

A NEW RACE OF BEAVER FROM OREGON

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In 1914 William L. Finley and the senior author had saved for the collection of the Oregon Game Department three beavers from the drainage of the Nehalem River, one of the streams on the Pacific coastal slope west of the watershed of the Willamette River. At the time of preparation these were recognized as exceptionally dark-colored, small beaver. With the aim of classifying these specimens, an invoice was taken, about a year ago, of material in the Museum of Vertebrate Zoology, which showed that but relatively little additional material was needed to allow of identifying the specimens from Nehalem. This additional material, through the cooperation of Mr. Frank B. Wire and his associates in the Oregon Game and Fish Commission, was saved from animals accidentally killed in live-trapping and transplanting of beavers. Comparisons at the Museum of Vertebrate Zoology of the assembled material confirm the original suspicion that the coastal animals belong to an heretofore unnamed geographic race. This may be known and described as follows:

Castor canadensis idoneus, new subspecies

Type.—Adult, skull-alone, of unknown sex; no. 86941, Mus. Vert. Zool.; Foley Creek, tributary to Nehalem River, Tillamook County, Oregon; December 15, 1914; trapped by Edward Leach; original no. 548 of S. G. Jewett, preparator.

Range.—Probably humid coastal area in Oregon west of the Willamette drainage, but definitely known only from the type locality and from Blaine, Tillamook County.

Diagnosis.—Size small; color nearer black than mummy brown of Ridgway (Color Standards and Color Nomenclature, Washington, D. C., 1912); skull small, relatively broad, with nasals not extended much, if any, behind premaxillae.

Comparison.—*Castor canadensis pacificus* (known to us by specimens saved by Victor B. Scheffer from Swauk River, Kittitas County, Washington, and from the figures and descriptions by Rhoads, Trans. Amer. Philos. Soc., N.S., 19: 417-423, pls. 21, 22, 1898, and by Benson, Jour. Mammalogy, 14: 320-325, fig. 1, 1933) is the geographically adjoining subspecies, and the two have many cranial features in common. For example, the abrupt indentation posteriorly in the lateral outline of each nasal, the similar shape of the hamular process of the pterygoid, and many other details of the skull are alike. Cranial differences which set *C. c. idoneus* apart are: Size less; zygomatic arches more expanded anteriorly; interorbital breadth relatively more, amounting to more, rather than less, than distance between parietal and maxillary bones on dorsal face of skull; nasals not twice as long as broad (width averages 54 percent in *idoneus* and 44 percent in *pacificus*), not extended much if any, rather than far, behind premaxillae, and with lateral margins more convex.

Remarks.—A specimen from Pudding River, Clakamas County, Oregon, has the size of skull and construction of the nasals as in *pacificus*, to which it is here referred, but the zygomatic arches anteriorly are more expanded as in *idoneus*. The skulls used by us in comparison have the suture between the basioccipital and basisphenoid bones closed or nearly so. The color of the two adults of *idoneus*, as the senior author remembers it, is extremely dark. This would be expected by analogy with the dark coloration of other

vertebrates which live in the coastal belt. There is evidence (see Bailey, North Amer. Fauna, no. 55, p. 219, 1936) that beavers lived in most of the streams along the coast of Oregon and Washington, but how far north or south the race *idoneus* originally occurred probably never will be fully ascertained because the colony on the Nehalem River from which our specimens came is one of the very few bordering the coast not trapped out. Of the three skins originally saved only that of the one juvenile can now be located. The skin of this specimen, S. G. Jewett field no. 549, which measured, total length, 775; length of tail, 250; length of hind foot, 150, has the general color darker than in any other specimen of North American beaver at hand. It is darker (less reddish and more blackish) even than *Castor c. phaeus*, of which specimens of comparable age, as well as specimens younger and older, are available. This is true of the guard hairs and

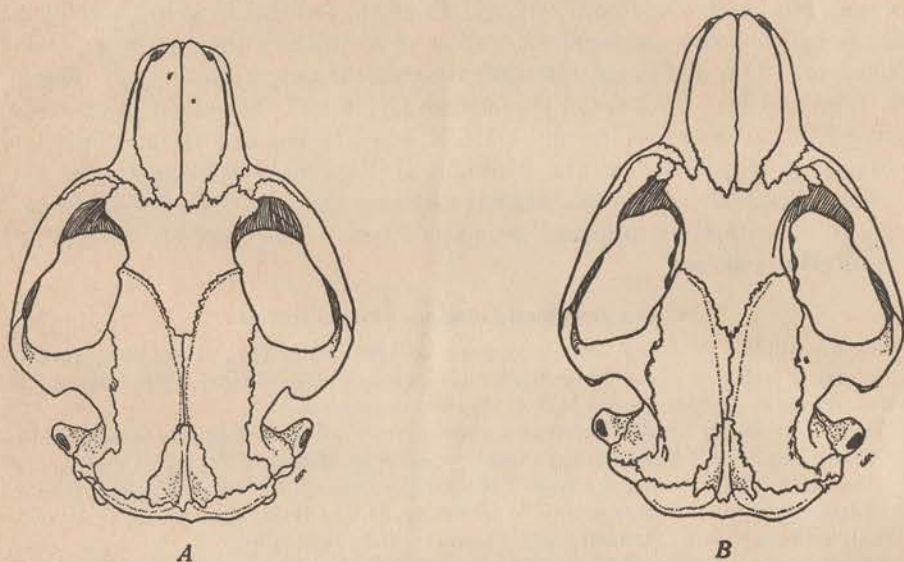


FIG. 1. Dorsal views of skulls of two subspecies of beavers. $\times \frac{1}{2}$. A. *Castor canadensis idoneus*, type specimen. B. *Castor canadensis pacificus*, M.V.Z. no. 86943, from Swauk River, Kittitas County, Washington.

of the distal half of the underfur. The basal half of the underfur is lighter than in *phaeus*, a difference that can be detected only when the underfur is parted to the roots.

Since writing the above, a skull, no. 387 of Alex Walker, taken November 8, 1923, from the Nestucca River, at Blaine, Tillamook County, Oregon, has been examined. It is larger than the skulls from the type locality (occipitonasal length about 138.0) but agrees with them in that the nasals do not project as far posteriorly as do the premaxillae. Also, on January 5, 1940, at Portland, Oregon, Mr. Frank B. Wire accorded one of us (Hall) the privilege of examining between 1300 and 1400 skins of Oregon-taken beaver that day being offered for sale. One was as dark as our young skin. This dark skin was from the vicinity of Clatskanie, Columbia County, near the mouth of the Columbia River. All the other pelts were from places much farther from the coast and all were much lighter colored. Lighter colored animals, of subspecies other than *C. c. idoneus*, have been transplanted, within the last two years, into the former range of *idoneus*. A fur buyer inspecting the skins on January 5 said that the darkest beavers

from Oregon came from the mouth of the Columbia River and coastal streams to the south.

Measurements.—Cranial measurements of the two adults of *C. c. idoneus*, nos. 548 and 550 of S. G. J., with measurements in parentheses of two *C. c. pacificus* of corresponding age (M. V. Z. nos. 86942, 86943) from Swauk River, Kittitas County, Washington, are as follows: Occipitonasal length, 127.0, 121.0 (141.8, 135.3); condylobasal length, 131.2, 122.4 (135.6, 131.6); basilar length, 114.2, 107.0 (119.3, 117.6); zygomatic breadth, 94.7, 90.2 (100.8, 95.5); mastoidal breadth, 60.8, 60.6 (67.0, 67.1); interorbital constriction, 27.0, 24.3 (23.5, 25.1); length of nasals, 46.3, 41.5 (52.4, 48.7); width of nasals, 24.1, 23.2 (22.9, 24.9); maxillary toothrow, 30.6, 28.4 (31.4, 31.9). External measurements of nos. 548 and 550, taken by the senior author from the animals in the flesh, were, respectively: Total length, 960, 1101; length of tail, 285, 305; length of hind foot, 170, 185.

Specimens examined.—Four: Three from the type locality and one from Blaine, Tillamook County, Oregon.

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