

DESCRIPTION OF A NEW GENUS AND SPECIES OF MICROTINE RODENT
FROM SIBERIA.

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Before the first ocean telegraph cable was laid, the Western Union Telegraph Company organized an expedition to investigate the practicability of an overland international line by way of Alaska and Siberia. A few mammals were collected during this exploration, and among them is a mouse representing an undescribed genus

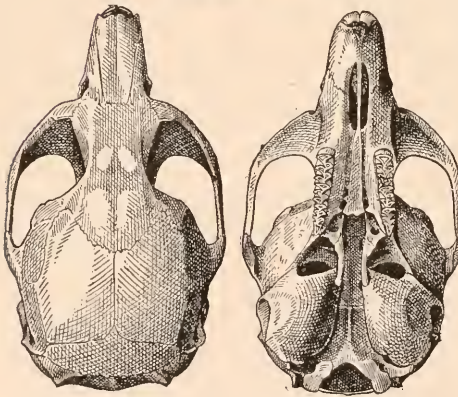
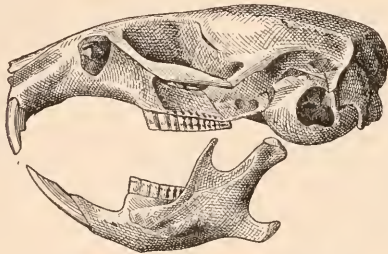


FIG. 1. Skull of *Aschizomys lemminus* (x 2).

and species. It was taken at Plover Bay, Bering Strait, Siberia. In general appearance this animal resembles a lemming. So close is the likeness that the specimen remained for many years in the National Museum collection labelled '*Myodes*.' Recently, however, Mr. F. W. True detected the error in identification and referred the subject to me for further study. I find that the species, while possessing no important characters not found in *Microtus* and *Evotomys*, yet combines the peculiarities of these two genera so perfectly

that it is necessary either to recognize the new form as an annectant genus, or to reduce *Evotomys* to the rank of a subgenus of *Microtus*, and treat the Plover Bay animal as still another subgenus. While the latter course would be the more logical, it would involve the serious inconvenience of uniting two large, widely spread, and elsewhere sharply defined genera. Hence I prefer the first alternative.

ASCHIZOMYS gen. nov. (*Microtine*).Type, *Aschizomys lemminus* sp. nov.

Generic characters.—Skull (fig. 1) broad, depressed, lightly built, smooth and rounded. Palate as in true *Evotomys*.¹ Molars small and weak, their angles rounded as in *Evotomys* (fig. 2), but the teeth growing from a persistent pulp as in *Microtus* (fig. 3). Lower incisor with long root (nearly as in *Microtus*) which strongly displaces root of large posterior lower molar (fig. 4). Form lemming-like. Tail vertebrae shorter than hind foot; pencil nearly as long as vertebrae. Plantar tubercles six. Number of mammae unknown.

Remarks.—As already intimated, the proper disposition of this genus is open to serious question. It must be recognized as an intermediate between *Evotomys* and *Microtus*, but opinions may well vary between the logical course of combining all three under one generic name, and the convenient expedient of allowing each to stand as a full genus. For the present I have chosen the latter course. A third alternative would be to remove from *Microtus* and unite with

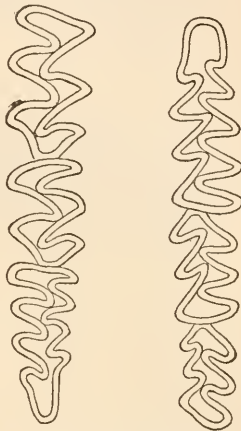


FIG. 2. Enamel pattern of *Aschizomys lemminus*. (x 10).

Aschizomys the subgenera *Eothenomys*² and *Anteliomys*,² in which the palate structure of *Evotomys* is exactly reproduced. With these might be joined the highly aberrant *Evotomys rufocanus*.³ This would not only remove anomalous forms from *Microtus* and *Evotomys*, but would also create a fairly homogeneous group characterized by the combination of shelf-like palate with long-rooted lower incisor and encapsulated posterior lower molar. When good material representing all these questionable forms can be brought together, some such course as this may prove necessary.

***Aschizomys lemminus* sp. nov.**

Type.—Adult, number $\frac{99,11}{57,299}$ United States National Museum, collected at Kelsey Station, Plover Bay, Bering Strait, by C. W. Baxter.

¹ See North American Fauna, No. 12, fig. 7, and pl. II, fig. 10, July 23, 1896.

² See North American Fauna, No. 12, pp. 45-49, pl. II, figs. 8 and 11.

³ For characters of *Evotomys rufocanus* see antea, p. 359-361.

*External form.*⁴—Ears broad and rounded, longer than the fur immediately in front of their bases. (In the dry skin the ears have shrunk considerably and appear much shorter than the surrounding fur).

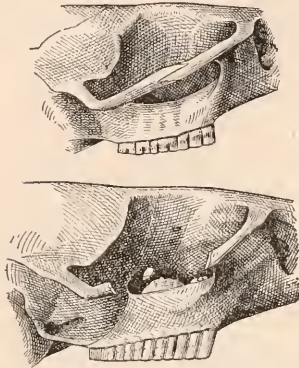


FIG. 3. Side view of molars; upper figure *Evotomys*, lower figure *Aschizomys* ($\times 2\frac{2}{3}$).

Muzzle hairy; septum of the nostrils naked, the free edges crenulate and grooved transversely.

Fore feet large, with five prominent tubercles. Palms naked, claws short and stout; thumb rudimentary, with a convex, compressed nail.

Hind foot broad; soles with six tubercles, of which five are subequal and one much smaller. Hinder part of sole densely hairy as far forward as the posterior tubercle; anteriorly granular, with a considerable number of short, white hairs interspersed among the granules. Claws moderate, over-

hung with white hairs. Tail club-shaped. Whiskers long, reaching to the shoulder.

Fur and color.—The fur is everywhere dense, soft and silky, that on the back about 10 mm. in length; on the belly it is nearly as long. Throughout the pelage the hairs are slate-gray at base. On the back the slaty portion occupies about the basal two-thirds of the hairs. Beyond this is a narrow subterminal band of pale yellowish wood-brown. The extreme tips of the hairs are sepia. The resulting surface color is a fine grizzle of sepia and yellowish-brown, very uniform throughout the dorsal surface. There is no indication of a darker dorsal area, but the shading is slightly heavier across the lumbar region than elsewhere. In front of each ear is an indistinct tuft of whitish hairs. Sides, belly, all four feet and legs, and under side of tail light straw-yellow, sharply defined from color of dorsal surface.

This description can be only approximately correct, since it is taken from the skin which had been immersed in alcohol for many years.

Tail.—Before skinning, the tail was club-shaped, and in its present condition it retains a trace of this form. For a short distance

⁴ From notes made by Mr. F. W. True before the specimen was removed from alcohol.

at base it is covered with short, loose hairs, similar in texture to those of the body. Near the middle of the tail the hairs become abruptly much elongated, stiffened and strongly directed backward.



FIG. 4. Inner side of left mandible viewed slightly from behind; upper figure *Evotomys*, lower figure *Aschizomys*. ($\times 3\frac{2}{3}$).

The pencil thus formed is nearly as long as the tail vertebræ. It is distinctly flattened from above. The general appearance of the tail is much like that of *Dicrostonyx*, but it is even more bushy than in average specimens of any lemming.

Skull.—In general form the skull (fig. 1) is much like that of *Evotomys alascensis*, though it is considerably larger. The rostrum is more tapering than in *E. alascensis*, and the rostral protuberances,⁵ although apparently uninjured, are much less conspicuous. The incisive foramen is considerably shorter than in *Evotomys alascensis* or *E. wosnessenskii*; audital bullæ of about the same actual size as in the former, therefore relatively intermediate between the two. Mandible rather more heavily built than in *Evotomys alascensis*.

Teeth.—Upper incisors relatively smaller than in *Evotomys alascensis*; molars relatively slightly larger. Enamel pattern (fig. 2) apparently not essentially different from that of the Arctic red-backed mice.⁶ The posterior upper molar is, however, remarkably long. It has four distinct salient angles on each side.

Measurements.—Total length, 99 mm.; head and body, 85; tail vertebræ, 16; pencil, 14; hind foot, 17.5; ear from meatus, 11.5; ear in dry skin, 8.3.

Skull: greatest length, 25.4 mm.; basal length, 23.8; basilar length, 22; zygomatic breadth, 14.8; interorbital breadth, 4; mastoid breadth, 12.6; occipital depth, 7; fronto-palatal depth (at middle of molar series), 7; length of nasals, 3; incisive foramen, 4.6; maxillary tooth row (alveoli), 6; mandible, 15; mandibular tooth row (alveoli), 6.

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⁵ See antea, p. 364.

⁶ See antea, p. 365, fig. 2, *a-c*.