

THIRD ANNUAL MEETING

Statistics of Groundfish Catches from Sub-area 4
of the Northwest Atlantic Convention Area

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As a basis for understanding the relationship of fishing to yield of groundfish from Sub-area 4 it is important that we compile long-term statistics of landings by species and by sizes for all countries fishing in this sub-area. These must be considered in relation to gear fished and fishing effort. Finally, it is important to record quantities of fish caught but not landed. Action by the Commission has resulted in the compilation of such statistics and these are now recorded in the documents of the Second and Third Annual Meetings and in the Second Annual Report of the Commission. It is the purpose of this paper to bring together the pertinent statistics for Sub-area 4 as background for a review of the status of the fishery by Panel 4.

Landings by species from the Convention area during 1951 are shown in Figure 1. The statistics have been broken down in relation to countries fishing and again in relation to sub-area. In cases where the sub-area fished was not recorded, the statistics have been assigned to sub-areas on the basis of discussion of the fishery with representatives of each country concerned. Thus haddock landed in Spain have been assigned to Sub-area 3 and cod landings in France and Portugal have been assigned to Sub-areas 1 and 3. It may be observed in Figure 1 that total landings from Sub-area 4 are less than those from Sub-area 3, comparable with those from Sub-area 1 and greater than those from Sub-areas 5 and 2. Cod, redfish and haddock are the important groundfish species landed from Sub-area 4.

Long-term statistics are shown in Figure 2 insofar as they are available for Sub-area 4. It will be noted that landings in Canada and the United States are recorded for varying periods of time with the total statistics shown since 1933. Landings in other countries are not known and are assumed to be very much smaller than those shown. The total landings of cod have been relatively stable apart from an increased yield in 1945-46. Canada takes most of the cod catch. Haddock landings exceeded 50 thousand metric tons in 1934-36 and again in 1952 but were relatively low during World War II. Redfish landings have reached major proportions during post-war years. Landings of other groundfish have increased steadily for 20 years to more than 40 thousand tons.

In Figure 3 the United States statistics of cod and haddock landings are shown in relation to size categories (scrod or small fish are less than 2.5 lb. and market cod are 2.5 to 10 lb. gutted weight). It will be noted that scrod cod contribute very little to the landings; the largest quantities having been landed in 1935-41. The proportion of large cod in the landings has decreased during the last half of the period recorded. In contrast to cod, small haddock

constitute an important part of the landings and this has been particularly true since otter trawling became the principal fishing method in the early 1930's.

Line fishing and otter trawling are the only important fishing methods in Sub-area 4. With only one dory schooner operating from the United States, it may now be assumed that virtually the total United States catch from Sub-area 4 is taken by otter trawlers. The proportion of cod and haddock landed by Canadian mainland otter trawlers is shown in Figure 4. A consideration of total landings by Canada and United States shows that all the redfish, about 70% of the haddock and about 25% of the cod landed from Sub-area 4 are now taken by otter trawlers.

Observers at sea have recorded that only small quantities of groundfish below market size are discarded at sea by line fishermen but large quantities of these baby fish are discarded at sea, presumably dead, by otter trawlers. Otter trawlers do not take large numbers of unmarketable cod but the catches of baby haddock are very large. The Canadian statistics report for 1952 summarizes observations of the proportion of haddock discarded at sea and the graphic presentation of these data is repeated in Figure 5. The greatest quantities of haddock discarded have been observed during the months of May to November.

Cod and haddock landings are shown in Figure 6 in relation to abundance of these species as measured by catch per week's trip for trawlers and vessels (dory schooners). The catch-per-trip data refer to landings by selected groups of large otter trawlers and dory schooners which fresh fished continuously with most of the fishing in Sub-area 4. It may be observed that cod were abundant during and immediately following World War II. Large cod were particularly abundant and both catch per trip and total landings were accordingly increased at the end of World War II. It will be of interest to investigate the relationship of reduced fishing intensity during the war to the observed increase in yield. The abundance of large cod is now at the lowest level recorded during the past 15 years. Catch per trip of haddock has been relatively stable apart from the period 1944-47. The reduced catches during the latter period may be related either to the greater interest in cod fishing or to a reduced abundance of haddock during the period of high abundance of large cod. The relatively high abundance of small haddock in 1951-52 will probably result in a total yield of more than 50 thousand tons in 1953.

To sum up, Sub-area 4 is an important fishing area with cod, redfish and haddock contributing the bulk of the groundfish landings. Canada and the United States take the greatest part of the catch. Total landings of each groundfish species are relatively high and no long-term decline in landings is apparent. Landings of small cod are not important but landings of small haddock may be as much as 50% of the haddock landings. Otter trawling is now an important fishing method in Sub-area 4. All the redfish, about 70% of the haddock and about 25% of the cod landed from Sub-area 4 are taken by otter trawlers. Observers at sea have recorded that more than half the haddock caught by otter trawlers have been discarded, presumably dead, at sea during the months of May to November, 1951-52. Increased landings of cod at the end of World War II are believed to be attributed to reduced fishing effort during war years with a resultant accumulated stock of large cod. The abundance of large cod has since been reduced to a very low level. The reduced catches of haddock during the years 1944-47 may have been related to the high abundance of large cod.

Figure 1

1951 Groundfish Statistics - ICNAF Convention Area

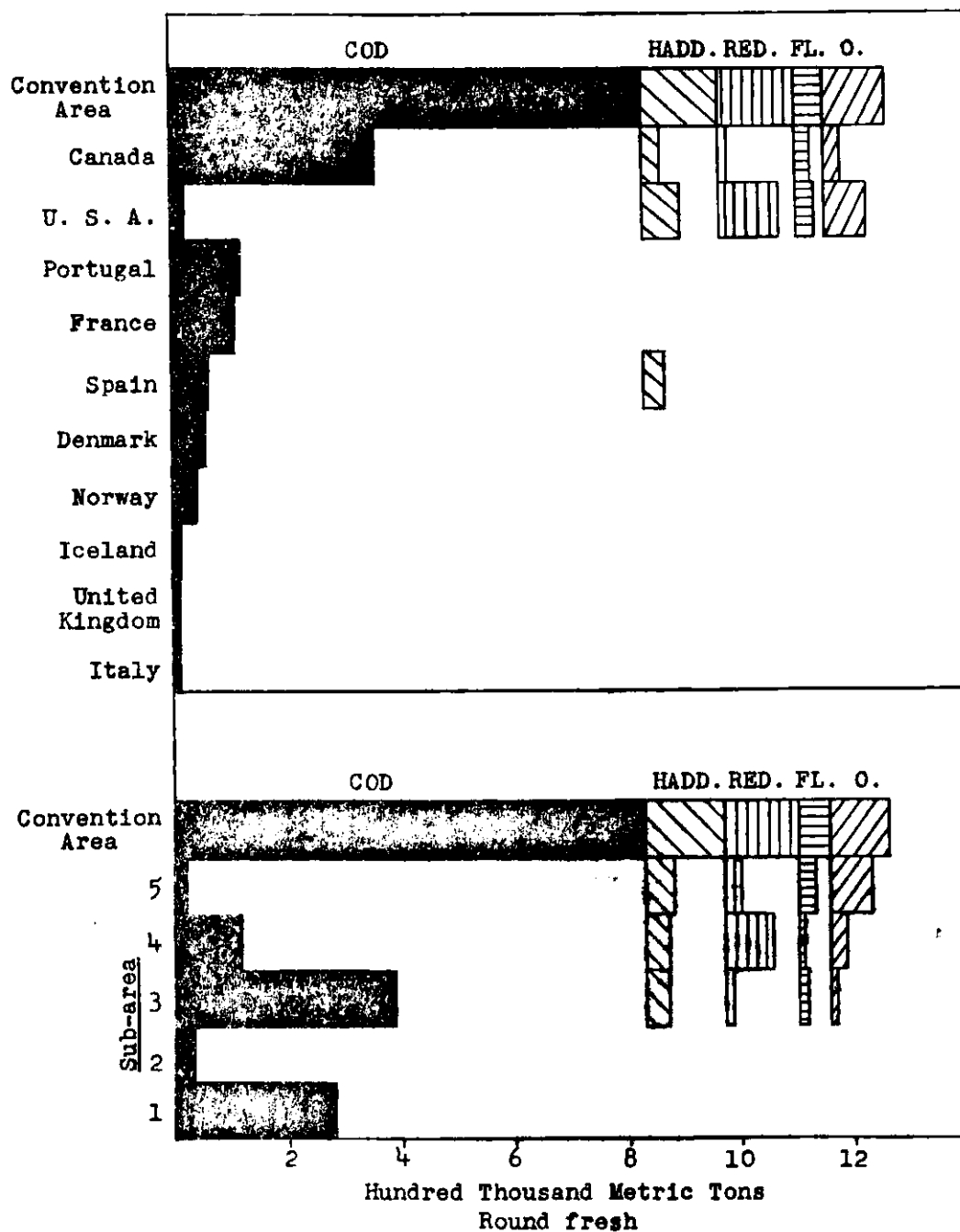


Figure 2
Groundfish Statistics - Sub-area 4 - 1910-52

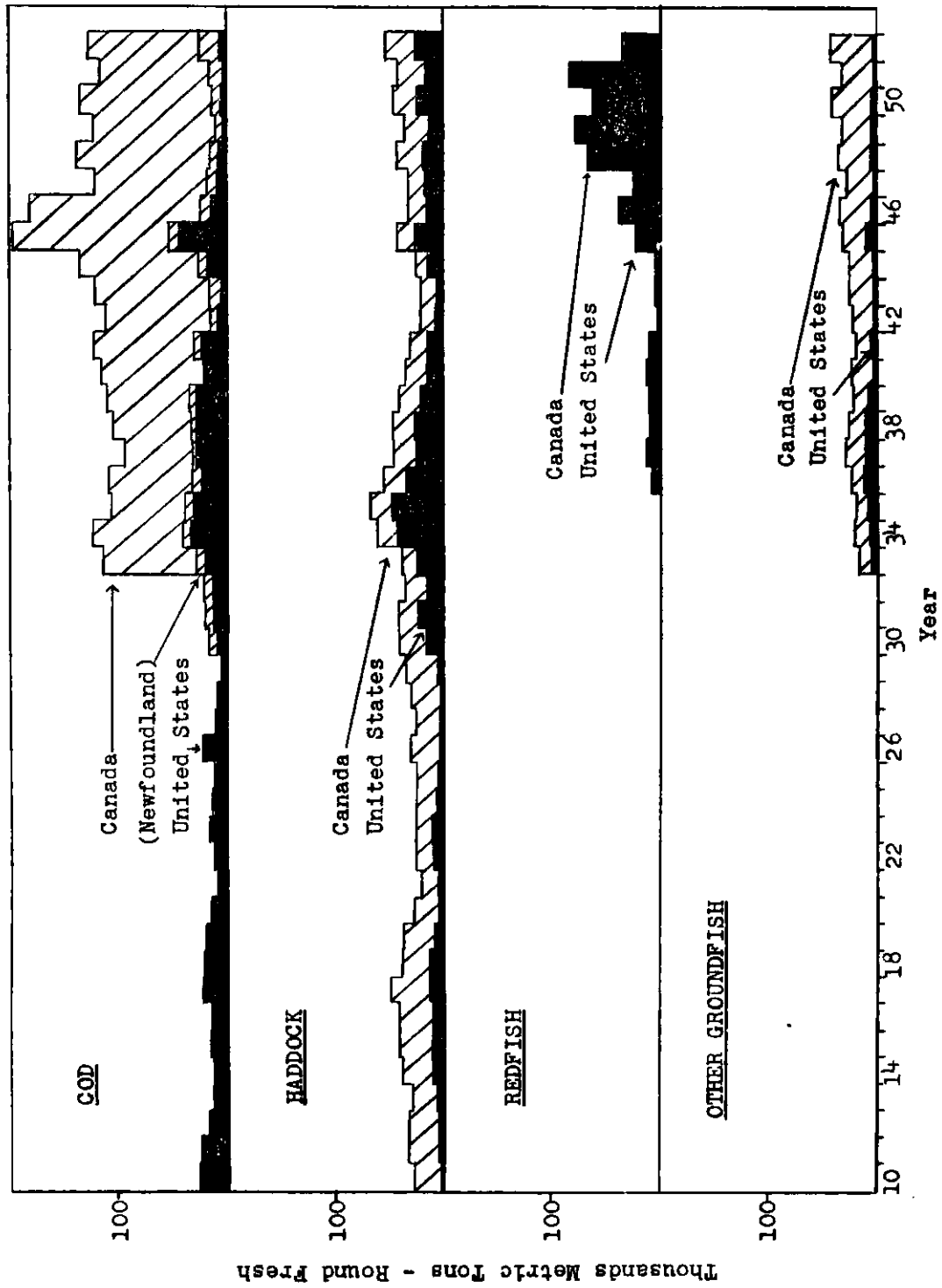


Figure 3

United States Landings from Sub-area 4
by commercial size categories

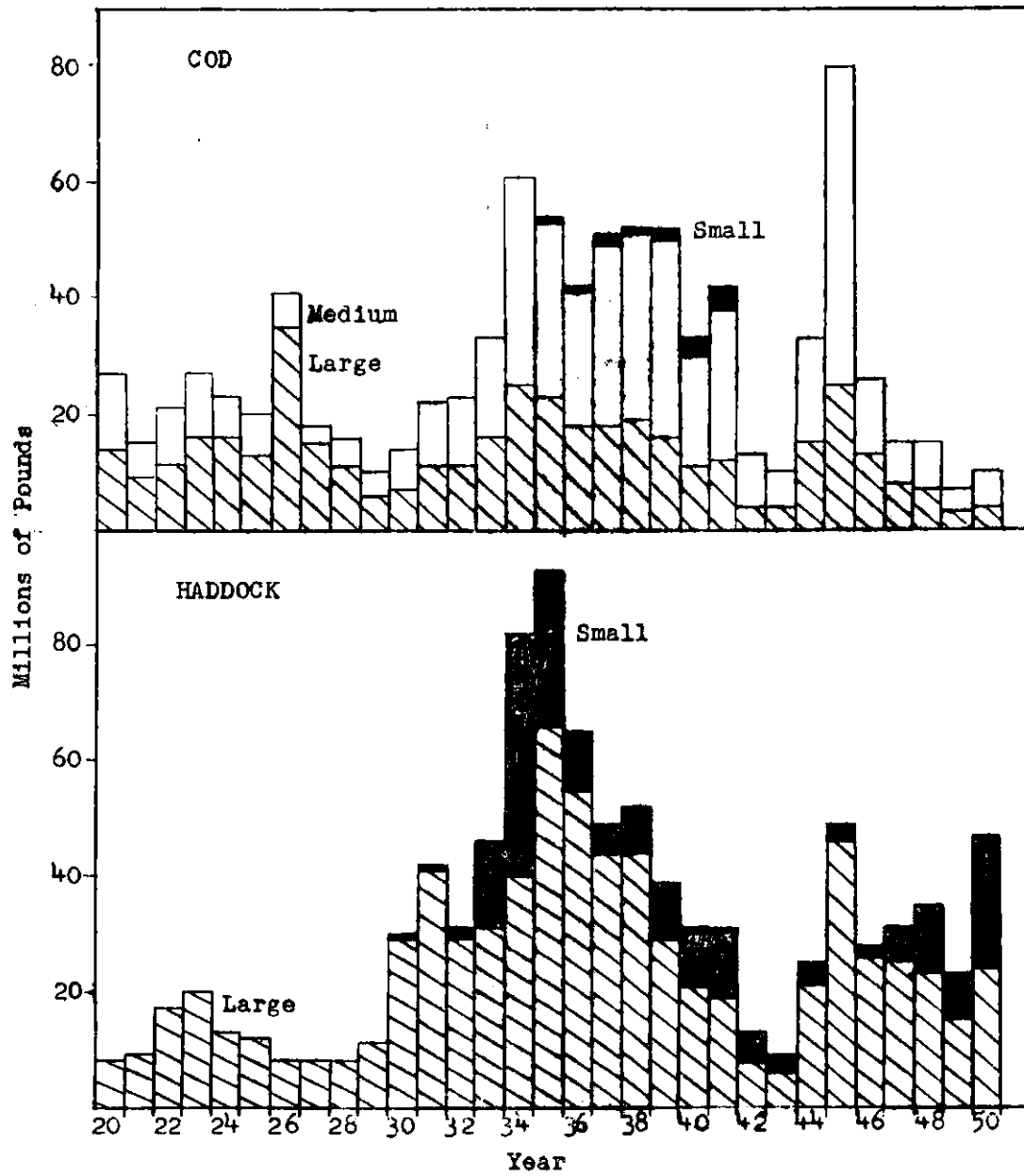
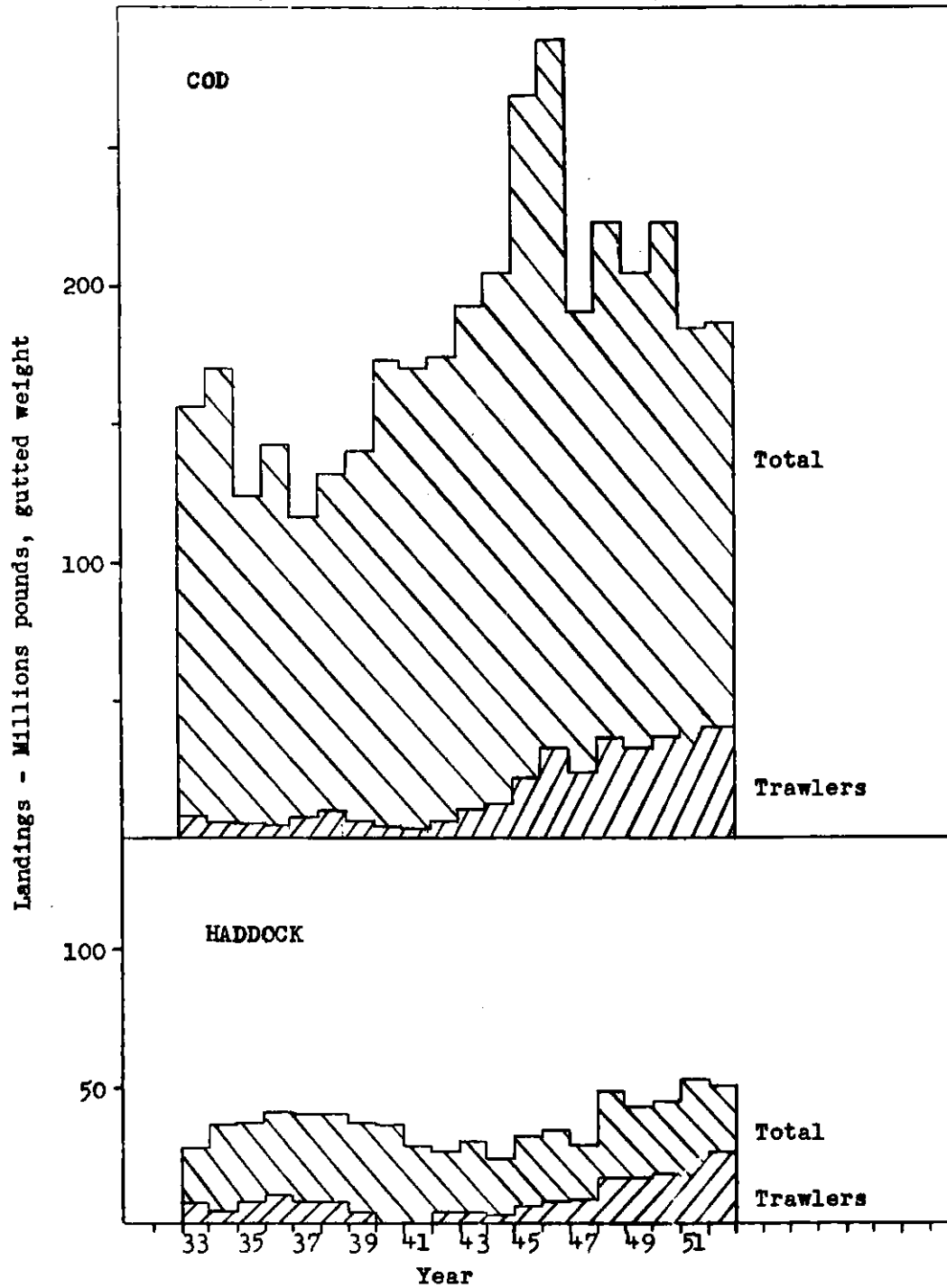


Figure 4

Canadian otter trawler landings from Sub-area 4
in relation to total Canadian catch



Haddock discards at sea by Nova Scotian trawlers
Offshore Banks

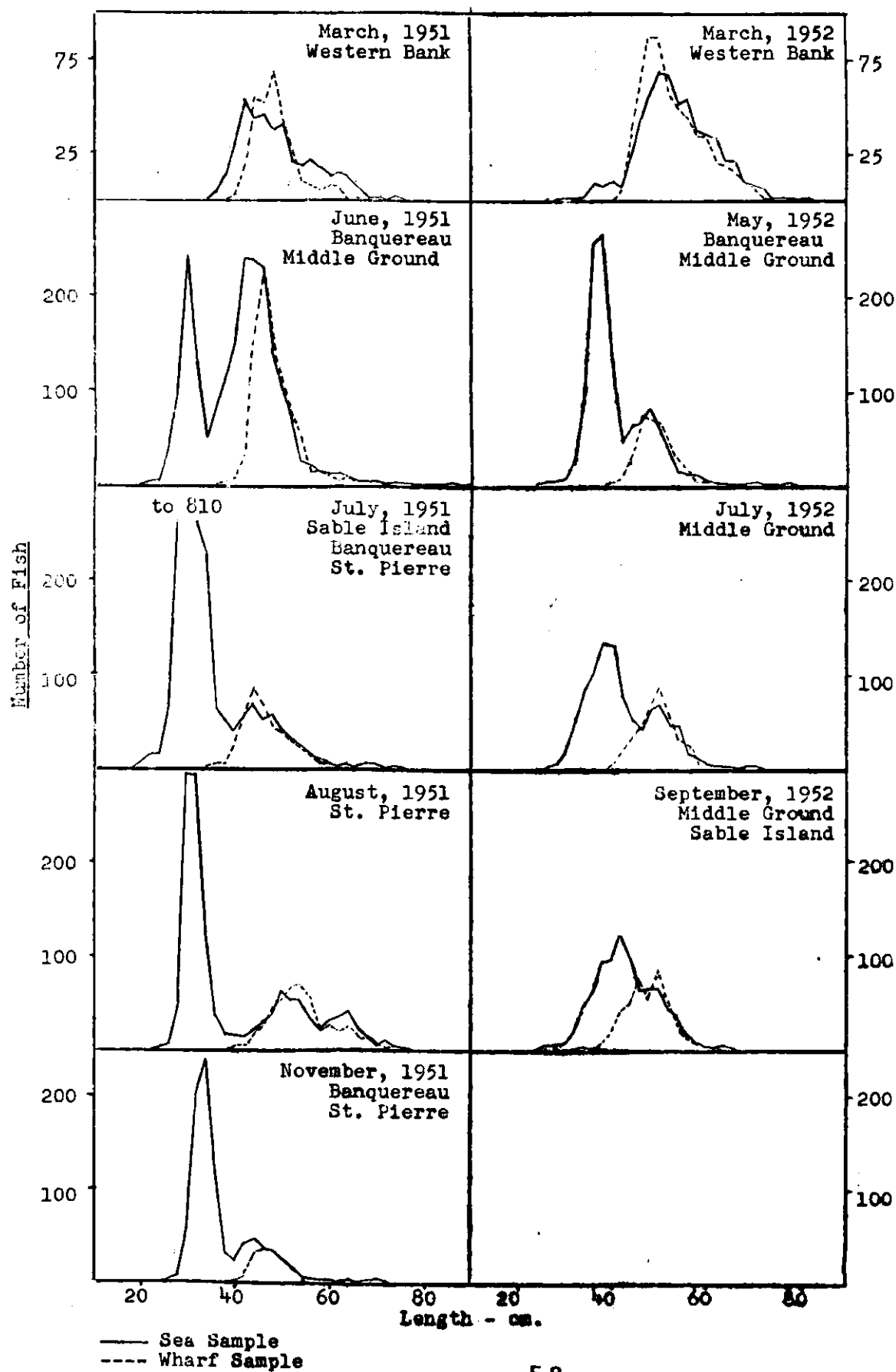


Figure 6

Abundance of groundfish in Sub-area 4 as measured by landings and effort

