

**SUBAREA 2 + 3K  
REDFISH**

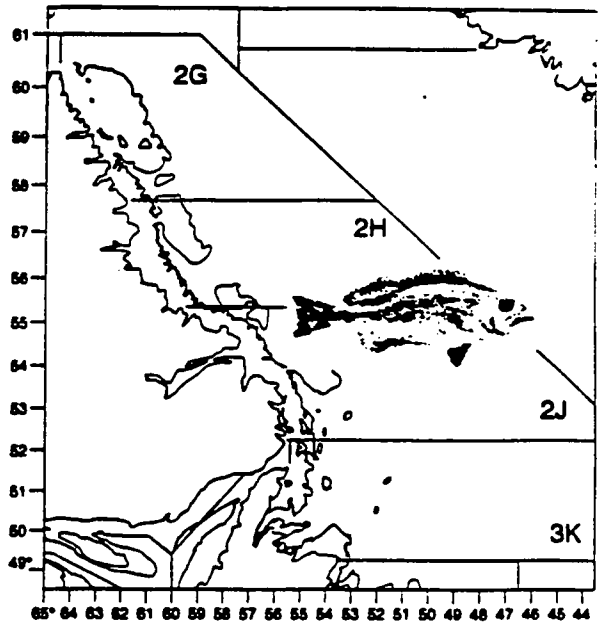
**Background**

Redfish, also known as ocean perch or rosefish, belong to a group of fishes that are commercially exploited in the Atlantic and Pacific oceans. They occur on both sides of the Atlantic ocean in cool, northern water (3° to 8° C) along the slopes of fishing banks and deep channels usually at depths of 100-700 m. In the west Atlantic redfish range from Baffin Island in the north to deep waters off New Jersey in the south.

Redfish are slow growing and long lived. They mate generally from September through October. The young are hatched inside the female and are born as free swimming larvae from April to July the following year. Females mature at 8-10 years old at a length of 25 cm (10 in), males generally younger and smaller, and enter the fishery at age 8-10. Redfish feed on a variety of small invertebrates and small fish and are eaten by such species as Greenland halibut, cod and seals.

The highest catch taken from this stock was 187,000 metric tons in 1959. Between 1961 and 1986 catches averaged about 27,000 t, with no less than 14,500 metric tons taken in any one year. From 1986 to 1991 catches declined from 18,500 metric tons to 280 metric ton due primarily to a major redirection of effort to other redfish fisheries by the principal Canadian stakeholder. The fishery was predominantly conducted by offshore otter trawlers and since 1979 primarily in Division 3K.

The fishery has been under TAC regulation since 1974 when a 30,000 metric tons TAC was implemented. The TAC was increased to 35,000 metric tons in 1980, decreased to 20,000 metric tons in 1991 and further reduced to 1,000 metric tons in 1994. For 1995 and 1996, 200 metric tons has been set aside for test fisheries.



**The Fishery**

There has not been constant directed effort on this stock since 1990 when 2,400 metric tons were landed from a directed fishery. Directed catches declined to 280 metric tons in 1991, and have been 15 metric tons or less in each year from 1992 to 1994. Redfish discards in the shrimp fishery amounted to 386, 185 and 110 metric tons in 1992, 1993 and 1994 respectively.

Landings (thousand metric tons)

Year	60-76 Avg.	77-91 Avg.	1992	1993 <sup>1</sup>	1994 <sup>1</sup>	1995 <sup>1</sup>	1996
TAC	N/A	N/A	20	20	1	2	2
Can.	3	11	+	+	+	+	
Others	36	6	+	+	+	0	
Totals	36	17	+	+	+	+	

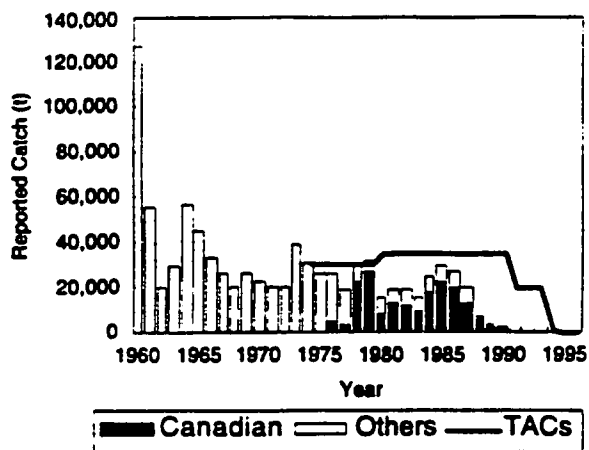
<sup>1</sup> Provisional

\* Catch less than 500 metric tons

Reductions in TACs since 1991 were due to concern for the resource in light of continuous recruitment failure since about 1971.

In early 1995, National Sea Products Ltd. conducted a short experimental fishery in Division 3K on traditional redfish grounds.

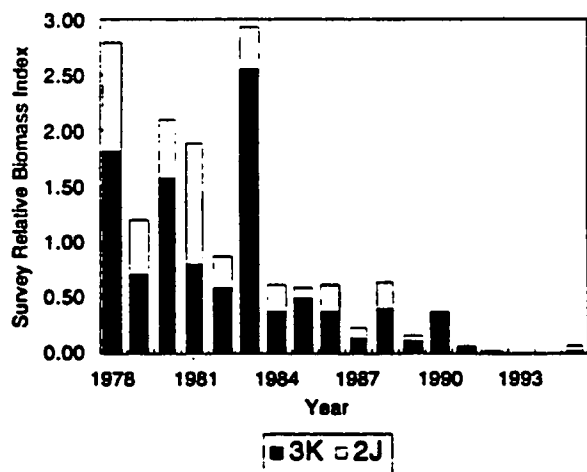
Although only a few sets were conducted the results were very poor as no fish were caught and no marks were encountered on the sounder while steaming.



**Resource Status**

In the mid-1980s, prior to the declines in catches, the bulk of the landings were of fish about 28 to 40 cm (11 to 16 inches) in length. This corresponds to ages between 10 - 20 years. There has been very limited commercial fishery data available since 1991 when this fishery became essentially a by-catch fishery.

Results from research vessel surveys in divisions 2J and 3K suggest survey relative biomass indices in both areas were at historically low levels in 1994.



Although there have been some large fluctuations between years in both divisions,

there has been a general decline in the Division 2J relative biomass index of about 99% from 1978-1981 to 1992-1994. The Division 3K relative biomass index suggests an even greater reduction, about 95.5% during the same period.

The 1995 survey relative biomass index for Division 2J and 3K cannot at this time be related directly to historical estimates because of a change in survey gear, vessel, and duration of standard tow (see Regional Overview). Although the new trawl resulted in higher catches of fish less than 35 cm (14 inches), the index is still low compared to estimates from the mid 1980s.

There have been about 25 years of continuous recruitment failure since the strong year-classes of the early 1970s.

Since redfish are slow growing and long-lived (some have been aged as old as 80 years), recruitment failure alone cannot account for the observed decline in the stock.

**Outlook**

This stock remains at an extremely low level. Recruitment has been very poor since the year-classes of the early 1970s. From a conservation point of view, exploitation of this stock is unjustifiable. There have been no indications that the status of this stock will change in a positive way in the foreseeable future. Any good recruitment coming into this stock will need at least 10 years before it will start contributing to any fishery because of the relatively slow growth rate of redfish.

**For More Information**

Research Document: Power, D. 1995. Status of redfish in Subarea 2 + Division 3K. DFO Atl. Fish. Res. Doc. 95/25.

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