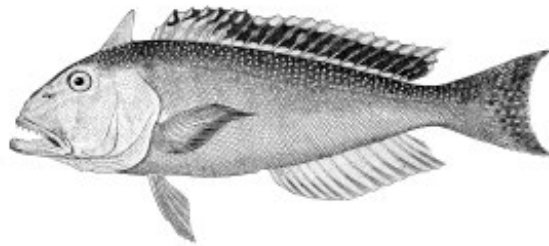


Golden Tilefish, *Lopholatilus chamaeleonticeps*, data update
through 2022 in the Middle Atlantic-Southern New England
Region



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Reported 2022 landings in the commercial fishery were 680 mt, a decrease of 6% from 2021, and 82% of the 2022 total allowable landings (Table 1; Figure 1).

Commercial landings per unit effort is the only index of abundance for golden tilefish. Landings per unit of effort in 2022 decreased relative to the recent peak in 2020 as the strong 2013 year class appears to be aging out of the commercial fishery.

Tracking of the strong 2013 year class is also reflected in the landings market category proportions and the landings at length distributions (Tables 2 and 3; Figures 3 and 4). There is some evidence of a stronger than average year class in 2017 which can be seen tracking through the updated 2021 and 2022 landings market category proportions and the landings at length distributions. However, the decrease in the 2022 lpue suggests that the 2017 year class may not be as strong as the 2013 year class.

Table 1. Landings of tilefish in live metric tons from 1915-2022. Landings in 1915-1972 are from Freeman and Turner (1977), 1973-1989 are from the general canvas data, 1990-1993 are from the weighout system, 1994-2003 are from the dealer reported data, and 2004-2022 is from Dealer electronic reporting. - indicates missing data.

year	mt	year	mt	year	mt
1915	148	1960	1,064	2005	676
1916	4,501	1961	388	2006	907
1917	1,338	1962	291	2007	749
1918	157	1963	121	2008	737
1919	92	1964	596	2009	864
1920	5	1965	614	2010	922
1921	523	1966	438	2011	864
1922	525	1967	50	2012	834
1923	623	1968	32	2013	846
1924	682	1969	33	2014	814
1925	461	1970	61	2015	593
1926	904	1971	66	2016	494
1927	1,264	1972	122	2017	695
1928	1,076	1973	394	2018	728
1929	2,096	1974	586	2019	697
1930	1,858	1975	710	2020	636
1931	1,206	1976	1,010	2021	723
1932	961	1977	2,082	2022	680
1933	688	1978	3,257		
1934	-	1979	3,968		
1935	1,204	1980	3,889		
1936	-	1981	3,499		
1937	1,101	1982	1,990		
1938	533	1983	1,876		
1939	402	1984	2,009		
1940	269	1985	1,961		
1941	-	1986	1,950		
1942	62	1987	3,210		
1943	8	1988	1,361		
1944	22	1989	454		
1945	40	1990	874		
1946	129	1991	1,189		
1947	191	1992	1,653		
1948	465	1993	1,838		
1949	582	1994	786		
1950	1,089	1995	666		
1951	1,031	1996	1,121		
1952	964	1997	1,810		
1953	1,439	1998	1,342		
1954	1,582	1999	525		
1955	1,629	2000	506		
1956	707	2001	874		
1957	252	2002	851		
1958	672	2003	1,130		
1959	380	2004	1,215		

Table 2. Total commercial dealer and vessel trip report (VTR) landings in live mt and the commercial catch-per-unit effort (CPUE) data used for tilefish. Dealer landings before 1990 are from the general canvas data. CPUE data from 1979 to the first half of 1994 are from the NEFSC weighout database, while data in the second half of 1994 to 2022 are from the vtr system (below the dotted line). Effort data are limited to longline trips which targeted tilefish (= or >75% of the landings were tilefish) and where data existed for the days absent. Nominal CPUE series are calculated using landed weight per days absent minus one day steam time per trip. Da represents days absent.

year	Weighout		Commerical CPUE data subset								
	& Dealer landings	vtr landings	interview landings	No. interviews	% interview trips	No. vessels	subset landings	days absent	No. trips	da per trip	nominal cpue
1979	3,968		0.0	0	0.0%	20	1,807	1,187	330	3.6	1.93
1980	3,889		0.8	1	0.3%	18	2,153	1,390	396	3.5	1.99
1981	3,499		35.0	4	1.2%	21	1,971	1,262	333	3.8	1.95
1982	1,990		90.7	13	5.7%	18	1,267	1,282	229	5.6	1.10
1983	1,876		85.8	16	8.9%	21	1,013	1,451	179	8.1	0.73
1984	2,009		140.1	25	18.2%	20	878	1,252	138	9.1	0.72
1985	1,961		297.1	64	30.6%	25	933	1,671	209	8.0	0.59
1986	1,950		120.7	31	16.5%	23	767	1,186	188	6.3	0.71
1987	3,210		198.5	38	18.5%	30	1,014	1,343	206	6.5	0.82
1988	1,361		148.2	30	19.4%	23	422	846	154	5.5	0.56
1989	454		92.8	11	15.7%	11	165	399	70	5.7	0.46
1990	874		32.4	8	11.9%	11	241	556	68	8.2	0.45
1991	1,189		0.8	3	2.8%	7	444	961	107	9.0	0.48
1992	1,653		58.0	9	8.6%	13	587	969	105	9.2	0.62
1993	1,838		71.9	11	10.5%	10	571	959	105	9.1	0.61
1994	-		0	0	0.0%	7	127	385	42	9.2	0.34
1994	786	30				4	53	150	18	8.3	0.37
1995	666	547				5	466	954	99	9.6	0.50
1996	1,121	865				8	822	1,318	134	9.8	0.64
1997	1,810	1,439				6	1,427	1,332	133	10.0	1.09
1998	1,342	1,068				9	1,034	1,517	158	9.6	0.70
1999	525	527				10	516	1,185	133	8.9	0.45
2000	506	446				11	421	932	110	8.5	0.47
2001	874	705				8	691	1,046	116	9.0	0.68
2002	851	724				8	712	951	114	8.3	0.78
2003	1,130	790				7	788	691	101	6.8	1.22
2004	1,215	1,153				12	1,136	811	134	6.1	1.54
2005	676	808				11	802	470	93	5.1	1.95
2006	907	870				12	852	682	105	6.5	1.35
2007	749	710				12	691	727	101	7.2	1.01
2008	737	675				14	672	1,119	124	9.0	0.62
2009	864	812				12	800	1,106	130	8.5	0.75
2010	922	871				11	853	694	108	6.4	1.33
2011	864	822				9	781	517	89	5.8	1.68
2012	834	799				12	795	651	100	6.5	1.32
2013	846	844				11	796	831	112	7.4	1.02
2014	814	790				13	716	961	120	8.0	0.78
2015	593	593				12	515	920	111	8.3	0.58
2016	494	491				11	381	806	98	8.2	0.49
2017	695	690				9	578	785	91	8.6	0.76
2018	728	724				8	612	638	85	7.5	1.02
2019	697	696				8	639	614	86	7.1	1.11
2020	636	631				8	532	475	74	6.4	1.22
2021	723	719				8	676	625	84	7.4	1.15
2022	680	673				7	613	663	86	7.7	0.97

Table 3. Landings (metric tons) by market category. A large-medium (lg/med) code was developed in 2013 and 2014. Smalls and Kittens were combined since these categories possess similar size fish. Xs is extra small and xl is extra large.

year	xs	small & kittens	medium	lg/med	large	xl	unclassified	total
1990	0	38	103	-	46	0	687	874
1991	0	59	154	-	85	0	891	1189
1992	0	330	88	-	86	0	1,149	1653
1993	0	368	206	-	66	4	1,193	1838
1994	0	19	89	-	54	7	617	786
1995	0	99	88	-	91	2	386	666
1996	0	592	149	-	156	2	221	1121
1997	0	1,130	260	-	111	2	307	1810
1998	0	475	700	-	103	6	58	1342
1999	0	181	201	-	106	8	29	525
2000	0	210	153	-	115	8	20	506
2001	0	564	161	-	124	6	19	874
2002	0	369	311	-	128	3	40	851
2003	0	776	171	-	144	5	35	1130
2004	20	397	523	-	129	9	137	1215
2005	0	18	335	-	149	1	173	676
2006	1	16	233	-	369	1	287	907
2007	3	96	142	-	397	4	106	749
2008	17	149	195	-	299	17	60	737
2009	35	334	179	-	226	28	61	864
2010	16	269	373	-	166	17	81	922
2011	6	142	339	-	216	10	152	864
2012	8	95	308	-	285	17	121	834
2013	19	138	281	14	290	21	82	846
2014	13	227	195	88	238	47	5	814
2015	12	93	161	81	189	57	5	598
2016	44	79	75	65	183	3	15	464
2017	35	299	132	43	152	26	9	695
2018	7	285	231	70	108	20	7	728
2019	5	110	292	130	139	16	6	697
2020	12	77	202	134	191	10	10	635
2021	4	207	223	83	183	7	16	723
2022	7	78	288	130	155	18	4	680

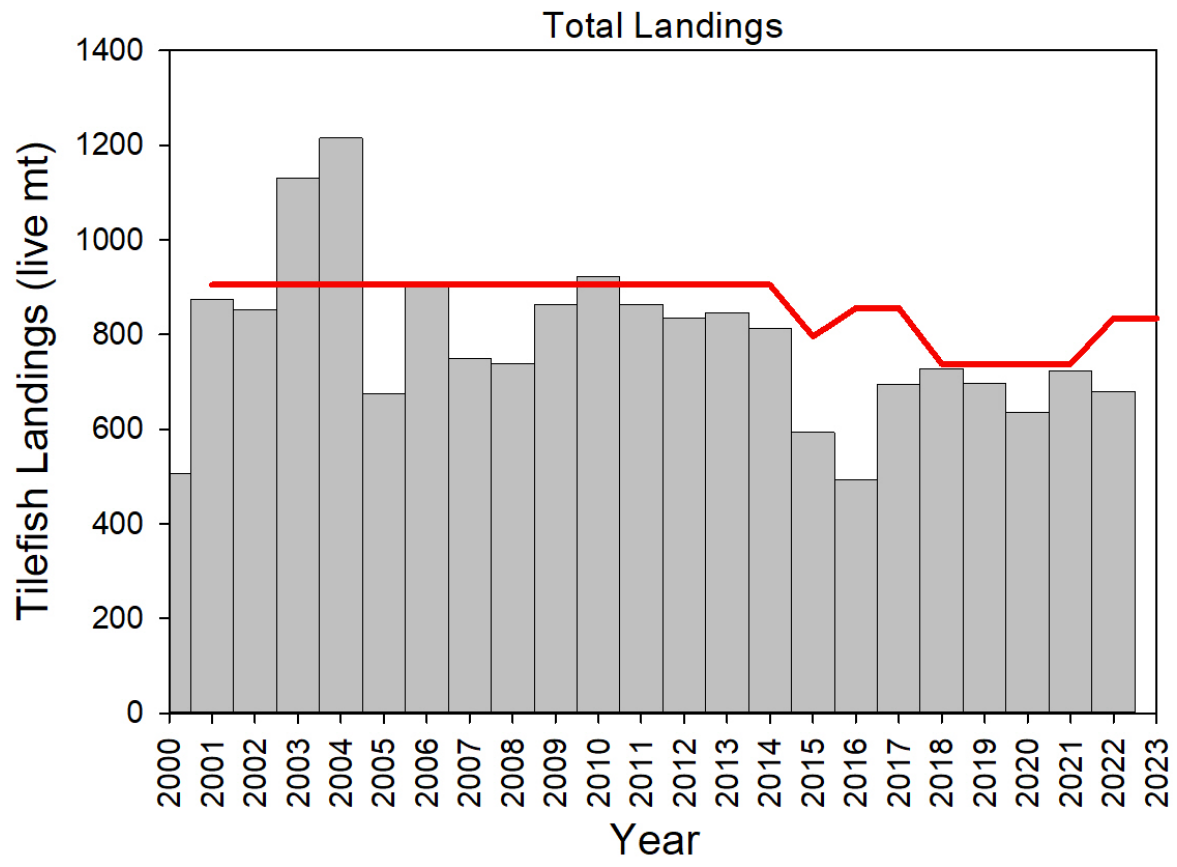


Figure 1. Landings of tilefish in live metric tons from 2001-2022. Red line is the TAL.

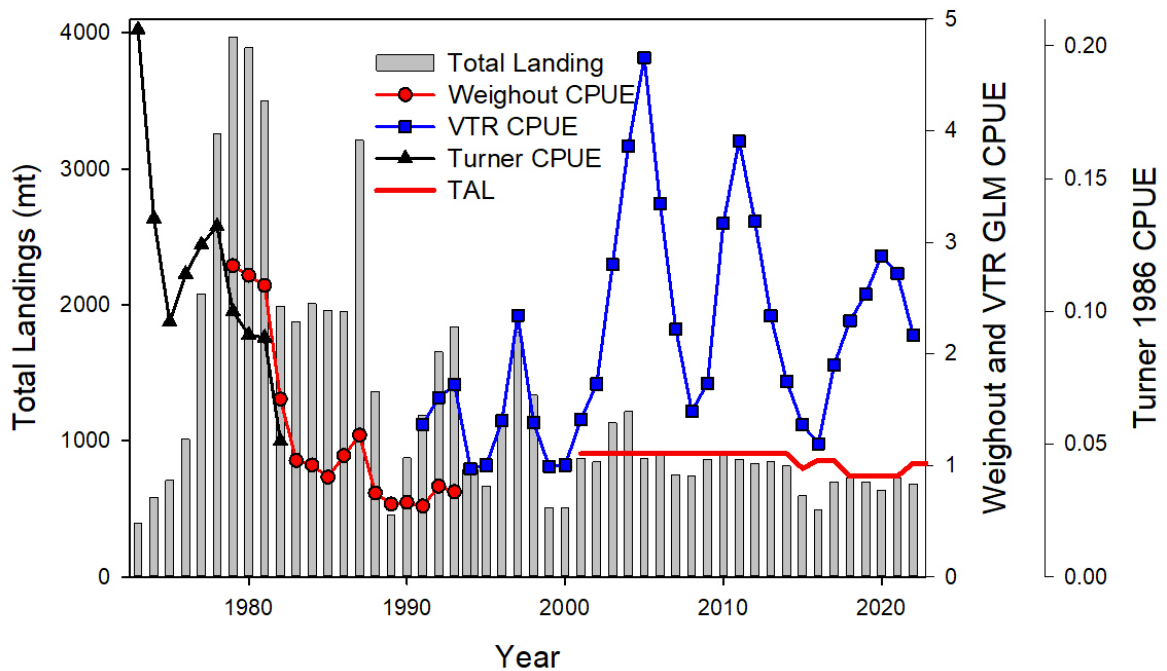


Figure 2. GLM CPUE for the Weighout and VTR data split into two series with additional New York logbook CPUE data from three vessels (1991-1994) added to the VTR series. Four years of overlap between Turner’s and the Weighout CPUE series can also be seen. ASAP relative changes in qs amount CPUE series were not incorporated into the plot. Assumed total landings are also shown. Landings in 2005 were taken from the IVR system. Red line is the TAL.

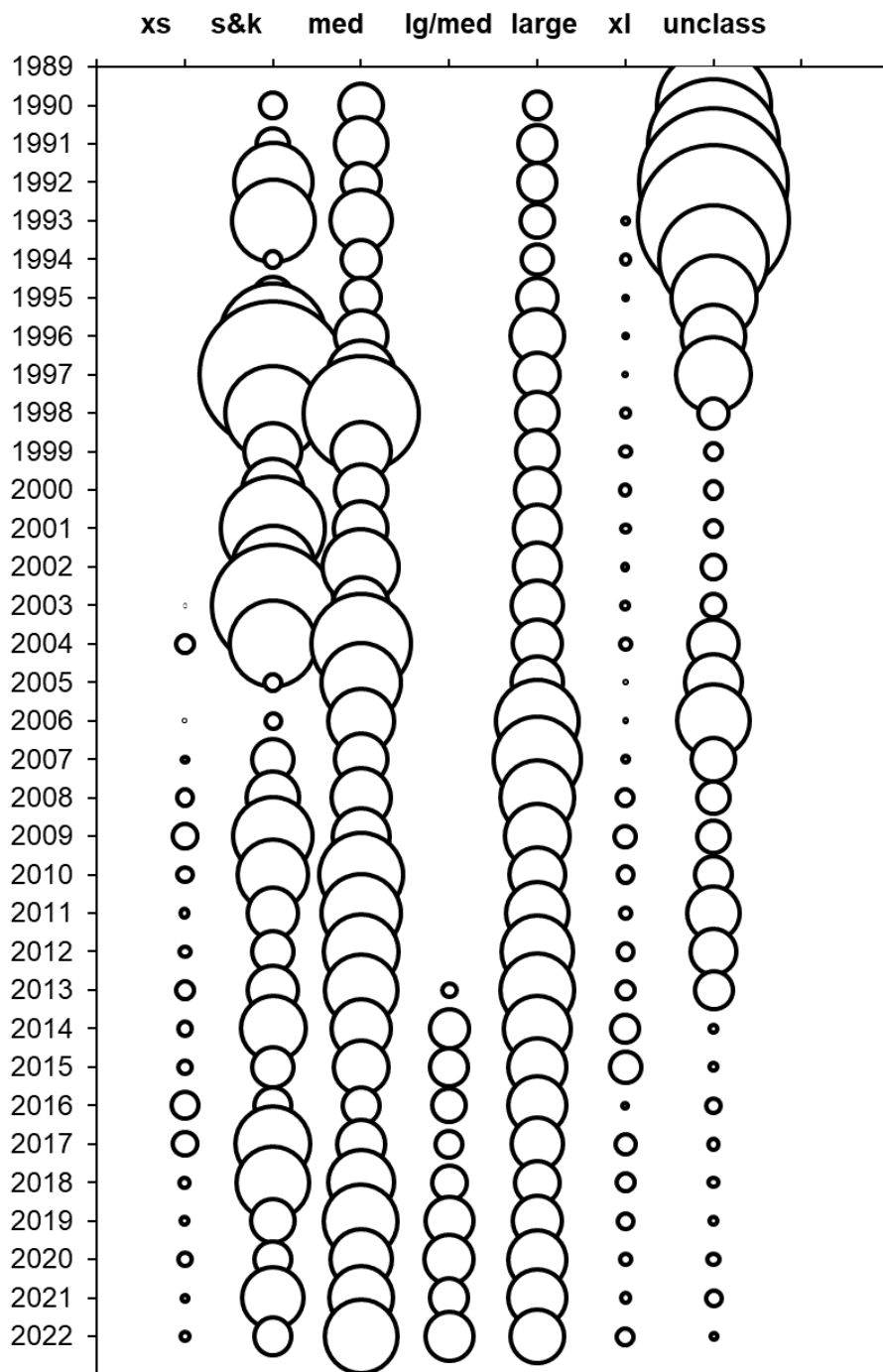


Figure 3. Bubble plot of Golden tilefish landings by market category. Large-medium market category code was added in 2013 and 2015. Smalls and Kittens (s&k) were combined since these categories possess similar size fish.

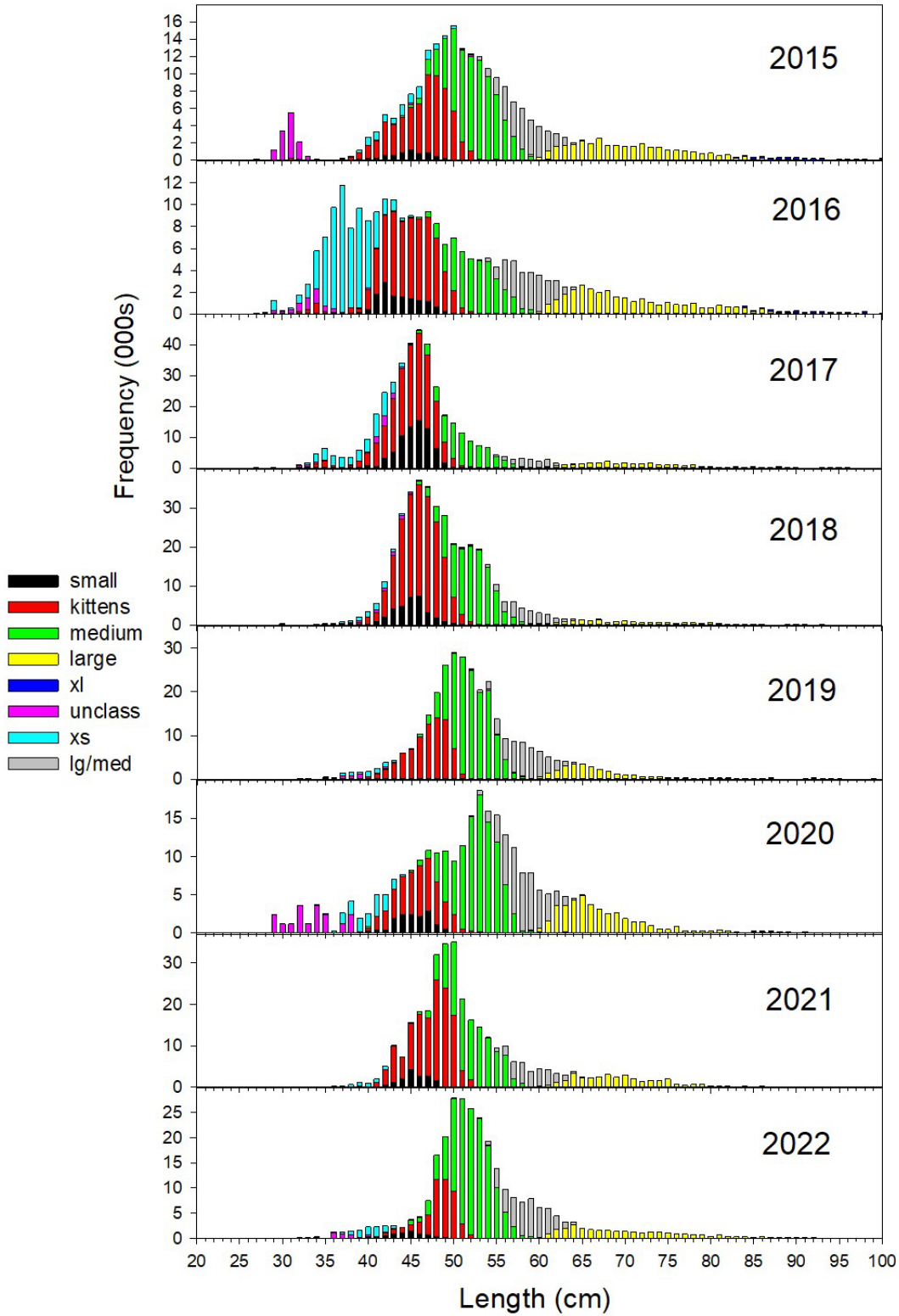


Figure 4. Expanded length frequency distributions from 2015 to 2022. No lengths for extra small (xs) exist in 2013 and smalls in 2019. Kittens lengths were used to characterize the extra small category in 2013 and smalls in 2019. Unclassifieds in 2015 are based on two samples.