Chapter III : MARINE RECREATIONAL FISHERY STATISTICS

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PROGRAM NARRATIVE

Information on commercial fisheries has long been collected by the National Oceanic and Atmospheric Administration (NOAA) Fisheries, formerly the National Marine Fisheries Service (NMFS). However, data on marine recreational fisheries were not collected in a systematic manner by NOAA Fisheries on a continuing basis until 1979. The purpose of the NOAA Fisheries Marine Recreational Information Program (MRIP) is to establish a reliable database for estimating the impact of marine recreational fishing on marine resources.

Effective fisheries management requires information on the number and size distributions of each species caught in every state, sub-region, or finer sub-unit. The North Carolina Fisheries Reform Act of 1997 mandated the development of fishery management plans (FMPs) for fisheries of importance to North Carolina. The estimates of finfish harvest and angler participation provided by the MRIP play a key role in the FMP development process. The MRIP helps meet the goals of the Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA). The 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. MSFCMA also requires that fishery management plans consider both recreational and commercial fisheries and their harvests.

Due to the MRIP survey's inability to provide reliable catch statistics for fisheries management of some species at the state level due to low sample size, the North Carolina Division of Marine Fisheries (NCDMF) increased the annual number of anglers interviewed by approximately six times (1,400 to 8,000) beginning in 1987. During 2005, 15,000 anglers were interviewed and the precision of the catch estimates improved dramatically. The NCDMF also implemented quality control measures needed to improve estimates of catch.

The NCDMF receives approximately 700 data requests for information from MRIP each year. 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.

SURVEY METHODOLOGY

Marine Recreational Information Program (MRIP)

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 Marine Recreational Fisheries Statistics Survey (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 Coastal Household Telephone Survey (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 National Research Council (NRC) identified under-coverage, inefficiency and bias issues within the MRFSS survey and estimation methodologies (NRC 2006). These deficiencies spurred the development of MRIP as an alternative data collection program to MRFSS.

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 Fishing Effort Survey (FES) in 2018 to address the NRC 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 trip 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.

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
- Headboat

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

A complete statewide list of access sites for marine recreational fishing is continuously updated (https://www.st.nmfs.noaa.gov/msd/html/siteRegister.jsp). 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 (Appendix 2). A small number of interviews (less than five percent) are conducted with beach/bank shore mode anglers who have not completed their trip. 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 headboats 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 of 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.
- Headboat sampling is conducted onboard the vessel at sea.

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

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

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. 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 often multiple anglers will keep all their catch in a single container, and often at the end of the trip they are not sure who caught which fish. Beginning in 2005, headboat anglers were sampled at sea, allowing accurate identification of Type B catch for the first time.

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 file (CDS) 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 (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 mean numbers 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 (se*e 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.

All fish that are caught by intercepted anglers are not 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:

(Angler Trips) * (Average Catch Per Angler Trip) = 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 calibrated using the FES are presented for the last 20 years. However, data back to 1981 were also calibrated and are available upon request (see Contacts on page III-13).

Precision of Estimates

The numbers and pounds presented are estimates, not actual counts; therefore, the level of precision varies. Precision refers to the estimate's variability. Statistical comparison between numbers must include this variability.

Precision refers to the dispersion of the sample measurements used to calculate an estimate and the resultant variability in the estimate. The square root of the estimate of sampling variance is an estimate of the standard error of the estimate and is almost universally used in sample surveys as a measure of precision.

The standard error is necessary for calculating confidence intervals around an estimate. The width of a confidence interval is a function of the probability level selected and is determined from the Student's t-distribution or the normal distribution. Using the normal distribution, the most commonly used confidence interval (a 95% confidence interval) is given by: estimate +/- 1.96 X (estimate of standard error). Confidence intervals provide another indication of the precision of the estimated total catch. At the same confidence level, a broad interval relative to the estimate indicates a less precise estimate than does a narrow interval. The 95 percent confidence interval indicates a 95% certainty that the actual total catch is between the upper and lower confidence limits.

The standard error is also used to calculate the proportional standard error (PSE). The PSE expresses the standard error as a percentage of the estimate (standard error/estimate). It provides an alternative measure of precision and is useful in comparing the relative precision of two estimates.

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. An alternative way of expressing a 95% confidence interval, in terms of percentages, would be: estimate +/- (1.96 X PSE) percent.

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, 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.

Diadromous 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. 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.

Species	Number Harvested		Pounds Harvested	
	2018	2017	2018	2017
Amberjack	11,742	6,653	227,441	157,091
Barracudas	5,848	2,771	52,304	76,501
Bluefish	3,304,587	3,173,218	2,630,685	3,634,502
Bonito, Atlantic	12,576	1,999	42,879	9,578
Cobia	25,331	25,025	685,962	872,861
Croaker, Atlantic	472,917	666,930	164,644	237,160
Dolphinfish	495,435	279,932	3,318,532	2,223,509
Drum, Black	134,624	355,544	428,273	856,081
Drum, Red	299,577	353,716	1,452,358	1,475,852
Flounder, Southern	217,805	221,321	495,289	451,126
Flounder, Summer	57,913	91,193	92,032	147,426
Groupers	1,160	4,115	8,816	53,880
Grunts	11,913	40,077	16,762	60,245
Jacks	44,467	86,391	130,220	77,247
Kingfishes	1,731,340	3,387,470	479,739	915,561
Mackerel, King	102,675	110,339	1,018,459	1,261,775
Mackerel, Spanish	1,012,889	995,706	1,156,702	1,094,778
Perch, Silver	6,595	133,676	1,594	24,532
Pigfish	418,174	656,096	163,686	218,003
Pinfish	886,712	917,956	188,046	283,455
Pompano	318,702	730,412	245,670	290,660
Porgies	4,045	34,382	7,592	52,159
Puffers	330,237	669,528	148,220	258,605
Sea Basses	86,153	316,925	116,825	539,910
Seatrout, Spotted	449,473	1,217,834	658,555	2,157,198
Sharks	4,123	8,918	169,486	51,540
Sharks, Dogfishes	7,514	683	43,732	5,616
Sheepshead	343,772	282,480	735,738	810,633
Snappers	20,475	26,315	29,407	42,041
Spot	2,068,865	2,418,331	597,511	909,796
Striped Bass[1]	25	-	366	-
Tuna, Bluefin[2]	33	39	11,573	9,130
Tuna, Yellowfin	61,171	118,659	1,977,741	4,040,504
Wahoo	10,690	30,305	280,644	842,604
Weakfish	30,935	51,795	29,924	55,944

[1] Striped Bass landings reflect Atlantic Ocean catches only.
[2] Landings for Atlantic Bluefin Tuna reflect the Highly Migratory Species fishing year (January 1 through December 31).

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

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

Year	Number Harvested	Pounds Harvested	Number Released
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
2013	37,097,386	28,539,154	71,387,944
2012	24,849,139	24,382,691	59,475,261
2011	28,913,465	31,138,553	61,538,383
2010	28,339,722	28,827,120	66,210,770
2009	28,373,054	32,386,251	58,585,443
2008	24,399,920	24,230,177	51,181,826
2007	32,030,305	36,948,737	49,000,158
2006	32,644,303	35,932,215	54,354,928
2005	31,216,078	37,847,540	40,759,376
2004	29,896,721	39,832,941	40,866,383
2003	33,999,152	31,081,963	37,896,160
2002	33,091,963	31,317,369	40,029,463
2001	29,434,712	35,002,246	41,169,692
2000	22,583,867	29,606,819	37,480,759
1999	18,797,344	24,025,603	30,867,860
1998	21,495,066	20,632,560	27,618,324
1997	17,611,273	25,667,654	24,463,398
1996	17,648,228	21,388,190	21,126,385
1995	20,285,155	21,318,710	21,402,764
1994	27,207,985	22,721,036	26,574,243
1993	19,959,266	18,892,022	18,868,785
1992	22,047,490	20,659,018	23,975,805
1991	25,513,630	23,226,188	21,896,152
1990	30,547,188	28,083,671	17,794,105
1989	31,860,381	29,324,818	14,661,067
1988	32,122,713	10,851,835	18,927,988
1987	27,869,954	32,592,416	12,701,702
1986	32,471,202	36,719,837	13,379,969
1985	43,539,768	31,751,840	12,912,223
1984	29,159,941	31,647,052	10,715,507
1983	33,420,274	36,416,585	8,248,603
1982	24,255,664	17,222,968	7,843,562
1981	40,960,641	32,560,880	16,030,869

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

Year	Beach/Bank	Charter Boat	Manmade	Private Boat	Total
2018	6,879,419	148,004	5,317,495	4,279,389	16,624,306
2017	7,745,619	149,438	9,512,489	5,044,731	22,452,276
2016	10,187,550	140,575	5,970,329	4,860,391	21,158,845
2015	6,699,488	114,043	8,516,390	4,992,920	20,322,840
2014	7,919,735	96,432	6,014,374	4,895,957	18,926,498
2013	6,028,869	111,366	7,097,673	4,847,955	18,085,862
2012	7,156,627	159,160	6,184,923	5,054,638	18,555,348
2011	8,086,490	129,380	6,040,312	5,212,669	19,468,850
2010	7,877,619	138,577	7,174,395	4,982,732	20,173,323
2009	7,751,222	129,412	6,642,257	4,822,295	19,345,187
2008	8,489,916	170,428	6,067,854	4,599,900	19,328,098
2007	6,183,367	185,618	7,105,305	4,671,856	18,146,146
2006	7,199,224	201,368	7,671,720	4,542,632	19,614,943
2005	5,206,759	214,826	7,369,215	4,359,576	17,150,375
2004	6,695,734	183,039	6,245,702	4,276,395	17,400,870
2003	5,353,909	131,566	6,243,796	3,746,771	15,476,042
2002	5,501,125	142,644	5,913,968	3,539,123	15,096,859
2001	5,479,658	160,791	6,105,185	3,363,853	15,109,488
2000	5,687,088	164,116	6,088,224	3,388,516	15,327,944
1999	4,215,059	200,350	5,113,589	3,153,794	12,682,792
1998	3,677,092	189,664	4,435,131	2,806,930	11,108,817
1997	3,618,411	242,043	4,552,528	2,742,087	11,155,069
1996	3,851,521	204,608	3,895,335	2,471,857	10,423,321
1995	3,643,176	167,321	3,958,161	2,222,995	9,991,653
1994	3,874,950	177,061	4,246,772	2,231,472	10,530,255
1993	4,404,924	117,536	4,105,818	2,233,903	10,862,180
1992	4,403,691	87,352	5,097,113	2,277,847	11,866,004
1991	4,497,351	81,065	4,406,694	2,240,961	11,226,071
1990	5,338,764	83,234	4,526,403	2,164,387	12,112,788
1989	4,485,729	94,199	3,955,450	2,137,255	10,672,633
1988	4,444,539	65,320	3,960,772	2,009,639	10,480,270
1987	4,566,175	89,642	2,510,303	1,867,135	9,033,255
1986	4,260,280	101,447	2,733,767	2,076,308	9,171,802
1985	3,569,600	226,397	3,323,582	1,753,973	8,873,553
1984	3,335,089	226,710	4,027,935	1,798,108	9,387,842
1983	4,057,922	248,825	4,219,017	1,746,350	10,272,113
1982	2,789,810	97,074	2,253,604	1,721,703	6,862,191
1981	2,827,938	100,461	2,498,407	1,332,324	6,759,130

Table III.4 North Carolina Coastal Recreational Fishing Licenses[1] issued by residency.

Year	In-State	Out-of-State	Total
2018	277,698	151,232	428,930
2017	305,422	164,149	469,571
2016	306,718	160,986	467,704
2015	314,557	166,287	480,844
2014	319,069	167,218	486,287
2013	316,514	163,486	480,000
2012	304,840	155,457	460,297
2011	287,914	151,332	439,246
2010	294,163	159,356	453,519
2009	281,471	153,617	435,088
2008	267,062	144,819	411,881
2007	314,569	154,952	469,521

[1] All lifetime inland state fishing licenses sold prior to 2007 were grandfathered into the new CRFL requirement on January 01, 2007. Lifetime CRFLs are not included in this table.

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

	Directed Trips									
	Atlantic Bonito		Atlantic Croaker		Black Drum		Black Sea Bass		Bluefish	
Year	Trips	PSE	Trips	PSE	Trips	PSE	Trips	PSE	Trips	PSE
2018	18,257	28.0	1,093,754	8.8	773,315	14.3	481,773	10.6	3,031,288	10.4
2017	30,543	59.9	1,569,130	8.5	978,376	18.0	1,001,694	9.3	3,392,266	13.3
2016	15,679	33.8	1,542,439	9.6	927,876	17.1	928,834	12.1	3,194,322	8.8
2015	19,542	52.9	2,219,202	8.5	895,352	25.3	781,023	9.4	3,126,972	10.3
2014	28,278	31.9	1,924,556	7.6	564,678	18.0	815,832	8.3	2,871,661	6.5
2013	15,718	52.4	1,731,001	6.7	624,438	11.3	641,876	7.8	2,769,469	6.3
2012	14,514	27.3	1,250,115	5.6	573,675	9.3	888,824	5.1	2,355,827	4.5
2011	31,149	31.9	1,674,758	6.7	776,683	10.4	663,994	7.5	3,264,390	5.1
2010	9,984	33.2	1,470,467	7.6	535,406	10.4	478,332	7.5	3,027,076	4.7
2009	2,205	58.4	1,572,087	7.9	493,868	13.9	542,005	15.3	2,760,641	6.9
2008	13,758	47.0	1,157,184	8.7	742,385	11.0	331,107	12.0	3,026,633	6.4
2007	20,837	30.5	1,180,041	9.3	675,686	15.6	425,856	9.0	2,931,252	6.5
2006	5,845	40.5	1,789,975	10.4	348,977	14.3	552,372	9.3	2,470,361	7.1
2005	18,319	31.8	1,042,080	11.6	516,299	21.6	575,805	11.7	2,458,978	7.5
2004	31,923	42.0	1,120,097	13.5	392,042	15.9	392,504	10.1	2,112,219	6.7
2003	22,592	31.7	845,302	7.1	616,688	14.9	275,489	10.3	1,682,375	6.3
2002	18,446	55.8	724,894	10.9	456,367	12.9	301,959	12.3	2,087,495	5.6
2001	12,664	43.7	846,118	9.8	295,179	16.6	309,948	8.4	2,301,022	6.2
2000	6,665	40.7	1,055,737	7.5	240,526	13.2	340,630	10.5	2,001,714	7.1
1999	8,070	38.4	889,129	7.6	331,070	10.6	337,942	10.6	1,474,837	6.7
1998	15,700	42.1	751,538	7.0	126,968	13.3	326,235	10.4	1,277,127	5.7
1997	30,651	37.2	713,407	7.0	114,109	13.6	265,191	9.0	1,555,442	5.2
1996	4,685	35.8	816,678	6.2	316,253	13.9	173,616	9.9	1,161,814	5.1
1995	9,535	29.0	870,643	6.2	324,720	12.8	241,714	10.0	1,173,475	5.4
1994	17,210	33.2	1,112,262	6.3	91,207	24.7	364,233	9.2	1,519,347	5.0
1993	16,241	54.7	842,458	8.3	70,018	21.0	217,874	10.9	2,027,758	5.8
1992	10,521	28.3	992,747	9.7	54,890	41.5	226,789	13.0	2,346,495	8.5
1991	13,448	29.1	801,289	10.2	27,941	30.8	263,291	18.1	2,284,363	6.6
1990	11,975	29.2	929,210	12.0	12,504	45.5	252,632	14.7	3,481,179	8.2
1989	16,780	29.6	1,193,791	8.8	1,498	61.7	323,702	17.3	3,213,455	7.7
1988	39,833	72.5	897,527	23.5	16,764	36.0	280,766	18.5	1,786,336	11.6
1987	4,739	36.0	584,488	17.3	62,899	39.2	268,246	32.9	2,321,227	9.6
1986	368	100.0	472,694	15.4	48,258	48.0	124,027	23.9	2,121,061	18.4
1985	1,555	100.0	719,467	14.5	46,425	59.6	376,187	18.5	2,573,654	10.6
1984	6,557	100.0	1,137,932	24.0	-	-	252,290	30.5	3,480,359	12.9
1983	-	-	704,418	19.2	-	-	454,617	31.5	3,508,131	17.0
1982	11,272	41.0	432,806	17.3	16,880	68.2	234,874	41.0	1,628,351	12.1
1981	4,147	100.0	450,765	19.5	-	-	269,318	28.0	1,727,585	8.7

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*).

	Directed Trips									
	Cobia		Dogfish Sharks		Dolphin		Florida Pompano		Flounder	
Year	Trips	PSE	Trips	PSE	Trips	PSE	Trips	PSE	Trips	PSE
2018	294,837	16.9	82,102	33.7	245,040	13.3	631,684	15.1	1,710,890	7.3
2017	302,607	18.6	64,930	32.6	197,686	15.0	713,133	17.9	2,107,301	6.9
2016	349,360	15.3	150,573	29.4	282,195	14.4	637,011	18.0	2,420,326	6.2
2015	326,752	15.8	178,189	39.6	313,062	13.8	782,738	17.6	2,536,854	7.3
2014	244,098	16.4	235,315	28.5	172,691	20.2	670,968	15.1	2,685,072	6.1
2013	204,560	18.0	257,897	36.9	191,701	16.6	1,011,337	12.9	2,623,195	5.7
2012	154,376	12.2	84,192	22.2	222,284	10.7	799,938	8.7	2,552,146	3.8
2011	148,917	15.4	225,852	18.3	235,775	13.1	941,780	10.5	2,519,959	4.5
2010	187,077	11.0	149,586	16.5	221,856	21.0	661,895	10.0	2,900,583	4.0
2009	164,221	18.0	59,569	39.7	350,015	13.6	571,454	11.5	2,577,363	5.9
2008	61,094	21.5	273,811	47.6	172,004	11.1	475,820	13.0	2,405,131	5.3
2007	118,012	16.8	105,601	29.9	290,229	10.9	443,393	14.6	2,221,405	6.1
2006	193,578	17.6	79,737	28.6	235,063	12.6	507,279	25.5	2,379,590	7.9
2005	124,143	18.0	159,265	56.1	272,904	12.2	489,171	19.1	1,911,063	7.4
2004	97,748	16.8	320,230	16.8	198,813	13.3	646,943	17.1	2,078,666	5.3
2003	99,879	15.9	44,501	38.1	140,721	11.8	480,255	17.4	1,729,028	5.3
2002	106,282	19.1	63,077	29.6	156,100	9.9	314,426	20.6	1,958,411	5.3
2001	74,602	19.6	97,601	22.5	123,279	10.1	348,006	17.3	1,861,792	4.8
2000	62,698	20.5	50,092	24.2	177,393	11.4	416,598	19.5	2,121,537	5.3
1999	49,309	23.2	29,834	35.8	122,660	10.4	196,917	14.0	1,158,885	5.6
1998	41,978	16.6	29,574	39.1	77,099	9.0	190,193	13.0	1,428,756	5.1
1997	77,757	15.8	20,978	26.2	137,464	8.4	171,752	11.8	1,426,854	4.7
1996	54,930	15.4	32,907	22.1	97,631	11.8	187,919	14.6	1,126,979	4.9
1995	100,572	18.0	50,972	23.3	135,226	7.7	227,195	13.7	1,230,301	5.1
1994	80,223	14.9	51,154	17.2	158,189	12.0	213,126	11.7	1,834,545	4.6
1993	45,510	21.6	39,754	24.4	126,273	12.1	408,236	13.3	1,745,979	5.4
1992	65,703	18.7	181,964	23.8	66,367	10.3	219,503	21.8	1,598,735	6.3
1991	80,530	19.7	153,145	20.1	103,066	12.4	348,669	12.7	1,604,122	6.6
1990	65,450	31.1	273,474	23.9	59,901	12.1	652,897	22.7	1,531,247	9.6
1989	51,379	31.1	137,176	22.9	89,052	14.9	364,538	24.9	1,033,473	10.0
1988	18,513	28.7	200,154	30.7	54,797	55.5	111,867	28.0	1,361,005	18.1
1987	42,484	26.7	246,125	43.6	50,311	21.7	343,262	30.2	1,090,007	16.0
1986	133,472	32.2	176,010	47.7	39,528	9.3	287,193	11.7	1,204,201	13.8
1985	104,499	48.7	145,998	31.1	43,556	51.9	349,226	28.4	1,799,421	13.7
1984	51,144	64.3	238,585	31.7	12,954	57.8	288,244	30.8	1,807,897	15.6
1983	9,464	100.0	57,410	37.0	20,697	47.1	145,619	67.8	1,678,640	15.1
1982	24,803	61.8	28,559	38.3	18,613	71.7	130,581	23.0	1,412,465	11.3
1981	15,293	89.6	160,422	68.8	8,834	37.6	140,295	39.9	1,052,629	14.1

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 (c*ontinued*).

	Directed Trips									
	Great Barracuda		Greater Amberjack		Groupers		Grunts		Jacks	
Year	Trips	PSE	Trips	PSE	Trips	PSE	Trips	PSE	Trips	PSE
2018	21,941	32.2	18,103	36.4	6,475	28.1	20,808	41.2	74,771	21.9
2017	16,193	35.4	16,026	21.6	20,781	28.5	33,219	30.4	120,189	39.1
2016	10,188	35.2	35,587	27.9	37,721	29.1	47,810	44.4	217,866	18.4
2015	15,801	40.1	32,110	26.9	54,148	18.9	36,039	30.3	204,853	26.7
2014	5,961	39.4	11,311	34.8	37,348	28.0	16,808	37.7	118,156	27.9
2013	7,505	48.7	23,982	32.3	30,365	17.3	20,830	22.2	104,820	19.1
2012	7,125	24.9	18,101	21.2	64,985	19.4	29,517	19.6	137,269	21.6
2011	7,640	31.9	9,951	25.5	29,448	23.0	28,930	24.5	130,946	17.5
2010	10,976	23.4	24,796	41.4	44,583	17.2	24,308	24.6	55,491	26.8
2009	15,559	32.3	36,383	24.1	66,797	19.5	43,402	26.2	46,004	32.0
2008	21,258	27.7	34,312	27.5	70,685	16.1	23,929	25.2	156,608	35.5
2007	6,884	40.9	5,271	72.4	83,941	23.8	33,788	19.5	37,127	22.9
2006	6,711	34.8	10,889	50.1	40,651	21.2	32,203	27.1	22,983	33.7
2005	18,925	31.7	8,613	50.0	37,640	21.8	35,511	23.5	49,323	23.3
2004	10,565	40.7	7,860	34.8	33,386	23.2	30,995	25.0	14,489	31.1
2003	8,236	27.1	10,342	29.2	12,093	32.3	22,700	27.9	41,348	46.7
2002	12,916	21.2	11,290	24.1	12,477	37.3	15,726	26.3	41,353	24.1
2001	10,676	23.2	7,780	26.2	13,175	27.4	11,484	22.9	27,930	47.1
2000	3,586	37.9	11,144	40.8	10,723	46.6	12,243	46.3	29,057	55.1
1999	5,780	38.4	3,876	41.8	8,209	33.1	8,805	28.3	22,995	31.2
1998	7,301	28.9	6,087	33.0	13,725	33.8	13,161	31.5	15,315	33.6
1997	6,321	31.1	7,077	31.0	8,818	35.4	11,874	28.7	63,352	25.3
1996	11,842	31.3	15,233	20.3	14,768	35.8	16,037	28.2	14,258	37.8
1995	13,122	26.8	8,333	24.5	25,804	19.2	23,491	21.2	23,208	24.0
1994	10,705	21.0	15,226	28.3	49,759	21.6	70,363	14.8	13,088	24.3
1993	12,933	29.6	11,018	23.5	33,570	21.7	45,317	19.6	68,709	26.7
1992	7,817	28.6	8,064	25.4	18,182	23.3	31,180	18.5	36,892	40.7
1991	6,118	29.5	56,414	48.9	38,871	31.4	31,333	22.0	36,436	23.1
1990	12,276	36.2	12,660	27.4	60,090	32.3	49,428	43.9	78,219	54.8
1989	6,856	37.1	16,320	30.7	34,056	22.3	30,682	21.4	65,613	49.6
1988	14,908	68.1	7,635	30.3	19,914	21.5	22,183	19.8	73,835	80.4
1987	3,441	39.3	16,159	38.8	12,655	38.2	14,085	26.1	55,371	34.7
1986	268	54.1	24,415	38.8	1,651	81.6	350	100.0	231,679	27.6
1985	-	-	9,069	35.7	21,132	37.1	2,392	67.4	51,813	39.9
1984	8,197	100.0	3,073	100.0	25,412	40.6	67,464	30.0	64,734	55.1
1983	1,878	0.0	4,161	15.8	8,984	100.0	41,734	100.0	15,449	43.0
1982	-	-	412	100.0	12,343	64.7	521	100.0	23,770	49.7
1981	-	-	752	98.3	22,571	89.7	34,118	64.4	48,433	34.7

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)*.

	Directed Trips									
	King Mackerel		Kingfish		Pigfish		Porgies		Puffers	
Year	Trips	PSE	Trips	PSE	Trips	PSE	Trips	PSE	Trips	PSE
2018	417,690	14.9	1,660,341	12.1	492,024	10.9	5,225	42.8	490,330	28.4
2017	409,587	12.7	2,361,137	10.7	676,968	15.3	40,115	39.5	812,904	11.8
2016	271,754	14.3	2,741,476	12.0	848,240	10.8	37,693	55.1	1,427,536	14.8
2015	390,806	11.3	2,842,692	12.1	985,857	9.8	34,494	37.6	1,770,078	19.5
2014	375,929	13.0	2,538,697	9.8	902,261	10.3	16,996	48.9	395,524	16.8
2013	320,144	12.7	2,910,094	6.0	719,546	10.9	15,630	25.5	576,049	11.3
2012	325,194	10.4	2,443,663	5.1	743,921	6.4	25,548	20.3	1,261,061	7.0
2011	259,299	12.8	2,005,965	6.2	864,320	8.4	10,658	34.5	872,144	10.3
2010	287,082	9.7	2,614,698	5.8	728,441	7.5	11,989	30.4	839,916	13.2
2009	501,252	10.4	2,421,670	7.5	626,307	11.7	23,759	28.8	360,375	14.6
2008	340,646	10.7	1,742,848	8.5	700,737	16.2	26,882	26.9	562,782	15.8
2007	475,140	9.2	1,791,749	8.1	591,424	14.4	21,491	23.2	317,421	35.4
2006	386,012	12.5	1,605,005	9.4	443,494	15.0	11,129	37.0	287,797	23.7
2005	464,675	8.7	1,260,798	11.0	632,464	23.4	27,794	24.9	339,008	26.2
2004	395,324	10.9	1,513,388	9.6	738,709	12.5	112,539	38.3	413,765	13.3
2003	283,193	8.3	1,044,531	8.6	834,218	10.5	11,038	31.3	507,955	18.2
2002	353,673	12.5	843,478	10.9	596,590	12.1	8,557	28.3	538,354	14.9
2001	317,006	9.4	1,046,464	8.5	557,787	10.6	11,777	26.2	543,238	9.9
2000	296,502	11.7	1,310,049	9.1	651,759	9.8	29,190	45.1	513,484	10.3
1999	190,705	11.5	719,508	8.5	651,697	9.6	7,823	38.1	418,583	12.0
1998	195,413	14.7	653,069	8.5	645,435	8.6	12,108	32.7	178,079	13.2
1997	256,783	8.4	622,487	7.1	730,699	7.4	19,903	23.2	298,694	12.1
1996	223,974	10.2	699,179	8.4	738,252	7.4	12,181	30.9	384,447	12.6
1995	356,003	7.8	783,545	7.2	588,935	8.2	22,499	19.7	225,761	12.4
1994	385,404	8.7	1,027,407	7.9	591,972	8.7	70,481	19.9	375,140	10.0
1993	362,612	8.5	871,255	10.0	494,231	9.8	33,920	21.3	439,314	14.3
1992	355,767	8.0	987,809	16.3	581,256	12.5	30,629	19.0	1,053,038	14.2
1991	413,152	7.6	1,073,637	11.2	444,929	14.3	44,751	18.0	353,515	13.8
1990	418,747	11.9	1,008,142	13.8	487,082	20.1	58,652	37.0	498,454	19.1
1989	394,667	11.6	558,414	14.8	666,410	12.6	38,329	26.0	500,525	16.5
1988	248,979	14.8	1,109,114	17.3	659,073	15.6	32,995	20.0	422,304	23.5
1987	371,986	14.2	688,396	18.4	643,854	23.7	20,878	23.0	227,546	40.4
1986	333,622	31.1	721,770	40.5	297,118	24.3	9,137	61.8	403,119	43.9
1985	377,973	24.5	419,946	17.3	460,697	20.2	22,099	67.7	140,717	35.9
1984	231,800	23.7	542,411	20.8	581,449	30.8	78,651	28.2	118,171	50.4
1983	291,067	24.3	476,653	25.8	589,457	23.5	138,433	53.2	88,165	40.9
1982	202,767	15.9	563,925	19.4	363,663	43.2	66,862	62.0	237,109	56.5
1981	148,966	14.8	508,287	42.5	466,924	49.8	27,359	75.1	62,083	35.9

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 (c*ontinued*).

	Directed Trips									
	Red Drum		Sheepshead		Snappers		Spanish Mackerel		Spot	
Year	Trips	PSE	Trips	PSE	Trips	PSE	Trips	PSE	Trips	PSE
2018	3,478,377	13.8	350,785	14.2	6,474	36.4	1,072,569	10	948,789	10.1
2017	3,675,064	12.6	486,805	16.0	39,089	39.1	1,065,266	13.6	1,333,257	12.6
2016	3,693,885	11.9	266,617	17.9	29,989	58.1	984,307	10.2	892,716	11.0
2015	2,762,521	18.2	321,035	14.6	21,563	45.0	915,635	8.2	1,788,190	10.7
2014	2,995,433	9.0	255,414	17.0	15,585	43.3	1,073,559	8.5	2,125,494	8.6
2013	2,542,714	6.4	371,139	10.5	6,860	31.8	781,315	7.8	2,385,900	7.1
2012	2,557,094	4.9	405,546	8.8	22,615	22.7	832,918	6.3	1,636,385	5.9
2011	1,089,325	6.7	308,075	12.5	9,117	33.6	875,873	8.4	2,343,254	7.3
2010	1,755,179	7.0	285,820	12.9	9,729	24.8	858,946	8.0	1,978,044	7.0
2009	1,702,448	15.6	317,796	13.7	21,756	28.7	953,259	10.7	2,334,320	7.6
2008	1,491,162	14.2	281,738	13.7	22,634	31.7	721,131	7.7	1,860,288	8.5
2007	1,053,326	8.7	340,505	19.9	13,744	27.5	583,273	9.2	1,920,093	10.6
2006	916,020	8.9	215,691	23.6	5,630	41.2	592,208	11.1	3,190,948	11.5
2005	706,486	8.7	147,013	19.2	18,910	28.6	562,428	11.9	2,504,785	12.4
2004	522,126	9.6	160,973	25.8	18,795	29.7	693,660	16.7	2,308,073	8.3
2003	476,674	9.2	210,037	11.8	6,257	44.5	557,305	11.4	2,096,846	8.6
2002	902,697	8.4	174,010	13.1	9,934	34.3	652,877	11.1	1,575,172	10.9
2001	536,851	8.9	169,511	13.7	10,556	33.4	573,249	12.4	1,873,118	9.9
2000	711,051	7.6	243,234	15.2	4,230	37.7	668,735	12.5	1,565,541	8.4
1999	662,625	7.7	176,898	12.7	7,356	34.1	490,881	10.7	1,418,188	8.2
1998	521,028	8.4	122,528	15.9	3,772	53.5	361,670	10.9	1,551,639	8.5
1997	314,360	8.4	112,257	16.6	14,520	27.5	553,133	7.9	1,155,445	6.7
1996	364,726	9.9	66,671	15.2	15,439	34.8	398,041	8.6	1,621,884	6.6
1995	674,269	7.3	112,359	12.7	23,673	19.7	390,306	7.8	1,428,803	6.3
1994	621,918	8.2	126,838	14.4	31,616	22.0	569,538	7.3	1,912,005	6.7
1993	906,950	7.8	164,875	17.7	17,726	25.8	624,360	8.6	1,687,428	7.4
1992	716,307	12.8	139,232	21.6	17,846	19.8	750,273	8.9	1,766,448	10.8
1991	661,450	12.2	102,231	14.7	17,883	22.9	718,947	6.3	2,128,269	8.3
1990	538,581	19.1	94,796	19.0	27,746	46.2	702,445	10.9	1,856,343	10.3
1989	915,055	13.7	104,468	21.6	27,194	33.5	784,182	14.5	1,709,410	8.9
1988	409,391	35.0	66,494	23.2	15,648	24.6	301,053	10.6	1,582,830	16.8
1987	681,645	23.9	53,816	36.4	14,843	34.4	360,764	13.0	1,250,216	13.6
1986	216,931	18.0	46,832	38.3	4,272	84.9	601,408	33.2	1,207,328	12.2
1985	398,397	28.1	13,672	76.6	29,306	78.1	151,263	28.2	2,320,914	14.2
1984	513,880	23.2	52,395	42.4	41,603	20.8	153,734	37.0	1,851,069	15.5
1983	775,248	18.4	8,770	75.9	53,003	85.8	39,648	81.4	1,893,659	12.0
1982	181,019	34.3	42,268	40.5	-	-	146,127	26.6	1,393,111	11.8
1981	103,166	36.3	62,091	45.4	671	10.0	93,494	30.9	1,304,798	27.3

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).*

	Directed Trips									
	Spotted Seatrout		Striped Bass[1]		Wahoo		Weakfish		Yellowfin Tuna	
Year	Trips	PSE	Trips	PSE	Trips	PSE	Trips	PSE	Trips	PSE
2018	1,606,853	10.9	28,388	41.7	47,725	20.3	97,928	23.7	54,138	27.0
2017	2,851,053	11.9	32,116	35.9	74,721	19.3	147,138	16.8	89,469	17.0
2016	2,322,627	7.5	158,610	45.7	83,613	22.6	275,045	15.6	120,076	20.1
2015	2,537,677	7.1	4,586	93.9	99,224	24.3	449,929	21.8	40,563	25.3
2014	2,154,879	8.1	134,105	81.0	70,998	26.2	226,756	15.2	42,991	22.2
2013	2,233,881	6.6	50,006	40.7	47,999	24.2	164,120	13.5	45,804	26.7
2012	2,365,291	5.2	126,230	28.3	62,680	15.0	198,691	12.1	52,846	20.0
2011	1,689,106	5.7	228,198	18.6	51,715	21.4	122,784	14.5	45,558	28.5
2010	1,716,486	7.3	180,151	19.9	43,944	18.0	231,359	12.9	38,146	27.3
2009	1,873,557	8.5	316,463	21.9	51,309	24.0	187,203	15.7	63,104	48.7
2008	1,444,238	11.2	604,391	19.9	50,932	18.2	151,787	15.6	32,264	23.0
2007	1,116,323	8.8	736,232	18.2	56,232	19.9	211,544	13.9	155,576	15.5
2006	1,077,306	9.1	846,769	24.6	64,976	25.9	385,571	14.9	163,653	15.3
2005	967,636	13.3	540,379	17.7	58,120	25.8	297,007	12.0	154,860	17.3
2004	537,440	8.8	884,229	12.5	40,833	20.2	368,146	12.6	138,284	17.4
2003	400,109	12.0	185,658	13.6	35,915	27.1	246,707	12.3	105,434	13.0
2002	548,358	17.2	351,816	13.5	53,204	18.2	249,751	13.4	115,054	26.6
2001	374,519	11.4	328,790	11.5	32,951	19.2	387,690	15.5	106,870	10.8
2000	534,790	13.5	320,439	12.7	55,387	20.5	290,012	12.5	97,501	10.2
1999	615,015	9.9	201,568	10.5	36,787	17.0	323,706	10.4	100,951	8.1
1998	461,677	10.0	418,479	8.1	19,552	12.2	325,912	13.2	57,984	7.4
1997	545,032	10.4	401,702	8.6	46,756	15.4	284,957	9.6	105,601	12.8
1996	530,593	10.7	287,069	10.3	41,899	15.9	215,012	10.3	123,884	14.3
1995	760,843	7.8	135,019	13.6	46,288	11.3	199,328	11.1	67,313	10.2
1994	728,875	9.6	100,767	14.4	35,247	13.5	297,732	10.6	76,311	10.4
1993	676,541	10.5	41,223	30.1	22,211	16.9	247,237	14.2	44,841	9.7
1992	874,396	11.0	18,165	46.4	21,221	18.5	156,607	18.1	36,731	16.0
1991	838,924	9.6	74,635	40.4	16,358	17.5	193,545	20.1	38,878	22.8
1990	638,272	10.1	-	-	17,041	18.7	118,139	18.2	14,489	19.7
1989	979,095	14.0	-	-	20,862	18.9	214,618	17.0	64,830	22.0
1988	489,668	16.4	1,265	100.0	5,366	22.7	238,449	27.0	38,024	41.3
1987	1,078,367	18.8	-	-	14,075	26.9	417,768	31.1	48,460	26.4
1986	709,774	11.3	-	-	35,658	26.5	538,707	30.1	82,895	21.9
1985	728,712	20.4	-	-	6,322	97.2	207,516	29.5	24,825	53.8
1984	584,669	24.6	284	0.0	1,637	100.0	321,962	21.3	1,011	100.0
1983	512,877	24.7	-	-	11,083	64.2	172,911	34.6	11,435	45.0
1982	444,128	23.6	-	-	577	100.0	87,418	33.4	-	-
1981	486,814	15.2	-	-	4,599	75.2	406,485	43.4	4,405	92.7

[1] Atlantic Ocean Striped Bass only.

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

Table III.6 Atlantic Bonito recreational catch in North Carolina by year.

Year	Harvest Number	PSE (num)	Harvest Pounds	PSE (lb)	Mean Length (inches)	Mean Weight (lb)	Released Number	PSE (release)
2018	12,576	42.5	42,879	49.7	18.1	3.4	11,745	66.4
2017	1,999	45.6	9,578	53.0	18.8	4.8	40,094	75.6
2016	3,411	64.7	22,127	60.3	21.5	6.5	10,196	45.2
2015	16,973	44.8	102,408	42.8	21.6	6.0	1,325	60.8
2014	18,380	49.3	91,228	53.6	20.1	5.0	59,925	62.7
2013	19,182	59.9	99,252	55.4	20.4	5.2	4,609	41.3
2012	6,913	37.1	95,947	49.3	27.1	13.9	7,858	35.6
2011	21,235	73.1	287,458	66.4	27.1	13.5	28,618	42.1
2010	447	42.4	8,019	47.1	30.2	17.9	16,583	41.6
2009	1,379	71.8	13,799	85.4	24.4	10.0	2,561	92.2
2008	5,230	56.8	39,093	61.8	22.2	7.5	23,411	61.1
2007	7,685	48.1	34,693	46.3	20.4	4.5	4,523	41.8
2006	1,037	102.4	4,457	102.4	21.0	4.3	2,755	51.4
2005	2,102	76.6	9,388	73.8	21.5	4.5	42,363	98.6
2004	10,273	56.6	48,251	57.3	21.6	4.7	19,082	39.3
2003	2,275	58.8	6,685	51.2	16.6	2.9	12,968	50.9
2002	28,728	64.0	97,115	66.1	19.3	3.4	30,165	65.7
2001	7,722	48.2	23,602	50.7	17.4	3.1	5,001	56.1
2000	13,617	93.4	69,579	89.9	22.2	5.1	9,257	58.4
1999	6,045	44.8	38,657	44.2	22.2	6.4	2,682	73.0

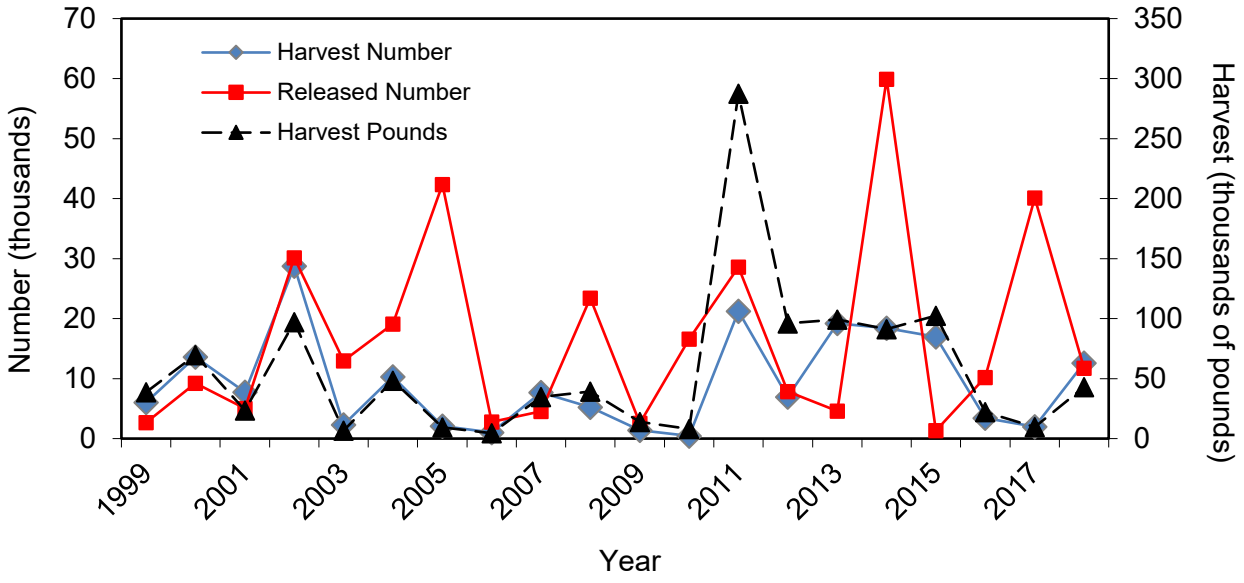


Figure III.1 Atlantic Bonito recreational catch in North Carolina by year.

Table III.7 Atlantic Bonito recreational catch by state, 2018.

State	Harvest Number	PSE (num)	Harvest Pounds	PSE (lb)	Mean Length (inches)	Mean Weight (lb)	Released Number	PSE (release)
North Carolina	12,576	42.5	42,879	49.7	18.1	3.4	11,745	66.4
Connecticut	2,626	69.1	13,415	63.4	20.6	5.1	10,086	44.8
Delaware	643	102.9	4,427	102.9	23.4	6.9	1,648	76.7
Florida	19	109.4	167	109.4	19.4	4.8	-	-
Georgia	981	97.0	1,770	94.8	15.0	1.8	-	-
Maine	-	-	-	-	-	-	97	96.3
Maryland	3,789	77.9	28,048	76.3	23.9	7.4	4,153	81.1
Massachusetts	24,139	41.5	93,678	51.9	17.3	3.9	378,413	42.8
New Hampshire	9,264	42.1	2,933	43.0	8.6	0.3	4,357	96.8
New Jersey	13,119	40.5	51,344	48.2	19.5	3.9	12,572	45.7
New York	-	-	-	-	-	-	1,528	67.8
Rhode Island	10,948	53.7	36,721	63.3	17.1	3.4	26,211	51.0
South Carolina	2,488	107.5	12,010	107.5	20.4	4.8	4,477	107.5
Virginia	1,940	76.3	10,691	76.3	21.4	5.5	-	-

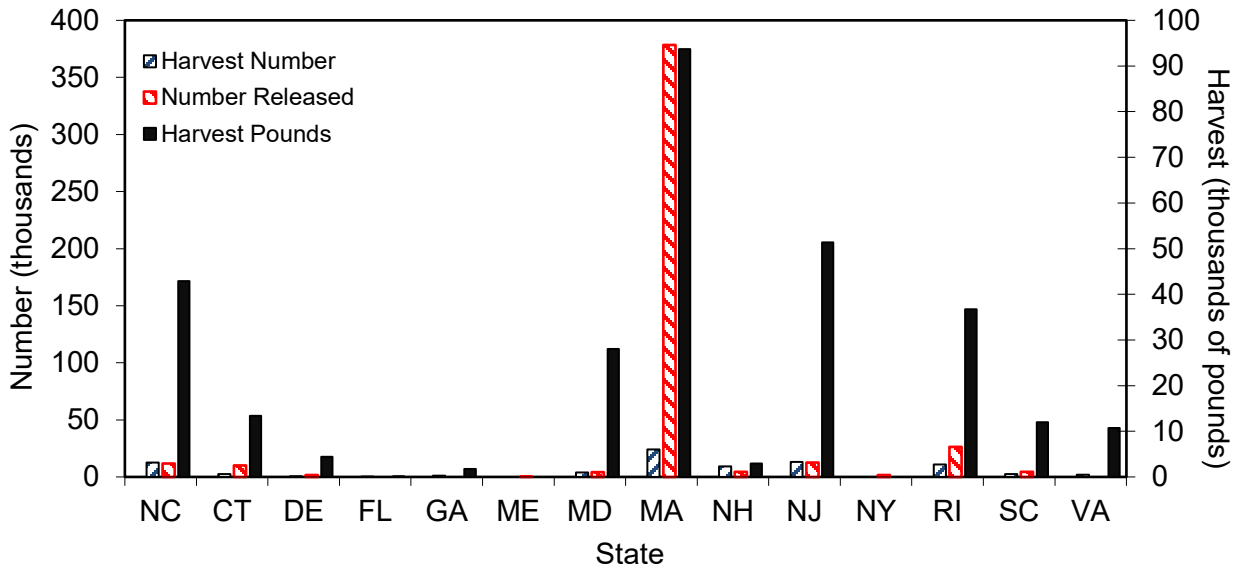


Figure III.2 Atlantic Bonito recreational catch by state, 2018.

Table III.8 Atlantic Croaker recreational catch in North Carolina by year.

Year	Harvest Number	PSE (num)	Harvest Pounds	PSE (lb)	Mean Length (inches)	Mean Weight (lb)	Released Number	PSE (release)
2018	472,917	16.0	164,644	16.1	8.9	0.3	4,311,368	13.2
2017	666,930	16.7	237,160	16.9	9.0	0.4	4,631,445	13.0
2016	1,109,570	16.2	443,728	16.8	9.3	0.4	7,254,382	14.9
2015	1,437,019	14.7	557,735	16.3	9.2	0.4	9,632,560	11.1
2014	1,935,961	21.6	758,751	16.9	9.1	0.4	10,347,332	13.8
2013	1,300,804	15.7	453,881	15.8	9.1	0.3	6,729,556	10.5
2012	848,495	12.1	307,338	12.6	9.2	0.4	3,878,710	8.7
2011	873,659	15.2	360,390	15.6	9.6	0.4	7,005,152	13.6
2010	1,280,446	16.0	638,817	15.7	9.8	0.5	4,571,287	9.8
2009	958,128	16.1	359,703	16.2	8.9	0.4	5,623,278	11.1
2008	678,638	14.8	275,052	15.4	9.5	0.4	3,274,873	11.6
2007	1,058,663	20.7	336,486	21.5	8.4	0.3	3,933,603	12.4
2006	1,376,403	23.9	498,741	23.3	8.8	0.4	6,381,434	11.9
2005	672,437	22.4	323,380	22.0	9.6	0.5	3,038,472	12.4
2004	1,218,206	26.1	683,113	24.1	10.1	0.6	3,407,280	14.0
2003	1,127,298	18.8	708,487	23.2	10.4	0.6	2,765,303	12.5
2002	1,265,031	18.8	651,611	17.3	9.7	0.5	2,218,039	23.8
2001	1,285,029	15.7	647,119	15.1	10.0	0.5	2,387,491	11.8
2000	860,246	14.5	394,037	14.8	9.6	0.5	3,475,554	12.5
1999	1,042,224	16.7	525,970	21.1	9.7	0.5	2,848,626	13.3

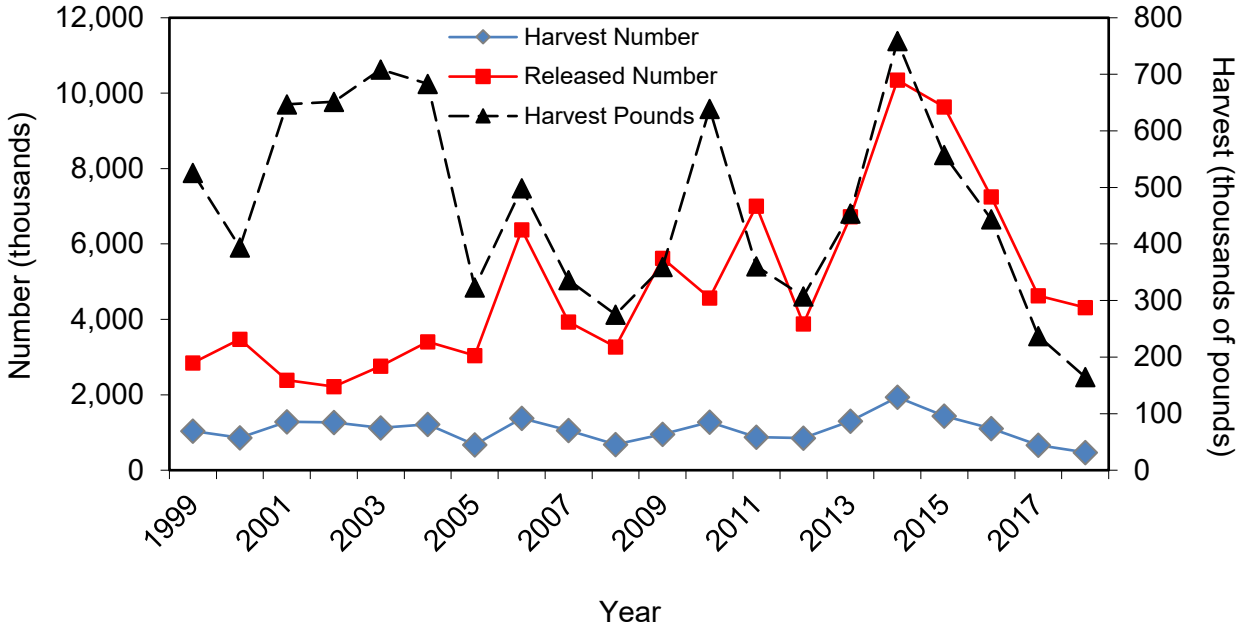


Figure III.3 Atlantic Croaker recreational catch in North Carolina by year.

Table III.9 Atlantic Croaker recreational catch by state, 2018.

State	Harvest Number	PSE (num)	Harvest Pounds	PSE (lb)	Mean Length (inches)	Mean Weight (lb)	Released Number	PSE (release)
North Carolina	472,917	16.0	164,644	16.1	8.9	0.3	4,311,368	13.2
Delaware	12,370	48.1	5,859	52.0	9.1	0.5	85,424	29.8
Florida	1,176,999	26.0	445,663	27.5	9.7	0.4	1,072,381	28.3
Georgia	241,382	27.8	83,258	28.4	8.8	0.3	1,403,560	22.2
Maryland	305,469	28.6	191,854	32.6	10.3	0.6	203,081	21.9
New Jersey	104,321	75.9	34,125	70.3	9.1	0.3	144,637	56.5
South Carolina	335,833	27.0	81,251	21.0	7.9	0.2	5,568,892	16.5
Virginia	5,472,329	20.6	2,245,518	23.4	9.1	0.4	5,359,179	15.7

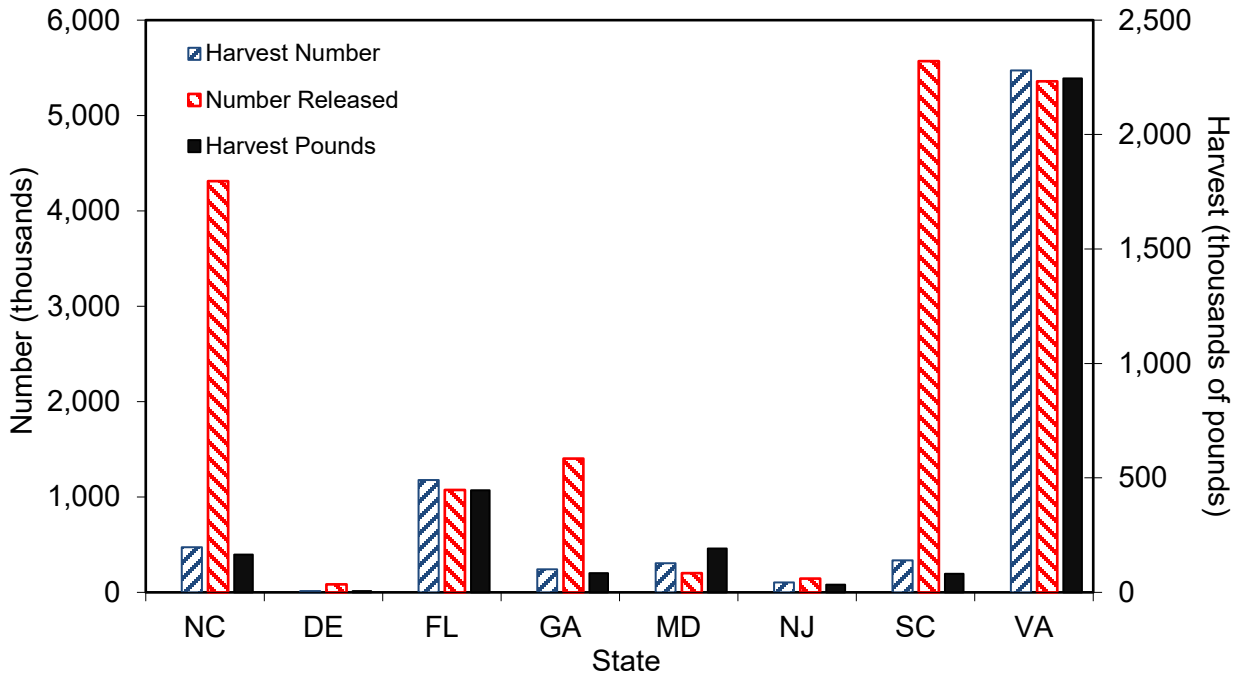


Figure III.4 Atlantic Croaker recreational catch by state, 2018.

Table III.10 Black Drum recreational catch in North Carolina by year.

Year	Harvest Number	PSE (num)	Harvest Pounds	PSE (lb)	Mean Length (inches)	Mean Weight (lb)	Released Number	PSE (release)
2018	134,624	27.2	428,273	28.3	16.5	3.2	1,450,855	21.6
2017	355,544	47.8	856,081	46.9	16.1	2.4	2,336,352	22.1
2016	276,126	20.1	780,876	18.6	16.9	2.8	1,791,758	21.9
2015	109,307	38.5	230,834	32.9	15.0	2.1	1,964,749	27.2
2014	1,511,995	17.6	2,709,269	25.8	12.9	1.8	497,334	27.7
2013	556,482	20.9	879,401	20.4	12.7	1.6	397,155	18.7
2012	1,259,216	20.9	823,423	18.3	10.0	0.7	711,755	23.1
2011	650,010	24.8	812,699	23.6	11.3	1.3	427,577	27.4
2010	449,901	26.5	421,788	21.2	10.6	0.9	411,358	28.3
2009	925,963	22.7	1,232,589	27.9	12.4	1.3	548,931	25.2
2008	876,178	24.9	697,822	19.7	10.7	0.8	832,132	25.6
2007	276,257	22.5	431,212	25.6	13.4	1.6	265,369	29.0
2006	465,076	29.4	509,328	30.8	10.5	1.1	376,363	25.6
2005	296,531	21.1	566,484	20.5	13.5	1.9	255,753	44.2
2004	1,265,995	42.6	1,926,671	32.3	11.1	1.5	481,742	21.2
2003	846,855	18.5	1,791,703	20.2	14.1	2.1	215,810	34.5
2002	400,983	29.5	446,202	24.8	11.2	1.1	325,234	32.2
2001	293,983	30.1	685,687	35.6	15.2	2.3	112,470	28.2
2000	374,245	16.7	561,678	18.4	12.9	1.5	267,723	25.4
1999	105,349	22.2	164,280	21.9	12.1	1.6	95,834	25.5

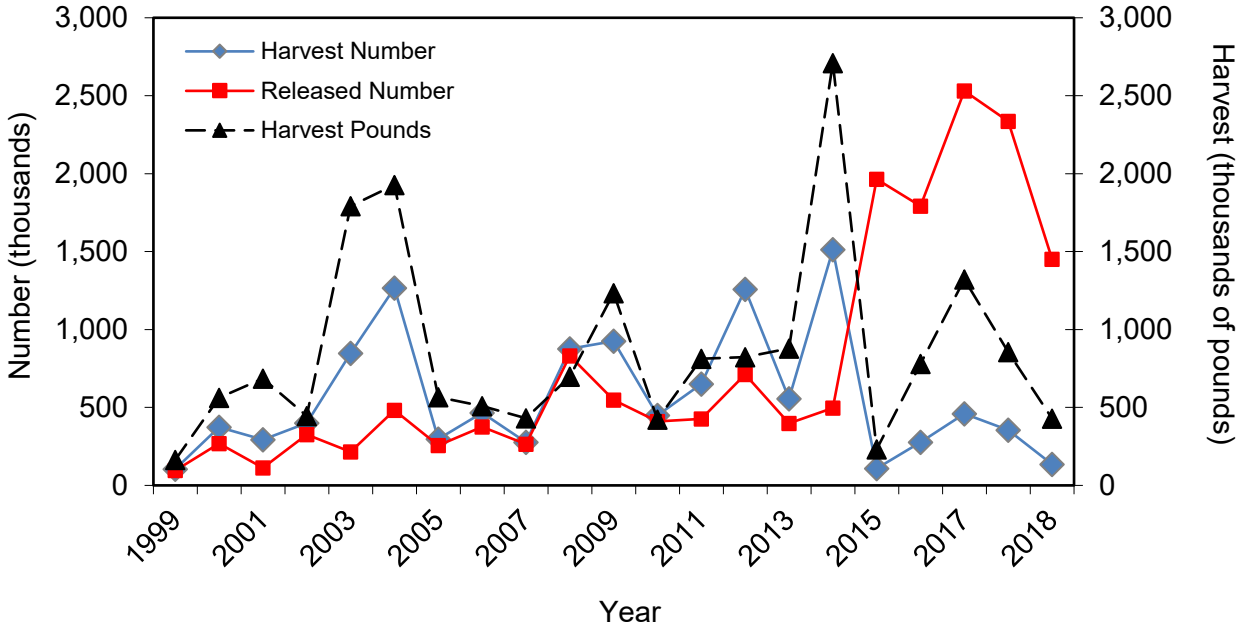


Figure III.5 Black Drum recreational catch in North Carolina by year.

Table III.11 Black Drum recreational catch by state, 2018.

State	Harvest Number	PSE (num)	Harvest Pounds	PSE (lb)	Mean Length (inches)	Mean Weight (lb)	Released Number	PSE (release)
North Carolina	134,624	27.2	428,273	28.3	16.5	3.2	1,450,855	21.6
Delaware	9,211	87.0	179,071	84.9	29.4	19.4	15,249	59.5
Florida	925,794	21.3	2,511,235	22.0	17.5	3.3	2,265,550	18.6
Georgia	129,391	31.7	454,061	33.8	17.0	3.5	189,428	51.5
Maryland	1,262	81.7	53,599	93.4	39.4	42.5	27,849	46.6
New Jersey	40,153	49.2	814,965	55.0	29.8	20.3	51,148	44.8
South Carolina	196,582	21.2	673,698	27.9	17.7	3.4	1,206,586	23.3
Virginia	3,721	43.7	29,120	48.6	21.9	7.8	169,204	72.5

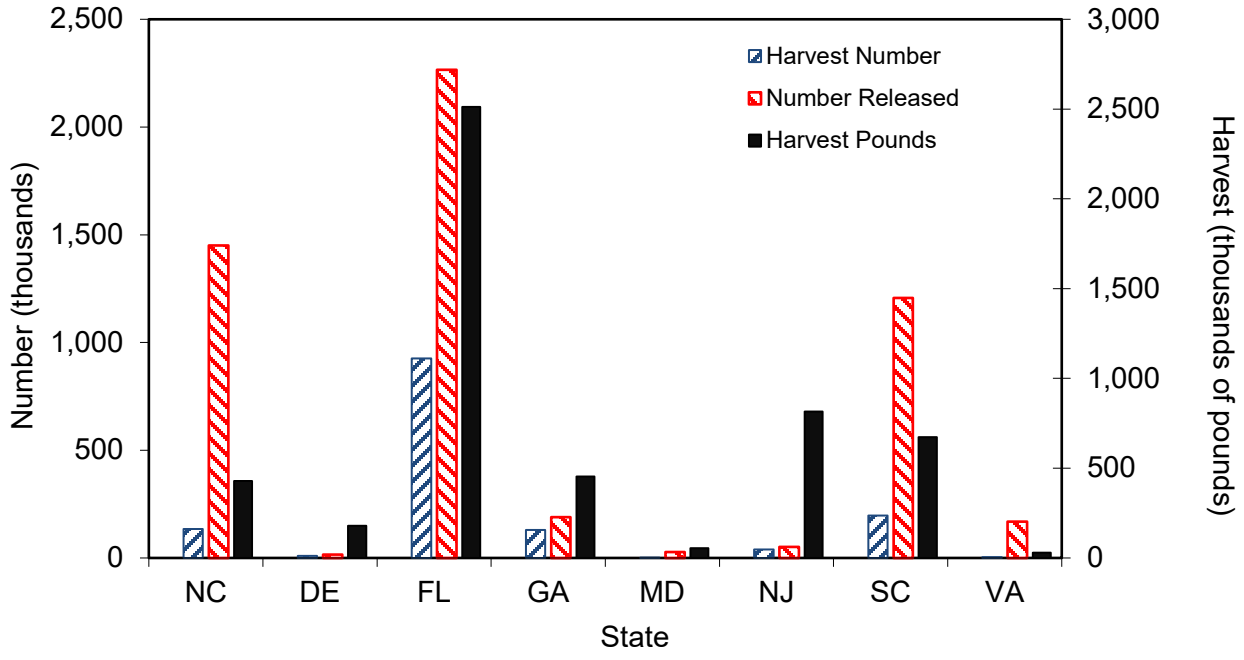


Figure III.6 Black Drum recreational catch by state, 2018.

Table III.12 Black Sea Bass recreational catch in North Carolina by year.

Year	Harvest Number	PSE (num)	Harvest Pounds	PSE (lb)	Mean Length (inches)	Mean Weight (lb)	Released Number	PSE (release)
2018	86,153	32.9	116,825	32.1	13.6	1.4	2,223,800	17.0
2017	316,925	29.3	539,910	30.9	14.7	1.7	6,190,501	13.5
2016	194,512	31.4	302,925	31.9	14.5	1.6	5,536,050	13.7
2015	319,653	32.9	455,100	32.5	14.0	1.4	5,036,500	18.8
2014	332,594	32.2	563,662	31.6	14.7	1.7	5,022,908	15.6
2013	89,682	20.7	123,413	21.3	13.9	1.4	3,041,126	9.8
2012	134,124	18.2	228,090	19.8	14.4	1.7	4,650,495	8.4
2011	179,892	32.4	262,904	33.5	14.0	1.5	2,569,950	9.1
2010	184,479	26.1	231,236	26.5	13.3	1.3	2,223,822	16.9
2009	152,614	30.0	167,165	28.0	13.1	1.1	1,681,278	14.5
2008	91,097	30.8	119,530	30.4	13.6	1.3	1,056,171	14.0
2007	153,597	37.9	302,485	31.8	15.4	2.0	1,672,116	12.3
2006	190,962	27.6	201,508	30.4	12.3	1.1	2,162,091	11.9
2005	346,733	28.2	453,071	41.7	13.2	1.3	2,142,304	14.4
2004	547,651	33.1	509,890	30.4	11.7	0.9	1,942,630	15.7
2003	327,249	22.1	320,436	21.4	11.9	1.0	931,453	15.7
2002	153,335	22.6	202,496	21.2	13.1	1.3	1,023,629	13.5
2001	362,563	18.6	410,649	19.8	12.3	1.1	1,498,961	12.6
2000	327,651	30.9	386,856	39.6	12.8	1.2	1,652,835	19.8
1999	119,359	25.3	107,415	27.9	11.3	0.9	1,325,394	15.0

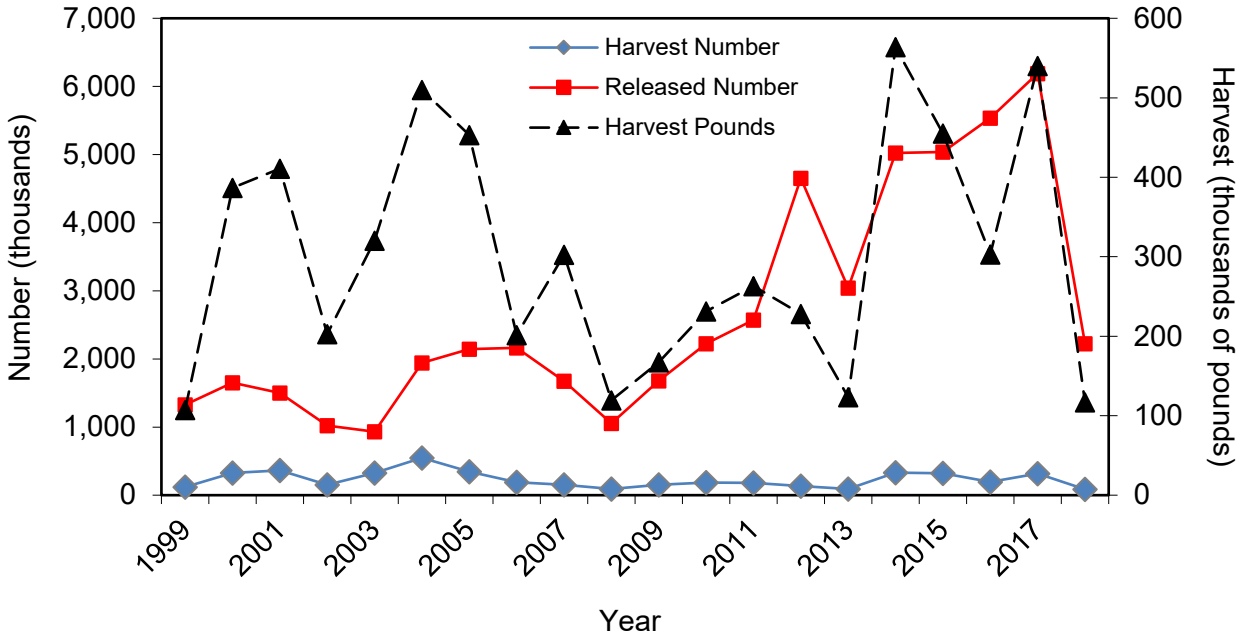


Figure III.7 Black Sea Bass recreational catch in North Carolina by year.

Table III.13 Black Sea Bass recreational catch by state, 2018.

State	Harvest Number	PSE (num)	Harvest Pounds	PSE (lb)	Mean Length (inches)	Mean Weight (lb)	Released Number	PSE (release)
North Carolina	86,153	32.9	116,825	32.1	13.6	1.4	2,223,800	17.0
Connecticut	379,317	16.1	873,055	15.6	17.7	2.3	1,991,225	13.4
Delaware	87,993	43.3	109,365	40.0	14.2	1.2	371,500	33.9
Florida	123,301	43.6	147,167	43.2	12.3	0.9	1,532,307	27.1
Georgia	78,795	41.6	103,008	43.2	13.5	1.3	849,110	38.6
Maryland	154,196	57.2	189,711	55.6	14.0	1.2	1,281,587	48.5
Massachusetts	678,143	21.8	1,818,682	23.3	18.3	2.7	2,452,244	19.6
New Jersey	1,039,614	16.3	1,440,761	17.9	14.3	1.4	5,613,116	13.1
New York	853,309	14.8	1,726,555	14.8	16.7	2.0	5,048,582	14.0
Rhode Island	706,153	15.8	1,628,875	15.3	17.4	2.3	2,671,481	14.6
South Carolina	62,853	57.7	51,886	44.2	11.0	0.8	1,361,654	16.0
Virginia	87,140	41.0	123,937	46.4	13.8	1.4	1,472,012	16.3

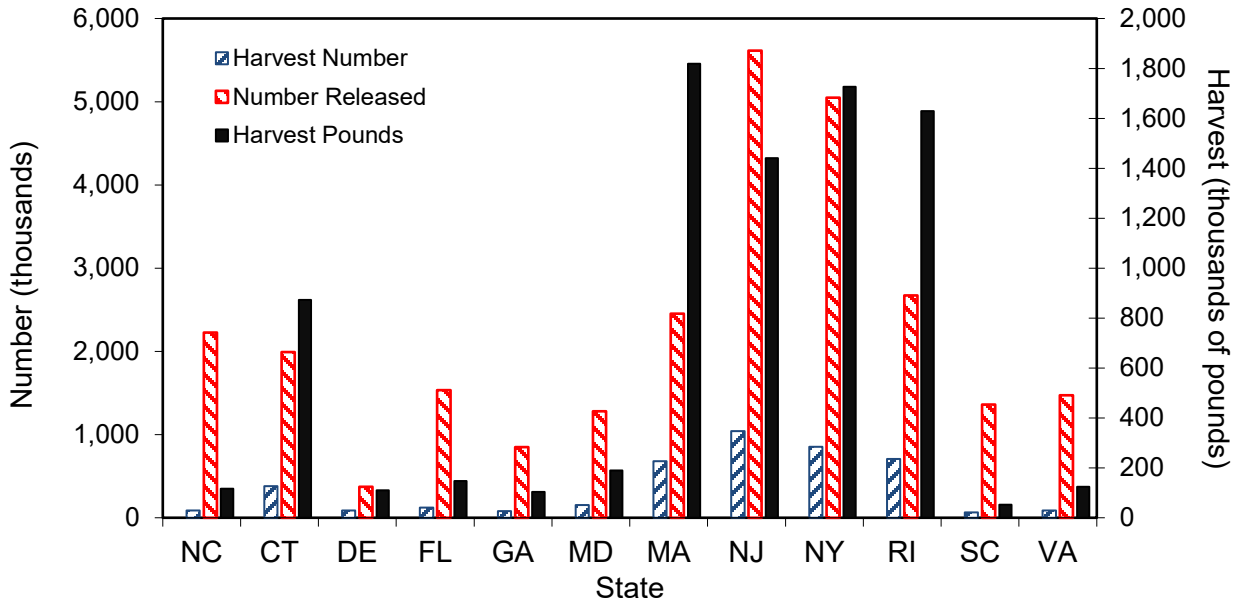


Figure III.8 Black Sea Bass recreational catch by state, 2018.

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

Year	Harvest Number	PSE (num)	Harvest Pounds	PSE (lb)	Mean Length (inches)	Mean Weight (lb)	Released Number	PSE (release)
2018	3,304,587	13.1	2,630,685	12.3	11.3	0.8	7,912,210	16.2
2017	3,173,218	18.3	3,634,502	28.0	12.3	1.1	8,255,510	29.8
2016	4,489,223	17.3	3,356,049	17.1	11.2	0.7	6,802,960	19.3
2015	4,123,461	14.5	3,754,577	14.4	11.9	0.9	6,356,252	15.4
2014	4,418,858	13.3	3,764,005	13.5	12.0	0.9	5,862,762	12.8
2013	4,287,526	11.8	3,517,233	11.8	11.4	0.8	7,050,725	11.4
2012	2,684,392	10.0	2,872,922	11.0	12.5	1.1	3,268,032	8.7
2011	3,613,883	12.0	3,158,287	14.6	11.7	0.9	7,150,476	10.9
2010	3,691,868	10.7	3,185,652	12.4	11.6	0.9	7,419,644	12.3
2009	3,190,313	13.2	3,566,768	15.1	12.7	1.1	6,447,822	12.5
2008	2,855,199	13.9	2,385,349	14.0	12.2	0.8	5,146,870	9.8
2007	3,749,514	13.7	3,616,359	12.5	12.3	1.0	6,740,155	12.4
2006	2,842,593	17.3	2,651,326	21.6	12.3	0.9	5,213,436	13.0
2005	3,004,921	14.6	2,938,814	16.6	12.4	1.0	4,417,822	11.2
2004	2,825,382	12.9	2,773,518	12.9	12.8	1.0	3,781,031	10.9
2003	2,161,780	11.2	1,843,018	11.3	12.4	0.9	3,432,547	12.9
2002	2,484,516	12.7	2,327,789	12.1	12.5	0.9	4,357,535	11.8
2001	3,410,135	11.3	3,048,743	11.3	12.7	0.9	6,756,435	13.9
2000	2,325,583	10.7	1,721,367	10.7	12.0	0.7	5,231,507	24.8
1999	1,774,946	14.9	1,232,827	14.8	11.7	0.7	2,749,327	11.3

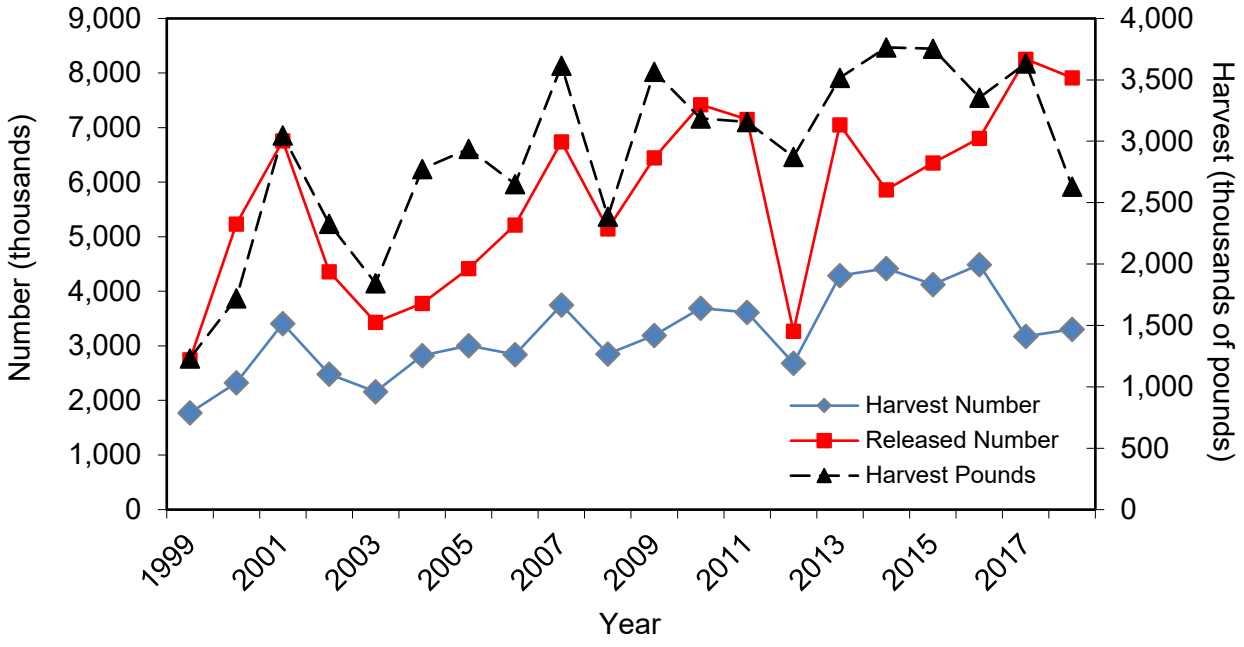


Figure III.9 Bluefish recreational catch in North Carolina by year.

Table III.15 Bluefish recreational catch by state, 2018.

State	Harvest Number	PSE (num)	Harvest Pounds	PSE (lb)	Mean Length (inches)	Mean Weight (lb)	Released Number	PSE (release)
North Carolina	3,304,587	13.1	2,630,685	12.3	11.3	0.8	7,912,210	16.2
Connecticut	312,022	31.2	340,666	29.0	10.4	1.1	505,128	18.8
Delaware	75,703	28.1	315,105	51.9	18.5	4.2	536,200	31.7
Florida	2,052,080	38.4	4,525,038	40.0	16.7	2.2	3,160,513	25.8
Georgia	90,991	55.1	70,284	50.9	11.6	0.8	295,204	31.4
Maryland	274,834	35.8	493,192	46.0	14.3	1.8	417,810	38.8
Massachusetts	182,424	19.3	611,557	19.2	18.2	3.4	531,801	20.8
New Jersey	1,421,477	18.7	2,007,110	22.3	12.5	1.4	2,511,962	21.9
New York	1,203,567	25.5	1,399,517	22.0	10.9	1.2	2,702,047	19.2
Rhode Island	119,801	49.5	210,033	36.5	10.7	1.8	151,793	29.2
South Carolina	765,113	35.7	403,141	30.6	9.9	0.5	1,530,478	39.6
Virginia	443,112	21.4	264,534	19.9	10.4	0.6	427,846	31.0

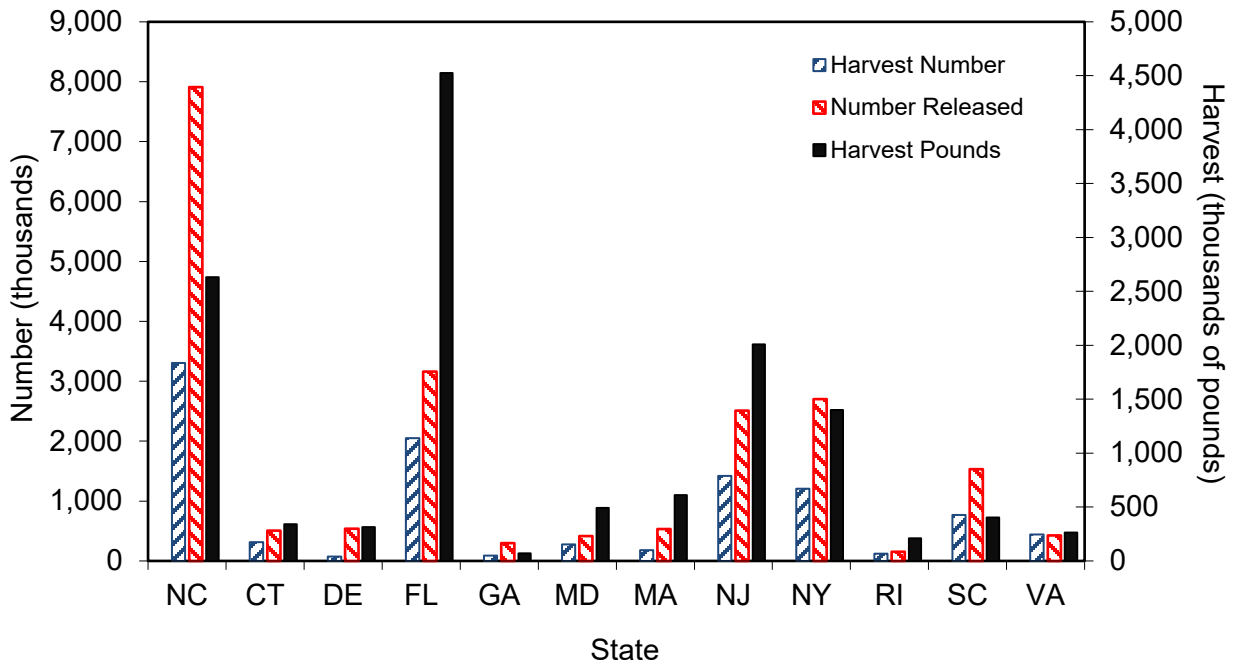


Figure III.10 Bluefish recreational catch by state, 2018.

Table III.16 Cobia recreational catch in North Carolina by year.

Year	Harvest Number	PSE (num)	Harvest Pounds	PSE (lb)	Mean Length (inches)	Mean Weight (lb)	Released Number	PSE (release)
2018	25,331	33.2	685,962	29.1	40.7	27.1	68,219	23.4
2017	25,025	46.1	872,861	45.4	43.5	34.9	125,251	44.5
2016	26,421	44.9	838,363	44.6	42.7	31.7	39,237	26.6
2015	47,110	28.3	1,925,762	29.8	44.2	40.9	44,254	31.4
2014	24,601	35.8	645,427	35.8	39.3	26.2	32,184	29.3
2013	37,617	31.2	980,541	33.0	38.7	26.1	35,398	32.2
2012	3,805	33.9	102,077	35.2	39.0	26.8	66,567	30.1
2011	10,711	40.4	399,192	43.1	41.5	37.3	47,151	25.0
2010	24,030	26.8	808,227	27.8	43.2	33.6	48,590	29.7
2009	12,823	40.7	320,075	45.4	37.9	25.0	55,374	27.3
2008	3,972	54.9	167,463	68.5	45.3	42.2	24,028	39.2
2007	6,262	46.9	218,447	45.0	43.6	34.9	12,695	32.7
2006	5,154	39.4	196,330	45.6	42.6	38.1	11,425	30.1
2005	18,491	48.7	401,557	46.2	37.4	21.7	19,083	43.5
2004	12,522	39.9	420,684	41.4	43.0	33.6	11,079	42.1
2003	6,948	30.4	223,508	37.4	41.6	32.2	21,722	28.4
2002	7,196	46.1	319,178	54.6	48.1	44.4	14,036	38.4
2001	3,548	33.1	121,751	37.9	43.0	34.3	18,500	32.2
2000	2,473	59.6	91,143	54.3	41.0	36.9	4,734	39.8
1999	2,399	64.3	101,465	71.9	47.0	42.3	18,498	65.0

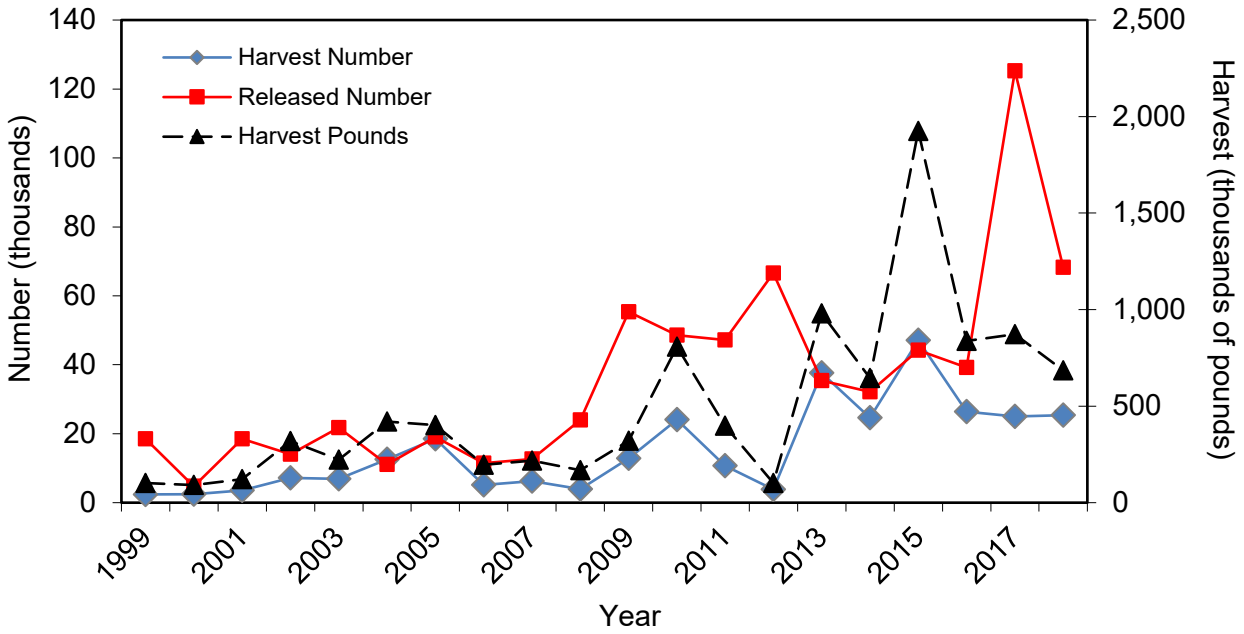


Figure III.11 Cobia recreational catch in North Carolina by year.

Table III.17 Cobia recreational catch by state, 2018.

State	Harvest Number	PSE (num)	Harvest Pounds	PSE (lb)	Mean Length (inches)	Mean Weight (lb)	Released Number	PSE (release)
North Carolina	25,331	33.2	685,962	29.1	40.7	27.1	68,219	23.4
Connecticut	569	100.4	4,136	100.4	27.6	7.3	-	-
Delaware	581	98.1	15,053	98.1	40.2	25.9	-	-
Florida	84,596	42.9	2,286,688	47.1	38.1	24.9	59,868	39.1
Georgia	233	53.9	6,081	54.7	40.6	26.1	18,056	65.5
Maryland	206	66.7	4,647	59.4	37.0	22.6	12,090	93.6
New Jersey	-	-	-	-	-	-	2,879	45.2
South Carolina	6,340	42.2	205,647	47.6	43.1	32.4	71,020	36.8
Virginia	80,679	35.8	2,259,661	35.0	40.0	28.0	194,865	31.3

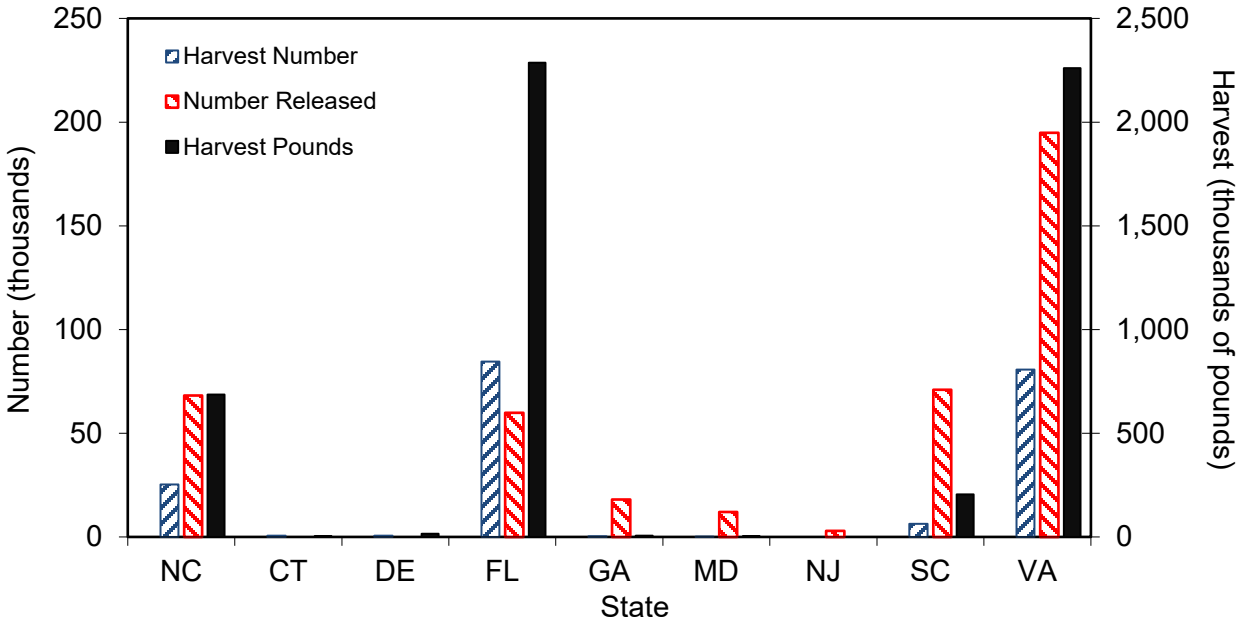


Figure III.12 Cobia recreational catch by state, 2018.

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

Year	Harvest Number	PSE (num)	Harvest Pounds	PSE (lb)	Mean Length (inches)	Mean Weight (lb)	Released Number	PSE (release)
2018	495,435	15.6	3,318,532	14.8	25.6	6.7	27,959	42.1
2017	279,932	20.7	2,223,509	21.1	28.0	7.9	3,035	39.1
2016	480,860	17.2	5,099,647	18.9	31.1	10.6	2,520	61.4
2015	740,023	23.0	5,610,008	24.8	27.0	7.6	73,872	79.8
2014	403,203	26.9	2,933,166	25.9	27.0	7.3	6,731	55.9
2013	322,769	18.4	2,277,519	16.5	26.6	7.1	5,315	55.0
2012	426,877	13.0	3,335,644	13.5	28.4	7.8	4,800	37.5
2011	638,543	15.3	4,950,235	16.7	27.7	7.8	16,217	87.8
2010	615,081	17.8	3,754,430	15.9	25.2	6.1	5,759	50.4
2009	595,967	17.4	6,380,552	18.3	32.0	10.7	4,480	51.7
2008	362,023	15.4	3,227,899	17.3	29.2	8.9	2,393	56.7
2007	591,835	14.3	5,729,879	15.6	30.4	9.7	6,908	53.2
2006	551,924	13.4	4,300,459	13.4	27.8	7.8	32,911	39.8
2005	634,260	17.1	5,664,028	17.8	29.2	8.9	3,264	66.7
2004	323,140	16.3	2,445,482	15.8	27.6	7.6	6,905	58.6
2003	245,651	19.4	3,029,205	22.0	31.9	12.3	13,985	57.1
2002	400,736	13.1	4,853,768	14.6	30.5	12.1	3,699	45.3
2001	344,865	17.2	4,669,172	20.7	31.9	13.5	4,781	44.8
2000	516,491	15.6	4,631,849	16.5	28.4	9.0	17,396	32.0
1999	395,167	17.7	3,280,273	19.7	28.3	8.3	10,406	55.2

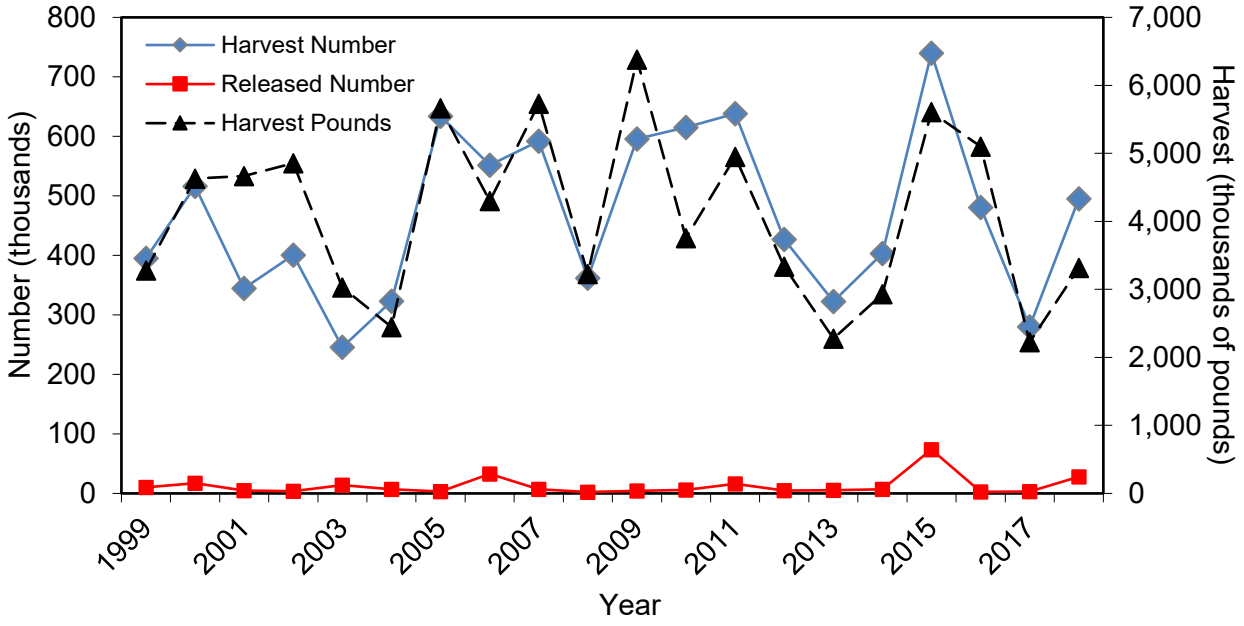


Figure III.13 Dolphinfish recreational catch in North Carolina by year.

Table III.19 Dolphinfish recreational catch by state, 2018.

State	Harvest Number	PSE (num)	Harvest Pounds	PSE (lb)	Mean Length (inches)	Mean Weight (lb)	Released Number	PSE (release)
North Carolina	495,435	15.6	3,318,532	14.8	25.6	6.7	27,959	42.1
Connecticut	6,944	64.0	56,821	67.1	28.9	8.2	440	74.9
Delaware	5,862	65.3	7,003	64.7	15.2	1.2	-	-
Florida	1,169,688	27.5	6,894,661	23.9	24.8	5.5	455,867	25.0
Maryland	30,966	59.7	333,259	60.8	31.2	10.8	-	-
Massachusetts	4,087	58.6	39,116	60.7	30.3	9.6	-	-
New Jersey	631,871	35.9	2,264,026	42.4	20.7	3.6	186,713	49.0
New York	43,313	59.4	392,185	72.7	28.2	9.1	38	95.7
Rhode Island	481	99.3	1,168	99.3	19.3	2.4	-	-
South Carolina	141,467	56.7	1,500,542	57.0	31.3	10.6	20,084	58.6
Virginia	14,299	50.8	107,511	59.7	27.2	7.5	2,569	92.5

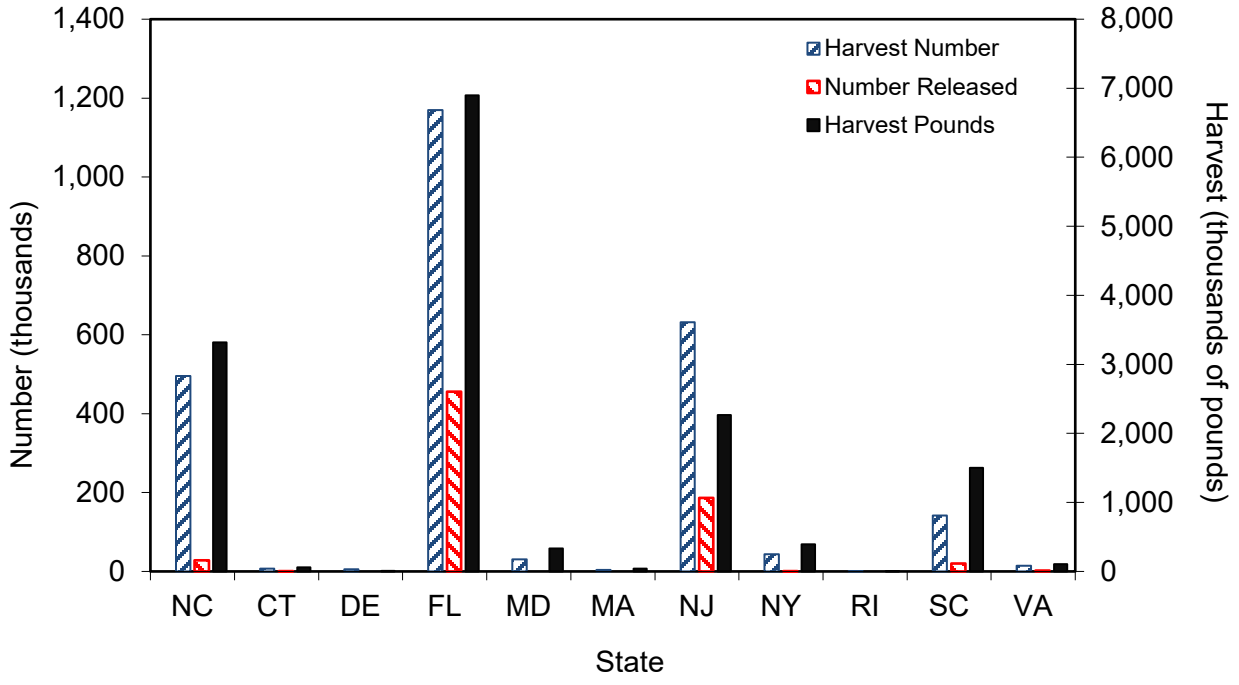


Figure III.14 Dolphinfish recreational catch by state, 2018.

Table III.20 Florida Pompano recreational catch in North Carolina by year.

Year	Harvest Number	PSE (num)	Harvest Pounds	PSE (lb)	Mean Length (inches)	Mean Weight (lb)	Released Number	PSE (release)
2018	318,702	37.4	245,670	42.2	8.7	0.8	1,267,505	22.9
2017	730,412	54.4	290,660	54.5	7.4	0.4	1,681,692	31.7
2016	411,634	42.7	258,769	55.2	8.3	0.6	1,446,589	27.2
2015	722,558	36.0	306,213	42.8	7.1	0.4	883,312	25.9
2014	646,308	33.0	360,398	33.5	8.4	0.6	1,112,888	21.8
2013	1,978,916	25.3	735,833	21.4	7.3	0.4	2,967,947	20.8
2012	479,495	16.9	261,933	21.6	8.4	0.5	1,079,328	19.2
2011	698,273	18.4	275,846	17.6	7.5	0.4	1,421,287	17.1
2010	452,467	19.3	179,641	17.6	7.3	0.4	1,099,167	22.5
2009	580,096	20.6	257,813	20.9	8.0	0.4	755,251	18.8
2008	404,194	21.5	204,250	23.4	7.9	0.5	841,824	21.3
2007	259,331	27.4	121,883	23.8	8.2	0.5	757,063	22.9
2006	247,766	30.6	121,883	35.1	9.3	0.5	1,194,051	36.2
2005	407,705	26.5	211,710	32.8	7.9	0.5	719,238	26.7
2004	1,108,124	24.7	518,316	23.4	8.0	0.5	941,805	21.3
2003	770,738	24.9	483,289	21.6	8.3	0.6	946,984	31.7
2002	824,902	40.3	540,521	44.8	8.8	0.7	296,537	25.1
2001	684,843	38.2	236,463	39.7	7.6	0.3	611,086	35.0
2000	917,597	21.7	248,162	22.5	6.9	0.3	573,935	24.3
1999	279,252	31.5	118,669	35.2	8.7	0.4	134,019	18.1

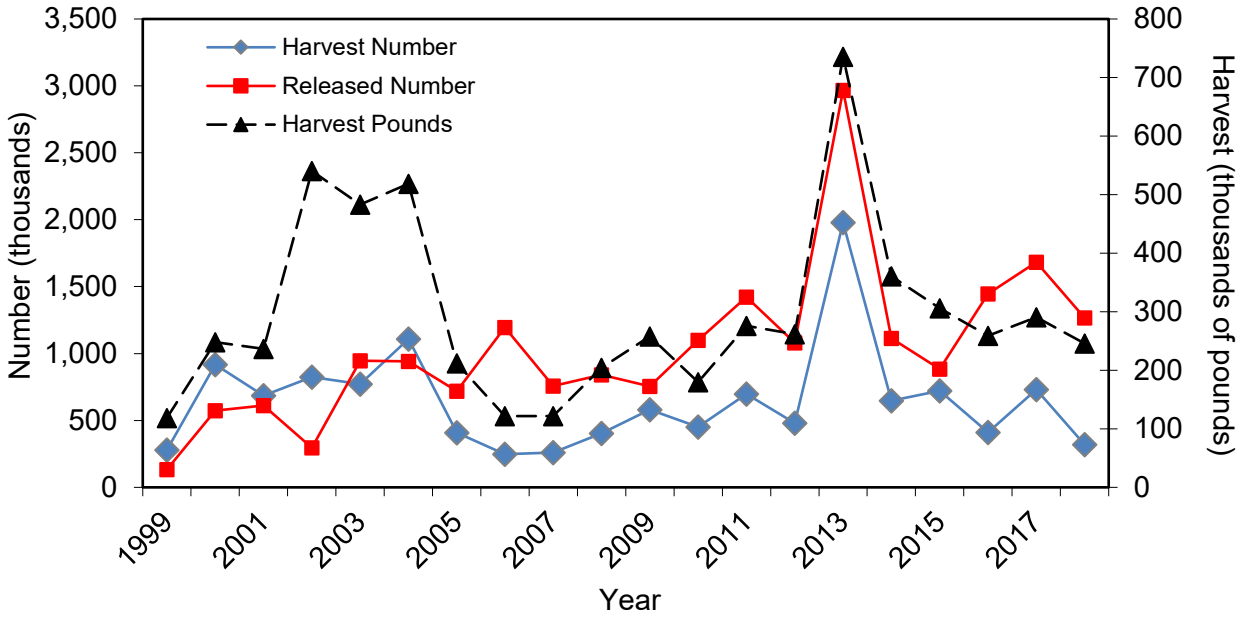


Figure III.15 Florida Pompano recreational catch in North Carolina by year.

Table III.21 Florida Pompano recreational catch by state, 2018.

State	Harvest Number	PSE (num)	Harvest Pounds	PSE (lb)	Mean Length (inches)	Mean Weight (lb)	Released Number	PSE (release)
North Carolina	318,702	37.4	245,670	42.2	8.7	0.8	1,267,505	22.9
Delaware	-	-	-	-	-	-	10,339	50.5
Florida	556,865	30.5	856,504	28.6	12.6	1.6	1,033,009	26.5
Georgia	730	97.2	965	97.2	12.7	1.3	11,397	67.4
Maryland	-	-	-	-	-	-	12,859	66.6
South Carolina	94,835	21.5	18,773	24.2	6.0	0.2	2,187,743	34.3
Virginia	35,510	71.2	13,006	71.7	7.1	0.4	38,282	86.2

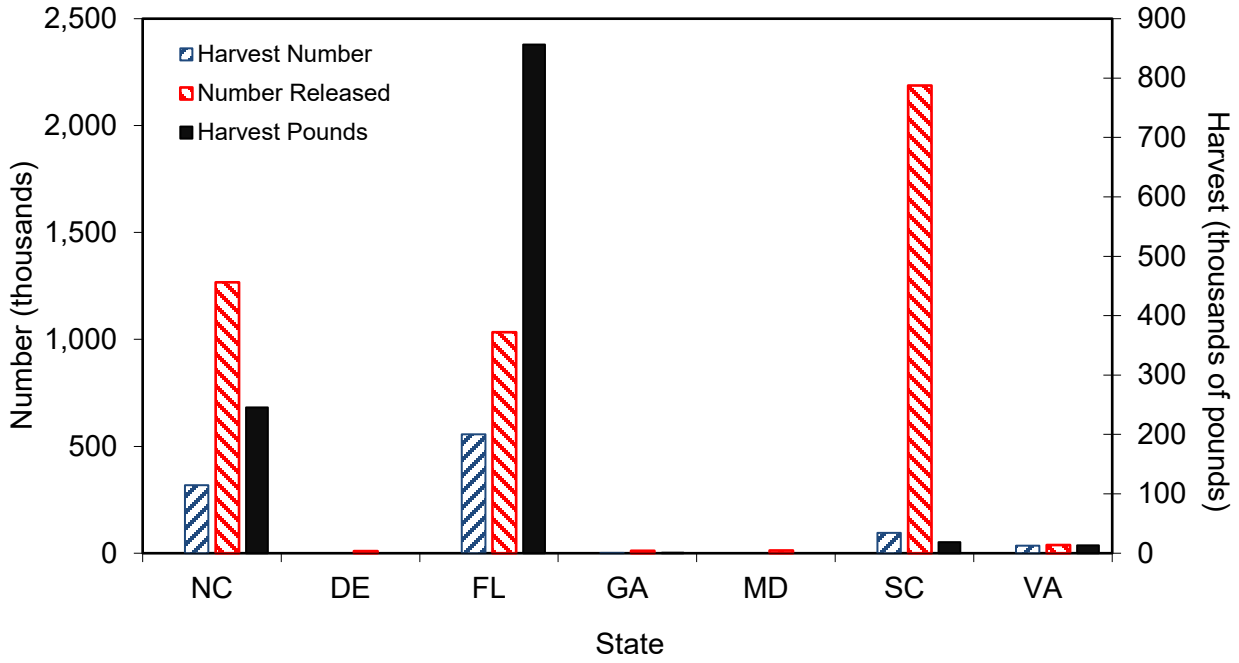


Figure III.16 Florida Pompano recreational catch by state, 2018.

Table III.22 Gag Grouper recreational catch in North Carolina by year.

Year	Harvest Number	PSE (num)	Harvest Pounds	PSE (lb)	Mean Length (inches)	Mean Weight (lb)	Released Number	PSE (release)
2018	171	53.5	1,326	54.0	25.4	7.8	1,070	75.1
2017	3,688	96.0	48,086	96.2	29.5	13.0	17,832	33.8
2016	3,890	62.1	52,660	72.8	29.9	13.5	27,599	39.0
2015	3,447	66.5	47,547	74.6	30.2	13.8	73,193	33.9
2014	1,484	59.8	14,596	55.2	27.3	9.8	23,751	42.5
2013	4,703	39.8	40,921	41.9	26.4	8.7	16,738	24.7
2012	13,194	27.3	155,017	27.6	27.9	11.7	45,047	29.1
2011	5,837	49.7	75,069	49.5	28.8	12.9	33,292	48.2
2010	6,183	42.0	80,042	43.3	29.1	12.9	39,103	39.4
2009	21,879	40.6	336,547	48.3	30.3	15.4	18,275	53.2
2008	12,483	41.2	172,429	39.4	30.2	13.8	45,233	29.9
2007	23,966	32.0	277,250	31.8	28.2	11.6	113,880	61.1
2006	25,243	35.6	372,020	37.0	30.8	14.7	9,972	43.2
2005	19,354	36.1	227,171	37.6	29.3	11.7	33,837	39.1
2004	28,327	48.9	399,365	60.0	29.4	14.1	20,902	46.8
2003	12,089	45.3	163,552	48.0	29.2	13.5	8,354	79.6
2002	7,772	55.0	103,079	61.4	28.8	13.3	32,289	77.0
2001	7,642	34.8	68,797	37.6	26.5	9.0	3,866	55.0
2000	4,503	56.3	30,367	56.8	24.1	6.7	1,284	95.4
1999	3,111	48.8	33,795	56.3	26.9	10.9	474	99.9

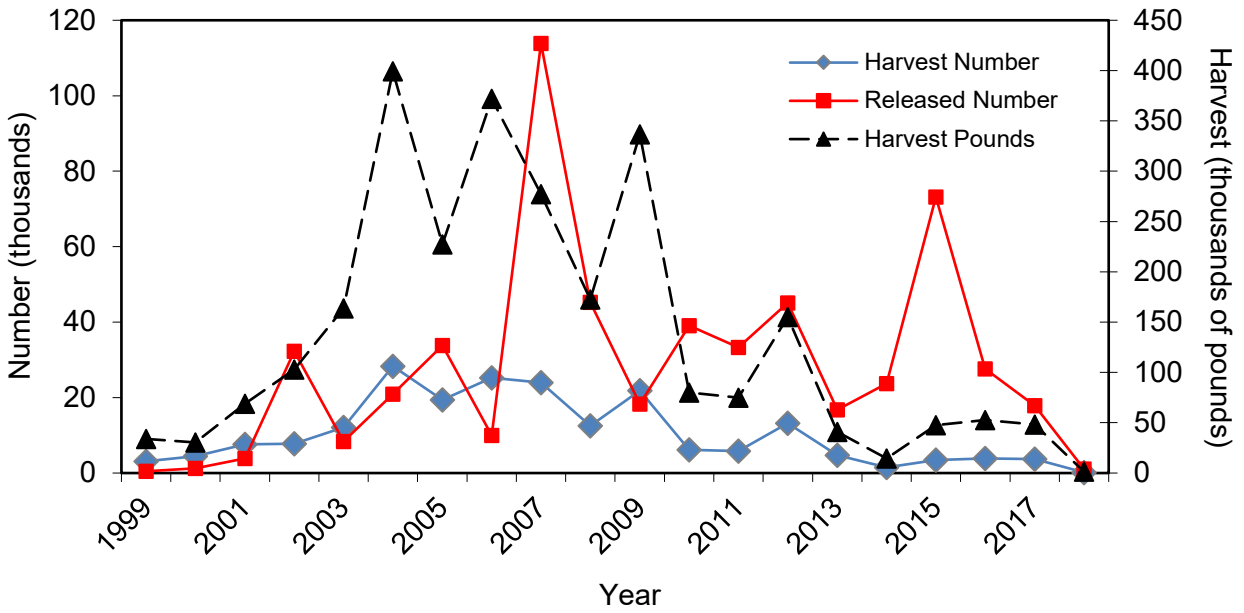


Figure III.17 Gag Grouper recreational catch in North Carolina by year.

Table III.23 Gag Grouper recreational catch by state, 2018.

State	Harvest Number	PSE (num)	Harvest Pounds	PSE (lb)	Mean Length (inches)	Mean Weight (lb)	Released Number	PSE (release)
North Carolina	171	53.5	1,326	54.0	25.4	7.8	1,070	75.1
Florida	22,760	47.8	332,921	40.9	26.0	8.8	47,450	50.6
Georgia	1,908	101.4	34,433	102.1	33.4	18.0	101	54.3
South Carolina	34	105.6	359	105.6	28.0	10.6	3,283	62.6
Virginia	-	-	-	-	-	-	274	101.2

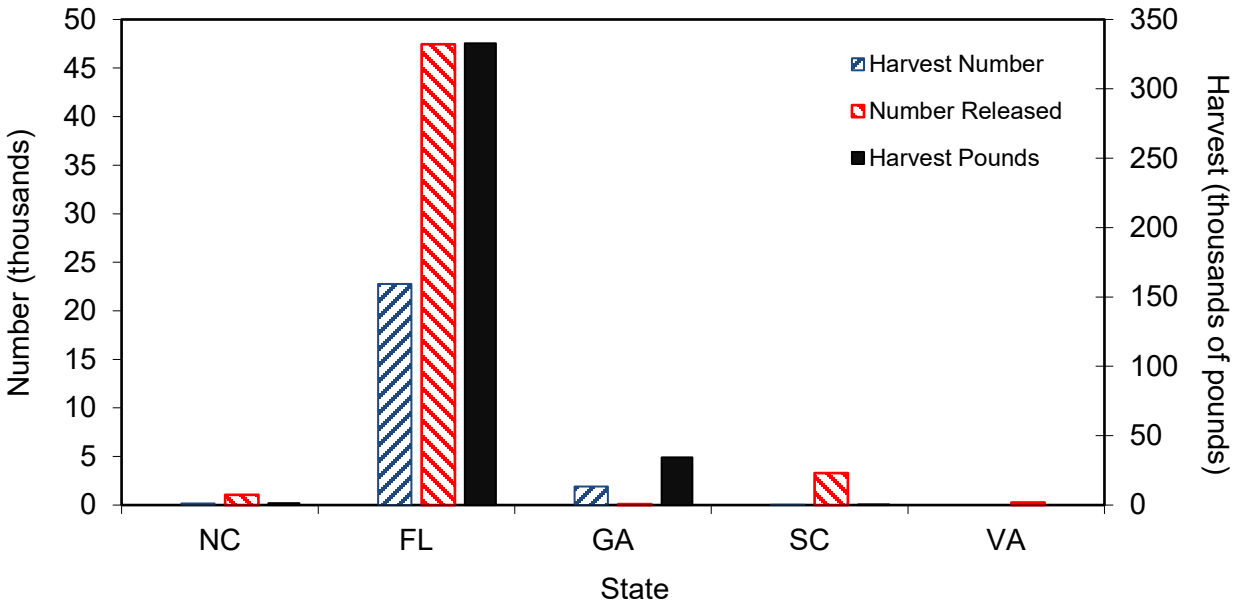


Figure III.18 Gag Grouper recreational catch by state, 2018.

Table III.24 Greater Amberjack recreational catch in North Carolina by year.

Year	Harvest Number	PSE (num)	Harvest Pounds	PSE (lb)	Mean Length (inches)	Mean Weight (lb)	Released Number	PSE (release)
2018	11,742	43.1	227,441	40.4	34.2	19.4	2,243	55.6
2017	6,653	26.8	157,091	28.4	35.1	23.6	6,229	31.7
2016	18,608	32.8	305,372	32.9	32.0	16.4	31,318	42.5
2015	16,436	23.0	360,417	24.9	34.3	21.9	10,128	84.3
2014	5,004	35.5	94,629	32.8	33.3	18.9	1,935	56.3
2013	19,275	31.9	428,664	33.9	34.6	22.2	21,209	53.3
2012	12,412	23.8	216,938	24.1	32.2	17.5	3,379	50.1
2011	6,810	33.2	142,570	35.7	34.2	20.9	9,295	94.5
2010	20,377	31.2	455,278	29.4	35.7	22.3	4,773	55.3
2009	25,670	30.1	686,583	30.6	37.8	26.7	9,226	50.3
2008	18,446	27.4	422,220	29.5	35.5	22.9	17,393	54.7
2007	5,789	67.2	90,525	60.5	30.7	15.6	-	-
2006	14,023	67.9	289,118	68.2	33.3	20.6	3,289	99.1
2005	2,956	70.0	78,610	55.7	34.8	26.6	4,612	77.3
2004	1,949	33.8	40,556	33.6	34.6	20.8	3,261	72.6
2003	6,198	43.3	139,546	43.2	34.5	22.5	6,676	58.8
2002	5,733	32.0	137,296	33.3	35.2	23.9	18,266	48.0
2001	4,274	31.0	110,990	33.6	36.1	26.0	3,186	46.9
2000	6,214	42.2	136,075	43.7	33.5	21.9	4,026	62.2
1999	1,908	69.3	27,491	50.3	24.4	14.4	1,245	83.2

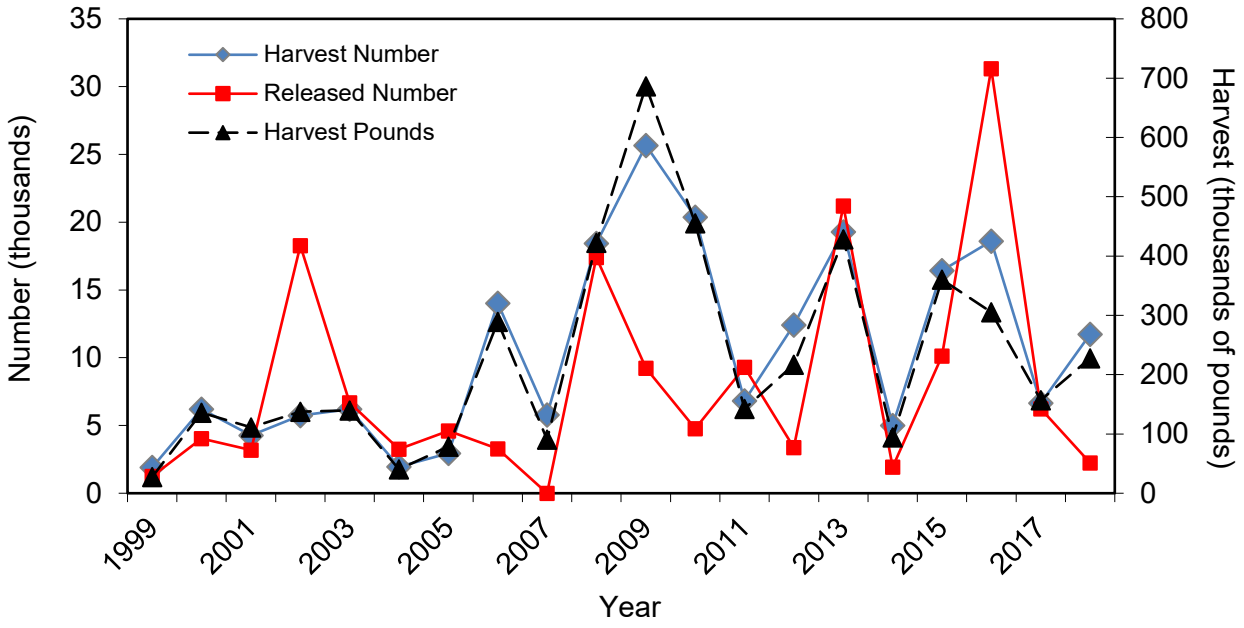


Figure III.19 Greater Amberjack recreational catch in North Carolina by year.

Table III.25 Greater Amberjack recreational catch by state, 2018.

State	Harvest Number	PSE (num)	Harvest Pounds	PSE (lb)	Mean Length (inches)	Mean Weight (lb)	Released Number	PSE (release)
North Carolina	11,742	43.1	227,441	40.4	34.2	19.4	2,243	55.6
Florida	22,978	30.0	526,881	31.1	36.9	26.5	64,132	51.5
Georgia	566	75.3	12,122	72.3	34.2	21.4	373	46.7
Maryland	89	107.2	283	107.2	17.4	3.2	-	-
South Carolina	121	106.8	2,643	106.8	35.1	21.8	1,378	57.0
Virginia	-	-	-	-	-	-	2	101.2

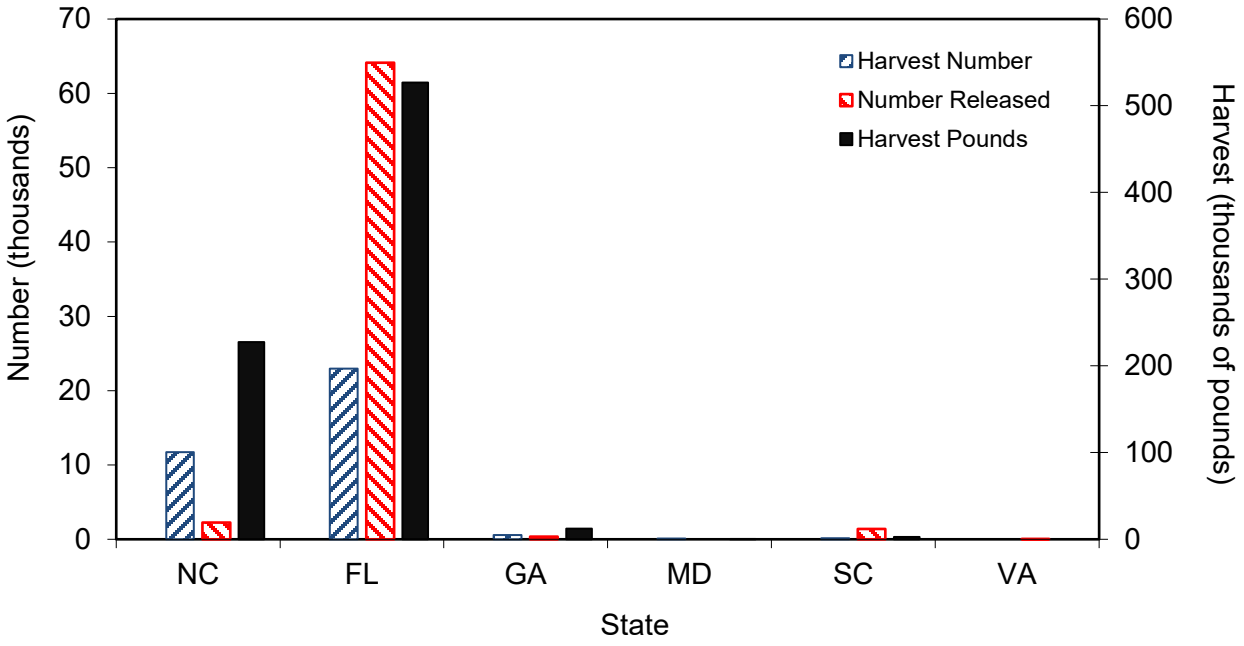


Figure III.20 Greater Amberjack recreational catch by state, 2018.

Table III.26 Great Barracuda recreational catch in North Carolina by year.

Year	Harvest Number	PSE (num)	Harvest Pounds	PSE (lb)	Mean Length (inches)	Mean Weight (lb)	Released Number	PSE (release)
2018	5,848	37.2	52,304	34.8	33.0	8.9	19,937	55.0
2017	2,771	58.5	76,501	79.6	47.0	27.6	15,683	39.6
2016	2,420	55.0	27,950	53.7	35.7	11.6	5,599	42.3
2015	3,844	45.6	22,806	40.3	27.5	5.9	9,561	41.6
2014	2,564	80.5	36,960	83.6	41.3	14.4	2,358	58.4
2013	365	74.9	2,183	72.9	28.9	6.0	7,722	51.8
2012	972	44.5	11,601	40.0	36.6	11.9	5,781	38.1
2011	1,100	40.0	12,375	37.7	36.1	11.2	5,286	50.3
2010	2,127	38.9	17,803	40.0	32.2	8.4	6,152	36.0
2009	2,500	41.9	21,007	40.8	33.1	8.4	20,831	47.5
2008	10,877	59.7	103,655	57.3	33.8	9.5	17,468	36.6
2007	823	76.6	7,288	73.1	33.3	8.9	4,989	55.0
2006	158	54.6	1,446	51.9	32.8	9.1	8,240	50.9
2005	5,883	59.1	60,348	55.2	34.2	10.3	13,186	55.5
2004	9,691	62.2	103,666	67.7	35.5	10.7	8,522	83.4
2003	6,562	34.1	90,668	41.3	35.3	13.8	4,213	47.5
2002	7,887	33.8	88,024	32.7	33.1	11.2	8,573	33.1
2001	6,214	42.8	82,942	42.9	36.2	13.3	9,001	28.2
2000	423	54.6	6,597	60.6	39.9	15.6	3,231	42.8
1999	1,457	56.6	30,464	58.7	45.5	20.9	3,767	46.1

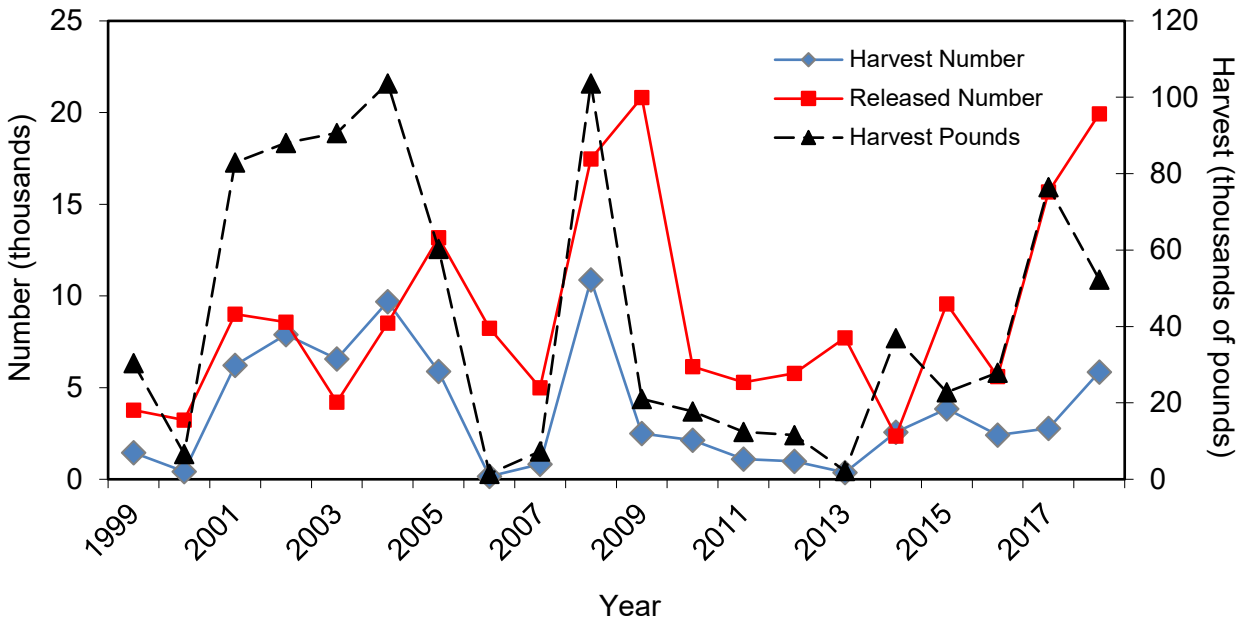


Figure III.21 Great Barracuda recreational catch in North Carolina by year.

Table III.27 Great Barracuda recreational catch by state, 2018.

State	Harvest Number	PSE (num)	Harvest Pounds	PSE (lb)	Mean Length (inches)	Mean Weight (lb)	Released Number	PSE (release)
North Carolina	5,848	37.2	52,304	34.8	33.0	8.9	19,937	55.0
Florida	267,782	24.4	2,078,828	32.8	30.7	7.9	807,569	22.3
Georgia	11,307	72.5	103,842	72.1	32.5	9.2	12,107	60.8
South Carolina	194	96.5	1,670	96.5	31.8	8.6	17,130	45.8

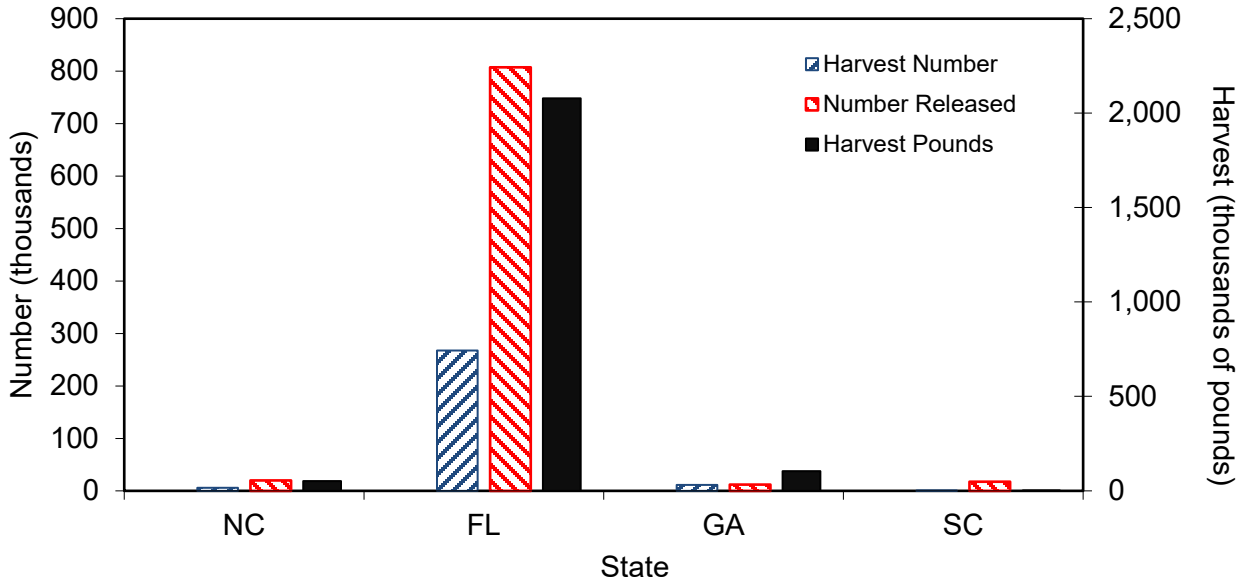


Figure III.22 Great Barracuda recreational catch by state, 2018.

Table III.28 Gulf Kingfish recreational catch in North Carolina by year.

Year	Harvest Number	PSE (num)	Harvest Pounds	PSE (lb)	Mean Length (inches)	Mean Weight (lb)	Released Number[1]	PSE (release)[1]
2018	247,241	39.1	161,101	38.2	11.6	0.7	854,041	-
2017	364,215	27.0	271,422	30.1	12.1	0.7	1,091,051	-
2016	504,926	37.3	262,512	35.2	10.8	0.5	1,448,848	-
2015	589,899	28.1	372,465	29.4	11.2	0.6	1,031,454	-
2014	852,684	27.7	550,685	32.7	11.4	0.6	2,348,027	-
2013	888,648	21.1	479,276	22.5	10.4	0.5	1,864,788	-
2012	1,025,099	15.2	541,883	15.2	10.4	0.5	1,947,002	-
2011	453,644	23.9	336,462	26.1	11.9	0.7	841,224	-
2010	863,479	17.0	493,400	18.2	10.8	0.6	1,485,368	-
2009	706,957	30.0	397,010	31.3	10.2	0.6	1,094,812	-
2008	580,344	18.2	290,414	18.8	10.4	0.5	866,656	-
2007	254,403	31.8	207,483	37.8	12.0	0.8	481,080	-
2006	125,527	45.7	78,755	51.5	11.2	0.6	207,277	-
2005	249,866	48.4	126,239	45.2	9.9	0.5	418,836	-
2004	717,508	35.0	463,847	41.3	11.2	0.6	973,597	-
2003	181,630	22.9	95,117	23.7	10.4	0.5	591,299	-
2002	182,540	31.9	74,139	32.3	9.7	0.4	223,538	-
2001	145,004	31.5	76,862	30.3	10.5	0.5	73,634	-
2000	69,305	39.1	40,405	41.2	10.1	0.6	54,619	-
1999	179,229	39.7	95,232	44.0	10.0	0.5	246,406	-

[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.

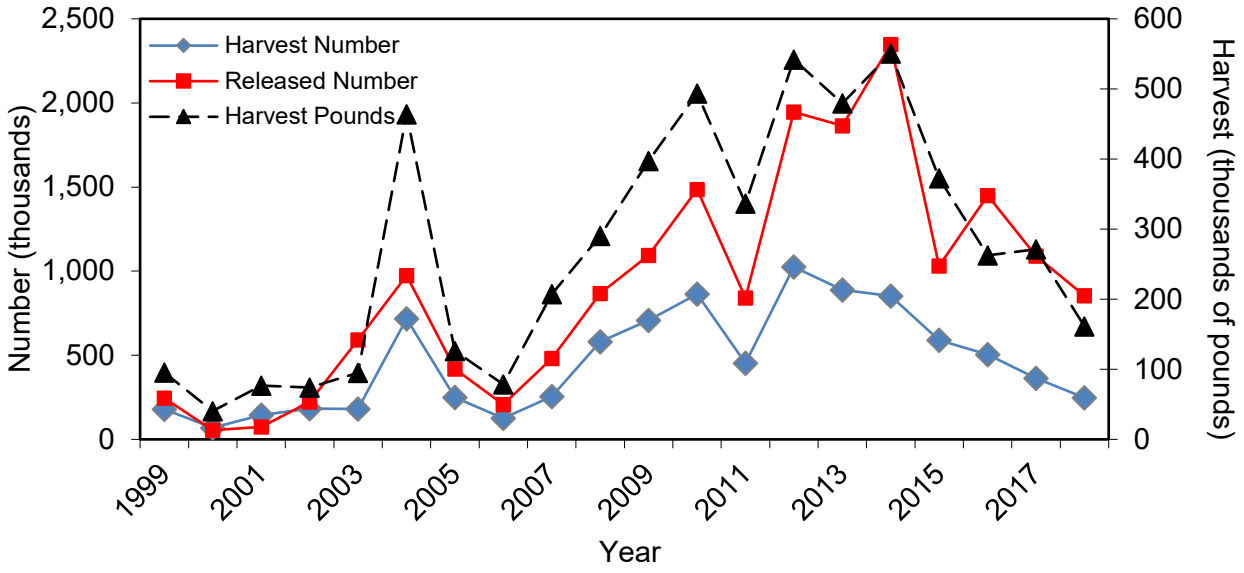


Figure III.23 Gulf Kingfish recreational catch in North Carolina by year.

Table III.29 Gulf Kingfish recreational catch by state, 2018.

State	Harvest Number	PSE (num)	Harvest Pounds	PSE (lb)	Mean Length (inches)	Mean Weight (lb)	Released Number[1]	PSE (release)[1]
North Carolina	247,241	39.1	161,101	38.2	11.6	0.7	-	-
Florida	2,228,073	26.6	1,557,589	25.6	12.0	0.7	-	-
Georgia	8,011	78.9	5,575	85.3	12.0	0.7	-	-
South Carolina	27,609	39.7	11,920	51.5	10.1	0.4	-	-

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

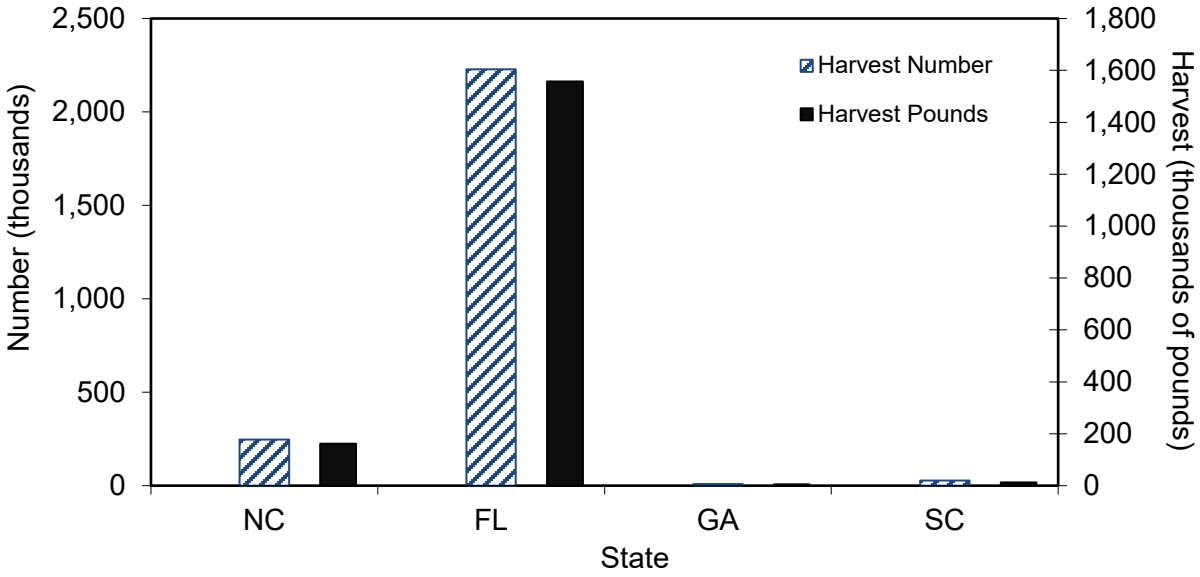


Figure III.24 Gulf Kingfish recreational catch by state, 2018.

Table III.30 King Mackerel recreational catch in North Carolina by year.

Year	Harvest Number	PSE (num)	Harvest Pounds	PSE (lb)	Mean Length (inches)	Mean Weight (lb)	Released Number	PSE (release)
2018	102,675	19.0	1,018,459	30.1	30.3	9.9	75,614	32.6
2017	110,339	22.6	1,261,775	31.8	31.9	11.4	94,655	28.6
2016	108,151	43.4	963,139	41.7	30.4	8.9	43,909	31.6
2015	95,705	37.2	1,168,255	52.5	33.3	12.2	16,877	52.4
2014	72,288	22.7	1,213,096	22.9	38.7	16.8	35,075	92.8
2013	48,000	23.3	521,153	25.2	32.6	10.9	8,868	54.2
2012	55,529	24.5	613,903	25.3	32.9	11.1	6,385	38.1
2011	31,589	36.3	367,896	31.3	34.0	11.6	851	72.9
2010	58,311	23.8	580,505	23.4	32.5	10.0	9,734	36.0
2009	168,558	17.5	1,822,673	18.4	32.7	10.8	23,639	33.2
2008	164,719	18.7	1,379,450	19.0	30.1	8.4	41,283	43.9
2007	339,278	15.2	3,099,801	15.5	31.1	9.1	53,549	29.4
2006	177,369	17.9	1,805,814	22.3	32.0	10.2	45,568	29.1
2005	175,070	16.0	1,349,536	15.9	29.6	7.7	101,507	26.2
2004	191,584	17.7	2,276,035	22.9	32.2	11.9	184,384	38.7
2003	153,339	17.1	1,388,145	17.3	30.4	9.1	33,774	27.5
2002	104,631	40.7	1,242,058	42.4	33.0	11.9	20,811	49.1
2001	145,290	12.8	2,046,022	16.2	34.5	14.1	12,381	41.8
2000	196,979	20.8	2,250,512	17.9	32.0	11.4	26,009	41.1
1999	104,483	18.6	1,034,465	19.5	31.6	9.9	120,296	34.9

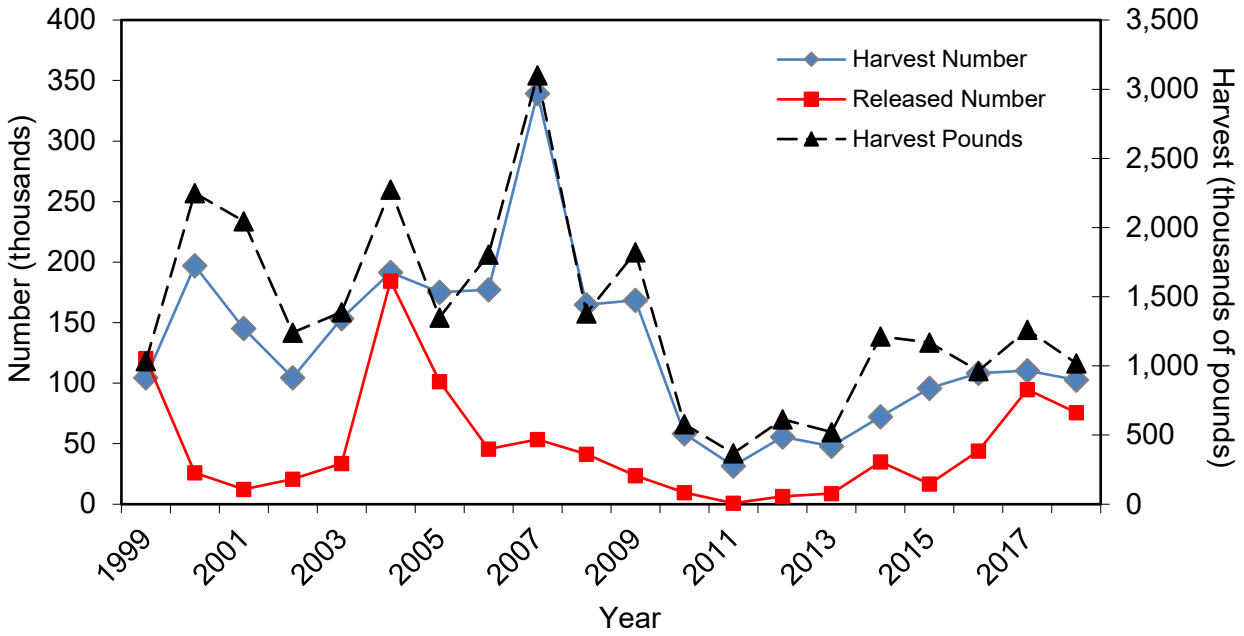


Figure III.25 King Mackerel recreational catch in North Carolina by year.

Table III.31 King Mackerel recreational catch by state, 2018.

State	Harvest Number	PSE (num)	Harvest Pounds	PSE (lb)	Mean Length (inches)	Mean Weight (lb)	Released Number	PSE (release)
North Carolina	102,675	19.0	1,018,459	30.1	30.3	9.9	75,614	32.6
Delaware	-	-	-	-	-	-	141	104.4
Florida	513,251	14.8	3,878,801	15.3	31.0	9.0	151,981	31.6
Georgia	24,542	45.3	424,580	47.5	37.2	17.3	27,346	65.7
Maryland	266	107.2	1,407	107.2	26.8	5.3	-	-
South Carolina	40,574	26.5	216,538	25.5	26.4	5.3	29,662	38.7
Virginia	2,279	55.2	17,144	57.3	28.1	7.5	2,379	66.5

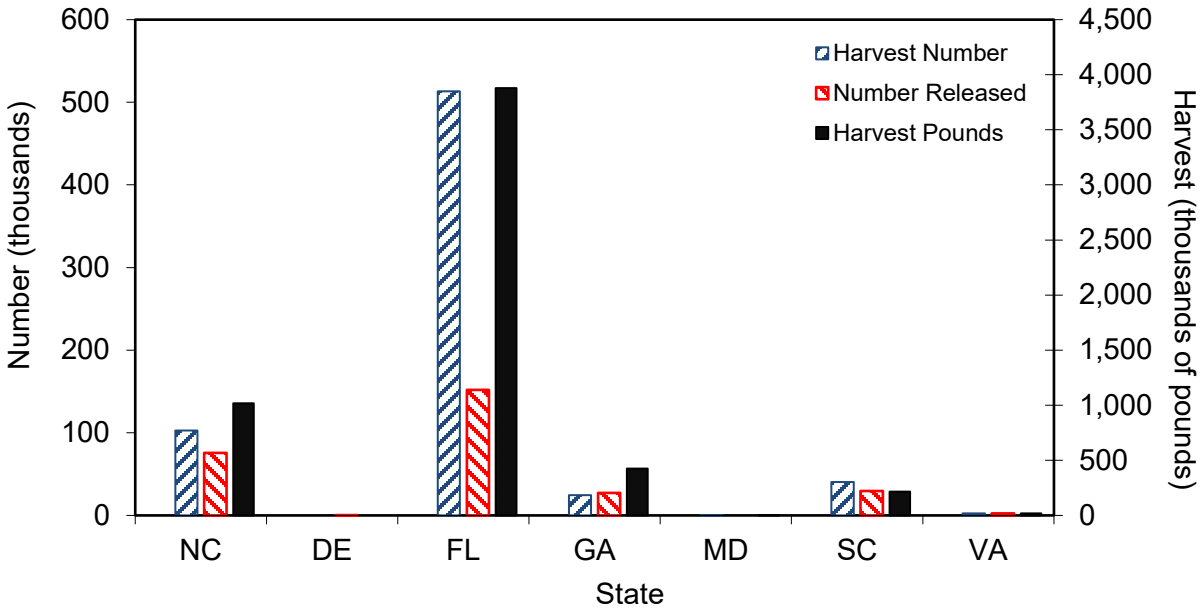


Figure III.26 King Mackerel recreational catch by state, 2018.

Table III.32 Northern Kingfish recreational catch in North Carolina by year.

Year	Harvest Number	PSE (num)	Harvest Pounds	PSE (lb)	Mean Length (inches)	Mean Weight (lb)	Released Number[1]	PSE (release)[1]
2018	16,413	62.2	5,808	68.1	9.2	0.4	32,834	-
2017	59,267	46.3	59,681	50.4	13.2	1.0	143,968	-
2016	1,972	64.3	1,075	71.8	10.8	0.5	8,656	-
2015	16,981	64.9	9,085	54.9	10.9	0.5	47,636	-
2014	5,219	74.5	2,775	70.5	11.2	0.5	35,775	-
2013	50,344	38.0	22,997	36.2	10.9	0.5	116,394	-
2012	36,233	32.0	20,380	30.8	11.3	0.6	47,919	-
2011	139,736	29.4	95,818	34.3	12.2	0.7	183,329	-
2010	34,100	31.6	19,975	32.8	11.1	0.6	91,382	-
2009	143,485	54.5	71,909	56.0	10.6	0.5	201,994	-
2008	61,460	48.1	32,458	46.0	10.1	0.5	61,811	-
2007	642,696	23.5	396,193	22.3	11.3	0.6	724,674	-
2006	181,801	30.1	134,827	34.1	12.1	0.7	340,846	-
2005	44,175	38.2	23,100	35.0	11.0	0.5	67,243	-
2004	310,701	22.0	172,324	23.1	11.1	0.6	531,778	-
2003	372,700	27.8	249,726	30.2	11.8	0.7	283,462	-
2002	353,668	56.8	212,454	58.2	11.7	0.6	121,335	-
2001	420,398	24.5	287,564	24.7	12.0	0.7	160,446	-
2000	417,862	21.6	289,915	22.5	11.8	0.7	241,234	-
1999	383,272	28.9	238,571	27.0	10.7	0.6	294,656	-

[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.

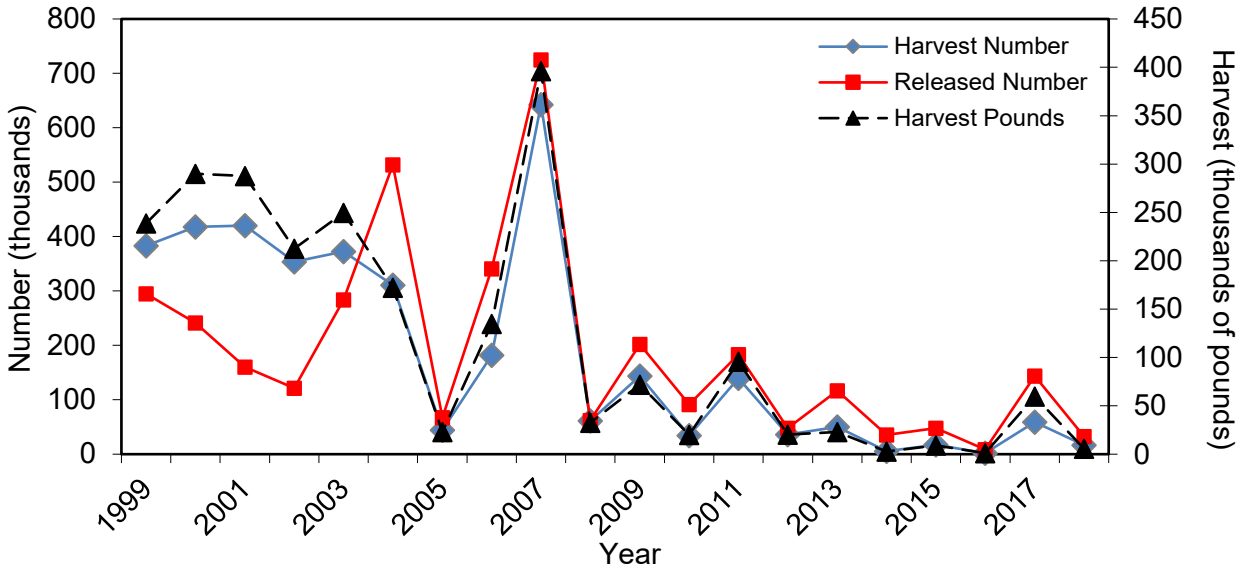


Figure III.27 Northern Kingfish recreational catch in North Carolina by year.

Table III.33 Northern Kingfish recreational catch by state, 2018.

State	Harvest Number	PSE (num)	Harvest Pounds	PSE (lb)	Mean Length (inches)	Mean Weight (lb)	Released Number[1]	PSE (release)[1]
North Carolina	16,413	62.2	5,808	68.1	9.2	0.4	-	-
Connecticut	-	-	-	-	-	-	-	-
Delaware	1,308	72.6	952	79.5	11.3	0.7	-	-
Maryland	-	-	-	-	-	-	-	-
Massachusetts	-	-	-	-	-	-	-	-
New Jersey	52,871	57.5	34,265	61.0	11.7	0.6	-	-
New York	11,167	59.5	7,095	68.5	10.9	0.6	-	-
Rhode Island	620	98.6	444	98.6	11.4	0.7	-	-
Virginia	14,599	78.8	7,135	79.3	10.4	0.5	-	-

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

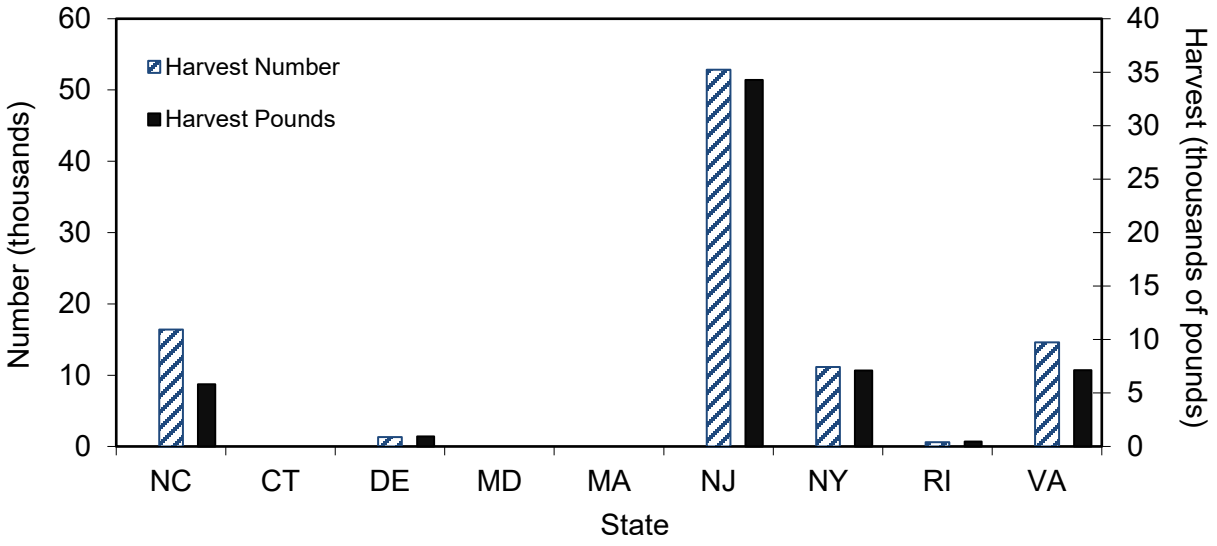


Figure III.28 Northern Kingfish recreational catch by state, 2018.

Table III.34 Northern Puffer recreational catch in North Carolina by year.

Year	Harvest Number	PSE (num)	Harvest Pounds	PSE (lb)	Mean Length (inches)	Mean Weight (lb)	Released Number	PSE (release)
2018	325,810	56.7	148,220	59.7	7.8	0.5	407,924	23.5
2017	518,342	26.7	258,605	24.7	8.3	0.5	1,878,428	41.1
2016	1,627,063	21.9	782,983	22.1	8.2	0.5	1,927,787	17.6
2015	2,752,120	31.1	1,334,104	28.1	8.1	0.5	3,645,599	18.1
2014	490,259	38.9	248,174	40.4	9.0	0.5	419,798	31.4
2013	899,150	37.3	449,032	28.6	8.3	0.5	347,152	32.1
2012	1,074,685	23.5	613,493	24.7	8.5	0.6	1,571,047	11.0
2011	923,100	22.4	579,923	24.0	9.0	0.6	1,220,673	17.9
2010	1,491,844	35.6	816,436	34.8	8.7	0.5	711,264	23.8
2009	194,158	32.3	108,035	31.1	8.6	0.6	40,466	35.1
2008	311,487	33.2	117,706	30.0	7.5	0.4	23,158	60.5
2007	153,264	41.3	93,648	42.7	9.1	0.6	33,626	52.7
2006	162,012	78.3	104,601	81.5	9.2	0.6	34,587	47.6
2005	237,213	49.3	147,256	53.7	9.0	0.6	195,199	53.3
2004	254,184	31.7	160,160	30.6	8.9	0.6	127,519	25.1
2003	800,863	55.3	660,167	58.5	9.5	0.8	51,113	43.5
2002	677,253	32.9	388,883	35.2	9.2	0.6	148,184	36.0
2001	589,195	20.6	397,663	21.3	9.1	0.7	134,411	28.3
2000	357,127	21.6	214,219	23.8	8.9	0.6	145,073	47.0
1999	317,116	33.2	221,457	32.7	9.4	0.7	23,021	43.3

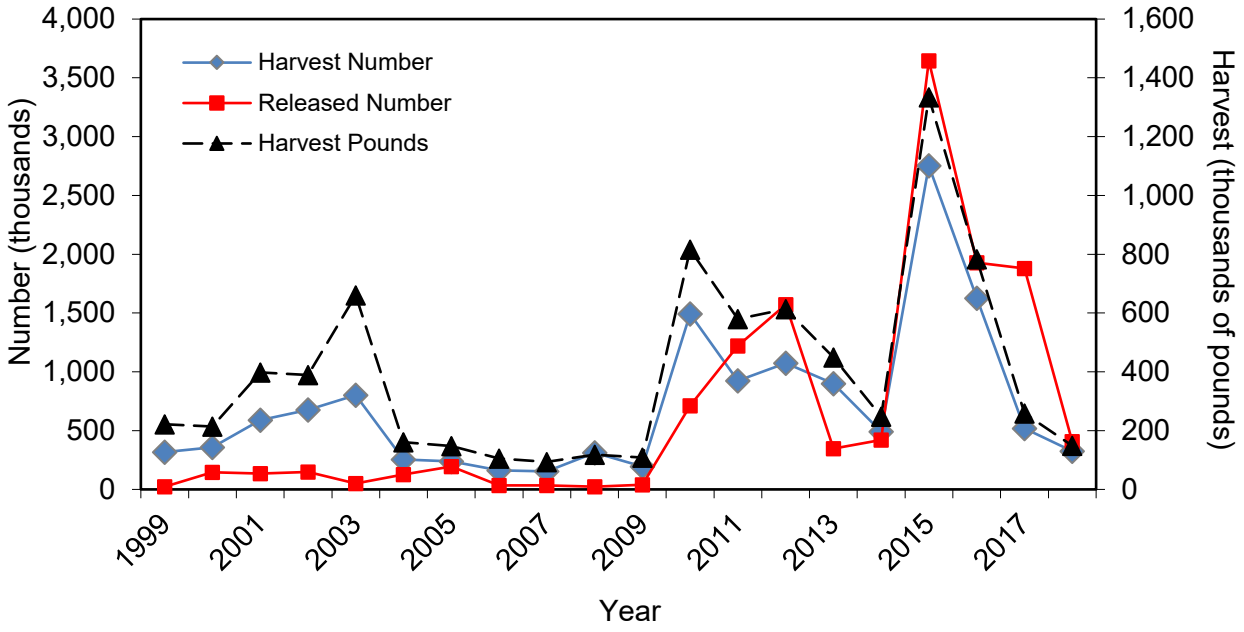


Figure III.29 Northern Puffer recreational catch in North Carolina by year.

Table III.35 Northern Puffer recreational catch by state, 2018.

State	Harvest Number	PSE (num)	Harvest Pounds	PSE (lb)	Mean Length (inches)	Mean Weight (lb)	Released Number	PSE (release)
North Carolina	325,810	56.7	148,220	59.7	7.8	0.5	407,924	23.5
Connecticut	-	-	-	-	-	-	438	99.5
Delaware	2,560	98.2	1,401	98.2	8.5	0.5	10,697	48.7
Georgia	-	-	-	-	-	-	2,920	70.8
Maryland	50	104.5	5	104.5	5.9	0.1	128,504	46.5
Massachusetts	8,402	99.3	-	-	-	-	44,943	92.7
New Jersey	36,724	50.2	23,692	49.0	8.9	0.6	168,100	49.2
New York	472,570	57.8	227,108	54.4	8.0	0.5	675,139	54.2
Rhode Island	-	-	-	-	-	-	1,170	62.0
South Carolina	-	-	-	-	-	-	81,576	33.3
Virginia	9,673	42.6	4,351	48.7	7.9	0.4	299,913	26.7

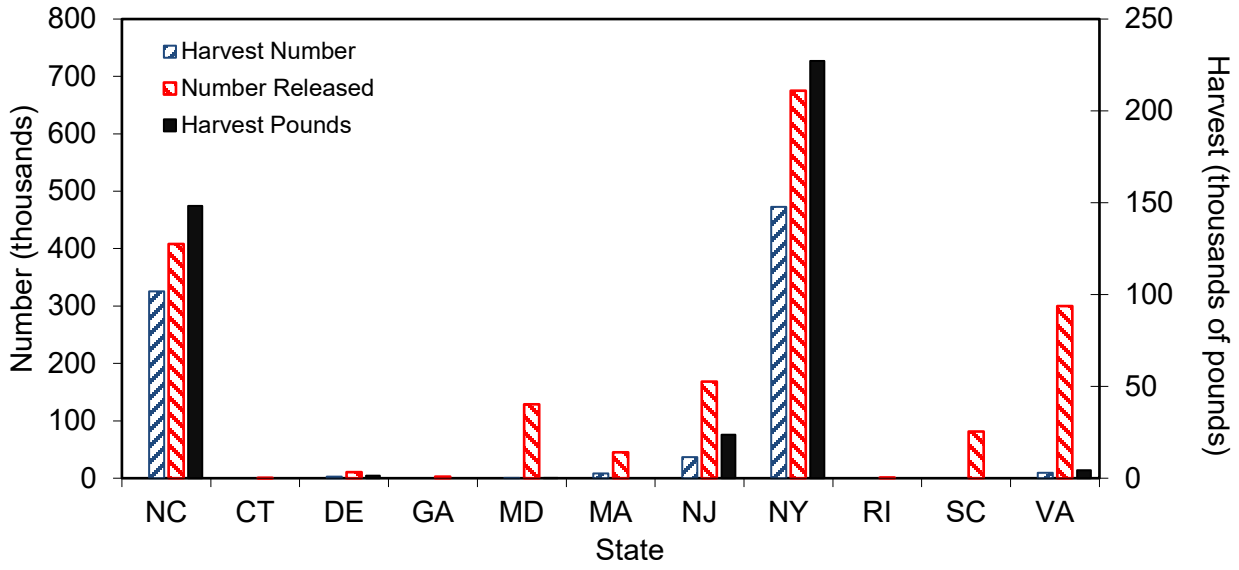


Figure III.30 Northern Puffer recreational catch by state, 2018.

Table III.36 Pigfish recreational catch in North Carolina by year.

Year	Harvest Number	PSE (num)	Harvest Pounds	PSE (lb)	Mean Length (inches)	Mean Weight (lb)	Released Number	PSE (release)
2018	418,174	21.5	163,686	21.4	8.3	0.4	1,385,059	15.4
2017	656,096	27.6	218,003	27.8	8.0	0.3	2,025,949	20.3
2016	1,316,198	22.8	443,062	23.7	8.0	0.3	2,452,668	14.2
2015	1,593,393	24.6	567,572	24.5	8.2	0.4	3,332,936	13.6
2014	1,278,934	26.7	354,667	24.1	7.2	0.3	2,764,971	16.8
2013	905,659	16.1	293,508	15.2	7.9	0.3	1,914,017	13.1
2012	1,098,940	18.8	417,432	18.3	7.9	0.4	1,793,064	9.8
2011	853,482	18.4	268,432	19.2	7.8	0.3	2,316,470	11.7
2010	552,530	17.8	180,599	18.2	7.8	0.3	2,394,225	13.3
2009	1,074,061	61.2	443,288	64.8	8.3	0.4	1,857,462	15.9
2008	478,273	21.6	141,247	24.0	7.8	0.3	1,502,518	23.5
2007	719,365	25.6	230,770	26.6	8.1	0.3	1,430,793	18.5
2006	662,750	23.8	265,398	23.6	8.2	0.4	968,477	19.1
2005	1,160,195	42.0	576,835	48.1	8.8	0.5	1,161,855	20.6
2004	696,142	26.1	282,523	25.3	8.9	0.4	1,739,120	16.9
2003	1,537,595	20.2	602,742	20.5	8.4	0.4	1,638,238	12.7
2002	1,039,007	32.8	361,066	39.5	8.2	0.3	1,363,433	25.0
2001	975,513	27.3	337,779	23.5	8.1	0.3	1,273,575	16.9
2000	1,381,170	42.3	638,461	42.7	8.6	0.5	1,511,814	12.1
1999	1,215,290	29.1	431,807	27.6	8.2	0.4	1,429,091	14.6

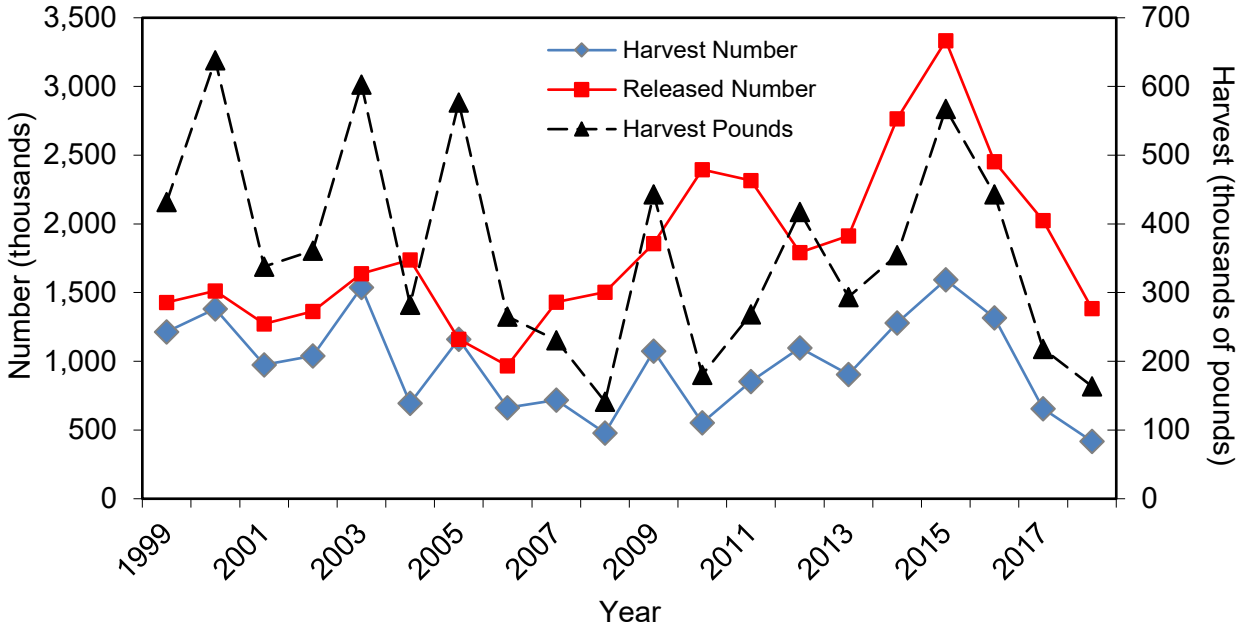


Figure III.31 Pigfish recreational catch in North Carolina by year.

Table III.37 Pigfish recreational catch by state, 2018.

State	Harvest Number	PSE (num)	Harvest Pounds	PSE (lb)	Mean Length (inches)	Mean Weight (lb)	Released Number	PSE (release)
North Carolina	418,174	21.5	163,686	21.4	8.3	0.4	1,385,059	15.4
Delaware	-	-	-	-	-	-	21	-
Florida	284,484	52.2	102,395	53.1	7.9	0.3	184,912	42.9
Georgia	6,162	64.4	1,195	52.6	6.5	0.2	50,103	49.6
New Jersey	94	110.9	29	110.9	7.7	0.3	49	105.2
South Carolina	20,625	41.9	10,881	44.5	9.2	0.5	82,514	61.8
Virginia	2,662	46.7	814	48.9	7.6	0.3	995,570	58.0

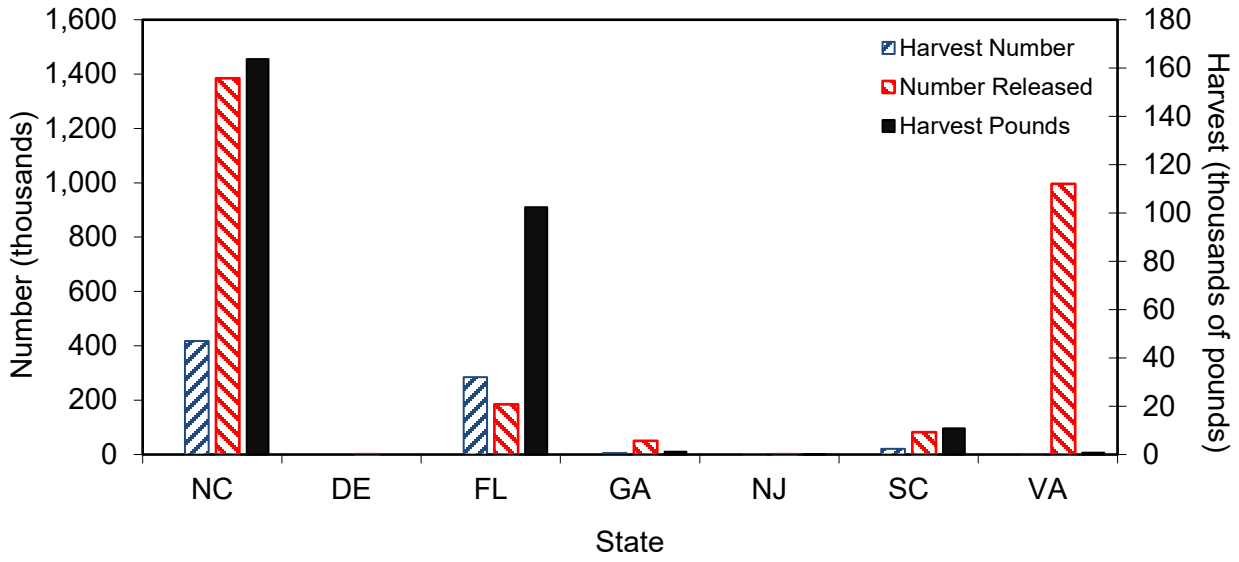


Figure III.32 Pigfish recreational catch by state, 2018.

Table III.38 Pinfish recreational catch in North Carolina by year.

Year	Harvest Number	PSE (num)	Harvest Pounds	PSE (lb)	Mean Length (inches)	Mean Weight (lb)	Released Number	PSE (release)
2018	886,712	18.7	188,046	18.6	6.4	0.2	9,646,310	10.7
2017	917,956	24.3	283,455	23.7	6.9	0.3	13,677,930	16.8
2016	1,236,741	19.9	246,720	19.7	6.4	0.2	16,905,448	13.6
2015	1,597,032	20.6	449,239	24.5	6.8	0.3	14,915,393	11.4
2014	1,453,062	17.2	281,547	15.8	6.1	0.2	19,323,896	10.7
2013	1,385,301	15.8	269,250	17.0	6.5	0.2	10,455,850	9.4
2012	1,015,905	14.6	165,384	13.9	5.7	0.2	11,864,052	8.7
2011	836,412	17.0	159,057	16.5	6.4	0.2	8,823,604	9.4
2010	757,425	14.8	122,854	14.3	6.0	0.2	10,754,559	8.6
2009	597,710	21.1	124,101	21.9	6.4	0.2	7,795,965	11.5
2008	640,886	22.5	142,016	21.2	6.6	0.2	6,799,842	10.6
2007	266,392	28.2	58,827	28.0	6.6	0.2	6,526,964	11.0
2006	435,252	28.2	94,334	25.1	7.0	0.2	9,116,690	15.1
2005	341,742	23.3	78,975	23.1	6.9	0.2	4,732,265	13.1
2004	593,170	51.9	140,151	53.1	6.3	0.2	7,921,980	11.3
2003	907,567	20.4	292,269	21.5	7.3	0.3	10,849,405	11.8
2002	935,556	20.6	208,331	20.5	6.9	0.2	11,286,432	11.5
2001	1,184,602	24.0	343,875	26.3	7.2	0.3	8,765,316	12.4
2000	1,538,661	23.7	507,292	25.6	7.1	0.3	8,768,301	9.8
1999	1,788,768	29.0	485,764	27.3	7.6	0.3	9,948,280	15.1

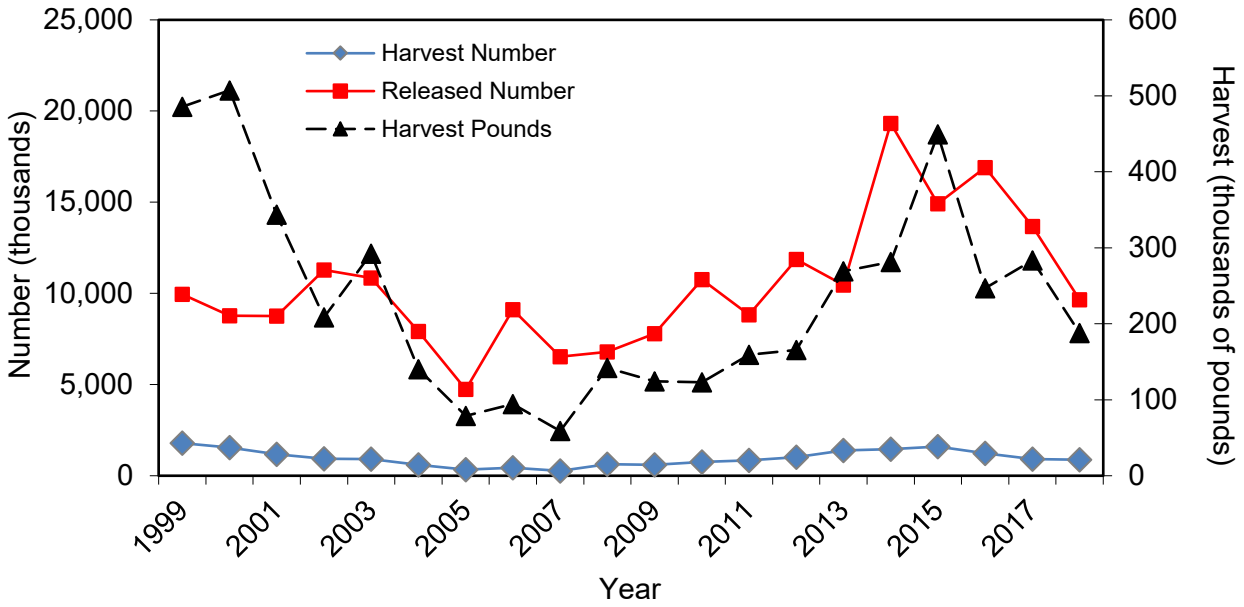


Figure III.33 Pinfish recreational catch in North Carolina by year.

Table III.39 Pinfish recreational catch by state, 2018.

State	Harvest Number	PSE (num)	Harvest Pounds	PSE (lb)	Mean Length (inches)	Mean Weight (lb)	Released Number	PSE (release)
North Carolina	886,712	18.7	188,046	18.6	6.4	0.2	9,646,310	10.7
Delaware	-	-	-	-	-	-	8	-
Florida	1,289,787	40.3	300,959	41.9	6.4	0.2	1,304,240	21.5
Georgia	25,886	48.0	6,337	50.1	6.7	0.2	118,293	40.5
Maryland	0	100.6	0	100.6	11.5	1.2	9	79.7
Massachusetts	29	100.8	16	100.8	8.9	0.6	-	-
New York	429	42.9	351	42.9	10.6	0.8	-	-
South Carolina	125,499	36.0	28,458	33.5	6.4	0.2	1,522,924	19.3
Virginia	27,697	74.7	23,949	68.5	10.2	0.9	108,469	97.4

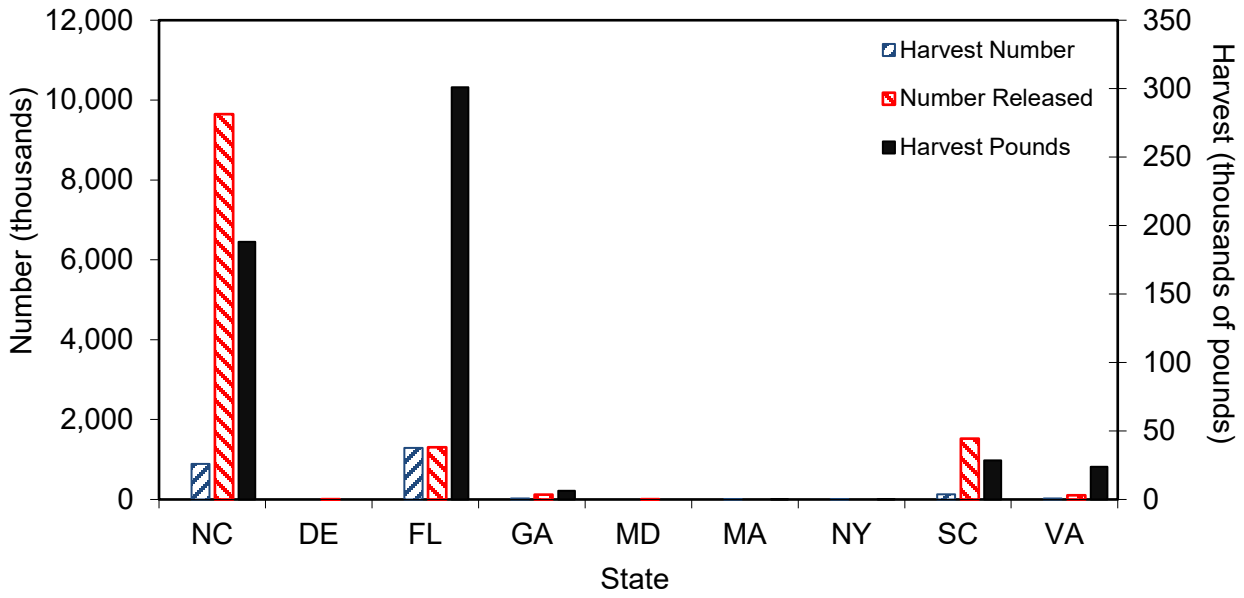


Figure III.34 Pinfish recreational catch by state, 2018.

Table III.40 Red Drum recreational catch in North Carolina by year.

Year	Harvest Number	PSE (num)	Harvest Pounds	PSE (lb)	Mean Length (inches)	Mean Weight (lb)	Released Number	PSE (release)
2018	299,577	19.1	1,452,358	18.6	22.7	4.8	1,729,260	15.3
2017	353,716	17.0	1,475,852	18.0	21.4	4.2	2,165,656	13.0
2016	169,195	22.1	633,496	18.4	20.1	3.7	3,203,452	30.5
2015	143,876	24.5	567,730	26.1	20.7	3.9	1,308,072	27.2
2014	324,303	18.8	1,674,595	18.2	22.9	5.2	1,086,967	13.3
2013	520,758	13.3	2,214,045	13.9	21.7	4.3	1,892,171	11.6
2012	152,005	13.1	648,342	12.6	21.1	4.3	4,939,534	11.4
2011	156,484	16.7	737,853	18.1	21.9	4.7	587,369	13.4
2010	179,828	12.2	835,143	12.8	22.0	4.6	1,670,693	10.1
2009	214,317	18.8	1,028,339	18.6	22.5	4.8	1,238,158	16.0
2008	112,938	17.4	523,607	18.6	22.0	4.6	1,510,133	14.4
2007	157,577	15.2	789,430	14.8	22.6	5.0	818,037	13.9
2006	127,412	17.5	569,699	18.9	21.2	4.5	1,042,564	15.2
2005	103,275	19.9	470,914	22.1	21.8	4.6	967,892	37.5
2004	58,543	26.0	245,163	29.7	21.1	4.2	369,326	13.3
2003	73,202	18.9	359,181	19.1	21.8	4.9	215,277	18.1
2002	127,559	19.6	571,102	21.0	21.4	4.5	1,515,679	17.2
2001	57,929	18.1	290,901	18.6	22.4	5.0	538,370	20.1
2000	127,165	16.1	655,251	16.9	22.4	5.2	443,747	18.6
1999	151,062	15.1	701,002	15.5	22.1	4.6	633,951	13.8

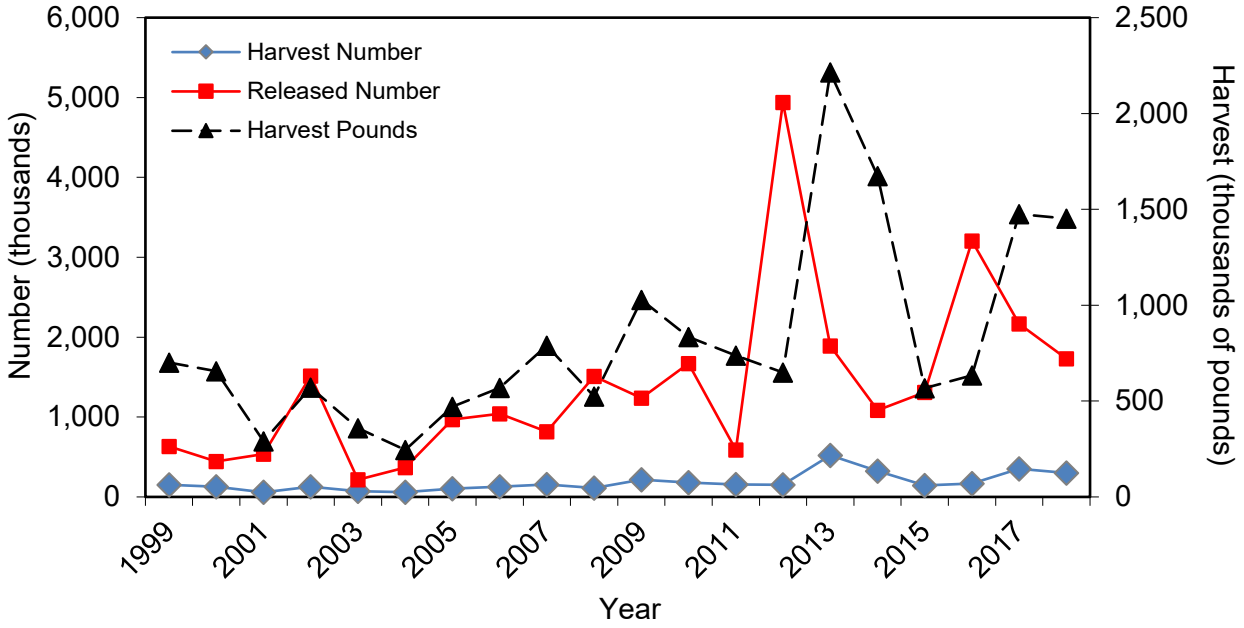


Figure III.35 Red Drum recreational catch in North Carolina by year.

Table III.41 Red Drum recreational catch by state, 2018.

State	Harvest Number	PSE (num)	Harvest Pounds	PSE (lb)	Mean Length (inches)	Mean Weight (lb)	Released Number	PSE (release)
North Carolina	299,577	19.1	1,452,358	18.6	22.7	4.8	1,729,260	15.3
Florida	1,069,604	14.1	4,829,344	14.8	22.0	4.4	5,375,011	13.5
Georgia	606,836	20.1	1,186,306	18.9	16.3	2.0	1,045,570	20.7
Maryland	-	-	-	-	-	-	21,384	76.6
New Jersey	-	-	-	-	-	-	4,715	101.9
South Carolina	262,725	20.1	643,213	17.1	17.7	2.4	1,493,803	16.6
Virginia	6,334	57.3	31,566	69.5	21.7	5.0	85,338	37.4

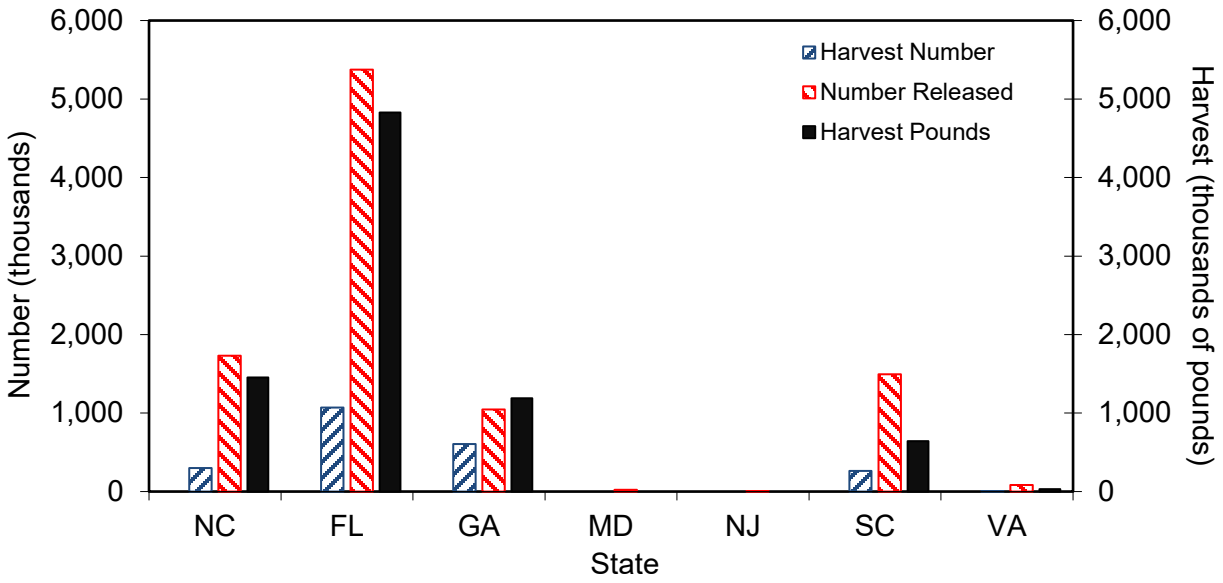


Figure III.36 Red Drum recreational catch by state, 2018.

Table III.42 Sheepshead recreational catch in North Carolina by year.

Year	Harvest Number	PSE (num)	Harvest Pounds	PSE (lb)	Mean Length (inches)	Mean Weight (lb)	Released Number	PSE (release)
2018	343,772	22.5	735,738	20.1	12.8	2.1	524,967	17.7
2017	282,480	19.4	810,633	19.6	13.9	2.9	910,841	22.7
2016	149,085	26.2	375,328	25.3	13.8	2.5	212,471	23.2
2015	181,554	22.2	520,382	20.8	14.2	2.9	160,447	22.6
2014	185,267	20.4	389,583	20.8	12.6	2.1	224,062	20.4
2013	784,747	20.1	1,220,357	15.9	11.1	1.6	391,809	20.3
2012	346,609	15.8	797,963	19.3	12.7	2.3	269,226	23.2
2011	196,844	25.6	522,896	30.1	13.9	2.7	78,821	26.0
2010	327,223	17.6	966,467	19.5	14.4	3.0	190,823	22.3
2009	362,439	23.3	577,311	23.8	11.4	1.6	299,221	25.2
2008	503,666	30.2	1,007,914	33.8	11.9	2.0	172,604	22.4
2007	433,872	30.1	1,456,396	29.5	14.9	3.4	334,014	34.2
2006	137,312	32.8	445,182	33.4	14.8	3.2	90,502	45.3
2005	87,504	40.0	340,227	41.9	16.2	3.9	65,863	80.5
2004	86,554	23.8	453,372	26.4	16.9	5.2	40,263	44.6
2003	294,989	23.4	983,640	25.2	14.5	3.3	85,877	31.8
2002	181,197	23.2	781,567	25.0	16.0	4.3	68,317	24.4
2001	183,781	28.6	654,527	30.0	15.2	3.6	66,594	38.5
2000	355,192	21.0	780,622	20.6	13.1	2.2	94,963	28.2
1999	255,885	22.3	758,153	31.9	14.5	3.0	124,676	29.0

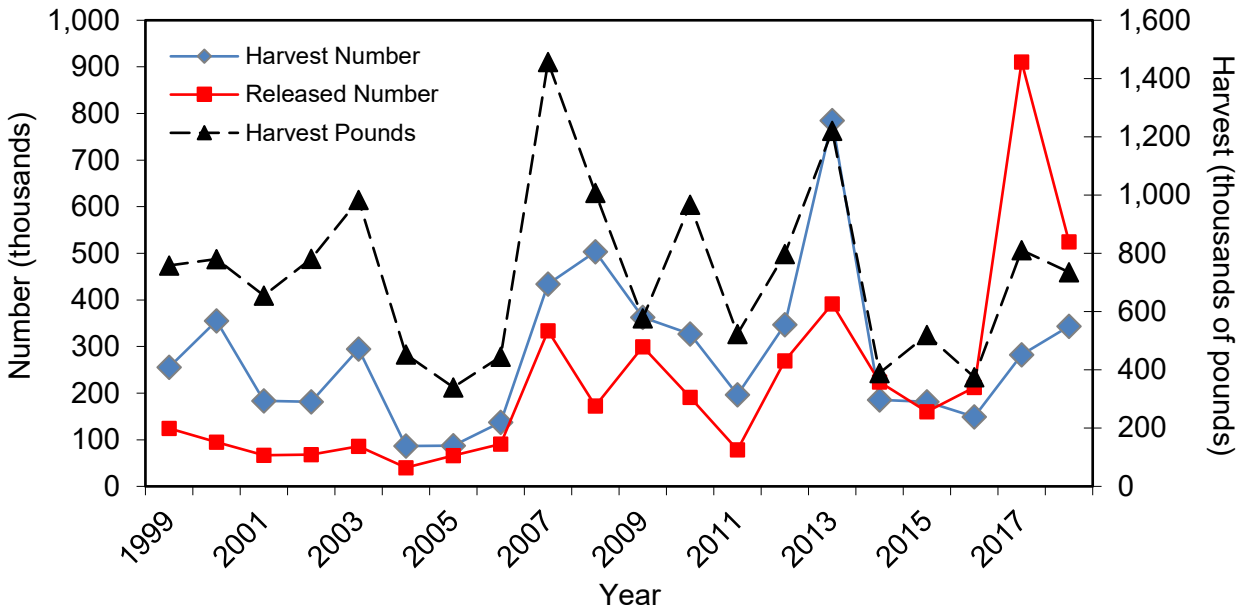


Figure III.37 Sheepshead recreational catch in North Carolina by year.

Table III.43 Sheepshead recreational catch by state, 2018.

State	Harvest Number	PSE (num)	Harvest Pounds	PSE (lb)	Mean Length (inches)	Mean Weight (lb)	Released Number	PSE (release)
North Carolina	343,772	22.5	735,738	20.1	12.8	2.1	524,967	17.7
Delaware	4,790	55.0	21,906	52.9	17.4	4.6	540	99.0
Florida	1,739,915	18.2	3,825,050	17.8	13.2	2.2	2,341,393	24.4
Georgia	402,754	30.3	846,473	29.1	12.8	2.1	237,476	53.0
Maryland	159	101.0	426	101.0	14.0	2.7	-	-
New Jersey	3,586	100.2	13,704	100.2	15.1	3.8	11,549	100.1
South Carolina	117,958	28.5	418,964	30.8	15.4	3.6	421,288	27.1
Virginia	9,285	52.6	27,413	48.9	14.3	3.0	30,156	83.4

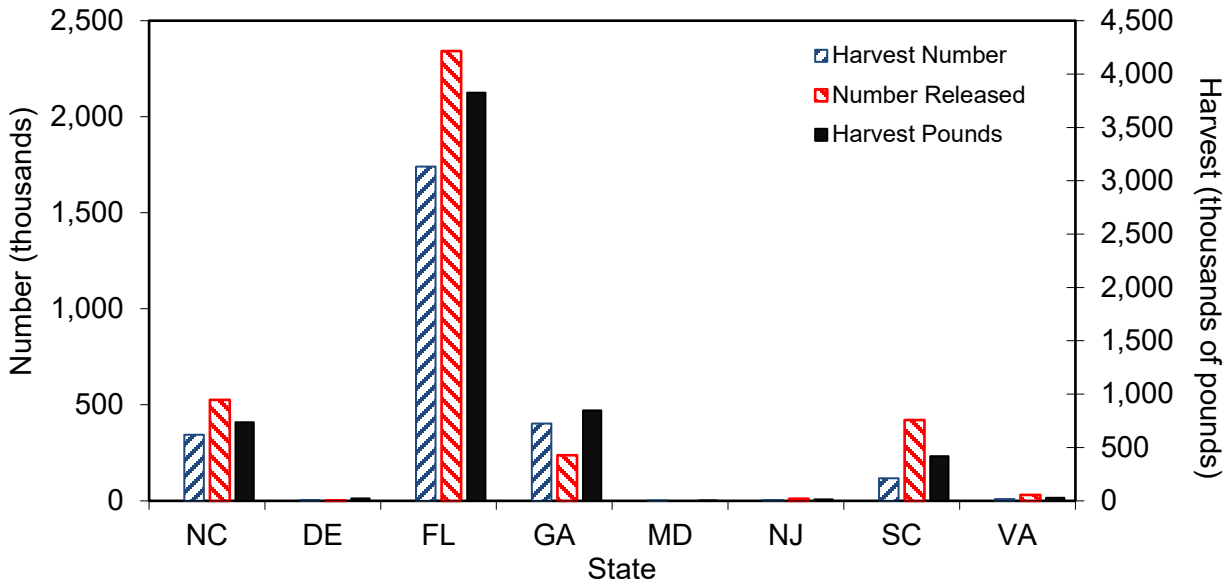


Figure III.38 Sheepshead recreational catch by state, 2018.

Table III.44 Silver Perch recreational catch in North Carolina by year.

Year	Harvest Number	PSE (num)	Harvest Pounds	PSE (lb)	Mean Length (inches)	Mean Weight (lb)	Released Number	PSE (release)
2018	6,595	54.9	1,594	53.7	7.4	0.2	84,721	38.8
2017	133,676	44.2	24,532	45.1	7.3	0.2	441,052	36.7
2016	55,040	46.5	11,275	47.5	7.5	0.2	499,616	25.7
2015	41,707	64.7	8,832	64.9	7.6	0.2	98,138	36.2
2014	91,219	57.8	19,567	56.0	7.1	0.2	561,115	55.5
2013	60,246	39.7	10,662	37.1	6.7	0.2	227,334	32.2
2012	115,122	46.6	17,358	40.8	7.1	0.2	297,961	22.8
2011	112,595	45.3	25,729	53.3	7.2	0.2	219,913	24.8
2010	28,366	43.7	7,800	43.9	7.6	0.3	337,774	31.6
2009	92,414	52.1	28,241	55.5	8.0	0.3	479,403	61.3
2008	28,028	42.4	5,911	43.8	8.0	0.2	101,691	42.2
2007	372,042	58.9	64,738	60.3	6.5	0.2	1,288,217	26.3
2006	96,074	42.3	17,550	43.3	7.4	0.2	469,055	29.5
2005	80,394	74.8	25,698	71.1	8.7	0.3	158,168	45.2
2004	23,639	35.3	5,642	35.6	8.1	0.2	124,740	48.8
2003	182,504	59.9	43,470	58.7	8.0	0.2	87,483	34.4
2002	73,418	51.0	15,470	52.9	7.2	0.2	99,484	37.2
2001	51,060	40.1	14,117	41.0	7.8	0.3	107,180	34.5
2000	176,755	55.2	39,011	51.7	8.0	0.2	528,300	66.8
1999	246,919	35.4	50,588	33.2	7.4	0.2	571,776	28.8

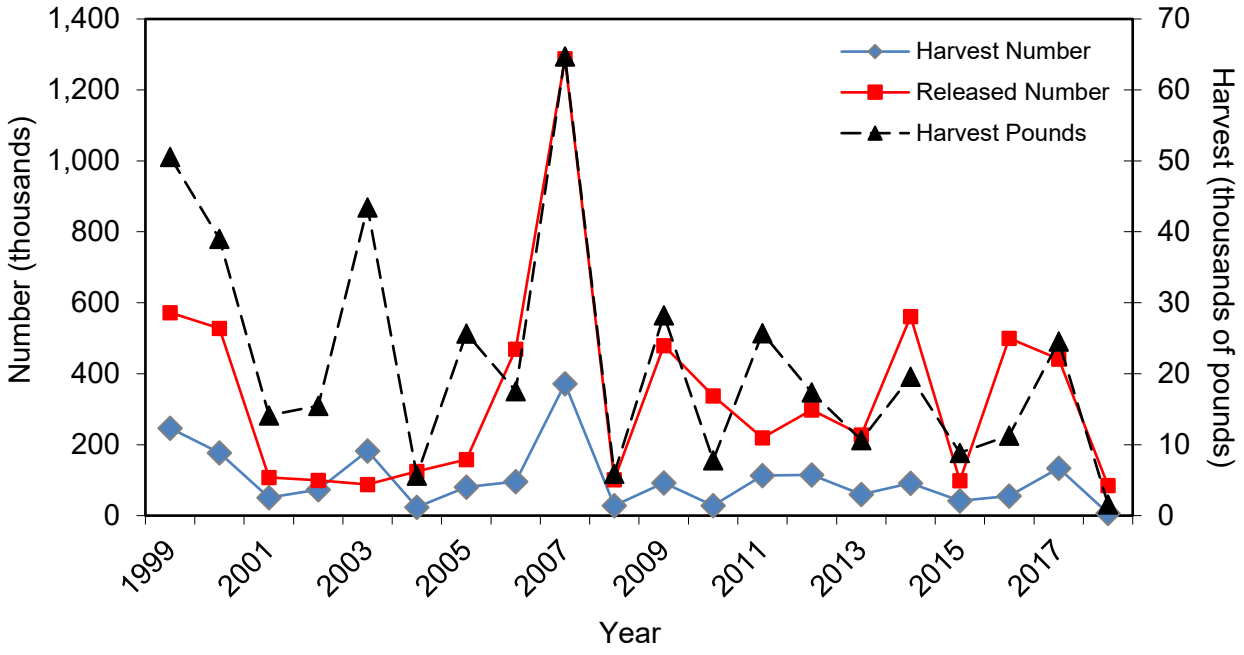


Figure III.39 Silver Perch recreational catch in North Carolina by year.

Table III.45 Silver Perch recreational catch by state, 2018.

State	Harvest Number	PSE (num)	Harvest Pounds	PSE (lb)	Mean Length (inches)	Mean Weight (lb)	Released Number	PSE (release)
North Carolina	6,595	54.9	1,594	53.7	7.4	0.2	84,721	38.8
Florida	40,163	82.7	8,958	82.4	7.7	0.2	97,589	50.2
Georgia	125,024	42.5	24,244	42.2	7.1	0.2	787,843	32.5
New Jersey	17,748	100.4	2,207	100.4	6.0	0.1	-	-
South Carolina	26,971	50.3	5,812	46.9	6.8	0.2	324,087	24.2
Virginia	38,793	78.6	4,725	79.2	6.4	0.1	1,016,495	30.4

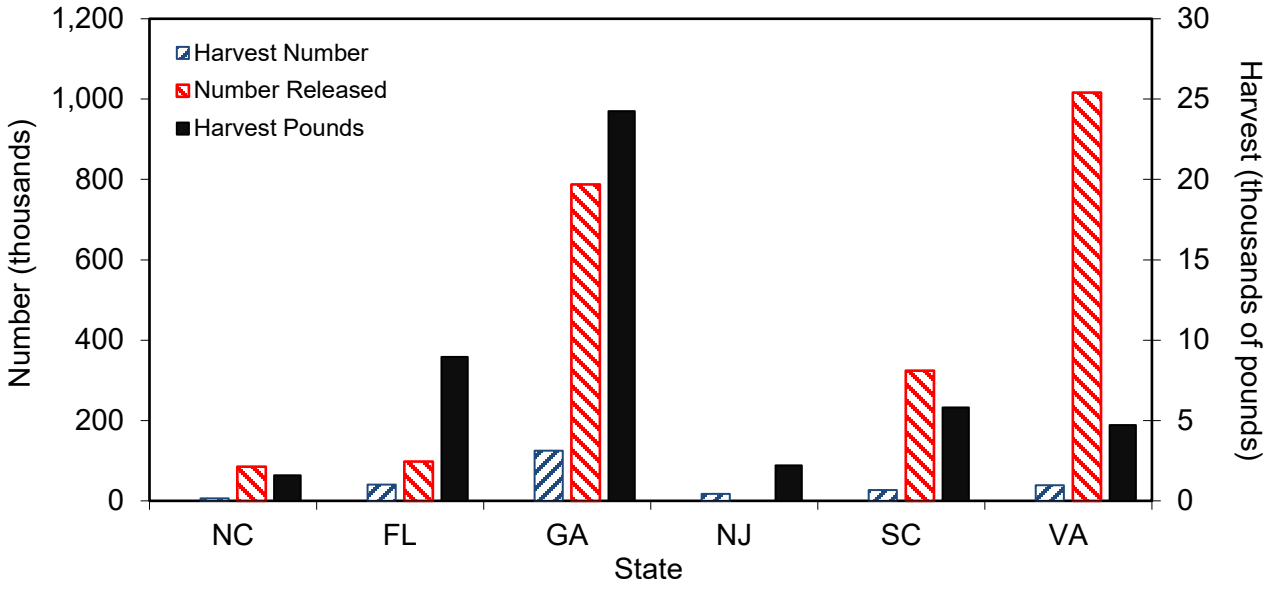


Figure III.40 Silver Perch recreational catch by state, 2018.

Table III.46 Southern Flounder recreational catch in North Carolina by year.

Year	Harvest Number	PSE (num)	Harvest Pounds	PSE (lb)	Mean Length (inches)	Mean Weight (lb)	Released Number[1]	PSE (release)[1]
2018	217,805	19.3	495,289	18.5	17.2	2.3	1,002,753	-
2017	221,321	18.7	451,126	16.8	16.0	2.0	1,988,000	-
2016	299,273	16.1	695,713	16.7	16.4	2.3	2,178,145	-
2015	249,166	18.5	558,303	17.7	15.8	2.2	1,709,189	-
2014	209,228	17.0	447,337	16.9	16.1	2.1	1,856,280	-
2013	374,215	23.7	869,223	22.1	16.6	2.3	2,357,529	-
2012	290,035	10.6	701,698	10.8	16.5	2.4	2,434,621	-
2011	388,647	13.1	942,373	13.2	17.6	2.4	2,087,604	-
2010	556,812	11.5	1,149,899	11.6	17.0	2.1	2,835,142	-
2009	329,117	15.9	692,704	14.7	16.4	2.1	1,889,921	-
2008	349,860	16.2	807,867	16.5	16.8	2.3	2,532,079	-
2007	279,916	18.2	572,064	16.9	17.2	2.0	1,075,735	-
2006	352,942	17.9	761,069	21.8	16.8	2.2	1,287,601	-
2005	298,307	16.2	675,856	17.3	16.7	2.3	997,132	-
2004	347,492	15.2	827,593	18.4	17.5	2.4	1,537,924	-
2003	293,793	15.4	621,985	15.7	17.5	2.1	860,052	-
2002	366,671	13.6	789,539	15.0	17.4	2.2	1,415,247	-
2001	304,791	13.5	567,568	13.7	17.0	1.9	990,335	-
2000	326,712	28.0	607,053	24.3	17.1	1.9	942,560	-
1999	78,321	29.5	184,969	31.9	17.4	2.4	209,956	-

[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.

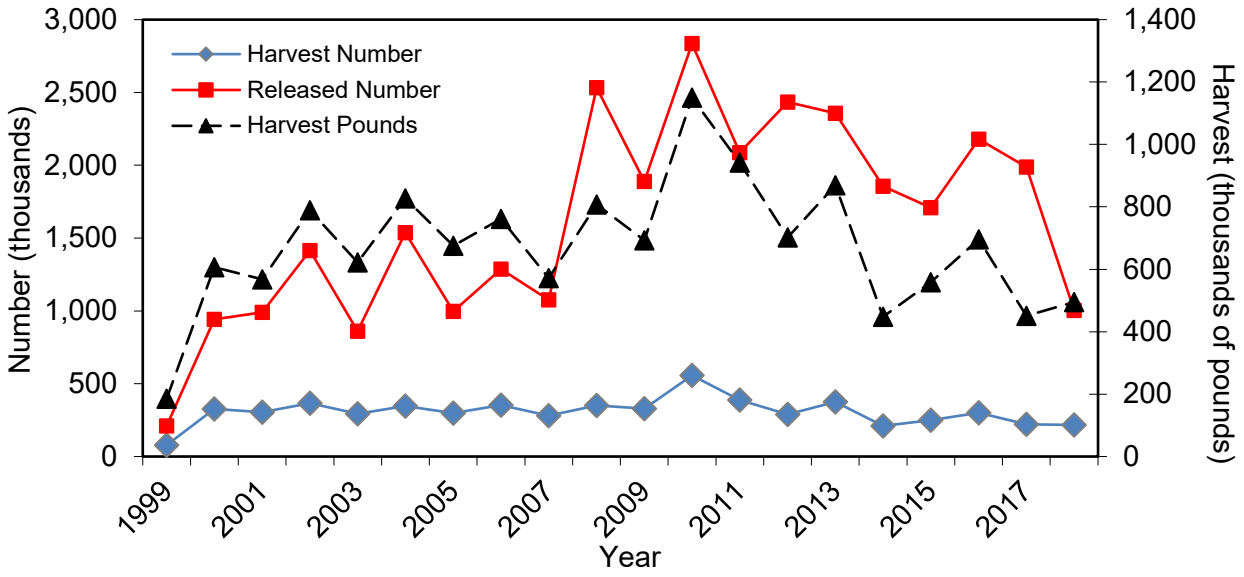


Figure III.41 Southern Flounder recreational catch in North Carolina by year.

Table III.47 Southern Flounder recreational catch by state, 2018.

State	Harvest Number	PSE (num)	Harvest Pounds	PSE (lb)	Mean Length (inches)	Mean Weight (lb)	Released Number[1]	PSE (release)[1]
North Carolina	217,805	19.3	495,289	18.5	17.2	2.3	-	-
Florida	564,951	39.9	880,242	37.0	15.2	1.5	-	-
Georgia	117,482	26.6	185,043	27.7	14.8	1.6	-	-
South Carolina	113,922	20.9	234,914	21.4	16.7	2.1	-	-
Virginia	3,056	98.2	9,203	100.5	18.9	3.0	-	-

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

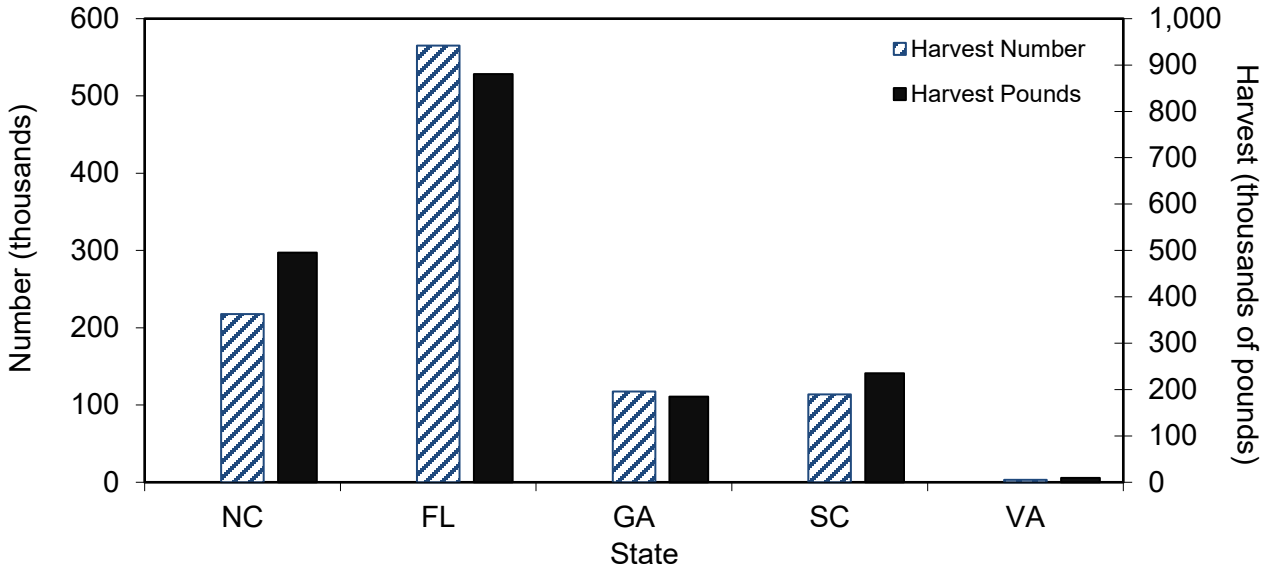


Figure III.42 Southern Flounder recreational catch by state, 2018.

Table III.48 Southern Kingfish recreational catch in North Carolina by year.

Year	Harvest Number	PSE (num)	Harvest Pounds	PSE (lb)	Mean Length (inches)	Mean Weight (lb)	Released Number[1]	PSE (release)[1]
2018	497,134	19.8	312,829	20.0	11.5	0.6	1,293,857	-
2017	1,116,869	23.0	584,459	22.4	11.0	0.5	2,994,666	-
2016	1,422,584	26.8	771,534	26.5	11.2	0.5	2,765,072	-
2015	2,103,634	30.0	1,138,715	28.2	10.8	0.5	5,501,449	-
2014	2,477,383	44.1	1,544,862	46.3	11.7	0.6	4,003,170	-
2013	2,021,612	19.4	959,787	17.8	10.4	0.5	4,471,609	-
2012	1,255,035	14.6	695,368	15.4	10.9	0.6	1,670,729	-
2011	1,075,153	16.2	570,239	16.9	11.0	0.5	1,604,093	-
2010	1,660,599	15.1	1,003,198	16.2	11.2	0.6	2,888,773	-
2009	1,848,709	22.5	1,017,152	25.4	10.9	0.6	3,414,288	-
2008	1,127,632	17.6	623,055	17.9	10.9	0.6	1,416,166	-
2007	809,793	20.9	422,405	19.5	10.9	0.5	1,202,664	-
2006	1,110,253	28.8	511,690	27.2	10.8	0.5	1,960,933	-
2005	977,260	21.6	536,532	20.6	11.1	0.5	1,328,501	-
2004	969,985	23.2	625,932	22.5	11.4	0.6	1,023,307	-
2003	678,724	19.8	462,481	21.4	11.2	0.7	1,045,686	-
2002	913,852	21.0	595,860	21.5	11.6	0.7	623,815	-
2001	1,562,340	22.6	836,967	22.6	11.0	0.5	825,114	-
2000	1,961,242	17.8	1,287,295	19.7	11.4	0.7	1,648,043	-
1999	526,930	27.8	303,576	30.2	11.5	0.6	338,161	-

[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.

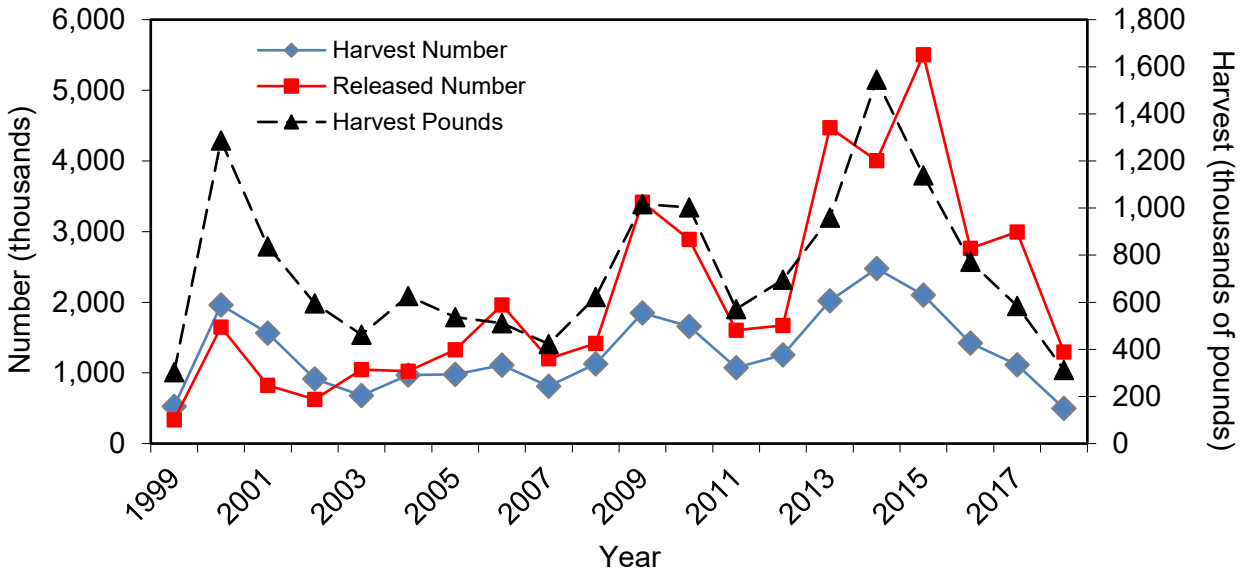


Figure III.43 Southern Kingfish recreational catch in North Carolina by year.

Table III.49 Southern Kingfish recreational catch by state, 2018.

State	Harvest Number	PSE (num)	Harvest Pounds	PSE (lb)	Mean Length (inches)	Mean Weight (lb)	Released Number[1]	PSE (release)[1]
North Carolina	497,134	19.8	312,829	20.0	11.5	0.6	-	-
Delaware	928	86.2	680	90.8	12.0	0.7	-	-
Florida	1,295,912	70.8	565,262	63.9	10.5	0.5	-	-
Georgia	3,383,430	18.0	1,750,124	19.3	10.8	0.5	-	-
Maryland	3,229	73.4	1,354	66.4	10.2	0.4	-	-
New Jersey	1,619	54.2	857	50.8	10.9	0.5	-	-
South Carolina	923,247	25.0	336,224	24.1	9.6	0.4	-	-
Virginia	626,288	31.0	215,902	29.6	9.5	0.3	-	-

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

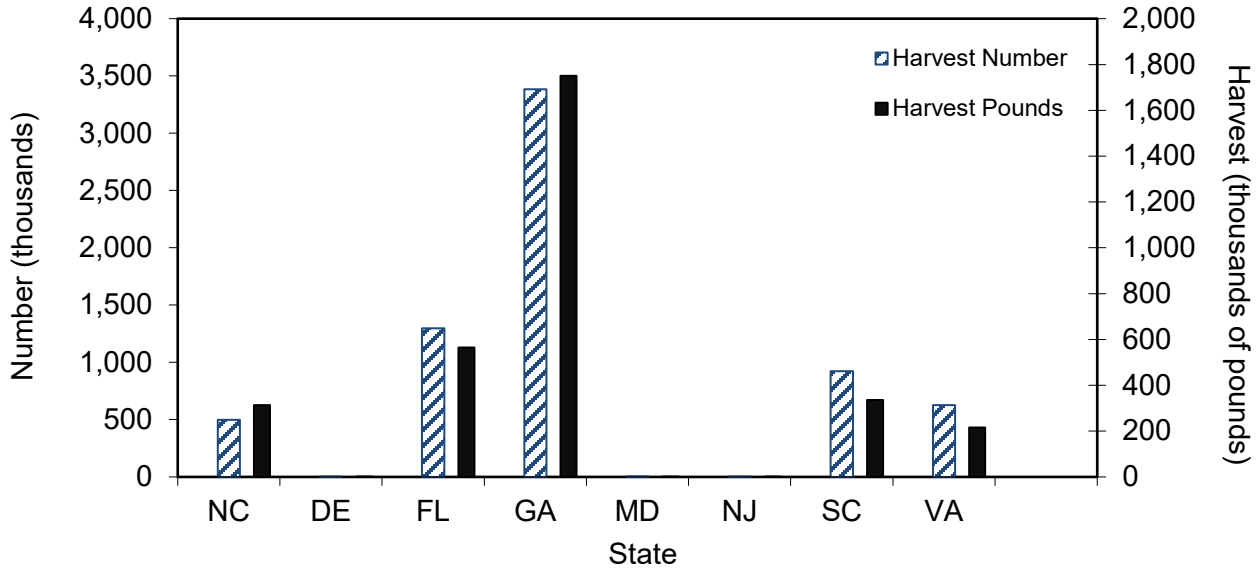


Figure III.44 Southern Kingfish recreational catch by state, 2018.

Table III.50 Spanish Mackerel recreational catch in North Carolina by year.

Year	Harvest Number	PSE (num)	Harvest Pounds	PSE (lb)	Mean Length (inches)	Mean Weight (lb)	Released Number	PSE (release)
2018	1,012,889	13.9	1,156,702	14.5	15.0	1.1	1,019,418	30.4
2017	995,706	18.0	1,094,778	18.3	14.8	1.1	688,062	21.4
2016	918,352	16.4	907,400	16.3	14.3	1.0	546,950	19.5
2015	835,011	14.3	981,867	15.6	14.7	1.2	514,714	17.7
2014	1,028,925	15.2	1,193,442	14.7	14.9	1.2	814,064	21.2
2013	994,599	15.2	1,242,029	16.5	15.1	1.2	685,692	26.1
2012	995,852	9.6	1,327,350	10.4	15.1	1.3	591,792	16.4
2011	854,554	15.0	1,100,110	20.0	15.0	1.3	479,586	15.5
2010	927,116	22.0	1,116,099	17.5	15.2	1.2	701,634	33.0
2009	1,480,931	13.5	2,155,692	19.4	15.8	1.5	752,806	20.7
2008	1,013,980	13.1	1,234,030	15.2	15.2	1.2	806,280	18.5
2007	604,518	15.2	799,263	16.5	15.4	1.3	340,027	16.5
2006	439,736	15.7	624,488	20.5	16.0	1.4	165,098	22.5
2005	561,073	16.1	526,054	16.6	14.6	0.9	303,641	19.9
2004	534,720	18.7	819,978	20.0	16.7	1.5	317,189	26.9
2003	540,399	15.3	641,024	14.5	14.8	1.2	266,887	17.1
2002	787,125	17.1	987,238	16.1	15.3	1.3	309,546	16.9
2001	942,500	25.0	1,155,788	24.7	15.5	1.2	338,918	37.0
2000	1,102,777	17.7	1,175,351	19.3	15.2	1.1	451,910	19.2
1999	891,001	14.7	1,035,943	16.6	14.8	1.2	253,317	17.0

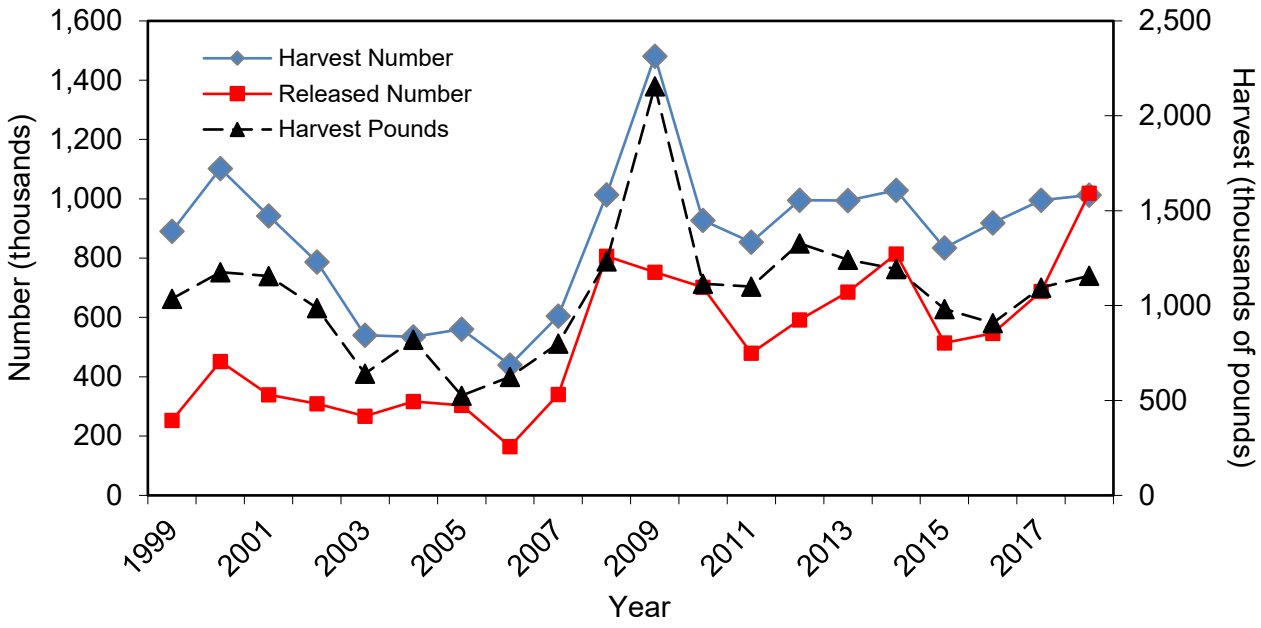


Figure III.45 Spanish Mackerel recreational catch in North Carolina by year.

Table III.51 Spanish Mackerel recreational catch by state, 2018.

State	Harvest Number	PSE (num)	Harvest Pounds	PSE (lb)	Mean Length (inches)	Mean Weight (lb)	Released Number	PSE (release)
North Carolina	1,012,889	13.9	1,156,702	14.5	15.0	1.1	1,019,418	30.4
Delaware	797	84.3	1,138	81.1	16.2	1.4	2	59.1
Florida	956,741	26.6	1,354,426	24.3	16.0	1.3	1,584,579	40.1
Georgia	49,764	48.1	74,910	42.5	16.3	1.5	18,149	39.2
Maryland	19,146	41.5	41,476	43.5	18.2	2.2	2,166	77.2
Massachusetts	316	100.9	1,833	100.9	26.8	5.8	-	-
New Jersey	6,753	71.8	5,702	69.2	13.6	0.8	14,372	75.4
New York	-	-	-	-	-	-	11,859	101.9
South Carolina	289,250	45.0	513,271	49.0	17.5	1.8	322,330	50.6
Virginia	132,390	40.2	207,551	50.2	16.1	1.6	168,549	66.3

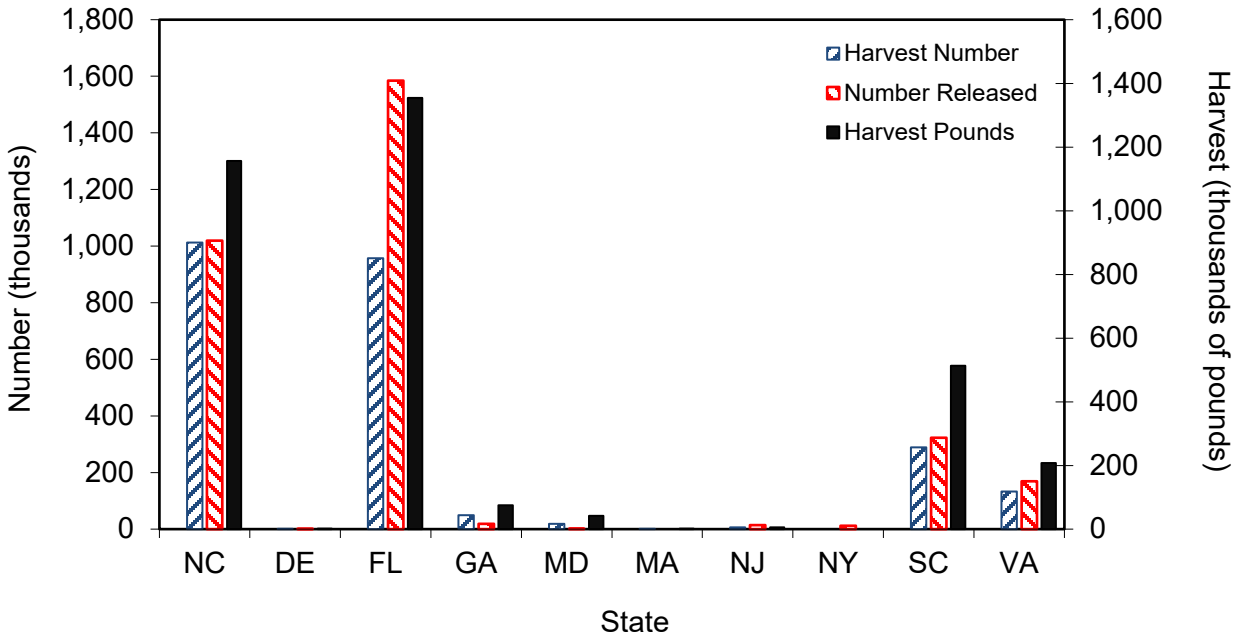


Figure III.46 Spanish Mackerel recreational catch by state, 2018.

Table III.52 Spot recreational catch in North Carolina by year.

Year	Harvest Number	PSE (num)	Harvest Pounds	PSE (lb)	Mean Length (inches)	Mean Weight (lb)	Released Number	PSE (release)
2018	2,068,865	24.3	597,511	24.2	8.4	0.3	2,062,163	19.4
2017	2,418,331	44.8	909,796	50.8	8.1	0.4	1,902,281	28.2
2016	1,928,716	25.3	558,799	25.3	7.9	0.3	1,831,415	22.0
2015	2,572,738	19.6	833,390	20.6	8.1	0.3	2,984,629	15.3
2014	8,343,467	23.9	2,877,483	25.9	8.2	0.3	4,043,710	12.5
2013	6,120,985	15.7	1,789,251	17.5	7.9	0.3	5,513,732	12.1
2012	2,677,082	21.4	760,276	22.2	7.9	0.3	2,995,879	13.2
2011	6,480,714	19.5	2,201,947	20.7	8.2	0.3	4,993,544	11.5
2010	3,830,384	19.3	1,173,173	19.4	8.1	0.3	3,615,808	14.4
2009	4,197,640	20.3	1,427,956	20.1	8.4	0.3	4,847,202	12.6
2008	3,970,431	19.7	1,382,428	20.5	8.3	0.3	3,817,529	15.4
2007	8,728,295	21.3	2,737,144	20.9	9.1	0.3	4,049,250	17.3
2006	11,109,551	39.4	3,995,432	40.4	8.9	0.4	8,196,592	15.4
2005	10,105,205	19.2	3,652,186	19.8	8.4	0.4	4,407,100	16.2
2004	7,845,322	12.4	3,682,623	14.4	9.2	0.5	2,899,319	12.5
2003	9,717,824	17.7	4,220,534	17.3	8.7	0.4	2,970,990	13.0
2002	8,456,981	21.8	3,017,466	19.2	8.3	0.4	1,569,579	11.9
2001	10,043,845	15.1	4,519,545	15.9	8.8	0.4	2,804,349	16.2
2000	6,121,384	31.6	2,598,813	31.4	8.6	0.4	1,366,746	14.1
1999	5,736,185	21.9	2,565,546	22.5	9.1	0.4	2,343,795	15.8

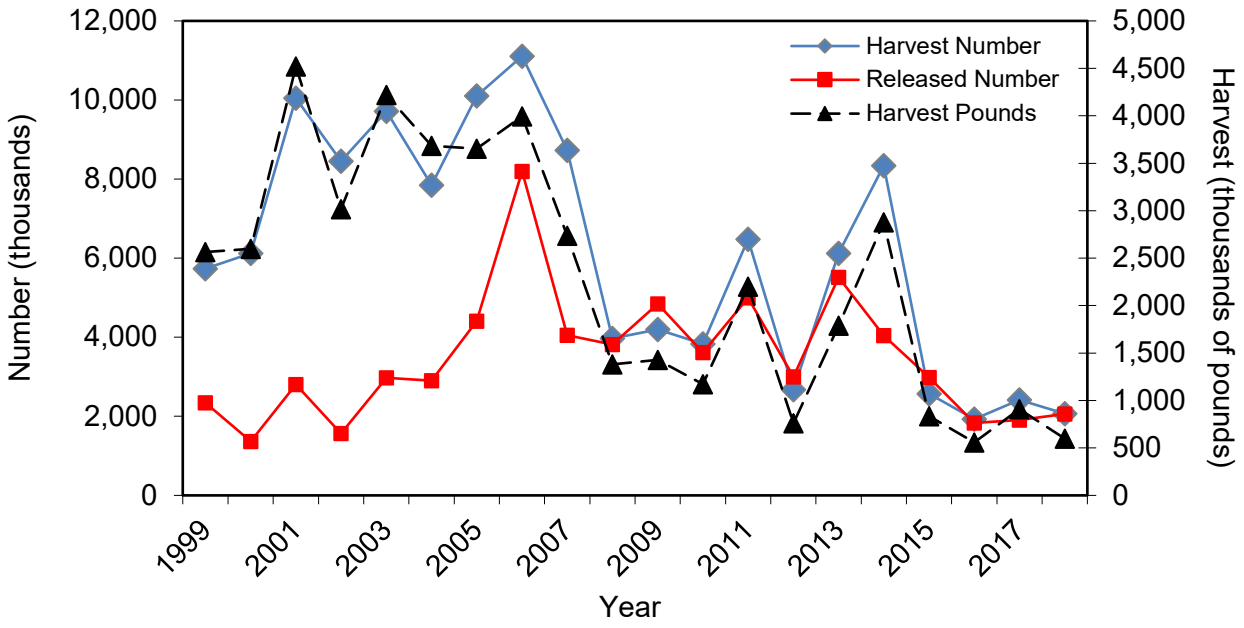


Figure III.47 Spot recreational catch in North Carolina by year.

Table III.53 Spot recreational catch by state, 2018.

State	Harvest Number	PSE (num)	Harvest Pounds	PSE (lb)	Mean Length (inches)	Mean Weight (lb)	Released Number	PSE (release)
North Carolina	2,068,865	24.3	597,511	24.2	8.4	0.3	2,062,163	19.4
Delaware	70,390	39.4	23,968	39.3	8.0	0.3	69,619	32.9
Florida	1,039,402	83.1	257,594	81.9	7.6	0.2	649,404	40.7
Georgia	15,553	54.5	5,481	55.7	8.4	0.4	70,598	35.7
Maryland	1,209,971	25.9	327,930	26.3	7.1	0.3	943,468	45.5
New Jersey	106,332	83.7	45,879	93.1	7.0	0.4	37,739	71.3
New York	39,083	100.3	8,054	100.3	6.4	0.2	15,467	95.7
South Carolina	895,830	32.5	272,501	32.9	7.7	0.3	315,406	17.1
Virginia	7,360,908	26.8	1,753,064	25.4	7.2	0.2	3,043,068	23.8

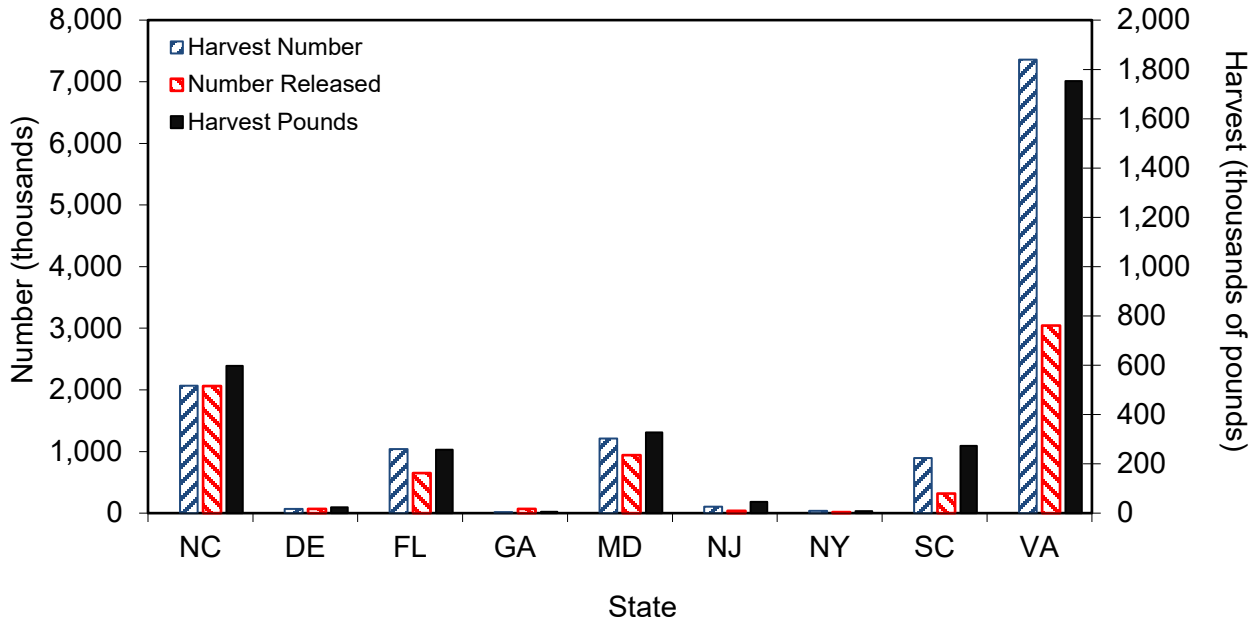


Figure III.48 Spot recreational catch by state, 2018.

Table III.54 Spotted Seatrout recreational catch in North Carolina by year.

Year	Harvest Number	PSE (num)	Harvest Pounds	PSE (lb)	Mean Length (inches)	Mean Weight (lb)	Released Number[1]	PSE (release)[1]
2018	449,473	18.6	658,555	18.4	15.7	1.5	15,245,249	-
2017	1,217,834	14.8	2,157,198	14.8	17.0	1.8	5,151,510	-
2016	978,624	13.1	1,724,492	14.5	16.8	1.8	6,533,887	-
2015	249,260	21.9	430,579	22.6	16.9	1.7	4,883,109	-
2014	725,086	13.9	1,451,592	16.1	17.6	2.0	3,950,447	-
2013	1,107,957	11.9	1,881,881	12.1	16.8	1.7	4,312,436	-
2012	1,602,836	10.4	2,720,028	12.0	16.5	1.7	4,967,987	-
2011	723,502	11.2	1,353,388	11.5	17.0	1.9	7,486,377	-
2010	630,748	26.5	1,277,174	28.0	17.5	2.0	8,034,670	-
2009	1,857,890	16.8	2,878,160	16.5	16.0	1.5	5,369,092	-
2008	1,372,973	14.3	2,114,130	16.5	15.6	1.5	4,509,440	-
2007	1,241,296	14.8	1,998,275	14.2	15.9	1.6	3,558,110	-
2006	1,444,778	16.6	2,034,469	16.7	15.5	1.4	2,722,351	-
2005	1,517,647	31.9	1,695,036	26.5	14.2	1.1	3,744,921	-
2004	560,834	20.2	728,027	21.3	15.3	1.3	934,206	-
2003	388,715	20.8	515,678	19.5	14.7	1.3	903,292	-
2002	746,908	26.6	957,824	23.2	14.9	1.3	1,829,880	-
2001	499,556	16.7	659,893	18.0	14.9	1.3	1,210,336	-
2000	728,906	21.9	1,095,729	22.3	15.5	1.5	645,107	-
1999	1,080,411	17.6	1,878,913	21.0	16.4	1.7	1,168,909	-

[1] Seatrout releases are not always recorded to species level; released number was calculated by assigning a ratio of observed seatrout by species to reported seatrout genus release estimates. PSE are not available for this analysis.

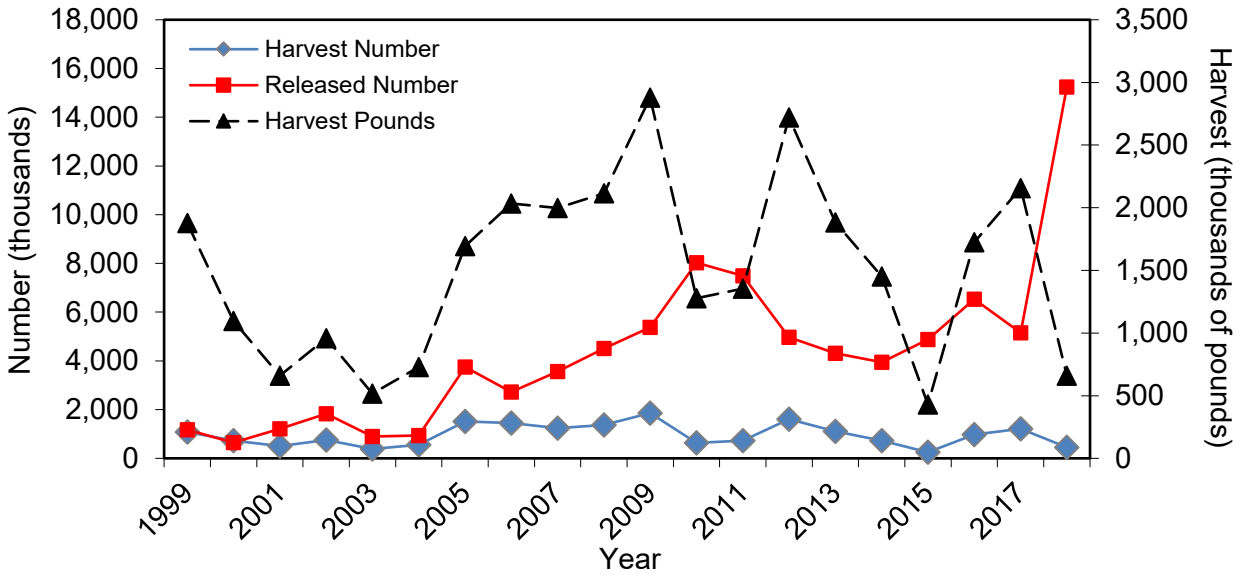


Figure III.49 Spotted Seatrout recreational catch in North Carolina by year.

Table III.55 Spotted Seatrout recreational catch by state, 2018.

State	Harvest Number	PSE (num)	Harvest Pounds	PSE (lb)	Mean Length (inches)	Mean Weight (lb)	Released Number[1]	PSE (release)[1]
North Carolina	449,473	18.6	658,555	18.4	15.7	1.5	-	-
Florida	929,155	19.0	1,701,275	20.4	16.8	1.6	-	-
Georgia	1,168,410	23.4	1,556,782	23.0	15.4	1.3	-	-
Maryland	-	-	-	-	-	-	-	-
New Jersey	449,473	18.6	658,555	18.4	15.7	1.5	-	-
South Carolina	-	-	-	-	-	-	-	-
Virginia	256,566	26.1	414,442	33.5	16.2	1.6	-	-

[1] Released seatrout are not always recorded to species level. Numbers released are not shown by state.

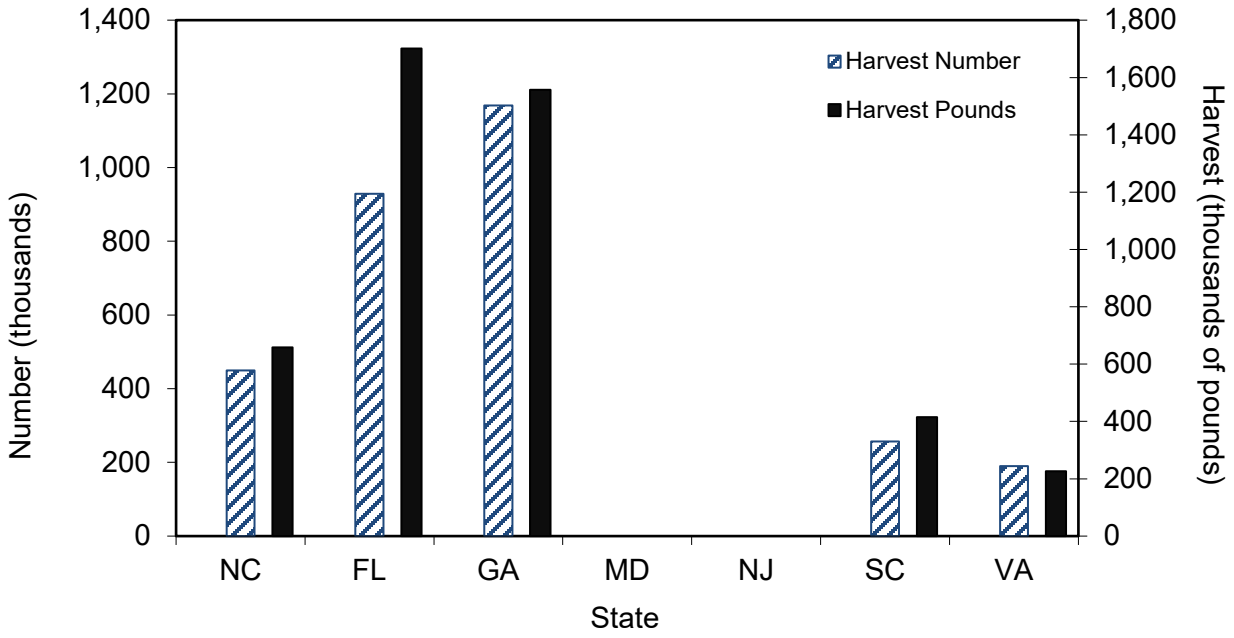


Figure III.50 Spotted Seatrout recreational catch by state, 2018.

Table III.56 Striped Bass[1] recreational catch in North Carolina by year.

Year	Harvest Number	PSE (num)	Harvest Pounds	PSE (lb)	Mean Length (inches)	Mean Weight (lb)	Released Number	PSE (release)
2018	25	99.1	366	99.1			15,850	47.6
2017	-	-	-	-	-	-	48,410	43.1
2016	4,177	102.0	15,961	102.0	-	-	84,545	41.0
2015	-	-	-	-	-	-	-	-
2014	-	-	-	-	-	-	2,122	100.5
2013	-	-	-	-	-	-	5,840	63.6
2012	-	-	-	-	-	-	7,301	78.1
2011	207,610	20.1	4,467,159	19.9	35.9	21.5	234,250	27.7
2010	72,941	38.5	1,294,743	36.7	33.9	17.8	58,858	41.3
2009	6,548	46.8	186,729	45.6	39.6	28.5	16,857	66.7
2008	36,750	36.9	746,511	36.1	35.5	20.3	27,512	52.3
2007	79,668	33.9	1,921,009	34.3	38.3	24.4	28,088	40.4
2006	131,300	43.9	2,914,151	44.4	36.2	22.2	44,907	36.4
2005	200,468	23.0	4,112,555	23.9	35.8	20.3	210,903	37.3
2004	378,498	19.5	7,845,228	20.1	35.6	20.6	387,810	25.3
2003	53,733	38.5	1,004,754	42.6	36.0	19.2	59,799	35.2
2002	60,773	24.9	1,047,529	25.3	33.0	17.7	86,417	24.1
2001	104,177	32.0	1,762,856	36.5	34.0	17.9	77,728	39.5
2000	22,833	32.1	319,604	37.4	32.1	15.3	165,167	22.2
1999	49,221	25.1	610,480	25.3	31.1	12.9	276,663	21.5

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

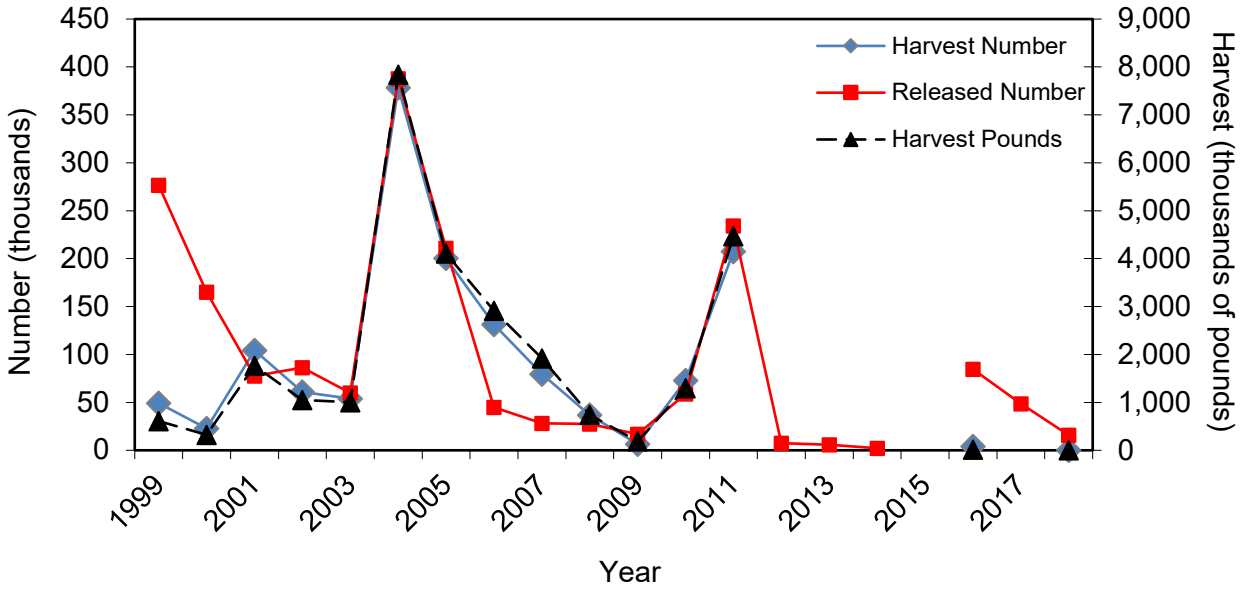


Figure III.51 Striped Bass recreational catch in North Carolina from the Atlantic Ocean by year.

Table III.57 Striped Bass[1] recreational catch by state, 2018.

State	Harvest Number	PSE (num)	Harvest Pounds	PSE (lb)	Mean Length (inches)	Mean Weight (lb)	Released Number	PSE (release)
North Carolina	25	99.1	366	99.1	-	-	15,850	47.6
Connecticut	3,403	39.9	94,694	42.7	-	-	132,915	36.2
Delaware	-	-	-	-	-	-	13,664	41.3
Maine	7,963	50.2	97,423	51.0	-	-	1,051,728	27.8
Maryland	-	-	-	-	-	-	16,362	53.4
Massachusetts	111,275	16.5	1,336,066	17.5	-	-	1,454,386	22.6
New Hampshire	6,733	37.2	71,820	35.4	-	-	133,394	26.1
New Jersey	163,404	26.6	3,047,946	24.2	34.1	18.5	1,394,489	30.1
New York	132,686	27.6	2,762,767	27.4	30.5	13.3	1,157,304	32.1
Rhode Island	16,530	35.3	405,705	34.5	-	-	1,700,454	67.1
Virginia	-	-	-	-	-	-	19,106	73.7

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

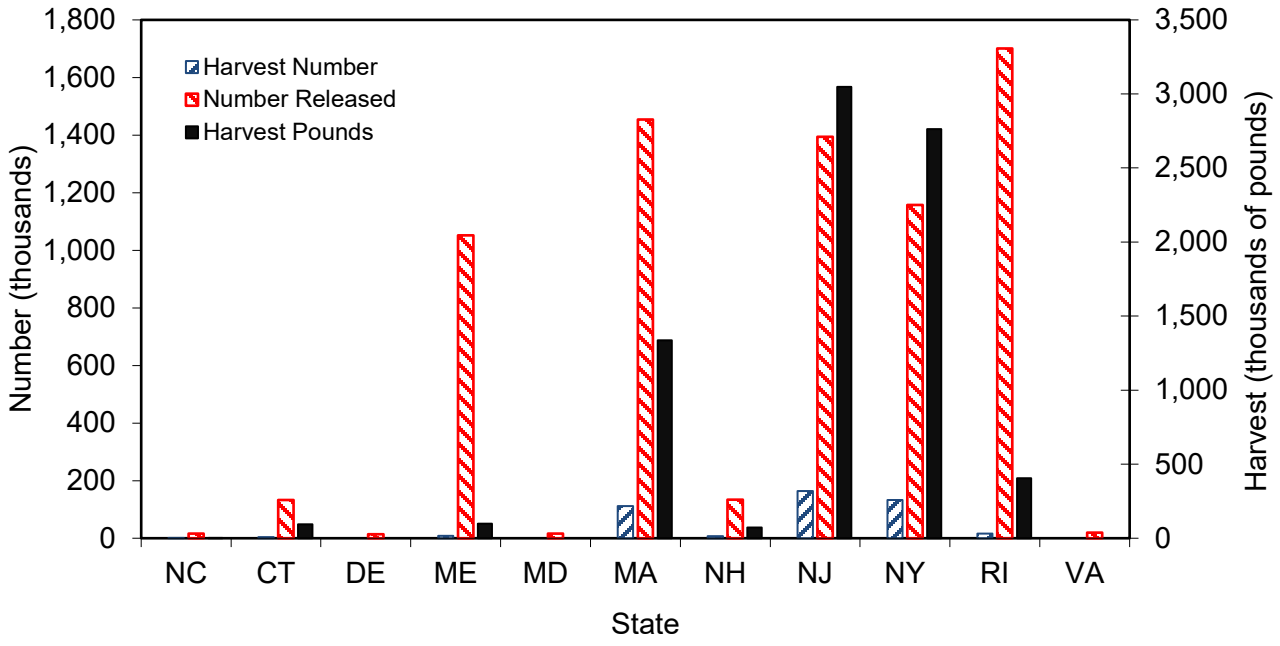


Figure III.52 Striped Bass recreational catch from the Atlantic Ocean by state, 2018.

Table III.58 Summer Flounder recreational catch in North Carolina by year.

Year	Harvest Number	PSE (num)	Harvest Pounds	PSE (lb)	Mean Length (inches)	Mean Weight (lb)	Released Number[1]	PSE (release)[1]
2018	57,913	25.6	92,032	25.4	15.9	1.6	300,195	-
2017	91,193	28.2	147,426	28.7	16.2	1.6	977,285	-
2016	65,494	27.2	110,392	27.1	16.2	1.7	664,388	-
2015	99,263	23.3	157,437	23.6	16.0	1.6	856,849	-
2014	150,201	21.3	215,294	21.6	15.7	1.4	1,478,527	-
2013	123,742	18.9	196,002	19.1	16.0	1.6	1,359,319	-
2012	176,553	16.5	287,522	16.4	16.3	1.6	1,452,828	-
2011	186,877	15.9	311,573	15.9	16.2	1.7	1,009,389	-
2010	245,839	14.8	341,310	14.2	15.5	1.4	1,486,980	-
2009	219,321	23.7	307,692	23.2	15.7	1.4	1,894,409	-
2008	88,501	17.5	132,743	18.0	15.7	1.5	939,708	-
2007	251,068	18.5	379,387	19.9	15.6	1.5	1,299,735	-
2006	254,653	18.3	326,684	17.5	15.3	1.3	977,039	-
2005	202,797	22.6	289,495	23.2	15.5	1.4	734,860	-
2004	318,632	22.2	467,869	26.0	15.7	1.5	1,283,788	-
2003	177,360	19.2	273,895	19.3	15.3	1.5	763,794	-
2002	366,467	14.4	435,113	14.1	14.7	1.2	1,376,069	-
2001	424,615	11.2	577,139	11.5	15.1	1.4	1,836,338	-
2000	611,081	13.2	780,211	13.0	15.2	1.3	2,007,411	-
1999	357,645	15.0	466,028	16.0	15.1	1.3	1,097,385	-

[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.

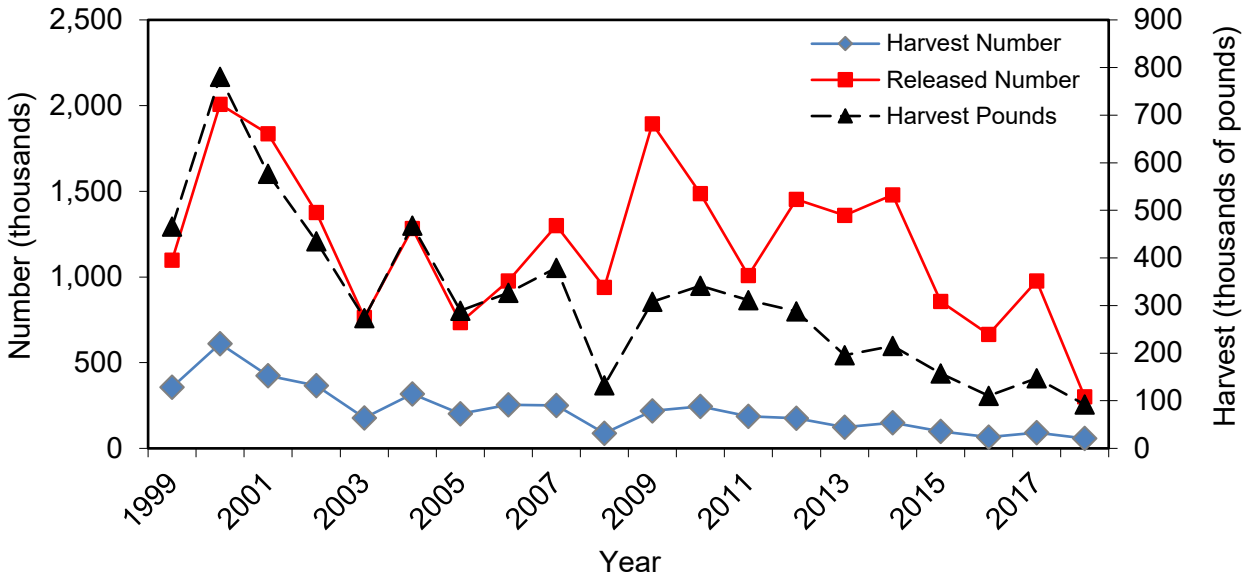


Figure III.53 Summer Flounder recreational catch in North Carolina by year.

Table III.59 Summer Flounder recreational catch by state, 2018.

State	Harvest Number	PSE (num)	Harvest Pounds	PSE (lb)	Mean Length (inches)	Mean Weight (lb)	Released Number[1]	PSE (release)[1]
North Carolina	57,913	25.6	92,032	25.4	15.9	1.6	-	-
Connecticut	153,091	24.3	549,268	23.0	20.8	3.6	-	-
Delaware	85,239	17.2	205,380	16.8	18.3	2.4	-	-
Florida	530	100.1	2,096	100.1	16.5	1.7	-	-
Georgia	9,943	80.7	19,637	73.2	16.1	2.0	-	-
Maryland	48,279	31.3	121,760	35.7	17.5	2.5	-	-
Massachusetts	67,302	31.0	142,540	26.3	17.1	2.1	-	-
New Jersey	1,045,198	13.4	3,154,540	15.7	19.7	3.0	-	-
New York	641,186	13.8	2,385,310	14.2	21.2	3.7	-	-
Rhode Island	168,580	25.1	603,752	23.3	20.9	3.6	-	-
South Carolina	4,197	48.9	6,149	47.9	14.8	1.5	-	-
Virginia	145,726	23.1	345,064	26.0	18.6	2.4	-	-

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

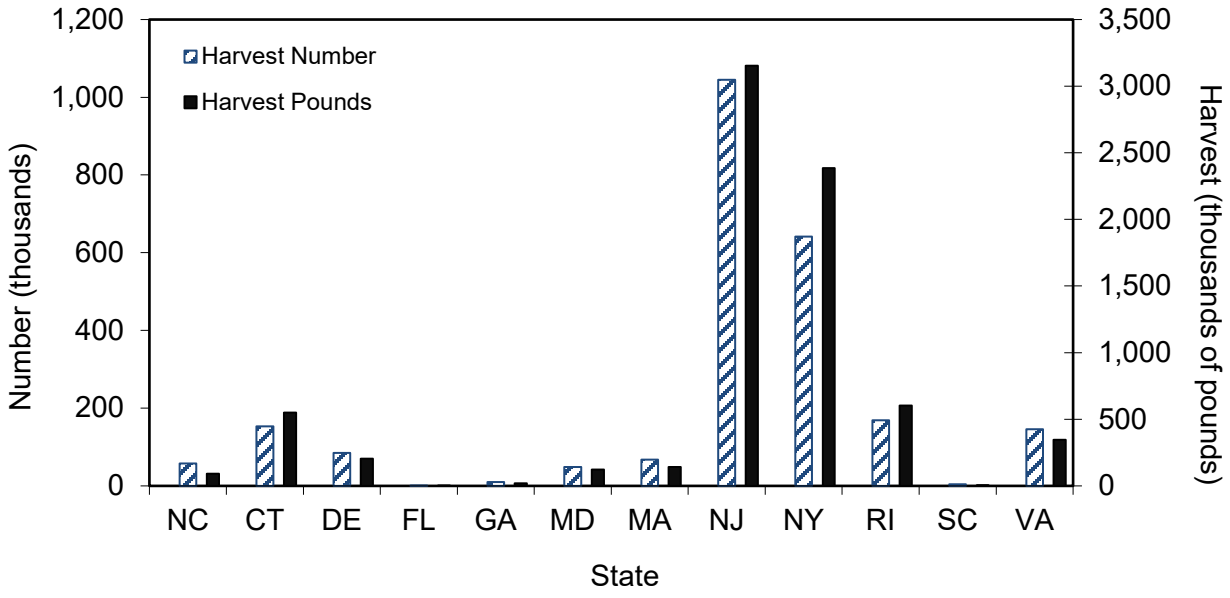


Figure III.54 Summer Flounder recreational catch by state, 2018.

Table III.60 Wahoo recreational catch in North Carolina by year.

Year	Harvest Number	PSE (num)	Harvest Pounds	PSE (lb)	Mean Length (inches)	Mean Weight (lb)	Released Number	PSE (release)
2018	10,690	26.3	280,644	25.3	47.7	26.3	182	94.2
2017	30,305	29.1	842,604	31.0	48.8	27.8	-	-
2016	39,565	21.9	1,056,969	22.8	48.1	26.7	5	110.2
2015	36,920	25.2	983,232	23.2	47.9	26.6	608	101.3
2014	29,362	26.9	804,473	27.5	48.2	27.4	22	103.4
2013	11,951	26.7	319,866	25.9	48.4	26.8	337	97.9
2012	37,423	14.9	994,195	15.0	48.2	26.6	12	99.7
2011	21,501	27.9	611,319	32.0	49.0	28.4	40	99.7
2010	19,703	23.1	571,575	26.4	49.0	29.0	2,532	69.6
2009	42,129	57.9	1,696,717	67.5	53.6	40.3	48	97.9
2008	21,777	26.4	527,736	25.5	46.1	24.2	-	-
2007	47,890	43.2	1,495,127	56.1	50.4	31.2	-	-
2006	21,834	21.8	490,904	23.1	45.0	22.5	594	63.8
2005	41,364	45.8	1,249,160	47.6	48.1	30.2	-	-
2004	61,153	51.0	2,220,765	55.8	52.3	36.3	-	-
2003	21,274	37.6	662,567	34.6	48.2	31.1	-	-
2002	32,783	20.6	1,056,010	25.0	48.0	32.2	398	99.9
2001	17,889	28.9	473,926	30.6	46.1	26.5	-	-
2000	18,183	24.7	412,824	25.6	44.9	22.7	1,126	97.4
1999	17,341	20.6	387,342	19.9	44.7	22.3	-	-

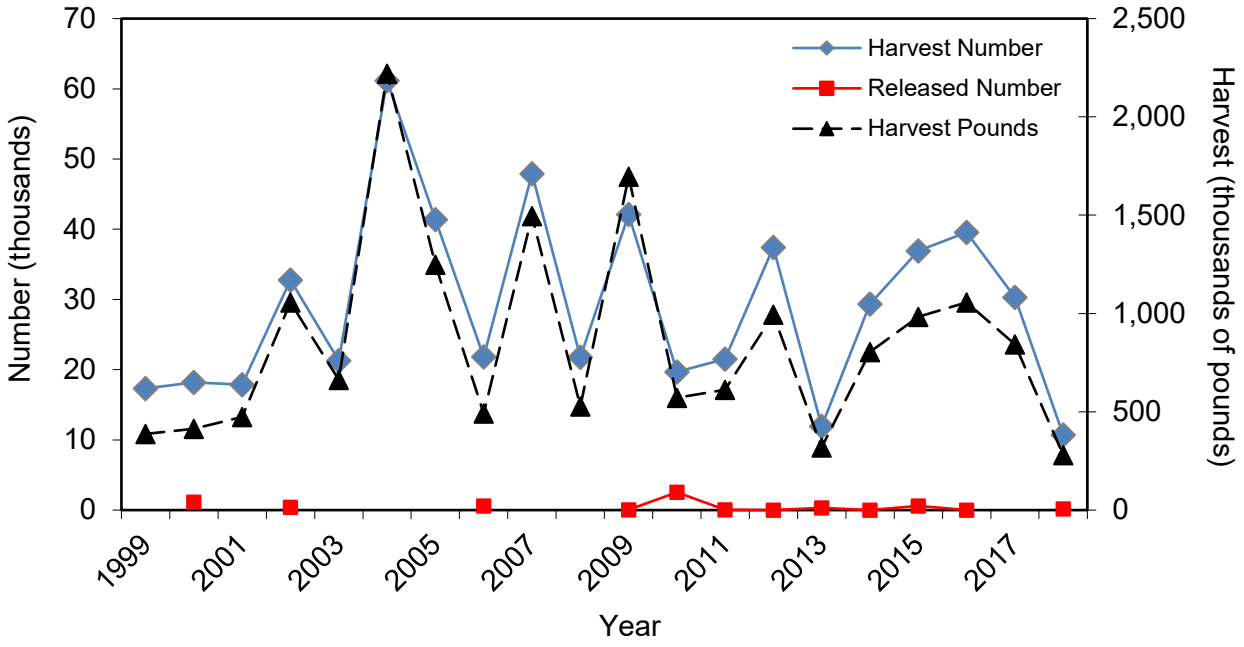


Figure III.55 Wahoo recreational catch in North Carolina by year.

Table III.61 Wahoo recreational catch by state, 2018.

State	Harvest Number	PSE (num)	Harvest Pounds	PSE (lb)	Mean Length (inches)	Mean Weight (lb)	Released Number	PSE (release)
North Carolina	10,690	26.3	280,644	25.3	47.7	26.3	182	94.2
Florida	11,649	41.7	299,525	54.4	45.6	24.9	-	-
New Jersey	1,012	101.8	42,539	101.8	58.2	42.1	-	-
South Carolina	8,697	51.3	275,187	58.1	51.8	31.6	-	-
Virginia	40	70.1	1,692	75.1	56.3	41.8	-	-

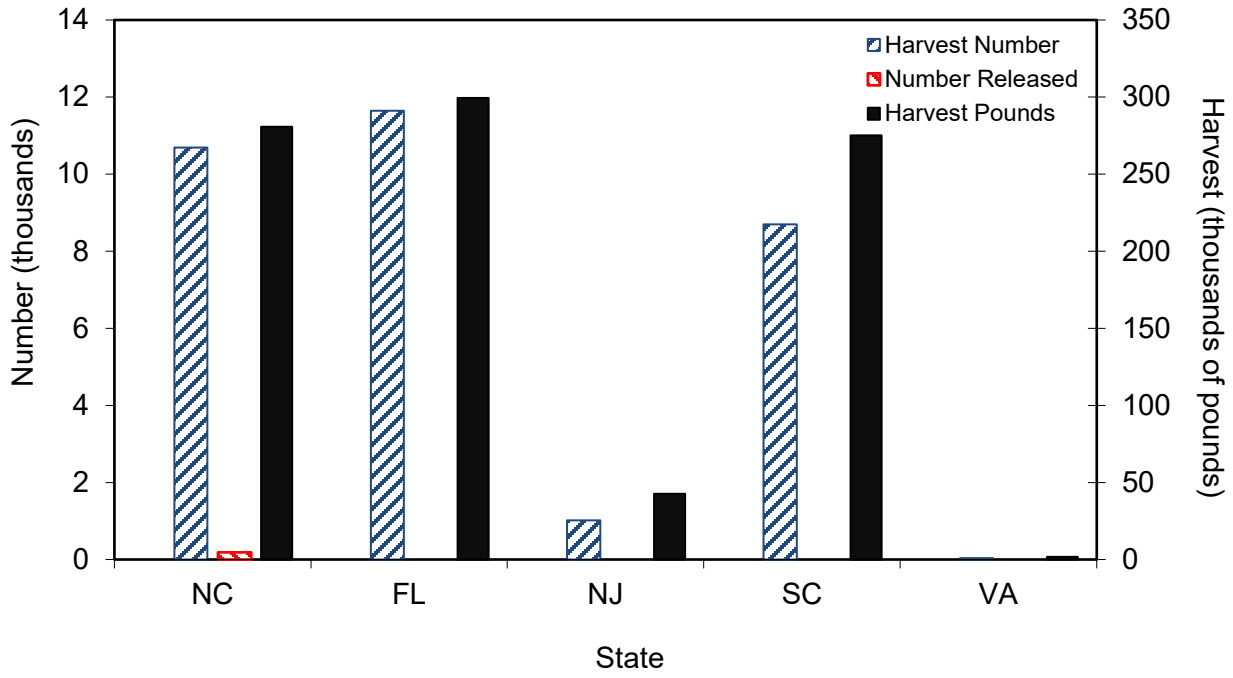


Figure III.56 Wahoo recreational catch by state, 2018.

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

Year	Harvest Number	PSE (num)	Harvest Pounds	PSE (lb)	Mean Length (inches)	Mean Weight (lb)	Released Number[1]	PSE (release)[1]
2018	30,935	39.5	29,924	40.5	13.4	1.0	299,496	
2017	51,795	23.6	55,944	26.5	14.2	1.1	351,613	-
2016	77,341	25.8	83,702	26.3	14.0	1.1	1,097,615	-
2015	143,543	26.6	157,269	26.5	14.0	1.1	1,652,582	-
2014	71,912	24.8	70,988	24.5	13.8	1.0	1,067,344	-
2013	63,090	24.2	66,720	23.2	14.2	1.1	257,367	-
2012	96,947	26.4	95,952	22.0	13.8	1.0	396,620	-
2011	48,727	24.9	62,543	26.6	14.7	1.3	380,366	-
2010	110,770	16.9	103,903	17.4	13.6	0.9	914,004	-
2009	204,814	23.5	245,358	28.8	14.8	1.2	626,742	-
2008	203,779	22.0	209,470	22.8	13.8	1.0	470,805	-
2007	191,192	19.7	202,583	19.8	14.2	1.1	600,987	-
2006	343,092	18.1	302,775	19.6	13.6	0.9	1,047,135	-
2005	297,605	19.5	281,710	20.0	14.0	0.9	702,685	-
2004	395,268	18.5	428,627	18.4	14.5	1.1	614,762	-
2003	291,168	18.4	309,412	17.6	14.1	1.1	422,294	-
2002	214,040	21.8	215,402	23.8	13.9	1.0	917,803	-
2001	317,974	19.0	325,447	20.1	14.1	1.0	2,831,044	-
2000	147,397	19.2	179,599	20.1	14.8	1.2	852,262	-
1999	313,427	15.6	420,706	17.7	15.4	1.3	687,884	-

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

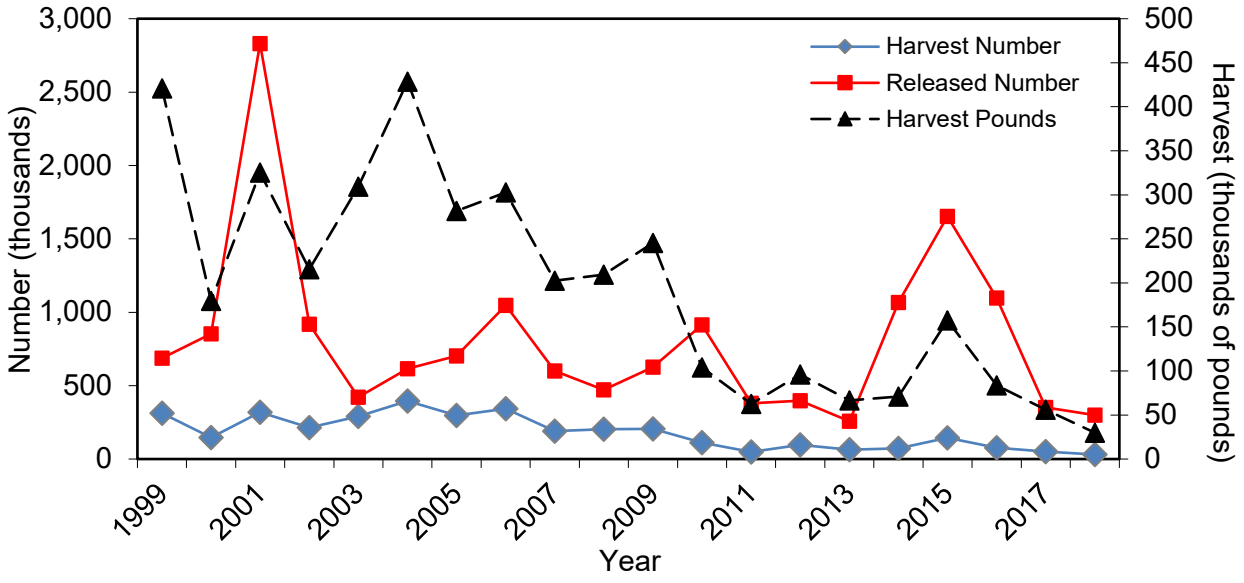


Figure III.57 Weakfish recreational catch in North Carolina by year.

Table III.63 Weakfish recreational catch by state, 2018.

State	Harvest Number	PSE (num)	Harvest Pounds	PSE (lb)	Mean Length (inches)	Mean Weight (lb)	Released Number[1]	PSE (release)[1]
North Carolina	30,935	39.5	29,924	40.5	13.4	1.0	-	-
Connecticut	466	84.3	1,404	91.7	21.1	3.0	-	-
Delaware	1,782	61.7	4,199	72.2	18.7	2.4	-	-
Florida	42,542	74.1	63,897	71.7	15.6	1.5	-	-
Georgia	13,830	46.1	17,856	45.9	15.1	1.3	-	-
Maryland	-	-	-	-	-	-	-	-
Massachusetts	393	100.3	756	100.3	17.8	1.9	-	-
New Jersey	16,177	52.5	24,407	50.4	15.3	1.5	-	-
New York	9,086	49.2	19,593	50.2	17.1	2.2	-	-
Rhode Island	-	-	-	-	-	-	-	-
South Carolina	12,234	40.1	23,591	54.9	16.4	1.9	-	-
Virginia	5,556	49.7	6,788	58.1	15.0	1.2	-	-

[1] Released seatrout are not always recorded to species level. Numbers released are not shown by state.

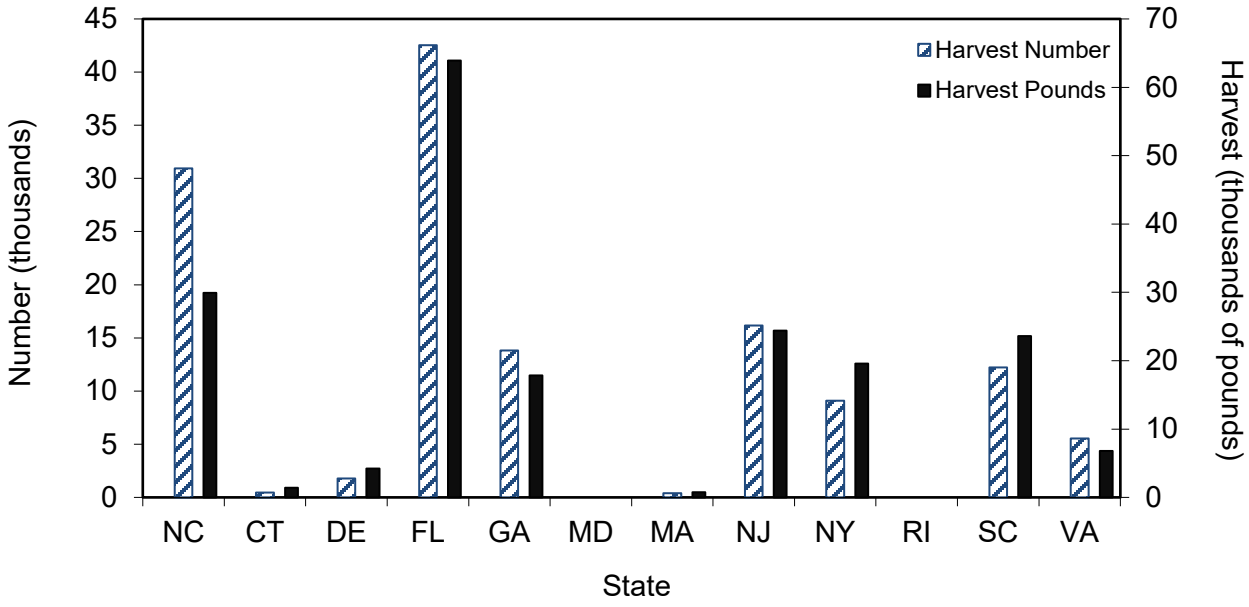


Figure III.58 Weakfish recreational catch by state, 2018.

Table III.64 White Grunt recreational catch in North Carolina by year.

Year	Harvest Number	PSE (num)	Harvest Pounds	PSE (lb)	Mean Length (inches)	Mean Weight (lb)	Released Number	PSE (release)
2018	11,486	33.2	16,551	34.0	12.0	1.4	6,551	38.9
2017	36,459	42.5	58,656	42.8	12.5	1.6	49,159	61.1
2016	49,190	38.9	85,197	40.8	12.7	1.7	72,791	66.6
2015	42,614	34.4	75,878	35.5	12.7	1.8	30,399	49.1
2014	48,030	58.9	85,941	59.8	13.4	1.8	4,406	51.6
2013	25,864	40.0	44,343	42.3	13.5	1.7	11,631	46.6
2012	102,155	30.9	169,755	30.3	12.9	1.7	19,332	65.0
2011	36,911	34.6	66,981	34.3	13.0	1.8	25,807	43.5
2010	52,062	47.6	81,365	46.7	12.4	1.6	14,384	44.2
2009	109,271	30.8	182,294	30.5	12.6	1.7	5,058	59.0
2008	204,033	32.3	302,233	32.9	12.4	1.5	17,906	82.9
2007	175,591	28.7	275,721	28.9	12.6	1.6	14,319	52.2
2006	151,440	39.2	235,456	40.6	12.6	1.6	31,998	71.0
2005	207,542	35.3	345,702	37.7	12.7	1.7	54,688	73.6
2004	184,996	29.3	264,518	30.6	11.9	1.4	45,327	70.6
2003	146,426	34.6	236,464	33.7	11.6	1.6	17,556	94.3
2002	167,107	29.8	337,495	31.5	13.4	2.0	-	-
2001	96,771	30.5	161,692	30.5	12.6	1.7	6,527	100.8
2000	10,024	84.3	9,287	85.2	10.2	0.9	525	99.4
1999	24,205	46.4	31,252	47.3	12.4	1.3	-	-

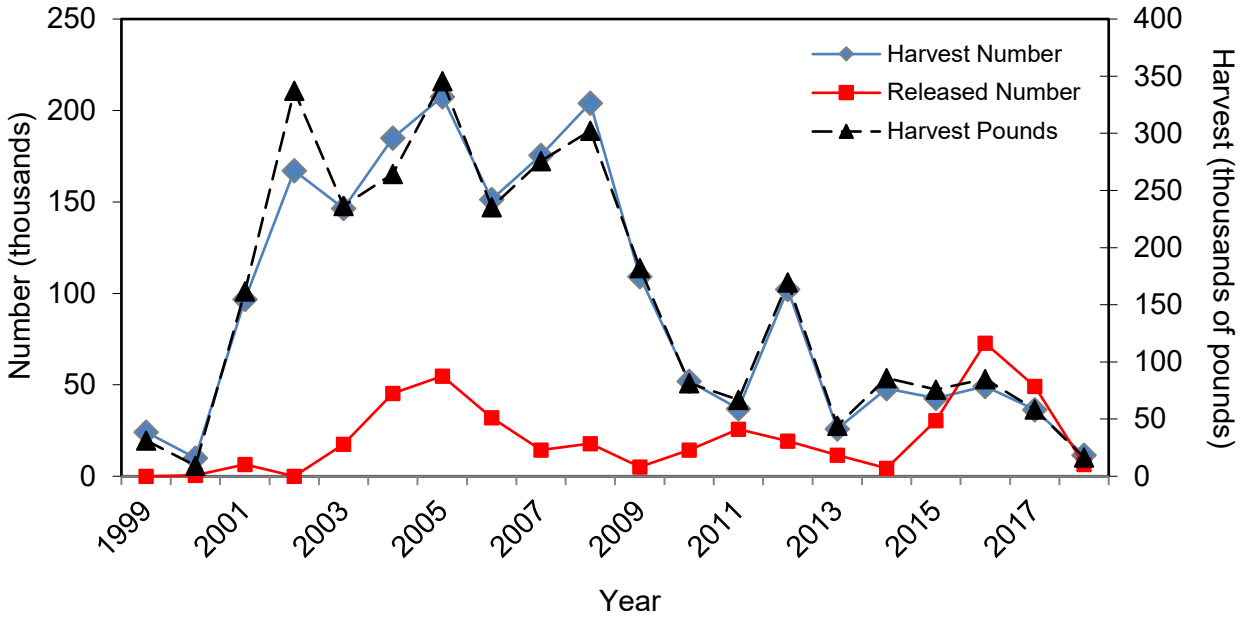


Figure III.59 White Grunt recreational catch in North Carolina by year.

Table III.65 White Grunt recreational catch by state, 2018.

State	Harvest Number	PSE (num)	Harvest Pounds	PSE (lb)	Mean Length (inches)	Mean Weight (lb)	Released Number	PSE (release)
North Carolina	11,486	33.2	16,551	34.0	12.0	1.4	6,551	38.9
Florida	652,820	23.5	373,675	26.6	10.1	0.8	328,971	24.4
Georgia	1,569	84.8	1,400	58.0	9.8	0.9	51	96.9
South Carolina	6,065	34.0	9,652	35.6	12.1	1.6	15,952	76.2

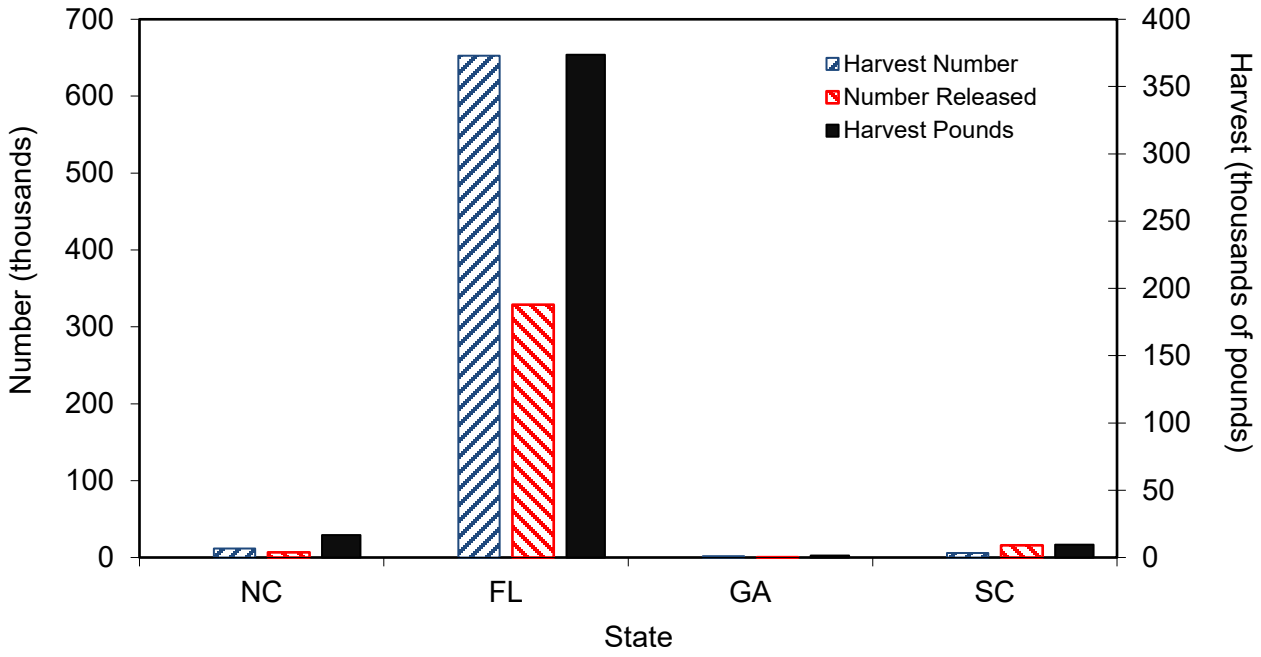


Figure III.60 White Grunt recreational catch by state, 2018.

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

Year	Harvest Number	PSE (num)	Harvest Pounds	PSE (lb)	Mean Length (inches)	Mean Weight (lb)	Released Number	PSE (release)
2018	61,171	31.3	1,977,741	27.1	36.2	32.3	3,739	46.0
2017	118,659	22.2	4,040,504	20.2	37.7	34.1	17,812	29.2
2016	80,458	23.2	3,164,911	24.1	39.3	39.3	28,643	63.7
2015	38,199	25.2	1,079,798	24.5	35.0	28.3	2,196	44.0
2014	44,151	24.8	1,392,966	24.8	36.5	31.6	7,460	36.7
2013	52,907	18.1	1,705,605	19.5	37.0	32.2	1,229	51.4
2012	70,288	24.2	1,929,343	23.8	34.8	27.4	8,975	49.5
2011	33,360	26.2	1,066,616	25.0	37.0	32.0	663	63.3
2010	41,652	28.4	1,521,261	29.5	39.6	36.5	767	56.8
2009	36,066	26.0	959,832	23.1	34.4	26.6	1,472	82.8
2008	21,824	31.9	610,660	31.1	34.5	28.0	65	74.1
2007	144,826	24.3	3,886,004	22.3	35.1	26.8	499	86.1
2006	244,825	18.2	7,182,919	18.3	35.6	29.3	16,727	33.8
2005	243,895	21.5	7,080,724	23.9	35.5	29.0	11,865	31.6
2004	209,747	22.0	5,379,213	19.5	33.8	25.6	10,183	29.0
2003	185,148	19.5	4,997,756	20.5	33.3	27.0	27,510	36.1
2002	149,407	27.0	3,396,466	25.5	32.2	22.7	8,926	67.8
2001	170,808	17.2	5,028,308	16.8	34.5	29.4	238	54.6
2000	175,812	17.5	5,110,592	17.7	35.2	29.1	4,245	40.8
1999	185,370	15.7	4,482,257	15.9	32.8	24.2	10,609	42.7

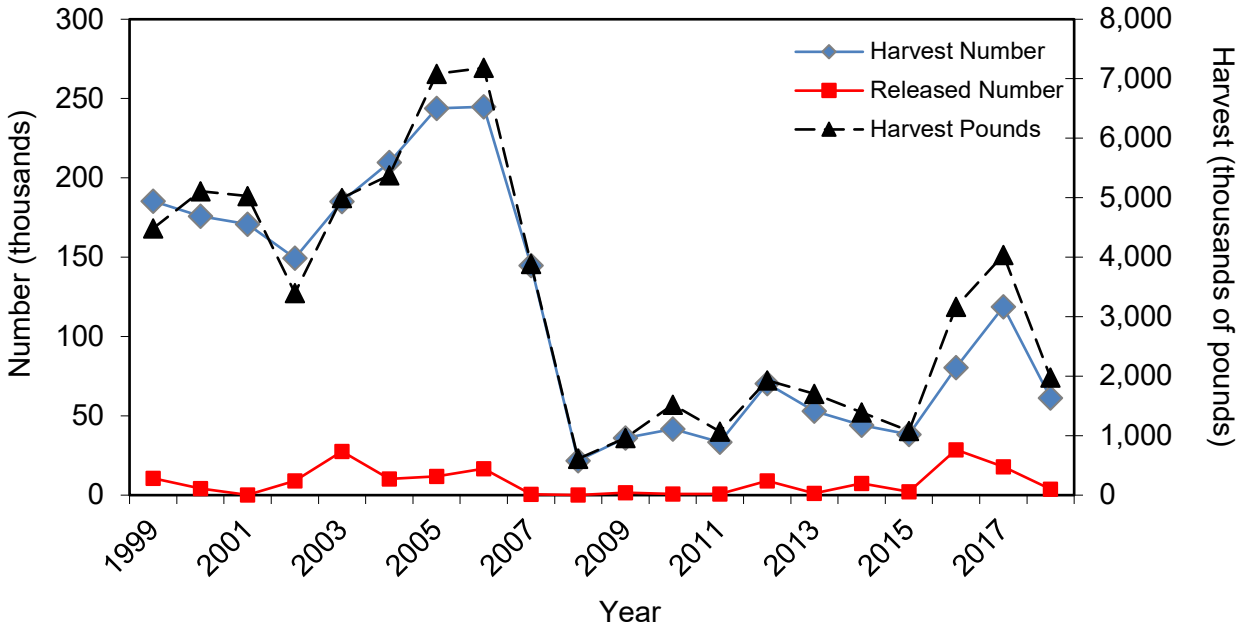


Figure III.61 Yellowfin Tuna recreational catch in North Carolina by year.

Table III.67 Yellowfin Tuna recreational catch by state, 2018.

State	Harvest Number	PSE (num)	Harvest Pounds	PSE (lb)	Mean Length (inches)	Mean Weight (lb)	Released Number	PSE (release)
North Carolina	61,171	31.3	1,977,741	27.1	36.2	32.3	3,739	46.0
Connecticut	543	74.9	16,754	74.9	32.3	30.9	-	-
Delaware	1,338	82.3	34,901	85.0	33.5	26.1	8	82.3
Maryland	873	83.0	23,535	83.0	34.4	27.0	156	83.0
Massachusetts	4,378	99.4	135,127	99.4	32.3	30.9	-	-
New Jersey	147,096	46.1	3,546,123	41.7	33.0	24.1	77,934	47.4
New York	748	100.7	22,204	100.7	36.2	29.7	817	103.2
Virginia	2,818	85.8	54,191	75.8	30.2	19.2	-	-

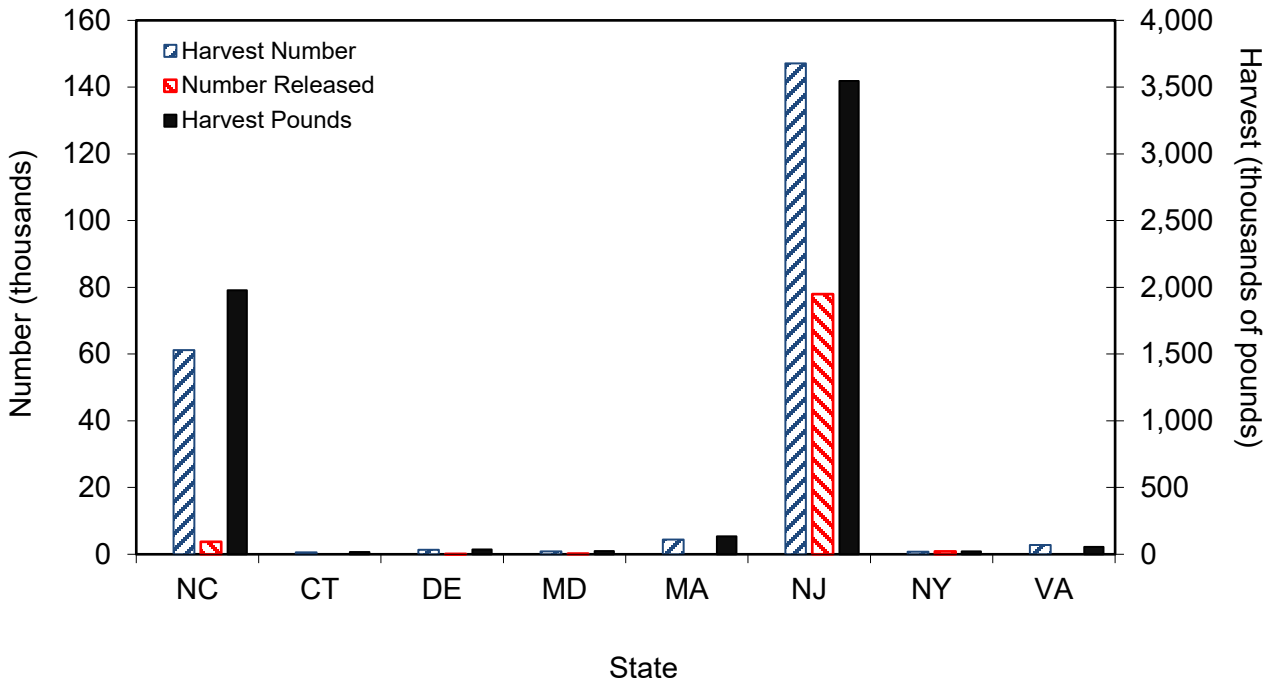


Figure III.62 Yellowfin Tuna recreational catch by state, 2018.

Table III.68 Large coastal shark recreational catch in North Carolina by year.

Year	Harvest Number	PSE (num)	Harvest Pounds	PSE (lb)	Mean Length (inches)[1]	Mean Weight (lb)[1]	Released Number	PSE (release)
2018	7	95.8	235	95.8	-	-	3,845	70.4
2017	910	79.6	27,367	83.4	-	-	43,041	43.7
2016	12	101.0	1,100	101.0	-	-	27,885	54.3
2015	25	72.8	2,667	101.3	-	-	139,486	66.1
2014	556	89.4	10,194	91.4	-	-	16,306	42.2
2013	59	113.4	11,128	113.4	-	-	7,976	39.7
2012	1,283	99.7	1,997	70.7	-	-	18,205	77.8
2011	474	100.0	732	100.0	-	-	14,797	88.8
2010	120	102.8	211	102.8	-	-	24,902	56.9
2009	-	-	-	-	-	-	5,837	96.3
2008	51	103.6	794	103.6	-	-	-	-
2007	2,543	68.0	30,985	69.7	-	-	32,680	45.0
2006	187	101.3	10,744	101.3	-	-	13,825	66.2
2005	859	95.6	50,494	95.6	-	-	10,540	50.2
2004	-	-	-	-	-	-	411	99.9
2003	863	67.0	8,931	65.3	-	-	1,177	70.2
2002	442	98.7	1,837	98.7	-	-	1,134	69.3
2001	2,166	87.6	28,312	56.8	-	-	163	87.2
2000	1,764	50.1	46,249	63.2	-	-	-	-
1999	2,495	54.2	95,377	83.2	-	-	965	98.3

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

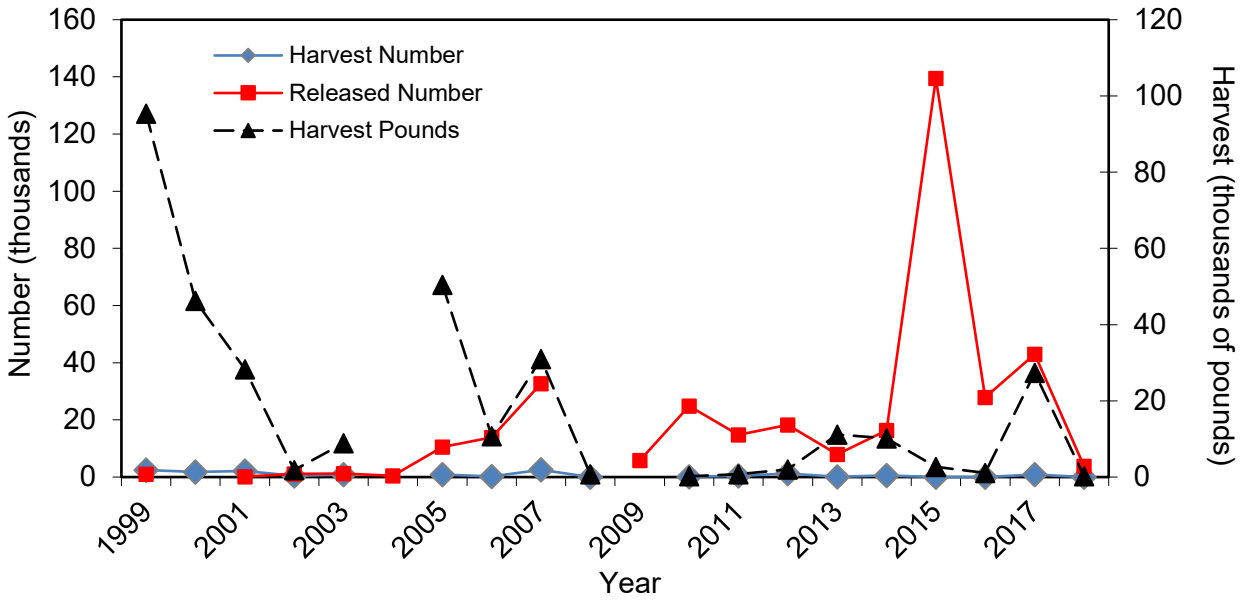


Figure III.63 Large coastal shark recreational catch in North Carolina by year.

Table III.69 Large coastal shark recreational catch by state, 2018.

State	Harvest Number	PSE (num)	Harvest Pounds	PSE (lb)	Mean Length (inches)[1]	Mean Weight (lb)[1]	Released Number	PSE (release)
North Carolina	7	95.8	235	95.8	-	-	3,845	70.4
Delaware	-	-	-	-	-	-	27,160	42.0
Florida	138	107.0	1,343	107.0	-	-	403,594	29.1
Georgia	117	65.7	8,361	65.7	-	-	144,215	29.2
Maryland	-	-	-	-	-	-	17,540	53.0
New Jersey	-	-	-	-	-	-	74,948	36.1
Rhode Island	-	-	-	-	-	-	9	103.4
South Carolina	290	64.3	19,137	64.3	-	-	22,791	48.3
Virginia	-	-	-	-	-	-	3,464	72.3

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

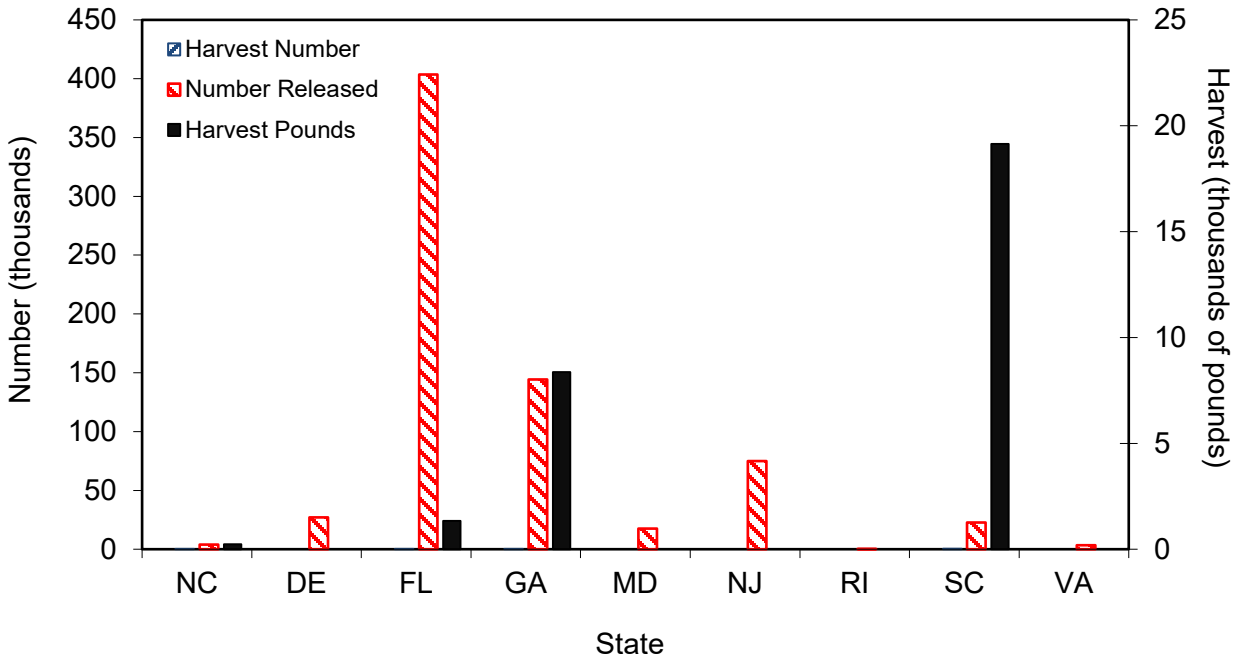


Figure III.64 Large coastal shark recreational catch by state, 2018.

Table III.70 Small coastal shark recreational catch in North Carolina by year.

Year	Harvest Number	PSE (num)	Harvest Pounds	PSE (lb)	Mean Length (inches)[1]	Mean Weight (lb)[1]	Released Number	PSE (release)
2018	1,678	38.9	9,097	40.9	-	-	4,496	39.5
2017	5,768	56.5	19,256	42.3	-	-	58,440	60.5
2016	514	66.6	2,545	63.4	-	-	133,214	57.0
2015	6,656	41.3	38,499	44.3	-	-	15,866	70.4
2014	7,420	56.7	24,060	43.9	-	-	2,043	57.5
2013	2,171	45.9	13,474	48.0	-	-	16,772	42.1
2012	2,082	47.5	11,804	48.4	-	-	7,733	43.5
2011	1,209	42.5	7,659	44.0	-	-	37,276	33.1
2010	4,654	46.5	21,878	37.1	-	-	107,135	66.6
2009	5,532	41.1	51,183	48.7	-	-	5,334	62.7
2008	5,421	62.9	30,675	60.8	-	-	-	-
2007	6,784	50.9	47,902	48.9	-	-	5,631	72.2
2006	7,640	69.9	51,377	68.8	-	-	58,571	38.8
2005	1,682	90.4	15,014	92.5	-	-	3,519	81.2
2004	3,291	58.0	24,421	59.8	-	-	-	-
2003	12,658	72.7	85,339	67.2	-	-	-	-
2002	2,184	46.7	16,620	48.9	-	-	-	-
2001	4,285	43.8	30,301	44.8	-	-	-	-
2000	2,428	73.8	9,193	65.6	-	-	-	-
1999	374	71.9	1,085	72.1	-	-	-	-

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

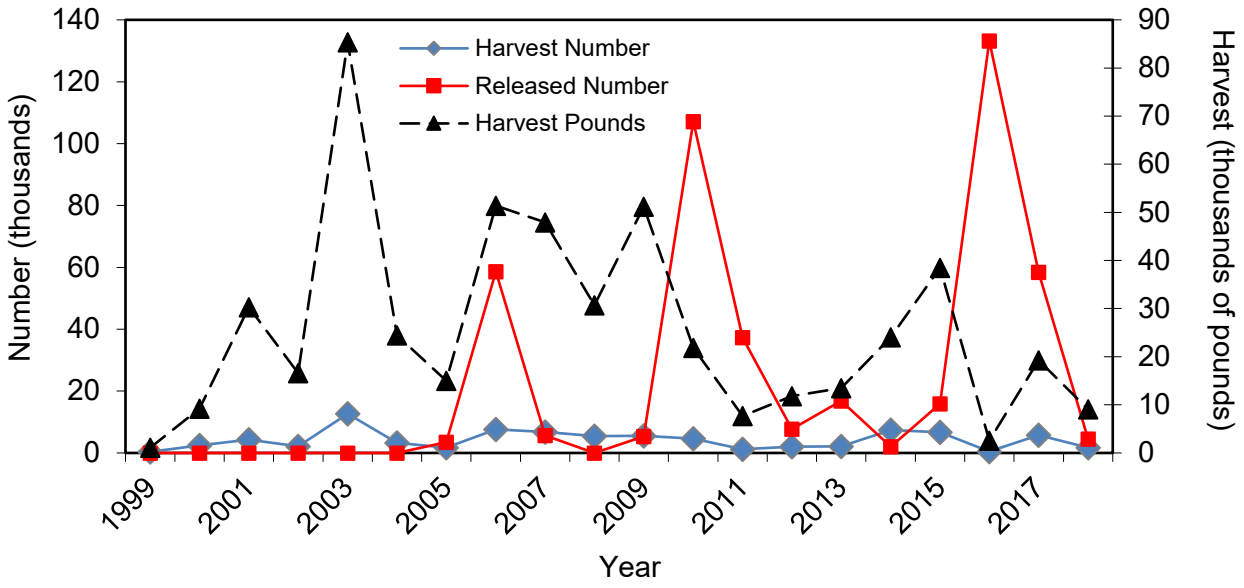


Figure III.65 Small coastal shark recreational catch in North Carolina by year.

Table III.71 Small coastal shark recreational catch by state, 2018.

State	Harvest Number	PSE (num)	Harvest Pounds	PSE (lb)	Mean Length (inches)[1]	Mean Weight (lb)[1]	Released Number	PSE (release)
North Carolina	1,678	38.9	9,097	40.9	-	-	4,496	39.5
Florida	17,792	39.6	194,075	50.5	-	-	587,015	34.3
Georgia	2,867	55.7	26,280	53.3	-	-	654,616	21.6
Maryland	74	15.6	653	15.6	-	-	537	36.6
New Jersey	-	-	-	-	-	-	355	102.6
South Carolina	31,245	48.8	231,520	57.4	-	-	146,445	41.1
Virginia	760	98.3	5,192	98.3	-	-	4,507	46.7

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

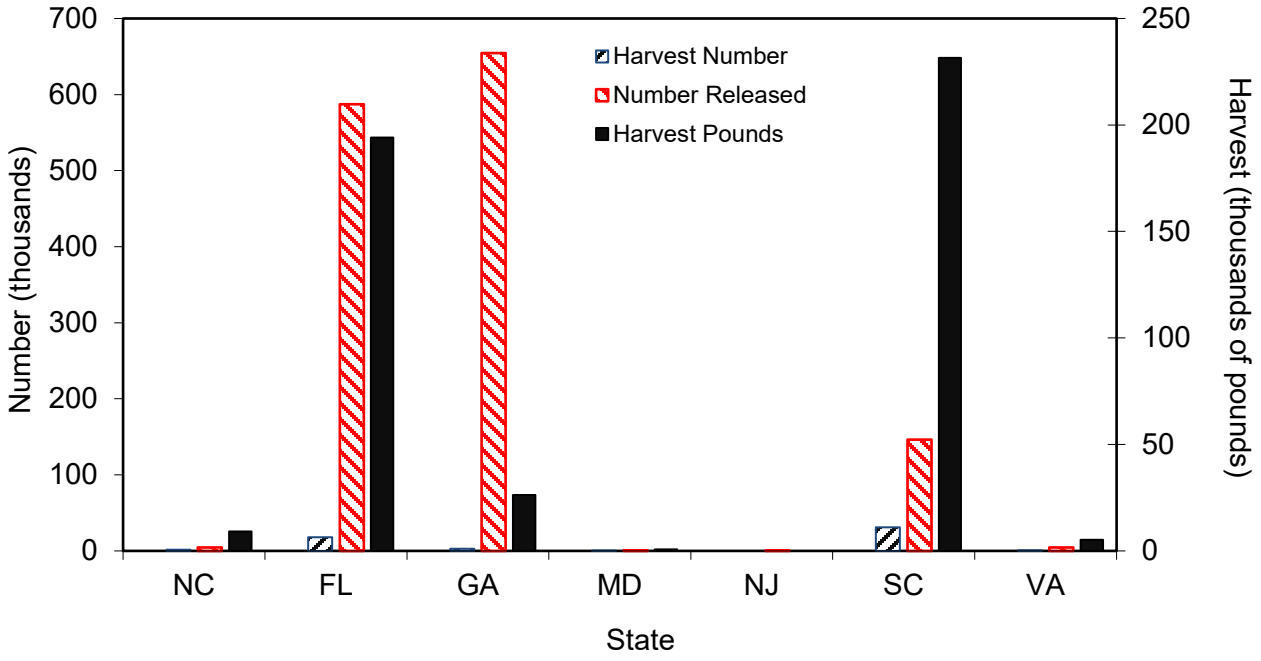


Figure III.66 Small coastal shark recreational catch by state, 2018.

Table III.72 Pelagic shark recreational catch in North Carolina by year.

Year	Harvest Number	PSE (num)	Harvest Pounds	PSE (lb)	Mean Length (inches)[1]	Mean Weight (lb)[1]	Released Number	PSE (release)
2018	2,043	73.1	160,155	73.1	-	-	38	63.0
2017	66	64.1	4,917	62.2	-	-	33	86.2
2016	-	-	-	-	-	-	3,512	79.0
2015	5,097	76.1	479,443	75.9	-	-	987	91.8
2014	26	54.6	2,082	51.5	-	-	296	110.5
2013	28	100.8	1,219	100.8	-	-	1,865	97.1
2012	291	76.7	17,323	73.6	-	-	13	98.3
2011	78	76.4	4,803	68.0	-	-	-	-
2010	77	83.2	12,324	88.1	-	-	96	99.2
2009	91	58.8	8,123	57.5	-	-	-	-
2008	28	81.4	2,536	81.4	-	-	-	-
2007	78	74.3	7,223	74.9	-	-	151	109.9
2006	93	55.2	9,605	64.6	-	-	1,103	94.7
2005	3,052	97.6	231,185	96.9	-	-	1,049	89.1
2004	452	88.8	66,257	91.5	-	-	-	-
2003	31	101.3	2,418	101.3	-	-	-	-
2002	40	76.6	12,764	90.9	-	-	-	-
2001	182	44.0	27,610	43.0	-	-	107	100.4
2000	173	47.9	22,234	61.0	-	-	-	-
1999	41	100.9	1,607	100.9	-	-	-	-

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

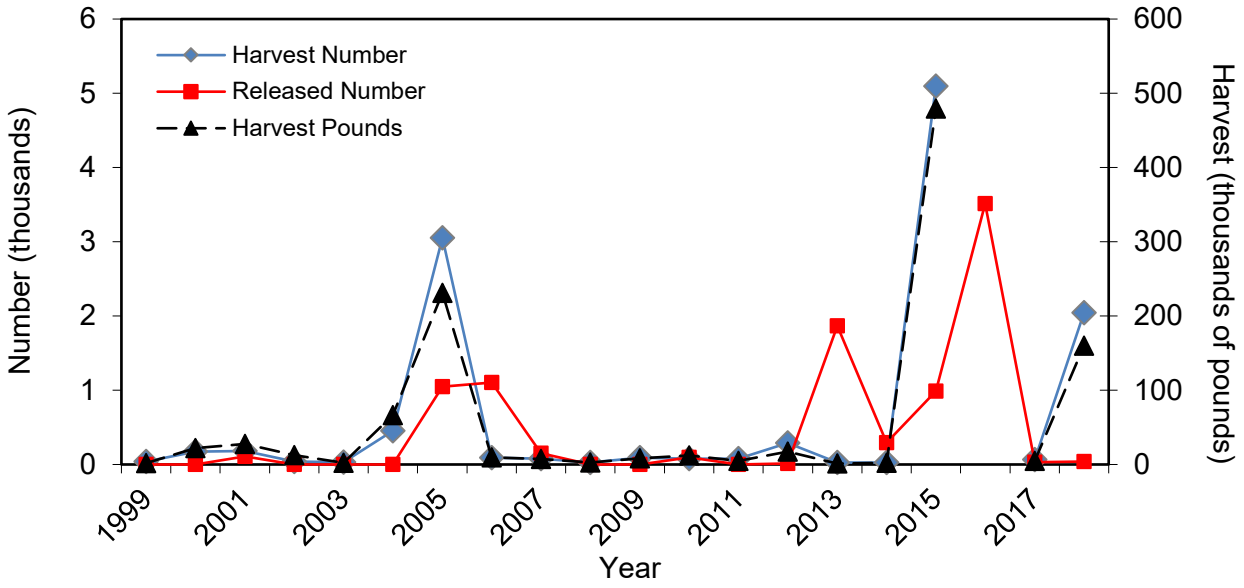


Figure III.67 Pelagic shark recreational catch in North Carolina by year.

Table III.73 Pelagic shark recreational catch by state, 2018.

State	Harvest Number	PSE (num)	Harvest Pounds	PSE (lb)	Mean Length (inches)[1]	Mean Weight (lb)[1]	Released Number	PSE (release)
North Carolina	2,043	73.1	160,155	73.1	-	-	38	63.0
Delaware	-	-	-	-	-	-	1,369	59.1
Maine	-	-	-	-	-	-	10,423	86.7
Maryland	-	-	-	-	-	-	466	56.4
Massachusetts	3,368	94.5	-	-	-	-	13,286	37.0
New Hampshire	-	-	-	-	-	-	592	57.2
New Jersey	-	-	-	-	-	-	3,018	63.0
New York	5,119	55.0	-	-	-	-	425,900	55.3
Rhode Island	412	100.2	889	99.5	-	-	6,242	48.9
Virginia	-	-	-	-	-	-	427	107.7

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

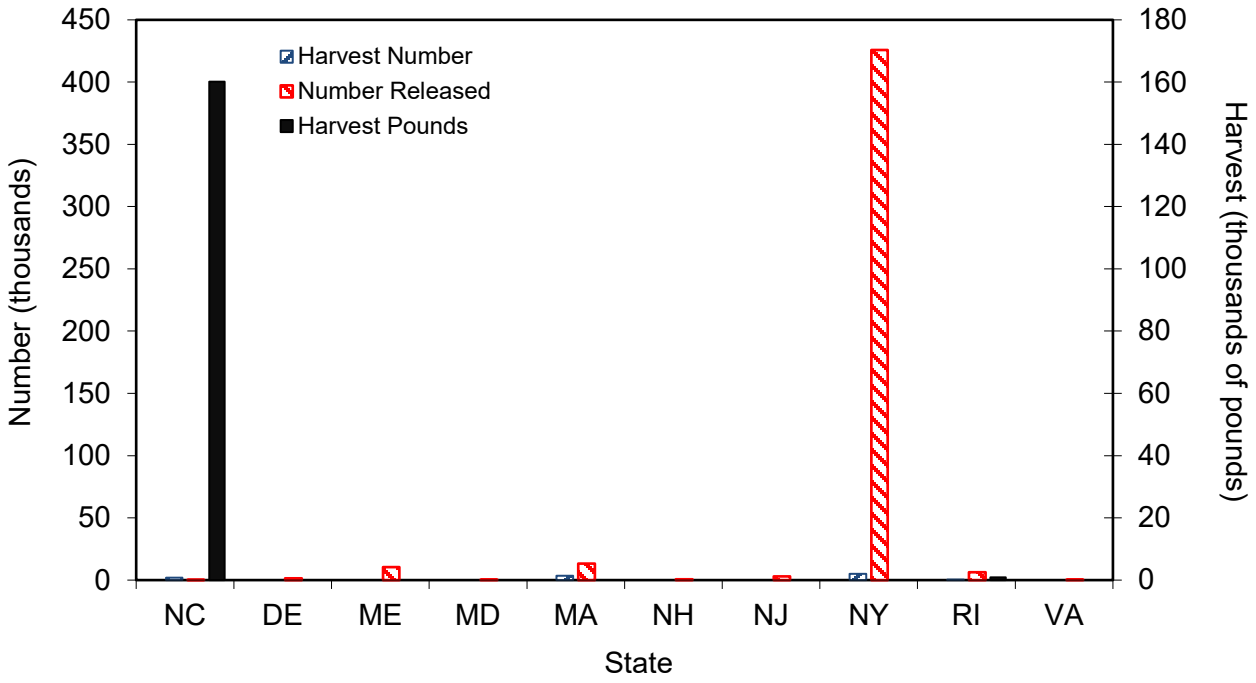


Figure III.68 Pelagic shark recreational catch by state, 2018.

Table III.74 Reported North Carolina highly migratory species landings (numbers).

Year	Blue Marlin	White Marlin	Sailfish	Swordfish	Total
2018	28	1	9	10	48
2017	16	3	3	5	27
2016	23	0	4	6	33
2015	23	2	0	0	25
2014	15	0	0	0	15
2013	10	0	3	0	13
2012	20	0	0	1	21
2011	9	3	2	0	14
2010	14	2	1	0	17
2009	11	0	0	2	13
2008	24	1	0	0	25
2007	4	0	0	2	6
2006	12	0	0	0	12
2005	14	0	0	0	14

Table III.75 Reported North Carolina recreational Atlantic Bluefin Tuna landings[1] (numbers).

Year	Manteo/ Oregon Inlet	Hatteras	Ocracoke	Morehead City	Wilmington South	Call-In	Total
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
2013	150	48	0	0	0	3	201
2012	143	40	1	0	2	3	189
2011	158	164	0	0	0	6	328
2010	378	193	0	0	0	8	579
2009	79	55	0	0	0	1	135
2008	72	51	0	8	0	1	132
2007	122	41	0	9	3	0	175
2006	0	13	0	13	5	0	31
2005	0	1	0	29	0	0	30
2004	0	0	0	19	0	1	20
2003	0	7	0	86	6	0	99
2002	1	10	4	64	3	0	82
2001	1	63	1	205	20	3	293
2000	0	339	8	147	87	9	590
1999	0	155	3	77	37	3	275

[1] Does not include trophy category.

Table III.76 Atlantic Coast saltwater fishing trips by state and mode, 2018.

	Number of Trips					
State	Shore[1]	Private & Rental	Charter	Man Made[1]	Beach/Bank[1]	Total
Connecticut	2,082,768	1,422,383	27,044	-	-	3,532,194
Delaware	1,439,410	700,683	6,391	-	-	2,146,485
Florida	51,887,958	32,054,220	-	-	-	83,942,178
Georgia	2,960,316	1,603,954	-	-	-	4,564,269
Maine	1,022,040	575,275	13,979	-	-	1,611,294
Maryland	3,924,478	2,692,231	27,913	-	-	6,644,621
Massachusetts	3,902,812	2,672,724	42,073	-	-	6,617,609
New Hampshire	339,047	299,096	31,995	-	-	670,138
New Jersey	7,771,697	4,432,346	95,718	-	-	12,299,761
New York	6,286,292	4,651,741	252,735	-	-	11,190,768
North Carolina	-	4,279,389	148,004	5,317,495	6,879,419	16,624,306
Rhode Island	1,536,449	974,258	21,229	-	-	2,531,936
South Carolina	7,487,069	2,279,217	-	-	-	9,766,287
Virginia	4,146,638	2,214,775	16,479	-	-	6,377,892

[1] Shore mode is separated into manmade and beach/bank in North Carolina only.

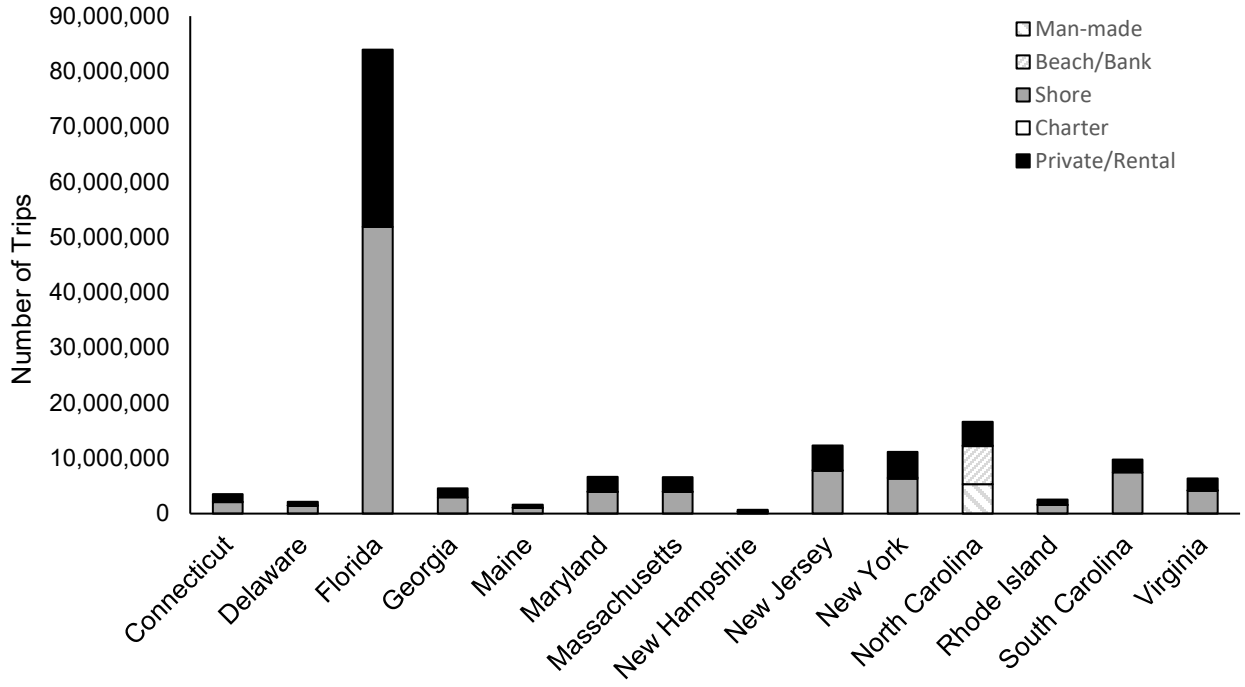


Figure III.69 Atlantic Coast saltwater fishing trips by state and mode, 2018.

Table III.77 Marine recreational fishing trips in North Carolina by mode.

	Number of Trips								
Year	Charter	PSE	Private & Rental	PSE	Man Made	PSE	Beach & Bank	PSE	Total
2018	148,004	6.0	4,279,389	5.0	5,317,495	7.1	6,879,419	12.2	16,624,306
2017	149,438	6.3	5,044,731	7.9	9,512,489	7.8	7,745,619	11.2	22,452,276
2016	140,575	6.5	4,860,391	5.8	5,970,329	6.4	10,187,550	8.7	21,158,845
2015	114,043	11.6	4,992,920	5.7	8,516,390	6.4	6,699,488	15.4	20,322,840
2014	96,432	6.1	4,895,957	5.1	6,014,374	6.1	7,919,735	7.3	18,926,498
2013	111,366	5.6	4,847,955	4.4	7,097,673	5.3	6,028,869	6.2	18,085,863
2012	159,160	9.1	5,054,638	4.2	6,184,923	5.0	7,156,627	3.5	18,555,347
2011	129,380	9.0	5,212,669	4.3	6,040,312	4.6	8,086,490	4.3	19,468,851
2010	138,577	5.1	4,982,732	3.8	7,174,395	4.2	7,877,619	3.9	20,173,322
2009	129,412	6.0	4,822,295	4.1	6,642,257	6.0	7,751,222	7.6	19,345,187
2008	170,428	7.2	4,599,900	3.8	6,067,854	6.5	8,489,916	6.3	19,328,098
2007	185,618	6.4	4,671,856	3.9	7,105,305	7.0	6,183,367	6.6	18,146,146
2006	201,368	6.1	4,542,632	3.7	7,671,720	7.4	7,199,224	7.1	19,614,943
2005	214,826	10.1	4,359,576	4.2	7,369,215	8.6	5,206,759	9.4	17,150,375
2004	183,039	6.4	4,276,395	4.4	6,245,702	8.3	6,695,734	5.8	17,400,870
2003	131,566	14.6	3,746,771	3.6	6,243,796	5.6	5,353,909	5.3	15,476,042
2002	142,644	12.3	3,539,123	4.1	5,913,968	5.7	5,501,125	5.0	15,096,860
2001	160,791	12.9	3,363,853	3.4	6,105,185	6.2	5,479,658	4.6	15,109,487
2000	164,116	12.4	3,388,516	3.8	6,088,224	5.7	5,687,088	3.8	15,327,944
1999	200,350	11.6	3,153,794	4.3	5,113,589	4.7	4,215,059	4.3	12,682,792

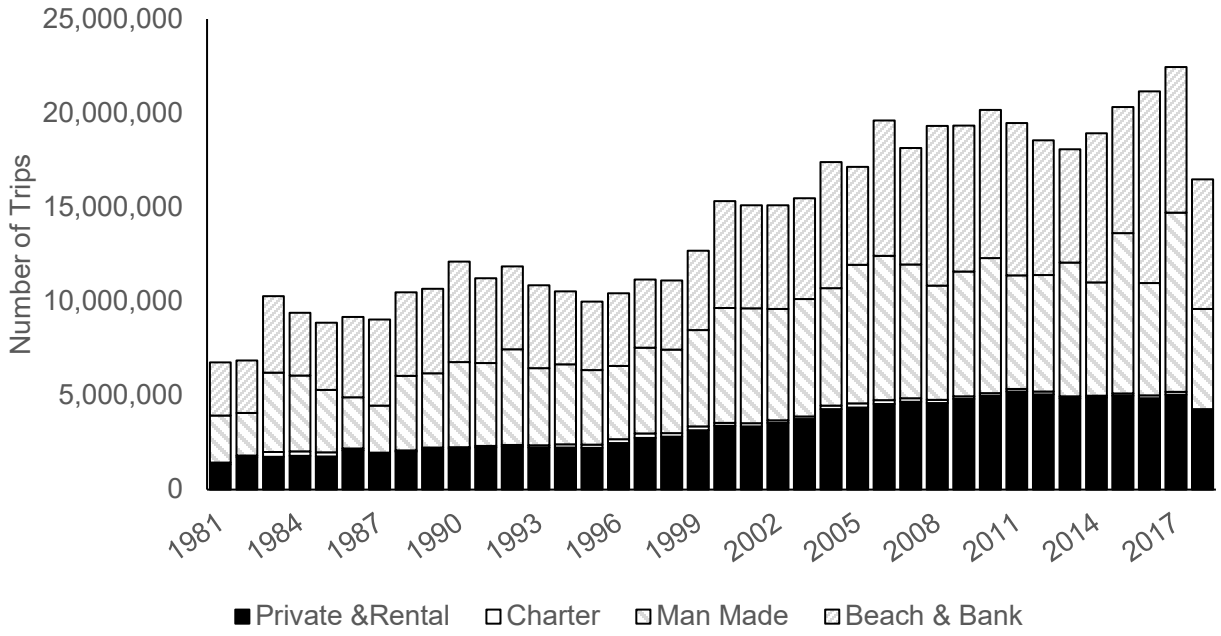
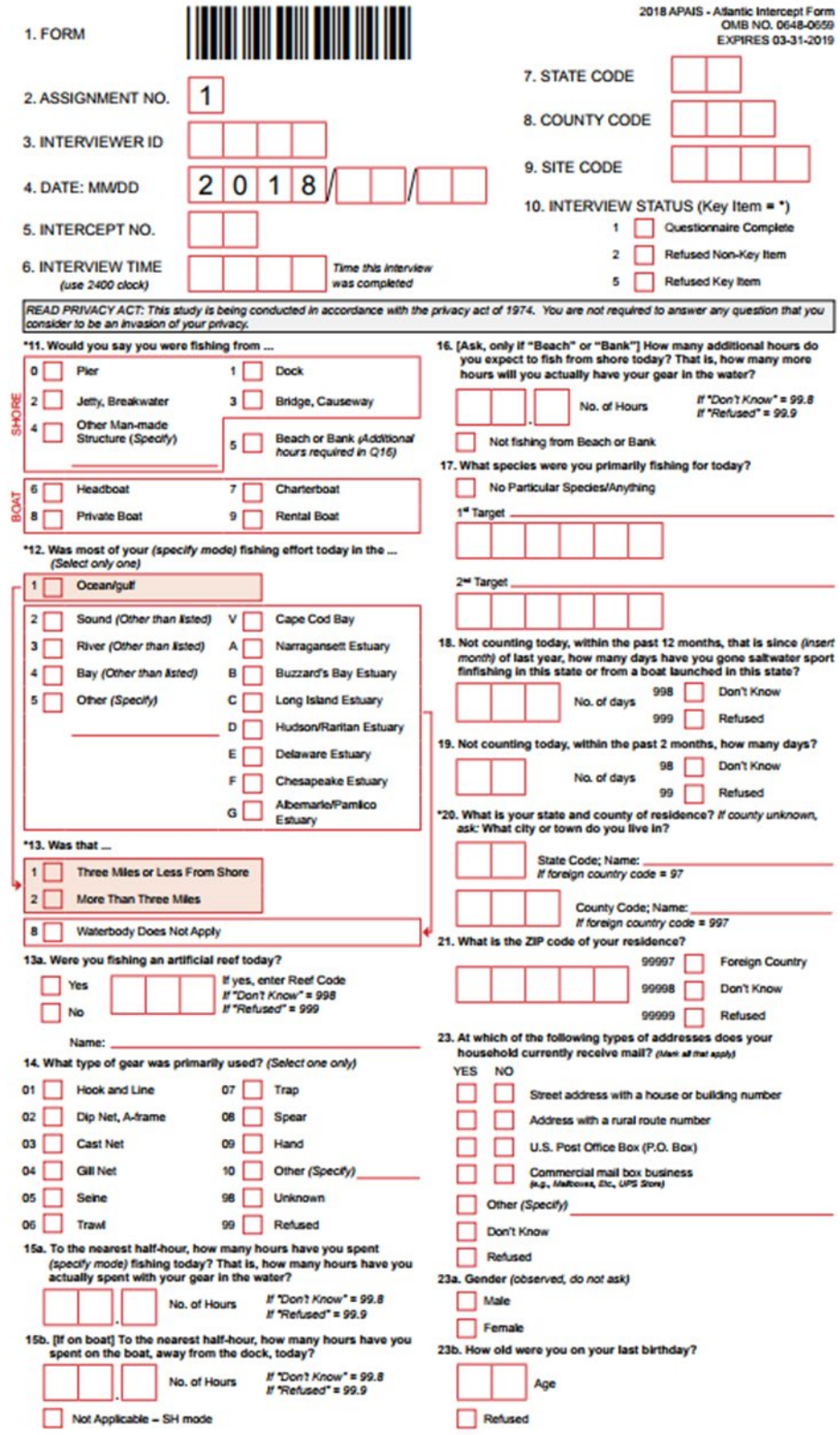


Figure III.70 Marine recreational fishing trips in North Carolina by mode.

Appendix III.1 NCDMF highly migratory species reporting stations.

Reporting Station	Location	Phone
Anchorage Marina	Atlantic Beach	252-928-6661
Captain Stacy's Fishing Center	Atlantic Beach	252-726-4675
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
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	252-726-4423
Southport Marina	Southport	910-457-9900
Outer Banks Marina	Wanchese	252-473-9991
Creekside Yacht Club	Wilmington	910-350-0023
Bridge Tender Marina	Wrightsville Beach	910-256-6550
DMF Technician	Mobile	N/A
DMF Call-in	Mobile	800-682-2632

Appendix III.2 North Carolina APAIS Intercept Form.



2018 APAIS - Atlantic Intercept Form
OMB NO. 0648-0659
EXPIRES 03-31-2019

1. FORM

2. ASSIGNMENT NO. 1

3. INTERVIEWER ID

4. DATE: MM/DD 2018/ /

5. INTERCEPT NO.

6. INTERVIEW TIME (use 2400 clock) — 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

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

1 Ocean/gulf

2 Sound (Other than listed)
3 River (Other than listed)
4 Bay (Other than listed)
5 Other (Specify)

V Cape Cod Bay
A Narragansett Estuary
B Buzzard's Bay Estuary
C Long Island Estuary
D Hudson/Raritan Estuary
E Delaware Estuary
F Chesapeake Estuary
G Albemarle/Pamlico Estuary

*13. Was that ...
1 Three Miles or Less From Shore
2 More Than Three Miles

8 Waterbody Does Not Apply

13a. Were you fishing an artificial reef today?
Yes
No
If yes, enter Reef Code
If "Don't Know" = 998
If "Refused" = 999

Name:

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

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
If "Don't Know" = 99.8
If "Refused" = 99.9

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
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
If "Don't Know" = 99.8
If "Refused" = 99.9
Not fishing from Beach or Bank

17. What species were you primarily fishing for today?
No Particular Species/Anything
1st Target
2nd Target

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 finfishing in this state or from a boat launched in this state?
No. of days
998 Don't Know
999 Refused

19. Not counting today, within the past 2 months, how many days?
No. of days
98 Don't Know
99 Refused

*20. What is your state and county of residence? If county unknown, ask: What city or town do you live in?
State Code; Name:
If foreign country code = 97
County Code; Name:
If foreign country code = 997

21. What is the ZIP code of your residence?
99997 Foreign Country
99998 Don't Know
99999 Refused

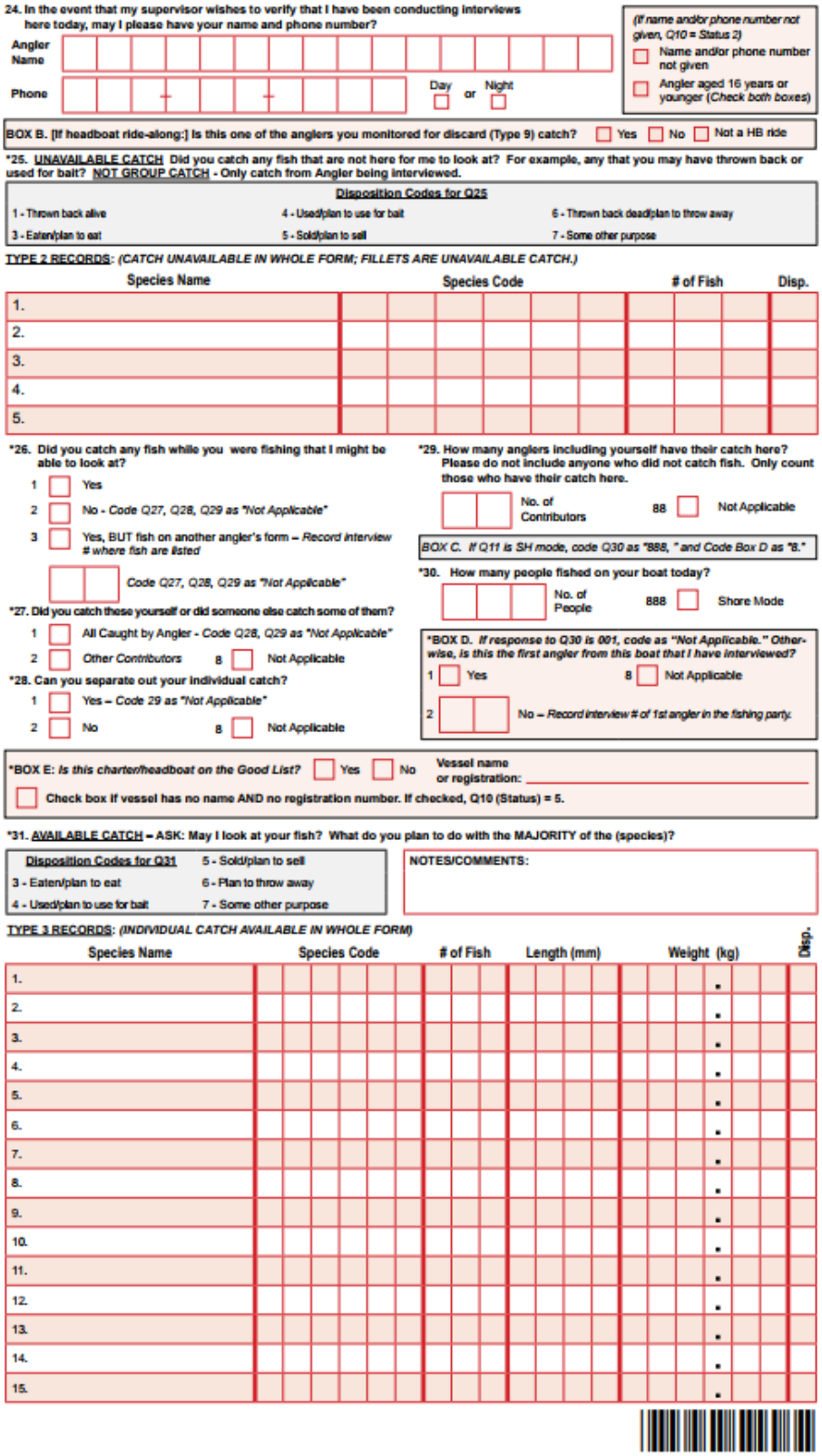
23. At which of the following types of addresses does your household currently receive mail? (Mark all that apply)

YES	NO	
		Street address with a house or building number
		Address with a rural route number
		U.S. Post Office Box (P.O. Box)
		Commercial mail box business (e.g., Mailboxes, Etc., UPS Store)
		Other (Specify)
		Don't Know
		Refused

23a. Gender (observed, do not ask)
Male
Female

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

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
4 - Used/plan to use for bait
5 - Sold/plan to sell
6 - Thrown back dead/plan to throw away
7 - Some other purpose

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"

*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

*28. Can you separate out your individual catch?
1 Yes – *Code 29 as "Not Applicable"*
2 No 8 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."

*30. How many people fished on your boat today?
No. of People 888 Shore Mode

*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

3 - Eaten/plan to eat
4 - Used/plan to use for bait
5 - Sold/plan to sell
6 - Plan to throw away
7 - Some other purpose

NOTES/COMMENTS:

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

	Species Name	Species Code	# of Fish	Length (mm)	Weight (kg)	Disp.
1.					.	
2.					.	
3.					.	
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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

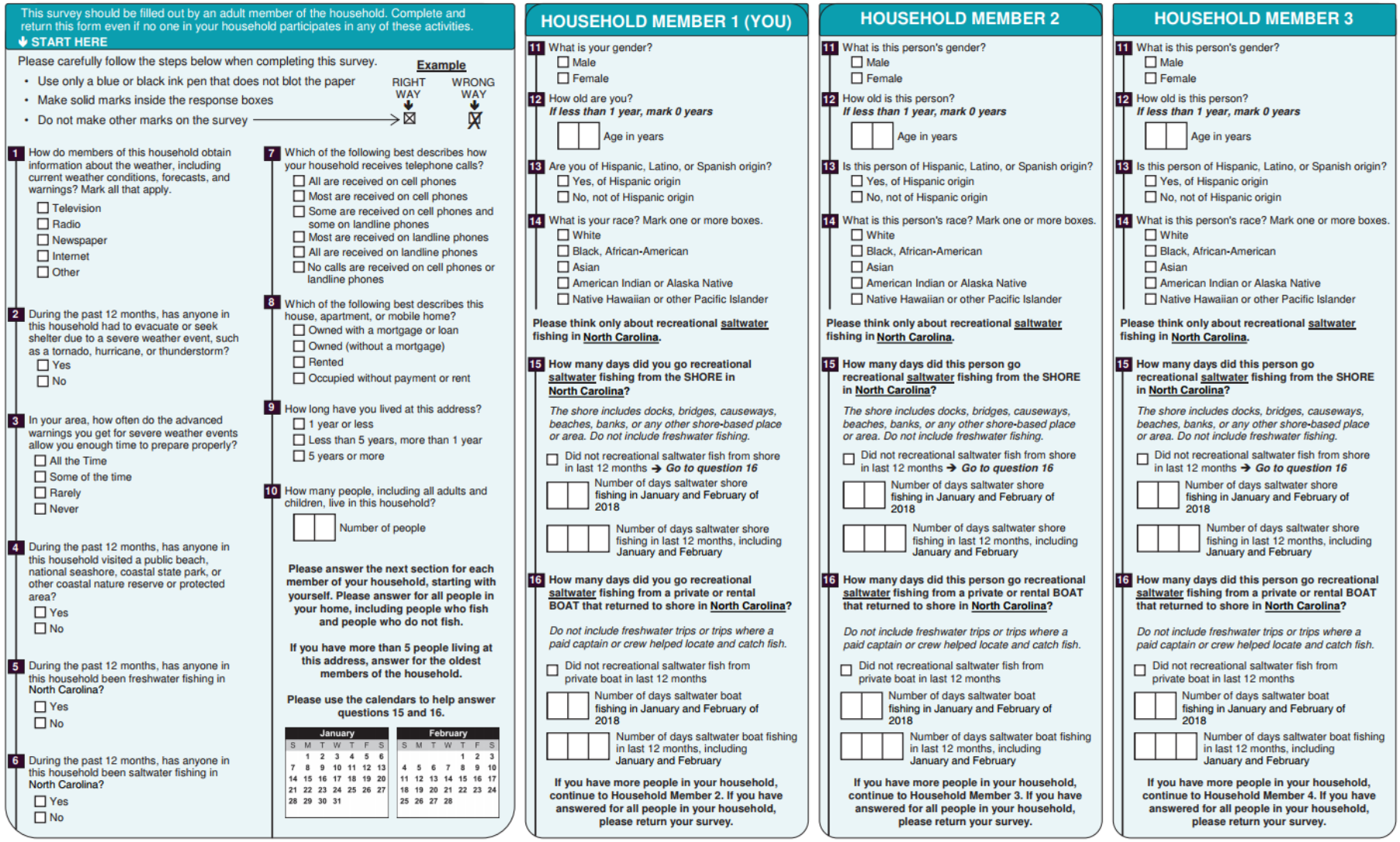
North Carolina

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.

- 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

Example — 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

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

February

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	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?**

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- ☐ 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.