

PB85233948



NOAA Technical Memorandum NMFS-F/NEC-39

**USA Historical Catch Data, 1904-82,
for Major Georges Bank Fisheries**

**U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
National Marine Fisheries Service
Northeast Fisheries Center
Woods Hole, Massachusetts
May 1985**

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ABSTRACT

United States historical catch data for major finfish and invertebrate species taken in the Georges Bank area during 1904 to 1982 are presented. Schemes used to prorate catch data to Georges Bank, in years when catch was not reported specifically for that area, are described.



INTRODUCTION

This document presents USA historical catch data for major finfish and invertebrate species taken in the Georges Bank area. The period covered is 1904-1982. Data for each species are from various sources, as described. Schemes used to apportion catches reported from major fishery areas to Georges Bank (NAFO - Northwest Atlantic Fisheries Organization Division 5Ze) for years prior to establishment of the current statistical areas, are also described. All data are for the USA only, and are expressed as nominal catch (the live weight equivalent of the landings) in metric tons.

HISTORICAL DATA SOURCES, BY SPECIES

The species and species groups covered in this report are cod (*Gadus morhua*), haddock (*Melanogrammus aeglefinus*), pollock (*Pollachius virens*), silver hake (*Merluccius bilinearis*), yellowtail flounder (*Limanda ferruginea*), all other flounders, mackerel (*Scomber scombrus*), sea scallops (*Placopecten magellanicus*) and all other species not reported separately. Catch data were not reported by the smaller geographical areas (NAFO Divisions) for the entire time series (1904-82), therefore, for most years Georges Bank catches were estimated using data for years when NAFO Divisions were available.

Figure 1 is a chart of the Northwest Atlantic Fisheries Organization (NAFO) subareas and divisions used here. In general, NAFO Subareas 5 and 6 (SA5, SA6) define the area off the northeastern USA; Division 5Y denotes the Gulf of Maine, Division 5Ze Georges Bank, Division 5Zw Southern New England, and Subarea 6 the Mid-Atlantic. Figure 2 shows the locations of the USA statistical areas used currently. These statistical areas may be grouped to correspond to NAFO areas and divisions.

Table 1 provides details of the data sources and proration schemes used for each species and time series. To reduce duplication in the description of the data sources, an index number is provided (in parentheses) with each time/area series. This number corresponds to the item number in the "References" section. Sources and comments regarding *reported* data are presented first, in chronological order, progressing from the subareas to the divisions. Proration schemes used to *estimate* catches in the divisions follow the *reported* data.

Table 2 provides the final reported and estimated catch data for Georges Bank, by major species or species groups described above for 1904-82. Figures 3-12 present plots of the Table 2 catch data by species and species groups.

ACKNOWLEDGEMENTS

The authors would like to thank those individuals from the Resource Assessment Division of the Northeast Fisheries Center who provided assistance in compiling and checking the data for the various species presented here. We would especially like to thank Dr. S. Clark and Mr. R. Mayo for their special efforts in assuring the correctness of this data.

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Table 1. Data sources and proration schemes used to determine the historical (1904-82) USA nominal catches from Georges Bank, NAFO Division 5Ze.

Species or species group	Data reported or estimated	Area	Years	Proration scheme	References		
Cod	Reported ^(a)	All	1904-26	-	1		
			1927-53	-	2(p.387)		
		Subarea 5	1904-26	-	1		
			1927-53	-	3		
			1954-82	-	4		
		Divisions 5Z, 5Y ^(b)	1932-53	-	3		
	1954-82		-	4			
	Estimated	Division 5Ze, 5Zw	1968-82	-	4		
			Division 5Y	1904-31	Multiply mean ratio of 5Y to SA5 for 1932-76 (0.2779) times reported SA5 for 1904-31	3,4	
				Division 5Z	1904-31	Multiply mean ratio of 5Z to SA5 for 1932-76 (0.7721) times reported SA5 for 1904-31	8,20
					Division 5Ze	1904-53	Multiply annual ratio of 5Ze to total USA catch for major New England ports times total USA catch for all areas
			1954-67	Multiply mean ratio of 5Ze to 5Z for 1968-76 (0.9372) times reported 5Z for 1954-67 (unknown area catches added to 5Ze)		4	
Division 5Zw			1904-67	Subtract 5Ze from 5Z			
Haddock	Reported	All Areas	1904-65	-	6(p. 703)		
			1966-76	-	7		
			1977-80	-	8		
		Subarea 5	1904-51	-	1(Table 3e)		
			1952-82	-	4		
		Division 5Z	1954-82	-	4		
	Division 5Ze, 5Zw	1968-82	-	4			
	Estimated	Division 5Y	1931-53		10		
			Division 5Z	1904-16	Multiply mean ratio of 5Z to SA5 (as estimated below) for 1931-60 (0.913) times reported SA5 totals	1(Table 3e)	
		1917-30			9		
1931-53		Subtract 5Y from SA5	10,1(Table 3)				

^(a)All catches have been converted to live weight using the current conversion factor of 1.17.

^(b)5Y was obtained by subtracting Division 5Z catches from Subarea 5.

Table 1 (cont'd)

Species of species group	Data reported or estimated	Area	Years	Proration scheme	References	
Haddock(cont'd)	Estimated	Division 5Ze	1904-16	Multiply annual ratio of 5Ze to total USA catch for major New England ports times reported total USA catch for all areas	5,6	
			1917-67	Multiply mean ratio of 5Ze to 5Z for 1969-80 (0.999) times reported and estimated catches for 5Z	4	
		Division 5Zw	1904-67	Subtract 5Ze catches from 5Z catches		
Pollock	Reported	All areas	1904-23, 25-27	-	11	
			1924, 1928-33 (c)			
			1935, 1937-40 (c)			
			1942-59 (c)	-	6(p. 141)	
			1960-82	-	4	
			Subarea 5	1960-82	-	4
			Division 5Y, 5Z	1960-82	-	4
	Division 5Ze, 5Zw	1968-82	-	4		
	Estimated	Division 5Ze	1904-59	Multiply mean ratio of 5Ze to total USA for major New England ports times reported total USA all areas	5,11	
			1960-67	Multiply mean ratio of 5Ze to 5Z reported for 1968-80 (0.997) times reported and estimated catches for 5Z	4	
Division 5Zw			1960-67	Subtract 5Ze catches from 5Z catches		
Silver hake ^(d)	Reported	Subarea 5	1937-54	-	12	
			1955-82	-	4	
	Division 5Y, 5Ze	1937-54	Total statistical areas G-0	2(Table 7, p.7)		
		1955-64	Cape Cod ports and New England unclassified (1942-53) were included in 5Ze totals	13(Table 9,p.27)		

^(c)Total New England and Middle Atlantic states only.

^(d)Data are not available for silver hake catches prior to 1937.

Table 1 (cont'd)

Species or species group	Data reported or estimated	Area	Years	Proration scheme	References		
Silver hake (cont'd)	Reported	Division 5Y, 5Ze (cont'd)	1965-82	-	4		
		Division 5Zw	1937-64	Subtract total 5Ze and 5Y catches from SA5 totals			
Yellowtail ^(e) flounder	Reported	Division 5Ze	1935-41	-	14		
			1942-66	-	15		
			1967-82	-	4		
Other flounder	Reported	Subarea 5	1915-34 ^(f)	-	1(Table 6d)		
			1935-51	All flounders	1(Table 6d)		
				Other flounder - by subtracting yellowtail from all flounder total			
			1952-82	All flounder - yellowtail flounder subtracted from total	4,14		
			1960-82	Other flounder (did not include yellowtail)	4		
				Divisions 5Y, 5Z	1955-82	-	4
				Divisions 5Ze, 5Zw	1968-82	-	4
			Estimated	Divisions 5Y, 5Z	1915-54	Multiply mean ratio of total 5Z to SA5 (0.757) as reported for 1955-65 times SA5 total; mean ratio of 5Y to SA5 is 0.243	
	Divisions 5Ze, 5Zw	1915-67	Multiply mean ratio of 5Ze to 5Z as reported for 1968-80 (0.722) times 5Z estimates; mean ratio of 5Zw to 5Z is 0.278				
Mackerel	Reported	Subarea 5	1904-62	-	16(pp. 424-426)		
			1962-82	-	4		
			1904-30	-	7		
			1968-82	-	4		
	Estimated	Division 5Ze	1931-67	Multiply mean of 5Ze to SA5 for 1904-30 times SA5 catches for 1931-67	16,17		

^(e)Data are not available for yellowtail flounder catches prior to 1935.

^(f)Includes yellowtail flounder.

Table 1 (cont'd)

Species or species group	Data reported or estimated	Area	Years	Proration scheme	References
Sea scallops ^(g)	Reported	All areas	1904-81	-	18 (Table 1)
			1904-60	-	19
			1961-75	-	7
			1963-82	-	4
		Division 5Z	1944-64	-	18 (Table 2)
			1944-57	-	20
			1958-82	-	4
		Divisions 5Ze, 5Zw	1968-82	-	4
		Other fish ^(h)	Reported	Division 5Ze	1904-64
1965-82	-				4
Total catch ⁽ⁱ⁾					

^(g) Meat weight to live weight conversion factor is 8.33.

^(h) Includes all species not reported separately in Table 1.

⁽ⁱ⁾ Total nominal catch was determined by adding all species and species group catches as presented in Table 2 with sea scallop catches expressed as meat weights, for each year. These data are plotted in Figure 12.

Table 2. Historical (1904-82) USA nominal catches from Georges Bank, NAFO Division 5Ze, in thousands of metric tons live weight (except sea scallops)¹.

YEAR	COD	HADDOCK	POLLOCK	SILVER HAKE	YELLOW- TAIL	FLOUNDER (NS)	MACKEREL	SEA SCALLOPS	ALL OTHER	TOTAL
1904	9.8	19.7	0.2	-	-	-	1.6	-	2.1	33.4
1905	8.6	27.5	0.2	-	-	-	2.8	-	3.0	42.0
1906	13.8	26.9	0.3	-	-	-	>0.1	-	3.1	43.1
1907	8.0	16.4	0.3	-	-	-	2.0	-	2.0	28.2
1908	11.9	19.1	0.6	-	-	-	>0.1	-	1.6	33.2
1909	8.2	16.3	2.4	-	-	-	0.4	-	1.1	28.4
1910	9.1	20.4	0.5	-	-	-	>0.1	-	0.9	30.9
1911	8.7	22.5	0.5	-	-	-	>0.1	-	1.2	32.9
1912	10.5	25.3	0.3	-	-	-	>0.1	-	1.7	37.7
1913	8.0	19.2	0.4	-	-	-	>0.1	-	1.6	29.1
1914	4.6	25.6	0.2	-	-	-	>0.1	-	0.9	31.3
1915	6.3	26.6	0.5	-	-	3.0	0.4	-	1.0	37.8
1916	4.6	22.9	0.3	-	-	2.7	1.6	-	1.5	33.5
1917	4.9	14.1	0.3	-	-	4.2	0.3	-	1.3	25.0
1918	13.2	24.8	0.3	-	-	4.5	0.2	-	0.9	43.8
1919	14.5	39.4	0.4	-	-	4.9	>0.1	-	1.0	60.2
1920	12.3	40.6	0.4	-	-	6.0	>0.1	-	1.7	61.0
1921	14.9	29.7	0.3	-	-	5.2	>0.1	-	1.2	51.3
1922	12.8	30.8	0.4	-	-	6.7	>0.1	-	2.5	53.2
1923	13.0	32.9	0.3	-	-	7.4	>0.1	-	1.8	55.4
1924	15.5	36.9	0.3	-	-	8.9	0.4	-	1.6	63.5
1925	14.9	41.4	0.3	-	-	9.9	0.9	-	1.4	68.7
1926	17.5	51.3	0.4	-	-	11.7	1.1	-	1.7	83.5
1927	18.0	73.8	0.5	-	-	12.4	2.3	-	1.5	108.5
1928	14.0	98.5	0.6	-	-	14.3	2.9	-	2.5	132.7
1929	17.1	115.4	1.2	-	-	13.9	5.0	-	6.6	159.3
1930	22.0	95.0	1.5	-	-	13.7	6.5	-	10.1	148.7
1931	18.7	64.2	1.7	-	-	12.0	4.0	-	6.1	106.6
1932	17.0	56.7	1.7	-	-	10.9	5.1	-	10.6	102.0
1933	16.6	47.4	1.8	-	-	10.5	3.5	-	4.0	83.8
1934	7.4	28.5	0.4	-	-	9.4	4.4	-	1.7	51.9
1935	13.2	41.7	2.2	-	0.3	3.2	5.4	-	3.6	69.4
1936	17.5	46.9	2.8	-	0.3	5.8	4.3	-	24.5	102.0
1937	25.3	51.7	4.6	0.2	0.3	6.4	2.0	-	13.9	104.4
1938	19.1	49.7	4.2	0.6	0.3	7.5	3.4	-	19.0	103.6
1939	14.4	56.5	4.7	0.5	0.4	5.8	2.4	-	12.1	96.7
1940	14.1	51.1	6.5	1.1	0.6	4.7	3.1	2.0	10.6	93.5
1941	18.2	67.1	4.8	1.2	0.9	3.4	3.6	2.5	10.6	112.2
1942	14.9	55.5	3.7	0.5	1.1	0.4	4.1	2.5	6.7	89.3
1943	15.6	49.0	2.7	0.6	1.3	3.7	4.6	1.7	7.2	86.3
1944	12.8	49.6	1.8	3.5	1.7	6.5	5.5	1.8	7.1	90.3
1945	9.6	41.8	2.8	3.3	1.4	6.2	4.3	1.8	7.5	78.6
1946	14.3	53.4	4.1	7.9	1.0	7.9	3.7	4.0	9.8	105.9
1947	13.5	56.1	3.6	8.8	2.3	6.6	4.1	4.9	16.2	115.9
1948	13.4	49.5	5.4	10.1	5.7	6.2	3.5	4.6	17.1	115.4
1949	15.1	42.9	9.4	8.6	7.3	7.0	1.6	5.3	27.8	124.9
1950	9.9	41.0	3.7	7.7	3.9	9.5	1.3	5.4	10.7	93.0
1951	10.7	47.5	4.8	12.6	4.3	9.2	1.0	5.7	9.2	104.8
1952	8.5	43.0	3.7	7.8	3.7	7.5	1.1	5.5	1.6	82.3
1953	8.0	35.9	4.9	3.5	2.9	5.4	0.6	7.4	5.4	73.8
1954	8.3	46.6	4.2	8.2	2.9	5.0	>0.1	7.0	7.9	90.3
1955	8.7	43.2	6.2	19.6	2.9	4.6	>0.1	8.3	12.2	106.0
1956	9.8	51.1	6.3	20.7	1.6	5.2	>0.1	7.9	12.0	115.1
1957	9.7	48.5	6.0	25.9	2.3	3.6	>0.1	7.9	11.6	115.6
1958	10.4	37.3	5.5	14.5	4.5	1.0	>0.1	6.3	8.7	88.4
1959	11.3	36.0	5.1	15.9	4.1	2.1	>0.1	8.5	12.8	96.1
1960	9.7	40.8	3.8	22.1	4.5	8.2	>0.1	9.9	4.9	104.0
1961	13.1	46.3	3.1	14.5	4.3	7.3	>0.1	10.7	3.8	103.3
1962	14.3	49.4	3.2	16.3	7.8	7.4	>0.1	9.7	5.9	114.0
1963	13.0	44.1	2.6	14.0	11.0	7.2	>0.1	7.9	5.1	105.1
1964	11.6	46.5	3.1	5.5	14.9	12.9	>0.1	6.2	5.3	106.2
1965	10.7	52.8	3.1	8.2	14.2	10.8	>0.1	1.5	3.2	104.8
1966	11.1	52.9	2.2	12.7	12.1	13.5	>0.1	1.0	3.6	109.3
1967	11.9	34.7	1.6	12.3	18.8	11.5	1.0	1.2	3.5	96.1
1968	13.5	25.2	1.6	6.5	21.9	7.7	>0.1	1.0	5.6	83.4
1969	15.0	16.4	2.2	1.7	22.5	9.5	>0.1	1.3	5.7	74.2
1970	13.4	8.4	2.2	4.3	24.1	10.3	>0.1	1.4	5.1	69.4
1971	15.0	7.3	3.0	3.1	18.0	17.6	>0.1	1.3	8.0	73.4
1972	12.5	3.9	2.1	1.0	18.8	15.1	>0.1	1.0	8.8	62.7
1973	14.8	2.8	2.2	5.7	21.4	6.6	-	1.1	7.7	62.3
1974	16.6	2.4	2.6	2.3	19.5	6.9	>0.1	1.0	7.0	58.3
1975	14.6	4.0	3.0	4.7	16.3	8.8	-	1.0	7.2	59.3
1976	13.9	2.9	3.8	3.8	14.2	7.8	>0.1	1.8	6.5	54.7
1977	19.6	7.9	4.6	3.7	12.1	10.2	>0.1	4.8	8.3	71.2
1978	23.8	12.1	6.5	6.4	7.7	11.4	>0.1	5.6	10.6	85.2
1979	30.9	14.2	6.9	1.0	9.8	11.6	>0.1	6.6	13.2	93.0
1980	38.4	17.4	6.8	1.2	12.9	14.0	>0.1	5.6	9.9	106.2
1981	32.1	19.2	6.0	1.2	9.7	14.2	>0.1	8.4	10.7	101.4
1982	37.5	12.6	5.5	1.8	16.8	13.8	>0.1	6.5	12.0	106.5

¹Sea scallops are expressed in meat weights, where the meat to live weight conversion factor is 8.33.

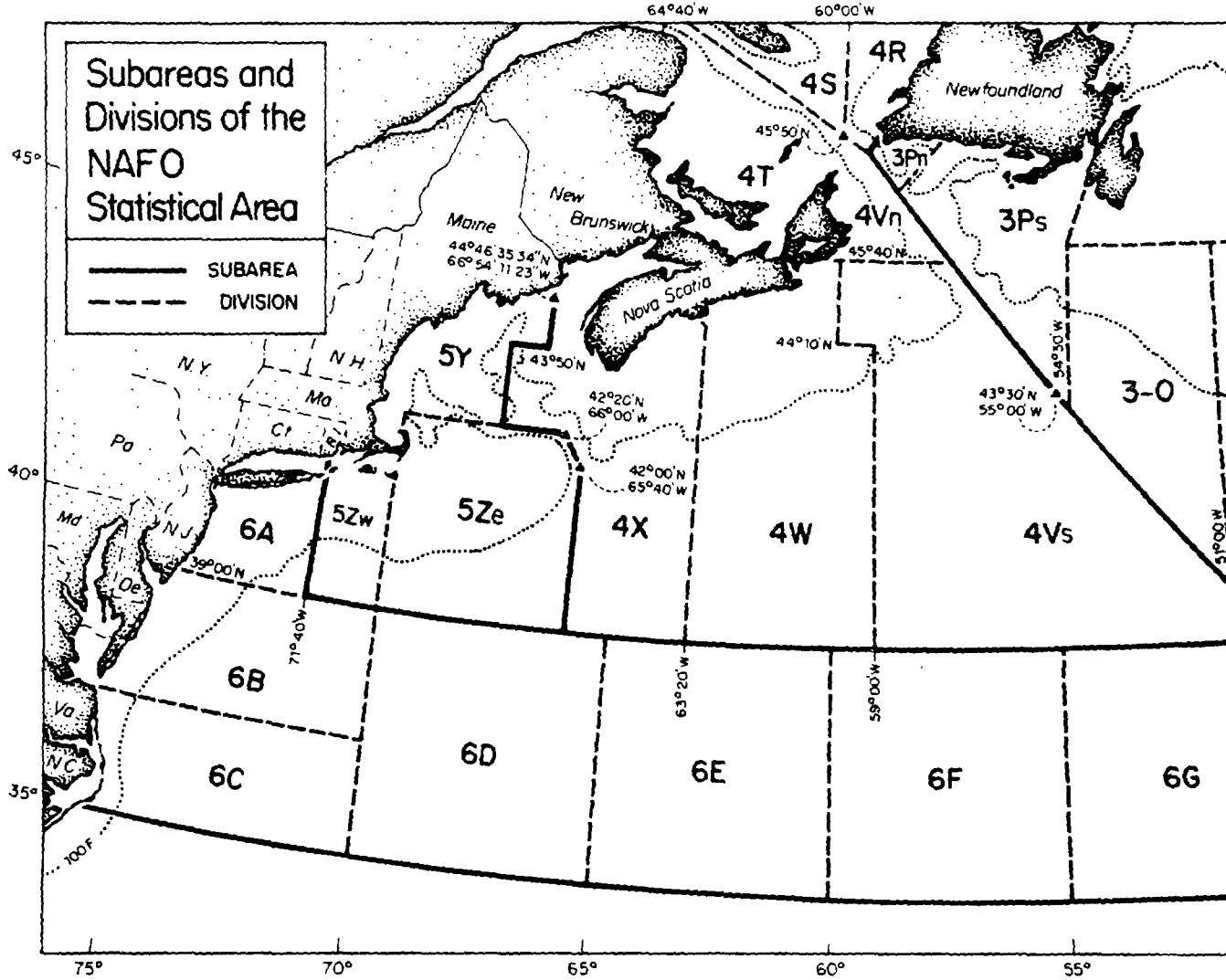


Figure 1. Subareas and divisions of the Northwest Atlantic Fisheries Organization (NAFO).

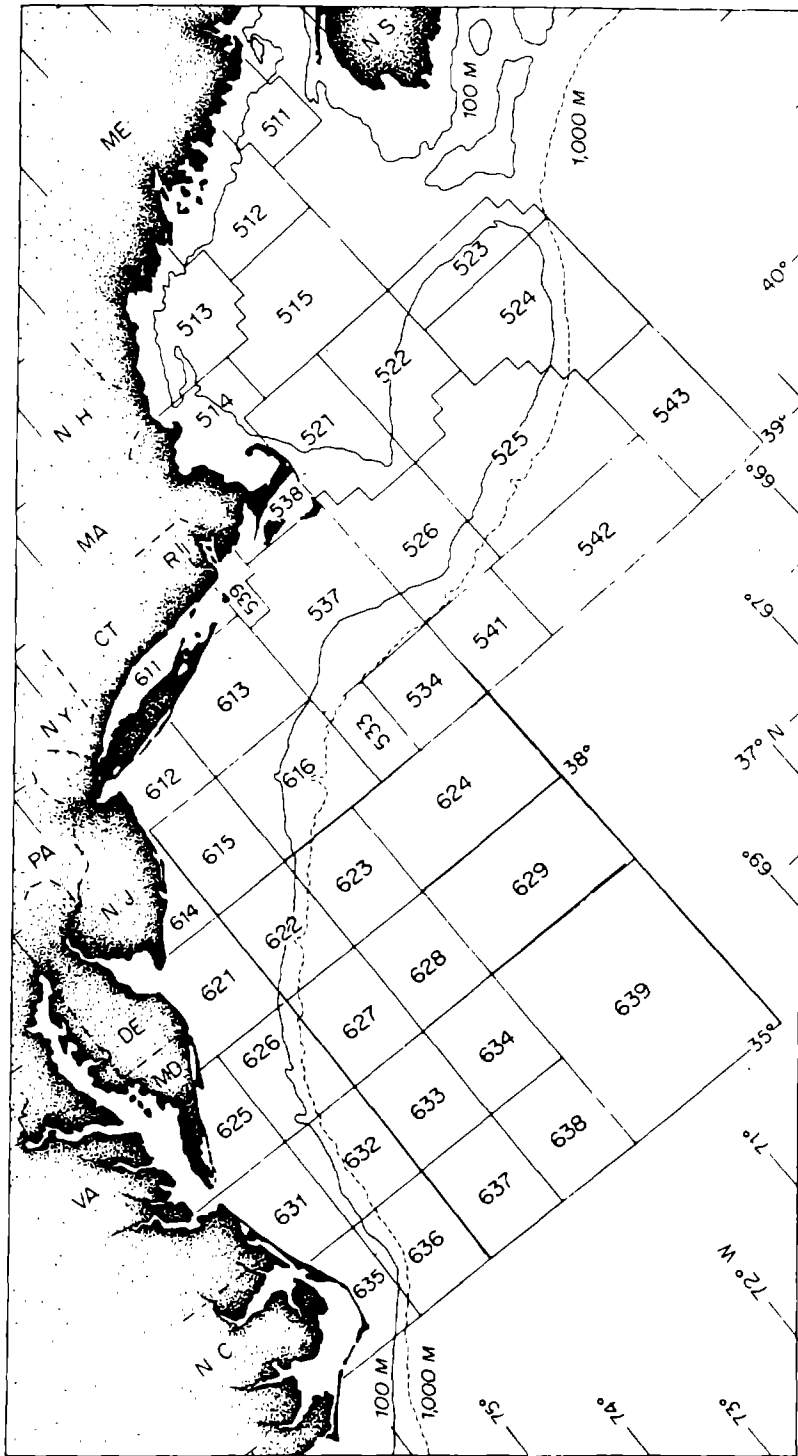


Figure 2. USA Statistical areas used for reporting fisheries data.

ATLANTIC COD

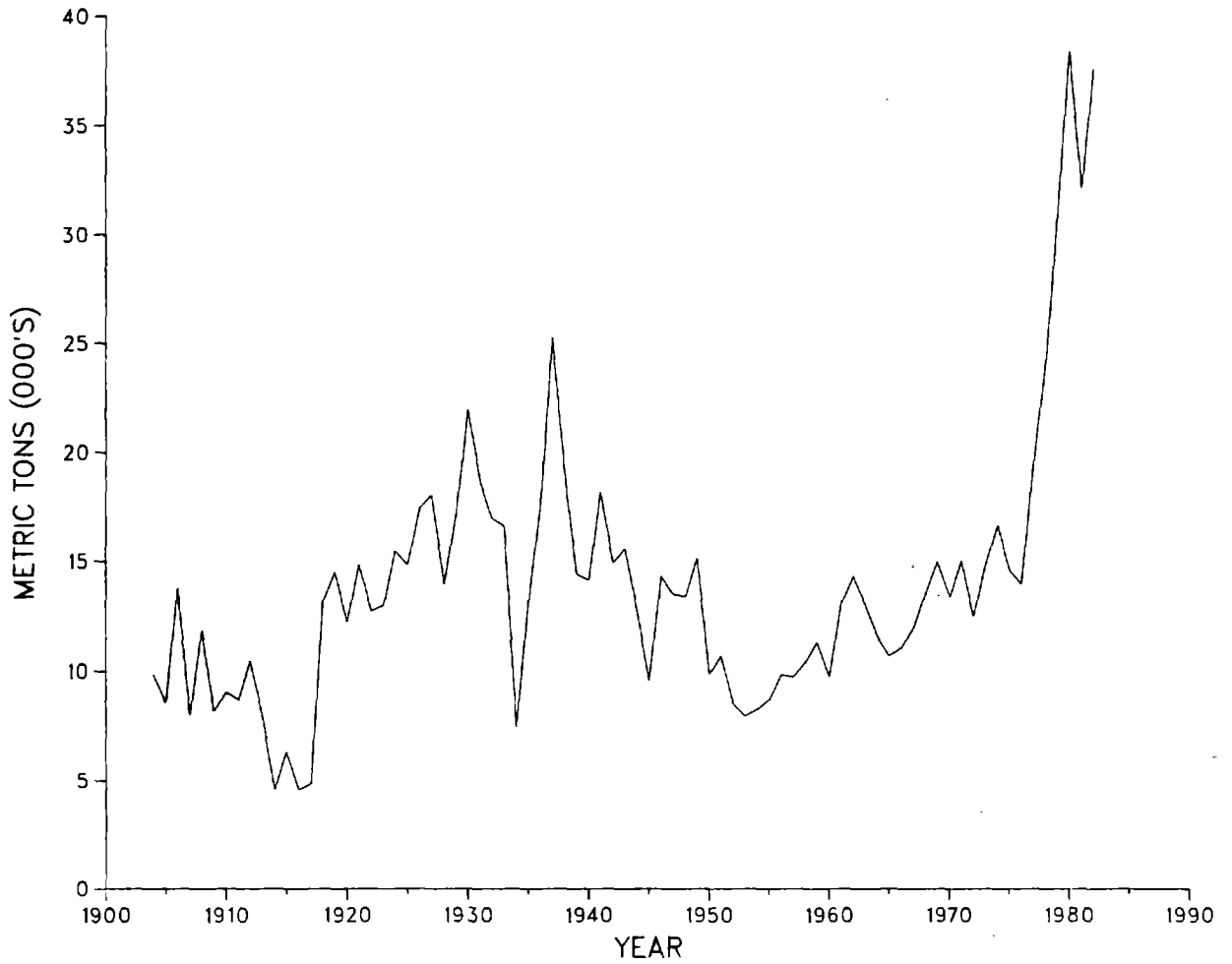


Figure 3. Nominal USA catch of cod from Georges Bank, 1904-1982.

HADDOCK

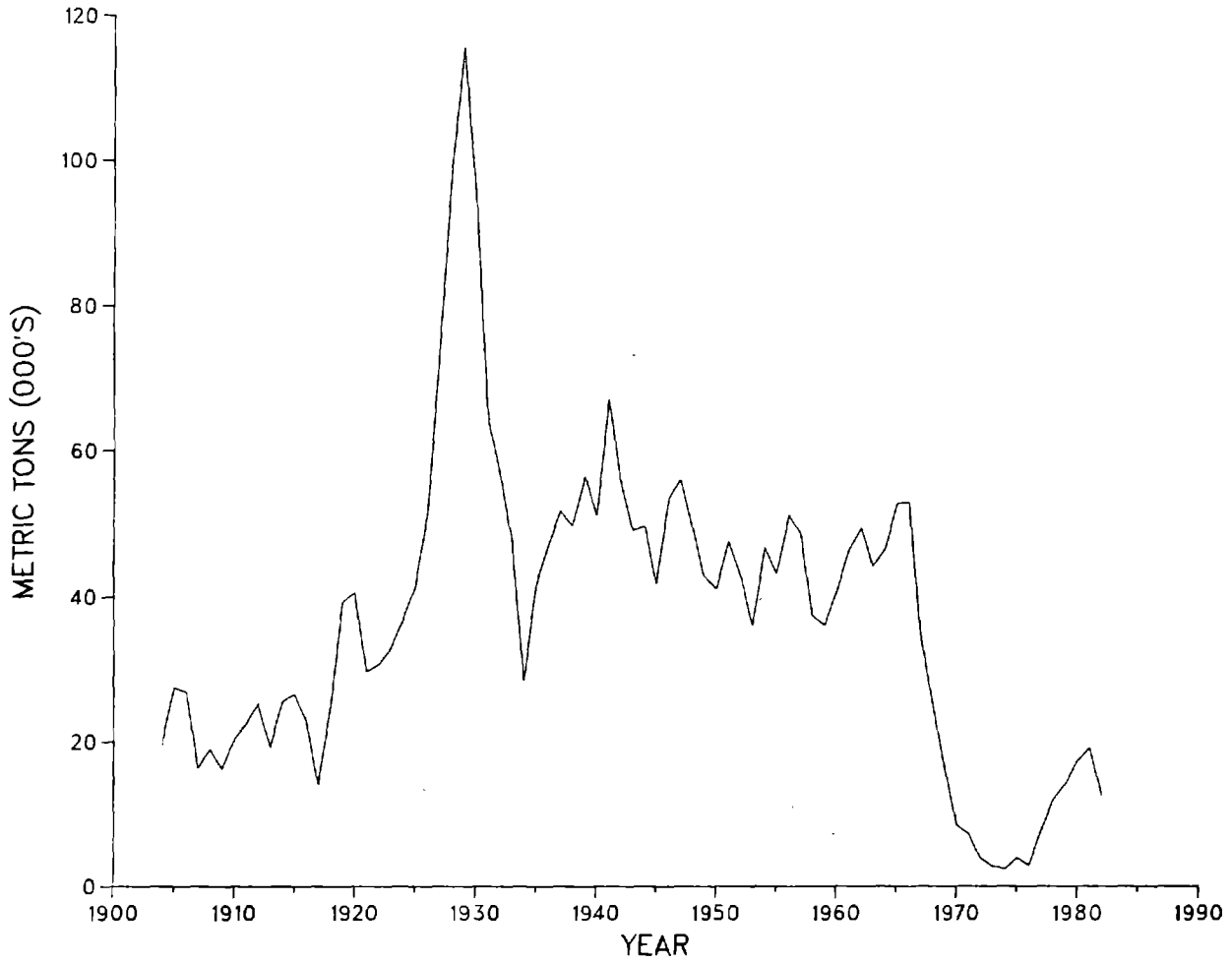


Figure 4. Nominal USA catch of haddock from Georges Bank, 1904-1982.

POLLOCK

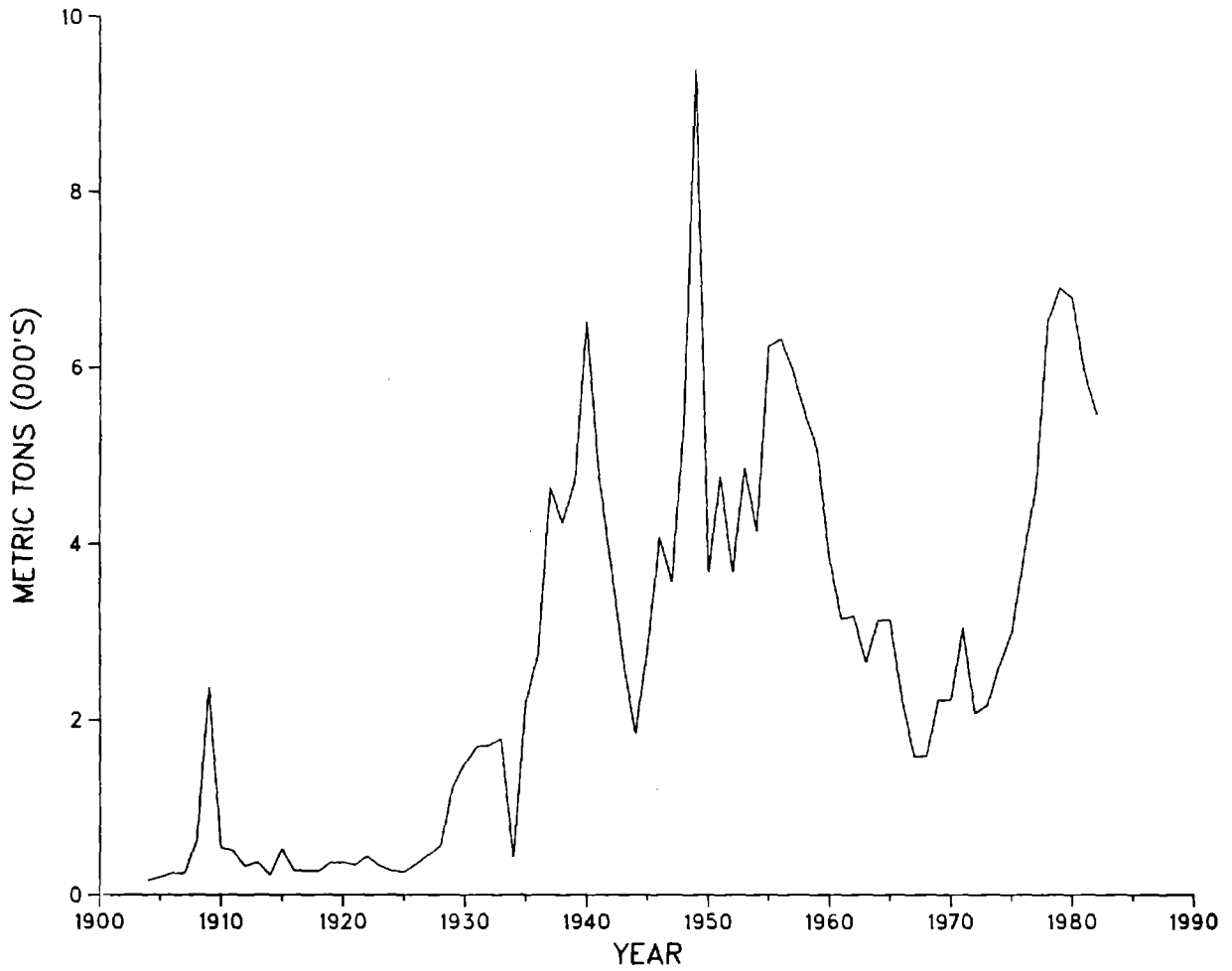


Figure 5. Nominal USA catch of pollock from Georges Bank, 1904-1982.

SILVER HAKE

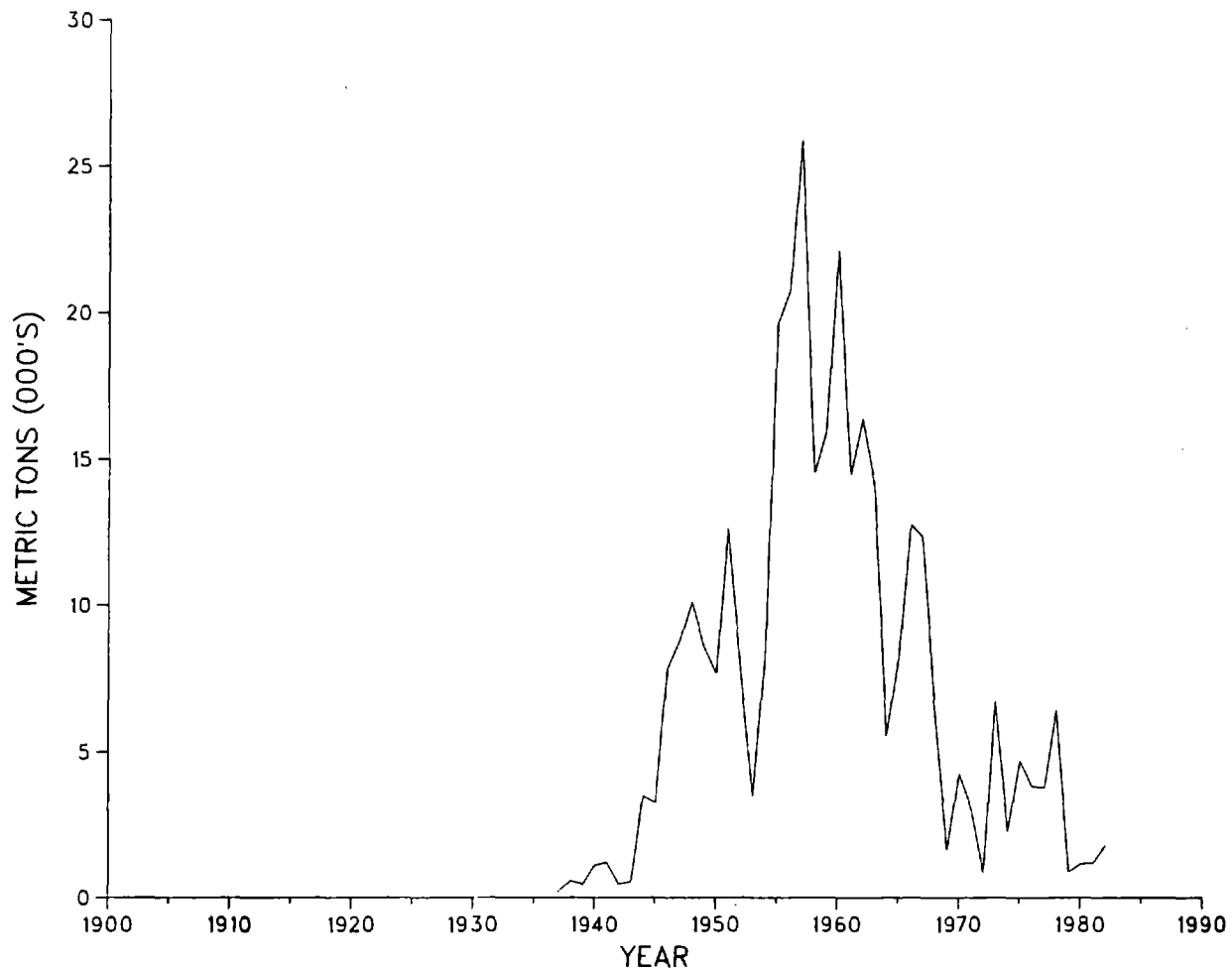


Figure 6. Nominal USA catch of silver hake from Georges Bank, 1937-1982.

YELLOWTAIL FLOUNDER

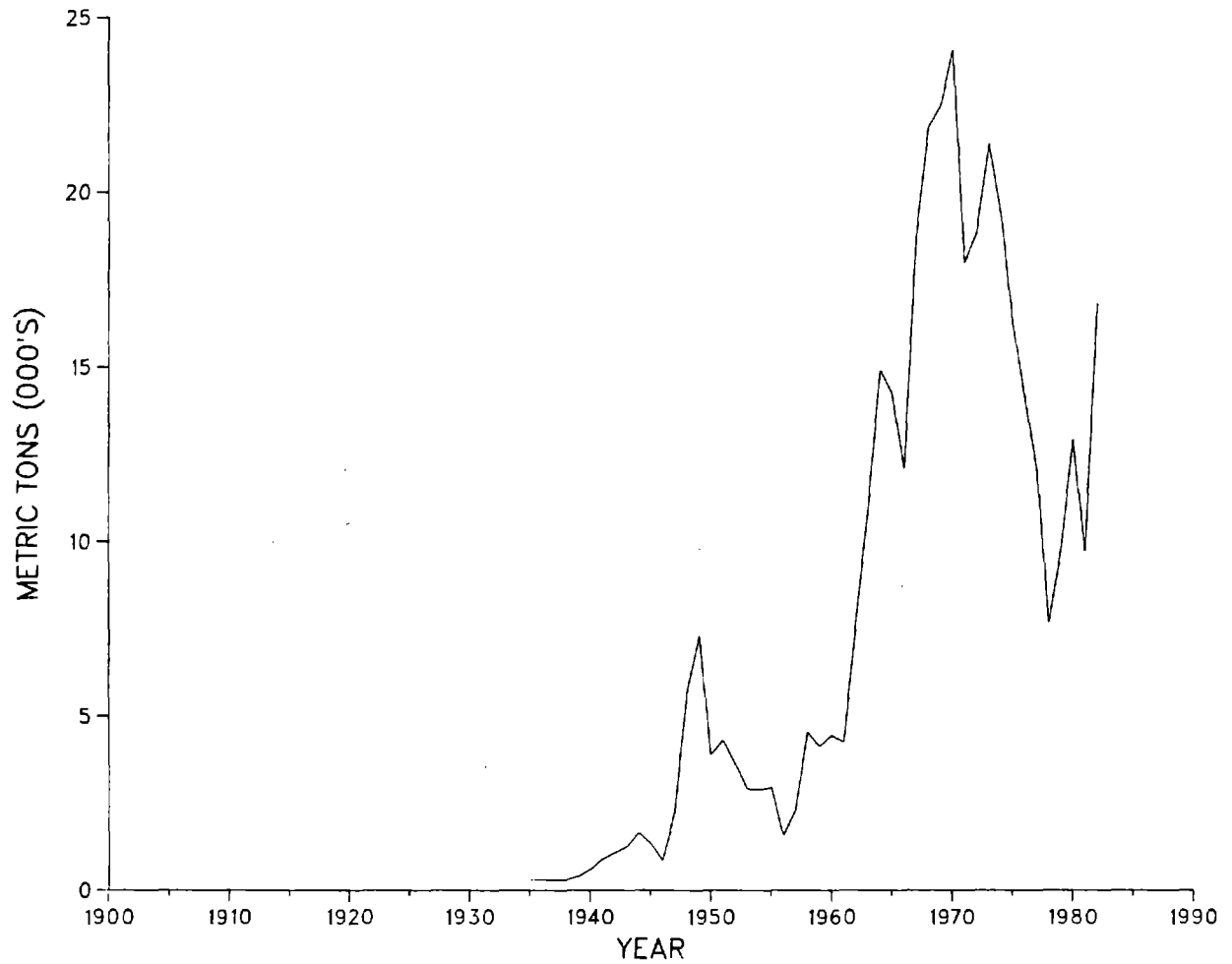


Figure 7. Nominal USA catch of yellowtail flounder from Georges Bank, 1935-1982.

FLOUNDER (NS)

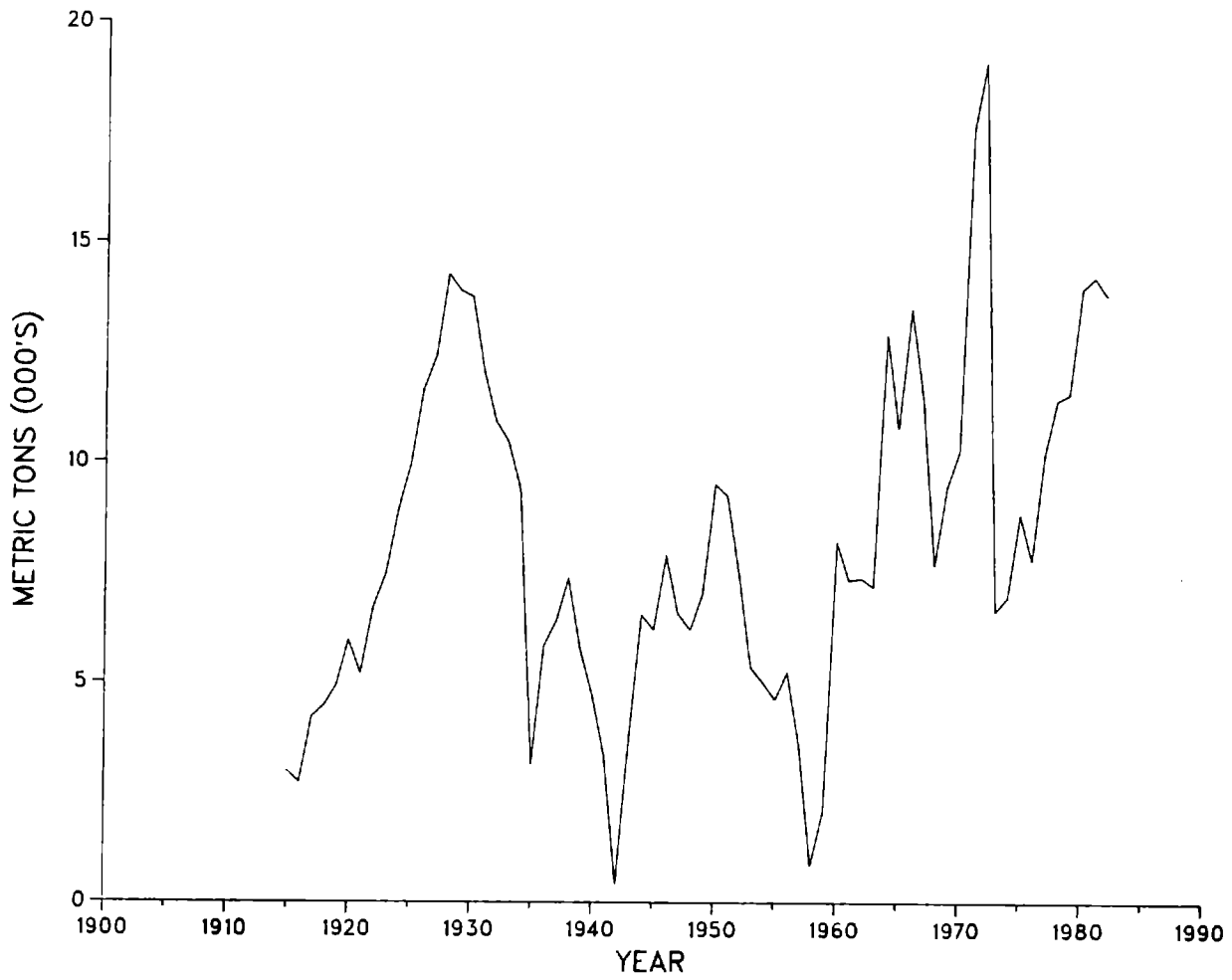


Figure 8. Nominal USA catch of other flounder from Georges Bank, 1915-1982.

ATLANTIC MACKEREL

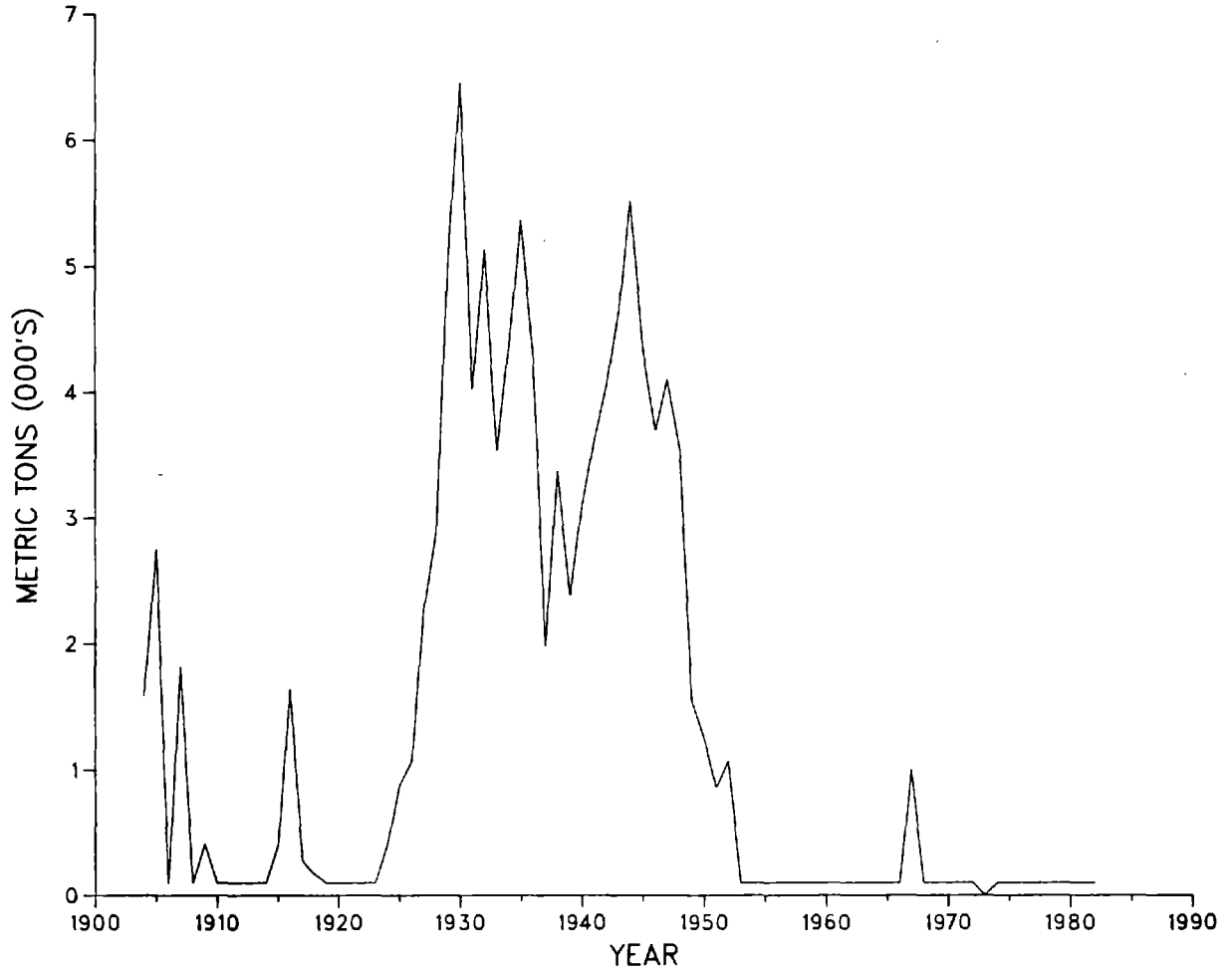


Figure 9. Nominal USA catch of mackerel from Georges Bank, 1904-1982.

SEA SCALLOPS

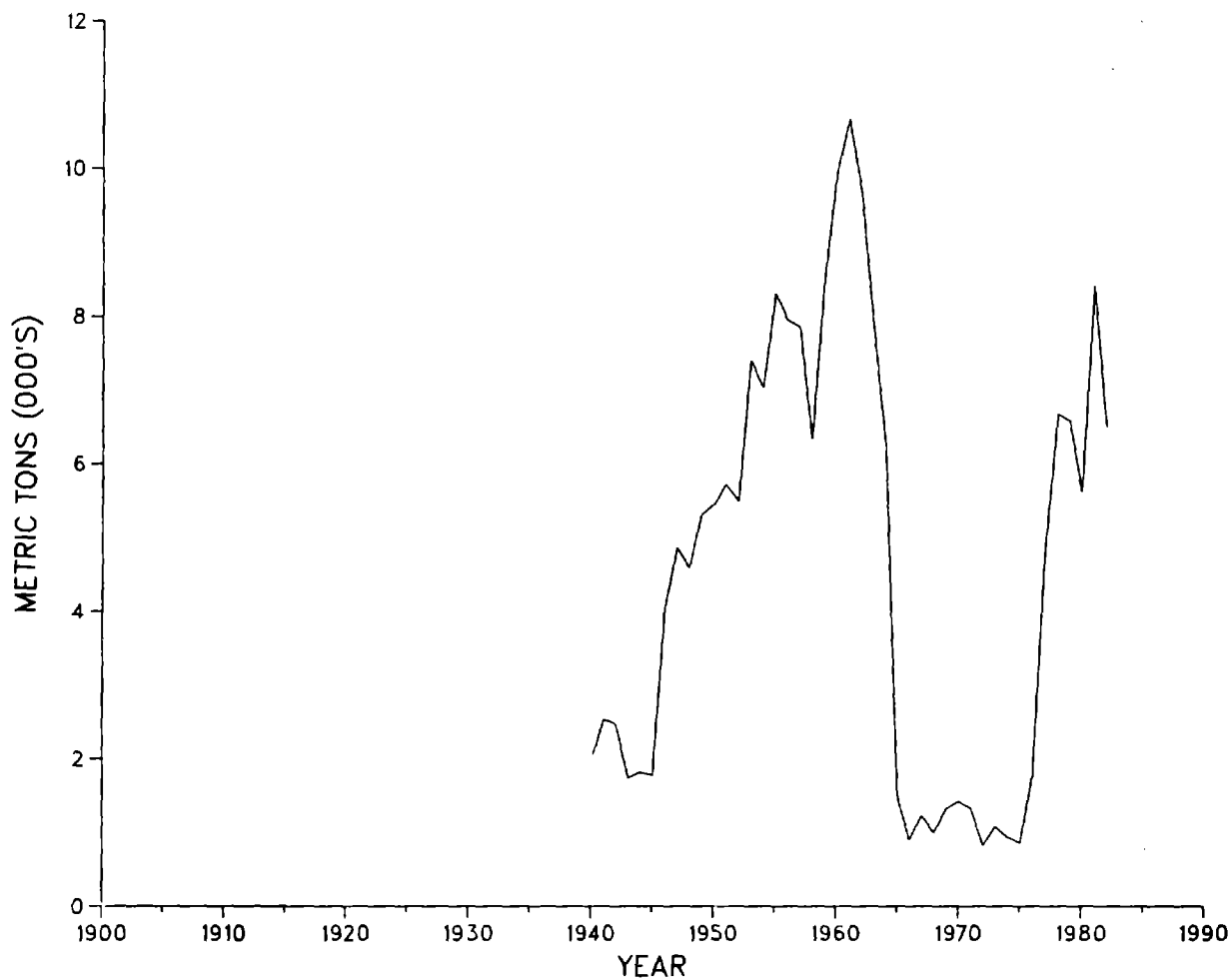


Figure 10. Nominal USA catch of sea scallops from Georges Bank, 1940-1982, in meat weight, where the meat to live weight conversion factor is 8.33.

ALL OTHER SPECIES

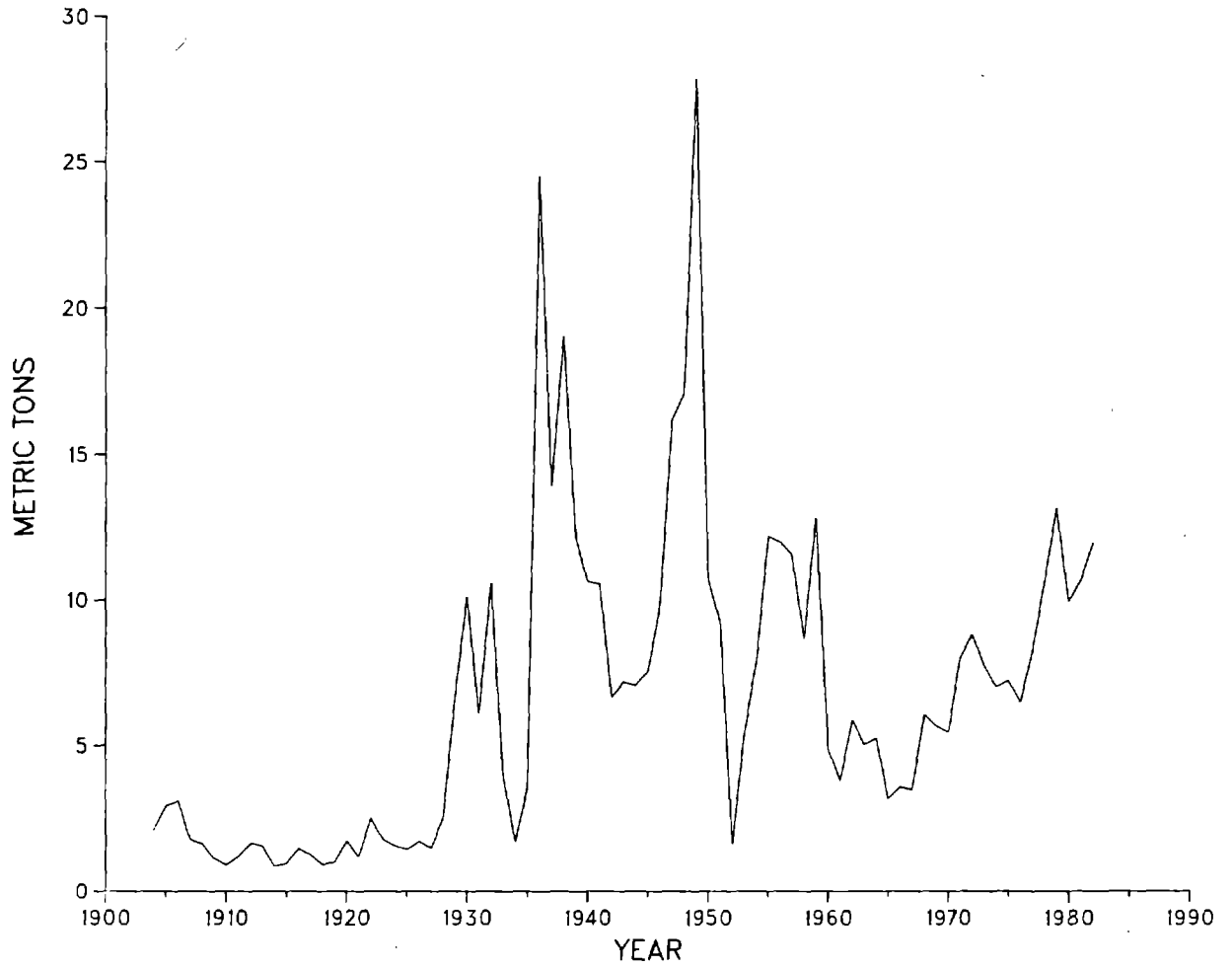


Figure 11. Nominal USA catch of other fish from Georges Bank, 1904-1982.

TOTAL

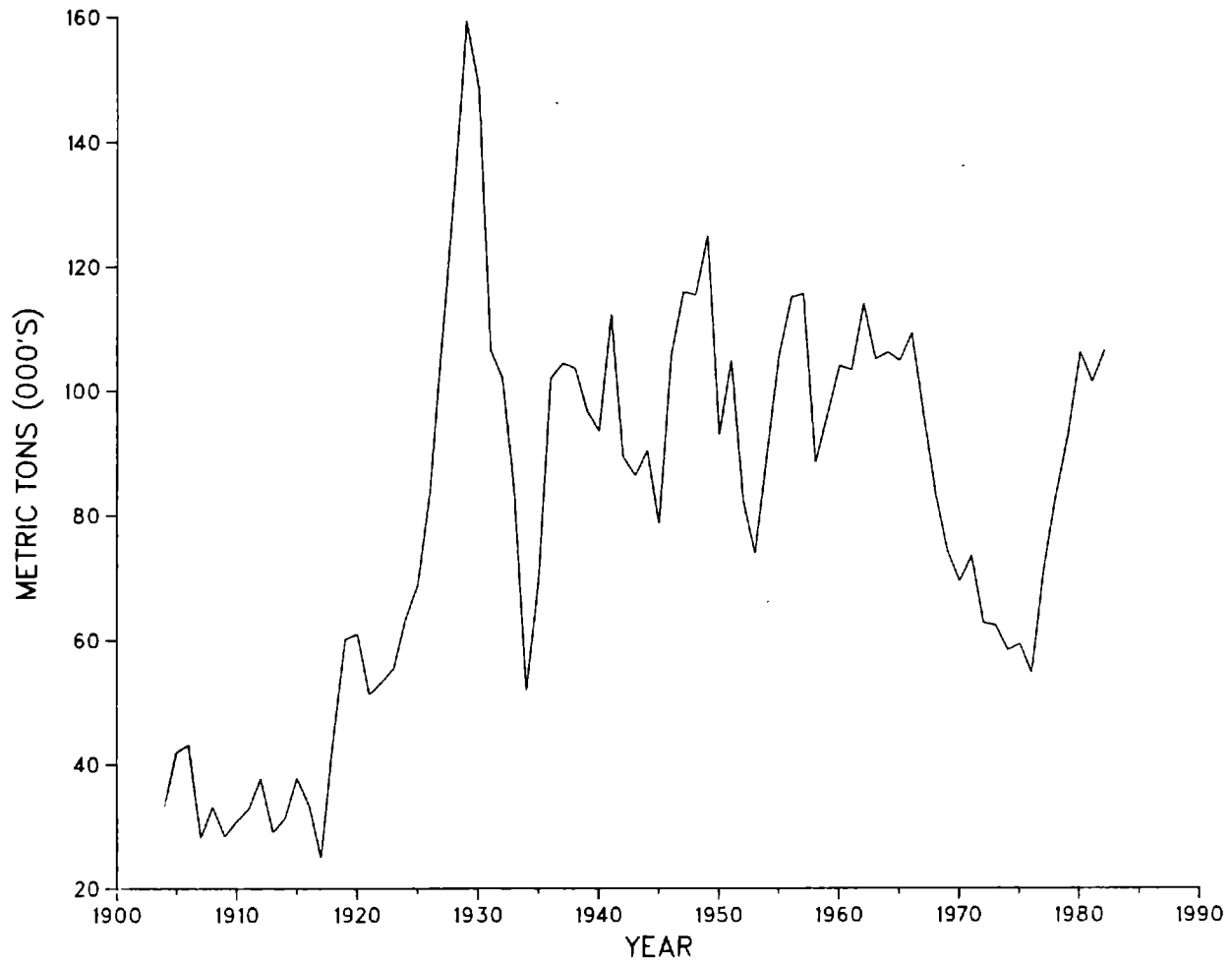


Figure 12. Total nominal USA catch from Georges Bank, 1904-1982.

