



## Blueline Tilefish Fishery Information Document

February 2022

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 2021. Data sources for Fishery Information Documents are generally from unpublished National Marine Fisheries Service (NMFS) survey, dealer, vessel trip report (VTR), permit, and Marine Recreational Information Program (MRIP) databases and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 the unknown stock status 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 that is reduced back to 300 pounds once 70% of the quota has been landed.
- The recreational fishery is open from May 1 – October 31. Bag limits are as follows: private vessels: 3-fish, for-hire vessel (no USCG inspection): 5-fish, for-hire vessel (with USCG inspection): 7-fish.
- Commercial landings decreased by ~21% from 2020 to 2021 (31,918 to 25,288 pounds) while the price per pound increased by ~12% from \$2.84 to \$3.19 from 2020 to 2021.
- Recreational catch exceeded the ACL – the amount of overage depends on whether MRIP estimates, VTRs, the Delphi ratio are used when estimating private recreational performance.
- In 2021, party/charter anglers reported a ~41% increase in catch compared to 2020 (9,670 to 13,610 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 not overfishing from 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 (SEDAR 2017). Genetic work conducted for SEDAR 50 suggests a genetically homogenous population off the entire Atlantic coast yet 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 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. In 2016, initial measures were set using a data limited approach and the Delphi Method (Southwick and Associates 2016).

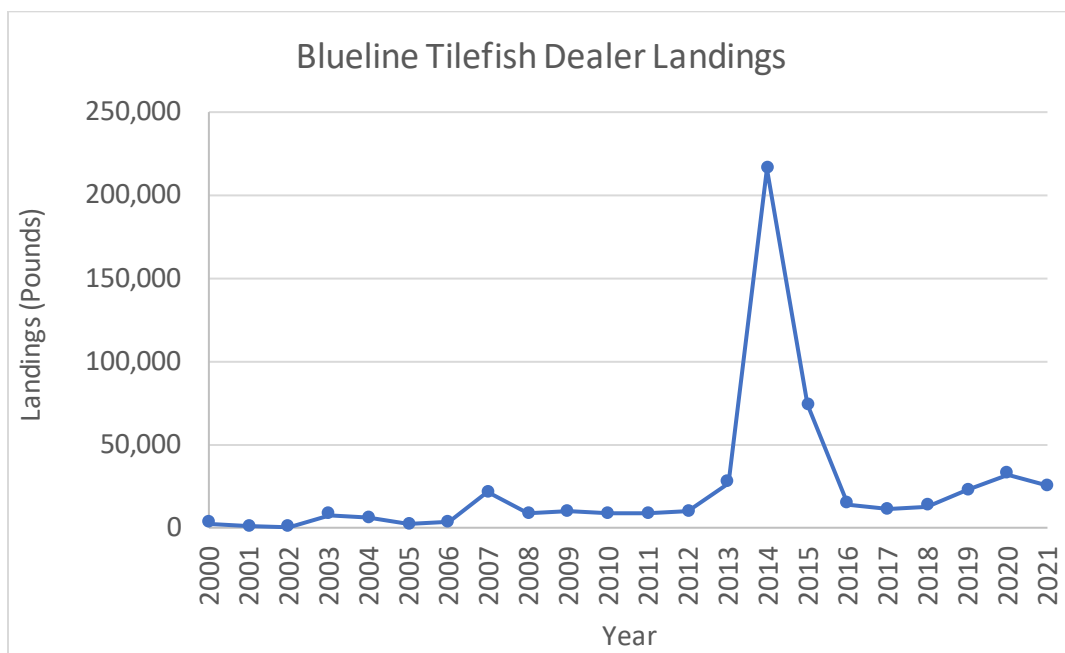
Following the 2017 SEDAR 50 assessment where no recommendations were made for the region north of Cape Hatteras, which extends beyond the Council management areas of the Virginia/North Carolina border, the MAFMC and South Atlantic Fishery Management Council (SAFMC) formed a joint blueline tilefish subcommittee. The subcommittee used 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 blueline tilefish ABCs 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.* The SAFMC's SSC proposed blueline tilefish ABCs of 233,968 pounds for 2020-2022 (Abbreviated Framework Amendment 3 to the FMP for the Snapper Grouper Fishery of the South Atlantic Region).

In the Mid-Atlantic, commercial vessels can fish year-round and are limited to 500 pounds gutted (heads and fins attached) weight until 70% of the quota (Commercial Total Allowable Landings = 26,869 pounds) has been landed, then the trip limit is reduced to 300 pounds gutted (heads and fins attached) weight.

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 (Recreational Total Allowable Landings = 71,912 pounds). Anglers fishing from private 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.

### *Commercial Fishery*

Commercial landings (Maine-Virginia) were generally very low (less than 20,000 pounds) throughout the time series except for 2013-2015, when regulations south of Virginia, the lack of regulations in federal waters from Virginia north, and the lack of state regulations in New Jersey drove effort northward and into New Jersey (Figure 1 and Table 1). Further breakdown by year/state may violate data confidentiality rules (especially for 2016 and 2017). In 2021, 1,897 individuals held federal commercial tilefish permits (valid for both golden and blueline tilefish) and landed 25,288 pounds (Tables 1 and 2). Discards are calculated as 1% of overall commercial landings resulting in 253 pounds for 2021. Thus, total commercial catch was 25,541, which is approximately 6% under the 27,140-pound ACL.



**Figure 1.** Commercial blueline tilefish landings (live weight) from Maine-Virginia, 2000-2021. Source: NMFS unpublished dealer data.

**Table 1 and Table 2.** Commercial blueline tilefish landings (live weight) from Maine-Virginia, 2000-2021 (Table 1) and 2021 by state (Table 2). Source: NMFS unpublished dealer data.

1.)

Year	Pounds
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	25,288

2.)

State	Pounds (2021)
MA	675
RI	1,176
NY	1,737
NJ	2,466
MD	14,906
VA	4,328
<b>Total</b>	<b>25,288</b>

Aggregate landings from the 2000-2021 time-series are approximately 66% from bottom longline, with most of the remaining landings coming from bottom trawl and handline. Over half of all landings in the time series were bottom longline into New Jersey in 2013-2015 prior to Mid-Atlantic management. Landings from all other gear types are low and variable from year to year. The breakdown of commercial landings by gear (based on VTRs) for 2021 are presented in Table 3. Furthermore, Table 4 presents landings by trip in pounds bins.

**Table 3 and Table 4.** Commercial blueline tilefish landings (live weight) in 2021 by gear (Table 3) and trip presented in pound bins (Table 4) from Maine-Virginia. Source: VTR database.

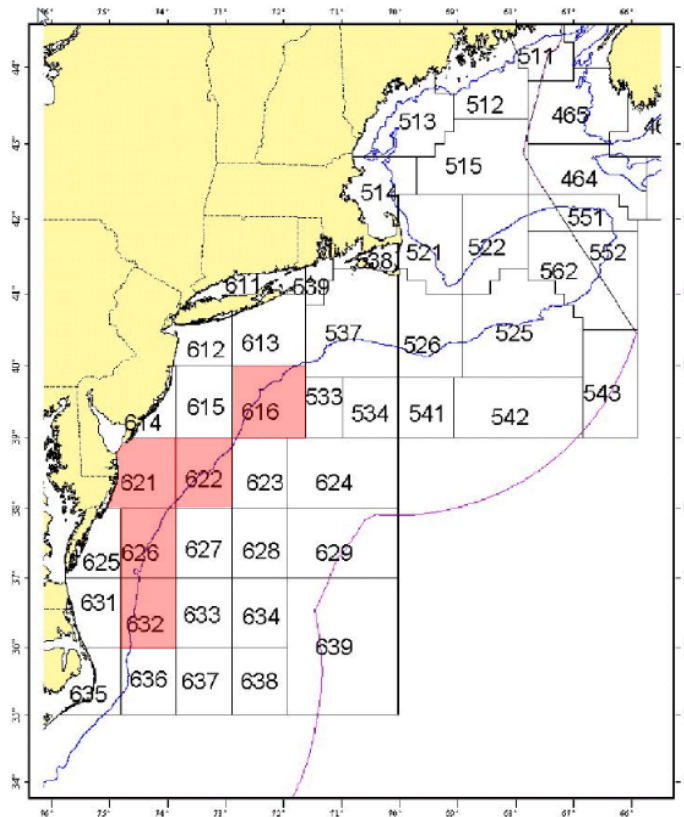
3.)

Gear	Pounds <sup>1</sup>	Percent
Handline	19,570	52.87
Longline	14,730	39.80
Trawl	2,697	7.29
Pots/Traps	17	0.05
<b>Total</b>	<b>28,187</b>	<b>100</b>

4.)

Pound Range	Trips (N)
500+	15
400 - 499	12
300 - 399	4
200 - 299	18
100 - 199	12
1 - 99	45
<b>Total</b>	<b>106</b>

Statistical areas 626, 622, 632, 616 and 621 accounts for the majority of catch for the 2000-2021 period (Figure 2 and Table 5) as well as the 2020 fishing year. A further breakdown by year/area may violate data confidentiality rules.



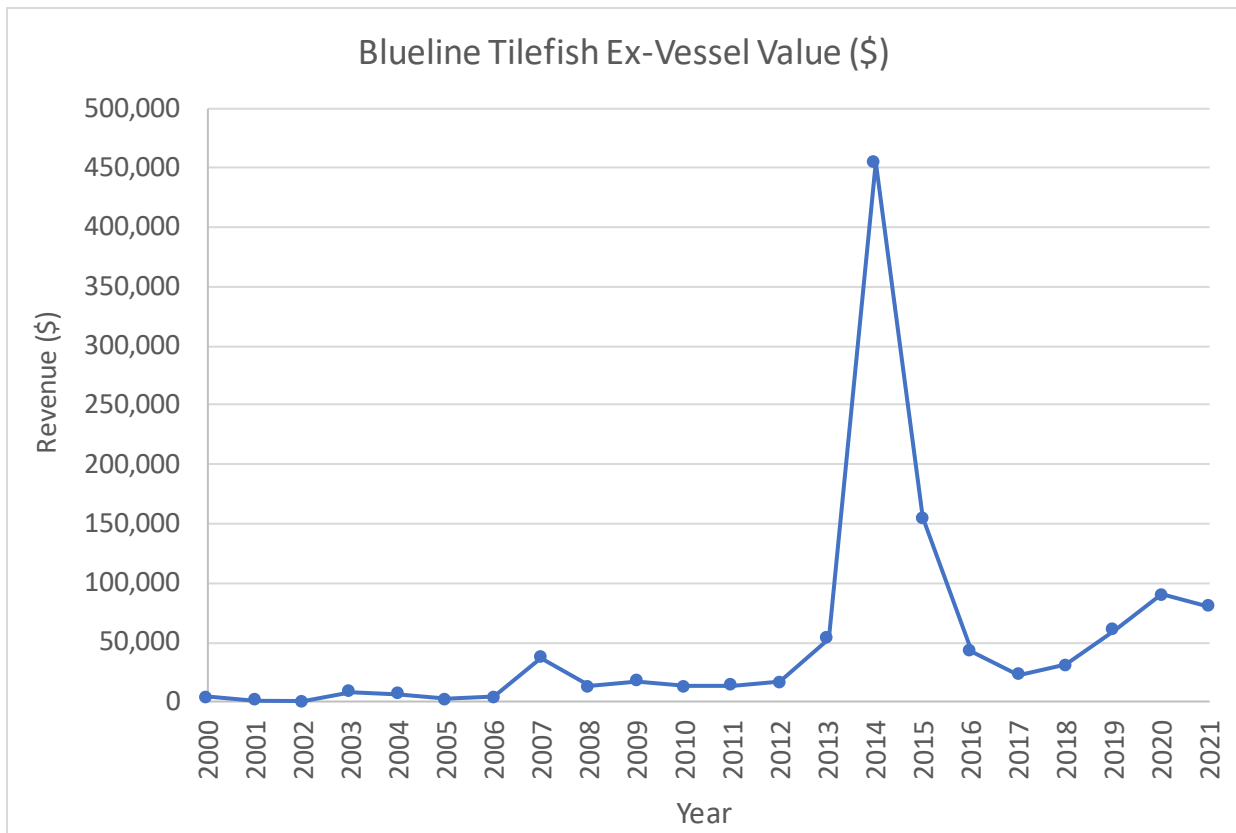
**Figure 2.** Top 5 NMFS statistical areas accounting for total 2021 blueline tilefish landings identified with commercial VTRs. Source: NMFS unpublished VTR data.

<sup>1</sup> One VTR record indicated landings of 15,000 pounds. This report is being reviewed by the NMFS but is thought to be inaccurate. Therefore, this report was removed from the results presented in Table 3.

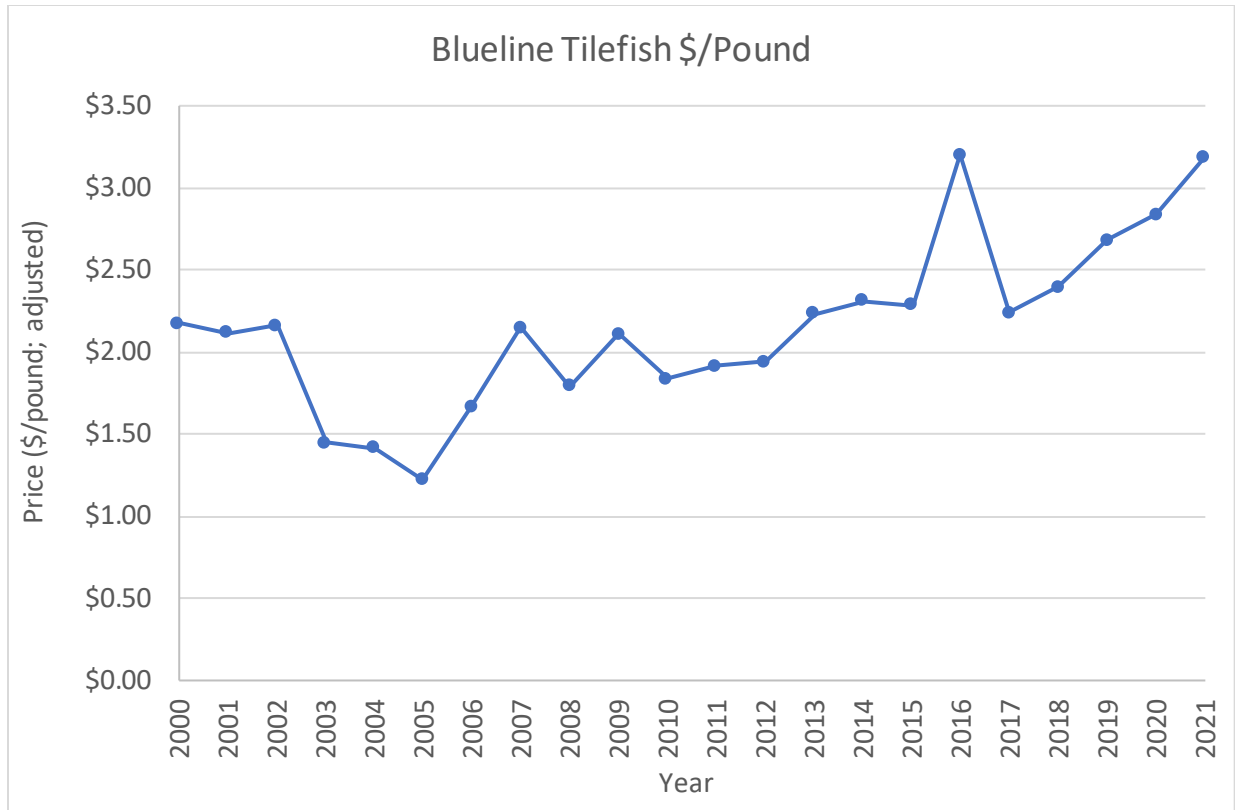
**Table 5.** Top 5 statistical areas summarizing blueline tilefish landings greater than 10,000 pounds from Maine-Virginia for 2000-2021. Source: NMFS unpublished VTR data.

Stat Area	2000-2021 Landings (Pounds)
626	246,596
622	53,456
632	49,789
616	42,323
621	33,431

Commercial blueline tilefish ex-vessel revenues (nominal) and price (inflation adjusted to 2020 dollars) are described in Figures 3 and 4. Since blueline tilefish have been managed by the Council (secretarial interim action in 2016), the ex-vessel value has averaged \$54,519 at approximately \$2.68 per pound. For 2021, the ex-vessel value was \$80,623 at \$3.19 per pound.



**Figure 3.** Ex-vessel revenues for blueline tilefish, Maine to Virginia combined, 2000-2021. Source: NMFS unpublished dealer data.



**Figure 4.** Price for blueline tilefish, Maine to Virginia combined, 2000-2021. Note: Price data have been adjusted by the GDP deflator indexed for 2020 (2021 – unadjusted). Source: NMFS unpublished dealer data.

### *Recreational Fishery*

In 2021, 680 tilefish permits were issued to party/charter vessels within the relatively small recreational fishery. Stakeholders believe that VTR reporting compliance for blueline tilefish has been low, especially historically and for charter vessels. Table 6 provides the available VTR reports for blueline tilefish since 2012, when previous work with the advisors and other blueline tilefish recreational fishermen has suggested VTR reporting compliance began to encompass at least the primary head boats. For 2021, the for-hire sector landed 13,610 blueline tilefish. Recreational discards are calculated as 2% of overall landings resulting in 272 fish for 2021. Thus, total recreational catch was 13,882 fish. Until recently, blueline tilefish landings by private anglers were only estimated via MRIP, however intercepts in the MRIP are an exceedingly rare event (Table 7).

**Table 6.** Blueline tilefish party/charter VTR landings and reported discards from Maine-Virginia, 2012-2021. Source: NMFS unpublished VTR 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>2</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

**Table 7.** Recreational blueline tilefish MRIP catch estimates by mode. Source: NMFS unpublished MRIP data.

<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	2,339	Charter
2021	48,749	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 tilefish anglers in August 2020. This action was approved in late 2017, but with delayed implementation.

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



Outreach materials and webinars were provided by GARFO and the Council leading up to the final rule and will continue to be circulated as these regulations become commonplace.

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 would also be required to submit VTRs electronically within 24 hours of returning to port for trips where tilefish were targeted or retained. For more information about the proposed requirements, check out the [Recreational Tilefish Permitting and Reporting FAQs](#).

### Permitting

Get your federal private recreational tilefish vessel permit 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, a new app has been released 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 2021, 814 tilefish permits have been issued for private recreational anglers. This permit allows recreational anglers to land both blueline and golden tilefish. For the 2021 fishing year, 34 private recreational trips were reported by recreational anglers with landings equal to 319 fish.

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 2021, MRIP reported 48,749 blueline tilefish caught through the private/rental mode, however, only 343 fish were reported through the new private angler permitting/reporting requirements. VTRs presented 13,882 fish caught (including reported discards) via the for-hire fleet. Total recreational removals are then estimated to be 62,631 fish. Catch in pounds is then estimated using a range of accepted weights (3-6 pounds from NY to NC, as indicated by the tilefish advisors) across the coast (Table 8). For reference, an accepted average weight of 3.65 pounds was proposed in Amendment 1 to the Tilefish FMP.

**Table 8.** Coastwide recreational blueline tilefish catch using VTRs (party/charter: 2015-2021, private recreational: 2020 and 2021) and MRIP (private/rental: 2015-2019, 2021) with assumed weights.

<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<sup>3</sup></b>	29,633	39,511	49,388	59,266
<b>2021 (MRIP as P/R)</b>	187,893	250,524	313,155	375,786
<b>2021 (Private VTR as P/R)</b>	42,765	57,020	71,275	85,530

In 2021, Tilefish Monitoring Committee members questioned whether MRIP detectability issues for estimating blueline tilefish private recreational harvest have improved enough to warrant the use of the MRIP survey in monitoring the recreational component while private recreational reporting becomes more established. To monitor the recreational fishery, the MC recommended using the Delphi<sup>4</sup> percentage of 105.16% of charter vessel landings 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 9).

<sup>3</sup> No MRIP estimates were available for 2020 private recreational landings, so the VTRs were used the first year by default.

<sup>4</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 9.** Recreational blueline tilefish catch (ME-VA) using VTRs (party/charter: 2015-2021, private rental: 2020) and MRIP (private/rental: 2015-2019, 2021), as well as estimates of private/rental catch using the Delphi method (Delphi – 105.16% of charter).

Year	Party (Numbers)	Charter (Numbers)	Private Rental (MRIP 2015-2019, VTR 2020 Numbers, 2021 MRIP and VTR)	Private Rental (Delphi - Numbers)
2015	12,381	2,298	4,663	2,417
2016	13,746	2,057	116,833	2,163
2017	8,735	1,632	12,122	1,716
2018	4,796	7,885	2,989	8,291
2019	3,247	7,679	4,839	8,075
2020	6,166	3,626	MRIP = 481 Private VTR = 84	3,813
2021	10,314	3,568	MRIP = 48,749 Private VTR = 343	3,752

## References

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