

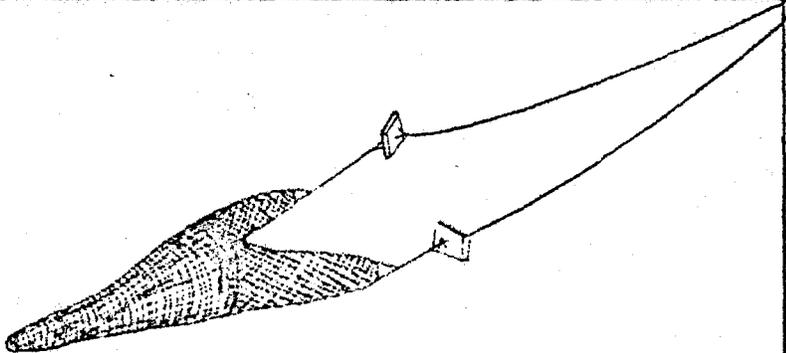
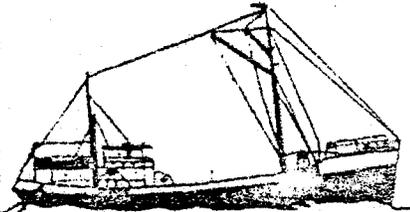
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STOCK CATALOGUE
OF THE
NEW ENGLAND FISHERIES

FOURTH QUARTER AND ANNUAL, 1972

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NATIONAL MARINE FISHERIES SERVICE
NORTHEAST FISHERIES CENTER
WOODS HOLE, MASSACHUSETTS, 02543

REFERENCE NO. 73-5

HADDOCK

The total 1972 landings of haddock by all countries from ICNAF Subarea 5 were 6,330 metric tons (MT) according to regulatory control reports (Table 1). This represents a 48 percent decrease from 1971 landings due to a reduction in quota allocation from 12,000 to 6,000 metric tons. United States landings from SA 5 (Georges Bank and Gulf of Maine) was 4,771 MT, a 44 percent reduction from 1971 (Table 2).

Total U. S. landings of haddock for 1972 were 5,293 MT, about 46 percent lower than for 1971 (Table 2); Georges Bank landings were 3,870 MT during 1972, a 47 percent decline from 1971.

Georges Bank age compositions from the commercial fishery continue to show the importance of the 1962 and 1963 year classes (Figure 1). Soon the fishery will be completely dependent upon the subsequent weak year classes following 1963. The standardized relative abundance index, adjusted for closures during March, April, May, and the fourth quarter, was a little higher for 1972 than for 1971 (Figure 2). The index, however, remains very low and is probably biased because of inhibited fishing caused by the quota regulations. The young-of-the-year index determined from the fall research surveys by Albatross IV, was also a little higher for 1972 than for 1971 (1.6, 1.4); however, when pooling the western Nova Scotia and Georges Bank indices, the 1971 age group seems stronger than the 1972 group. Abundance, then, will continue to be low, and even the present quota is too high to allow recovery of the stock.

Table 1. Haddock landings (metric tons, live weight)
reported from ICNAF Management Areas, 1972-1971*.

	DIV 4X		DIV 4W		SA 5	
	1972	1971	1972	1971	1972	1971
<u>QUOTA</u>	9,000	18,000	4,000 (no quota)		6,000	12,000
<u>4th QTR</u>	617	1,704	401		907	1,741
U. S.	18	108	-		808	1,413
Other countries	599	1,596	401		99	328
<u>ANNUAL</u>	8,804	17,600	3,141	10,378	6,330	12,168
U. S.	422	751	67	497	4,937	8,500
Canada	8,382	16,404	2,974	7,940	693	1,715
Spain	-	347	100	1,477	700	1,336
U.S.S.R.	...	97	...	464	...	374
Others	...	-	...	-	...	243

*Annual landings for 1971 are official; other landings are from ICNAF regulatory control reports, which are preliminary. For official U. S. landings, see Table 2.

Symbols: - no landings. ... magnitude not reported or not available.

Figure 1.

GEORGES BANK HADDOCK

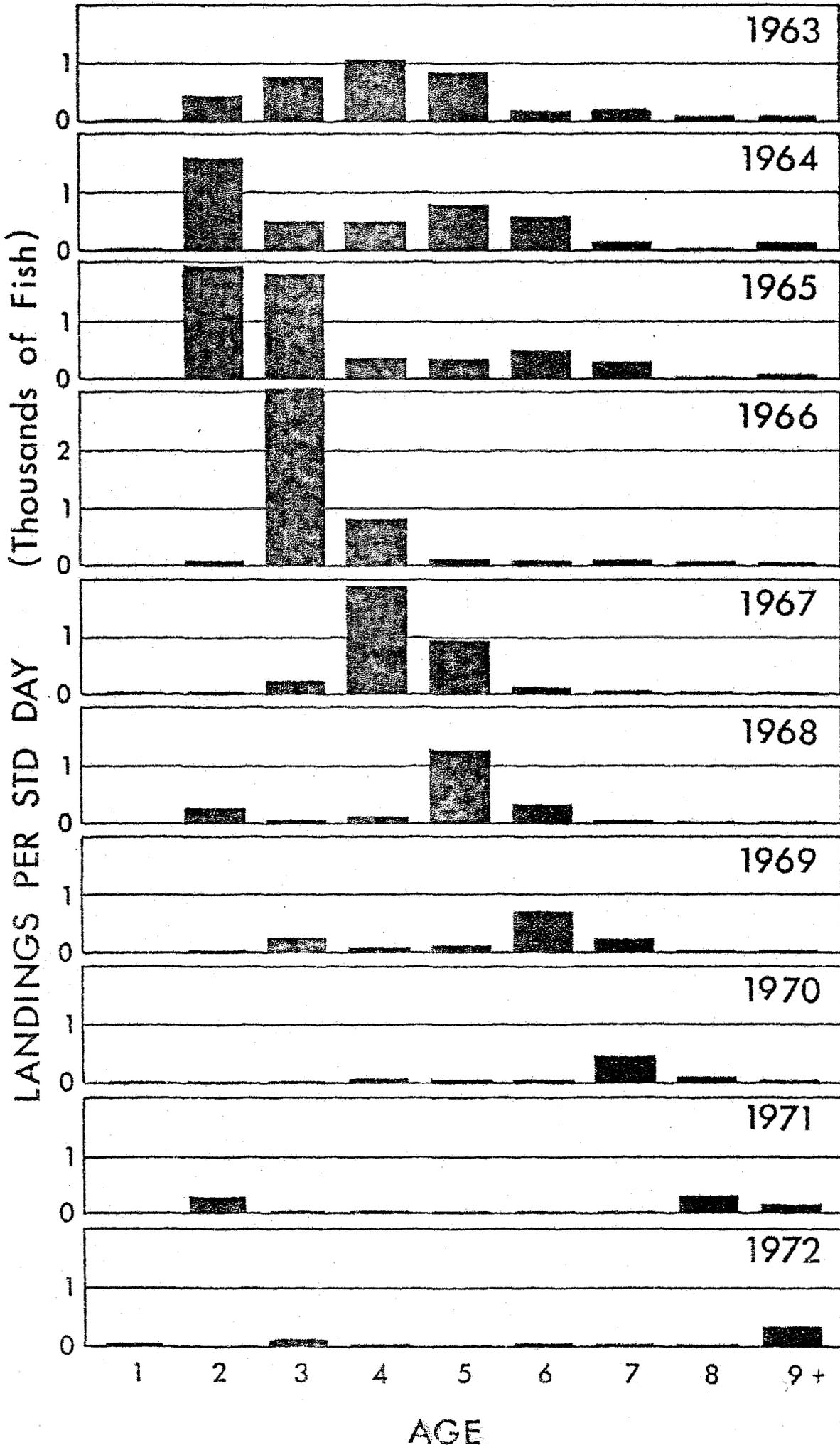


Figure 2. Georges Bank haddock catch per standard day.

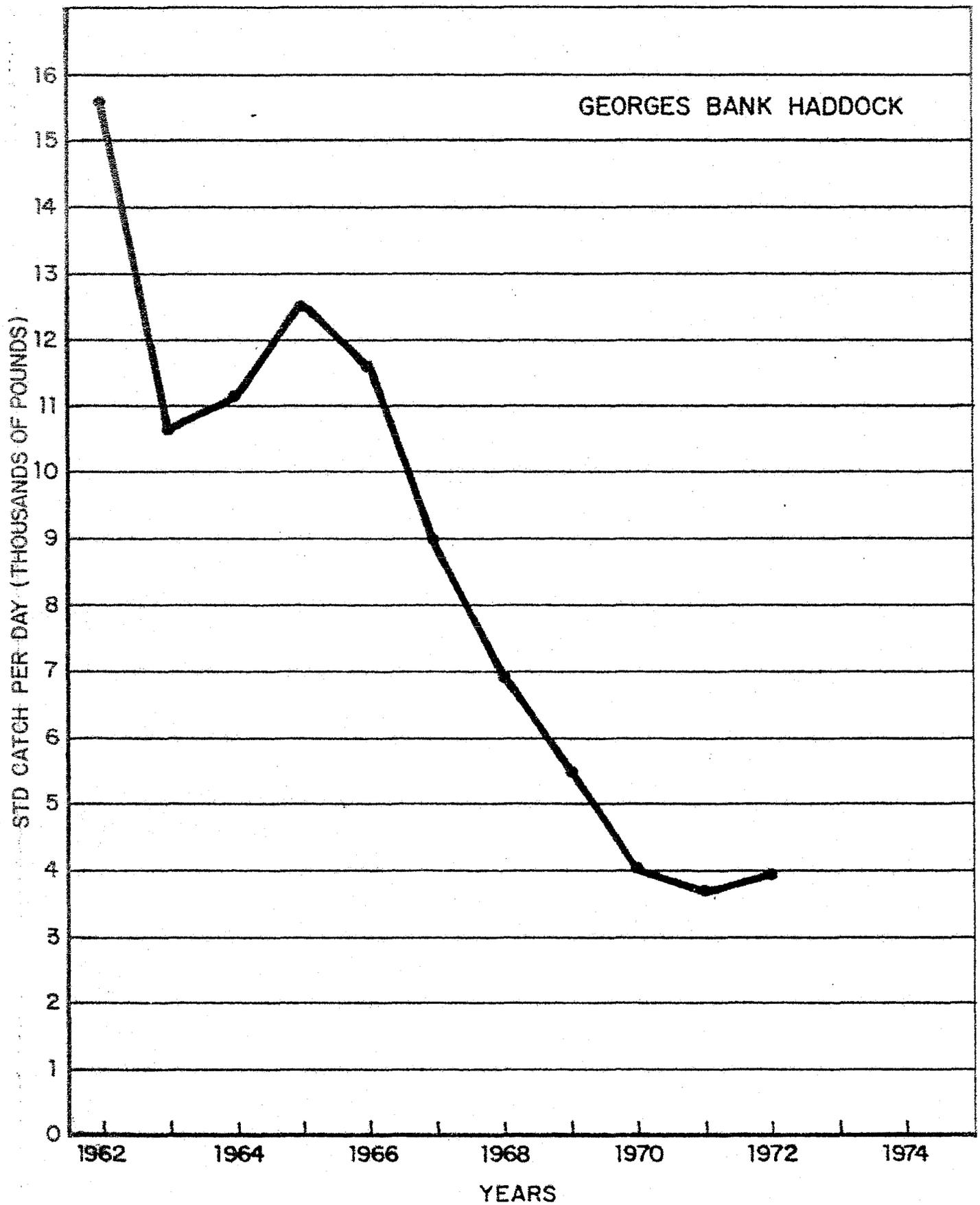


Table 2. U. S. haddock landings (metric tons, live weight)
for Fourth Quarter and Annual, 1972-1971.

Area/Market Category	Fourth Quarter		Annual	
	1972	1971	1972	1971
<u>Georges Bank (5Z)</u>				
Scrod	49	197	445	1,096
Large	536	974	3,425	6,210
TOTAL	585	1,172	3,870	7,306
<u>Gulf of Maine (5Y)</u>				
Scrod	9	7	21	39
Large	138	235	880	1,155
TOTAL	147	242	901	1,194
<u>Browns Bank (4X)</u>				
Scrod	1	2	189	234
Large	5	21	196	375
TOTAL	6	23	385	609
<u>Bay of Fundy (4X)</u>				
Scrod	1	3	6	9
Large	19	82	58	133
TOTAL	20	85	64	142
<u>Eastern Nova Scotia (4W)</u>				
Scrod	-	-	29	257
Large	1	...	41	240
TOTAL	1	...	70	497
<u>All Areas</u>				
Scrod	60	209	690	1,635
Large	699	1,312	4,600	8,113
TOTAL	759	1,521	5,293*	9,748

*Approximately 3 MT landed from 4V.

YELLOWTAIL FLOUNDER

Provisional yellowtail catch (including estimates of discards and industrial landings) from ICNAF Subarea 5 for 1972 was 32,190 metric tons, representing a six percent increase from 1971 (Table 3). For the management area east of 69° latitude, the catch for 1972 was 18,434 MT, while 13,756 metric tons was taken from the area west of 69°. This represents 115 and 138 percent of the respective quotas.

United States food landings in 1972 from Georges Bank were 14,157 metric tons, a 19 percent increase from 1971 (Table 4); southern New England's 1972 landings of 8,226 MT were also slightly higher than for 1971. The mid-Atlantic area (ICNAF Statistical Area 6), which is not under regulation, landings were 5,061 MT for 1972, a 90 percent increase over 1971.

The 1972 commercial landings per day index for the Georges Bank stock was similar to 1971; however, the research survey index suggests a slightly lower abundance. The survey pre-recruit index (age 1+) declined for the fourth year and indications are for a decreased abundance on Georges Bank for 1973 and possibly 1974.

Abundance indices for the southern New England stock were higher in 1972 than in 1971. Pre-recruit indices, however, have declined over the past two years rather than increased. It is very probable that abundance will be lower in 1973.

Table 3. Yellowtail flounder catch (metric tons, live weight) from ICNAF Subarea 5 Management Areas, 1972-1971¹.

	East of 69°		West of 69°	
	1972	1971	1972	1971
<u>QUOTA</u>	16,000	16,000	10,000	13,000
<u>4th QTR</u>				
U. S.	3,924	2,631	4,084	5,012
food landings	3,712	2,443	3,375	3,291
industrial est.	-	-	67	76
discard est.	222	188	642	1,645
<u>ANNUAL</u>	18,434	15,833	13,756	14,552
U. S.	15,316	15,008	11,858	14,213
food landings	14,157	11,881	9,590	9,819
industrial est.	-	-	327	397
discard est.	1,159	3,127	1,941	3,997
U.S.S.R. ²	3,001	586	1,814	339
Bulgaria	117	131	84	-
Others	...	108	...	-

¹1972 data are preliminary.

²U.S.S.R. catch proportioned using ICNAF quota control reports.

Table 4. United States yellowtail statistics (food landings; metric tons, live weight) for Fourth Quarter and Annual, 1972-1971.

	Fourth Quarter				Annual			
	Landings		Landings/Day		Landings		Landings/Day	
	1972	1971	1972	1971	1972	1971	1972	1971
Georges Bank	3,712	2,443	2.3	1.9	14,157	11,881	2.0	2.0
Southern New England	3,025	2,739	2.9	2.2	8,226	8,157	2.5	2.3
Cape Cod Grounds	351	552	6.4	2.1	1,364	1,662	2.0	2.1
Mid-Atlantic	634	549	1.8	3.1	5,061	2,657	5.9	4.0
TOTAL	7,722	6,283	2.7	2.1	28,808	24,357	2.5	2.2

COD

Total cod landings in 1972 by U. S. fishermen from northwest and mid-Atlantic waters were 20,681 metric tons (Table 5), about 13 percent less than in 1971. Landings from Georges Bank, the principle U. S. fishery were 13,140 MT in 1972, about 17 percent under 1971 landings.

The commercial landings per day index has increased since 1968; however, this is probably a reflection of changes in fishing practices, i.e. a greater directed fishery for cod in the absence of haddock. Research survey abundance indices, a measure of change in biomass, have remained relatively constant between 1968-1971, indicating a somewhat stable abundance. The 1972 index did show an increase and with a catch quota beginning in 1973, abundance should continue at its present level or increase slightly.

Table 5. United States cod statistics (metric tons, live weight) for Fourth Quarter and Annual, 1972-1971.

	Fourth Quarter				Annual			
	Landings 1972	Landings 1971	Landings/Day 1972	Landings/Day 1971	Landings 1972	Landings 1971	Landings/Day 1972	Landings/Day 1971
Georges Bank	2,986	3,372	2.7	1.7	13,140	15,795	2.6	2.1
Gulf of Maine	1,255	1,341			6,776	7,380		
Nova Scotian Shelf	45	41			665	335		
Mid-Atlantic	16	13			100	383		
TOTAL	4,302	4,767			20,681	23,893		

REDFISH

Total U. S. landings of redfish in 1972 from the northwest Atlantic (ICNAF SA 4 and 5) were 26,637 metric tons, two percent less than for 1971 (Table 6). Landings of 7,150 MT from the Gulf of Maine were substantially lower (43 percent) than in 1971; however, 1972 annual landings from Georges Bank (6,010 MT) were 61 percent greater than in 1971, and the 12,365 MT landings from Nova Scotian Shelf were 97 percent greater than the previous year. Landings from the Gulf of St. Lawrence by U. S. fishermen continued to decline, with only 1,111 metric tons being landed in 1972.

There have been no current assessments of redfish stocks and it seems that the character of the U. S. redfish fleet has changed, especially over the last two years: there have been changes in the number and size of vessels and ports of operation, more diversity in species composition, and new localized fishing areas.

The commercial landings per day indices for the Scotian Shelf are not precise probably because of limited fishing; however, research survey abundances indicate declines in 1971 and again in 1972, after a rise in 1969 and 1970. Commercial catch per day indices for the Gulf of Maine indicate a downward trend beginning in 1969. Survey indices for both Georges Bank and the Gulf of Maine show no clear trends. Good catches will probably continue to be made in Subarea 5 in 1973; however, without the frequency of former years.

Table 6. United States redfish statistics (metric tons, live weight) for Fourth Quarter and Annual, 1972-1971.

	Fourth Quarter				Annual			
	Landings		Landings/Day		Landings		Landings/Day	
	1972	1971	1972	1971	1972	1971	1972	1971
Gulf of Maine	993	1,320	4.2	5.7	7,150	12,541	6.3	7.4
Georges Bank	455	747	2.1	3.2	6,010	3,726	4.2	5.7
Nova Scotia	2,175	2,620	11.6	18.3	12,365	6,261	14.7	15.5
Gulf of St. Lawrence	280	583	11.4	7.4	1,111	4,706	11.2	9.6
TOTAL	3,903	5,270	8.9	10.3	26,637	27,234	7.6	8.4

SILVER HAKE (Food)

Landings of silver hake (whiting) for food from Subarea 5 (Gulf of Maine and Georges Bank) in 1972 were 7,918 metric tons, about 37 percent below 1971 landings (Table 7). Of this total, 5,548 MT were landed from the Gulf of Maine, 33 percent less than in 1971; and 879 MT were landed from Georges Bank, 71 percent below 1971 landings. There was a continued rise in the 1972 catch of silver hake for food from the southern New England ground where traditionally these fish were sold for industrial purposes.

Generally, the silver hake stocks are in good shape. Survey cruise data indicate greatly improved stock abundance in the Gulf of Maine and a moderate increase on Georges Bank. There was a slight decrease for the southern New England-mid-Atlantic stock but this decrease is not as drastic as in 1969 and 1970. A good 1972 year class was noted in all areas.

High percentages of discards (undersized fish) were reported from Georges Bank during July-August as well as the presence of large numbers of small silver hake in catches by vessels fishing shrimp in the Gulf of Maine in the summer. Similar large removals of fish of the 1971 year class during 1972 by other nations fishing silver hake could have a detrimental effect on stock abundance. However, if the incoming year classes are allowed to recruit to the fishery at normal size, the presence of the good 1971 and 1972 year-classes should assure improved stock abundance in 1973 and the following several years.

Table 7. United States silver hake statistics (food landings; metric tons, live weight) for Fourth Quarter and Annual, 1972-1971.

	Fourth Quarter		Landings/Day	
	Landings 1972	1971	1972	1971
Gulf of Maine	2,540	2,537	3.4	1.2
Georges Bank	301	286	0.4	-
TOTAL	2,841	2,823	3.3	1.2
		<u>Annual</u>		
Gulf of Maine	5,548	8,263	4.4	2.0
Georges Bank	879	3,069	0.4	10.7
TOTAL	6,427	11,332	4.3	2.7
Southern New England	1,491	1,178		
TOTAL Food Fish	7,918	15,510		

INDUSTRIAL FISHERY

Total industrial landings from the southern New England grounds (ICNAF Div. 5Zw) in 1972 were 5,602 metric tons, about 30 percent below 1971 (Table 8). Landings from the mid-Atlantic (ICNAF Statistical Area 6) were 1,149 metric tons, 57 percent less than 1971.

In regards to species composition of the fishery, rank was generally similar for 1972 and 1971 on the southern New England area: eel pout, red hake, skate, sculpin, yellowtail. Percentagewise, there were some changes, notably red hake which dropped from 26 to 18 percent. For the mid-Atlantic area, eel pout was also the dominant species. There was a significant increase in red hake percentagewise from 1971 to 1972.

Because of the importance of red hake to the U. S. industrial fishery and its importance in foreign catches, a brief status report for this species is given for ICNAF Areas 5 and 6:

Total red hake landings by the U. S. decreased 38 percent from 1971 to 1972 in Subarea 5. Landings in 1972 were only about 1,700 metric tons as compared to about 2,800 metric tons in 1971. Landings in Statistical Area 6 remained about the same in 1972 at about 850 metric tons. The bulk of the U. S. landings in Subarea 5 consisted of fish used for industrial purposes. The percentage composition of red hake in Division 5Zw industrial landings dropped from 25.8 percent in 1971 to 17.9 percent in 1972. This decrease in landings has resulted in data insufficient for calculating a catch/effort index.

The 1972 fall research vessel survey cruise indicated a strong improvement in stock abundance in Division 5Zw from 1971 (66 percent increase in mean catch/tow). The survey index declined somewhat in Division 5Ze, but showed a good improvement in Division 5Y. In the latter area, the survey abundance index has increased steadily each year since 1968 and in 1972, for the first time, was higher than in Division 5Ze.

Preliminary reports indicate that U.S.S.R. catches in 1972 were greater than in 1971. Data indicate that the fishery in Division 5Zw in 1973 could remove the maximum sustainable yield (40,000 metric tons) in view of the apparent good condition of the stock at the present time.

Table 8. Estimates of species composition (percent) and landings* (metric tons) of industrial fishery for Fourth Quarter and Annual, 1972-1971.

	Fourth Quarter		Annual	
	1972	1971	1972	1971
<u>Southern New England Grounds</u>				
Eel pout	5.1		35.3	33.7
Red hake	40.4		17.9	25.8
Skates	16.5		13.0	8.2
Sculpin	4.2		11.8	11.0
Yellowtail	6.9		6.0	4.1
Other flounders	10.6		5.3	2.9
Silver hake	4.6		2.1	10.1
Other species	11.7		8.6	4.2
Landings sampled	(963)	(-)	(5496)	(7484)
Landings not sampled	(-)	(661)	(106)	(661)
Total Landings	(963)	(661)	(5602)	(8145)
<u>Georges Bank (not sampled)</u>				
Total Landings	(...)	(...)	(83)	(...)
<u>Gulf of Maine (not sampled)</u>				
Total Landings	(38)	(...)	(259)	(...)
<u>Mid-Atlantic Grounds</u>				
Eel pout	5.7		40.4	52.0
Red hake	42.0		24.3	8.8
Sculpin	7.4		9.2	10.4
Skates	16.1		7.8	4.8
Yellowtail	0.0		5.2	10.1
Silver hake	4.5		4.4	7.4
Other flounders	12.5		4.3	3.5
Other species	11.8		4.4	3.0
Landings sampled	(88)	(-)	(1098)	(2598)
Landings not sampled	(-)	(88)	(51)	(88)
Total Landings	(88)	(88)	(1149)	(2686)

*Landings indicated by ().

(...) = less than 0.5 metric tons, or unknown.

(-) = zero landings.