

This paper not to be cited without prior reference to the author

International Council for the
Exploration of the Sea

C.M. 1971/N:12
Marine Mammals Committee

FIELD WORK ON BOTTLE-NOSE WHALES IN THE LABRADOR SEA

by

Ivar Christensen

Institute of Marine Research
Directorate of Fisheries
Bergen, Norway

Norwegian small-whale catchers started hunting bottle-nose whales (Hyperoodon ampullatus) in the Labrador Sea in 1969. The first year 5 ships caught 231 whales west of 30°W, most of them off the coast of northern Labrador. In 1970 436 whales were taken off Labrador by 9 ships. Catch reports on individual whales submitted by the whalers are being analyzed at the Institute of Marine Biology, University of Oslo, for a study of the life history and distribution of the bottle-nose whale in the North Atlantic.

When whale research was taken up at the Institute of Marine Research, Bergen, in early 1971, it was decided to concentrate our initial effort on this new fishery and the biology of species in the Labrador Sea. In May-June 1971 material and data were collected by observers from the Institute on board three ships hunting bottle-nose off Labrador. These ships caught 129 whales, one in the Denmark Strait and 128 off northern Labrador in the area from 60° to 63°N and from 58°30' to 61°W. All whales were measured and sampled: 22 body measurements were taken, blubber thickness was measured and external parasites, external scars, physical maturity and stomach contents were recorded. Teeth and reproductive organs were collected for age determination and study of reproductive performance and 21 blood and 37 tissue samples were collected for a study of population criteria.

One other ship hunting minke whales (Balaenoptera acutorostrata) in the Davis Strait and the Labrador Sea also caught 23 bottle-nose whales off Labrador. Teeth with data on sex, length, date and position were collected from these whales for the Institute of Marine Research by the crew.

Of the whales studied by the observers, 76 were males and 53 females. The males measured from 543 to 900 cm with a mean length of 771 cm, and the females were from 534 to 784 cm long with a mean length of 707 cm. Only 10 females were pregnant and 13 apparently were lactating. Foetuses measured from 6 to 75 cm, mean 34 cm. Squid (Gonatus fabricii) and a variety of fish species were found in the stomachs and 90 stomach samples were collected for further study. A bundle of waste sheet plastic was found in one stomach.

Whale observations were recorded on each of the three ships. Weather conditions were less than ideal for this type of work, and for two of the ships the records are not quite complete because some of the crew members were not interested enough to keep a record. On the other hand the ships often worked in the same area, and separate whales therefore may have been recorded more than once. A total of 888 bottle-nose whales were recorded, 2 near the coast of Norway, 9 off East Greenland and 877 in the Labrador Sea. In addition to these a total of 69 fin whales (Balaenoptera physalus), 24 minke whales, 3 humpback whales (Megaptera novaeangliae), 1 sei whale (Balaenoptera borealis), 68 sperm whales (Physeter catodon), 20 killer whales (Orcinus orca), about 300 pilot whales (Globicephala melaena) and 300-400 unidentified dolphins were recorded. Not counting the bottle-nose, only one minke and four sperm whales were seen off Labrador. Most of the sperm whales were seen along the coast of East Greenland, all fin whales were recorded off Southeast Greenland and the humpbacks near Iceland.

One of the observers brought 'Discovery' marks and equipment for marking of large whales. Two fin whales and one sperm were marked in an area east and southeast of Prins Christians Sund, Greenland. Further attempts to mark fin whales off Southeast Greenland failed because the whales were moving rapidly towards northeast.