

**FISHERY MANAGEMENT PLAN UPDATE
WEAKFISH
AUGUST 2026**

STATUS OF THE FISHERY MANAGEMENT PLAN

Fishery Management Plan History

FMP Documentation:	ASMFC	October 1985
	Amendment 1	March 1992
	Amendment 2	October 1994
	Amendment 3	May 1996
	Addendum I	October 2000
	Amendment 4	November 2002
	Technical Addendum 1	March 2003
	Addendum I	December 2005
	Addendum II	February 2007
	Addendum III	May 2007
	Addendum IV	November 2009
Comprehensive Review:	No comprehensive review scheduled. Benchmark ASMFC Stock Assessment currently scheduled to begin in 2027.	

Weakfish (*Cynoscion regalis*) are managed under the Atlantic States Marine Fisheries Commission's Amendment 4 to the Interstate Fishery Management Plan (FMP) for Weakfish (ASMFC 2002) and the subsequent addenda to Amendment 4 (ASMFC, 2003, 2005, 2007a, 2007b, 2009). ASMFC adopted its first FMP for Weakfish in 1985 (ASMFC 1985). Amendment 1 to the FMP (ASMFC 1992) unsuccessfully aimed to improve the status of Weakfish. Amendment 2 (ASMFC 1994) resulted in some improvement to the stock, but several signs indicated further improvement was necessary leading to the implementations of Amendment 3 (ASMFC 1996) to increase the sustainability of the fishery. Addendum I to Amendment 3 was approved in 2000 to extend the existing management program until the Weakfish Management Board could approve Amendment 4 (ASMFC 2000). Addendum I to Amendment 4 was adopted to replace the biological sampling program (ASMFC 2005). The Weakfish Management Board approved Addendum II to Amendment 4 (ASMFC 2007a) in response to a significant decline in stock abundance and increasing total mortality since 1999. Addendum II reduced the recreational creel limit and commercial bycatch limit, and set landings levels that, when met, will trigger the Board to re-evaluate management measures. Addendum III to Amendment 4 (ASMFC 2007b) altered the bycatch reduction device certification requirements of Amendment 4 for consistency with the South Atlantic Fishery Management Council's (SAFMC) Shrimp FMP. The findings of the 2009 stock assessment indicated Weakfish were in a severely depleted state (NEFSC 2009a and 2009b) with natural mortality (*M*) rather than fishing mortality (*F*) believed to be the primary culprit in the decline (ASMFC 2016) prompting the ASMFC Weakfish Management Board to pass Addendum IV to Amendment 4 (ASMFC 2009).

Addendum IV required all states along the east coast to implement severe harvest restrictions on Weakfish. The Weakfish Management Board, as part of Addendum IV, noted that reductions in harvest would not be adequate to rebuild the depleted Weakfish stocks until other confounding factors (i.e. natural mortality) become more favorable for Weakfish survival; however, the Board opted to reduce harvest and poise Weakfish for a recovery in the event of a change in confounding factors. Harvest restrictions in Addendum IV included a one fish daily recreational bag limit and a 100 lb daily commercial trip limit. North Carolina requested to implement a 10% bycatch allowance for Weakfish in lieu of the 100 lb daily trip limit. This request was considered conservationally equivalent to the 100 lb daily trip limit and was approved by the Weakfish Management Board in August of 2010. The alternate management action allowed landing of Weakfish provided they make up less than 10% of the weight of all finfish landed up to 1,000 lb per trip or

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day, whichever is larger. In November of 2012, based on the recommendation of the North Carolina Marine Fisheries Commission (MFC), the alternate management was halted and North Carolina reverted back to the 100 lb daily trip limit consistent with Addendum IV.

A benchmark stock assessment for Weakfish was completed in 2016 (ASMFC 2016) and approved for management by the Weakfish Management Board at the 2016 Spring Meeting of the ASMFC. Results from the 2016 assessment indicate Weakfish are depleted and identified continued high levels of M rather than F the cause of the decline. Fishing mortality has decreased substantially since 2010 and overfishing on the stock is not occurring. The Board reviewed the results of the assessment at their May 2016 meeting and decided no new management action was warranted.

An update to the peer-reviewed 2016 assessment was completed in 2019 and presented at the 2019 ASMFC Fall Meeting (ASMFC 2019). Results of the assessment update show the Weakfish stock is depleted and has been since 2003. Estimates of recruitment, spawning stock biomass, and total abundance remain low in recent years. Estimates of F were moderately high in recent years, although lower than the time-series highs of the mid- to late-2000s or the earliest years, and M remained high. The Board reviewed the results of the assessment update at their October 2019 meeting and decided no new management action was warranted. The management program implemented under Addendum IV remains in effect. An additional update to the 2016 assessment was completed in 2025; however, the Weakfish Management Board agreed with the Weakfish Technical Committee and Stock Assessment Sub-Committee to not use the update for management (ASMFC 2025a). A new benchmark stock assessment is scheduled for 2027.

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

Management Unit

Weakfish are managed under this plan as a single stock throughout their coastal range. All Atlantic coast states from Massachusetts through Florida and the Potomac River Fisheries Commission have a declared interest in Weakfish. Responsibility for the FMP is assigned to the ASMFC Weakfish Management Board, Plan Review Team, Technical Committee, Stock Assessment Sub-Committee, and Advisory Panel.

Goal and Objectives

The goal of Amendment 4 of the ASMFC FMP is to utilize interstate management so that Atlantic coastal Weakfish recover to healthy levels that will maintain commercial and recreational harvest consistent with a self-sustaining spawning stock and to provide for restoration and maintenance of essential habitat (ASMFC 2002). The management objectives are to:

- Establish and maintain an overfishing definition that includes target and threshold fishing mortality rates and a threshold spawning stock biomass to prevent overfishing and maintain a sustainable Weakfish population.
- Restore the Weakfish age and size structure to that necessary for the restoration of the fishery.
- Return Weakfish to their previous geographic range.
- Achieve compatible and equitable management measures among jurisdictions throughout the fishery management unit, including states’ waters and the federal EEZ.

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- Promote cooperative interstate research, monitoring and law enforcement necessary to support management of Weakfish.
- Promote identification and conservation of habitat essential for the long-term stability in the population of Weakfish.
- Establish standards and procedures for both the implementation of Amendment 4 and for determination of states' compliance with provisions of the management plan

DESCRIPTION OF THE STOCK

Biological Profile

Weakfish, also called gray trout, are known to inhabit waters of the Atlantic from southern Florida to Nova Scotia, Canada but are most prevalent from North Carolina to New York (Wilk 1979). They are members of the drum family and are closely related to Spotted Seatrout. Compared to Spotted Seatrout, Weakfish occur in higher salinity areas of the estuary and are seasonally encountered around coastal inlets and in offshore waters. Weakfish migrate into more inshore environments and north along the U.S. Atlantic Coast in the spring and summer as water temperatures rise (Bigelow and Schroeder 1953; Wilk 1979). Spawning occurs during this time in higher salinity environments around the coastal inlets (Luczkovich et al. 1999; Luczkovich et al. 2008). Males drum to attract females and spawning activity usually occurs around dusk. Juvenile Weakfish use the estuarine waters as a nursery area until the fall when water temperatures drop, and they move into the offshore environment (Wilk 1979). Peak spawning in North Carolina is typically around April or May but females are batch spawners and will spawn multiple times throughout the spring and summer months (Lowerre-Barbieri et al. 1996; Merriner 1976). Most Weakfish are sexually mature by age 1 and at 11 to 12 in in length (Lowerre-Barbieri et al. 1996; Nye et al. 2008). Juvenile Weakfish are opportunistic feeders, feeding on invertebrates and microscopic animals early in their life, then switching to mostly piscivorous feeding on small to moderately sized fish, depending on their size (Merriner 1975).

Stock Status

According to the 2019 stock assessment update, spawning stock biomass (SSB) in 2017 was 4.24 million lb, well below the SSB threshold of 30% (13.6 million lb), indicating the stock is depleted (Figure 1; ASMFC 2019). The Weakfish Technical Committee recommended total mortality (Z) benchmarks, which includes fishing and natural mortality. Total mortality in 2017 was 1.45, which was above both the 20% target (1.03) and the 30% threshold (1.43), indicating total mortality was too high (Figure 2). However, fishing mortality in 2017 (0.62) was above the 20% target but below the 30% threshold (0.97), indicating the stock is not experiencing overfishing.

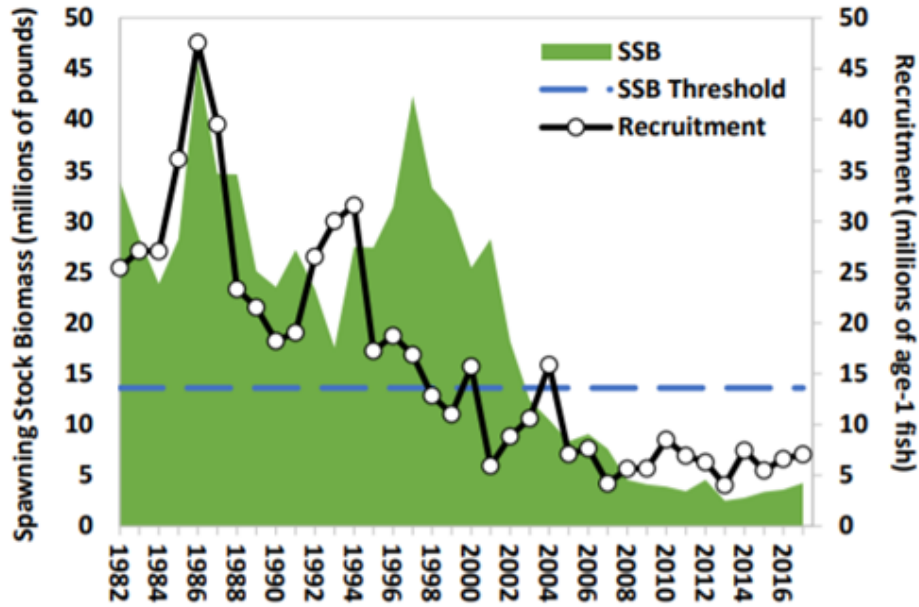


Figure 1. Spawning stock biomass (SSB) and recruitment of age-1 Weakfish estimated along the U.S. Atlantic coast from 1982 to 2017 (ASMFC 2019). Dashed line represents the 30% spawning stock biomass (SSB) threshold of 13.6 million lb.

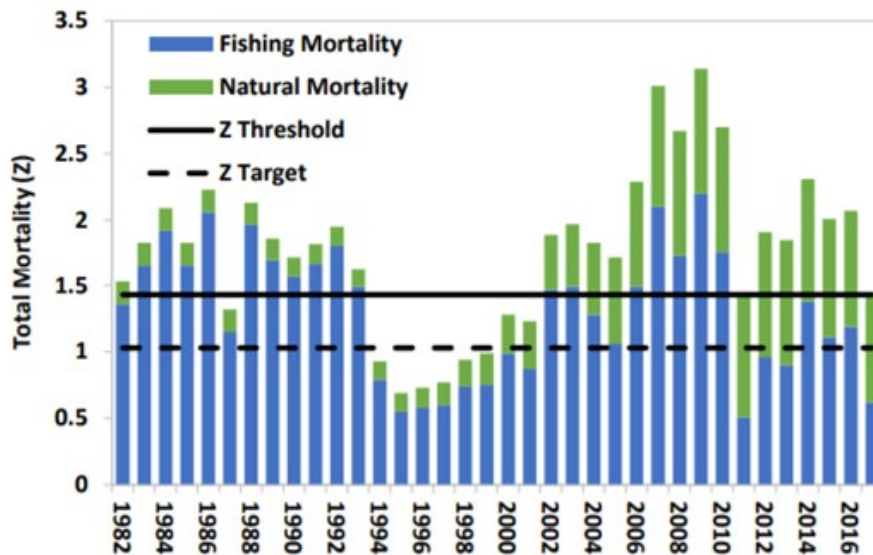


Figure 2. Natural mortality (M) and fishing mortality (F) estimated for all Weakfish along the U.S. Atlantic east coast, 1982 to 2017 (ASMFC 2019). Solid and dashed lines represent total mortality target ($Z_{30\%} = 1.03$) and threshold ($Z_{20\%} = 1.43$) used to determine if the stock is being overfished.

Stock Assessment

The assessment completed in 2016 employed a spatially structured forward projecting statistical catch at age model with time-varying natural mortality, with a terminal year of 2017 and was updated in 2019 and

2025. This model accounts for varying population spatial distribution and changing natural mortality through time. Results of the assessment show the Weakfish stock is depleted and has been for the past 17 years. Under conditions of time-varying natural mortality, there is no long-term stable equilibrium population size, so an SSB target is not informative for management. After reviewing the assessment results, the Weakfish Technical Committee (TC) recommended an SSB threshold of 13.6 million lb that is equivalent to 30% of the projected SSB under average natural mortality and no fishing (SSB30%). When SSB is below the threshold, the stock is considered depleted. Despite SSB showing a slight increasing trend in recent years, SSB was 4.24 million lb in 2017 (Figure 1), which is well below the threshold. The model indicated natural mortality has been increasing since the mid-1990s, from approximately 0.17 at the beginning of the time-series to an average of 0.92 from 2007–2017 (Figure 2). The Weakfish population has been experiencing very high levels of total mortality which has prevented the stock from recovering. Fishing mortality has increased in recent years but was below the threshold in 2017.

DESCRIPTION OF THE FISHERY

Current Regulations

The DMF allows the recreational harvest of Weakfish year-round with a 12-in total length (TL) minimum size and a one fish per day bag limit. The commercial harvest of Weakfish is limited to a 100 lb possession limit per day or trip, whichever is more restrictive, and 12-in TL minimum size with the following exceptions: from April 1 through November 15, Weakfish 10 in TL or more may lawfully be taken in North Carolina internal waters by use of long haul seines or pound nets only, commercial flounder trawl and flynet operations are allowed to possess a tolerance of no more than 100 undersized (<12 in TL) Weakfish per day or trip, whichever is more restrictive, and it is unlawful to sell undersized Weakfish.

Commercial Fishery

Commercial landings of Weakfish peaked in 1988 at 15,091,878 lb and have steadily dropped since. In 2009 Addendum IV reduced commercial harvest to 100 lb per trip achieving an estimated reduction of 61% from the 2005–2008 harvest levels. Recent years have shown little increase due to low abundance and commercial harvest restrictions. Landings decreased 41,005 lb in 2025 (65,566 lb) compared to the previous year (106,571 lb; Table 1; Figure 3).

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Table 1. Recreational harvest and releases and commercial harvest of Weakfish from Marine Recreational Information Program in North Carolina, 1982–2025.

Year	Recreational			Commercial	
	Number Landed	Number Released	Weight Landed (lb)	Weight Landed (lb)	Total Weight Landed (lb)
1982	255,080	61,048	348,645	12,052,232	12,400,877
1983	596,354	16,387	749,910	10,233,738	10,983,644
1984	555,640	35,101	252,873	12,990,726	13,243,599
1985	1,010,772	2,638	796,974	9,825,498	10,594,708
1986	2,049,746	694,759	1,455,912	14,309,372	15,765,284
1987	2,403,361	250,581	3,442,746	11,882,362	14,951,135
1988	650,224	175,284	175,178	15,091,878	15,267,056
1989	456,191	65,500	331,840	10,115,747	10,447,587
1990	149,508	28,930	104,761	5,802,159	5,906,920
1991	358,273	22,332	286,349	5,308,647	5,594,923
1992	72,064	58,299	53,214	4,862,551	4,915,765
1993	293,966	103,268	230,010	4,309,249	4,247,275
1994	336,188	364,107	276,435	3,489,930	3,766,364
1995	103,190	215,251	118,177	4,113,260	4,231,437
1996	138,577	298,999	121,291	3,977,641	4,098,924
1997	333,852	339,334	313,767	3,561,060	3,874,827
1998	450,645	457,936	487,884	3,354,008	3,841,892
1999	313,427	334,420	420,706	2,617,582	3,038,286
2000	147,397	751,197	179,599	1,869,043	2,048,641
2001	317,974	2,363,650	325,447	1,960,324	2,285,771
2002	214,040	793,989	215,402	1,828,150	2,043,552
2003	291,168	313,626	309,412	848,822	1,158,234
2004	395,268	443,048	428,627	685,463	1,114,090
2005	297,605	416,023	281,710	421,984	703,694
2006	343,092	855,488	302,775	363,087	665,861
2007	191,192	355,375	202,583	175,593	378,176
2008	203,779	236,165	209,470	162,516	371,986
2009	204,814	494,626	245,358	163,148	408,506
2010	110,770	739,955	103,903	106,328	210,231
2011	48,727	374,910	62,543	65,998	128,541
2012	96,947	381,441	95,952	91,384	187,336
2013	63,090	252,362	66,720	120,191	186,911
2014	71,912	1,067,230	70,988	105,247	176,235
2015	143,543	1,608,036	157,269	80,272	237,511
2016	77,341	1,091,422	83,702	79,667	163,369
2017	51,795	351,433	55,944	85,462	141,406
2018	30,935	299,496	29,924	35,142	65,058
2019	39,061	244,643	43,252	115,665	158,917
2020	82,124	342,015	105,729	87,645	197,103
2021	91,032	1,028,640	103,449	59,534	162,983
2022	112,095	1,921,985	105,060	62,201	167,256
2023	75,329	833,559	89,115	106,131	195,246
2024	87,273	717,139	115,496	106,571	222,067
2025	93,260	603,547	94,172	65,566	159,738
Mean+	79,702	741,113	86,451	85,813	172,494

+ Mean value is from 2010–2025 reflecting the current Weakfish management period.

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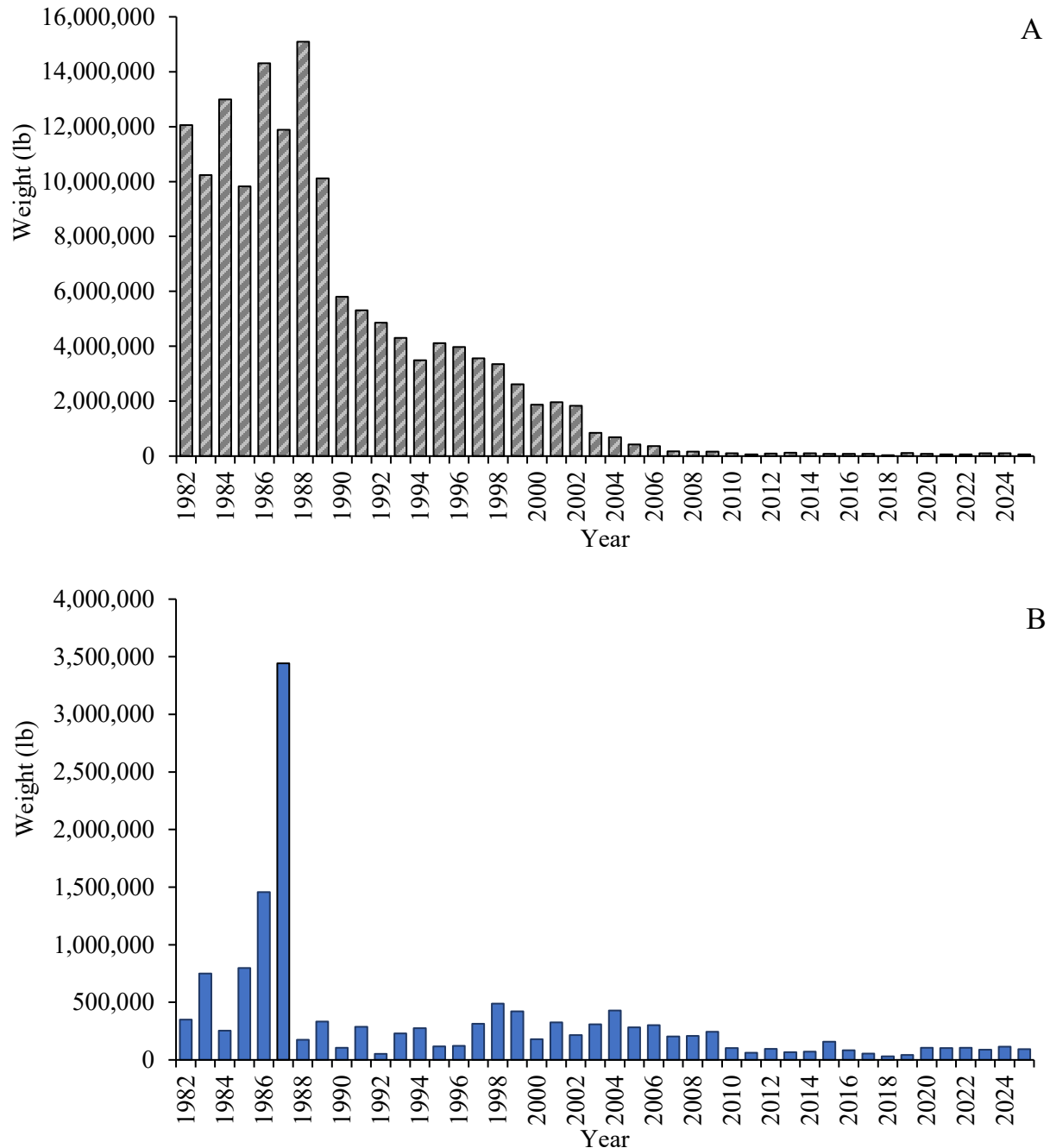


Figure 3. Annual commercial (A) and recreational (B) landings for Weakfish from the DMF Trip Ticket Program and Marine Recreational Information Program in North Carolina, 1982 to 2025.

Recreational Fishery

Recreational landings of Weakfish are estimated from the Marine Recreational Information Program (MRIP). Recreational estimates across all years have been updated and are now based on the MRIP's new Fishing Effort Survey-based calibrated estimates. For more information on MRIP see <https://www.fisheries.noaa.gov/topic/recreational-fishing-data>.

Estimated recreational harvest has been variable since 1982 with a peak in 1987 at 3,442,746 lb. Harvest since 2009 has decreased considerably due to the implementation of a one-fish bag limit in November 2009.

as part of the harvest reductions from Addendum IV, which was estimated to reduce recreational harvest by 53% for North Carolina. The average harvest since 2010 is 86,451 lb. Harvest varied from a high of 157,269 lb in 2015 to a low of 29,924 in 2018. Recreational harvest remained relatively consistent around 104,000 lb in 2020, 2021, and 2022, decreased to 89,115 lb in 2023, increased to the highest values since 2015 in 2024 (115,496 lb), before decreasing in 2025 (94,172 lb; Table 1; Figure 3). The number of Weakfish released remained relatively stable from 2017–2020, varying between a low of 244,643 fish in 2019 and a high of 351,433 fish in 2017 but increased dramatically in 2021 to 1,028,640 fish and increased again in 2022 to 1,921,985 fish, the highest since 2001 (2,363,650 fish). Recreational releases decreased for the third year in a row in 2025 (603,547) but remained well above the 2017–2019 period (Table 1).

The North Carolina Saltwater Fishing Tournament recognizes anglers for landing and/or releasing fish of exceptional size or rarity by issuing citations that document the capture for the angler. A total of 12 citations were handed out for Weakfish in 2025 including 8 release citations (>24 in TL released) and 4 harvest citations (>5 lb landed) (Figure 4). Saltwater Fishing Tournament citations decreased in 2025.

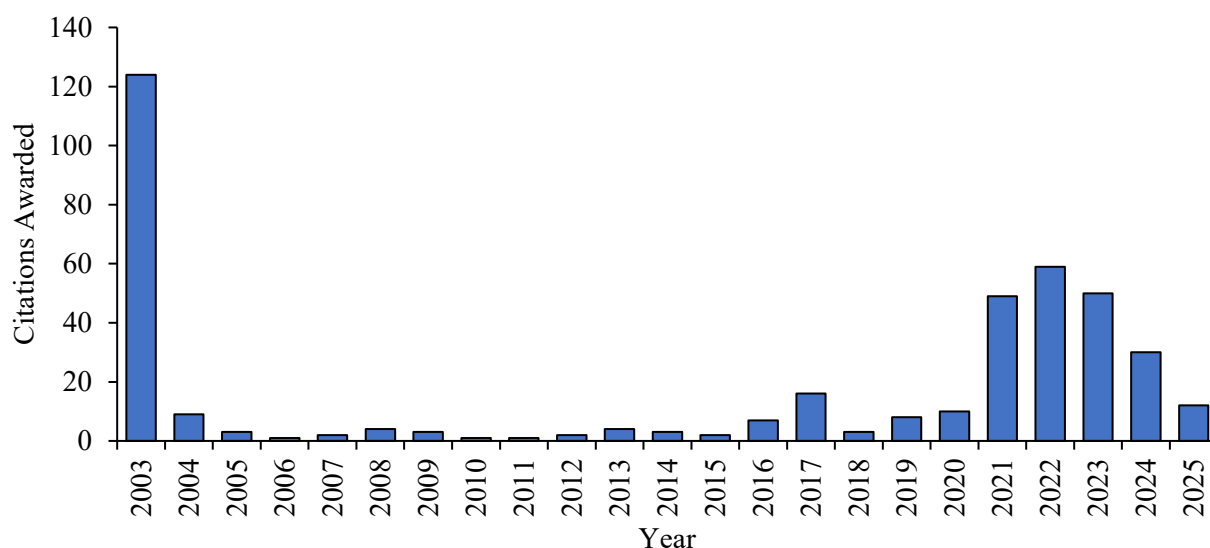


Figure 4. North Carolina Saltwater Fishing Tournament citations awarded for Weakfish from 2003 to 2025. Citations are awarded for Weakfish >24-in TL released or >5 lb landed.

MONITORING PROGRAM DATA

Fishery-Dependent Monitoring

Commercial fish houses are sampled monthly to provide length, weight, and age data to describe the commercial fisheries. The number of Weakfish samples from commercial fish houses has generally declined since 2000, following a similar trend to commercial landings (Tables 1 and 2). Samples are collected from ocean fisheries as well as estuarine fisheries. The ocean sink net fishery and estuarine gill net fishery land the majority of Weakfish accounting for 92% of the overall commercial catch in 2025.

Mean and minimum lengths of fish harvested in the commercial fishery have remained relatively consistent throughout the time series (Table 2; Figure 5). Since 2012, the mean length has been approximately 14 in fork length (FL). However, since 2010, there has been a noticeable decline in maximum lengths, from an average of 33 in (1982–2010) to an average of approximately 26 in (2011–2025).

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Table 2. Mean, minimum, and maximum lengths (FL, in) of Weakfish sampled from the commercial and recreational fisheries of North Carolina from 1982–2025. Commercial lengths include both marketable and scrap finfish.

Year	Commercial				Recreational			
	Mean Length	Minimum Length	Maximum Length	Total Number Measured	Mean Length	Minimum Length	Maximum Length	Total Number Measured
1982	13.8	4.4	34.1	4,485	13.9	7.8	22.8	55
1983	13.8	4.6	33.7	10,357	13.9	7.7	25.6	29
1984	14.2	5.1	36.6	14,952	10.9	4.7	18.9	90
1985	12.9	4.7	34.4	15,310	12.0	7.7	22.4	34
1986	13.9	5.4	34.9	17,446	13.0	8.7	20.1	164
1987	12.9	4.4	34.2	22,943	15.1	7.9	22.4	253
1988	13.8	5.3	33.7	18,116	12.7	8.3	20.5	208
1989	14.8	4.8	35.2	14,853	12.0	7.5	23.2	182
1990	12.2	4.1	35.4	18,613	12.2	7.1	21.7	181
1991	11.1	4.2	26.1	24,772	12.0	7.3	18.6	136
1992	12.1	5.2	29.8	21,050	12.3	7.6	17.2	64
1993	11.9	4.0	29.2	23,679	12.6	8.6	16.0	196
1994	13.2	4.6	28.0	15,011	13.2	6.2	20.8	573
1995	12.7	4.4	29.5	18,526	15.2	10.0	20.2	231
1996	13.1	4.6	28.1	18,906	14.0	9.9	19.2	336
1997	13.1	4.1	29.7	20,583	13.7	8.3	20.7	602
1998	13.5	6.5	27.4	13,963	14.3	9.9	27.0	518
1999	13.2	5.1	29.1	16,490	15.4	10.6	26.0	258
2000	13.2	4.1	29.8	19,382	14.8	9.8	22.4	122
2001	14.0	6.5	31.5	15,182	14.1	10.6	19.9	180
2002	13.7	6.1	31.5	13,531	13.9	9.4	19.1	106
2003	12.7	4.2	33.3	9,721	14.1	8.6	27.5	131
2004	13.2	5.8	33.5	10,500	14.4	11.1	25.5	164
2005	13.2	5.6	34.4	9,893	14.0	11.7	19.8	104
2006	12.7	5.6	32.5	11,649	13.6	9.8	20.1	240
2007	12.3	4.8	26.1	6,817	14.2	10.5	20.7	76
2008	12.3	5.0	26.3	3,851	13.8	11.7	20.4	145
2009	12.8	6.3	33.7	3,318	14.8	9.7	21.9	132
2010	12.3	5.1	34.6	2,568	13.6	9.3	17.3	96
2011	12.7	7.8	25.1	2,044	14.6	11.6	30.7	41
2012	13.5	5.0	23.3	2,754	13.8	10.2	20.8	81
2013	14.0	8.0	28.3	3,466	14.2	7.6	22.8	74
2014	14.0	5.0	24.4	3,348	13.8	10.9	20.3	72
2015	14.0	5.4	27.7	2,212	14.0	12.2	19.0	34
2016	14.1	8.7	23.6	2,743	14.0	10.3	18.0	76
2017	14.3	8.5	28.2	1,240	14.2	8.7	17.0	51
2018	13.7	7.0	26.9	770	13.4	8.6	18.5	34
2019	14.1	8.7	26.3	1,923	14.5	9.8	18.1	62
2020	14.0	9.0	26.0	1,004	15.0	9.8	22.9	65
2021	13.9	10.2	24.3	870	14.4	8.7	22.7	70
2022	13.6	8.0	23.7	850	13.3	9.3	19.8	73
2023	13.4	6.0	25.0	375	14.6	11.4	20.8	66
2024	14.2	8.5	27.9	851	15.0	10.7	21.8	43
2025	14.3	10.7	29.8	473	13.9	9.6	18.9	31

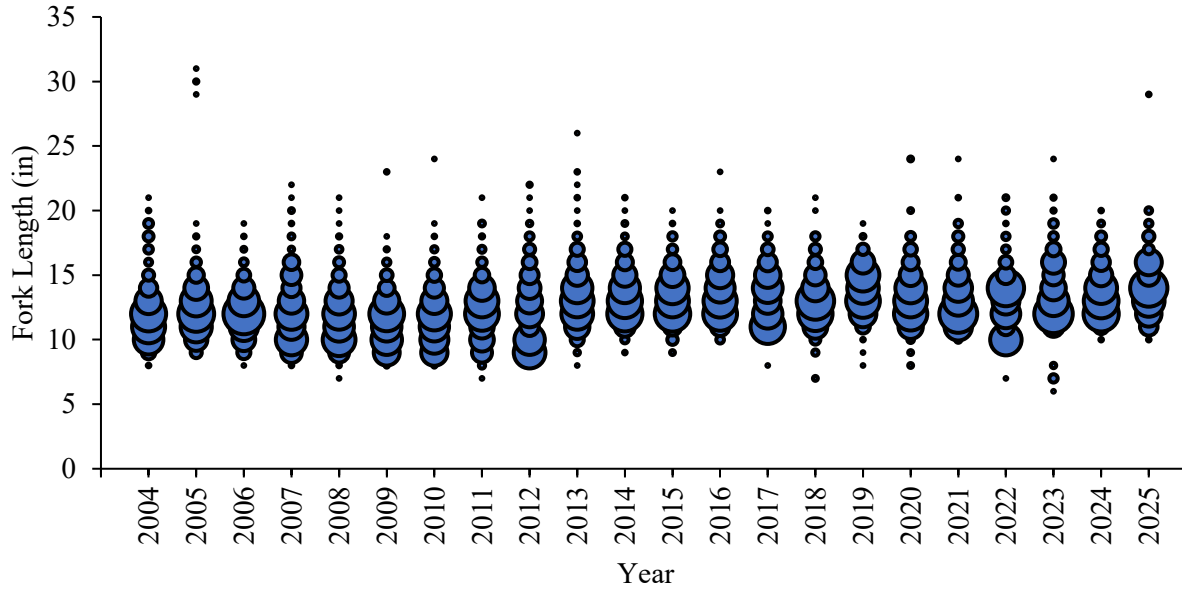


Figure 5. Commercial length frequency from DMF sampling of Weakfish harvested from 2004–2025 in North Carolina. Bubbles represent fish at length and the bubble size is proportional to the number of fish at that length.

Recreational lengths and weights are collected as part of the MRIP by recreational port agents. While the mean lengths of Weakfish sampled from the recreational fishery are similar to those sampled from the commercial fishery in recent years, the average maximum observed length is smaller in the recreational fishery by approximately 9 in (Table 2; Figures 5 and 6). The maximum observed length in the recreational fishery in 2025 (18.9 in) was over 2 in smaller than the previous year (22 in).

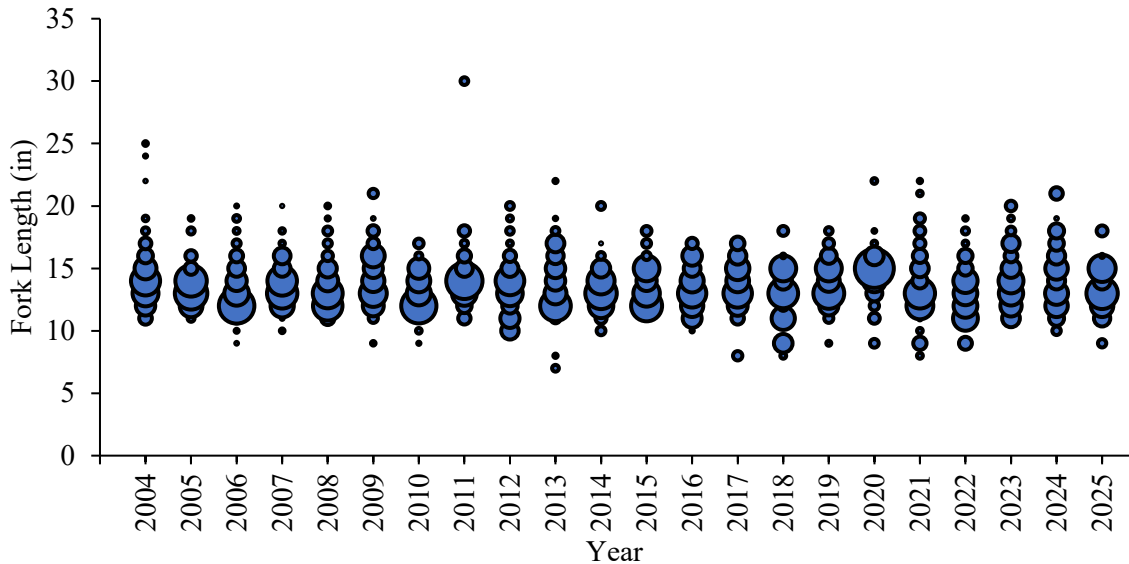


Figure 6. Recreational length frequency from the Marine Recreational Information Program of Weakfish harvested in North Carolina from 2004–2025. Bubbles represent fish at length and the bubble size is proportional to the number of fish at that length.

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In 2025, the recreational modal length was 11 in and the commercial modal length was 12 in. In 2025, most harvest in both sectors was between 10 and 13 in (Figure 7).

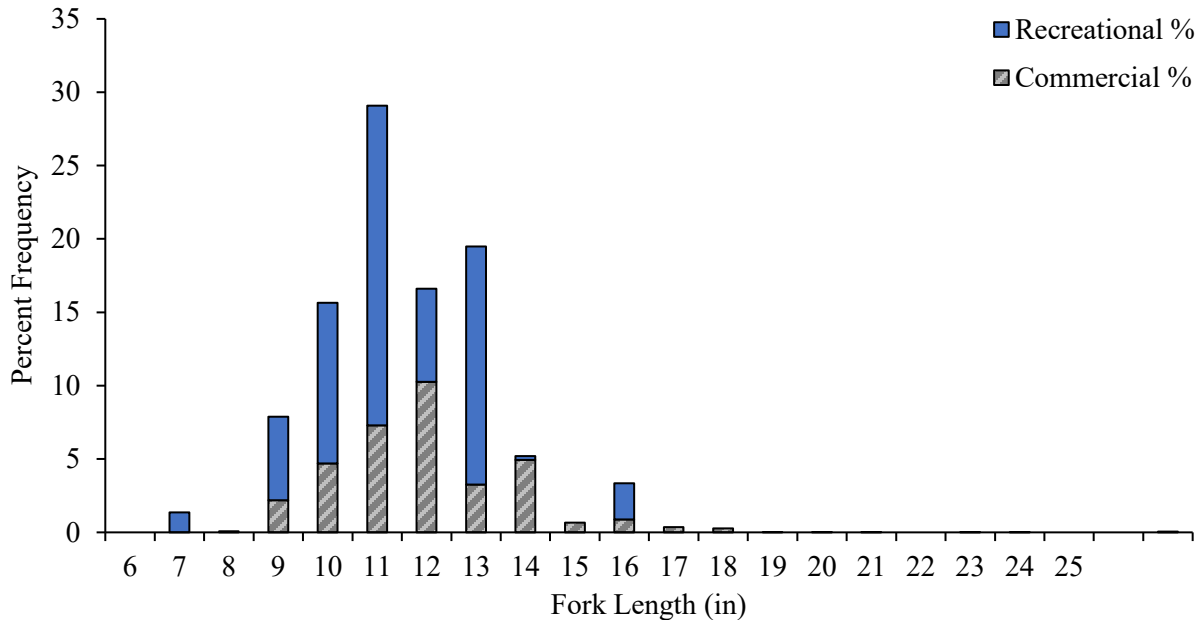


Figure 7. Commercial and recreational length frequency distribution from Weakfish harvested in 2025. Lengths collected from DMF commercial sampling programs and Marine Recreational Information Program in North Carolina.

Fishery-Independent Monitoring

Multiple DMF fishery-independent programs collect biological data on Weakfish. The Pamlico Sound Survey (Program 195) collects biological data on juvenile and adult Weakfish. The Independent Gill Net Survey (Program 915) collects biological data on adult Weakfish.

Program 195 conducts trawls using a random-stratified survey design in waters of the Pamlico Sound and major river tributaries in June and September. Randomly selected stations are optimally allocated among the strata based upon all previous sampling to provide the most accurate abundance estimates ($PSE < 20$). The ASMFC Weakfish Stock Assessment uses the age-0 Weakfish index generated from September stations in Program 195. Although not used in the ASFMC stock assessment, an age-1+ index calculated from Program 195 June stations is provided in the Weakfish Annual FMP Update along with the age-0 index. Both the age-0 index and the age-1+ index for 2020 and 2021 are incomplete as sampling was conducted only in a portion of the areas typically sampled due to the pandemic. Program 195 was suspended indefinitely starting in 2025. DMF lost use of the research vessel, R/V Carolina Coast (used for the survey since its inception in 1987), when it was found to be structurally unsound following completion of 2024 sampling. Alternate survey designs and methods are being explored by DMF to fulfill data needs provided by this survey. No implementation date has been determined. It is important to note that the Program 195 data time series, collected by the R/V Carolina Coast and current gear, concluded with the completion of the 2024 survey (1987-2024). The Pamlico Sound Survey indices show a variable trend over the years (Figures 8 and 9).

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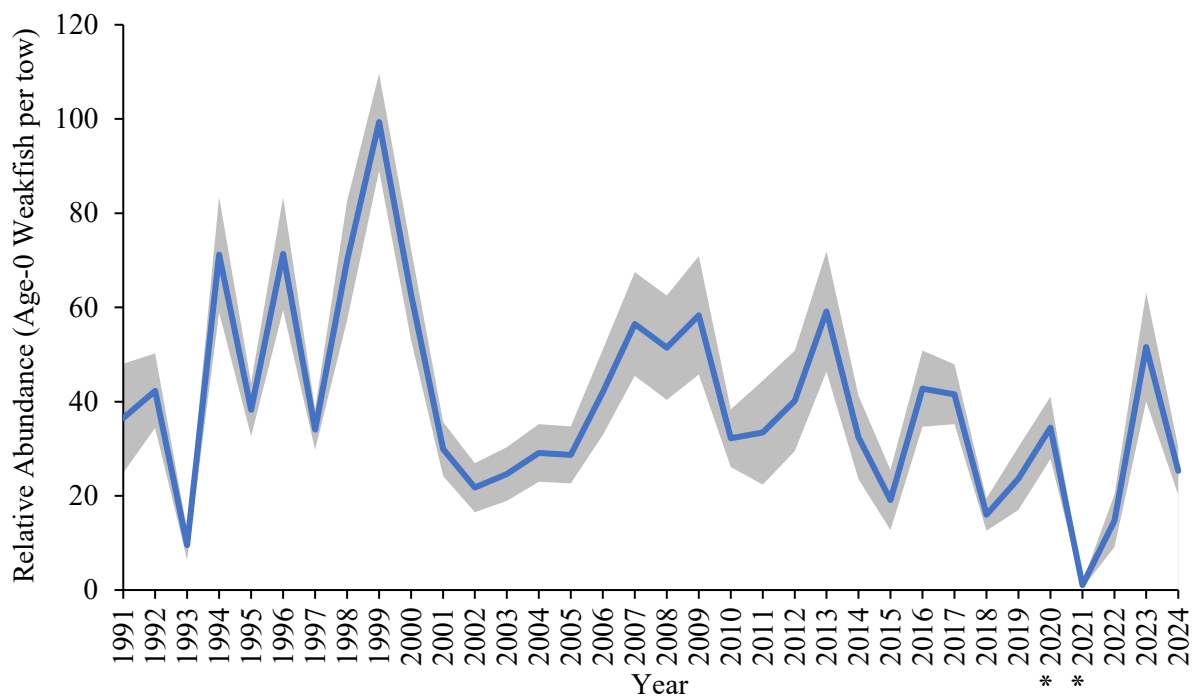


Figure 8. Relative abundance index from the Pamlico Sound Survey (Program 195) in North Carolina of Age-0 Weakfish collected during September with a TL less than 200 mm from 1991 through 2024. Shading represents ± 1 SE. *Not all samples were completed in 2020 and 2021.

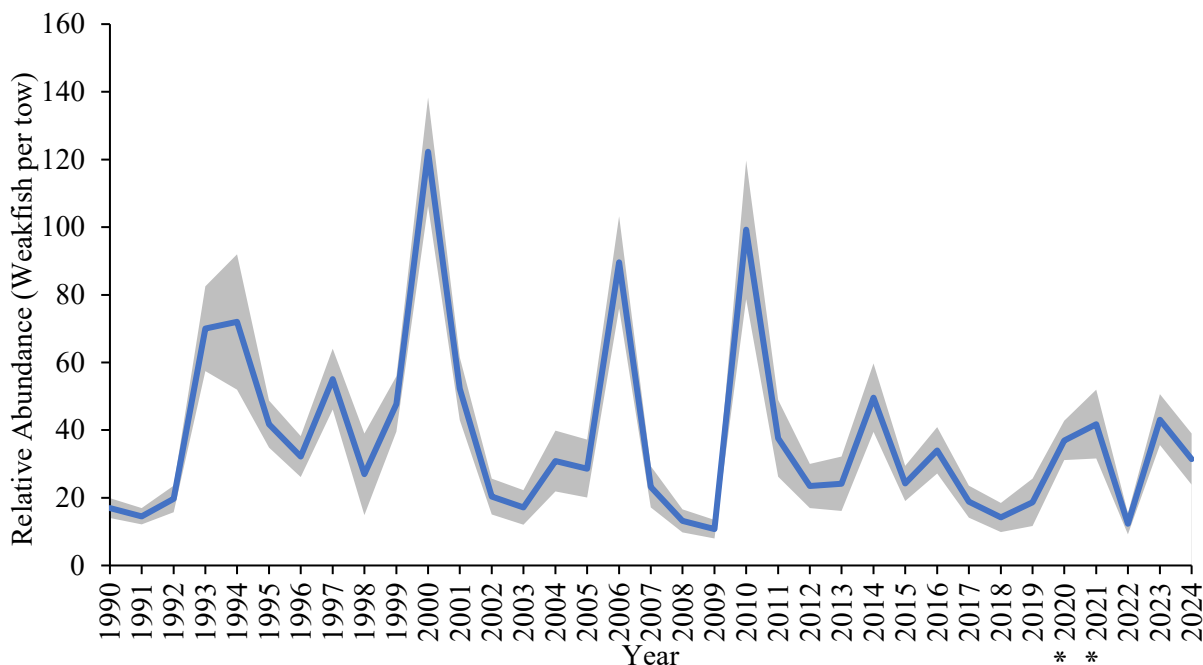


Figure 9. Relative abundance index (fish per tow) from the Pamlico Sound Survey (Program 195) in North Carolina of Age-1+ Weakfish collected during June with a TL of 140 mm and greater from 1991 through 2024. Shading represents ± 1 SE. *Not all samples were completed in 2020 and 2021.

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The Independent Gill Net Survey collects size, age, and abundance data for commercially and recreationally important species in the Pamlico Sound, Pamlico, Pungo, and Neuse rivers, and the Cape Fear and New rivers using multi-mesh gill nets. The relative abundance index from the Pamlico Sound portion of Program 915 is used in the ASMFC stock assessment and is the only index of adult abundance available from North Carolina. North Carolina accounts for a large portion of coastwide Weakfish landings. For example, North Carolina was responsible for 53% of coastwide commercial landings and 20% of coastwide recreational landings in 2024 (ASMFC 2025b), underscoring the importance of continued availability of abundance data from North Carolina. The relative abundance index had been showing a declining trend with occasional peaks in abundance since the beginning of the time series, but it has remained relatively stable since 2015 (Figure 10). The data from the Pamlico, Pungo, and Neuse rivers and the Cape Fear and New rivers are not used in the assessment as these regions have minimal catches of Weakfish. During 2020 no index of relative abundance was available for Weakfish from the Independent Gill Net Survey. Sampling in this program was suspended in February 2020 due to COVID-19 restrictions and protected species interactions but resumed July 2021. The 2021 relative abundance index should be used with caution as just over 50% of the samples were completed for the year. The relative abundance index for 2025 was 0.33 fish per set and was the second year in a row of decreased relative abundance.

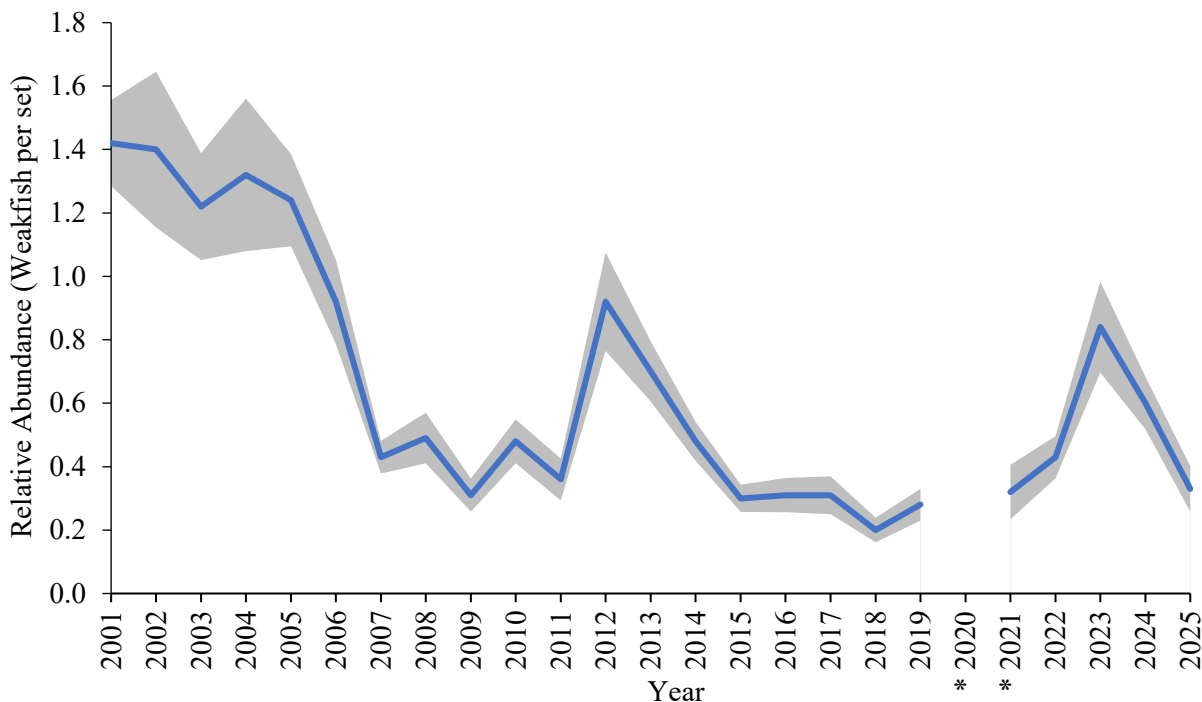


Figure 10. Relative abundance index (fish per station set) from the Pamlico Sound portion of the Independent Gill Net Survey (Program 915) in North Carolina, 2001–2025. Shading represents ± 1 SE. *Sampling not conducted in 2020 and not all samples were completed in 2021.

Weakfish age samples (otoliths) are collected through both fishery dependent and independent sampling. Sampling for Weakfish has been ongoing since 1991. Age samples are collected from all possible gears and during all months. The number of samples collected yearly has ranged from 170 to 1,319, with a total of 20,082 otoliths aged to date. Ages range from 0 to 15 years with a mean modal age of 2 years (Table 3; Figure 11). Based on average age-at-lengths, Weakfish growth likely does not plateau until age-10 (Figure 11). The maximum age of the Weakfish sampled in 2025 was age 5 (Table 3). Since 2007, the maximum age of Weakfish has fluctuated between 4 and 6 with the exception of 2009 (age 15).

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Table 3. Modal age, minimum age, maximum age, and number aged for Weakfish collected through DMF sampling programs from 1995 through 2025.

Year	Modal Age	Minimum Age	Maximum Age	Total Number Aged
1995	1	0	5	1,408
1996	4	0	6	1,695
1997	3	0	7	1,060
1998	3	0	7	703
1999	3	0	8	659
2000	1	0	9	616
2001	2	0	10	630
2002	3	0	10	512
2003	4	0	8	491
2004	2	0	11	589
2005	2	0	12	561
2006	3	0	7	752
2007	2	0	6	560
2008	1	0	5	480
2009	1	0	15	263
2010	2	0	5	507
2011	2	0	4	378
2012	3	0	4	497
2013	2	0	5	546
2014	1	0	4	508
2015	3	0	4	425
2016	1	0	5	570
2017	1	0	5	353
2018	2	0	4	170
2019	2	0	6	552
2020	2	0	4	724
2021	1	0	6	426
2022	2	0	5	521
2023	1	0	6	664
2024	2	0	6	489
2025	3	0	5	356

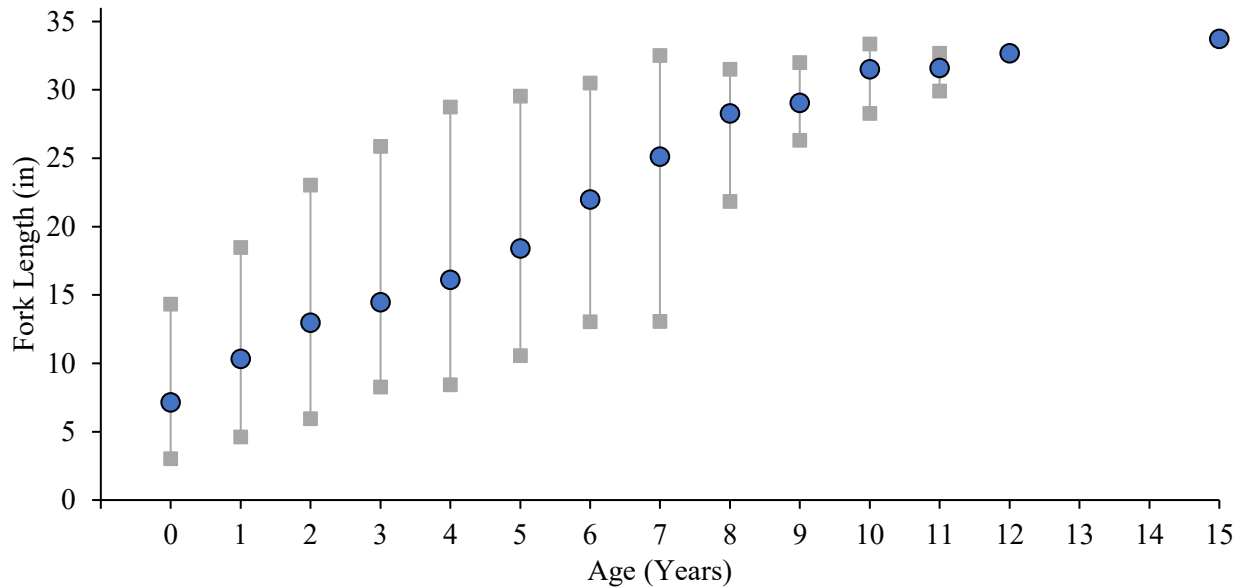


Figure 11. Weakfish length at age based on all age samples collected from 1995 to 2025. Blue circles represent the mean size at a given age while the grey squares represent the minimum and maximum observed size for each age.

RESEARCH NEEDS

- Increase observer coverage to identify the magnitude of discards for all commercial gear types from both directed and non-directed fisheries.
- Continue studies on temperature, size, and depth specific recreational hook and release mortality rates, particularly catches from warm, deep waters. Investigate methods to increase survival of released fish.
- Improve methods to estimate commercial bycatch. Refine estimates of discard mortality based on factors such as distance from shore and other geographical differences for all sizes including below minimum size.
- Evaluate predation of Weakfish with a more advanced multispecies model (e.g., the ASMFC MSVPA or Ecopath with Ecosim).
- Develop a coast-wide tagging program to identify stocks and determine migration, stock mixing, and characteristics of stocks in over wintering grounds. Determine the relationship between migratory aspects and the observed trend in weight-at-age.

MANAGEMENT

The DMF management strategy is to maintain restrictive Weakfish management measures (see Table 4 for management details) in cooperation with ASMFC member states. The 2009 and 2016 stock assessments both indicated that natural mortality was the driving factor in Atlantic coastal Weakfish abundance and it is unlikely management to reduce harvest will result in rebuilding the Weakfish population. However, management requirements in Addendum IV to Amendment 4 of the Weakfish FMP are designed to poise the Atlantic coastal Weakfish population for recovery should “confounding factors” (i.e., natural mortality) change (ASMFC 2009).

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Table 4. Summary of the Weakfish management in North Carolina implemented through the 2020 Addendum IV to Amendment 4 of the ASMFC Weakfish FMP.

Management Strategy	Implementation Status
Recreational management: 12-in minimum size and one-fish recreational bag limit.	Accomplished; Proclamation authority
Commercial management (size limits): 12-in minimum size with exceptions. From Apr 1 through Nov 15, Weakfish 10 in or greater may be taken in NC Internal Coastal and Joint Fishing Waters with long-haul seines or pound nets only and possessed, sold, or offered for sale. Weakfish less than 12 in can be landed by a commercial fishing operation provided there are no more than 100 Weakfish less than 12 in and those Weakfish cannot be sold.	Accomplished; Proclamation authority
Commercial management (gear and harvest restrictions): It is unlawful to possess more than 100 lb of Weakfish in a commercial fishing operation per day or per trip, whichever is more restrictive. It is unlawful for a commercial fishing operation using hook and line to possess more than one Weakfish per person per day or per person per trip, whichever is more restrictive. It is unlawful to take or possess Weakfish in a commercial fishing operation that exceeds 50% of the total weight of the combined catch.	Accomplished; Proclamation authority

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