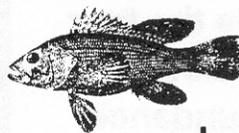
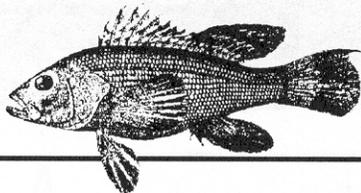


Black Sea Bass



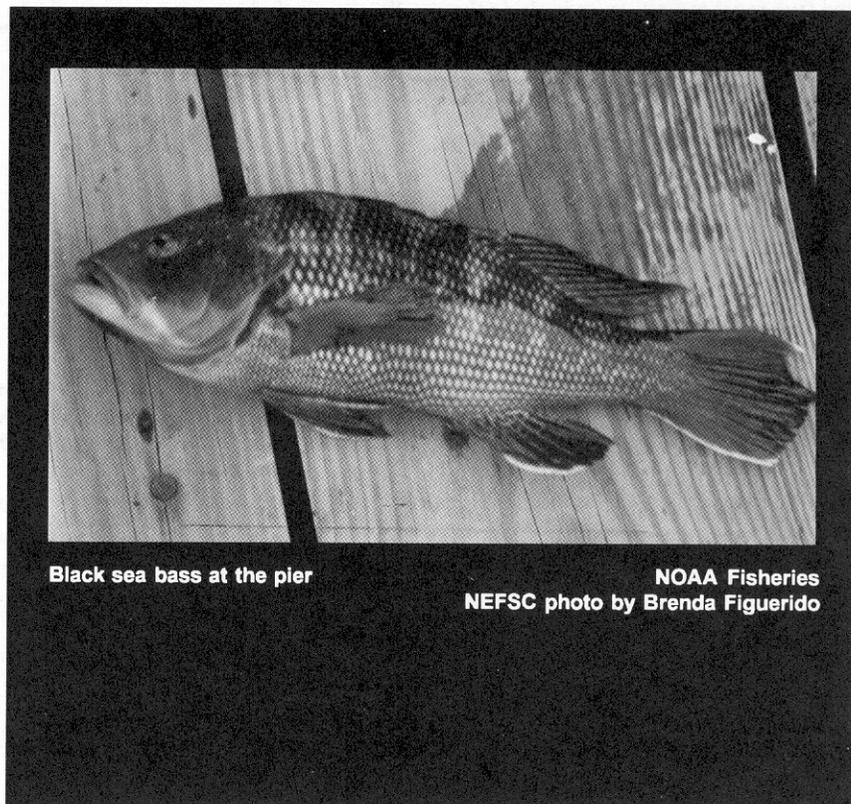
by G. Shepherd

Black sea bass, *Centropristis striata*, occur along the entire U.S. Atlantic coast. Two stocks have been recognized, one north and the other south of Cape Hatteras, North Carolina. The northern group winters along the 100 m (55 fathom) depth contour off Virginia and Maryland, and then migrates north and west into inshore waters, where it becomes associated with structured bottom habitat (reefs, oyster beds, wrecks).

Spawning begins in March off North Carolina and occurs progressively later (until October) further north. Most black sea bass begin life as females and later transform into males, and most individuals (both sexes) attain sexual maturity by age 3. Transformation from female to male generally occurs between ages 2 and 5. Females are rarely found older than 8 years (>35 cm or 14 in.), while males may live up to 15 years (>60 cm or 24 in.). Black sea bass are omnivorous, feeding on crustaceans, molluscs, echinoderms, fish, and plants.

The principal commercial fishing gears used to catch black sea bass are otter trawls and fish pots. Recreational fishing is significant. Black sea bass are managed under Amendment 9 to the Summer Flounder Fishery Management Plan or FMP (now known as the Summer Flounder, Scup, and Black Sea Bass FMP) developed in 1996. Management measures under the FMP include a moratorium program, gear restrictions and minimum fish sizes, a coastwide commercial quota and a recreational harvest limit.

Total catch increased in 1996 to 4,100 mt, up from 3,500 mt in 1995. Commercial landings north of Cape Hatteras fluctuated around 2,600 mt



Black sea bass at the pier

NOAA Fisheries
NEFSC photo by Brenda Figuerido

from 1887 until 1948, when landings increased to 6,900 mt. Landings peaked at 9,900 mt in 1952, declined steadily to 600 mt in 1971, and then increased to 2,400 mt in 1977. Between 1980 and 1993, commercial landings ranged from 1,100 to 2,000 mt, and averaged 1,500 mt per year. Landings declined to 900 mt in 1994 and 1995 and then rose to 1,500 mt in 1996. There has been no foreign fishing on this stock other than for a reported catch of 1,500 mt by distant-water fleets in 1964.

Estimated recreational landings, occurring primarily in the middle Atlantic states, are comparable in magnitude to those from the commercial

fishery. Recreational landings have averaged 2,100 mt per year since 1979, and have accounted for 31-87% of the total annual landings of black sea bass. Recreational landings in 1996 were 2,600 mt, 64% of the 1996 total.

The NEFSC spring bottom trawl survey biomass index increased during the early 1970s, peaking in 1977, but declined sharply between 1979 and 1982 to record-low levels. The index modestly increased during 1985 to 1988, fluctuated around that level until 1993, and then again declined to at or near record lows. Young of year (age 0) indices from the NEFSC autumn bottom trawl survey indicate that above-average year classes occurred

“The index modestly increased during 1985 to 1988, fluctuated around that level until 1993, and then again declined to at or near record lows.”

in 1985 and 1986. Index values for 1994 and 1995 were the highest since 1986, but the 1996 value was well below average.

Size composition data from commercial landings indicate that black sea bass recruit fully to the trap and trawl fisheries by ages 2 and 3, respectively.

Although definitive estimates of fishing mortality are not available for 1996, it appears to have been greater than 1.0 (58% exploitation rate) in recent years. In addition, recent CPUE indices have been moderate to low, and recent survey index values are among the lowest on record. The stock is overexploited and at a low biomass level.

For further information

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*Gulf of Maine - Mid-Atlantic
Black Sea Bass*

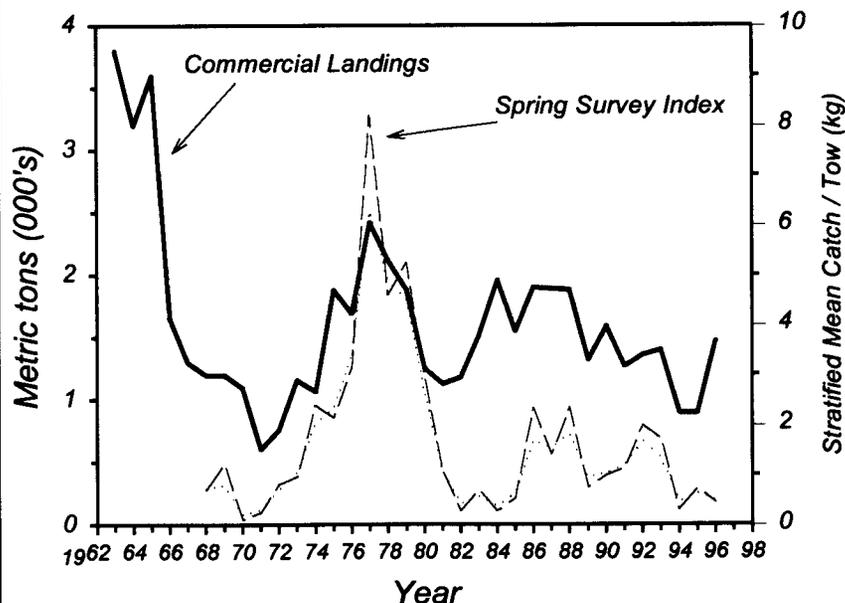


Table 15.1 Recreational and commercial landings (thousand metric tons)

Category	Year										
	1977-86 Average	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
U.S. recreational	2.1 ¹	0.9	1.2	1.5	1.3	1.9	1.2	2.0	1.4	2.6	2.6
Commercial											
United States	1.7	1.9	1.9	1.3	1.6	1.3	1.4	1.4	0.9	0.9	1.5
Canada	-	-	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-	-	-
Total nominal catch	3.8	2.8	3.1	2.8	2.9	3.2	2.6	3.4	2.3	3.5	4.1

¹1979-1986

Summary Status

- Long-term potential catch = Unknown
- SSB for long-term potential catch = Unknown
- Importance of recreational fishery = Major
- Management = Summer Flounder, Scup, and Black Sea Bass FMP
- Status of exploitation = Overexploited
- Age at 50% maturity = 2 years
- Size at 50% maturity = 19.0 cm (7.5 in.), males
19.1 cm (7.5 in.), females
- Assessment level = Index
- Overfishing definition = F_{max}
- Fishing mortality rate corresponding to overfishing definition = $F_{max} = 0.29$

$M = 0.2$ $F_{0.1} = 0.18$ $F_{1996} = >1.0$