

SMITHSONIAN MISCELLANEOUS COLLECTIONS

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ALASKAN PORPOISES

(WITH ONE PLATE)

BY

GERRIT S. MILLER, JR.

Curator, Division of Mammals, U. S. National Museum



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Skeletons of two Alaskan porpoises, *Phocæna phocæna* (Linnæus) and *Phocænoides dalli* (True), have recently been mounted in the United States National Museum. Before these skeletons were placed on exhibition the photographs were made that are reproduced on the plate accompanying this article.

In his original account of *Phocænoides* (Bull. Amer. Mus. Nat. Hist., Vol. 30, pp. 31-50, May 16, 1911) Andrews figured the skull, jaw, hyoids, sternum, scapula, flipper, and several vertebrae; but these individual parts fail to give an adequate idea of the striking peculiarities of the genus as compared with its relative *Phocæna*. Chief among these peculiarities are the length and slenderness of the chevron bones, of the ribs (length of longest rib contained about $4\frac{1}{2}$ times in length of vertebral series, as compared with $5\frac{1}{2}$ times in *Phocæna*), and of the dorsal spines (longest spines contained about $10\frac{1}{2}$ instead of $17\frac{1}{2}$ times in length of vertebral series); the shortness (or compression) of the vertebral centra by virtue of which the 45 centra of the dorso-lumbar series are crowded into appreciably less space than that occupied by only 29 dorso-lumbar centra in *Phocæna*. Particularly noticeable also are the differences in form of the scapula, arm and hand.

In the great height of the dorsal spines and the compression of the centra *Phocænoides* appears to be unique among living members of the family Delphinidæ. There is no approach to these conditions in the genus *Neomeris*.

The two skeletons, as mounted, are of the same length, 1,760 cm. In the *Phocæna* the depth of chest, including vertebral spines, is about 30 cm., while in the *Phocænoides* it is about 44 cm.

Considering the peculiarities of the skeletons, the skulls of *Phocæna* and *Phocænoides* are remarkably alike. In the teeth and gums, however, the differences are pronounced.¹

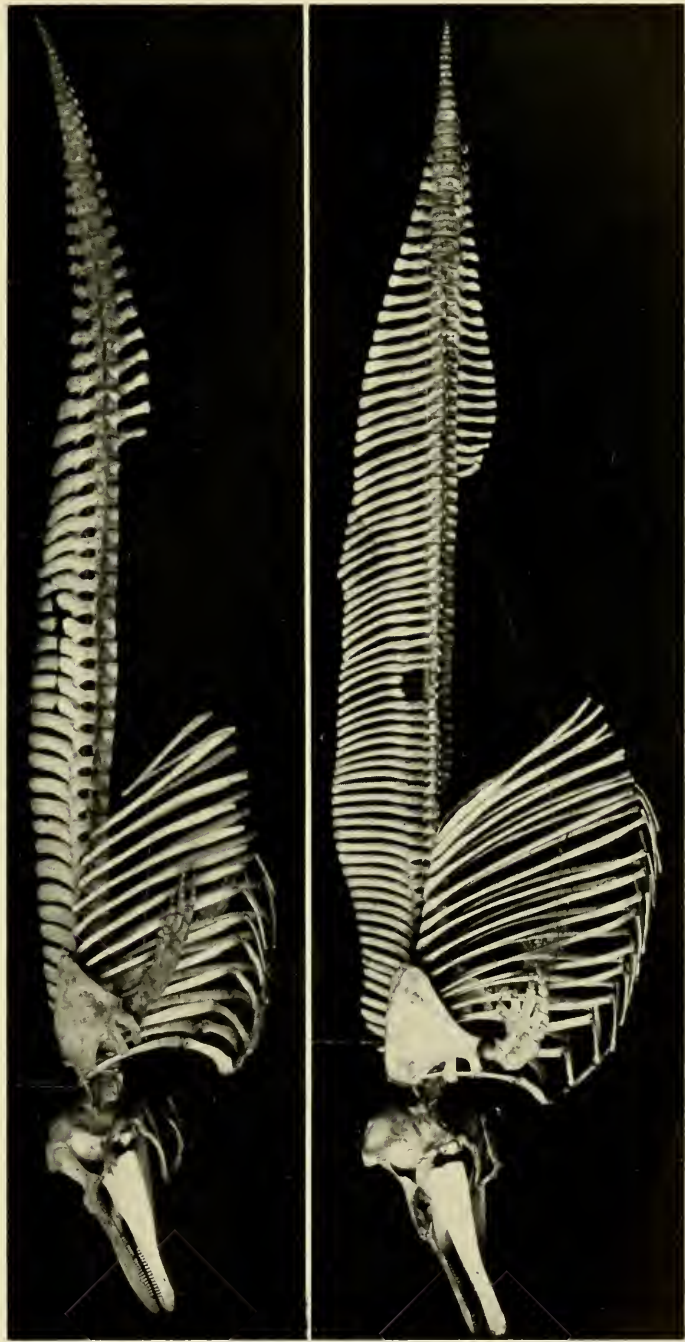
¹ See Miller, Proc. U. S. Nat. Mus., Vol. 74, Art. 26, pp. 1-4, pls. 1-4, January 26, 1929.

EXPLANATION OF PLATE

Both figures greatly reduced to approximately uniform scale

UPPER FIG. *Phocæna*. No. 218737, U. S. Nat. Mus. Collected at St. George Island, Alaska, by C. D. Hanna.

LOWER FIG. *Phocænoides*. No. 219334, U. S. Nat. Mus. Collected near Wrangell, Alaska, by E. P. Walker. (The skull is tilted slightly to the right. This exaggerates the flatness of the rostrum as compared with the rostrum of *Phocæna*.)



Upper figure, *Phocaena phocaena*.
Lower figure, *Phocænoides dalli*.