Summer Flounder Fishery Information Document

June 2024

This document provides a brief overview of the biology, stock condition, management system, and fishery performance for summer flounder (*Paralichthys dentatus*), with an emphasis on 2023. Data sources include unpublished National Marine Fisheries Service (NMFS) Catch Accounting and Monitoring System (CAMS) data,[1] permit data, Northeast Fisheries Observer Program data, Marine Recreational Information Program (MRIP) data,[2] and stock assessment information. All 2023 data should be considered preliminary. For more resources on summer flounder management, including previous Fishery Information Documents, please visit http://www.mafmc.org/sf-s-bsb.

Key Facts:

- Current stock status is based on a 2023 management track stock assessment, which found that in 2022, summer flounder was not overfished, but overfishing was occurring. A data update with catch and federal trawl survey data will be provided in June 2024; the next management track assessment (MTA) is scheduled for 2025.
- Recruitment for summer flounder has been below the time series average from 2011-2022. The driving factors behind this period of below average recruitment have not been identified.
- 2023 recreational summer flounder harvest was estimated at 8.55 million pounds, about a 1% decrease from the 2022 estimate of 8.63 million pounds. The 2023 harvest represents about 81% of the recreational harvest limit of 10.62 million pounds.
- Commercial landings in 2023 (13.14 million pounds; 86% of the commercial quota) increased by about 4% from 2022 landings (12.67 million pounds; 82% of commercial quota).
- Total commercial ex-vessel value decreased from $31.84 million in 2022 to $26.39 in 2023. Average ex-vessel price per pound has decreased in recent years from its peak in 2017 ($4.18 per pound in 2023 dollars), reaching a low in 2023 of $2.11 per pound.

[1] CAMS includes commercial dealer data, including federal and state permitted dealers, as well as VTR data and expanded estimates of commercial discards. More information on CAMS is available at https://www.greateratlantic.fisheries.noaa.gov/ro/fso/reports/cams/index.html.

[2] In July 2018, MRIP released revisions to their time series of recreational catch and landings estimates based on adjustments for a revised angler intercept methodology and a new effort estimation methodology (i.e., a transition from a telephone-based effort survey to a mail-based effort survey). The revised estimates of catch and landings are higher than the previous estimates for shore and private boat modes. Most recreational estimates in this document reflect revised MRIP estimates except where otherwise noted.

Basic Biology

Summer flounder spawn during the fall and winter over the open ocean areas of the continental shelf. From October to May, larvae and postlarvae migrate inshore, entering coastal and estuarine nursery areas. Juveniles are distributed inshore and in many estuaries throughout the range of the species during spring, summer, and fall. Adult summer flounder exhibit strong seasonal inshore-offshore movements, normally inhabiting shallow coastal and estuarine waters during the warmer months of the year and remaining offshore during the colder months.

Summer flounder habitat includes pelagic waters, demersal waters, saltmarsh creeks, seagrass beds, mudflats, and open bay areas from the Gulf of Maine through North Carolina. Summer flounder are opportunistic feeders; their prey includes a variety of fish and crustaceans. While the natural predators of adult summer flounder are not fully documented, larger predators (e.g., large sharks, rays, and monkfish) probably include summer flounder in their diets.

Spawning occurs during autumn and early winter, and the larvae are transported toward coastal areas by prevailing water currents. Development of post larvae and juveniles occurs primarily within bays and estuarine areas (Packer et al. 1999). Most fish are sexually mature by age 2. The largest fish are females, which can attain lengths over 90 cm (36 in) and weights up to 11.8 kg (26 lb). The Northeast Fisheries Science Center (NEFSC) commercial fishery sampling in 2018 observed the oldest summer flounder collected to date, a 57 cm (22.4 in) fish (likely a male) estimated to be age 20. Also sampled were two age 17 fish, at 52 cm (20.5 in; likely a male) and at 72 cm (28.3 in; likely a female). Two large (likely female) fish at 80 and 82 cm (31.5 and 32.3 in) were both estimated to be age 9, from the 2009 year class (the 6th largest of the 36 year modeled time series). These samples indicate that increased survival of summer flounder over the last two decades has allowed fish of both sexes to grow to the oldest ages estimated to date (NEFSC 2019).

Status of the Stock

In June 2023, the NEFSC provided the 2023 MTA for summer flounder using data through 2022, based on the model developed through the 66th Stock Assessment Workshop/Stock Assessment Review Committee (SAW/SARC) in 2018. The 2023 MTA[3] revised the biological reference points for spawning stock biomass (SSB) and fishing mortality (F), decreasing the SSB target to 90.38 million pounds (49,561 mt), and increasing the F threshold to 0.451. The overfished threshold is ½ $SSB_{MSY\ proxy}$ = ½ $SSB_{35\%}$ = 54.63 million pounds (24,781 mt; Figure 1). Assessment results indicate that the summer flounder stock was not overfished, but that that overfishing was occurring in 2022.

SSB has generally decreased since 2003 and was estimated to be 90.38 million lb (40,994 mt) in 2022, about 83% of the updated biomass target reference point $SSB_{MSY\ proxy}$ = 109.26 million lb (49,561 mt). The 2021 MTA had estimated that stock biomass was at 86% of the previous SSB target.

Fishing mortality on the fully selected age 4 fish ranged between 0.756 and 1.601 during 1982-1996, followed by a period of decreasing F to a low of 0.257 in 2007. Post-2007, F rates increased

[3] https://www.mafmc.org/s/e_Summer_flounder_MTA_2023_06_08.pdf

but have been relatively stable since 2011. F in 2022 was estimated at 0.464, 103% of the updated fishing mortality threshold reference point ($F_{MSY\ proxy} = F_{35\%} = 0.451$; Figure 2).

Average recruitment from 1982 to 2022 is 51 million fish at age 0. Recruitment of juvenile summer flounder has been below-average from 2011-2022, ranging from 27 to 43 million fish and averaging 36 million fish. The driving factors behind this period of below average recruitment have not been identified. While the 2018 year class was originally estimated to be above average (estimated in the previous assessment at 61 million fish), the 2023 MTA revised the recruitment estimate down to 43 million fish.

A data update from the NEFSC is expected in June/July 2024 with recent catch and landings information as well as recent NEFSC trawl survey data. The next management track assessment for summer flounder is expected in 2025 to inform 2026-2027 limits.

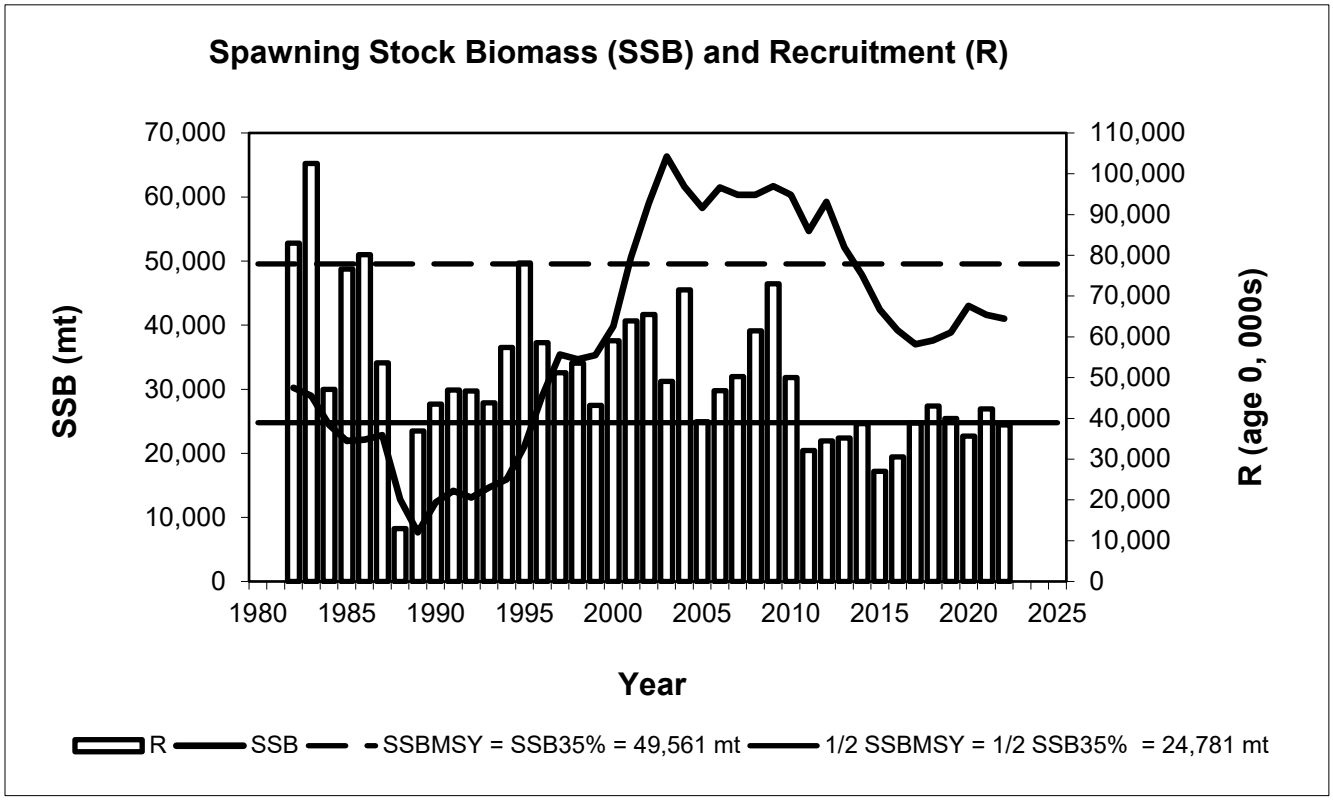

Figure 1: Summer flounder spawning stock biomass (SSB; solid line) and recruitment at age 0 (R; vertical bars),1982-2022. The horizontal dashed line is the updated target biomass reference point. The horizontal solid line is the updated threshold biomass reference point. Source: 2023 management track assessment.

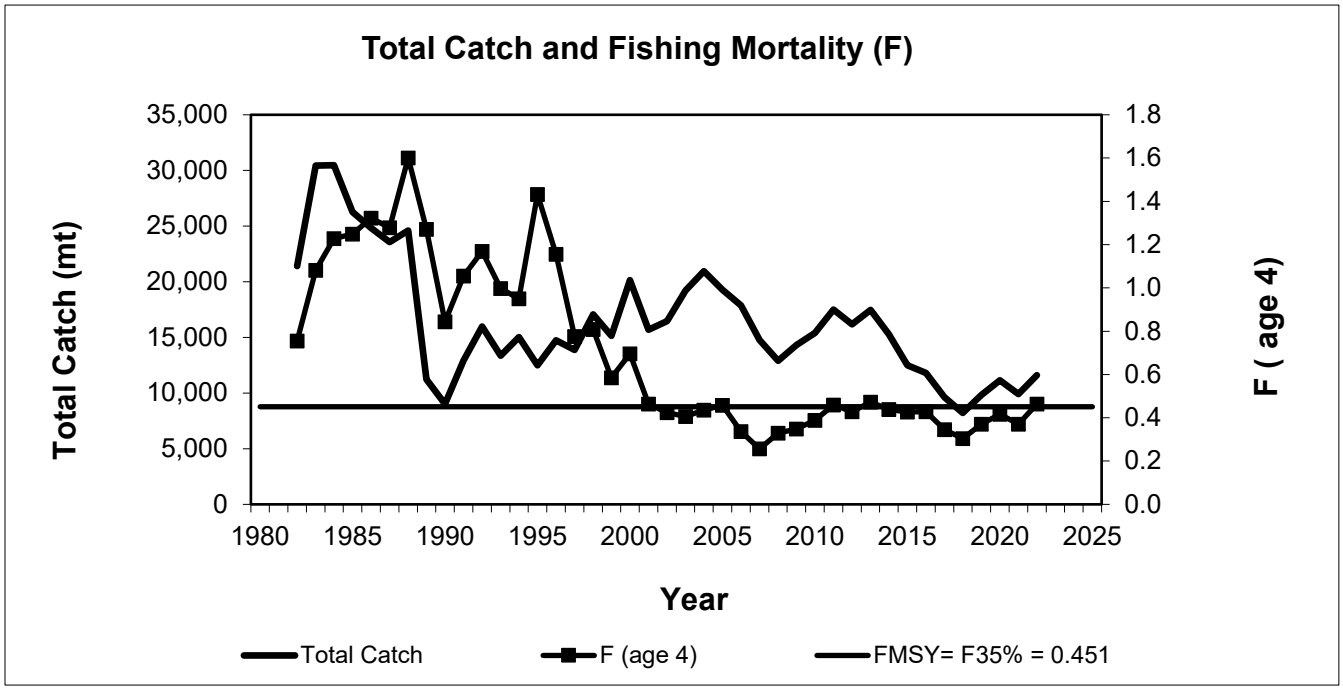

Figure 2: Total fishery catch (metric tons; mt; solid line) and fully-recruited fishing mortality (F, peak at age 4; squares) of summer flounder, 1982-2022. The horizontal solid line is the updated fishing mortality reference point. Source: 2023 management track assessment.

Management System and Fishery Performance

Management

The Mid-Atlantic Fishery Management Council (Council) and the Atlantic States Marine Fisheries Commission (Commission) work cooperatively to develop fishery regulations for summer flounder off the east coast of the United States. The Council and Commission work in conjunction with NMFS, which serves as the federal implementation and enforcement entity. This cooperative management endeavor was developed because a significant portion of the catch is taken from both state (0-3 miles offshore) and federal waters (3-200 miles offshore, also known as the Exclusive Economic Zone, or EEZ).

The joint Fishery Management Plan (FMP) for summer flounder became effective in 1988 and established the management unit for summer flounder as U.S. waters from the southern border of North Carolina northward to the U.S.-Canadian border. The FMP also established measures to ensure effective management of summer flounder fisheries, which currently include catch and landings limits, commercial quotas, recreational harvest limits (RHLs), minimum size limits, gear regulations, permit requirements, and other provisions as prescribed by the FMP. The Summer Flounder FMP, including subsequent Amendments and Frameworks, are available on the Council website at: http://www.mafmc.org/fisheries/fmp/sf-s-bsb.

There are large commercial and recreational fisheries for summer flounder. These fisheries are managed primarily using output controls (catch and landings limits). The Council's Scientific and Statistical Committee (SSC) recommends annual Acceptable Biological Catch (ABC) levels for summer flounder. The ABC is divided into commercial and recreational Annual Catch Limits

(ACLs), which include both allowable landings and expected dead discards. Since 2023, the ABC has been allocated 55% to the commercial fishery as a commercial ACL and 45% to the recreational fishery as a recreational ACL.[4] Expected dead discards are deducted from the commercial and recreational ACLs to derive the annual commercial quota and RHL.

Fishery Catch Summary

Table 1 shows summer flounder total catch and catch limits from 2015 through 2024, as well as the overfishing limit (OFL) from which the ABC is derived. The ABC is set less than or equal to the OFL to account for scientific uncertainty. The OFL for summer flounder has not been exceeded in the last ten years (based on total dead catch estimates that use the prior time series of MRIP through 2018, and corresponding OFLs based on assessments that did not account for the revised MRIP data). The summer flounder ABC has not been exceeded since 2017 (Table 1).[5]

Table 1: Total summer flounder dead catch (i.e., commercial and recreational landings and dead discards) compared to the OFL and ABC. All values are in millions of pounds. Total dead catch calculations use "old" MRIP data through 2018, and "new" MRIP data for 2019-2023.

Year	Total dead catch[a]	OFL	OFL overage/underage	ABC	ABC overage/underage
2015	18.22	27.06	-33%	22.57	-19%
2016	17.16	18.06	-5%	16.26	6%
2017	12.00	16.76	-28%	11.30	6%
2018	12.65	18.69	-32%	13.23	-4%
2019	21.69	30.00	-28%	25.03	-13%
2020	24.30	30.94	-21%	25.03	-3%
2021	21.60	31.67	-32%	27.11	-20%
2022	25.77	36.28	-29%	33.12	-22%
2023	25.98	34.98	-26%	33.12	-22%
2024	--	22.98	--	19.32	--

[a] See Table 2 and Table 9 for the commercial and recreational data contributing to the total catch estimates.

[4] For more information on these allocation revisions, see the fact sheet at: https://www.mafmc.org/s/SFSBSB-Allocation-FAQs.pdf.

[5] Despite the trend of not exceeding the OFL and ABC in recent years, the 2023 MTA concluded that overfishing was occurring for summer flounder in 2022. This is partially driven by that assessment adding three years (2020-2022) of fishery catch, survey catch, and biological data (including continued decreases in mean weights and maturities at age). While the average retrospective errors for SSB and F are small, adding multiple years of data contributed in this case to previous assessments overestimating stock size and underestimating F. The previous OFLs were set using an assessment with terminal year 2019 and creating biomass projections for 2020-2023, which now appear to have been overoptimistic.

Figure 3 shows commercial and recreational landings and dead discards from 1996 through 2023. Total (commercial and recreational combined) summer flounder catch during this time period peaked in 2004, generally declining to a low in 2018, with a slight increase since then.

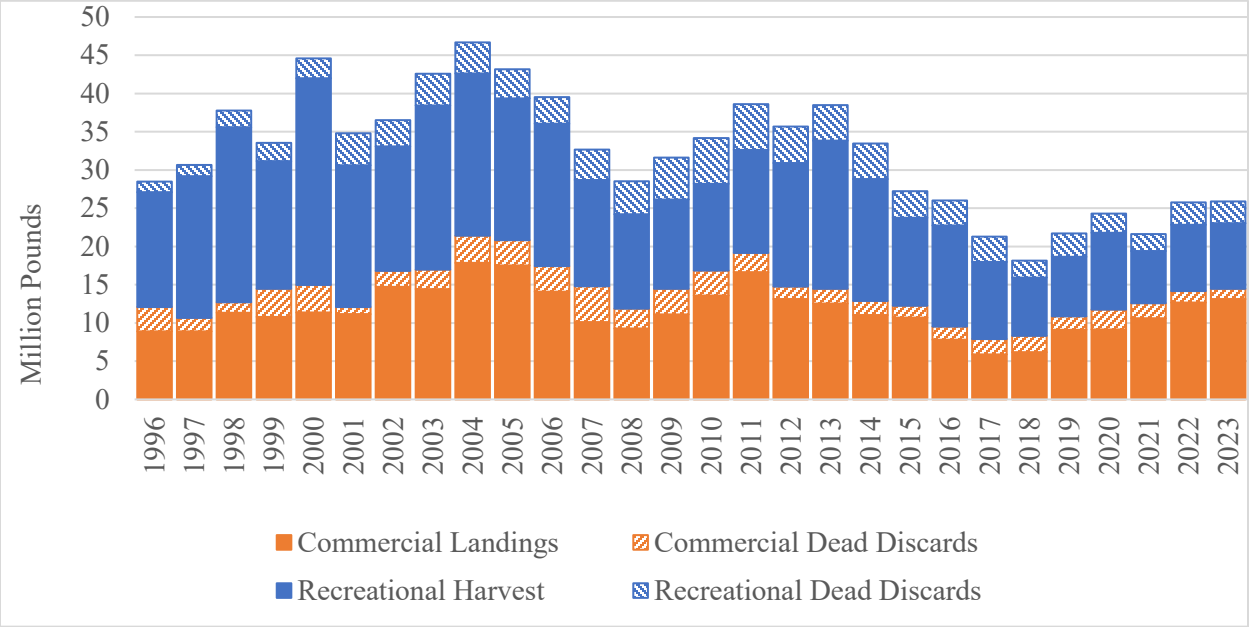

Figure 3: Commercial and recreational summer flounder landings and dead discards in millions of pounds, Maine-North Carolina, 1996-2023, based on CAMS data, MRIP data, and preliminary 2024 summer flounder data update information (S. Truesdell, pers. comm, June 2024). Recreational values reflect revised MRIP values.

Commercial Fishery

Since 1996, commercial landings of summer flounder have ranged from a high of 17.84 million pounds in 2004, and a low of 5.89 million pounds in 2017 (Figure 3). In 2023, CAMS data indicate that commercial fishermen from Maine through North Carolina landed 13.14 million pounds of summer flounder, about 86% of the commercial quota (15.27 million pounds). Commercial dead catch has not exceeded the commercial ACL since 2018. Where commercial ACL overages have occurred, they are generally caused by higher-than-expected dead discards, as commercial fishery landings for summer flounder are typically well controlled to the commercial quota (Table 2).

Table 2: Summer flounder commercial landings, dead discards, and dead catch compared to the commercial quota and commercial ACL, 2015-2024. All values are in millions of pounds.

Year	Com. landings[a]	Com. quota	Quota overage/ underage	Com. dead discards[a]	Com. dead catch[a]	ACL	ACL overage/ underage
2015	10.68	11.07	**-4%**	1.55	12.23	13.34	**-8%**
2016	7.82	8.12	**-4%**	1.70	9.52	9.43	**+1%**
2017	5.89	5.66	**+4%**	2.00	7.89	6.57	**+20%**
2018	6.16	6.63	**-7%**	2.16	8.32	7.7	**+8%**
2019	9.12	10.98	**-17%**	1.73	10.85	13.53	**-20%**
2020	9.15	11.53	**-21%**	2.57	11.72	13.53	**-13%**
2021	10.62	12.49	**-15%**	1.96	12.58	14.63	**-14%**
2022	12.67	15.53	**-18%**	1.51	14.19	18.48	**-23%**
2023	13.14	15.27	**-14%**	1.34	14.48	18.21	**-20%**
2024	--	8.79	--	--	--	10.62	--

[a] Commercial landings for 2015-2023 and dead discards from 2020-2023 are based on CAMS data. Commercial dead discards for 2015-2019 are from the 2023 Management Track Assessment.

The commercial quota is divided among the states based on the allocation percentages specified in the FMP. Each state sets measures to achieve their state-specific commercial quotas. Two or more states may transfer or combine their summer flounder commercial quota under mutual agreement and with the approval of the NMFS Regional Administrator. The commercial allocations to the states were modified via Amendment 21, which became effective on January 1, 2021. This allocation system specifies that coastwide commercial quota up to 9.55 million pounds will be distributed according to the baseline allocations specified in Table 3 below (based on the pre-2021 state allocation percentages). When the coastwide quota exceeds 9.55 million pounds, the first 9.55 million pounds will be allocated according to the baseline percentages, but the *additional* quota amount beyond this trigger will be distributed by equal shares to all states except Maine, Delaware, and New Hampshire, which would split 1% of the additional quota (Table 3). The total percentage allocated annually to each state is dependent on how much additional quota beyond 9.55 million pounds, if any, is available in any given year. This allocation system is designed to provide for more equitable distribution of quota when stock biomass is higher, while also considering the historic importance of the fishery to each state.

Table 3: Allocation of summer flounder commercial quota to the states.

State	Total state commercial quota allocation = baseline quota allocation + additional quota allocation	
	Allocation of baseline quota ≤9.55 mil lb	Allocation of additional quota beyond 9.55 mil lb
ME	0.04756%	0.333%
NH	0.00046%	0.333%
MA	6.82046%	12.375%
RI	15.68298%	12.375%
CT	2.25708%	12.375%
NY	7.64699%	12.375%
NJ	16.72499%	12.375%
DE	0.01779%	0.333%
MD	2.03910%	12.375%
VA	21.31676%	12.375%
NC	27.44584%	12.375%
Total	100%	100%

For 1996 through 2023, CAMS data indicate that summer flounder total ex-vessel revenue from Maine to North Carolina ranged from a low of $25.62 million in 1996 to a high of $42.19 million in 2005 (values adjusted to 2023 dollars to account for inflation). The mean price per pound ranged from a low of $2.11 in 2023 to a high of $5.11 in 2017 (both values in 2023 dollars). In 2023, 13.14 million pounds of summer flounder were landed generating $26.39 million in total ex-vessel revenue. Excluding records with missing value or landings information, the average price per pound in 2023 was $2.11 (Figure 4).

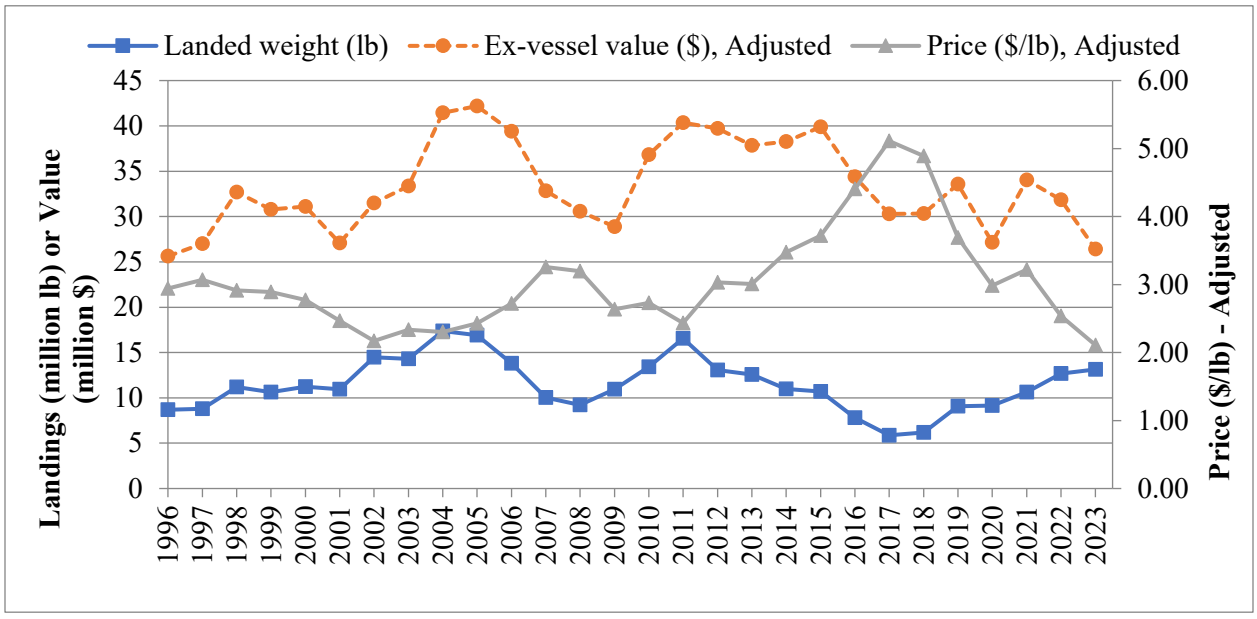

Figure 4: Landings, ex-vessel value, and price per pound for summer flounder, Maine through North Carolina, 1996-2023. Ex-vessel value and price are adjusted to real 2023 dollars using the Gross Domestic Product Price Deflator (GDPDEF). Average price per pound calculations reflect removal of records with missing value and/or landings information.

CAMS data indicate that 97% of summer flounder landings in 2023 were taken by bottom otter trawls. Current regulations require a 14-inch total length minimum fish size in the commercial fishery. Trawl nets are required to have 5.5-inch diamond or 6-inch square minimum mesh in the entire net for vessels possessing more than the threshold amount of summer flounder (i.e., 200 lb from November 1-April 30 and 100 lb from May 1-October 31).

According to CAMS data, statistical areas 537 and 616 were responsible for the highest percentage of commercial summer flounder commercial landings in 2023 (28% and 21% respectively; Table 4; Figure 5). Statistical areas 539 and 611 had the highest number of trips that caught summer flounder (Table 4).

Over 170 federally permitted dealers from Maine through North Carolina bought summer flounder in 2023. More dealers from New York bought summer flounder than any other state (Table 5). All dealers combined bought approximately $26.39 million worth of summer flounder in 2023.

Since 1993, a moratorium permit has been required to fish commercially for summer flounder in federal waters. In 2023, 719 vessels held such permits.

Federal dealer data indicate that at least 100,000 pounds of summer flounder were landed by commercial fishermen in 18 ports in 8 states in 2023 (as noted below, four of these ports are not included in the table as the associated landings values are confidential). These ports accounted for 93% of all 2023 commercial summer flounder landings. Point Judith, RI and Pt. Pleasant, NJ were the leading ports in 2023 in pounds of summer flounder landed, while Point Judith, RI was the leading port in number of vessels landing summer flounder (Table 6). Detailed community profiles developed by the Northeast Fisheries Science Center's Social Science Branch can be found at www.mafmc.org/communities/.

Table 4: Statistical areas that accounted for at least 5% of the total summer flounder landings in 2023, with associated number of trips, from CAMS data, which includes both state and federal dealer data as well as federal VTR data.

Statistical Area	Percent of 2023 Commercial Summer Flounder Catch	Number of Trips
537	28%	1,860
616	21%	604
613	14%	2,096
612	7%	911
539	7%	6,692
611	6%	4,227

Figure 5: Proportion of commercial summer flounder landings (all vessel reported landings and discards) by NMFS statistical area in 2023 based on CAMS data. Statistical areas marked "confidential" are associated with fewer than three vessels and/or dealers.

Table 5: Number of dealers per state which reported purchases of summer flounder in 2023. C = Confidential.

State	MA	RI	CT	NY	NJ	DE	MD	VA	NC
# of Dealers	35	28	14	45	23	C	3	12	11

Table 6: Ports reporting at least 100,000 pounds of commercial summer flounder landings in 2023, based on CAMS data. Note that four additional top ports (two in North Carolina, one in Virginia, and one in New Jersey) are associated with more than 100,000 pounds of summer flounder landings, but they **are not included in this table** due to confidential landings data associated with fewer than three dealers.

Port	Commercial summer flounder landings (lb)	% of total	Number of vessels
POINT JUDITH, RI	2,074,267	16%	113
PT. PLEASANT, NJ	1,574,084	12%	34
NEWPORT NEWS, VA	1,201,358	9%	31
MONTAUK, NY	703,608	5%	64
NEW BEDFORD, MA	656,189	5%	58
STONINGTON, CT	479,818	4%	14
CAPE MAY, NJ	448,774	3%	39
HAMPTON BAYS, NY	440,875	3%	29
OCEAN CITY, MD	406,128	3%	13
EAST HAVEN, CT	276,487	2%	6
SHINNECOCK, NY	177,185	1%	17
CHINCOTEAGUE, VA	156,622	1%	9
WANCHESE, NC	139,306	1%	6
CHATHAM, MA	101,854	1%	22

The top non-target species in the commercial summer flounder fishery were identified based on raw data from Northeast Fisheries Observer Program (NEFOP) observed trips from 2019-2023 where summer flounder made up at least 75% of the landings by weight. Using this definition of a directed trip, the most common non-target species in the summer flounder fishery include little skate, Northern sea robin, and winter skate (Table 7).

Table 7. Percent of non-target species caught in observed trawls where summer flounder made up at least 75% of the observed landings, 2019-2023. Only those non-target species comprising at least 2% of the aggregate catch are listed.

Species	% of total catch on summer flounder observed directed trips, 2019-2023[a]
SKATE, LITTLE	18.5%
SEA ROBIN, NORTHERN	7.4%
SKATE, WINTER (BIG)	6.5%
SKATE, CLEARNOSE	5.6%
DOGFISH, SPINY	5.4%
DOGFISH, SMOOTH	2.5%
SCUP	2.5%
SKATE, BARNDOOR	2.2%
MONKFISH (GOOSEFISH)	2.0%
SKATE, NK	2.0%

[a] Percentages shown are aggregate totals over 2019-2023 and do not reflect the percentages of non-target species caught on individual trips. This analysis describes only observed trips and has not been expanded to the fishery as a whole.

Recreational Fishery

There is a significant recreational fishery for summer flounder, primarily in state waters when the fish migrate inshore during the warm summer months. The Council and Commission determine annually whether to manage the recreational fishery under coastwide measures or conservation equivalency. Under conservation equivalency, state- or region- specific measures are developed through the Commission's management process and submitted to NMFS. The combined state or regional measures must achieve the same level of harvest as a set of coastwide measures developed to adhere to the harvest target. If NMFS considers the combination of the state- or region- specific measures to be "equivalent" to the coastwide measures, they may then waive regulations in federal waters. Anglers fishing in federal waters are then subject to the measures of the state in which they land summer flounder.

The recreational fishery has been managed using federal conservation equivalency each year since 2001. Since 2014, a regional approach has been used, under which the states within each region must have identical size limits, possession limits, and season length.

Framework 17 implemented a new process for setting recreational measures called the Percent Change Approach. Unlike the previous process, recreational measures no longer aim to achieve but not exceed the RHL. Instead, measures aim to achieve a different level of harvest, which varies based on estimated harvest in the upcoming year(s) compared to the RHL as well as biomass compared to target level. The target level of harvest is defined as a percentage change from the expectation of harvest in the upcoming year(s) if the current measures were to remain in place. This approach was used for the first time to set measures for 2023; however, for summer flounder, measures were left status quo between 2022 and 2023 due to conflicting model results projecting the amount of summer flounder expected to be landed under 2022 measures. These differing model results were associated with different percent change approach outcomes, leading the Council and Board to keep measures status quo.[6]

Table 8 shows the 2022-2023 and 2024 and regional conservation equivalency measures. The 2024 measures reflect adjustments made to achieve a 28% reduction in harvest that was needed to avoid exceeding the 2024 harvest target under the Percent Change Approach.[7]

[6] See December 2022 Council and Board meeting summary for additional details. https://www.mafmc.org/s/2022-12_Council-Report.pdf

[7] See https://www.mafmc.org/s/2023-12_MAFMC-Report.pdf for additional details.

Table 8: Summer flounder recreational fishing measures for 2022-2023 and for 2024, by state, under regional conservation equivalency. Conservation equivalency regions (highlighted in alternating colors) include: 1) Massachusetts, 2) Rhode Island, 3) Connecticut and New York, 4) New Jersey, 5) Delaware, Maryland, The Potomac River Fisheries Commission, and Virginia, and 6) North Carolina.

	2022-2023			2024		
State	**Minimum Size (inches)**	**Possession Limit**	**Open Season**	**Minimum Size (inches)**	**Possession Limit**	**Open Season**
Massachusetts (Private & For-Hire)	16.5	5	May 21-September 19	17.5	5	May 24 - September 23
Massachusetts (Shore)				16.5		
Rhode Island (Private, For-Hire, and all other shore-based fishing sites)	18	4	May 3-December 31	19	6	April 1-December 31
RI (7 designated shore sites)	18	2[a]		19	4[a]	
	17	2[a]		17	2[a]	
Connecticut	18.5	4	May 1-October 9	19	3	May 4 - August 1
				19.5		August 2 - October 15
CT Shore Program (45 designed shore sites)	17			17	3	May 4 -October 15
New York	18.5			19	3	May 4 - August 1
				19.5		August 2 - October 15
New Jersey	17-17.99 slot limit	2	May 2-September 27	18	3	May 4 – September 25
	18	1				
NJ Shore program site (ISBSP)	16	2		16	2	
New Jersey/Delaware Bay COLREGS	17	3		17	3	
Delaware	16	4	January 1-December 31	16	4	January 1 – May 31
Maryland						
PRFC				17.5		June 1 – December 31
Virginia						
North Carolina	15	1	September 1-September 30[b]	Closed[b]		

[a] Rhode Island's shore program includes a combined possession limit of 6 fish, no more than 2 fish at 17-inch minimum size limit.

[b] North Carolina has restricted their recreational season in recent years for all flounders in North Carolina (southern, gulf, and summer flounder) due to the need to end overfishing on southern flounder. North Carolina manages all flounder in the recreational fishery under the same regulations. For 2024, there will be no open recreational season for flounder in North Carolina.

Since 1996, MRIP estimates indicate that recreational summer flounder harvest peaked in 2000, with 13.05 million fish landed, totaling 27.03 million pounds. Recreational harvest reached a low in 2021 with 2.32 million fish landed (6.82 million pounds). Over the same time period, recreational catch (harvest plus live and dead discards) peaked in 2010 with 58.89 million fish caught, and was lowest in 2021 with 22.73 million fish caught (Figure 6).

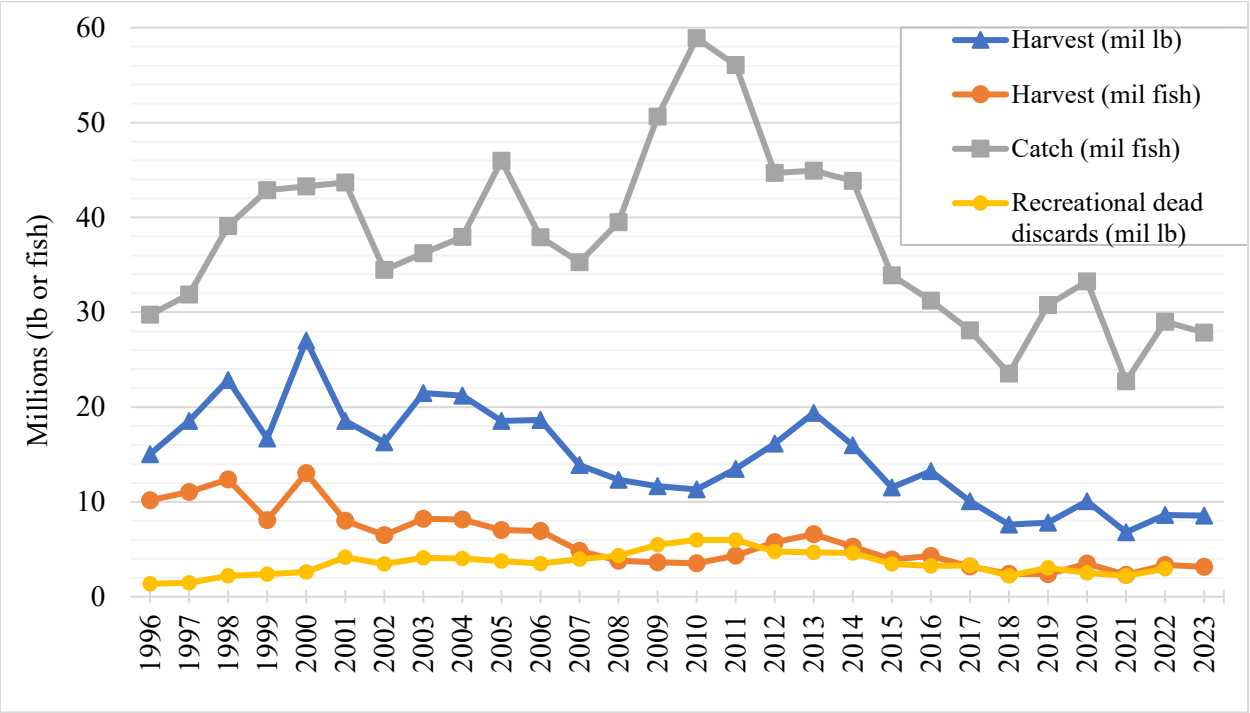

Figure 6: MRIP estimates of recreational summer flounder harvest in numbers of fish and pounds and catch in numbers of fish, ME - NC, 1996-2023. The catch series reflects total number of fish caught including harvest, dead discards, and live discards. All values are in new MRIP currency.

Recreational catch has been below the recreational ACL in most recent years, with the exception of 2016 and 2020 which had 12% and 9% overages, respectively (Table 9).

Table 9: Summer flounder recreational landings, dead discards, and dead catch compared to the RHL, projected recreational dead discards, and recreational ACL, 2015-2023. Information is provided in the "old" MRIP units for 2015-2018, and in the "new" MRIP units for 2019-2023. For summer flounder, ACLs and RHLs did not account for the revised MRIP data until 2019. Therefore, overage/underage evaluations must be based in the old MRIP units through 2018 and the new MRIP units starting in 2019. All values are in millions of pounds.

Year	Version of MRIP data used	Rec. harvest[a]	RHL	RHL over/ under	Rec. dead disc.[a]	Rec. dead catch	ACL	ACL over/ under
2015	Old MRIP (pre-revision)	*4.72*	7.38	*-36%*	*1.24*	5.96	9.44	*-37%*
2016		*6.18*	5.42	*14%*	*1.48*	7.66	6.84	*12%*
2017		*3.19*	3.77	*-15%*	*0.94*	4.13	4.72	*-13%*
2018		*3.35*	4.42	*-24%*	*0.97*	4.32	5.53	*-22%*
2019	New MRIP (post-revision)	7.80	7.69	1%	3.04	10.84	11.51	-6%
2020[b]		10.06	7.69	31%	2.52	12.60	11.51	9%
2021		6.82	8.32	-18%	2.20	9.02	12.48	-28%
2022		8.63	10.36	-17%	2.95	11.58	14.64	-21%
2023		8.55	10.62	-19%	2.95	11.50	14.90	-23%
2024		--	6.35	--	--	--	8.69	--

[a] Recreational harvest data from MRIP; recreational dead discards from the 2023 Management Track Assessment and preliminary 2024 summer flounder data update information (S. Truesdell, pers. comm, June 2024).
[b] Recreational harvest estimates for 2020 were impacted by temporary suspension of shoreside intercept surveys due to COVID-19. NMFS used imputation methods to fill gaps in 2020 catch data with data collected in 2018 and 2019. For summer flounder, the 2020 harvest estimate relied on approximately 19% imputed data. For more information on imputation methods see: https://www.mafmc.org/s/1-2020-Marine-Recreational-Catch-Estimates-QA-52121.pdf.]

For-hire vessels carrying passengers in federal waters must obtain a federal party/charter permit. In 2023, 934 vessels held summer flounder federal party/charter permits. Many of these vessels also hold recreational permits for scup and black sea bass.

On average, an estimated 76% of the recreational landings (in numbers of fish) occurred in state waters over the past ten years (Table 10). Most summer flounder are typically landed in New York and New Jersey (Table 11).

About 82% of recreational summer flounder harvest from 2021-2023 was from anglers who fished on private or rental boats. About 5% was from party or charter boats, and about 13% was from anglers fishing from shore (Table 12).

A species guild approach was used to identify other species commonly caught with summer flounder on recreational trips from 2017-2021 (2021 MRIP data used here were preliminary and excluded wave 6). Sea robins, black sea bass, scup, smooth dogfish, and bluefish were highly correlated with summer flounder in the recreational fishery (J. Brust, personal communication March 2022).

Table 10: Estimated percentage of summer flounder recreational landings (in numbers of fish) from state vs. federal waters, Maine through North Carolina, 2014-2023.

Year	State ≤ 3 mi	EEZ > 3 mi
2014	78%	22%
2015	82%	18%
2016	79%	21%
2017	80%	20%
2018	83%	17%
2019	79%	21%
2020	61%	39%
2021	66%	34%
2022	80%	20%
2023	74%	26%
Avg. 2014- 2023	**76%**	**24%**
Avg. 2021- 2023	**73%**	**24%**

Table 11: State contribution (as a percentage) to total recreational landings of summer flounder (in numbers of fish), from Maine through North Carolina, 2021-2023.

State	2021	2022	2023	2021-2023 average
Maine	0%	0%	0%	0%
New Hampshire	0%	0%	0%	0%
Massachusetts	2%	3%	4%	3%
Rhode Island	2%	3%	3%	3%
Connecticut	5%	5%	2%	4%
New York	15%	26%	18%	20%
New Jersey	58%	46%	50%	51%
Delaware	4%	3%	4%	4%
Maryland	3%	3%	2%	3%
Virginia	10%	11%	16%	12%
North Carolina	1%	0%	1%	1%
Total	100%	100%	100%	100%

Table 12: The percent of summer flounder landings (in number of fish) by recreational fishing mode, Maine through North Carolina, 2014-2023.

Year	Shore	Party/Charter	Private/Rental	Total number of fish landed (millions)
2014	7%	7%	86%	5.28
2015	7%	5%	88%	3.95
2016	8%	4%	89%	4.30
2017	13%	4%	83%	3.17
2018	11%	6%	84%	2.41
2019	10%	3%	87%	2.38
2020	18%	2%	80%	3.49
2021	11%	7%	82%	2.32
2022	15%	4%	81%	3.38
2023	13%	4%	83%	3.16
% of Total, 2014-2023	**11%**	**4%**	**84%**	**--**
% of Total, 2021-2023	**13%**	**5%**	**82%**	**--**

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