

CONTRIBUTIONS TO THE HISTORY OF THE COMMANDER ISLANDS.

No. 5.—DESCRIPTION OF A NEW SPECIES OF MESOPLODON, *M. STEJNEGERI*, OBTAINED BY DR. LEONARD STEJNEGER, IN BERING ISLAND.

By FREDERICK W. TRUE.

(Accompanied by two figures.)

Among the specimens collected by Dr. Leonhard Stejneger in the Commander Islands in 1883 is the cranium of a young *Mesoplodon*, which belongs to a species apparently hitherto undescribed. The skull is quite badly water-worn. The tympanic and malar bones are wanting and the pterygoids are very imperfect. The beak apparently wants a few millimeters of its original length.

In his admirable monograph of the genus *Mesoplodon*, Professor Flower succinctly contrasts the characters of the different species. The characters to which he draws attention concern the basi-rostral groove, the maxillary and premaxillary foramina, and the teeth. The characters of the teeth cannot be brought into service in connection with our specimen, since the mandible is unfortunately wanting. Following Professor Flower, the known species may be divided into two groups: (1) those in which the basi-rostral groove is absent or slight and the foramina of the premaxillary and maxillary bones are level; and (2) those in which the groove is deep and the premaxillary foramen is behind the maxillary foramen. Between these two groups the Bering Island skull is intermediate, for while the basi-rostral groove is absent, the premaxillary foramen stands behind the maxillary foramen.

In general proportions the Bering Island skull agrees closely with *M. Hectori*, as is evident from the following table of comparative measurements:

| Measurements. | M. Hectori. From Flower. (T. Z. S., X, p. 424). | | M. Stejnegeri, sp. nov. No. 21112. | |
|--|--|-------------|---------------------------------------|--------------|
| | Millimeters. | Hundredths. | Hundredths. | Millimeters. |
| Total length..... | 567 | 100.0 | 100.0 | 633 |
| Length of beak..... | 320 | 56.4 | 55.8 | 353 |
| Breadth of beak at base of notches..... | 135 | 23.8 | 21.2 | 134 |
| Breadth of beak at its middle..... | 37 | 6.5 | 7.3 | 46 |
| Greatest breadth of premaxillæ proximally..... | 117 | 20.6 | 18.6 | 118 |
| Breadth of anterior nares..... | 51 | 8.9 | 8.8 | 56 |
| Extremity of beak to hinder margin of pterygoids in median line..... | 442 | 77.9 | | |
| Greatest height of cranium from vertex to pterygoids..... | 241 | 42.5 | 42.9 | 272 |
| Breadth between centers of upper margins of orbits..... | 235 | 41.5 | 44.1 | 279 |
| Breadth between zygomatic spurs of squamosal..... | 259 | 45.7 | 44.6 | 282 |
| Breadth of occipital condyles..... | 92 | 16.2 | 15.8 | 100 |

Though the skull figured by Professor Flower (*l. c.*, pl. lxxi, fig. 4; lxxii, fig. 4) is somewhat smaller than ours, the two appear to be of about the same age, and comparisons of part with part are therefore

admissible. In *M. Hectori*, as figured by Professor Flower, the premaxillary foramen lies in a groove, which is considerably prolonged anteriorly. In our specimen the groove extends behind but not in front of the foramen. The premaxillæ themselves begin to assume a perpendicular position immediately in front of the foramen. In these respects the Bering Island specimen shows some affinity to *M. Grayi*. The lateral expansion of the proximal ends of the premaxillæ is relatively less in *M. Hectori*, much less than in the other species. The extension of these bones on the horizontal surface of the maxilla opposite the nares is much less than in *M. Hectori*. The palatine bones are well developed and extend in front of the pterygoids on the "palate." The vomer is visible in the middle third of the lower surface of the beak, as in *M. Hectori*. The exposed portion is 66 millimeters in length.

Viewed from the side, the contour of the occipital in the Bering Island specimen is seen to be very decidedly less convex than in *M. Hectori*, as figured by Professor Flower. The occipital would appear to be flatter than in any of the known species of the genus; superiorly it is concave. Though the sides of the beak are much broken, it is evident that there is no basi-rostral groove in this species.

A section of the beak at the middle has an outline quite different from any of those figured by Professor Flower (*l. c.*, p. 422). Omitting the intermaxillæ, which stand vertically, the outline of the remainder of the section is approximately a circle.

As this species appears to be distinct from any hitherto described, I propose for it the name of *Mesoplodon Stejnegeri*, in honor of my esteemed friend, the eminent naturalist, Dr. Leonhard Stejneger.

Diagnosis of Mesoplodon Stejnegeri, sp. nov.

External form unknown.

Skull.—Brain-case little less than half the length of the skull. No basi-rostral groove. Premaxillary foramen posterior to the maxillary foramen. Premaxillary bones not grooved in front of the foramen, assuming a nearly vertical position anterior to the middle of the beak; not greatly expanded laterally back of the nares. Occipital bone plane above the condyles, concave at the vertex. Exposed portion of vomer less than one-fifth the length of the beak.

Habitat: Bering Sea.

WASHINGTON, September 25, 1885.

A NOTE UPON THE HYPEROODON SEMIJUNCTUS OF COPE.

By FREDERICK W. TRUE.

The skeleton upon which Professor Cope based his *Hyperoodon semijunctus* having recently been transferred, through the courtesy of Dr. G. E. Manigault, curator of the Charleston College Museum, to the national collection, I have taken pains to examine it with the special view of determining if possible the identity of the species.

EXPLANATION OF PLATE XXV.

(For description see pp. 584-585.)

Fig. 1. Skull of *Mesoplodon Stejnegeri*, True. View from above.

Fig. 2. Lateral view of the same skull.

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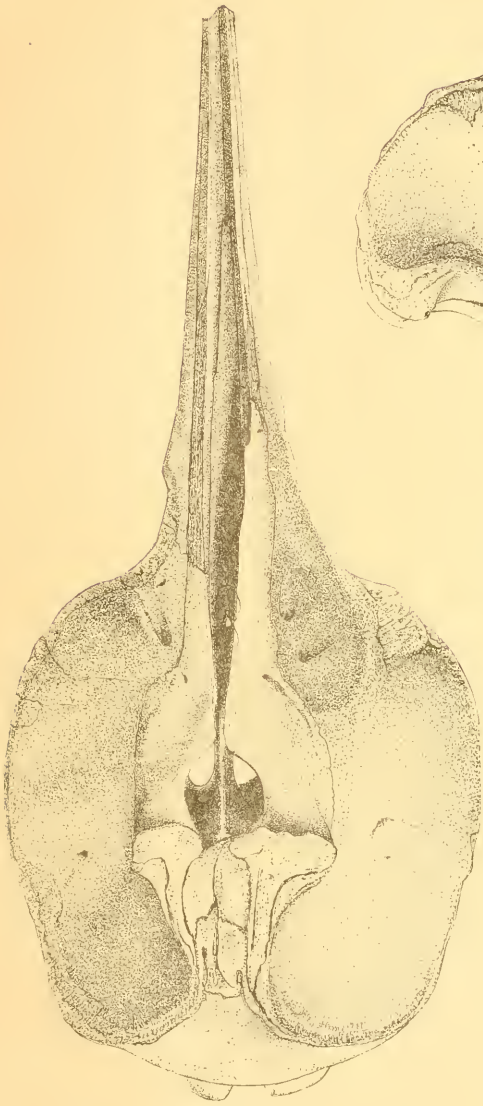


FIG. 1.



FIG. 2.

MESOPLODON STEJNEGERI, TRUE.