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STOCK CATALOGUE
OF THE
NEW ENGLAND FISHERIES
FOURTH QUARTER, 1971

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HADDOCK

Fishing for haddock in Subarea 5 in 1971 was controlled by ICNAF regulations which imposed a 12,000 metric ton (26.0 million pounds) quota and closed the prime spawning areas to fishing during March and April. There was no closure as the quota was not achieved until late in the fall. A total of 26.9 million pounds (12,215 MT) was landed. This was divided among countries as follows:

USA	8,486 MT (18.7 million pounds)
Canada	1,715 MT (3.8 million pounds)
Spain	1,337 MT (2.9 million pounds)
USSR	374 MT (0.8 million pounds)

For the United States, this represented a 14 percent decrease from 1970 landings, while fourth quarter landings declined by 6 percent (Tables 1 and 2).

Fishing success on Georges Bank continued a decline that started in 1966. Catch per day dropped from 4,600 pounds in 1970 to 3,500 MT in 1971.

Age composition of haddock from Georges Bank (Figure 2) shows that the majority of fish landed were still from the 1962-1963 year class (8 and 9-year olds).

The autumn 1971 research vessel survey indicated a very poor year class. Thus, poor recruitment to the fishery will continue at least through 1973, and the population will remain at the current low level at least through 1974.

Total US 1971 landings from 4X (Browns Bank) and vicinity decreased by 2.2 million pounds (56 percent) from 1970. Abundance is still low on Browns, and predictions are for continuance of this trend for several years. The annual quota of 18,000 tons for this area was almost reached, total landings amounting to 17,533 metric tons (28.7 million pounds). In 1972 the quota is 9,000 MT or 19.8 million pounds.

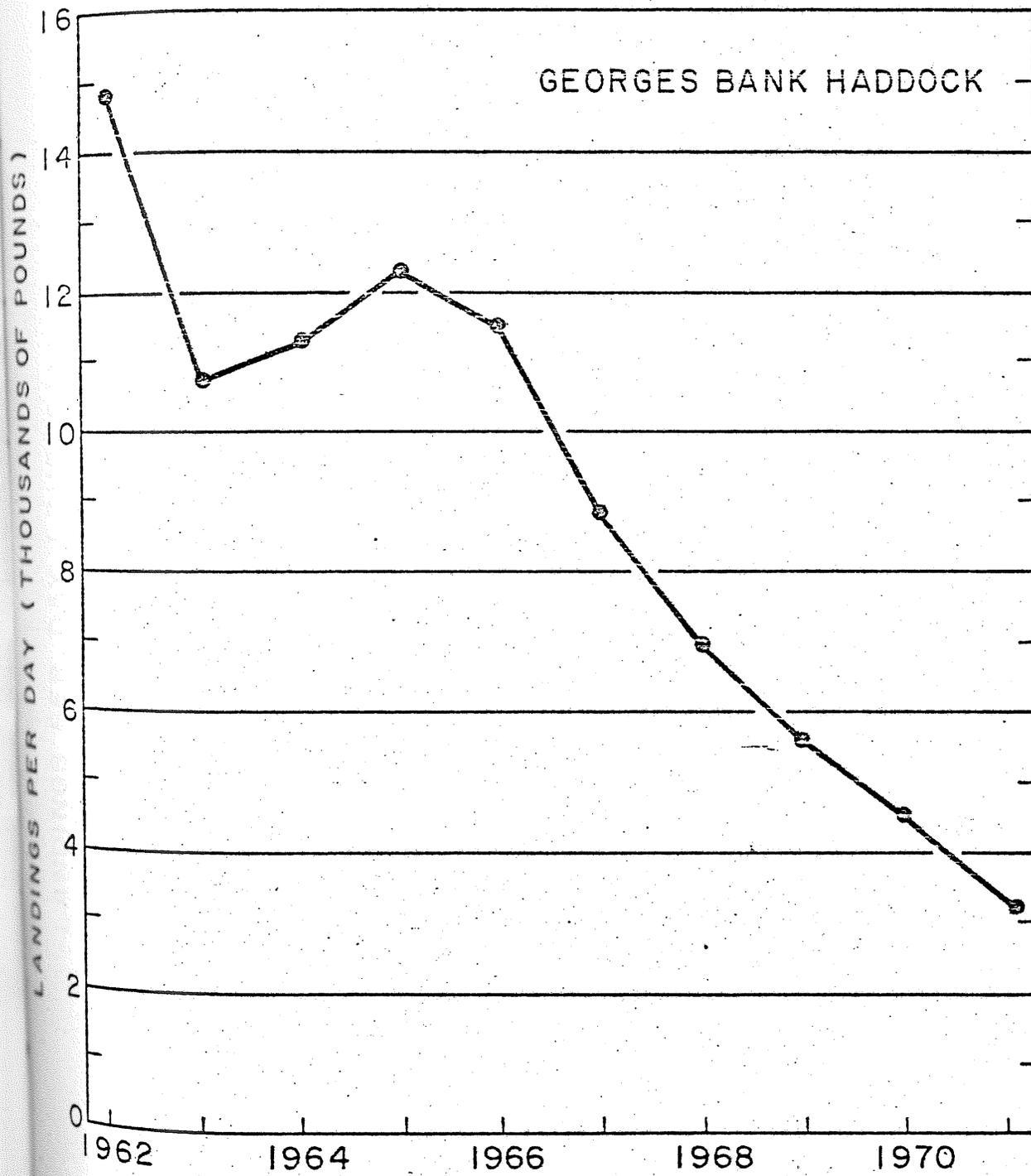
Table 1.--US haddock landings from management areas,
1971 - 1970 (thousands of pounds, live weight).

Area	Year	US Landings	Total Landings	Quota
SA 5				
4th Qtr.	1971	3,116		
	1970	3,323		
Accum.	1971	18,741	26,912	26,460
	1970	21,708	28,334	26,460
Div. 4X				
4th Qtr.	1971	237		
	1970	739		
Accum.	1971	1,656	38,653	39,690
	1970	3,843	39,989	39,690

Table 2.--US haddock fourth quarter and annual statistics, 1971 - 1970 (landings in thousands of pounds, live weight).

Market Category	Fourth Quarter Landings		Annual Accumulative Landings	
	1971	1970	1971	1970
<u>Georges Bank (5Z)</u>				
Scrod	435	173	2,418	1,647
Large	2,148	2,591	13,698	16,895
Total	2,583	2,764	16,116	18,542
<u>Browns Bank (4X)</u>				
Scrod	4	50	518	1,667
Large	46	388	828	1,808
Total	50	438	1,346	3,475
<u>Gulf of Maine (5Y)</u>				
Scrod	15	30	83	329
Large	518	529	2,542	2,837
Total	533	559	2,625	3,166
<u>Bay of Fundy (4X)</u>				
Scrod	6	34	19	56
Large	180	251	296	313
Total	186	285	315	369
<u>Eastern Nova Scotia (4X)</u>				
Scrod	-	1	567	714
Large	1	15	530	555
Total	1	16	1,097	1,269
<u>Total</u>				
Scrod	460	288	3,605	4,413
Large	2,893	3,774	17,894	22,408
Total	3,353	4,062	21,499	26,821

Figure 1.--Landings per day, 1962-1971, of the Georges Bank haddock fishery.



COD

Total US cod landings in 1971 were similar to those in 1970 (Table 3). The principal US fishing area, Georges Bank, produced 34.6 million pounds landed for the year, almost 3 million pounds more than 1970.

Annual landings per day were essentially the same as in 1970 (4,524 pounds per day compared to 4,378 pounds per day in 1970).

Indexes from U.S. research cruises indicate that stock abundance will remain level through 1972.

Table 3.--Cod fourth quarter statistics 1971 - 1970 (landings in thousands of pounds, live weight).

	<u>FOURTH QUARTER</u>			
	Landings		Landings/Day	
	1971	1970	1971	1970
Georges Bank	7,434	6,654	3,726	3,629
SA 5	10,892	9,861	-	-
			<u>ANNUAL</u>	
Georges Bank - US	34,822	32,050	4,378	4,524
Georges Bank - Total	56,279	52,308	-	-
SA 5 - US	50,678	49,275	-	-
SA 5 - Total	77,489	73,563		

YELLOWTAIL FLOUNDER

Total 1971 US yellowtail landings decreased 21.5 million pounds from 1970, mainly due to ICNAF quota regulations which were set at 35.3 million pounds on Georges Bank and 28.7 million pounds on southern New England grounds (Table 4). There are catch quotas and thus include discard as well as landings. The catch east of 69° dropped 13.9 million pounds and that west of 69° dropped 7.6 million pounds. The 64 million pound quota was overfished by 4.6 million pounds in 1971.

Fishermen discarded an estimated 17.5 million pounds of yellowtail (Table 5) or 25.5 percent of the weight caught in 1971. Two percent of the catch was landed as industrial fish, a considerable drop from the 1970 figure of 5.5 percent.

Age composition of food landings (Figure 3) shows no change from 1970 age compositions on both grounds. Research cruise abundance indexes (Figure 4), show a drop from 1970 grounds. Also, pre-recruit indices for southern New England continued to be low so that abundance will likely decline during 1972.

Table 4.--Annual US yellowtail catch and international quotas in ICNAF SA 5 for 1970 and 1971.

	1971		1970	
	Catch	Quota	Catch	Quota
East of 69°	33,686	35,280	47,541	NONE
West of 69°	34,873	28,665	42,496	NONE
Total	68,559	63,945	90,037	NONE

Table 5.--US yellowtail flounder estimates of discard in thousands of pounds

	4th Quarter		Annual	
	1970	1971	1970	1971
Southern New England	4,184	3,018	10,026	7,357
Georges Bank	2,064	415	12,197	6,893
Cape Cod Grounds	306	608	940	1,455
Total	6,554	4,041	23,163	15,705

Table 6.--US yellowtail food landings and landings per day
in thousands of pounds.

	<u>FOURTH QUARTER</u>			
	<u>Landings</u>		<u>Landings/Day</u>	
	<u>1970</u>	<u>1971</u>	<u>1970</u>	<u>1971</u>
Southern New England	8,789	6,038	6.4	4.8
Georges Bank	6,857	5,385	5.8	4.2
Mid-Atlantic	303	1,211	8.6	6.8
Cape Cod Grounds	644	1,217	4.0	4.7
			<u>ANNUAL</u>	
Southern New England	27,852	21,651	5.8	5.1
Georges Bank	34,175	26,793	5.5	4.4
Mid-Atlantic	1,565	5,856	7.2	8.8
Cape Cod Grounds	2,611	3,665	4.8	4.6

Figure 3.--Age composition of US yellowtail landings, 1970 and 1971.

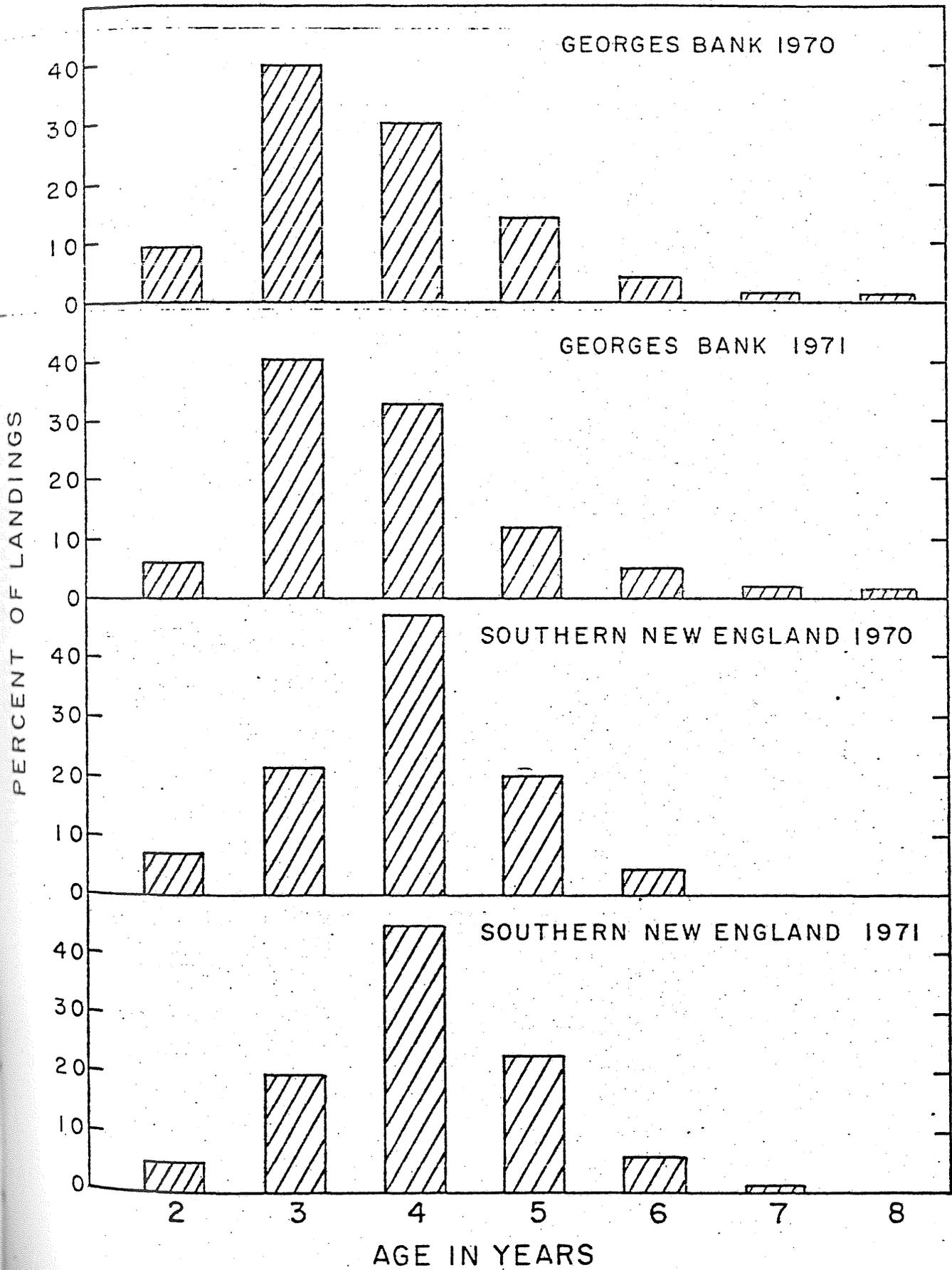
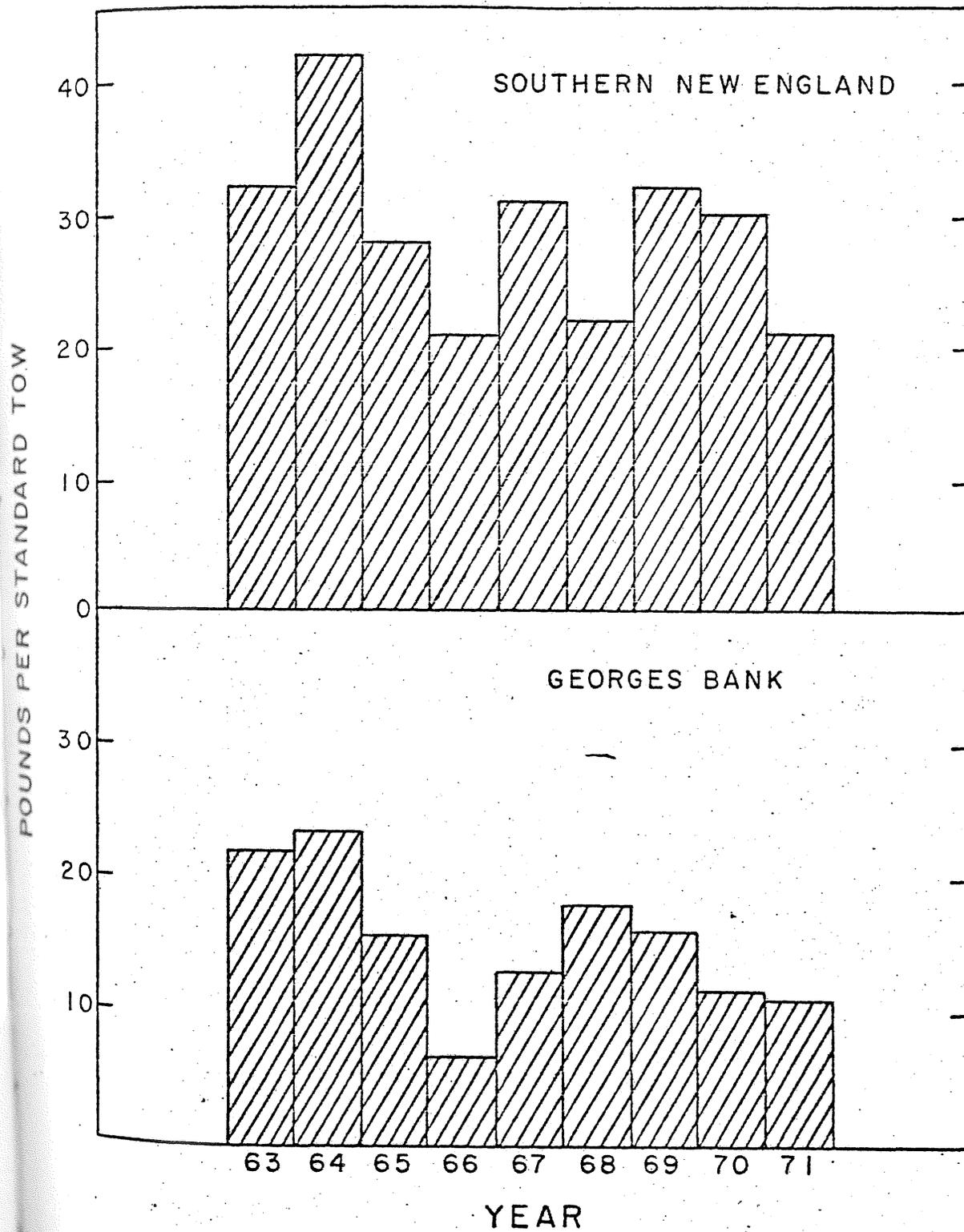


Figure 4.--Yellowtail flounder abundance indexes from US survey cruises.



REDFISH

US redfish landings increased by 0.9 million pounds in 1971 (Table 7), mainly due to an increase in Nova Scotian landings. Gulf of Maine and Gulf of St. Lawrence landings dropped, however, 2.3 and 6.4 million pounds respectively. This was offset by the 9.6 million pound increase of Nova Scotian landings. Fourth quarter landings follow the same trend with Gulf of Maine and Gulf of St. Lawrence landings down 24 and 71 percent respectively and Nova Scotian landings up 407 percent over 1970 landings.

Landings per day, however, decreased in the Gulf of Maine and Gulf of St. Lawrence by 20 and 25 percent respectively. There was a 9.2 percent increase in Nova Scotian landings per day. Fourth quarter statistics exhibit the same trends as do annual values except that Gulf of Maine landings per day remained constant rather than decreasing.

Table 7.--Redfish fourth quarter and annual statistics
(landings in thousands of pounds, live weight).

	<u>FOURTH QUARTER</u>			
	Landings		Landings/Day	
	1971	1970	1971	1970
Gulf of Maine	2,909	3,804	12,483	11,948
Nova Scotia	5,776	11,140	40,365	17,005
Gulf of St. Lawrence	1,286	4,382	16,398	18,720
Total	9,971	9,326	22,823	14,770
			<u>ANNUAL</u>	
Gulf of Maine	27,594	29,872	16,291	20,358
Nova Scotia	13,803	4,257	34,086	31,222
Gulf of St. Lawrence	10,375	16,734	21,186	28,150
Total	51,772	50,863	20,144	23,096

SILVER HAKE (Food Landings)

US landings and landings per day increased during the fourth quarter, 1971, over the fourth quarter 1970, on both the Gulf of Maine and Georges Bank stocks (Table 8). Gulf of Maine landings increased 2.4 million pounds (73 percent) and Georges Bank landings increased 68 thousand pounds (12 percent)

Annual landings, however, were down compared to 1970 on both stocks; Gulf of Maine landings dropped 25 percent and Georges Bank landings dropped 38 percent. Gulf of Maine landings per day dropped 33 percent during 1971 while catch per effort remained approximately stable on Georges Bank. Overall US fishermen landed 30 percent less silver hake than in 1970 and expended about the same amount of effort.

As in the past landings were mostly composed of three and four year old fish on both grounds. Abundance indexes from research cruises have also remained consistent on both grounds since 1968, however, young-of-the-year indexes show a large 1971 year class. If these small fish are not harvested until they are three or four year olds (11-13 inches) a sizable increase in landings may be expected by 1974.

Table 8.--Silver Hake (food) fourth quarter statistics
1971 - 1970 (landings in thousands of pounds,
live weight).

	<u>FOURTH QUARTER</u>			
	<u>Landings</u>		<u>Landings/Day</u>	
	<u>1971</u>	<u>1970</u>	<u>1971</u>	<u>1970</u>
Gulf of Maine	5,593	3,234	2,595	1,641
Georges Bank	631	563	-	8,986
Total	6,224	3,797		
	<u>ANNUAL</u>			
Gulf of Maine	18,199	24,322	4,390	6,548
Georges Bank	9,116	14,682	23,534	21,865
Total	27,315	29,004		

INDUSTRIAL LANDINGS

The 1971 southern New England industrial landings decreased 27 million pounds from 1970 landings (Table 9), although a small increase of one million pounds occurred in mid-Atlantic landings. The large decrease in total landings was, in part, due to economic factors.

In general, species composition of the southern New England industrial landings for 1971 and 1970 are much the same with the majority of the catch being composed of ocean pout, and red hake although a noticeable decrease in the percentage of yellowtail is apparent (Table 10). Mid-Atlantic species composition changed in 1971. Catch composition samples in 1970 indicated that yellowtail, eelpout, sculpin, and cod, in that order, composed most of the landings. Ocean pout made up the majority of the 1971 landings followed by sculpin, yellowtail, and red hake.

Table 9.--Industrial species composition landings - fourth quarter and annual 1971 - 1970 (thou. lbs., live).

Area Species	Fourth Quarter		Annual	
	1971	1970	1971	1970
<u>So. New England</u>				
Red Hake	359	1,841	5,093	8,151
Silver Hake	260	1,332	2,041	2,866
Yellowtail	166	845	754	4,618
Blackback	111	563	386	2,001
Sculpins	144	732	1,875	5,752
Ocean Pout	151	779	5,920	12,900
Others	274	1,337	2,317	9,337
Total	1,455	7,429	18,386	45,625
<u>Mid-Atlantic</u>				
Red Hake	106	231	745	533
Silver Hake	36	77	630	332
Yellowtail	34	73	745	1,605
Blackback	16	36	156	331
Sculpin	20	42	650	701
Ocean Pout	7	14	3,211	939
Others	109	439	637	1,081
Total	328	7122	6,774	5,522

Table 10.--Industrial species composition (percent) and total landings - fourth quarter 1971 - 1970 (landings in thousands of lbs., live weight).

Area Species	Fourth Quarter		Annual	
	1971	1970	1971	1970
<u>So. New England</u>				
Red Hake	24.7	22.0	27.7	17.9
Silver Hake	17.9	19.2	11.1	6.3
Yellowtail	11.4	10.2	4.1	10.1
Blackback	7.6	9.2	2.1	4.4
Sculpin	9.9	9.1	10.2	12.6
Ocean Pout	10.4	10.1	32.2	28.3
Others	18.1	20.2	12.6	20.6
Total Landings	1,455	7,272	18,385	45,625
<u>Mid-Atlantic</u>				
Red Hake	32.4	24.3	11.0	9.7
Silver Hake	10.9	14.7	9.3	6.0
Yellowtail	10.3	9.4	11.0	29.1
Blackback	5.0	7.5	2.3	6.0
Sculpin	6.0	7.6	9.6	12.7
Ocean Pout	2.0	2.6	47.4	17.0
Others	33.4	33.9	9.4	19.5
Total Landings	328	712	5,774	5,522