INTERNATIONAL COMMISSION FOR THE NORTHWEST ATLANTIC FISHERIES

Serial No. 1371
(G. c)

Document No. 75

ANNUAL MEETING - JUNE 1964

U.S. Report of Discard and Fish Landed for Industrial Purposes, 1963

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Introduction

This report discusses the amount of fish discarded and presents estimates of the tonnage of yellowtail and haddock, the only two species for which accurate discard data are available. The total landings classified as industrial fish are assigned to species in so far as the data permit.

Discard

Introduction

Only very limited data on discard was obtained during 1963. These data were gathered by interviewing vessel captains at the conclusion of their trips, and by sea samplers recording discard information aboard selected vessels. The latter type of sampling was so infrequent as to provide only qualitative information on the total amount of discard although measurements of the size of the fish discarded were obtained. The interview information was incomplete because of the inherent difficulties in obtaining this kind of data.

Discard from divisions north of 4X was composed essentially of unwanted species caught by the redfish fleet. Redfish were not generally discarded in any significant amount. For divisions 4 X, 5 Y, and 5 Z it was possible to estimate the total discard of haddock in 1963. For 5 Z an estimate of yellowtail discard was made for each month. Smaller quantities of other species were discarded, but there was insufficient data for any valid estimates.

Haddock

Information on haddock discard was obtained primarily from interviews of otter trawlers landing in Boston, where most of the haddock is landed. From these interviews, a discard of one percent was estimated for Divisions 4 X, 5 Y, and 5 Z for the year 1963. Applying this to the total landings, the following is the estimated

total haddock discard, in metric tons, round fresh.

Division	4 X	72.2
	5 Y	42.9
	5 Z	432.2
Total		547.3

This is probably a slight underestimate because of discard in small amounts is usually neglected, and the smaller haddock vessels using a small-mesh cod end are not interviewed. These latter vessels landed about 16 percent of the total in 1963, and would have a higher percentage discard than that estimated above. The maximum size of the discarded fish is about 43 cm.

Yellowtail flounder

Information about discarding of yellowtail flounder in Division 5 Z was obtained from interviews of vessels landing at New Bedford, the principal flounder port. The portion of the fleet interviewed for discard information landed 2209 tons, or about 7 percent of the total landings in 1963. The percentage discard was calculated for each month and applied to the landings to estimate the monthly discard (table 1). The total annual discard was thus estimated at 11,344 tons or 34 percent of total landings. The discard reached a peak in mid-summer and declined through the latter part of the year. The high discard was the result of recruitment of a strong year class.

Six sea sampling trips were made aboard the yellowtail vessels during the year. Length and age samples of retained catch and discard were obtained and the weighted average length and age frequencies calculated (Figures 1 and 2). Discards were composed mostly of 3 and 4 year old fish. They averaged about 30 cm. in total length; the maximum size discarded was 37 cm.

Industrial

The total weight of unclassified fish caught in Subarea 5 and landed for industrial purposes was 41,414 metric tons in 1963.

The southwest portion of the subarea accounted for 72 percent of the total. Samples were collected from 38 of the landed trips for purposes of estimating species composition. These trips accounted

for 815 of the 29,952 tons landed from this section (see U.S. Research Report for 1963).

The remaining tonnage (28 percent) was apportioned to species on the basis of data obtained from fish dealers through port interviews. These data are probably less accurate than that above.

The estimated species composition of the total industrial landings from Subarea 5 in 1963 is presented in table 2. Red hake and silver hake were the principal species components.

Table 1.--Estimates of yellowtail discard in division 5 Y in 1963 in metric tons.

Month	Landings of vessels sampled for discard	Observed discard	% discard	Total landings	Estimated discard
Jan.	185.5	27.9	15.0	2787.0	418.0
Feb.	118.2	39.9	33.8	2186.0	738.9
Mar.	46.5	7.7	16.6	2601.0	431.8
April	43.6	6.5	14.9	2237.0	333.3
May	42.6	15.0	35.2	2766.0	973.6
June	173.3	87.1	30.2	2246.0	1127.5
July	294.9	173.2	58.7	3466.0	2034.5
Aug.	200.6	343.0	49.0	3565.0	1742.0
Sept.	308.7	134.5	43.6	3370.0	1469.3
Oct.	241.8	84.7	35.0	3582.0	1253.7
Nov.	29.0	6.6	22.8	2469.0	562.9
Dec.	24.5	2.8	11.4	2270.0	258.8
Total	2209.2	928.9	33.8	33535.0	11344.3

Table 2. --Industrial landings by species for the U. S. in 1963 from Subarea 5.

Species	Metric tons	Percent
Red hake	17,933.6	43.3
Silver hake	8,477.8	20.5
Sea robin	2,793.6	6.7
Skates	2,327.2	5.6
Flounder	1,795.5	4.3
Puffers	616.2	1.5
Herring	78.0	0.2
Eel pout	530.5	1.3
Scup	513.5	1.2
Sculpin	287.6	0.7
Menhadden	171.9	0.4
Unknown	5,888.6	14.2
Totals	41,414.0	99.9

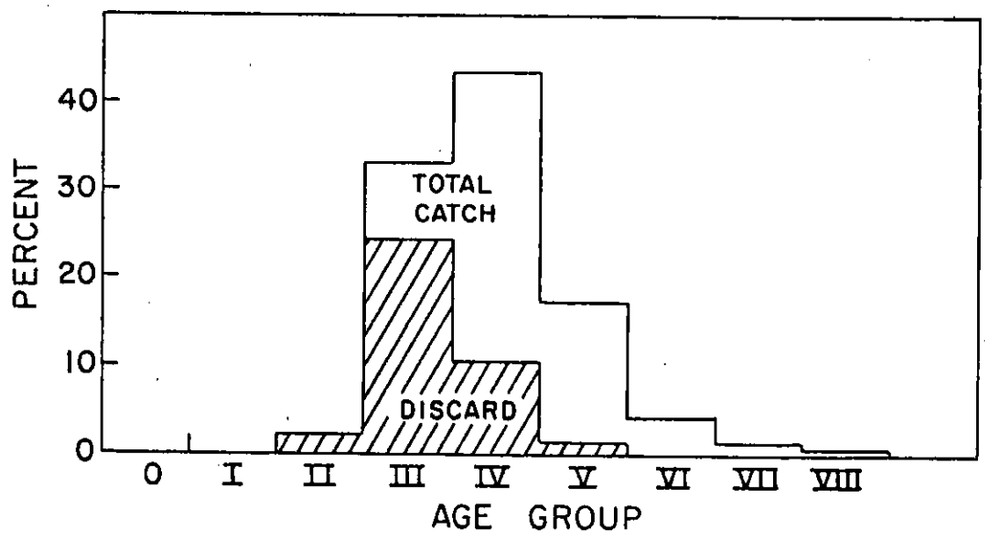

Figure 2. Age composition of total catch and discards of Yellowtail Flounder in division 5Z, 1963.

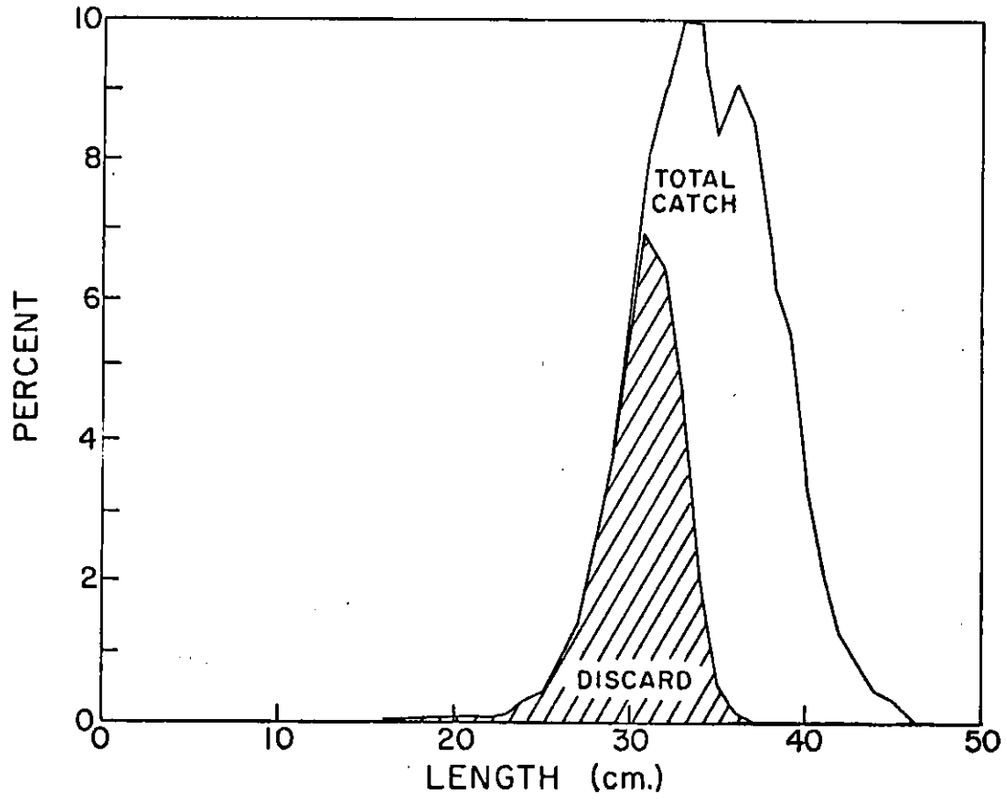

Figure 1. Length composition of total catch and discards of Yellowtail Flounder in division 5Z, 1963.