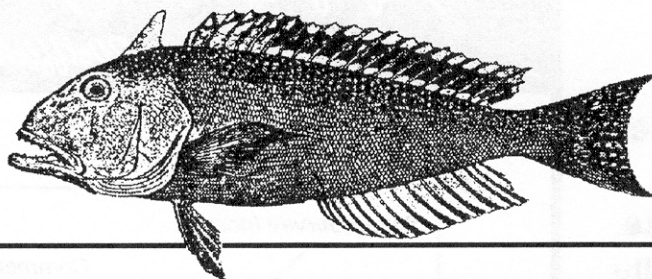


Tilefish



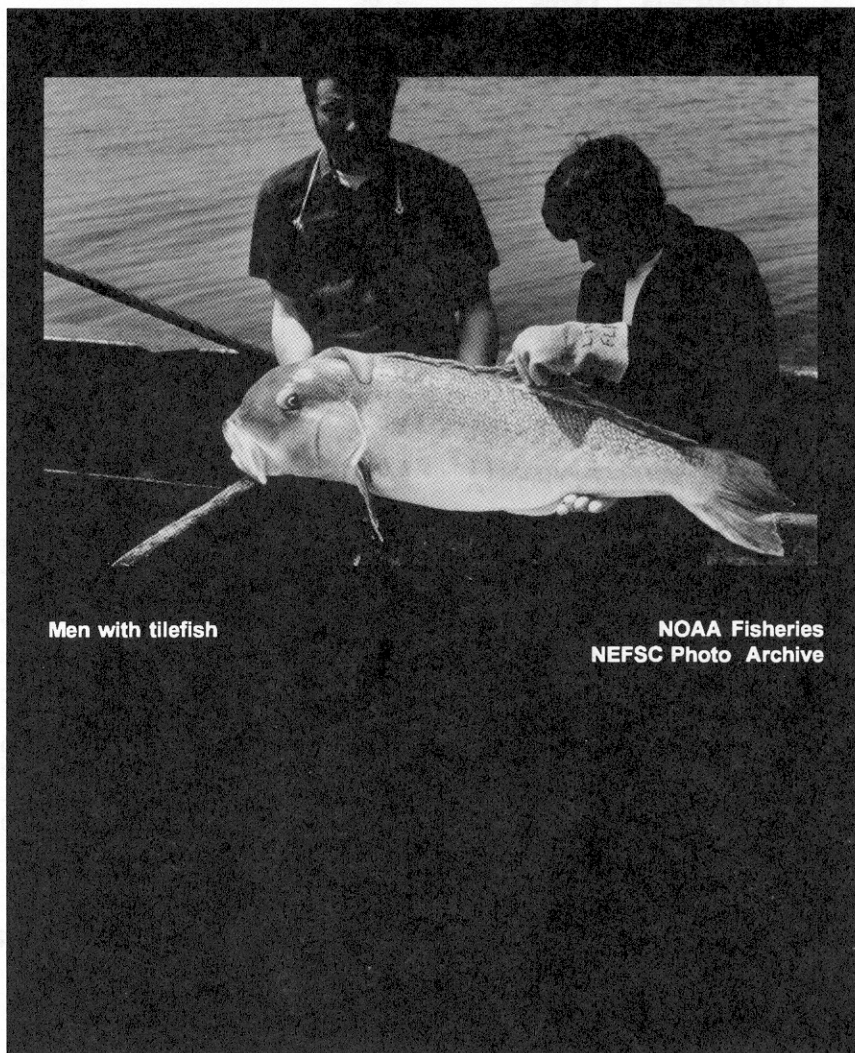
by G. Shepherd

Tilefish, *Lopholatilus chamaeleonticeps*, inhabit the outer continental shelf from Nova Scotia to South America and are relatively abundant in the Southern New England to Mid-Atlantic area at depths of 80 to 440 m (44 to 240 fathoms). They are generally found in and around submarine canyons where they occupy burrows in the sedimentary substrate. Tilefish are relatively slow growing and long-lived, with a maximum observed age and length of 35 years and 110 cm (43.3 in.) for females and 26 years and 112 cm (44.1 in.) for males. At lengths exceeding 70 cm (27.6 in.), the predorsal adipose flap, characteristic of this species, is larger in males and can be used to distinguish the sexes. Tilefish of both sexes are mature at ages of 5 to 7 years.

Nominal catches were first recorded in 1915 (148 mt); a record total of 4,500 mt was taken in 1916, but only 5 mt were reported for 1920. Landings later increased to 1,000 to 1,500 mt during the early 1950s, followed by a decline to 30 mt in 1968-69.

Beginning in the early 1970s, a directed commercial longline fishery expanded rapidly in the Mid-Atlantic and longlines have since been the predominant gear type used. Landings increased to 4,000 mt in 1979 before declining to about 2,000 mt annually from 1982-1986. More recent landings have generally been lower; the 1994-1996 average was 900 mt.

A small recreational fishery developed during the late 1960s in New York and New Jersey but landings never exceeded 100 mt, and recent recreational catches have been negligible.



Men with tilefish

NOAA Fisheries
NEFSC Photo Archive

Catch per unit effort (CPUE) declined from 6.5 mt per standard day fished (df) in 1973 to 1.8 mt in 1982. Since the mid-1980s, CPUE has remained relatively stable about a low level. Estimates of fishing mortality from virtual population analysis or VPA increased from 0.20 (1977) to 0.74 (1981). Estimates are not available for more recent years. Long-term potential catch for tilefish is about

1,200 mt as estimated from a non-equilibrium surplus production model.

Landings and CPUE data indicate that tilefish were overexploited during the height of the longline fishery (between 1977 and 1982). Landings during this period were well above levels corresponding to long-term potential yield, and fishing mortality rates were three times higher than F_{max} . This period was marked by steadily declin-

“Landings and CPUE data indicate that tilefish were overexploited during the height of the longline fishery (between 1977 and 1982).”

ing landings and CPUE, and average size and size at first maturity in males. The stock appears to have been stable about low levels of abundance in recent years.

For further information

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Turner, S.C., C.B. Grimes, and K.W. Able. 1983. Growth, mortality, and age/size structure of the fisheries for tilefish, *Lopholatilus chamaeleonticeps*, in the Middle Atlantic-Southern New England region. *Fish. Bull.*, U.S. 81(4):751-763.

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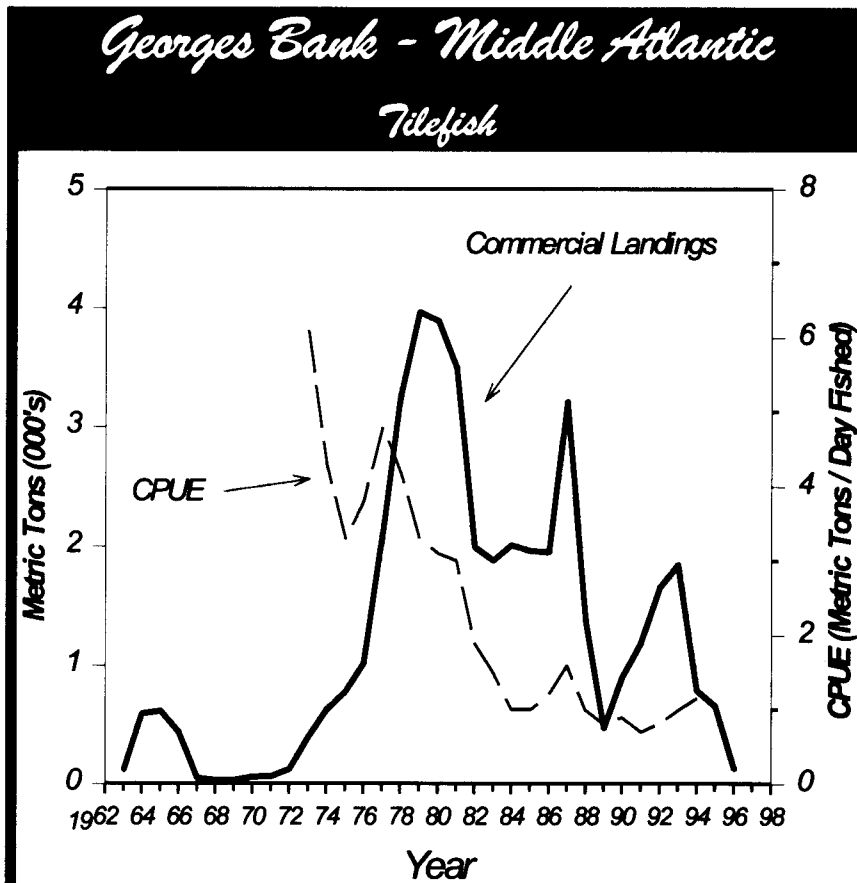


Table 20.1 Recreational catches and commercial landings (thousand metric tons)

Category	Year										
	1977-86 Average	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
U.S. recreational	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Commercial											
United States	2.7	3.2	1.4	0.5	0.9	1.2	1.6	1.8	0.8	0.7	1.1
Canada	-	-	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-	-	-
Total nominal catch	2.7	3.2	1.4	0.5	0.9	1.2	1.6	1.8	0.8	0.7	1.1

Summary Status

- Long-term potential catch = 1,200 mt
- SSB for long-term potential catch = Unknown
- Importance of recreational fishery = Insignificant
- Management = None
- Status of exploitation = Overexploited
- Age at 50% maturity = 5 to 7 years
- Size at 50% maturity = 50 cm (20 in.), females
60 cm (24 in.), males
- Assessment level = Yield per recruit
- Overfishing definition = None
- Fishing mortality rate corresponding to overfishing definition = N/A

$M = 0.15$ $F_{0.1} = 0.17$ $F_{max} = 0.27$ $F_{1996} = \text{Unknown}$