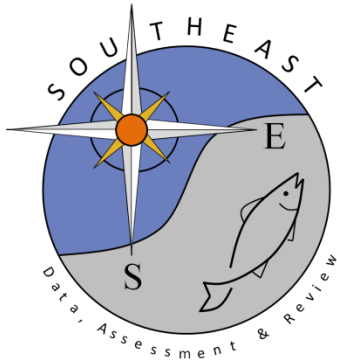


# Blueline Tilefish Fishery Information Document

MAFMC

SEDAR92-RD-04

June 2024



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## Blueline Tilefish Fishery Information Document

April 2023

This Fishery Information Document provides a brief overview of the biology, stock condition, management system, and fishery performance for blueline tilefish with an emphasis on 2022. Data sources for Fishery Information Documents are generally from unpublished National Marine Fisheries Service (NMFS) survey, dealer, vessel trip report (VTR), permit, catch accounting and monitoring system (CAMS), and Marine Recreational Information Program (MRIP) databases and should be considered preliminary. For more resources, including previous Fishery Information Documents, please visit <http://www.mafmc.org/tilefish/>.

### Key Facts

- There has been no change to stock status (unknown) since the 2017 assessment.
- Recreational permitting/reporting requirements are in place for private tilefish anglers.
- ABC = 100,520 pounds, Commercial ACL = 27,140 pounds, Recreational ACL = 73,380 pounds.
- The commercial fishery is open year-round with a trip limit of 500 pounds gutted (heads and fins attached) weight. Once 70% of the quota has been landed, the trip limit decreases to 300 pounds gutted weight.
- The recreational fishery is open from May 1 – October 31. Bag limits are as follows: 3 fish for private recreational; 5 fish for non-USCG inspected for-hire vessels; 7 fish for USCG inspected for-hire vessels.
- Commercial landings decreased by ~47% from 2021 to 2022 (26,446 to 13,943 pounds) and the price per pound decreased by ~21% from \$3.31 to \$2.59 from 2021 to 2022.
- Using the Delphi ratio and party/charter VTRs to estimate 2022 recreational performance indicates that the total recreational catch does not exceed the ACL.
- In 2022, VTR from party/charter vessels indicated about a 3% decrease in catch compared to 2021 (13,622 to 13,183 fish).

### Basic Biology

Blueline tilefish are primarily distributed from Campeche, Mexico northward through the Mid-Atlantic (Dooley 1978). Several recently completed studies suggest that blueline tilefish from the eastern Gulf of Mexico through the Mid-Atlantic are comprised of one genetic stock (SEDAR 50 Data Workshop). This homogenous stock inhabits the shelf edge and upper slope reefs at depths of 150-840 feet (46-256 m) and temperatures between 59-73°F (15-23°C) where they are considered opportunistic predators that feed on prey associated with substrate (crabs, shrimp, fish, echinoderms, polychaetes, etc.; Sedberry et al. 2006 and Ross and Huntsman 1982). They are sedentary in nature and burrow into sandy areas in close association with rocky outcroppings (SEDAR 2017).

Blueline tilefish are long-lived fish reaching sizes up to about 36 inches (91 cm) and exhibit dimorphic growth with males attaining larger size-at-age than females. Males are predominant in the size categories greater than 26 inches (66 cm) fork length. Blueline tilefish are classified as indeterminate spawners, with up to 110 spawns per individual based on the estimates of a spawning event every 2 days during a protracted spawning season from approximately February through November. Additionally, an aging workshop conducted to support the blueline tilefish assessment has called into question the ability to accurately age blueline tilefish, so previous age determinations may no longer be accurate (SEDAR 2017).

### **Status of the Stock**

Prior to management of blueline tilefish in the Mid-Atlantic, NMFS listed blueline tilefish as overfished, but overfishing was not occurring based on the Southeast Data, Assessment, and Review (SEDAR) 32 conducted in 2013 (SEDAR 2013). More recently, updated stock status information was identified through the 2017 benchmark assessment, SEDAR 50. Genetic work conducted for SEDAR 50 suggests a genetically homogenous population off the entire Atlantic coast but does not suggest what catch may be appropriate off various parts of the coast. In SEDAR 50, the blueline tilefish stock was split in two, north and south of Cape Hatteras to allow each Council (Mid and South Atlantic) to set their own specifications. The stock south of Cape Hatteras was determined to be not overfished with overfishing not occurring. The assessment did not provide stock status information relevant to the stock north of Cape Hatteras, which includes the Mid-Atlantic management area, due to insufficient data. The next SEDAR operational stock assessment for blueline tilefish is tentatively scheduled for 2024. This operational assessment will be used to inform the next blueline tilefish specifications package for 2025 and beyond.

### **Management System and Fishery Performance**

#### *Management*

The Mid-Atlantic Fishery Management Council (Council or MAFMC) established management of blueline tilefish north of the Virginia/North Carolina border through Amendment 6 to the Tilefish Fishery Management Plan.<sup>1</sup> In 2016, initial measures were set using a data limited approach and the Delphi Method (Southwick and Associates 2016).

Following the 2017 SEDAR 50 assessment, no recommendations were made for the region north of Cape Hatteras. Given the region north of Cape Hatteras extends beyond the MAFMC's management area of the Virginia/North Carolina border, the MAFMC and South Atlantic Fishery Management Council (SAFMC) formed a joint blueline tilefish subcommittee. The subcommittee agreed it would be appropriate to use the Data Limited Toolkit to develop acceptable biological catch (ABC) recommendations for the respective Scientific and Statistical Committees (SSC). This offered an opportunity to partition the blueline tilefish ABC that crossed the two management areas (north of Cape Hatteras). *The MAFMC SSC developed the 2019-2021 blueline tilefish ABC recommendation of 100,520 pounds at its March 2018 meeting. This ABC of 100,520 pounds was again adopted in 2021 for the 2022-2024 fishing year.* The SAFMC's SSC proposed blueline tilefish ABC of 55,968 pounds for the area between the North Carolina/Virginia Board and Cape

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<sup>1</sup> Source: [https://static1.squarespace.com/static/511cdc7fe4b00307a2628ac6/t/5c1810d98a922d4272fd4f21/1545081051493/Blueline+Tilefish+Amendment\\_Final+EA\\_09-12-2017.pdf](https://static1.squarespace.com/static/511cdc7fe4b00307a2628ac6/t/5c1810d98a922d4272fd4f21/1545081051493/Blueline+Tilefish+Amendment_Final+EA_09-12-2017.pdf)

Hatteras and an ABC of 178,000 pounds for the area south of Cape Hatteras (total ABC of 233,968 pounds) for 2020-2022. This was done through the Abbreviated Framework Amendment 3 to the Snapper Grouper Fishery FMP for the South Atlantic Region.<sup>2</sup>

In the Mid-Atlantic, commercial vessels can fish year-round and are limited to a 500 pounds gutted (heads and fins attached) weight trip limit until 70% of the commercial total allowable landings (TAL) has been landed. Once 70% of the TAL is landed, the trip limit is reduced to 300 pounds gutted weight. In 2022, the commercial annual catch limit (ACL) was 27,140 pounds and the TAL was 26,868 pounds (Table 1).

The recreational blueline tilefish season is open from May 1 to October 31 and the possession limit depends on the type of vessel being used. Anglers fishing from private/rental vessels are allowed to keep up to three blueline tilefish per person per trip. Anglers fishing from a for-hire vessel that has been issued a valid federal Tilefish Party/Charter Permit but does not have a current U.S. Coast Guard safety inspection sticker can retain up to five blueline tilefish per person per trip. Finally, anglers on for-hire vessels that have both a valid federal Tilefish Party/Charter Permit and a current U.S. Coast Guard safety inspection sticker can retain up to seven blueline tilefish per person per trip. In 2022, the Recreational ACL was 73,380 pounds and the TAL was 71,912 pounds (Table 1).

**Table 1.** Summary of commercial and recreational catch and landings limits set for 2022-2024.

<b>Management Measures</b>	<b>Recreational (pounds)</b>	<b>Commercial (pounds)</b>
<b>ABC</b>	100,520	
<b>ACL</b>	73,380	27,140
<b>ACT</b>	73,380	27,140
<b>TAL</b>	71,912	26,868

*Commercial Fishery*

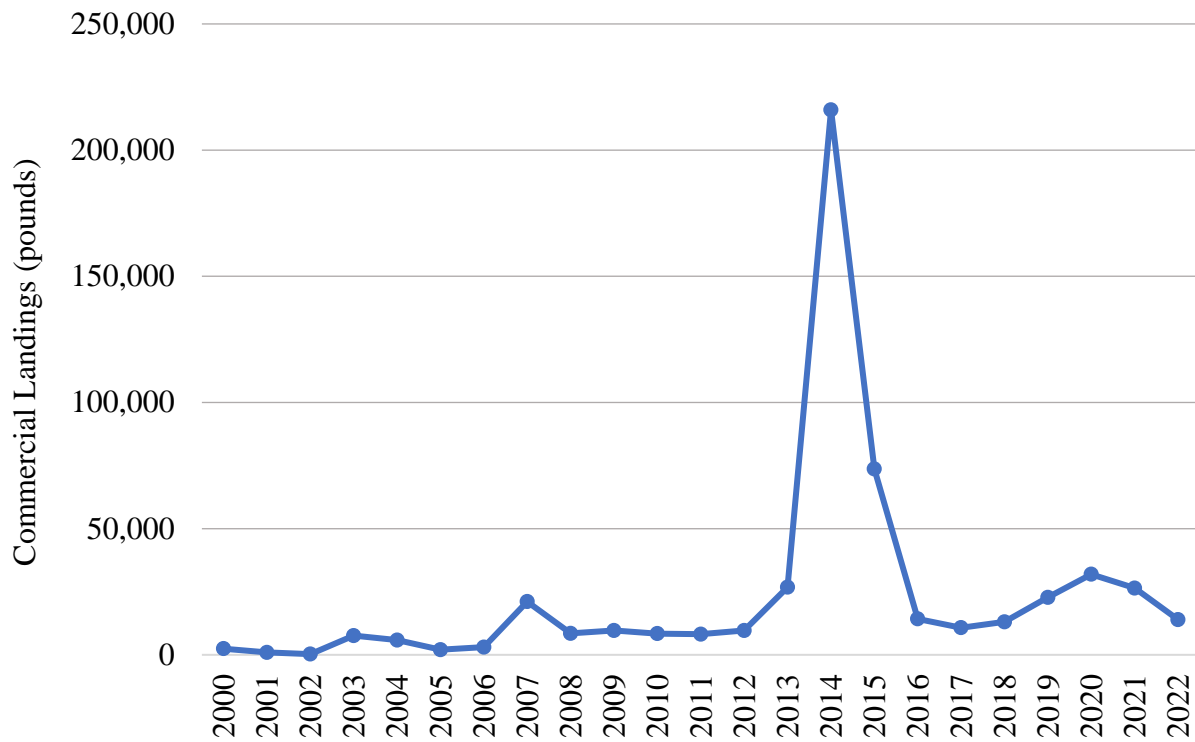
Commercial landings (Maine-Virginia) have been generally low (less than 20,000 pounds) throughout the time series except for 2013-2015, when more restrictive regulations to the south of Virginia were implemented, and there was a lack of management measures in federal waters north of Virginia and in state waters off New Jersey, therefore, driving effort northward (Figure 1 and Table 2).

In 2022, 1,641 open access commercial/incidental tilefish permits (valid for both golden and blueline tilefish) were issued<sup>3</sup> and total blueline tilefish landings were about 13,943pounds (Table 2). Landings from Rhode Island, New York, and New Jersey accounted for the majority of total 2022 commercial landings (Table 3).

<sup>2</sup> Source: <https://safmc.net/documents/snapper-grouper-abbreviated-framework-amendment-3/>

<sup>3</sup> Source: <https://www.greateratlantic.fisheries.noaa.gov/public/public/web/NEROINET/aps/permits/data/index.html>

As proposed by the SSC during Amendment 6 to the Tilefish Fishery Management Plan, blueline tilefish commercial discards are calculated as 1% of overall commercial landings resulting in about 139 pounds for 2022. Thus, total commercial catch was approximately 14,082 pounds, about 48% under the ACL (27,140 pounds). Commercial blueline landings have been below the commercial ACL each year since the establishment of management in the Mid-Atlantic region, except for 2020 when commercial landings were about 31,918 pounds (total catch about 32,237 pounds).



**Figure 1.** Commercial blueline tilefish landings (live weight) from Maine-Virginia by year from 2000-2022. Source: NMFS unpublished dealer data.

**Table 2.** Commercial blueline tilefish landings (live weight) from Maine-Virginia by year from 2000-2022. Source: NMFS unpublished dealer data.

<b>Year</b>	<b>Landings (pounds)</b>
2000	2,446
2001	955
2002	269
2003	7,601
2004	5,827
2005	2,031
2006	3,039
2007	21,068
2008	8,495
2009	9,626
2010	8,388
2011	8,179
2012	9,624
2013	26,781
2014	215,928
2015	73,644
2016	14,235
2017	10,734
2018	13,068
2019	22,759
2020	31,918
2021	26,446
2022	13,943

**Table 3.** Commercial blueline tilefish landings (live weight) from Maine-Virginia by state in 2021-2022. Source: NMFS unpublished dealer data. (C=Confidential)

<b>State</b>	<b>2021</b>	<b>2022</b>
MA	675	--
RI	1,176	3,905
CT	--	C
NY	1,737	2,117
NJ	2,466	5,623
MD	16,045	1,304
VA	4,347	915
<b>Total</b>	<b>26,446</b>	<b>13,943</b>

The primary gear type used to commercially land blueline tilefish varies from year to year. In past years bottom longlines, trawls, and handlines accounted for the majority of landings. In 2022, about 55% of the commercial blueline tilefish landings (by weight) reported by federal VTR data were caught with bottom trawls and about 37% with bottom longline gear. Handlines accounted for 6% of landings, while all other gear types accounted for about 2% of 2022 commercial blueline tilefish landings (Table 4). Table 5 presents 2022 landings by trip in pounds bins. In 2022, trips landing 200 pounds or more blueline tilefish, caught a variety of other species. The most common non-targeted species observed within the blueline tilefish fishery was scup and golden tilefish (Table 6).

**Table 4.** Commercial blueline tilefish landings (live weight) in 2022 by gear from Maine-Virginia. Source: NMFS unpublished CAMS data.

Gear	2022	
	Landings (pounds)	Proportion of total landings
Trawl	7,650	55%
Longline	5,246	37%
Handline	901	6%
Other/Unknown	226	2%
<b>Total</b>	<b>14,023</b>	<b>100%</b>

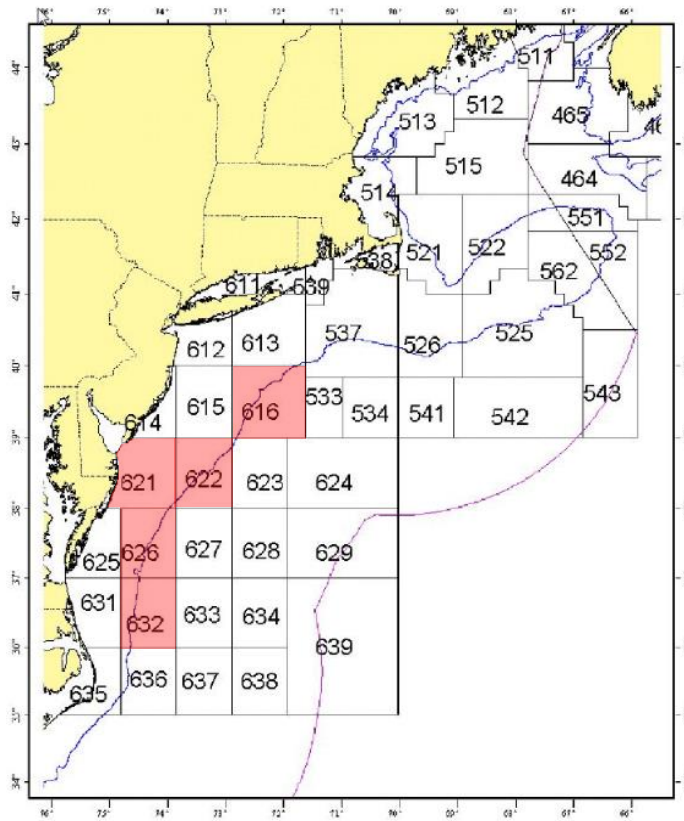
**Table 5.** Number of commercial trips catching blueline tilefish in 2022 by specific pound bins from Maine-Virginia. Source: NMFS unpublished CAMS data.

Pound Range	Trips (N)
400+	4
300 – 399	6
200 – 299	12
100 – 199	19
1 – 99	174
<b>Total</b>	<b>231</b>

**Table 6.** Non-targeted species observed in 2022 when at least 200 pounds of blueline tilefish were landed. Source: NMFS unpublished CAMS data.

Species	Trips (N)	Pounds
Scup	4	27,900
Golden tilefish	20	25,285
Summer flounder	3	4,685
Black sea bass	2	768
Bluefish	1	644
Monkfish	1	149
Loligo squid	2	130
Dory John	1	27

Statistical areas 626, 622, 616, 632 and 621 account for the majority of catch from 2020-2022 (Figure 2 and Table 7). A further breakdown by year/area may violate data confidentiality rules.



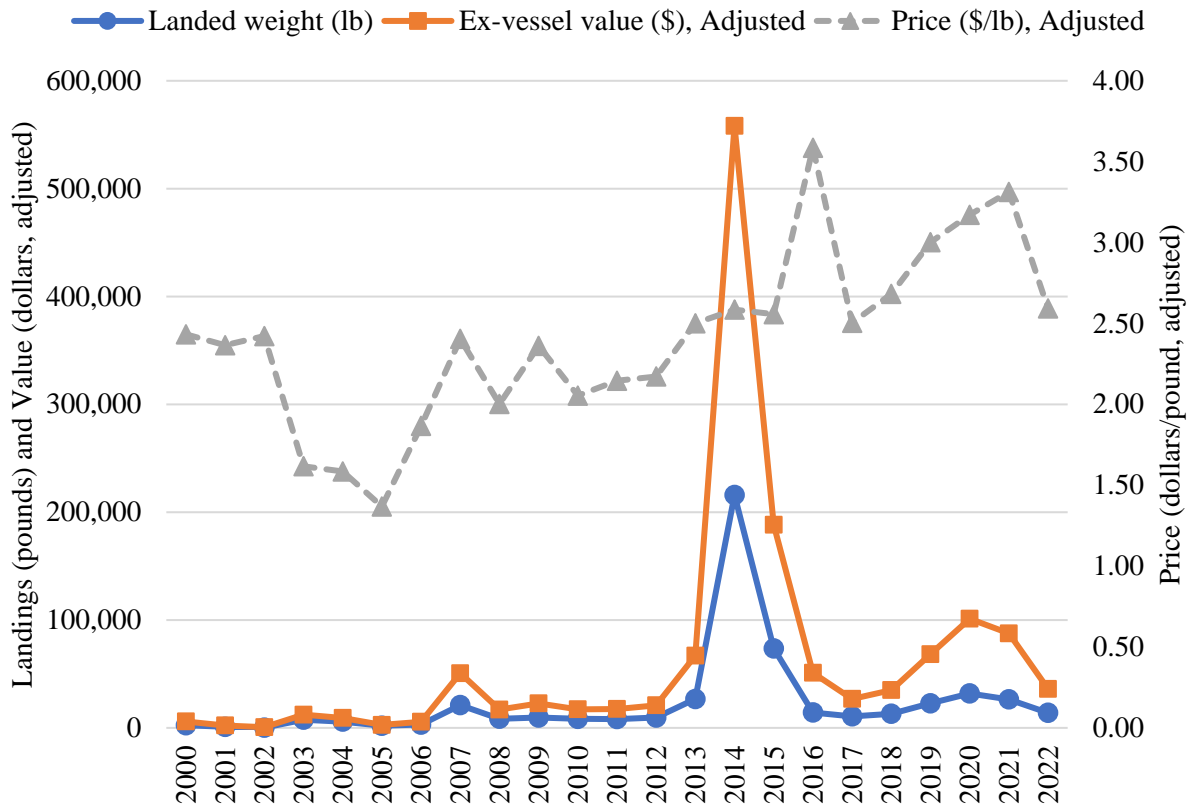
**Figure 2.** Top 5 NMFS statistical areas for total 2020-2022 blueline tilefish landings identified with commercial VTRs. Source: NMFS unpublished CAMS data.

**Table 7.** Top 5 statistical areas summarizing blueline tilefish landings greater than 5,000 pounds from Maine-Virginia for 2020-2022. Source: NMFS unpublished CAMS data.

Stat Area	2020-2022 Landings (pounds)
626	26,050
622	14,246
616	11,638
632	8,436
621	7,056



Commercial blueline tilefish ex-vessel value and price are described in Figures 3. Since 2000, the ex-vessel value has averaged at about \$61,075 per year with a high in 2014 at about \$558,226 and a low in 2002 at about \$651. However, since the implementation of blueline tilefish management by the Council through secretarial interim action in 2016, the ex-vessel value has averaged at about \$58,039 per year and about \$2.98 per pound. In 2022, the ex-vessel value was \$36,148 at about \$2.59 per pound. All revenue and price values were adjusted to the 2022 dollar to account for inflation.



**Figure 3:** Landings, ex-vessel value, and price for blueline tilefish from Maine through Virginia combined, 2000-2022. Ex-vessel value and price are inflation-adjusted by the Gross Domestic Product Price Deflator indexed for 2022 (<https://fred.stlouisfed.org>). Source: NMFS unpublished dealer data.

### Recreational Fishery

In 2022, 703 open access tilefish permits (valid for both blueline and golden tilefish) were issued to party/charter vessels.<sup>4</sup> Permitted tilefish party/charter vessels are required to submit vessel trip reports (VTR); however, in past years, stakeholders believe that VTR reporting compliance for blueline tilefish was especially low for headboats prior to 2012 and in general for charter vessels.

<sup>4</sup> Source: <https://www.greateratlantic.fisheries.noaa.gov/public/public/web/NEROINET/aps/permits/data/index.html>

Advisors and other blue-line tilefish recreational fishermen have suggested that starting in 2012, VTR reporting compliance began to encompass at least the primary headboats targeting tilefish. Table 8 provides the available VTR landings for blue-line tilefish since 2012. In 2022, party/charter vessels reported landing 13,183 blue-line tilefish. Based on previous SSC input, for-hire discards are calculated as 2% of overall landings resulting in 264 fish for 2022. Thus, total for-hire catch was about 13,447 fish (Table 8). Until recently, blue-line tilefish landings by private anglers were only estimated via MRIP, however intercepts in MRIP are an exceedingly rare event with an associated high level of uncertainty (PSE ranging from 100-30%; Table 9).

**Table 8.** Blue-line tilefish party/charter VTR landings and reported discards from Maine-Virginia, 2012-2022. Estimated discards were calculated as 2% of total reported party/charter landings  
Source: NMFS unpublished CAMS data.

<b>Year</b>	<b>Number of Trips</b>	<b>Landings (Numbers of Fish)</b>	<b>Reported Discards (Numbers of Fish)</b>	<b>Estimated Discards<sup>a</sup> (Numbers of Fish)</b>
2012	103	10,051	338	201
2013	120	11,838	128	237
2014	138	15,849	254	317
2015	170	14,391	292	288
2016	158	15,493	246	310
2017	129	10,164	115	203
2018	221	12,432	99	249
2019	167	10,711	176	214
2020	149	9,670	174	193
2021	222	13,610	69	272
2022	236	13,183	63	264

<sup>a</sup> Recreational discards are calculated as 2% of total landings.

**Table 9.** Recreational blueline tilefish MRIP catch estimates from Maine-Virginia by mode. Source: NMFS unpublished MRIP data. *\*Note 2020 MRIP estimates were likely impacted by limited sampling efforts due to the COVID-19 pandemic.*

<b>Year</b>	<b>MRIP Catch (Numbers of fish)</b>	<b>Mode</b>
2015	4,663	Private/Rental
2016	1,222	Charter
2016	116,833	Private/Rental
2017	12,122	Private/Rental
2018	11	Party
2018	2,392	Charter
2018	2,989	Private/Rental
2019	7	Party
2019	2,294	Charter
2019	4,839	Private/Rental
2020*	88	Party
2020*	1,072	Charter
2020*	481	Private/Rental
2021	8,659	Charter
2021	48,795	Private/Rental
2022	7	Party
2022	25,466	Charter
2022	85,585	Private/Rental

#### *Private Recreational Angler Permitting and Reporting*

To improve tilefish management and reporting, the Greater Atlantic Regional Fisheries Office (GARFO) implemented mandatory private recreational permitting and reporting for blueline and golden tilefish anglers in August 2020. Outreach materials and webinars were provided by GARFO and the Council to support the final rule and the Council has been working on continued outreach efforts to improve overall awareness and compliance with these permitting and reporting requirements.

Under this rule, private recreational vessels (including for-hire operators using their vessels for non-charter, recreational trips) are required to obtain a federal vessel permit to target or retain blueline or golden tilefish north of the Virginia/North Carolina border. These vessel operators are also required to submit VTRs electronically within 24 hours of returning to port for trips where tilefish were targeted or retained. For more information about these requirements can be found here on the [Recreational Tilefish Permitting and Reporting webpage](#) and [FAQs](#).

#### Permitting

Federal private recreational tilefish vessel permits can be obtained through [Fish Online](#). This new permit is required even if a vessel already holds a for-hire tilefish permit. Call the GARFO Permit Office at 978-282-8438 for questions about the permitting process.

## Reporting

NOAA Fisheries is encouraging anglers not already using another electronic VTR system to utilize NOAA Fish Online, which is available through a mobile app or a web-based portal. Other systems that may be suitable for recreational anglers include SAFIS eTrips/mobile and SAFIS eTrips Online. You can access information about approved applications and other aspects of electronic reporting on the [NOAA Fisheries website](#).

Additionally, there was an app released in 2020, prior to the implementation of the reporting requirement, to make the reporting process increasingly easy and convenient. Harbor Light Software's *eFin Logbook* has received certification from NOAA Fisheries as an approved application through which anglers can report their trips. Funded by the Council, *eFin Logbook* is a user-friendly application designed specifically for recreational tilefish anglers. The app is available for use on all Apple and Android mobile devices (iPhone, iPad, Android phone, and Android tablet).

At present, *eFin Logbook* can only be used by tilefish recreational anglers to satisfy reporting requirements. Future modifications may expand its capabilities to other reporting and personal fishing log applications. For-hire operators, many of whom have other reporting requirements, are encouraged to choose different software. To learn more about other electronic reporting options and decide which one is right for you, visit the [NOAA Fisheries Greater Atlantic Region Electronic Reporting Web Page](#).

As of October 2022, 790 tilefish permits have been issued for private recreational anglers. This permit allows recreational anglers to both target and land both blueline and golden tilefish. For the 2022 fishing year, 33 private recreational trips were reported by recreational anglers with landings equal to 396 fish and only 3 fish reported as discards.

Currently, there is no average weight that can be applied to blueline tilefish across the coast as average weights vary significantly. Thus, recreational catch is summarized in numbers of fish. For 2022, MRIP reported 85,248 blueline tilefish caught through the private/rental mode (Table 9), however, only 396 fish were reported through the new private angler permitting/reporting requirements. VTR data indicated that 13,447 fish caught (including estimated discards; Table 8) via the for-hire fleet. Therefore, total recreational removals are estimated to be 98,768 fish based on private/rental MRIP data and for-hire VTR data or 13,587 fish based on private/rental and for-hire VTR data. Catch in pounds can be estimated using a range of accepted weights (3-6 pounds from NY to VA, as indicated by the tilefish advisors) across the coast (Table 10). In Amendment 1 to the Tilefish FMP, 3.65 pounds was proposed as an accepted average weight for blueline tilefish.

**Table 10.** Coastwide total recreational blueline tilefish catch (in pounds) calculated using reasonable assumed weights. Blueline tilefish catch from 2015-2019 and 2021-2022 uses party/charter VTRs and private/rental MRIP data. Blueline tilefish catch from 2020-2022 was also calculated using VTRs from party, charter, and private/rental boats. Private/rental VTR reporting requirement were implemented by GARFO in August 2020. *Note 2020 MRIP estimates were likely impacted by limited sampling efforts due to the COVID-19 pandemic, therefore catch in pounds for 2020 was calculated using VTR data only.*

<b>Year</b>	<b>3 Pounds</b>	<b>4 Pounds</b>	<b>5 Pounds</b>	<b>6 Pounds</b>
<b>2015</b>	58,305	77,740	97,175	116,610
<b>2016</b>	404,918	539,890	674,863	809,835
<b>2017</b>	68,195	90,927	113,659	136,390
<b>2018</b>	47,188	62,918	78,647	94,377
<b>2019</b>	47,583	63,444	79,305	95,166
<b>2020</b> <i>(with private/rental VTR)</i>	29,633	39,511	49,388	59,266
<b>2021</b> <i>(with private/rental MRIP)</i>	188,031	250,708	313,385	376,062
<b>2021</b> <i>(with private/rental VTR)</i>	42,624	56,832	71,040	85,248
<b>2022</b> <i>(with private/rental MRIP)</i>	297,096	396,128	495,160	594,192
<b>2022</b> <i>(with private/rental VTR)</i>	41,553	55,404	69,255	83,106

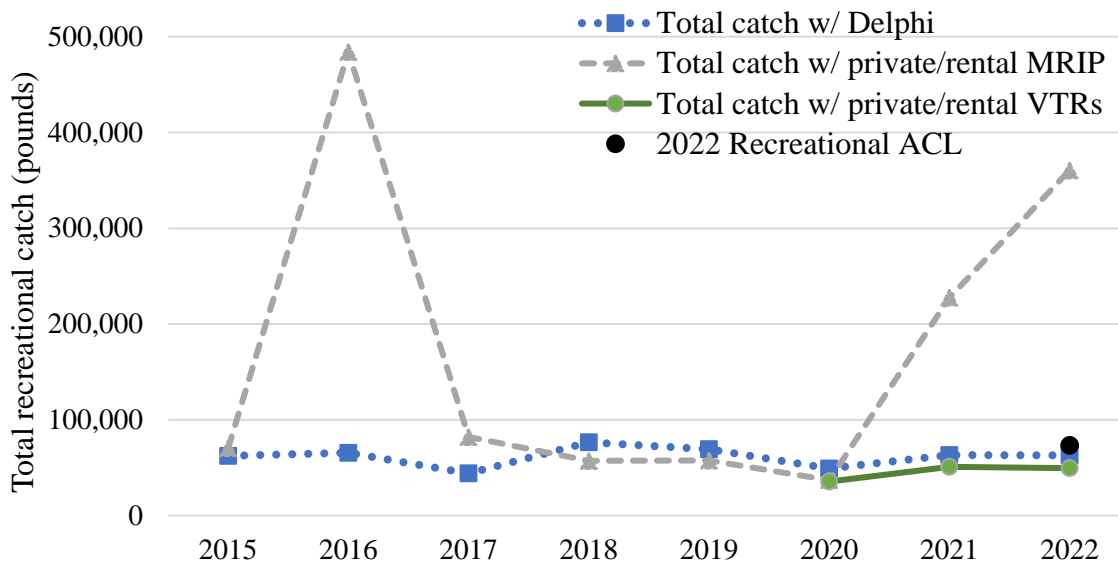
In 2021, Tilefish Monitoring Committee members questioned whether MRIP had improved enough to warrant the use of the MRIP survey to monitor the recreational component while private recreational reporting became more established. To monitor the recreational fishery, the MC recommended using the Delphi method<sup>5</sup> to estimate landings for the private angler. This is an interim fix to not having robust estimates of private recreational landings and will be used until more data is available or an improved method is developed. Private recreational catch is now also available through the VTRs, but the values differ substantially from those reported by MRIP. Party/charter landings will continue to be monitored using the most updated VTRs to assess the catch and landings in numbers of fish (Table 11). In 2022, using the Delphi method and party/charter VTRs, total recreational catch was about 17,227 fish (Table 11) and when applying the average weight of 3.65 pounds total catch was approximately 62,880 pounds, or about 14% below the recreational ACL (Figure 4). Figure 4 shows total recreational catch converted to pounds by applying the averaged weight of 3.65 pounds to estimate private/rental catch throughout the timeseries.

<sup>5</sup> The Delphi method was utilized in 2016 and offered recreational landings for charter, headboat, and private anglers. The Delphi method was used to develop a recreational time series for blueline tilefish through extrapolation of survey results. A ratio was used to back calculate private recreational landings in relation to charter landings from vessel trip reports. This method had been peer reviewed and accepted as best available science by SEDAR 50 and further recommended by the MC through 2020.

**Table 11.** Party and charter blueline tilefish catch (number of fish) from Maine-Virginia using VTR data from 2015-2022 and private recreational catch using MRIP data from 2015-2019 and 2021-2022, VTR data from 2020-2022, as well as estimates of private/rental catch using the Delphi method (Delphi=105.16% of charter). VTR discards were calculated as 2% of overall reported landings for a given mode.

Year	Party (Number of fish)	Charter (Number of fish)	Private Rental (MRIP 2015-2019 and 2021-2022, VTR 2020-2022; Number of fish)	Private Rental (Delphi; Number of fish)	Total catch-Party/charter VTRs and Delphi estimates (Number of fish)
2015	12,381	2,298	4,663	2,417	17,095
2016	13,746	2,057	116,833	2,163	17,966
2017	8,735	1,632	12,122	1,716	12,083
2018	4,796	7,885	2,989	8,291	20,972
2019	3,247	7,679	4,839	8,075	19,000
2020	6,045	3,625	MRIP = 481* Private VTR = 86	3,812	13,482
2021	10,112	3,510	MRIP = 48,795 Private VTR = 333	3,691	17,313
2022	9,337	3,846	MRIP = 85,585 Private VTR = 404	4,044	17,227

\*2020 MRIP estimates were likely impacted by limiting sampling efforts due to the COVID-19 pandemic.



**Figure 4.** Total recreational catch (in pounds) from 2015-2022. The dotted blue line represents total catch using the Delphi method for private/rental catch, dashed grey line uses MRIP estimates for private/rental catch, and the solid green line uses VTRs for private/rental catch. The 2022 recreational ACL is represented by the black circle. All catch was converted to pounds of fish using an average weight of 3.65 pounds. *Note 2020 MRIP estimates were likely impacted by limited sampling efforts due to the COVID-19 pandemic.*

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