

## **SOUTHERN FLOUNDER**

(06/99 ARCHIVE - NCDMF)

**Stock Status--Concern.** Preliminary stock assessment results indicate that the fishing mortality rate for females was  $F_{max}$ , and, the spawning potential ratio (SPR) for females was between 15% and 20% for the years 1988 to 1997. Since an SPR of 20% is considered a threshold of recruitment overfishing and the fishing mortality rate is at  $F_{max}$ , the stock is at best fully-exploited. Given that exploitation has shown an increasing trend in the last few years, and that estimates from the most recent years in any analysis are the most uncertain, it is probable that southern flounder in North Carolina are now over-exploited. Since the stock is composed primarily of age 1 and age 2 fish, stock status is dependent on annual recruitment. The 1998 age 0 index is 1/3 of the 12 year average.

**Average Commercial Landings and Value 1987-1998--** 3,687,314 lb, \$5,741,793

**1998 Commercial Landings and Value --** 3,951,822 lb, \$7,117,335

**Average Recreational Landings 1987-1998 --** 104,863 lb. **1998 --** 84,650 lb

**Average Number of Award Citations 1987-1998--** 137 **1998 --** 275

**Status of Fisheries Management Plan--** No plan currently. Summer flounder FMP has a limited effect on this species. A state FMP is needed due to increased pressure.

**Research and Data Needs--** stock assessment (underway), continued monitoring of commercial fisheries, expanded coverage of estuarine gill net fishery, bycatch mortality estimates, reproductive ecology (underway). Fisheries independent data.

**Current Minimum Size Limit--** 13 inches internal, 15 inches ocean

**Harvest Season--** no closure.

**Size and Age at Maturity--** 14 inches, 1 year old

**Historical and Current Maximum Age--** 8 years old, 5 years old

**Juvenile Abundance Index Average 1987-1998--** 1.6 **1998 --** 0.5 (numbers of individuals per unit of effort) (unvalidated)

**Habits/Habitats--**Southern flounder are estuarine dependent members of the left-eyed flounder family that include summer flounder and gulf flounder. Southern flounder migrate offshore and south during winter and early spring and inshore and north during late spring, summer and fall. Southern flounder spawn in near shore continental shelf waters from November through March. Young fish enter inlets and settle on muddy bottoms in lower-salinity areas of estuaries. Unlike summer flounder, adult southern flounder return to North Carolina's estuaries after spawning.

For more information, see [DMF Species Leads page](#)