or water.

Causeway: A connecting channel.

Beach: A level stretch of pebbles or sand beside a body of water, often washed by high water.

Bank: A stretch of rising land at the edge of a body of water not washed by high water, which could be rocks or an overhanging cliff.

2. **Private/Rental:** A boat belonging to an individual or one that is rented. No crew is provided; operated by the owner/renter.

3. **Headboat:** A boat operated by licensed captain usually carrying greater than seven anglers. Fees are paid on a per head (angler) basis.

4. **Charter Boat:** A boat operating under charter for a price, time, etc. It is operated by a licensed captain and crew and the participants are part of a pre-formed group of anglers. Thus, charters are usually closed parties. Note: Charter boats may make all-day or half-day trips.

Non-coastal resident: An angler who lived in a county of a coastal state that was not included in the telephone household survey.

Out-of-state resident: An angler who lived in a state other than the coastal state in which he fished.

Ocean: For the purposes of the survey, ocean is divided into two categories:

The ocean 3 miles or less from shore (Territorial Sea) and the ocean more than 3 miles from shore (Exclusive Economic Zone). However, the boundary for state and federal jurisdiction on the Gulf of Mexico coast of Florida is 3 marine leagues, or 10 miles, from shore. Not included are sounds, inlets, rivers, bays, etc.

Inland: Other bodies of saltwater besides the oceans. Included are sounds, inlets, and tidal portions of rivers, bay, estuaries, and other areas of salt or brackish water.

State of fishing access (State of intercept): The state in which the fishing or intercept site was located. For boat fishing, it was the state from which the boat departed the shoreline for fishing.

State of residence: The state in which the angler lived and maintained his permanent residence.

U.S. Territorial Sea: A zone extending 3 nautical miles from shore for all states except the Gulf coast of Florida where the seaward boundary is 3 marine leagues (approximately 10 statute miles).

Wave: A wave is one of the following 2-month intervals:

- January/February (Wave 1)
- March/April (Wave 2)
- May/June (Wave 3)
- July/August (Wave 4)
- September/October (Wave 5)
- November/December (Wave 6)

Appendix III.5 Data elements in MRIP survey.

Dockside Interviews

- State and county of residence
- Avidity level - trips per year
- Mode of fishing
- Primary area of fishing
- Number of anglers contributing to catch
- Number, weights, and lengths of fish caught by species

Fishing Effort Survey

- Gender
- Age
- Ethnicity
- Presence of marine recreational anglers in the household
- Number of anglers per household
- Fishing trips in 2-month period
- Fishing trips in 12-month period
- Mode of each trip

Intercept Data

- Date, location, and site of interview
- Mode of fishing
- Tournament fishing status
- Fishing location
- Gear type
- Hours of fishing time
- Targeted species
- Number of days fished in last year
- State and county of residence
- Sex and age of angler
- Number and types of Type 2 fish (unavailable catch)
- Number of contributors and people in fishing party
- Length and weight of Type 3 fish (available catch)

Expanded Data

- Estimated number of trips in a mode
- Percent of trips in a mode
- Number of trips in a specific mode and area
- Data on groups or types of fish caught in a mode or area
- Estimated numbers of Type A, B1, or B2 fishes caught or released (including variances)
- Estimated weights or lengths of specific types of fish (including variances)
- Number of interviews conducted in specific modes or sites by year, month, etc.
- Catch per trip (including variances)
- Mean weight and/or length of fish from a specific area, mode, etc.