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Scup
by
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Scup or porgy, *Stenotomus chrysops*, occur primarily in the Mid-Atlantic Bight from Cape Cod to Cape Hatteras. Seasonal migrations occur during spring and autumn. In summer, scup are common in inshore waters from Massachusetts to Virginia, while in winter, scup are found in offshore waters between Hudson Canyon and Cape Hatteras at depths ranging from 70 to 180 m (38 to 98 fathoms). Sexual maturity is essentially complete by age 3 at a total length of 21 cm (8.3 in.); spawning occurs during summer months. Although ages up to 20 years have been reported, landings and discards in recent years have consisted of largely immature fish, ages 0-2 (<7 in.). Scup attain a maximum length of about 40 cm (16 in.). Tagging studies have indicated the possibility of two stocks, one in Southern New England waters and the other extending south from New Jersey. However, because the separation of stocks is not well-defined spatially, this separation is not used here.

The principal commercial fishing gear is the otter trawl. Recreational catches are significant. The fishery is now managed under the Summer Flounder, Scup, and Black Sea Bass FMP. Management measures include a moratorium on commercial permits, commercial trawl mesh and minimum size (9 in.) restrictions, commercial quotas, recreational harvest limits, recreational minimum size (7 in.) and possession limit restrictions, and a fishing mortality rate reduction strategy. Amendment 12 to the FMP established a biomass threshold for scup based on the maximum value of a 3-year moving average of the NEFSC spring bottom trawl survey index of spawning stock biomass (2.77 kg/tow). The scup stock is overfished when the spawning stock biomass index is below this value. Amendment 12 also defined overfishing for scup to occur when the fishing mortality rate exceeds the threshold fishing mortality of $F_{\max} = 0.26$.

Total landings have declined from an annual average of 10,200 mt in 1981-1988 to only 2,300 mt in 1998, with markedly reduced landings in both commercial and recreational fisheries due to the current management program. Commercial landings from all countries fluctuated between 18,000 and 27,000 mt annually between 1953 and 1963, but declined to about 4,000 mt during the early 1970s. Commercial landings then steadily increased, reaching a peak of 9,900 mt in 1981 before falling to 2,900 mt in 1996. Under Total Allowable Catch (TAC) restrictions during 1997 and 1998, commercial landings were 2,200 mt in 1997 and 1,900 mt in 1998. Landings by distant-water fleets peaked at 5,900 mt in 1963, but declined to less than 100 mt per year after 1975.

Most of the increase in commercial landings during the late 1970s was due to increased fixed-gear and otter trawl catches in the Southern New England-New Jersey area. The Virginia winter trawl fishery, which produced landings in excess of 5,000 mt in the early 1960s, has

averaged fewer than 200 mt in the past 10 years.

Recreational catches have accounted for 15 to 50% of the annual total during the past ten years. The 1998 recreational catch (400 mt) was the lowest in the 1979-1998 time series and the 1997 catch (500 mt) was the second lowest.

Current indices of scup spawning stock biomass are near record lows (1997-1999 average = 0.09 kg/tow), at only 3% of the threshold biomass index of 2.77 kg/tow, and hence the stock is considered to be overfished. Indices of recruitment have trended downward in recent years, except for a moderate 1994 year class and a possibly strong 1997 year class. The stock has a highly truncated age structure, a reflection of prolonged high fishing mortality. Although estimates of commercial fishery discards are uncertain, much of the fishing mortality in recent years is clearly attributable to commercial fishery discards.

For further information:

NEFSC [Northeast Fisheries Science Center]. 1998. [Report of the] 27th Northeast Regional Stock Assessment Workshop (27th SAW), Stock Assessment Review Committee (SARC) consensus summary of assessments. Northeast Fish. Sci. Cent. Ref. Doc. 98-15. 350p.

Summary Status

Long-term potential catch(MSY)	=	10,000 to 15,000 mt
Biomass corresponding to MSY	=	Unknown
Minimum biomass threshold	=	2.77 kg/tow (3-year moving average, NEFSC spring survey SSB index)
Stock biomass index 1997-1999	=	0.09 kg/tow (Implies an overfished condition)
F_{MSY}^1	=	$F_{max} = 0.26$
Overfishing definition	=	$F_{THRESHOLD} = F_{max} = 0.26$
F_{1999}	=	Unknown
Age at 50% maturity	=	2 years, both sexes
Size at 50% maturity	=	15.5 cm (6.1 in.), both sexes
Assessment level	=	Index
Management	=	Summer Flounder, Scup and Black Sea Bass FMP

$$M = 0.20$$

$$F_{0.1} = 0.14$$

$$F_{max} = 0.26$$

¹ F_{max} is currently used as a proxy

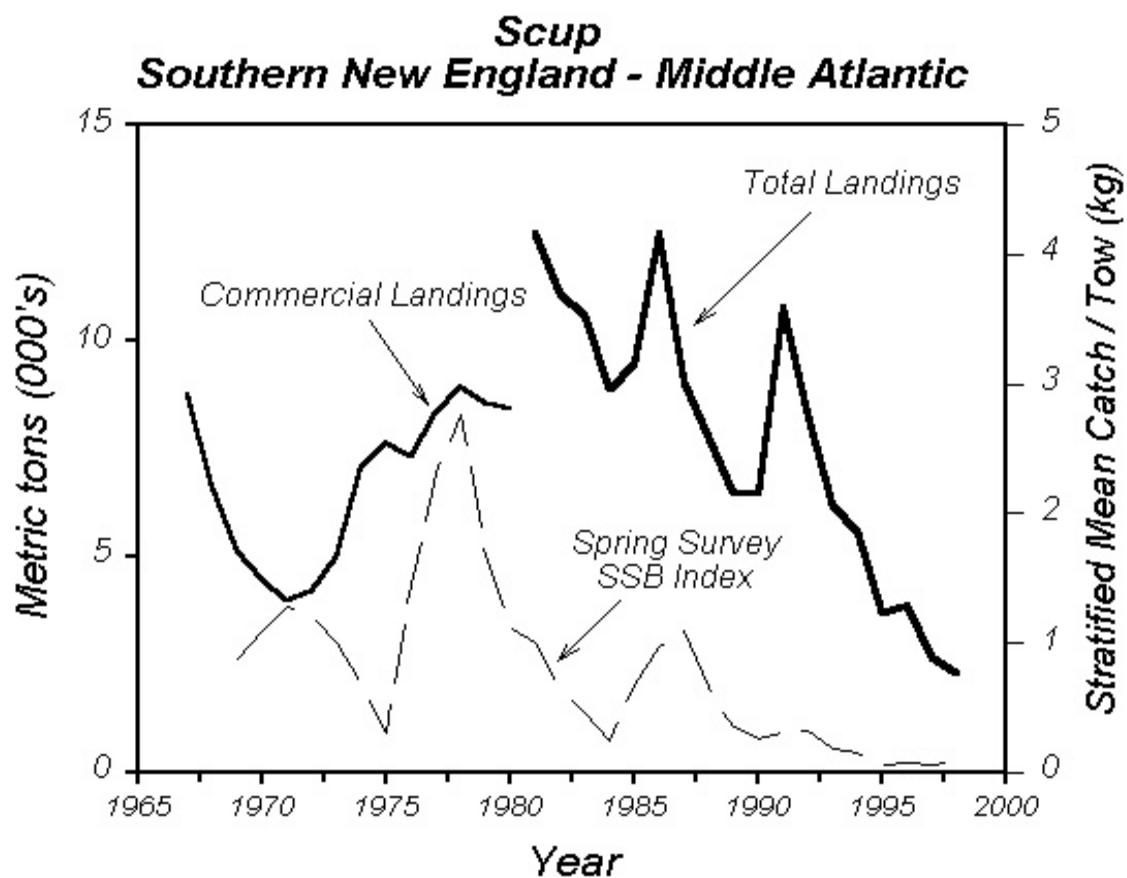


Table 14.1 Recreational and commercial landings (thousand metric tons)

Category	Year										
	1981-88 Average	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
U.S. recreational	2.7	2.5	1.9	3.7	2.0	1.5	1.2	0.6	1.0	0.5	0.4
Commercial											
United States	7.5	4.0	4.6	7.0	6.3	4.7	4.4	3.1	2.9	2.2	1.9
Canada	-	-	-	-	-	-	-	-	-	-	-
Other	<0.1	-	-	-	-	-	-	-	-	-	-
Total nominal catch	10.2	6.5	6.5	10.7	8.3	6.2	5.6	3.7	3.9	2.7	2.3