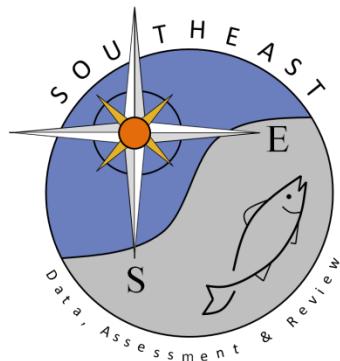


Recreational Survey Data for Tilefish in the South Atlantic

Matthew A. Nuttall and Vivian M. Matter

SEDAR66-WP01

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Recreational Survey Data for Tilefish in the South Atlantic

**NOAA Fisheries
Southeast Fisheries Science Center
Fisheries Statistics Division
75 Virginia Beach Drive
Miami FL 33149**

Matthew A. Nuttall and Vivian M. Matter

09-04-2020

Recreational catch estimates for Tilefish are compiled from the Marine Recreational Information Program (MRIP). Details on MRIP can be found in SEDAR68-DW-13.

Parameters for data prepared for SEDAR 66 recreational catch data:

Species: Tilefish

Year Range: 1981 - 2019

Geographic Range: South Atlantic states from North Carolina to eastern Florida, including the Florida Keys. This differs from SEDAR 25 which did not include the Florida Keys. It was recommended that they be included in SEDAR 66 because tilefish are a deep water species more likely associated with the Atlantic waters off the Florida Keys. This is also consistent with the Gulf of Mexico tilefish assessment (SEDAR 22), which excluded the Florida Keys.

Fishing Modes: Charter, Private. Shore mode is excluded, following SEDAR 25 recommendations.

Survey Methodology: Fully calibrated estimates that take into account the change in the Fishing Effort Survey, the redesigned Access Point Angler Intercept Survey, and the For Hire Survey

1981 landings estimate: 226,989 fish

Strata: Florida Keys, wave 4, private mode, and ocean greater than 10 miles

Intercept record: One trip which claimed 12 tilefish (seen by interviewer)

Tables

Table 1. Annual landings (AB1) and discards (B2) of Tilefish in numbers of fish by state and year (MRIP).

Table 2. Annual landings (AB1) and discards (B2) of Tilefish in numbers of fish by mode and year (MRIP).

Table 3. Tilefish landings in numbers of fish (AB1) with associated coefficients of variation (CV; Dettloff et al. 2020) by mode and year (MRIP). Sample size (SS) is provided as the total number of angler trips intercepted by MRIP samplers within a specified strata and, in parentheses, the number of angler trips that intercepted Tilefish. Intercepted fish include those landed (AB1) and discarded (B2).

Table 4. Tilefish discards in numbers of fish (B2) with associated coefficients of variation (CV; Dettloff et al. 2020) by mode and year (MRIP). Sample size (SS) is provided as the total number of angler trips intercepted by MRIP samplers within a specified strata and, in parentheses, the number of angler trips that intercepted Tilefish. Intercepted fish include those landed (AB1) and discarded (B2).

Table 5. Estimated landings of Tilefish in pounds whole weight by state and year (MRIP).

Table 6. Summary of length measurements (millimeters fork length) from MRIP-intercepted Tilefish by state and year. Summaries include the number of fish measured by MRIP (Fish), the number of angler trips from which those fish were measured (Trp), and the minimum (Min), geometric mean (Avg), and maximum (Max) size of fish lengths.

Table 7. Summary of weight measurements (pounds whole weight) from MRIP-intercepted Tilefish by state and year. Summaries include the number of fish weighed by MRIP (Fish), the number of angler trips from which those fish were weighed (Trp), and the minimum (Min), geometric mean (Avg), and maximum (Max) size of fish weights.

Table 8. Summary of length measurements (millimeters fork length) from MRIP-intercepted Tilefish by mode and year. Summaries include the number of fish measured by MRIP (Fish), the number of angler trips from which those fish were measured (Trp), and the minimum (Min), geometric mean (Avg), and maximum (Max) size of fish lengths.

Table 9. Summary of weight measurements (pounds whole weight) from MRIP-intercepted Tilefish by mode and year. Summaries include the number of fish weighed by MRIP (Fish), the number of angler trips from which those fish were weighed (Trp), and the minimum (Min), geometric mean (Avg), and maximum (Max) size of fish weights.

Table 10. Summary of length (millimeters fork length) and weight measurements (pounds whole weight) from MRIP-intercepted Tilefish by year. Summaries include the number of fish weighed by MRIP (Fish), the number of angler trips from which those fish were weighed (Trp), and the minimum (Min), geometric mean (Avg), and maximum (Max) size of fish weights.

Table 11. Recreational Fishing Effort (in angler trips) for South Atlantic anglers by state and year (MRIP).

Table 12. Recreational Fishing Effort (in angler trips) for South Atlantic anglers by mode and year (MRIP).

Figures

Figure 1. Comparison of charterboat landings (AB1) and discard (B2) estimates (with standard error intervals shown) for Tilefish from the Coastal Household Telephone Survey (CHTS) and For-Hire Survey (FHS) from the South Atlantic between 1981 to 2003. The charterboat calibration approach is discussed in Dettloff and Matter (2019; SEDAR64-RD-12).

Figure 2. MRIP Base (BASE), APAIS Calibrated (ACAL), and Fully Calibrated APAIS and FES (FCAL) catch estimates for Tilefish in the South Atlantic. Landings (AB1) and discard (B2) estimates are in thousands of fish. Estimates in this figure do not include the Florida Keys as that domain is not available from the MRIP online comparison tool (NMFS). The Headboat and shore modes are also included as uncertainty estimates for catch across multiple modes are only available when all modes are selected.

Figure 3. Annual Tilefish landings (AB1) and discards (B2), in thousands of fish, by state from 1981 to 2019 (MRIP).

Figure 3a. Percent of Tilefish landings (AB1) and discards (B2), in numbers of fish, from each state by year (bar graph) and overall (pie chart) between 1981 and 2019 (MRIP).

Figure 4. Annual Tilefish landings (AB1) and discards (B2), in thousands of fish, by mode from 1981 to 2019 (MRIP).

Figure 4a. Percent of Tilefish landings (AB1) and discards (B2), in numbers of fish, from each mode by year (bar graph) and overall (pie chart) between 1981 and 2019 (MRIP).

Figure 5. Estimates of annual landings for Tilefish in the South Atlantic, as estimated from MRIP: estimated landings in thousands of fish (top), estimated landings in thousands of pounds whole weight (middle), and average weight of landed fish (estimated lbs/estimated fish) (bottom).

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Table 1. Annual landings (AB1) and discards (B2) of Tilefish in numbers of fish by state and year (MRIP).

Year	FLKeys		FLE		SC		NC		Total	
	AB1	B2	AB1	B2	AB1	B2	AB1	B2	AB1	B2
1981	226,989	0	0	0	0	0	0	0	226,989	0
1983	0	0	0	0	392	0	0	0	392	0
1984	0	0	7,726	0	0	0	0	0	7,726	0
1985	0	0	39,902	0	0	0	376	0	40,278	0
1986	0	0	0	0	60	0	0	0	60	0
1987	2,001	0	0	0	0	0	43	0	2,045	0
1988	0	0	0	0	0	0	483	0	483	0
1990	0	0	0	0	0	0	437	0	437	0
1991	0	0	0	0	0	0	137	0	137	0
1992	1,577	0	1,054	0	0	0	0	0	2,630	0
1993	0	0	0	1,226	0	0	0	0	0	1,226
1994	0	0	2,004	0	0	0	0	0	2,004	0
1996	0	0	1,318	0	0	0	27	0	1,345	0
1997	0	0	136	0	0	0	10,985	0	11,122	0
1998	0	0	351	0	0	0	0	0	351	0
1999	0	0	72	0	0	0	1,097	0	1,169	0
2000	50	36	2,185	743	0	0	1,045	0	3,280	779
2001	76	0	1,138	0	0	0	2,786	0	4,000	0
2002	0	0	0	0	0	0	2,002	0	2,002	0
2003	0	0	106	3,752	0	0	7,783	0	7,889	3,752
2004	0	0	1,339	0	0	0	12,338	0	13,677	0
2005	84	26	0	4,185	0	0	35,588	0	35,672	4,211
2006	0	404	2,130	0	0	0	5,414	0	7,544	404
2007	0	0	605	0	0	0	1,059	0	1,664	0
2008	39	0	0	0	0	0	0	0	39	0
2009	0	0	25,397	0	0	0	0	0	25,397	0
2010	161	0	5,816	0	0	0	248	0	6,224	0
2011	0	0	10,621	0	0	0	0	0	10,621	0
2012	162	162	5,469	0	0	0	29	0	5,660	162
2013	0	0	4,045	945	0	0	754	0	4,799	945
2014	2,499	0	1,721	0	0	0	0	0	4,220	0
2015	4,441	0	3,753	0	0	0	119	0	8,312	0
2016	759	0	14,552	0	0	0	94	0	15,405	0
2017	823	0	2,881	0	0	0	0	0	3,703	0
2018	507	0	9,024	0	0	0	0	0	9,531	0
2019	0	0	42,131	0	0	0	892	0	43,023	0

Table 2. Annual landings (AB1) and discards (B2) of Tilefish in numbers of fish by mode and year (MRIP).

Year	Cbt		Priv		Total	
	AB1	B2	AB1	B2	AB1	B2
1981	0	0	226,989	0	226,989	0
1983	392	0	0	0	392	0
1984	0	0	7,726	0	7,726	0
1985	376	0	39,902	0	40,278	0
1986	60	0	0	0	60	0
1987	2,045	0	0	0	2,045	0
1988	0	0	483	0	483	0
1990	437	0	0	0	437	0
1991	137	0	0	0	137	0
1992	144	0	2,486	0	2,630	0
1993	0	0	0	1,226	0	1,226
1994	2,004	0	0	0	2,004	0
1996	27	0	1,318	0	1,345	0
1997	172	0	10,950	0	11,122	0
1998	351	0	0	0	351	0
1999	1,169	0	0	0	1,169	0
2000	1,162	36	2,118	743	3,280	779
2001	3,181	0	819	0	4,000	0
2002	2,002	0	0	0	2,002	0
2003	7,889	0	0	3,752	7,889	3,752
2004	12,338	0	1,339	0	13,677	0
2005	28,390	26	7,282	4,185	35,672	4,211
2006	5,448	404	2,096	0	7,544	404
2007	1,059	0	605	0	1,664	0
2008	39	0	0	0	39	0
2009	1,544	0	23,853	0	25,397	0
2010	860	0	5,365	0	6,224	0
2011	85	0	10,536	0	10,621	0
2012	859	162	4,801	0	5,660	162
2013	2,951	0	1,848	945	4,799	945
2014	276	0	3,944	0	4,220	0
2015	3,590	0	4,722	0	8,312	0
2016	5,800	0	9,606	0	15,405	0
2017	1,369	0	2,335	0	3,703	0
2018	1,022	0	8,509	0	9,531	0
2019	1,755	0	41,268	0	43,023	0

Table 3. Tilefish landings in numbers of fish (AB1) with associated coefficients of variation (CV; Dettloff et al. 2020) by mode and year (MRIP). Sample size (SS) is provided as the total number of angler trips intercepted by MRIP samplers within a specified strata and, in parentheses, the number of angler trips that intercepted Tilefish. Intercepted fish include those landed (AB1) and discarded (B2).

Year	Cbt			Priv			Total		
	AB1	CV	SS	AB1	CV	SS	AB1	CV	SS
1981	0	0.00	63 (0)	226,989	1.00	187 (1)	226,989	1.00	250 (1)
1982	0	0.00	57 (0)	0	0.00	422 (0)	0	0.00	479 (0)
1983	392	1.00	169 (1)	0	0.00	258 (0)	392	1.00	427 (1)
1984	0	0.00	226 (0)	7,726	1.00	260 (1)	7,726	1.00	486 (1)
1985	376	1.00	161 (1)	39,902	1.00	510 (1)	40,278	0.99	671 (2)
1986	60	1.00	249 (1)	0	0.00	832 (0)	60	1.00	1,081 (1)
1987	2,045	0.98	396 (2)	0	0.00	1,184 (0)	2,045	0.98	1,580 (2)
1988	0	0.00	422 (0)	483	1.00	1,174 (1)	483	1.00	1,596 (1)
1989	0	0.00	447 (0)	0	0.00	1,102 (0)	0	0.00	1,549 (0)
1990	437	1.00	323 (1)	0	0.00	929 (0)	437	1.00	1,252 (1)
1991	137	1.00	409 (1)	0	0.00	890 (0)	137	1.00	1,299 (1)
1992	144	1.00	561 (1)	2,486	0.73	1,303 (2)	2,630	0.69	1,864 (3)
1993	0	0.00	400 (0)	0	0.00	1,152 (1)	0	0.00	1,552 (1)
1994	2,004	0.94	491 (2)	0	0.00	1,363 (0)	2,004	0.94	1,854 (2)
1995	0	0.00	459 (0)	0	0.00	1,345 (0)	0	0.00	1,804 (0)
1996	27	1.00	640 (1)	1,318	1.00	1,512 (1)	1,345	0.98	2,152 (2)
1997	172	0.82	806 (2)	10,950	0.71	1,516 (2)	11,122	0.70	2,322 (4)
1998	351	1.00	912 (1)	0	0.00	1,419 (0)	351	1.00	2,331 (1)
1999	1,169	0.94	998 (3)	0	0.00	1,559 (0)	1,169	0.94	2,557 (3)
2000	1,162	0.54	1,065 (7)	2,118	1.00	1,433 (2)	3,280	0.67	2,498 (9)
2001	3,181	0.56	951 (7)	819	0.72	1,618 (2)	4,000	0.47	2,569 (9)
2002	2,002	0.70	1,008 (5)	0	0.00	1,468 (0)	2,002	0.70	2,476 (5)
2003	7,889	0.57	890 (7)	0	0.00	1,407 (1)	7,889	0.57	2,297 (8)
2004	12,338	0.81	682 (4)	1,339	1.00	1,260 (1)	13,677	0.74	1,942 (5)
2005	28,390	0.67	626 (10)	7,282	1.00	1,203 (2)	35,672	0.57	1,829 (12)
2006	5,448	0.67	560 (7)	2,096	1.00	1,538 (1)	7,544	0.56	2,098 (8)
2007	1,059	0.92	582 (2)	605	1.00	1,374 (1)	1,664	0.69	1,956 (3)
2008	39	1.00	729 (1)	0	0.00	1,304 (0)	39	1.00	2,033 (1)
2009	1,544	1.00	600 (1)	23,853	0.88	1,303 (4)	25,397	0.83	1,903 (5)
2010	860	0.58	775 (5)	5,365	0.68	1,780 (3)	6,224	0.59	2,555 (8)

Year	Cbt			Priv			Total		
	AB1	CV	SS	AB1	CV	SS	AB1	CV	SS
2011	85	0.86	741 (2)	10,536	0.74	1,672 (2)	10,621	0.73	2,413 (4)
2012	859	0.65	761 (5)	4,801	0.58	1,865 (3)	5,660	0.51	2,626 (8)
2013	2,951	0.73	418 (2)	1,848	0.72	1,508 (3)	4,799	0.53	1,926 (5)
2014	276	0.74	757 (2)	3,944	0.60	1,561 (4)	4,220	0.56	2,318 (6)
2015	3,590	0.84	818 (8)	4,722	0.62	1,599 (5)	8,312	0.51	2,417 (13)
2016	5,800	0.72	814 (7)	9,606	0.49	1,578 (5)	15,405	0.41	2,392 (12)
2017	1,369	0.90	731 (2)	2,335	0.74	1,619 (2)	3,703	0.57	2,350 (4)
2018	1,022	0.46	857 (6)	8,509	0.72	1,546 (3)	9,531	0.65	2,403 (9)
2019	1,755	0.87	814 (3)	41,268	0.81	1,538 (3)	43,023	0.77	2,352 (6)

Table 4. Tilefish discards in numbers of fish (B2) with associated coefficients of variation (CV; Dettloff et al. 2020) by mode and year (MRIP). Sample size (SS) is provided as the total number of angler trips intercepted by MRIP samplers within a specified strata and, in parentheses, the number of angler trips that intercepted Tilefish. Intercepted fish include those landed (AB1) and discarded (B2).

Year	Cbt			Priv			Total		
	B2	CV	SS	B2	CV	SS	B2	CV	SS
1981	0	0.00	63 (0)	0	0.00	187 (1)	0	0.00	250 (1)
1982	0	0.00	57 (0)	0	0.00	422 (0)	0	0.00	479 (0)
1983	0	0.00	169 (1)	0	0.00	258 (0)	0	0.00	427 (1)
1984	0	0.00	226 (0)	0	0.00	260 (1)	0	0.00	486 (1)
1985	0	0.00	161 (1)	0	0.00	510 (1)	0	0.00	671 (2)
1986	0	0.00	249 (1)	0	0.00	832 (0)	0	0.00	1,081 (1)
1987	0	0.00	396 (2)	0	0.00	1,184 (0)	0	0.00	1,580 (2)
1988	0	0.00	422 (0)	0	0.00	1,174 (1)	0	0.00	1,596 (1)
1989	0	0.00	447 (0)	0	0.00	1,102 (0)	0	0.00	1,549 (0)

Year	Cbt			Priv			Total		
	B2	CV	SS	B2	CV	SS	B2	CV	SS
1990	0	0.00	323 (1)	0	0.00	929 (0)	0	0.00	1,252 (1)
1991	0	0.00	409 (1)	0	0.00	890 (0)	0	0.00	1,299 (1)
1992	0	0.00	561 (1)	0	0.00	1,303 (2)	0	0.00	1,864 (3)
1993	0	0.00	400 (0)	1,226	1.00	1,152 (1)	1,226	1.00	1,552 (1)
1994	0	0.00	491 (2)	0	0.00	1,363 (0)	0	0.00	1,854 (2)
1995	0	0.00	459 (0)	0	0.00	1,345 (0)	0	0.00	1,804 (0)
1996	0	0.00	640 (1)	0	0.00	1,512 (1)	0	0.00	2,152 (2)
1997	0	0.00	806 (2)	0	0.00	1,516 (2)	0	0.00	2,322 (4)
1998	0	0.00	912 (1)	0	0.00	1,419 (0)	0	0.00	2,331 (1)
1999	0	0.00	998 (3)	0	0.00	1,559 (0)	0	0.00	2,557 (3)
2000	36	1.00	1,065 (7)	743	1.00	1,433 (2)	779	0.95	2,498 (9)
2001	0	0.00	951 (7)	0	0.00	1,618 (2)	0	0.00	2,569 (9)
2002	0	0.00	1,008 (5)	0	0.00	1,468 (0)	0	0.00	2,476 (5)
2003	0	0.00	890 (7)	3,752	1.00	1,407 (1)	3,752	1.00	2,297 (8)
2004	0	0.00	682 (4)	0	0.00	1,260 (1)	0	0.00	1,942 (5)
2005	26	1.00	626 (10)	4,185	1.00	1,203 (2)	4,211	0.99	1,829 (12)
2006	404	1.00	560 (7)	0	0.00	1,538 (1)	404	1.00	2,098 (8)
2007	0	0.00	582 (2)	0	0.00	1,374 (1)	0	0.00	1,956 (3)
2008	0	0.00	729 (1)	0	0.00	1,304 (0)	0	0.00	2,033 (1)
2009	0	0.00	600 (1)	0	0.00	1,303 (4)	0	0.00	1,903 (5)
2010	0	0.00	775 (5)	0	0.00	1,780 (3)	0	0.00	2,555 (8)
2011	0	0.00	741 (2)	0	0.00	1,672 (2)	0	0.00	2,413 (4)
2012	162	1.00	761 (5)	0	0.00	1,865 (3)	162	1.00	2,626 (8)
2013	0	0.00	418 (2)	945	1.00	1,508 (3)	945	1.00	1,926 (5)
2014	0	0.00	757 (2)	0	0.00	1,561 (4)	0	0.00	2,318 (6)
2015	0	0.00	818 (8)	0	0.00	1,599 (5)	0	0.00	2,417 (13)
2016	0	0.00	814 (7)	0	0.00	1,578 (5)	0	0.00	2,392 (12)
2017	0	0.00	731 (2)	0	0.00	1,619 (2)	0	0.00	2,350 (4)
2018	0	0.00	857 (6)	0	0.00	1,546 (3)	0	0.00	2,403 (9)
2019	0	0.00	814 (3)	0	0.00	1,538 (3)	0	0.00	2,352 (6)

Table 5. Estimated landings of Tilefish in pounds whole weight by state and year (MRIP).

Year	FLKeys	FLE	SC	NC	Total
1981	862,302	0	0	0	862,302
1983	0	0	1,899	0	1,899
1984	0	37,473	0	0	37,473
1985	0	193,541	0	1,822	195,363
1986	0	0	289	0	289
1987	13,600	0	0	209	13,809
1988	0	0	0	2,343	2,343
1990	0	0	0	2,118	2,118
1991	0	0	0	663	663
1992	10,713	5,110	0	0	15,823
1993	0	0	0	0	0
1994	0	9,720	0	0	9,720
1996	0	6,392	0	132	6,524
1997	0	744	0	59,985	60,728
1998	0	1,703	0	0	1,703
1999	0	348	0	5,322	5,669
2000	341	9,533	0	4,562	14,436
2001	514	6,971	0	12,062	19,546
2002	0	0	0	12,883	12,883
2003	0	448	0	32,684	33,132
2004	0	2,761	0	24,396	27,157
2005	571	0	0	125,267	125,838
2006	0	8,352	0	20,081	28,433
2007	0	2,935	0	5,137	8,072
2008	263	0	0	0	263
2009	0	123,183	0	0	123,183
2010	1,091	57,940	0	2,473	61,504
2011	0	51,515	0	0	51,515
2012	1,097	26,527	0	143	27,767
2013	0	16,027	0	3,113	19,140
2014	13,228	8,348	0	0	21,577
2015	46,001	15,586	0	903	62,490
2016	5,158	68,942	0	881	74,981
2017	5,589	13,973	0	0	19,562
2018	3,443	50,281	0	0	53,725
2019	0	357,406	0	7,567	364,974

Table 6. Summary of length measurements (millimeters fork length) from MRIP-intercepted Tilefish by state and year. Summaries include the number of fish measured by MRIP (Fish), the number of angler trips from which those fish were measured (Trp), and the minimum (Min), geometric mean (Avg), and maximum (Max) size of fish lengths.

Year	FLKeys					FLE					SC					NC				
	Fish	Trp	Min	Avg	Max	Fish	Trp	Min	Avg	Max	Fish	Trp	Min	Avg	Max	Fish	Trp	Min	Avg	Max
1981	13	1	416	527	660	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1982	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1983	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	1	1	240	240	240	0	0	0	0	0	0	0	0	0	0
1985	0	0	0	0	0	8	3	240	344	406	0	0	0	0	0	1	1	240	240	240
1986	0	0	0	0	0	0	0	0	0	0	1	1	586	586	586	0	0	0	0	0
1987	5	1	465	613	721	0	0	0	0	0	0	0	0	0	0	1	1	400	400	400
1988	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	540	540	540
1989	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1990	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	480	480	480
1991	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	428	455	482
1992	0	0	0	0	0	7	3	428	459	482	0	0	0	0	0	0	0	0	0	0
1993	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1994	0	0	0	0	0	3	2	465	588	755	0	0	0	0	0	0	0	0	0	0
1995	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1996	0	0	0	0	0	2	1	366	453	540	0	0	0	0	0	1	1	520	520	520
1997	0	0	0	0	0	1	1	531	531	531	0	0	0	0	0	22	3	430	558	630
1998	0	0	0	0	0	3	1	430	533	620	0	0	0	0	0	0	0	0	0	0
1999	0	0	0	0	0	5	2	506	537	562	0	0	0	0	0	5	1	430	507	562
2000	2	1	526	526	526	6	3	493	516	560	0	0	0	0	0	14	3	389	523	747
2001	5	4	380	422	526	12	4	482	629	892	0	0	0	0	0	20	3	389	496	593
2002	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	31	7	431	570	791
2003	0	0	0	0	0	1	1	613	613	613	0	0	0	0	0	97	12	431	513	646
2004	0	0	0	0	0	1	1	489	489	489	0	0	0	0	0	64	12	336	420	600
2005	3	3	425	435	455	0	0	0	0	0	0	0	0	0	0	172	11	425	514	666
2006	0	0	0	0	0	8	2	368	494	810	0	0	0	0	0	35	5	253	483	698
2007	0	0	0	0	0	1	1	574	574	574	0	0	0	0	0	10	2	253	468	698
2008	1	1	450	450	450	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2009	0	0	0	0	0	12	5	459	607	856	0	0	0	0	0	0	0	0	0	0
2010	0	0	0	0	0	11	4	530	618	715	0	0	0	0	0	7	3	736	784	838
2011	0	0	0	0	0	12	4	510	672	794	0	0	0	0	0	0	0	0	0	0
2012	2	1	409	409	409	11	6	554	603	699	0	0	0	0	0	2	2	722	847	972

Year	FLKeys					FLE					SC					NC				
	Fish	Trp	Min	Avg	Max	Fish	Trp	Min	Avg	Max	Fish	Trp	Min	Avg	Max	Fish	Trp	Min	Avg	Max
2013	0	0	0	0	0	18	8	381	521	671	0	0	0	0	0	2	1	374	536	699
2014	3	2	479	700	960	5	4	374	551	721	0	0	0	0	0	0	0	0	0	0
2015	13	8	410	640	985	22	10	446	550	985	0	0	0	0	0	5	2	738	783	826
2016	1	1	531	531	531	20	10	429	563	684	0	0	0	0	0	7	3	738	829	1,043
2017	2	1	510	538	566	6	4	467	524	573	0	0	0	0	0	0	0	0	0	0
2018	5	4	610	754	899	20	11	403	559	910	0	0	0	0	0	0	0	0	0	0
2019	0	0	0	0	0	12	8	411	625	818	0	0	0	0	0	3	1	557	687	910

Table 7. Summary of weight measurements (pounds whole weight) from MRIP-intercepted Tilefish by state and year. Summaries include the number of fish weighed by MRIP (Fish), the number of angler trips from which those fish were weighed (Trp), and the minimum (Min), geometric mean (Avg), and maximum (Max) size of fish weights.

Year	FLKeys					FLE					SC					NC				
	Fish	Trp	Min	Avg	Max	Fish	Trp	Min	Avg	Max	Fish	Trp	Min	Avg	Max	Fish	Trp	Min	Avg	Max
1981	13	1	2.1	4.1	7.4	0	0	0.0	0.0	0.0	0	0	0.0	0.0	0.0	0	0	0.0	0.0	0.0
1982	0	0	0.0	0.0	0.0	0	0	0.0	0.0	0.0	0	0	0.0	0.0	0.0	0	0	0.0	0.0	0.0
1983	0	0	0.0	0.0	0.0	0	0	0.0	0.0	0.0	0	0	0.0	0.0	0.0	0	0	0.0	0.0	0.0
1984	0	0	0.0	0.0	0.0	1	1	0.5	0.5	0.5	0	0	0.0	0.0	0.0	0	0	0.0	0.0	0.0
1985	0	0	0.0	0.0	0.0	8	3	0.4	1.5	2.2	0	0	0.0	0.0	0.0	1	1	0.4	0.4	0.4
1986	0	0	0.0	0.0	0.0	0	0	0.0	0.0	0.0	1	1	5.9	5.9	5.9	0	0	0.0	0.0	0.0
1987	5	1	4.4	9.7	16.7	0	0	0.0	0.0	0.0	0	0	0.0	0.0	0.0	1	1	1.5	1.5	1.5
1988	0	0	0.0	0.0	0.0	0	0	0.0	0.0	0.0	0	0	0.0	0.0	0.0	1	1	4.4	4.4	4.4
1989	0	0	0.0	0.0	0.0	0	0	0.0	0.0	0.0	0	0	0.0	0.0	0.0	0	0	0.0	0.0	0.0
1990	0	0	0.0	0.0	0.0	0	0	0.0	0.0	0.0	0	0	0.0	0.0	0.0	1	1	3.1	3.1	3.1
1991	0	0	0.0	0.0	0.0	0	0	0.0	0.0	0.0	0	0	0.0	0.0	0.0	2	1	2.6	3.0	3.3
1992	0	0	0.0	0.0	0.0	7	3	2.5	2.9	3.2	0	0	0.0	0.0	0.0	0	0	0.0	0.0	0.0
1993	0	0	0.0	0.0	0.0	0	0	0.0	0.0	0.0	0	0	0.0	0.0	0.0	0	0	0.0	0.0	0.0

Year	FLKeys					FLE					SC					NC				
	Fish	Trp	Min	Avg	Max	Fish	Trp	Min	Avg	Max	Fish	Trp	Min	Avg	Max	Fish	Trp	Min	Avg	Max
1994	0	0	0.0	0.0	0.0	3	2	2.4	6.2	11.9	0	0	0.0	0.0	0.0	0	0	0.0	0.0	0.0
1995	0	0	0.0	0.0	0.0	0	0	0.0	0.0	0.0	0	0	0.0	0.0	0.0	0	0	0.0	0.0	0.0
1996	0	0	0.0	0.0	0.0	2	1	1.3	2.9	4.5	0	0	0.0	0.0	0.0	1	1	4.8	4.8	4.8
1997	0	0	0.0	0.0	0.0	1	1	4.7	4.7	4.7	0	0	0.0	0.0	0.0	22	3	3.1	5.5	7.8
1998	0	0	0.0	0.0	0.0	3	1	5.7	8.2	11.3	0	0	0.0	0.0	0.0	0	0	0.0	0.0	0.0
1999	0	0	0.0	0.0	0.0	5	2	4.6	6.4	8.7	0	0	0.0	0.0	0.0	5	1	2.4	4.2	5.3
2000	2	1	4.9	4.9	4.9	6	3	3.2	3.9	5.1	0	0	0.0	0.0	0.0	14	3	2.3	4.6	12.2
2001	5	4	1.6	2.4	4.7	12	4	3.3	9.2	22.7	0	0	0.0	0.0	0.0	20	3	2.2	4.3	7.1
2002	0	0	0.0	0.0	0.0	0	0	0.0	0.0	0.0	0	0	0.0	0.0	0.0	31	7	2.1	6.3	13.7
2003	0	0	0.0	0.0	0.0	1	1	6.0	6.0	6.0	0	0	0.0	0.0	0.0	97	12	2.5	4.2	10.6
2004	0	0	0.0	0.0	0.0	1	1	3.3	3.3	3.3	0	0	0.0	0.0	0.0	64	12	0.9	2.0	6.0
2005	3	3	1.9	2.1	2.3	0	0	0.0	0.0	0.0	0	0	0.0	0.0	0.0	172	11	2.0	3.4	8.8
2006	0	0	0.0	0.0	0.0	8	2	1.3	4.2	15.9	0	0	0.0	0.0	0.0	35	5	2.4	3.8	9.4
2007	0	0	0.0	0.0	0.0	1	1	5.1	5.1	5.1	0	0	0.0	0.0	0.0	10	2	2.8	4.6	9.4
2008	1	1	1.3	1.3	1.3	0	0	0.0	0.0	0.0	0	0	0.0	0.0	0.0	0	0	0.0	0.0	0.0
2009	0	0	0.0	0.0	0.0	12	5	2.0	7.2	17.9	0	0	0.0	0.0	0.0	0	0	0.0	0.0	0.0
2010	0	0	0.0	0.0	0.0	11	4	4.3	7.0	9.9	0	0	0.0	0.0	0.0	7	3	11.0	14.6	18.1
2011	0	0	0.0	0.0	0.0	12	4	3.8	10.1	16.4	0	0	0.0	0.0	0.0	0	0	0.0	0.0	0.0
2012	2	1	1.8	1.8	1.8	11	6	4.8	6.5	10.1	0	0	0.0	0.0	0.0	2	2	9.7	20.8	32.0
2013	0	0	0.0	0.0	0.0	18	8	1.5	3.9	8.3	0	0	0.0	0.0	0.0	2	1	1.5	5.8	10.1
2014	3	2	2.7	12.8	28.3	5	4	1.5	4.9	9.3	0	0	0.0	0.0	0.0	0	0	0.0	0.0	0.0
2015	13	8	1.7	9.5	26.5	22	10	2.2	5.3	32.2	0	0	0.0	0.0	0.0	5	2	17.0	17.6	18.7
2016	1	1	4.5	4.5	4.5	20	10	2.2	4.7	8.0	0	0	0.0	0.0	0.0	7	3	17.6	22.5	34.2
2017	2	1	3.6	4.5	5.3	6	4	2.7	4.1	5.9	0	0	0.0	0.0	0.0	0	0	0.0	0.0	0.0
2018	5	4	6.2	13.3	22.7	20	11	1.7	5.6	24.2	0	0	0.0	0.0	0.0	0	0	0.0	0.0	0.0
2019	0	0	0.0	0.0	0.0	12	8	1.9	7.7	16.6	0	0	0.0	0.0	0.0	3	1	4.7	11.6	24.2

Table 8. Summary of length measurements (millimeters fork length) from MRIP-intercepted Tilefish by mode and year. Summaries include the number of fish measured by MRIP (Fish), the number of angler trips from which those fish were measured (Trp), and the minimum (Min), geometric mean (Avg), and maximum (Max) size of fish lengths.

Year	Cbt					Priv				
	Fish	Trp	Min	Avg	Max	Fish	Trp	Min	Avg	Max
1981	0	0	0	0	0	13	1	416	527	660
1982	0	0	0	0	0	0	0	0	0	0
1983	0	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	1	1	240	240	240
1985	1	1	240	240	240	8	3	240	344	406
1986	1	1	586	586	586	0	0	0	0	0
1987	6	2	400	578	721	0	0	0	0	0
1988	0	0	0	0	0	1	1	540	540	540
1989	0	0	0	0	0	0	0	0	0	0
1990	1	1	480	480	480	0	0	0	0	0
1991	2	1	428	455	482	0	0	0	0	0
1992	6	2	428	455	482	1	1	482	482	482
1993	0	0	0	0	0	0	0	0	0	0
1994	3	2	465	588	755	0	0	0	0	0
1995	0	0	0	0	0	0	0	0	0	0
1996	1	1	520	520	520	2	1	366	453	540
1997	6	2	430	548	630	17	2	480	559	630
1998	3	1	430	533	620	0	0	0	0	0
1999	10	3	430	522	562	0	0	0	0	0
2000	19	6	389	522	747	3	1	493	520	560
2001	35	9	380	532	892	2	2	389	469	549
2002	31	7	431	570	791	0	0	0	0	0
2003	98	13	431	514	646	0	0	0	0	0
2004	64	12	336	420	600	1	1	489	489	489
2005	156	13	425	516	666	19	1	435	486	550
2006	39	6	253	476	698	4	1	368	576	810
2007	10	2	253	468	698	1	1	574	574	574
2008	1	1	450	450	450	0	0	0	0	0
2009	4	1	512	612	711	8	4	459	605	856
2010	11	4	530	712	838	7	3	530	636	715
2011	3	2	510	591	713	9	2	609	699	794
2012	9	5	409	624	972	6	4	554	588	699
2013	16	6	381	522	671	4	3	374	525	699
2014	3	2	374	451	520	5	4	479	700	960
2015	32	13	410	586	985	8	7	489	696	985
2016	21	9	471	650	1,043	7	5	429	562	637
2017	4	2	467	519	573	4	3	510	535	566
2018	20	12	403	585	899	5	3	474	651	910
2019	7	6	411	523	656	8	3	557	738	910

Table 9. Summary of weight measurements (pounds whole weight) from MRIP-intercepted Tilefish by mode and year. Summaries include the number of fish weighed by MRIP (Fish), the number of angler trips from which those fish were weighed (Trp), and the minimum (Min), geometric mean (Avg), and maximum (Max) size of fish weights.

Year	Cbt					Priv				
	Fish	Trp	Min	Avg	Max	Fish	Trp	Min	Avg	Max
1981	0	0	0.0	0.0	0.0	13	1	2.1	4.1	7.4
1982	0	0	0.0	0.0	0.0	0	0	0.0	0.0	0.0
1983	0	0	0.0	0.0	0.0	0	0	0.0	0.0	0.0
1984	0	0	0.0	0.0	0.0	1	1	0.5	0.5	0.5
1985	1	1	0.4	0.4	0.4	8	3	0.4	1.5	2.2
1986	1	1	5.9	5.9	5.9	0	0	0.0	0.0	0.0
1987	6	2	1.5	8.3	16.7	0	0	0.0	0.0	0.0
1988	0	0	0.0	0.0	0.0	1	1	4.4	4.4	4.4
1989	0	0	0.0	0.0	0.0	0	0	0.0	0.0	0.0
1990	1	1	3.1	3.1	3.1	0	0	0.0	0.0	0.0
1991	2	1	2.6	3.0	3.3	0	0	0.0	0.0	0.0
1992	6	2	2.5	2.9	3.2	1	1	3.1	3.1	3.1
1993	0	0	0.0	0.0	0.0	0	0	0.0	0.0	0.0
1994	3	2	2.4	6.2	11.9	0	0	0.0	0.0	0.0
1995	0	0	0.0	0.0	0.0	0	0	0.0	0.0	0.0
1996	1	1	4.8	4.8	4.8	2	1	1.3	2.9	4.5
1997	6	2	3.3	5.4	7.4	17	2	3.1	5.5	7.8
1998	3	1	5.7	8.2	11.3	0	0	0.0	0.0	0.0
1999	10	3	2.4	5.3	8.7	0	0	0.0	0.0	0.0
2000	19	6	2.3	4.5	12.2	3	1	3.4	3.9	4.9
2001	35	9	1.6	5.8	22.7	2	2	2.8	3.3	3.9
2002	31	7	2.1	6.3	13.7	0	0	0.0	0.0	0.0
2003	98	13	2.5	4.2	10.6	0	0	0.0	0.0	0.0
2004	64	12	0.9	2.0	6.0	1	1	3.3	3.3	3.3
2005	156	13	1.9	3.5	8.8	19	1	2.0	2.9	3.7
2006	39	6	1.3	3.6	9.4	4	1	1.3	6.6	15.9
2007	10	2	2.8	4.6	9.4	1	1	5.1	5.1	5.1
2008	1	1	1.3	1.3	1.3	0	0	0.0	0.0	0.0
2009	4	1	4.3	7.3	10.2	8	4	2.0	7.2	17.9
2010	11	4	4.3	11.4	18.1	7	3	4.3	7.6	9.9
2011	3	2	3.8	6.6	11.6	9	2	6.7	11.3	16.4
2012	9	5	1.8	9.0	32.0	6	4	4.8	6.0	10.1
2013	16	6	1.5	4.0	8.3	4	3	1.5	4.8	10.1
2014	3	2	1.5	2.6	3.7	5	4	2.7	11.0	28.3
2015	32	13	1.7	7.1	26.5	8	7	3.0	12.9	32.2
2016	21	9	2.8	10.7	34.2	7	5	2.2	4.6	6.4
2017	4	2	2.7	4.2	5.9	4	3	3.4	4.1	5.3
2018	20	12	1.7	6.5	22.7	5	3	3.0	9.7	24.2
2019	7	6	1.9	4.2	7.5	8	3	4.7	12.2	24.2

Table 10. Summary of length (millimeters fork length) and weight measurements (pounds whole weight) from MRIP-intercepted Tilefish by year. Summaries include the number of fish weighed by MRIP (Fish), the number of angler trips from which those fish were weighed (Trp), and the minimum (Min), geometric mean (Avg), and maximum (Max) size of fish weights.

Year	Length					Weight				
	Fish	Trp	Min	Avg	Max	Fish	Trp	Min	Avg	Max
1981	13	1	416.0	526.8	660.0	13	1	2.1	4.1	7.4
1982	0	0	0.0	0.0	0.0	0	0	0.0	0.0	0.0
1983	0	0	0.0	0.0	0.0	0	0	0.0	0.0	0.0
1984	1	1	240.0	240.0	240.0	1	1	0.5	0.5	0.5
1985	9	4	240.0	332.2	406.0	9	4	0.4	1.4	2.2
1986	1	1	585.8	585.8	585.8	1	1	5.9	5.9	5.9
1987	6	2	400.0	577.8	721.0	6	2	1.5	8.3	16.7
1988	1	1	540.0	540.0	540.0	1	1	4.4	4.4	4.4
1989	0	0	0.0	0.0	0.0	0	0	0.0	0.0	0.0
1990	1	1	480.0	480.0	480.0	1	1	3.1	3.1	3.1
1991	2	1	428.0	455.0	482.0	2	1	2.6	3.0	3.3
1992	7	3	428.0	458.9	482.0	7	3	2.5	2.9	3.2
1993	0	0	0.0	0.0	0.0	0	0	0.0	0.0	0.0
1994	3	2	465.0	588.1	755.0	3	2	2.4	6.2	11.9
1995	0	0	0.0	0.0	0.0	0	0	0.0	0.0	0.0
1996	3	2	366.0	475.3	540.0	3	2	1.3	3.5	4.8
1997	23	4	430.0	556.6	630.0	23	4	3.1	5.4	7.8
1998	3	1	430.0	533.3	620.0	3	1	5.7	8.2	11.3
1999	10	3	430.0	521.9	562.0	10	3	2.4	5.3	8.7
2000	22	7	389.0	521.4	747.0	22	7	2.3	4.4	12.2
2001	37	11	380.0	529.0	892.0	37	11	1.6	5.6	22.7
2002	31	7	431.0	570.1	791.0	31	7	2.1	6.3	13.7
2003	98	13	431.0	514.2	646.0	98	13	2.5	4.2	10.6
2004	65	13	336.0	421.1	600.0	65	13	0.9	2.1	6.0
2005	175	14	425.0	513.1	666.0	175	14	1.9	3.4	8.8
2006	43	7	253.0	485.1	810.0	43	7	1.3	3.9	15.9
2007	11	3	253.0	477.9	698.0	11	3	2.8	4.6	9.4
2008	1	1	450.0	450.0	450.0	1	1	1.3	1.3	1.3
2009	12	5	459.0	607.1	856.0	12	5	2.0	7.2	17.9
2010	18	7	530.0	682.4	838.0	18	7	4.3	10.0	18.1
2011	12	4	510.0	672.2	794.0	12	4	3.8	10.1	16.4
2012	15	9	409.0	609.7	972.0	15	9	1.8	7.8	32.0
2013	20	9	374.0	522.9	699.0	20	9	1.5	4.1	10.1
2014	8	6	374.0	606.8	960.0	8	6	1.5	7.9	28.3
2015	40	20	410.0	608.3	985.0	40	20	1.7	8.2	32.2
2016	28	14	429.0	628.2	1,043.0	28	14	2.2	9.2	34.2
2017	8	5	467.0	527.1	573.0	8	5	2.7	4.2	5.9
2018	25	15	403.0	597.9	910.0	25	15	1.7	7.2	24.2
2019	15	9	411.0	637.5	910.0	15	9	1.9	8.5	24.2

Table 11. Recreational Fishing Effort (in angler trips) for South Atlantic anglers by state and year (MRIP).

Year	FLW	FLE	GA	SC	NC	Total
1981	2,425,657	6,277,154	334,352	958,178	1,509,705	11,505,046
1982	2,524,527	8,362,364	452,867	1,029,421	1,860,255	14,229,434
1983	1,844,876	7,863,121	467,737	1,072,004	1,926,892	13,174,630
1984	4,057,309	8,776,686	493,904	1,157,296	2,026,886	16,512,081
1985	1,402,537	9,237,607	607,066	1,251,245	1,983,178	14,481,633
1986	1,309,605	10,414,189	645,387	1,229,688	2,255,934	15,854,803
1987	2,415,992	10,426,294	652,719	1,260,245	2,046,250	16,801,500
1988	1,290,108	8,740,959	640,280	1,270,568	2,170,959	14,112,874
1989	2,561,528	9,278,269	696,901	1,298,394	2,313,067	16,148,159
1990	2,106,507	8,601,245	660,117	1,357,469	2,342,212	15,067,550
1991	3,768,438	9,068,498	675,055	1,409,231	2,411,796	17,333,018
1992	2,893,069	9,681,272	693,196	1,385,280	2,464,364	17,117,181
1993	3,656,860	10,202,708	707,259	1,404,830	2,423,200	18,394,857
1994	3,048,533	10,492,040	718,023	1,386,978	2,423,380	18,068,954
1995	3,207,537	9,284,055	727,609	1,362,563	2,419,498	17,001,262
1996	3,355,332	9,810,992	738,294	1,390,116	2,666,916	17,961,650
1997	3,240,826	9,918,568	751,325	1,479,293	2,938,210	18,328,222
1998	2,310,705	10,135,070	770,506	1,464,931	3,002,959	17,684,171
1999	2,097,265	10,397,584	816,972	1,531,984	3,340,567	18,184,372
2000	2,170,443	12,935,144	881,153	1,649,601	3,583,602	21,219,943
2001	1,825,661	12,077,972	904,282	1,697,486	3,559,426	20,064,827
2002	1,362,340	13,380,043	916,566	1,704,911	3,731,089	21,094,949
2003	1,802,625	14,242,195	982,375	1,826,542	3,941,640	22,795,377
2004	2,326,106	12,514,239	1,026,636	2,010,314	4,459,434	22,336,729
2005	1,124,620	14,171,121	1,079,925	1,997,328	4,574,402	22,947,396
2006	1,725,987	15,712,135	1,115,094	2,055,379	4,744,000	25,352,595
2007	2,132,560	16,130,127	1,182,980	2,228,070	4,857,474	26,531,211
2008	2,728,743	13,637,658	1,217,909	2,332,665	4,770,328	24,687,303
2009	1,571,082	15,539,525	1,167,841	2,277,639	4,951,707	25,507,794
2010	1,556,387	17,134,743	1,171,479	2,337,303	5,121,309	27,321,221
2011	1,165,386	14,911,916	1,252,030	2,244,802	5,342,048	24,916,182
2012	2,160,528	12,484,575	1,203,499	2,246,289	5,213,798	23,308,689
2013	2,236,887	12,392,125	1,248,779	2,235,958	4,959,320	23,073,069
2014	2,345,159	13,951,616	1,293,328	2,370,957	4,992,389	24,953,449
2015	1,717,622	13,257,830	1,394,376	2,467,917	5,106,963	23,944,708
2016	1,503,709	12,649,234	1,400,927	2,701,373	5,000,966	23,256,209
2017	1,097,282	12,005,535	1,596,787	3,223,680	5,194,169	23,117,453
2018	1,219,536	14,943,936	1,632,333	2,410,254	4,427,392	24,633,451
2019	1,635,233	11,965,016	1,481,619	3,078,192	4,807,211	22,967,271

Table 12. Recreational Fishing Effort (in angler trips) for South Atlantic anglers by mode and year (MRIP).

Year	Cbt	Priv	Total
1981	443,445	11,061,600	11,505,045
1982	543,344	13,686,090	14,229,434
1983	549,886	12,624,744	13,174,630
1984	631,740	15,880,341	16,512,081
1985	647,288	13,834,345	14,481,633
1986	734,582	15,120,221	15,854,803
1987	684,175	16,117,325	16,801,500
1988	574,659	13,538,214	14,112,873
1989	703,403	15,444,757	16,148,160
1990	594,310	14,473,240	15,067,550
1991	615,933	16,717,086	17,333,019
1992	574,093	16,543,089	17,117,182
1993	617,079	17,777,777	18,394,856
1994	632,200	17,436,754	18,068,954
1995	647,404	16,353,858	17,001,262
1996	632,194	17,329,456	17,961,650
1997	574,241	17,753,982	18,328,223
1998	618,206	17,065,966	17,684,172
1999	555,961	17,628,410	18,184,371
2000	514,365	20,705,579	21,219,944
2001	600,971	19,463,855	20,064,826
2002	693,754	20,401,196	21,094,950
2003	658,098	22,137,279	22,795,377
2004	663,047	21,673,683	22,336,730
2005	614,999	22,332,397	22,947,396
2006	588,260	24,764,335	25,352,595
2007	630,150	25,901,061	26,531,211
2008	545,399	24,141,904	24,687,303
2009	558,034	24,949,760	25,507,794
2010	483,966	26,837,256	27,321,222
2011	509,413	24,406,769	24,916,182
2012	537,932	22,770,757	23,308,689
2013	518,665	22,554,404	23,073,069
2014	619,611	24,333,837	24,953,448
2015	693,462	23,251,246	23,944,708
2016	716,062	22,540,147	23,256,209
2017	677,522	22,439,930	23,117,452
2018	723,594	23,909,857	24,633,451
2019	971,881	21,995,390	22,967,271

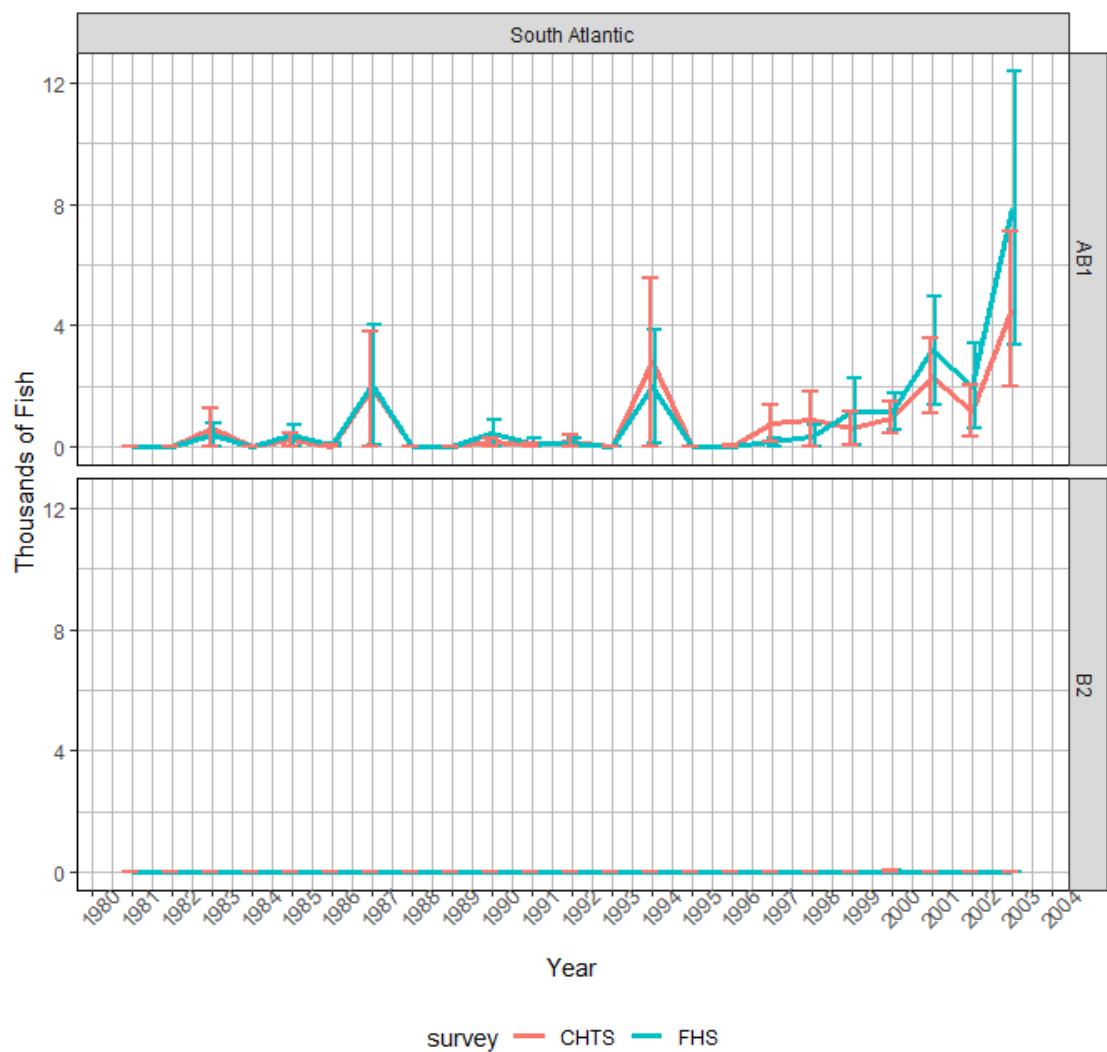


Figure 1. Comparison of charterboat landings (AB1) and discard (B2) estimates (with standard error intervals shown) for Tilefish from the Coastal Household Telephone Survey (CHTS) and For-Hire Survey (FHS) from the South Atlantic between 1981 to 2003. The charterboat calibration approach is discussed in Dettloff and Matter (2019; SEDAR64-RD-12).

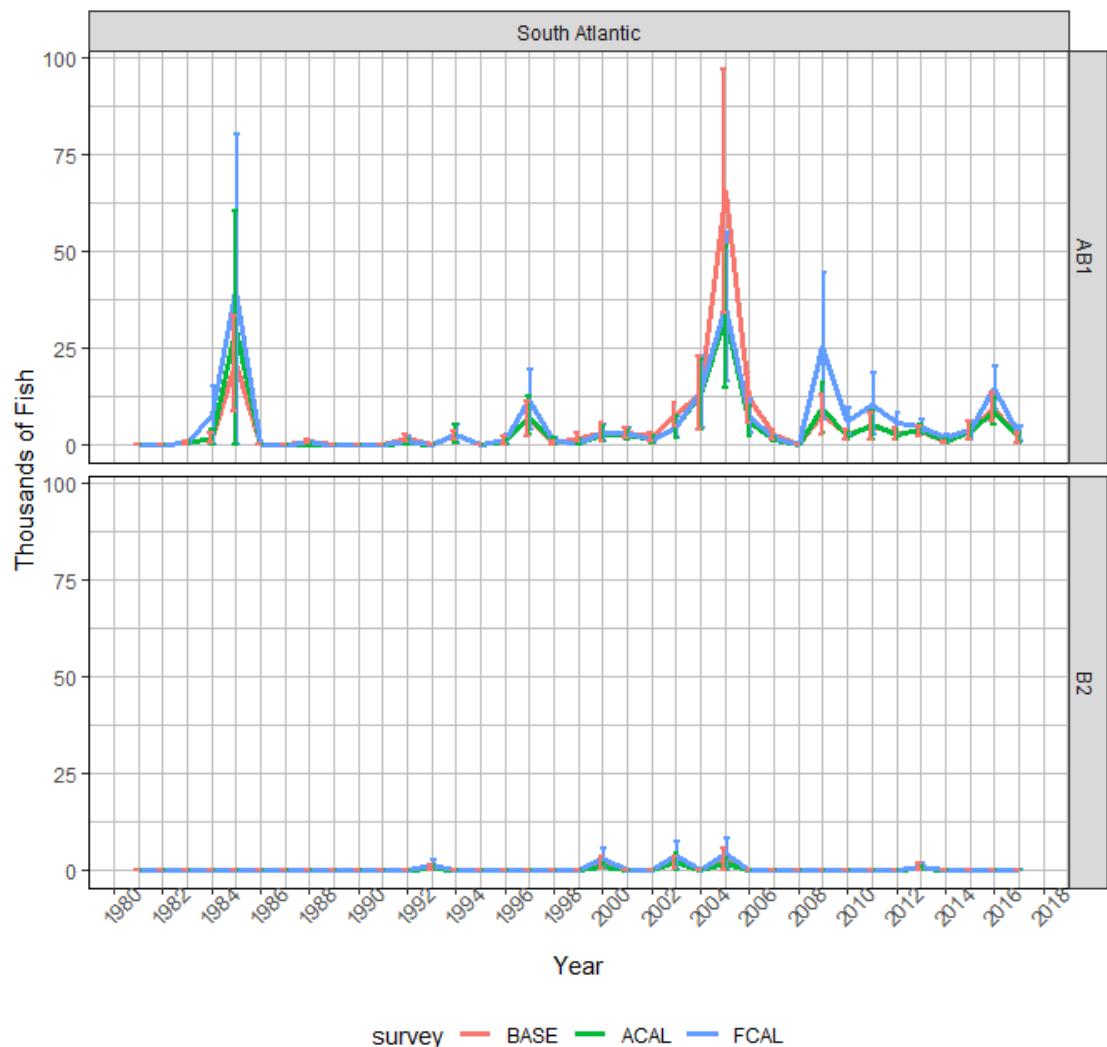


Figure 2. MRIP Base (BASE), APAIS Calibrated (ACAL), and Fully Calibrated APAIS and FES (FCAL) catch estimates for Tilefish in the South Atlantic. Landings (AB1) and discard (B2) estimates are in thousands of fish. Estimates in this figure do not include the Florida Keys as that domain is not available from the MRIP online comparison tool (NMFS). The Headboat and shore modes are also included as uncertainty estimates for catch across multiple modes are only available when all modes are selected.

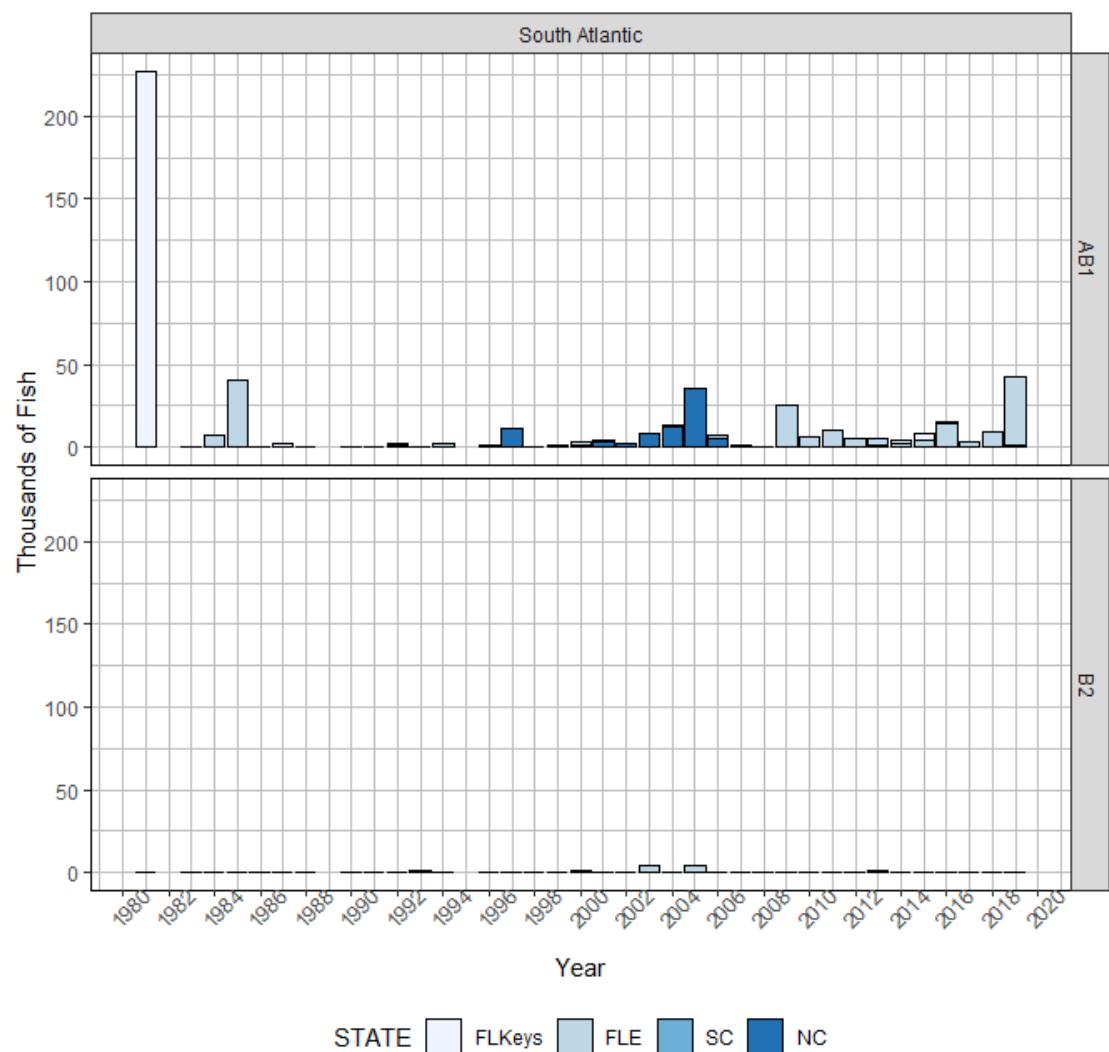


Figure 3. Annual Tilefish landings (AB1) and discards (B2), in thousands of fish, by state from 1981 to 2019 (MRIP).

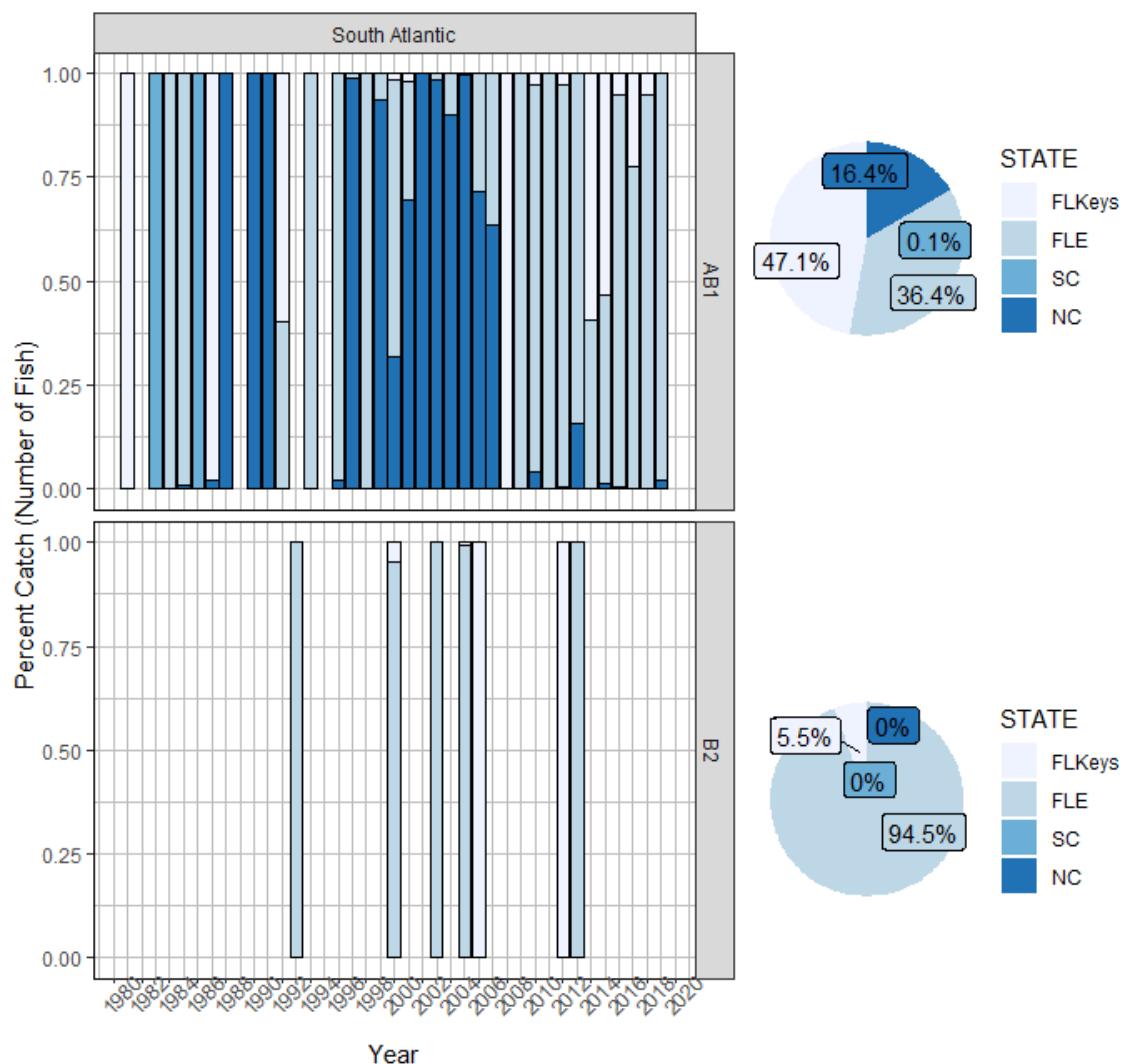


Figure 3a. Percent of Tilefish landings (AB1) and discards (B2), in numbers of fish, from each state by year (bar graph) and overall (pie chart) between 1981 and 2019 (MRIP).

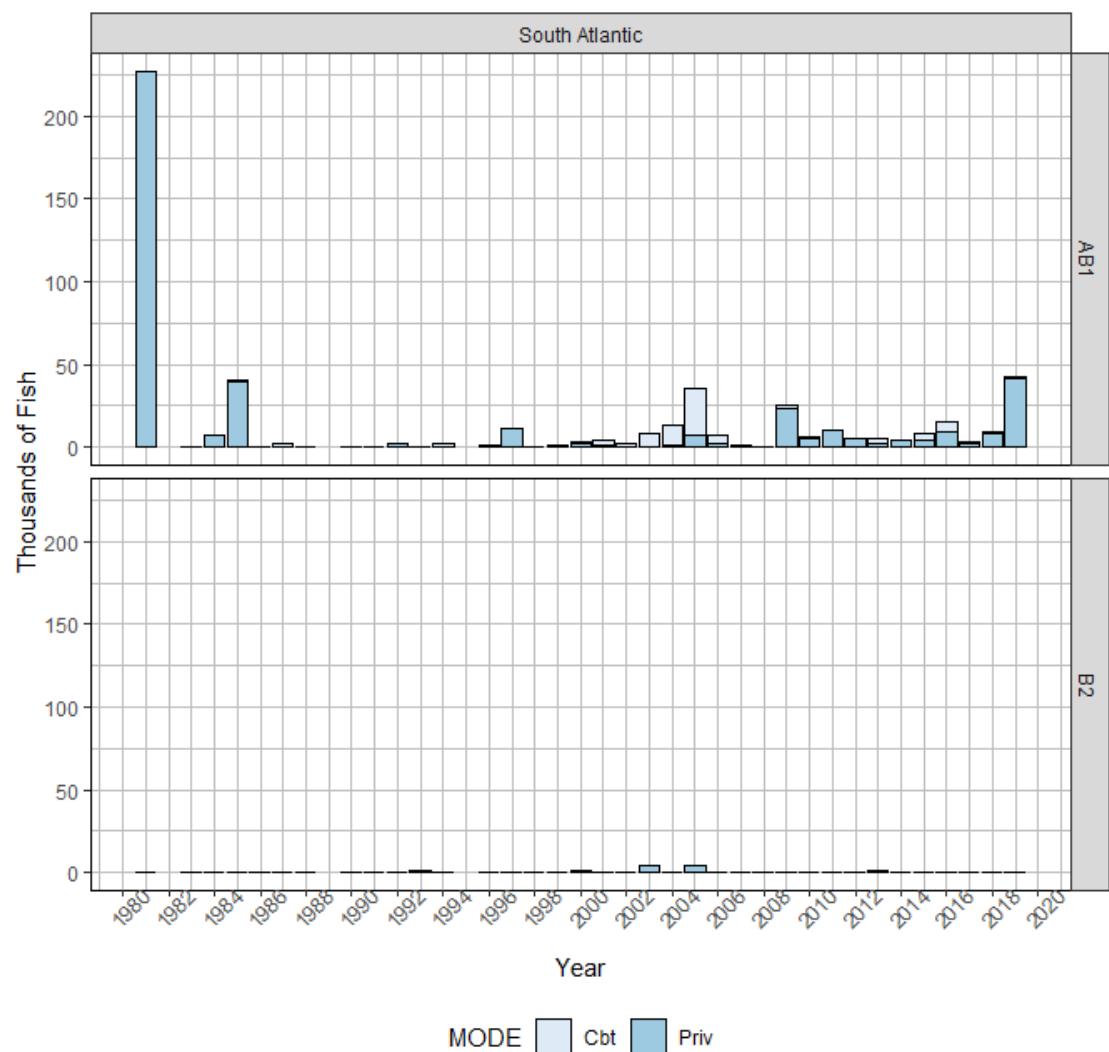


Figure 4. Annual Tilefish landings (AB1) and discards (B2), in thousands of fish, by mode from 1981 to 2019 (MRIP).

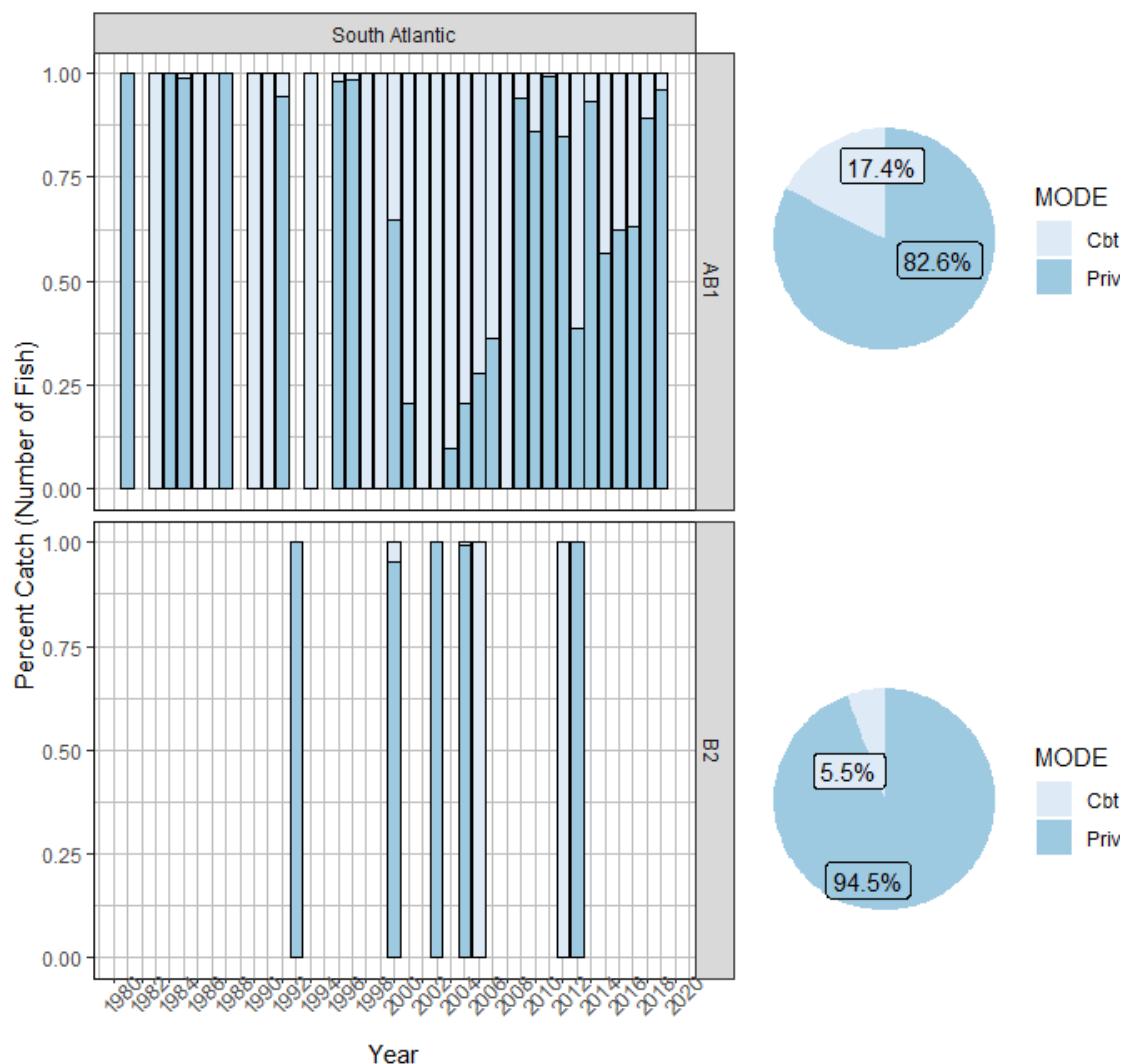


Figure 4a. Percent of Tilefish landings (AB1) and discards (B2), in numbers of fish, from each mode by year (bar graph) and overall (pie chart) between 1981 and 2019 (MRIP).

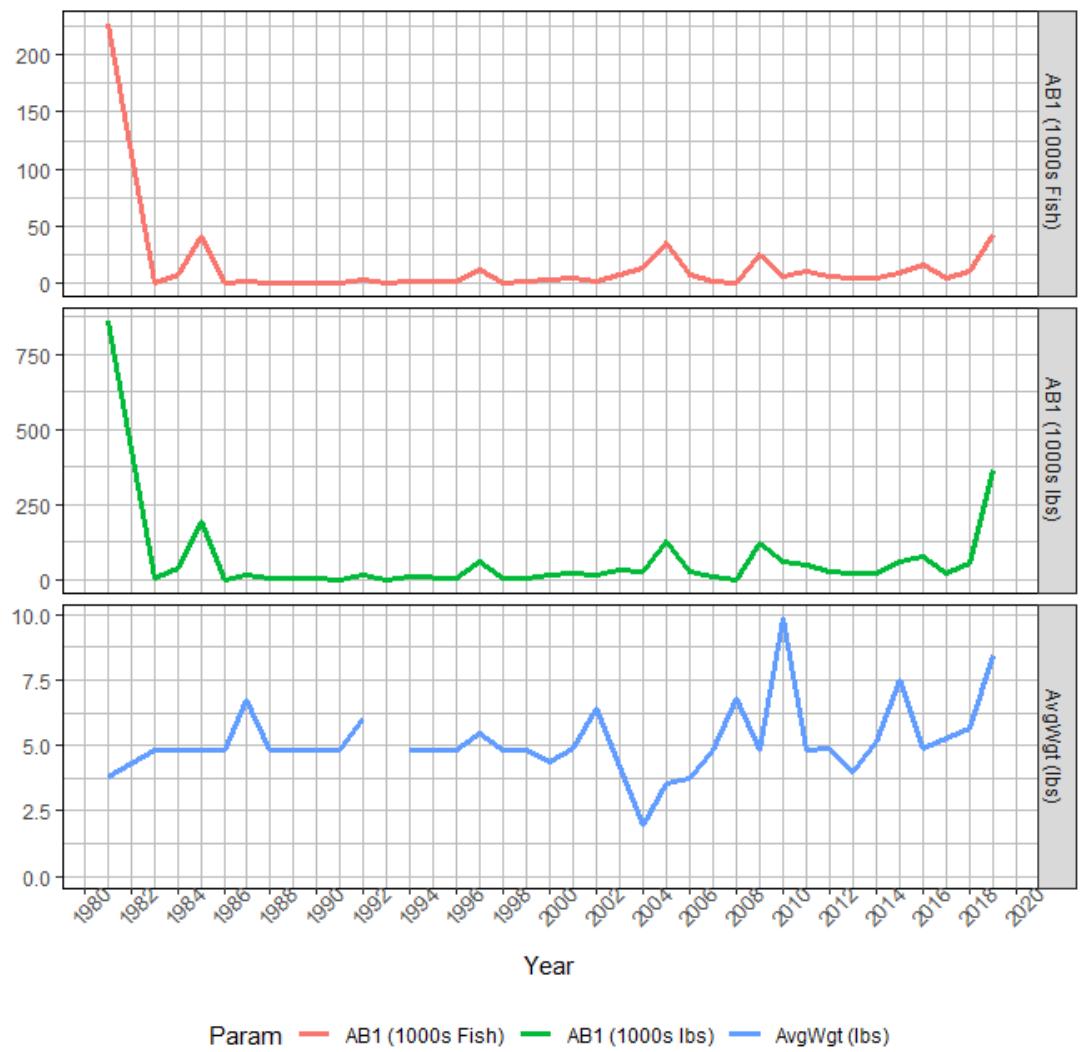


Figure 5. Estimates of annual landings for Tilefish in the South Atlantic, as estimated from MRIP: estimated landings in thousands of fish (top), estimated landings in thousands of pounds whole weight (middle), and average weight of landed fish (estimated lbs/estimated fish) (bottom).