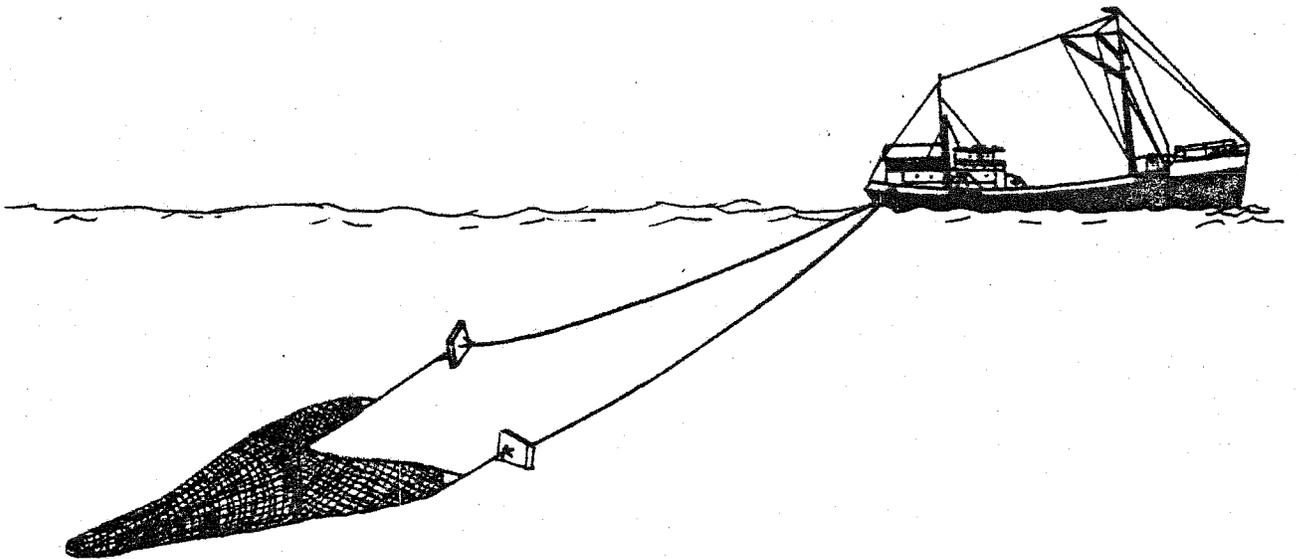


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STOCK CATALOGUE
OF THE
NEW ENGLAND FISHERIES

SECOND QUARTER, 1970

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Laboratory Reference No. 71-3

HADDOCK

ICNAF regulations closed Browns Bank and most of Georges Bank to fishing during April, 1970 (March, in the first quarter, was also closed.). This made for an abbreviated quarter on the two prime US haddock fishing grounds.

Total landings for the second quarter were about 11.5 million pounds (Table 1), which was some 6 million pounds less than the second quarter of 1969. Georges Bank landings for the second quarter, 1970 were about 7 million pounds under the landings for the same period of 1969. Scrod landings accounted for 51 percent of this deficit. Although the closure must have had some effect, part of the reduction was due to lower abundance. Browns Bank landings were about 29 percent higher for the second quarter, 1970 than for 1969. This increase was apparently due to additional fishing effort.

During April many US vessels fished in Division 4W (East of LaHave) where landings of approximately one million pounds were reported. During the first quarter, about 0.3 million pounds were landed from this area. This marks the first time in 11 years that US vessels have fished intensively this far away from home for haddock.

In relation to the ICNAF landings quotas for haddock, at the close of the second quarter the following totals were reported (in millions of pounds, live weight):

	January-June	
	Sub Area 5 (Quota: 26.5)	Division 4X (Quota: 40.0)
US	10.6	2.4
Other Nations	1.7	14.6
Total	12.3	16.9
Percent of Quota	53	49

Second quarter estimates of relative abundance from 1962 through 1970 for Georges Bank haddock using an analysis of variance model are presented in Figure 1. Only data from May and June were used in order that all years would be comparable with 1970. Total abundance on Georges Bank remains at a very low state, and because of poor recruitment since 1965, scrod abundance is exceptionally low. Browns Bank stock are also low when compared to pre-1965 years. Relative abundance indicators were higher for the 1970 second quarter than for the same period in 1969; however, these estimates are based on minimal effort data.

TABLE 1

HADDOCK SECOND QUARTER STATISTICS

(Landings in 1000's of pounds. Live Weight)

Area	Market Category	Second Quarter		Accumulative	
		1970	1969	1970	1969
Georges Bank	Scrod	678	4314	1077	7141
	Large	6365	9885	8849	14813
	Total	7043	14199	9926	21954
Browns Bank	Scrod	1287	1150	1505	1800
	Large	1062	526	1247	866
	Total	2349	1676	2752	2666
Gulf of Maine	Scrod	80	363	277	829
	Large	1092	1181	1847	1866
	Total	1172	1544	2124	2695
Bay of Fundy	Scrod	-	5	3	348
	Large	-	3	11	205
	Total	-	8	14	553
Total ^{1/}	Scrod	2692	5832	3575	10118
	Large	8852	11595	12494	17750
	Total	11544	17427	16069	27868

^{1/} Total includes Division 4W landings of 272 for Quarter 1 and 979 for Quarter 2 in 1970.

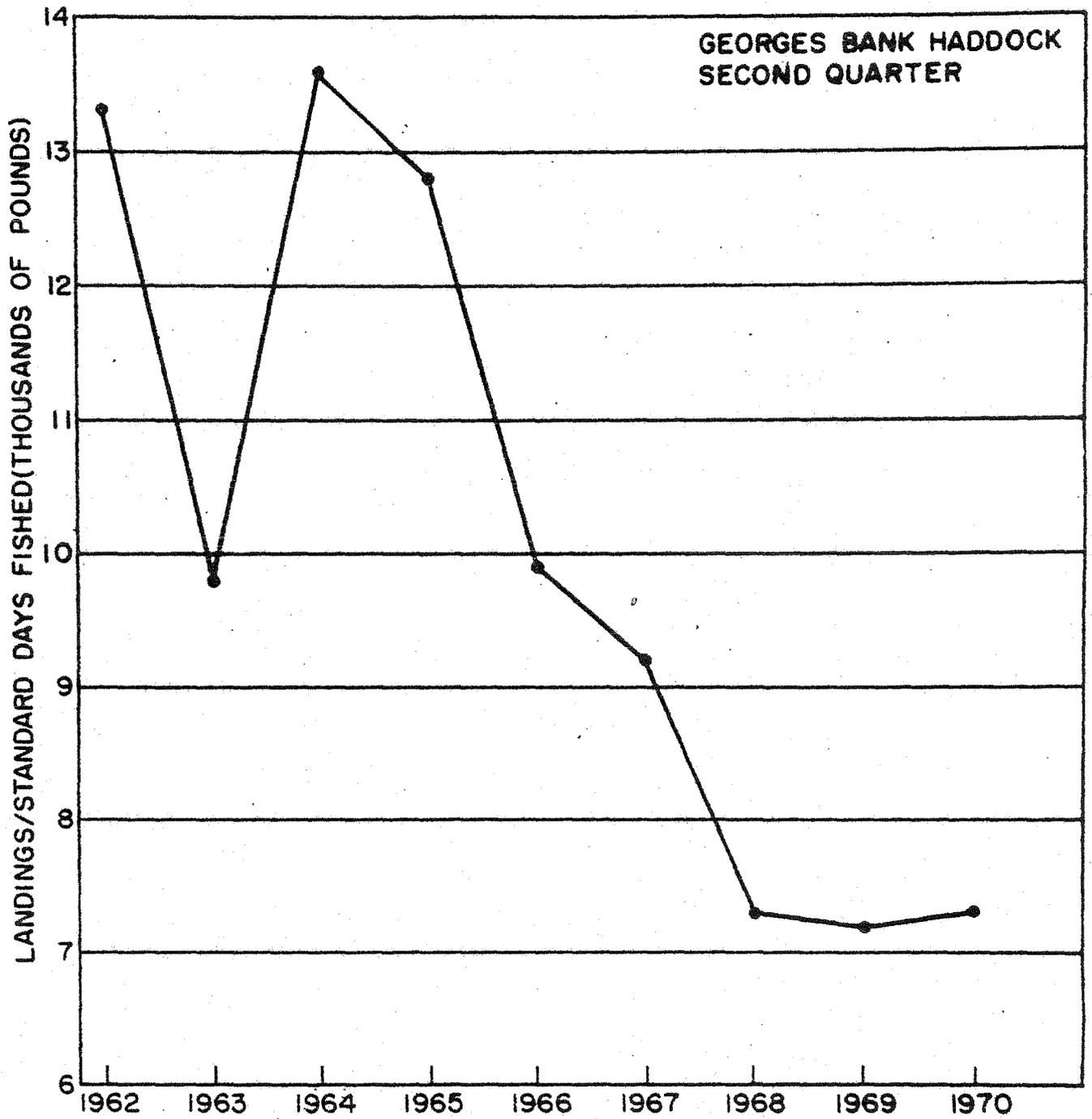


Figure 1

YELLOWTAIL

Total yellowtail food landings for the second quarter were close to 15 million pounds (Table 2) which represents a gain of 11 percent over the same period in 1969. Georges Bank landings were up 0.5 million pounds (6 percent) while landings from the Southern New England grounds increased 1.2 million pounds (28 percent) over the second quarter, 1969.

Total catches of yellowtail (which includes discards and industrial landings) for the two major fishing totals are given in Table 3. Total catch for Georges Bank was 3.4 million pounds (25 percent) greater than for the second quarter, 1969. This rise was the result of a large increase in estimated discard. Total catch for the Southern New England grounds showed a 1.8 million pound (21 percent) increase over the same period of 1969. Discards were significantly higher in this area for 1970 also; however, industrial landings were lower by 11 percent.

Relative abundance, expressed as landings per day, on both major fishing grounds for the second quarter, 1970 were similar in comparison with the second quarter, 1969 (Table 2). Increase in landings, then, were primarily the result of increased fishing effort.

Age composition of yellowtail landings for 1969 (Figure 2) show a relatively weak 1967 year class (age 2), and Albatross IV survey data indicates low abundance of age 2 in 1970. This projected below average recruitment added to increases in fishing effort points to a continued decline in abundance on both the Southern New England grounds and Georges Bank.

TABLE 2

YELLOWTAIL SECOND QUARTER STATISTICS

(Landings in 1000's of pounds. Live Weight)

Area	Landings		Land/Day		Accumulative	
	1970	1969	1970	1969	1970	1969
S. New England	4409	3162	4800	4902	13069	11542
Georges Bank	9539	8998	5610	5498	16750	13941
Middle Atlantic	188	404	5963	6941	527	1050
Cape Cod Grounds	793	732	4684	4220	1680	1838
Total	14929	13296	5454	5330	32026	28371

TABLE 3

YELLOWTAIL CATCH FOR THE TWO MAJOR FISHING AREAS

SECOND QUARTER, 1969 and 1970

(Landings in 1000's of pounds. Live Weight)

	Southern		Georges Bank	
	<u>New England</u>		<u>1970</u>	<u>1969</u>
Food Landings	4409	3162	9539	8998
Estimated Percent Discards	34.3	18.9	43.5	14.1
Estimated Discards (lbs.)	1512	598	4149	1269
Estimated Catch*	5921	3760	13688	10267
Industrial Landings	2646	2978	-	-
Total Catch**	8567	6738	13688	10267

* Estimated catch = food landings + estimated discards.

** Total catch = estimated catch + industrial landings.

YELLOWTAIL AGE STRUCTURE FROM COMMERCIAL LANDINGS

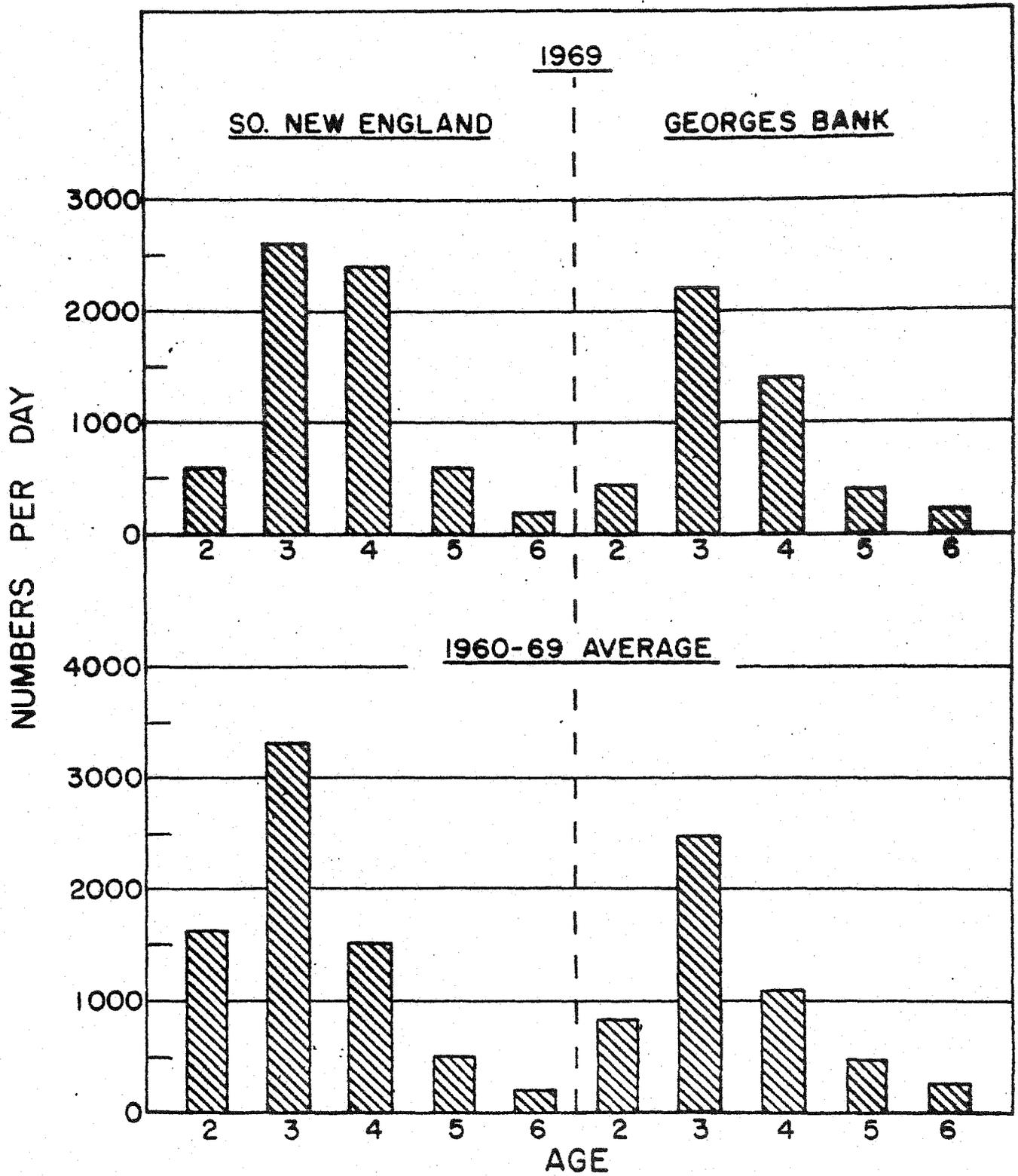


Figure 2
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COD

Cod landings for the quarter were close to the 1969 second quarter level (Table 4). Landings per day were up considerably from 1969; however, it is doubtful that this portrays a significant increase in abundance of the stock. Catch per tow on Albatross IV survey cruises indicate a drop in population abundance in 1968 and 1969.

TABLE 4

COD SECOND QUARTER STATISTICS

(Landings in thousands of pounds. Live Weight)

Area	<u>Landings</u>		<u>Land/Day^{1/}</u>		<u>Accumulative</u>	
	1970	1969	1970	1969	1970	1969
Georges Bank	9508	9727	5068	3265	15122	15573

^{1/} Based on Boston OTL's

REDFISH

Total redfish landings for the six month period were about 4 million pounds higher than in 1969. Second quarter landings were about the same as 1969 (Table 5).

Landings per day, although high, decreased on all banks during 1970. With the relatively sparse effort data on hand, it is difficult to assess the abundance trend at this time.

TABLE 5

REDFISH SECOND QUARTER STATISTICS^{1/}

(Landings in thousands of pounds. Live Weight)

Area	Landings		Land/Day		Accumulative	
	1970	1969	1970	1969	1970	1969
Gulf of Maine	12272	6965	23918	35425	21424	13323
Nova Scotia	668	2275	34490	36122	989	2244
Gulf of St. Lawrence	1674	5357	30429	36048	2855	6332
Total	14614	14597	28528	35883	25268	21899

^{1/} Note: 5Z not included.

SILVER HAKE (FOOD FISH)

Landings of silver hake for food normally begins late in the second quarter. Landings were about one million pounds higher in 1970 than in 1969 with the majority of this increase coming from Georges Bank (Table 6).

Abundance estimates, however, were considerably lower in 1970 for both the Gulf of Maine and Georges Bank. This reflects the poor recruitment since 1962 for the Gulf of Maine and previously heavy fishing on Georges Bank.

TABLE 6

SILVER HAKE SECOND QUARTER STATISTICS

(Landings in thousands of pounds. Live Weight)

Area	<u>Landings</u>		<u>Land/Day</u>		<u>Accumulative landings</u>	
	1970	1969	1970	1969	1970	1969
Gulf of Maine	4278	3953	9095	19763	4344	3953
Georges Bank	4151	3212	1488	10870	4284	3315
Total	8429	7165	7268	16321	8628	7268

INDUSTRIAL SPECIES

Total industrial landings for the six month period of 1970 were off 15 million pounds from 1969. Second quarter landings for 1970 were 9 million pounds under the same period of 1969 (Table 7). Silver hake landings were down 79 percent for the second quarter, 1970 as compared with 1969, while red hake landings declined 20 percent.

Relative abundance of silver hake, as measured by Albatross IV surveys, has declined since 1967. There are indications of good year classes in 1968 and 1969 so that abundance could increase by 1971. Measurements of relative abundance of red hake indicate a significant decline after 1965 with slow recovery to date. Recruitment has not been good in recent years, thus no increase in abundance is expected through 1970 and 1971.

TABLE 7

INDUSTRIAL RED AND SILVER HAKE SECOND QUARTER STATISTICS

(Landings in thousands of pounds. Live Weight)

Area - Species	<u>Landings</u>		<u>Land/Day</u>		<u>Accumulative</u>	
	1970	1969	1970	1969	1970	1969
S. New England						
Red hake	3251	3576	13896	21009	3263	3608
Silver hake	455	2056	1971	12077	467	2120
Total Red and Silver hake	3706	5632	15867	33086	3730	5728
Total Industrial	16842	21225	-	-	27543	37176
Mid-Atlantic						
Red hake	36	524	747	10956	83	524
Silver hake	65	403	1370	8428	77	408
Total Red and Silver hake	101	927	2117	19384	160	932
Total Industrial	2050	6546	-	-	4125	9322
Total Red hake	3287	4100	13752	19724	3346	4132
Total Silver hake	520	2459	1896	11497	544	2528
Total Industrial	18892	27771	-	-	31668	46498