

Northwest Atlantic



Fisheries Organization

Serial No. N2292

NAFO SCS Doc. 93/19

SCIENTIFIC COUNCIL MEETING - SEPTEMBER 1993

United States Research Report for 1992

by

F. M. Serchuk

NOAA/NMFS, Northeast Fisheries Science Center
Woods Hole, MS 02543, USA

A. Status of the Fisheries (Subareas 3-6 inclusive)

Brief summaries are provided on the status of fisheries for major species of finfish and shellfish. More detailed information on these and other species is included in a report entitled "**Status of the Fishery Resources off the Northeastern United States**" prepared annually by the Northeast Fisheries Science Center of the National Marine Fisheries Service (NMFS).

1. Atlantic Cod

USA commercial landings from Subareas 3-6 decreased 34% from 42,018 t in 1991 to 27,775 t in 1992. Landings from all subareas were lower in 1992 than in 1991 (Subarea 4: 5 t vs 62 t; Subarea 5: 27,571 t vs 41,615 t; Subarea 6: 199 t vs 341 t). No landings were taken from Subarea 3 in 1992.

Landings in 1992 from the Georges Bank fishery [Div. 5Z + 6] totaled 16,855 t, 30% lower than in 1991 (24,175 t). Total and spawning stock biomass of Georges Bank cod declined to a record-low level in 1992, and is expected to decline further in 1993 due to below-average recruitment and high fishing mortality rates.

Gulf of Maine [Div. 5Y] landings in 1992 were 10,915 t, 39% lower than the record-high 1991 catch (17,781 t). Spawning stock biomass of Gulf of Maine cod peaked in 1990 due to strong recruitment from the 1987 year class, but has since declined to record-low levels. Further declines in stock biomass are expected in 1993.

2. Haddock

USA landings from Subareas 3-6 in 1992 increased to 2,319 t, 26% higher than the record-low 1991 catch (1,837 t). Landings from Georges Bank [Subdiv. 5Ze] increased 44% from 1,395 t in 1991 to 2,002 t in 1992. Abundance of the Georges Bank stock continues to remain at a record-low level. Landings from the Gulf of Maine [Div. 5Y] haddock stock in 1992 were 563 t, 133 t greater than in 1991. Commercial CPUE and research vessel indices in 1992 indicate that Gulf of Maine stock abundance remains at an historically-low level.

3. **Redfish**

Subarea 4

USA landings of redfish from Division 4X totaled only 3 t in 1992.

Subareas 5 and 6

USA landings of redfish from Subareas 5 and 6 increased from 527 t in 1991 to 844 t in 1992, marking the first time that annual landings have increased since 1979. Redfish are taken primarily as by-catch in the Gulf of Maine mixed species otter trawl fishery. Stock biomass remains low, although slight increases have occurred since 1990 due to some modest recruitment from year classes produced in the mid 1980s. Unless recruitment improves in the future, stock biomass and yield levels are not expected to substantially increase.

4. **Pollock**

Subarea 4

USA landings from Subarea 4 decreased from 68 t in 1991 to 56 t in 1992.

Subareas 5 and 6

USA landings from Subareas 5 and 6 in 1992 were 7,127 t, 9% less than in 1991 (7,797 t), and the lowest annual catch since 1973. Spawning stock biomass declined by 41% between 1985 and 1991, a period in which fishing mortality doubled (from $F=0.4$ to $F=0.8$). Recruitment of the 1987 and 1988 year classes is strong, however, and moderate increases in stock biomass are expected during the next few years.

5. **Yellowtail Flounder**

Subareas 5 and 6

USA landings in 1992 were 5,593 t, 28% lower than in 1991 (7,761 t). Landings from the Georges Bank stock increased slightly from 2,740 t in 1991 to 2,859 t in 1992. Landings from the Southern New England stock, however, declined by 63% from 3,910 t in 1991 to 1,458 t in 1992. Abundance of both stocks is at or near historically low levels and recent recruitment has been poor. Stock abundance and landings are expected to decline further in the next few years.

6. **Other Flounders**

USA landings of flounders [other than yellowtail flounder] from Subareas 3 - 6 in 1992 totaled 23,276 t, 6% higher than in 1991. Compared to 1991, landings from Subarea 5 increased by 4% (18,118 t vs 17,498 t) and landings from Subarea 6 rose by 16% (5,154 t vs 4,457 t). American plaice (28% of total), summer flounder (26%), winter flounder (26%), witch flounder (10%) and windowpane flounder (9%) accounted for 99% of the 'other flounder' landings. American plaice landings increased 55% between 1991 and 1992, summer flounder increased by 33%, and witch flounder rose 24%. Landings declined in 1992 for windowpane flounder (-43%) and winter flounder (-19%). Recent survey abundance indices for windowpane flounder, winter flounder, and witch flounder have been at record-low levels, while survey indices for American plaice and summer flounder have been increasing.

7. **Silver Hake**

USA commercial landings from Subareas 5 and 6 in 1992 were 15,591 t, a 6% decline from 1991 (16,541 t). Landings from the Gulf of Maine - Northern Georges Bank stock declined to 5,302 t (-12% from 1991), while landings from the Southern Georges Bank - Middle Atlantic stock (10,289 t) were only 2% lower than in 1991. Biomass appears to be increasing in the northern hake stock and stable in the southern stock.

8. **Red Hake**

USA 1992 commercial landings from Subareas 5 and 6 were 2,029 t, a 21% increase from the near record-low 1991 catch of 1,673 t. Landings from the Gulf of Maine - Northern Georges Bank stock in 1992 were 919 t (+24% from 1991), while landings from the Southern Georges Bank - Middle Atlantic stock totaled 1110 t (+19% from 1991). In both stocks, fishing mortality is low and substantially higher catches could be supported.

9. **Atlantic Herring**

USA landings from Subarea 5 in 1992 were 51,419 t, 8% higher than in 1991 (47,576 t). Landings from the Gulf of Maine (Div. 5Y) in 1992 were 51,167 t, the third highest annual catch since 1982. Spawning stock biomass of the coastal stock of herring has increased continuously since 1982 and is currently at or above the high SSB levels observed in the late 1960s. Stock size has increased due to strong recruitment and reduced fishing mortality rates, particularly on juvenile herring. Landings from Division 5Z in 1992 were 252 t, primarily from Subdivision 5Zw (247 t). There has been no directed herring fishery in Subdivision 5Ze since the collapse of the fishery in 1977. There is evidence of continuing recovery of the Georges Bank population based on research vessel survey results and reports of incidental catches by commercial vessels. Herring landings in Subarea 6 in 1992 were 4,257 t, four times greater than in 1991 (985 t).

10. **Atlantic Mackerel**

USA commercial landings in 1992 from Subareas 5 and 6 totaled 11,737 t, 56% less than in 1991 (26,945 t). Total stock biomass (Subareas 2-6) has been increasing since 1981 and is presently at record-high levels (> 2.5 million t). Rebuilding of the stock has resulted from low fishing mortality rates coupled with outstanding recruitment from the 1982 year class and relatively strong recruitment from the 1984-1988 cohorts.

11. **Butterfish**

USA landings in 1992 from Subareas 5 and 6 were 2,678 t, 24% higher than in 1991 (2,160 t). About half (52%) of the 1992 catch was taken in Subarea 5 (1,405 t), while 48% was taken in Subarea 6 (1,273 t). Research vessel survey indices indicate that stock abundance is relatively high and recent recruitment has been above-average.

12. Squid

USA landings in 1992 of long-finned squid, *Loligo pealei*, from Subareas 5 and 6 were 18,172 t, 6% lower than in 1991 (19,392 t). Of the 1992 USA total, 26% was from Subarea 5 (4,645 t) and 74% from Subarea 6 (13,527 t). Survey abundance indices indicate that stock abundance declined in 1992 to below the long-term average, but should increase in 1993 due to record-high recruitment from the 1992 cohort. Given this strong recruitment, landings are expected to increase in 1993.

USA landings of short-finned squid, *Illex illecebrosus*, from Subareas 5 and 6 in 1992 totaled 17,829 t, a record-high, and 50% greater than in 1991 (11,929 t). Of the 1992 USA total, 1% was from Subarea 5 (128 t) and 99% from Subarea 6 (17,701). Survey abundance indices indicate that *Illex* abundance continues to remain at an above-average level.

13. Sea Scallops

USA commercial landings from Subareas 5 and 6 in 1992 were 14,152 t (meats), 17% lower than in 1991 (16,998 t). Compared to 1991, Georges Bank [Div. 5Z] landings (8,475 t) decreased by 10%, Gulf of Maine [Div. 5Y] landings (722 t) increased by 19%, and Mid-Atlantic [Subarea 6] landings (4,955 t) declined by 29%.

Abundance indices from the USA 1992 sea scallop survey indicate that scallop abundance in the USA sector of Georges Bank remains high, while scallop abundance in the Mid-Atlantic area is much reduced from the record-high levels of the late 1980s and is still declining.