



Blueline Tilefish Fishery Information Document

February 2019

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 2018. Data sources for Fishery Information Documents are generally from unpublished National Marine Fisheries Service (NMFS) survey, dealer, vessel trip report (VTR), permit, and Marine Recreational Information Program (MRIP) databases and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 for blueline tilefish since the 2017 assessment.
- In 2018, the commercial and recreational total allowable landings both increased by 15% compared to 2017 (commercial: 23,263 to 26,869 pounds, recreational: 62,262 to 71,912 pounds). The commercial trip limit increased from 300 pounds to 500 pounds gutted (heads and fins attached) weight but will be reduced back to 300 pounds once 70% of the quota has been landed.
- Commercial landings increased by 5% from 2017 to 2018 (11,485 to 12,116 pounds) while the price per pound increased from \$2.14 to \$2.25 from 2017 to 2018.
- In 2018, party/charter anglers reported a 22% increase in catch compared to 2017.

Basic Biology

Blueline tilefish are primarily distributed from Campeche, Mexico northward through the Mid-Atlantic.¹ Several recently-completed studies suggest that blueline tilefish from the eastern Gulf of Mexico through the Mid-Atlantic are comprised of one genetic stock.² This homogenous stock inhabits the shelf edge and upper slope reefs at depths of 150-840 feet (46-256m) 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.).^{3,4} They are sedentary in nature and burrow into sandy areas in close association with rocky outcroppings.⁵

Blueline tilefish are long-lived fish reaching sizes up to about 36 inches (91 centimeters) 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 centimeters) 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 new blueline tilefish assessment has called into question the ability to accurately age blueline tilefish, so previous age determinations may no longer be accurate.⁵

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 2013.⁶ 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 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 to set their own specifications. The stock south of Cape Hatteras was determined to be not overfished with overfishing not occurring. This assessment did not provide stock status information relevant to the Mid-Atlantic management area due to insufficient data.

Management System and Fishery Performance

Management

The Mid-Atlantic Fishery Management Council (the 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.⁷

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 (SSCs). 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 recommended blueline tilefish ABCs for the region south of Cape Hatteras at 172,000, 175,000, 178,000 pounds whole weight for 2018, 2019, and 2020, respectively.⁸

In the Mid-Atlantic, commercial vessels can fish year-round until closure 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 will be reduced to 300 pounds gutted (heads and fins attached) weight.

The recreational blueline tilefish season runs from May 1 through 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 (in 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). Further breakdown by year/state may violate data confidentiality rules (especially for 2016 and 2017). In 2018, 1956 individuals held federal commercial tilefish permits (valid for both golden and blueline tilefish) and landed 12,116 pounds (Table 1).

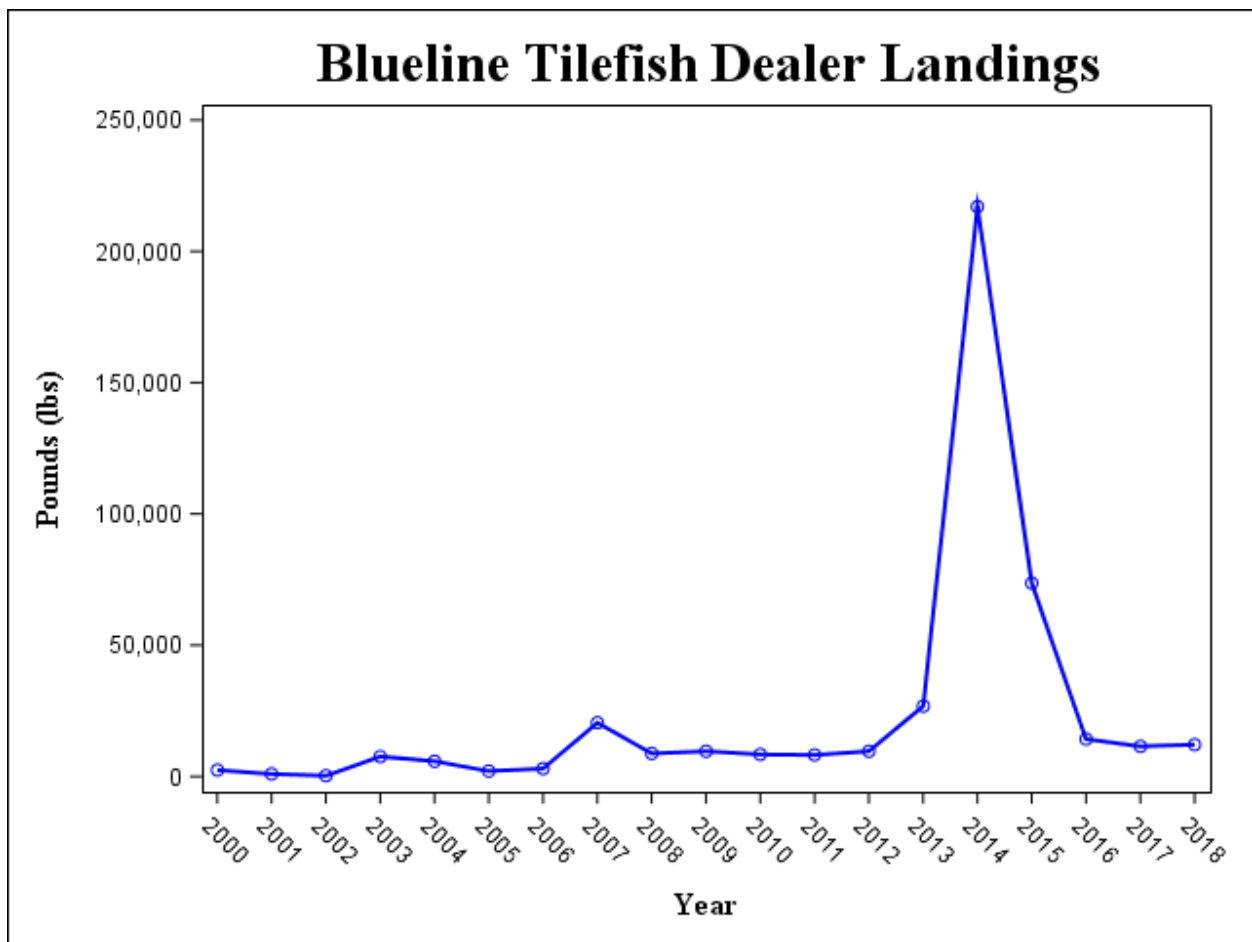


Figure 1. Commercial blueline tilefish landings (live weight) from Maine-Virginia, 2000-2018. Source: NMFS unpublished dealer data.

Table 1. Commercial blueline tilefish landings (live weight) by state in 2018 from Maine-Virginia. Source: NMFS unpublished dealer data.

State	Pounds
CT	46
DE	327
MD	113
MA	82
NJ	4,698
NY	2,041
RI	2,087
VA	2,722
Total	12,116

Aggregate landings from the 2000-2018 time-series are approximately 2/3 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 for 2018 are presented in Table 2.

Table 2. Commercial blueline tilefish landings (live weight) by gear in 2018 from Maine-Virginia. Source: NMFS unpublished dealer data.

Gear	Pounds	Percent
Bottom Longline	4,683	39
Handline	2,706	22
Trawl	3,394	28
Gillnet	305	3
Pot/Trap	113	1
Unknown	915	8
Total	12,116	~100

Statistical Areas 626, 632, 616, 622 and 621 accounts for the majority of catch from 1994-2018 (Figure 2 and Table 3). A further breakdown by year/area may violate data confidentiality rules.

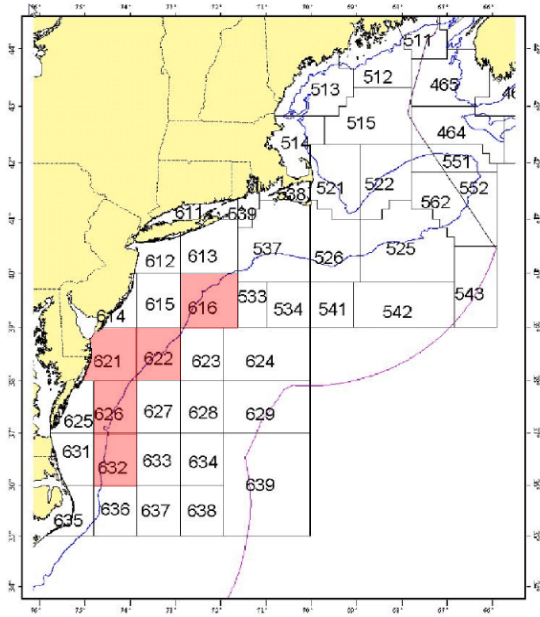


Table 3. Top statistical areas summarizing blueline tilefish landings in pounds from Maine-Virginia for 1994-2018. Source: NMFS unpublished VTR data.

Stat Area	1994 to 2018 (pounds)
626	213,912
632	40,733
616	33,218
622	27,396
621	25,848

Figure 2. NMFS statistical areas accounting for the majority of blueline tilefish landings identified with commercial vessel trip reports (VTRs), 1994-2018. Source: NMFS unpublished VTR data.

Commercial blueline tilefish ex-vessel revenues (nominal) and price (inflation adjusted to 2017 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 \$31,386 at approximately \$2.48 per pound. For 2018, the ex-vessel value was \$27,218 at \$2.25 per pound.

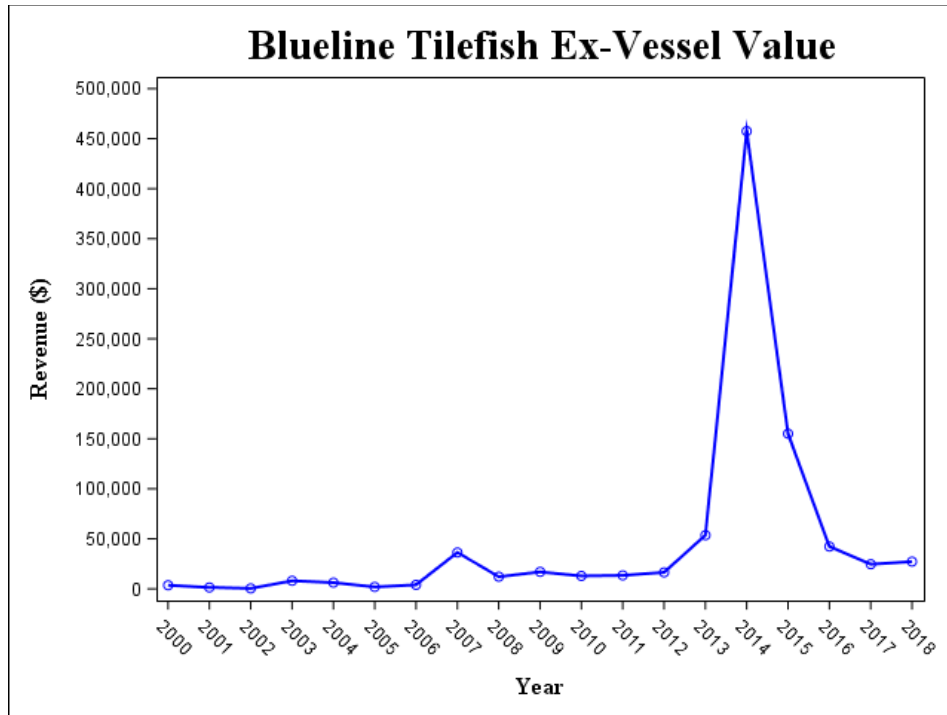


Figure 3. Ex-Vessel Revenues for blueline tilefish, Maine to Virginia combined, 2000-2018. Note: Price data have been adjusted by the GDP deflator indexed for 2017 (2018 – unadjusted). Source: NMFS unpublished dealer data.

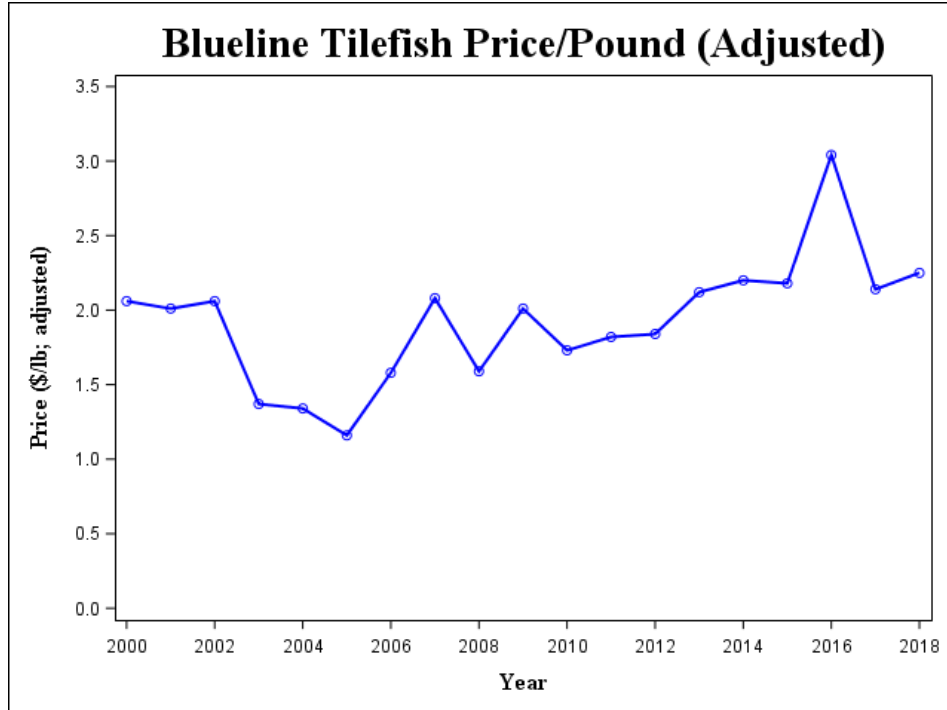


Figure 4. Price for blueline tilefish, Maine through Virginia combined, 2000-2018. Note: Price data have been adjusted by the GDP deflator indexed for 2017 (2018 – unadjusted). Source: NMFS unpublished dealer data.

Recreational Fishery

In 2018, 564 tilefish permits were issued to party/charter vessels within the relatively small recreational fishery where the only mandatory reporting was a VTR. Stakeholders believe that VTR reporting compliance for blueline tilefish has been low, especially historically and for charter vessels. Table 4 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. Additionally, blueline tilefish intercepts in the MRIP are an exceedingly rare event (Table 5).

Table 4. Blueline tilefish party/charter VTR landings and reported discards from Maine-Virginia, 2012-2018. Source: NMFS unpublished VTR data.

Year	Frequency	Catch (Numbers of Fish)	Reported Discards (Numbers of Fish)
2012	103	10,051	338
2013	120	11,838	128
2014	138	15,849	254
2015	170	14,391	292
2016	160	15,531	246
2017	112	10,220	115
2018	225	12,511	96

Table 5. Recreational blueline tilefish MRIP and MRIP re-calibrated catch (2018 – preliminary). Source: NMFS unpublished MRIP data.

Year	State	MRIP – Base Catch (Numbers of fish)	MRIP ¹ (Numbers of fish)
2015	DE	1,565	4,663
2016	MD	10,644	46,106
2016	NJ	3,040	9,924
2016	VA	23,134	62,025
2017	VA	3,465	12,122
2018	DE	N/A	64
2018	VA	N/A	8,730

To improve tilefish management and reporting, the Greater Atlantic Regional Fisheries Office plans to implement private recreational reporting for private anglers. This effort has been approved by the Council and is waiting implementation.

¹ Re-calibrated MRIP numbers are presented for reference. They should not be directly compared to the current or past ABCs as the re-calibrated MRIP numbers have not yet been incorporated into any assessment.

References

- ¹ Dooley J.K. 1978. Systematic and biology of the tilefishes (Perciformes: Branchiostegidae and Malacanthidae), with description of two new species. NOAA Tech. Rep. NMFS 411. NOAA, National Marine Fisheries Service. 78 p.
- ² <http://sedarweb.org/sedar-50-data-workshop>
- ³ Sedberry, G.R. and Pashuk, O. and Wyanski, D.M. and Stephen, J.A. and Weinbach, P. (2006) Spawning locations for Atlantic reef fishes off the southeastern U.S. In: Proceedings of the Gulf and Caribbean Fisheries Institute, 57, pp. 463-514.
- ⁴ Ross, J. L., G. R. Huntsman. 1982. Age, growth, and mortality of blueline tilefish from North Carolina and South Carolina. Transactions of the American Fisheries Society 111:585-592.
- ⁵ SEDAR. 2017. SEDAR 50 – Atlantic Blueline Tilefish Assessment Report. SEDAR, North Charleston SC. 542 pp. available online at: <http://sedarweb.org/sedar-50>.
- ⁶ SEDAR. 2013. SEDAR 32 – South Atlantic blueline tilefish Stock Assessment Report. SEDAR, North Charleston SC. 378 pp. available online at: http://www.sefsc.noaa.gov/sedar/Sedar_Workshops.jsp?WorkshopNum=32.
- ⁷ Southwick and Associates 2016. Estimated Catch of Blueline Tilefish in the Mid-Atlantic Region. Application of the Delphi Survey Process. Available at: <http://www.mafmc.org/ssc-meetings/2016/march-15-16>.
- ⁸ South Atlantic Fishery Management Council Scientific and Statistical Committee Report. October 2017.