Fedoseev, G. A. 1982. The ecological bases of distribution of walruses in the eastern Arctic and the present state of their numbers, pp.141-143. In Problems of Protection of Nature and Rational Utilization of Natural Resources in Northern Regions, Arkhangel'sk. (abstract)
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In the eastern sector of the Arctic, there are two populations of walruses -- Laptev and Pacific. Walruses of the Laptev Sea are divisible into Taimyr and New Siberian subgroups, which are migratory but do not go far. An exception to that rule is a small group of males (about 80-100) which migrates in summer from eastern Taimyr to Voronina Island in the Severnaya Zemlya archipelago.

Chapskii (1940) assumed that the New Siberian subgroup of walruses was isolated from the Pacific population, and the Taimyr from the Atlantic population. Whether the Laptev walruses are morphologically distinct, however, is not yet confirmed, because of insufficient samples. Analysis of their habitats indicates that the differentiation of walruses in the Laptev Sea is related to the mozaic of thin ice zones in the winter, which are situated in areas of abundant benthos used as food by the walruses. In the western part of the sea, such zones are limited to eastern Taimyr, where the prevailing winter winds are from the northwest, producing thin ice near the coast. Apparently, the discharge of water from the Khatanga River results in enrichment of the water mass in that area, the productivity of which is favorable for development of benthos. The productivity (including benthos) of the New Siberian Islands region is influenced by the waters of the Lena, Yana, and Indigirka rivers, which penetrate northward to Kotel'nyi Island and the western part of the East Siberian Sea (Nikiforov and Shpaikher, 1980). The open pack ice necessary for winter residence of walruses is formed here, apparently, by the interplay of upwelling, surface currents, and winds.

The limited amount of habitat for walruses in the Laptev Sea in winter places strict limits on the size of the stock, which could hardly exceed 10,000 animals, at most. Hence, it is not surprising that annual catches of 1.5 to 2 thousand head (Popov, 1960; Tavrovskii, 1971) would have caused some destruction.

The present number of walruses in the Laptev Sea, according to results of our aerial survey in autumn 1980, is estimated as follows: about 3 thousand in eastern Taimyr, including Peschan Island; about 1-1.5 thousand in the New Siberian Islands, including DeLong Island.

To prevent the walruses from disappearing in the Laptev Sea, it is necessary to prohibit completely their being taken and to protect their coastal haulouts on Peschan, Bel'kovskii, Kotel'nyi, and Vil'kitskii islands.

The range of the Pacific walrus, in the course of the annual cycle, includes the seas of the eastern sector of the Arctic and the Bering Sea. Aerovisual observations in the Bering Sea in the first half of April, when the ice edge still is near its maximal distance from shore (to 6-700 km), have established that the walruses are concentrated in Bristol Bay, north to Nunivak Island, and offshore in the polynyas and massifs of the northern ice, where gray-white and white ice make up only 1-2 tenths of the coverage. Such areas are found to the south of St. Lawrence Island and the Chukchi Peninsula, and to the west of Cape Navarin, in the vicinity of Khatyrka. Judging from the ice conditions, walruses can live in those areas also in the winter. Individuals and groups of up to 15 animals rarely are found along the meandering leads and polynyas (occasionally covered by nilas) over nearly all of the Bering Sea shelf.

In summer, the range of the walrus in the Chukchi Sea depends on ice conditions. In some years, the eastern limit is Long Strait and the northern is at 70-71°N lat. In other years, the walruses go far into the eastern part of the East Siberian Sea, the western part of the Beaufort Sea, and as far north as 74°N lat.

From 1960 to 1980, the hunting of Pacific walruses was strictly limited. Thanks to that, the walrus population increased remarkably in size and range. According to data from a joint Soviet-American aerial survey conducted in 1980, the stock of Pacific walruses is estimated at 250,000 head, which allows the harvest by natives of Alaska and Chukotka to be increased.