## Was Steller's sea cow exterminated?

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A report of the existence of Steller's sea cow, which was exterminated about 200 years ago, may seem incredible. However, it is impossible to simply brush aside the observations presented in this article, considering that it applies to a region which has been very little studied. The article will not only interest our readers, but it will serve as a stimulus to a careful search for new facts. [Editors]

In July 1962, during an expedition to study cetaceans, the exploratory whale-catcher *Buran* was in the region of Cape Navarin. Early in the morning, when the ship was quite close to shore, several observers noticed at a distance of 80–100 m from the vessel a group of large animals of strange appearance (about 6 individuals). On the following day, when the vessel returned to this region again, one similar animal was observed.

The region of the occurrence was a shallow area with a rather small lagoon into which a small river entered. In the lagoon there were large quantities of giant kelp [morskaia]

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*kapusta*] and other algae. During winter this region is not covered with ice, except for a small land floe.

It was the unanimous opinion of the observers, many of whom had worked long years in the whaling and marine mammal industries of the Far East, that the animals encountered did not belong to any of the known cetaceans or pinnipeds.

The following is a sketchy description of the external appearance and behavior of these animals: the skin was dark, the head relatively small and sharply set off from the trunk, the upper lip appeared to be split and overhung the lower one (it is possible however that this impression was created by dense vibrissae); the animal's tail surprised the observers because it was bordered by a filamentous fringe [razmochalennoĭ bakhromoĭ, okaĭmliavsheĭ ego]. The animals swam slowly, periodically dived for a short time and then reappeared, rising some distance out of the water. The group formed a compact school probably consisting of animals of different ages (in size from 6 to 8 m), swimming in one direction from the coast.

Among existing marine mammals of the northern part of the Pacific Ocean no animal is known that has these characteristics. Its size indicates that it was not a seal and not a walrus, whose lengths never exceed 4 m. In addition, the animal's tail has a completely distinctive form. The sharp distinction between head and trunk, its split lip, and also its sluggishness, completely rules out the possibility of placing it among the large dolphins or whales. It is also difficult to imagine that it was a dugong (*Dugong australe*), which

are typically inhabitants of tropical and subtropical waters and have never been encountered in such high latitudes.

At the same time similarity between these animals and Steller's sea cow (*Rhytina stelleri*) is indicated, an animal which was described by G. Steller (1774) and S. P. Krasheninnikov (1755), and which is considered to have disappeared from the face of the earth.

The very unusualness of our report may raise doubt as to its credibility. Indeed, how could a school of these animals have survived anywhere, when the last specimens were hunted almost two hundred years ago (according to data of M. Sour, 1768)? Hence we must consider the question carefully.

V. A. Grekov (1958) conducted researches on materials in old archives and brought to light circumstantial information that in the 17th century the sea cow was found not only in the coastal region of the Commander Islands, which has been the opinion of a majority of scientists, but also in other regions of the Far East. For example, according to G. Steller, sea cows lived near America [page 74] and on the Islands in the "channel" ["kanal"], while only dead individuals were occasionally borne by the waves to the coast of Kamchatka. (V. Grekov suggests that the islands in the channel were the Commander Islands, but they might also be St. Matthew and St. Lawrence Islands.) Steller had evidence of the occurrence of sea cows to the north, and was of the opinion that the Chukchi used their skins in constructing boats. There is an interesting observation by F.

A. Kulkov in one of the documents of a trading voyage in 1759–1762 to the Blizhnie Islands: "Whales are scarce there, and even rarer are the sea cows, which the traders called Commander cows because for the most part they live around Bering and Commander Islands" (cited from V. Grekov). These facts alone are enough to cast doubt upon the generally accepted view that sea cows were found only near the Commander Islands.

There are some other interesting communications concerning the occurrence of sea cows at a somewhat later period than 1768. In particular, there is an observation of the naturalist G. Tilezius, who took part in the round-the-world voyage of I. F. Kruzenstern in 1803–1806, to the effect that voyagers returning from California talked about sea cows that they had seen; and an observation of Nordenskjöld's involving a sea cow sighted near Bering Island in 1854 (A. Nordenskjöld, 1885). A recollection of G. Sverdrup is of special interest, to the effect that a Russian had told him about a dead sea cow which, about 1910, had been carried by the current to Cape Chaplin. This observation is interesting because the animal was not seen on the open sea where it might be confused with some other sort of animal, but was inspected at close range.

As is well known, on the Commander Islands sea cows were completely exterminated by traders engaged in the fur seal industry. However, in other regions where this species might have lived (judging from material available), there was an almost complete absence of such industry because of the absence valuable fur-bearing animals, and these regions have remained sparsely inhabited down to the present. We may postulate that

where suitable ecological conditions existed sea cows might have survived without our having received any information about them. Under such conditions the sea cow might remain unnoticed for a long time.

It is pertinent to recall that as a result of the settlement of unknown or little known regions, systematic descriptions have been made of several new species of marine mammals in recent years. In particular, in 1958 a new species of the dolphin genus *Phocaena* was described from the Gulf of California (Kenneth Norris, Farland, 1958), while in the northern part of the Pacific Ocean a new species of cut-tooth dolphin, *Mesoplodon ginkgodens* n. sp., about 5 m long, has been described by Nishiwaki and Kamiya (1958). In the light of the discovery [page 75] of such large animals, whose existence was unknown up to recently, the survival of the sea cow in a few sparsely inhabited places seems less incredible,

Reports of the occurrence of animals whose descriptions resemble Steller's sea cow have been received periodically in recent years at the Pacific Research Institute for Marine Fisheries and Oceanography (TINRO), from fishermen who were local inhabitants of the North Kuril Islands, of the east coast of Kamchatka, and of Chukotka, but no great importance has been attached to them. However, in the light of the observations of the whale-catcher Buran, all these reports deserve close scrutiny.

Another interesting fact is that the character of the region where the Buran encountered these unknown animals is extremely like that of the situations where sea cows used to

live. We may again quote Krasheninnikov, to the effect that these animals live "in quiet bays of the sea, especially around the mouths of rivers." And of course the region of the encounter, as indicated above, does not freeze up in winter.

Thus the animals observed from the whale-catcher *Buran* might quite plausibly have been sea cows. There is no question that this conclusion requires further confirmation. To obtain this, a minimum of effort would be a special expedition to the region indicated, while they could also investigate other regions where there are conditions suited to the existence of the sea cow, particularly along the eastern coast of Kamchatka.