

PROCEEDINGS
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BIOLOGICAL SOCIETY OF WASHINGTON

DESCRIPTION OF A NEW LEMMING MOUSE FROM
THE WHITE MOUNTAINS, NEW HAMPSHIRE.

BY EDWARD A. PREBLE.

During the latter part of June, 1898, I collected a few small mammals near the village of Fabyans, in the White Mountains of New Hampshire, a short distance west of the base of Mt. Washington. Among these specimens is a small Lemming Mouse, at first supposed to be *Synaptomys fatuus*,* which it greatly resembles externally. An examination of the skull, however, shows the animal to belong to *Mictomys*, a subgenus hitherto unrecorded from the eastern United States.†

On comparing this specimen with the type of *Synaptomys* (*Mictomys*) *innuitus*, it was at once apparent that it represented an undescribed form, which may be characterized as follows:

***Synaptomys* (*Mictomys*) *sphagnicola* sp. nov.**

Type No. 96543, ♂ adult, U. S. Nat. Museum, Biological Survey Collection. Collected at Fabyans, New Hampshire (near base of Mt. Washington), June 29, 1898, by Edward A. Preble. Original number 2402.

* Described by Mr. Outram Bangs (Proc. Biol. Soc. Wash., X, p. 47, 1896), from Lake Edward, Quebec, and since recorded from Maine, New Hampshire, and New Brunswick.

† The following references comprise all the published eastern records for *Mictomys*, each referring to a single specimen:

True, Proc. U. S. Nat. Mus., XVII, No. 999, p. 242 (advance sheet Apr. 26), 1894. Original description of *Mictomys innuitus* from Ft. Chimo, Ungava, Labrador.

Bangs, Proc. Biol. Soc. Wash., XI, p. 238, 1897. Record of a specimen of *Synaptomys* (*Mictomys*) *innuitus* (not typical) from Hamilton Inlet, Labrador.

General characters.—Larger than *S. innuitus*, with larger skull and longer hind foot and tail.

Color of type.—Upper parts sepia brown, quite thickly interspersed with black-tipped hairs, the fur basally blackish slate; each side gland marked with white; under parts grayish white; inside of ears slightly darker than general color of upper parts; a few hairs at base of ears and on sides of cheeks, light chestnut; tail quite sharply bicolored, the upper and lower sides concolor with body.

Cranial characters.—Compared with the type of *Synaptomys innuitus*, which is approximately of the same age, the skull of *S. sphagnicola* is much larger and longer; interorbital constriction considerably longer and narrower; rostrum longer and stouter; braincase more lengthened posteriorly; posterior production of zygomata straighter; incisive foramina

much larger and slightly longer proportionally; post-palatal pits deeper and median ridge correspondingly conspicuous; audital bullæ longer and more rounded; pterygoids more diverging; mandible larger and stouter, with condylar processes broader proportionally.

Dental characters.—Compared with *S. innuitus*, the molars are heavier and molar series considerably longer; enamel pattern of molars not essentially different, though the posterior prism of the last upper molar is more triangular. Inner faces of the upper incisors much excavated medially, with the edges

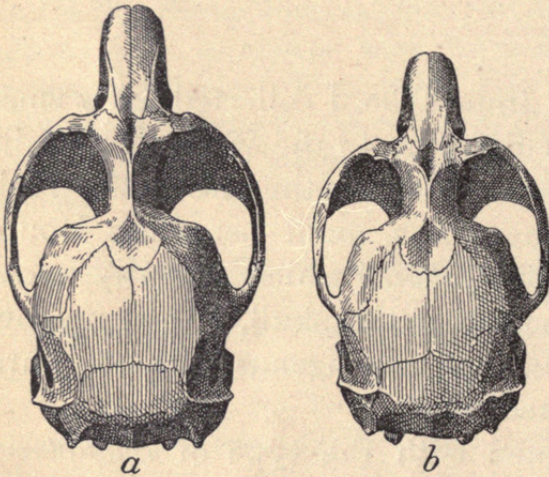


FIG. 3.—*a*, Type skull of *Synaptomys (Mictomys) sphagnicola*; *b*, type skull of *Synaptomys (Mictomys) innuitus*. $\times 1\frac{1}{2}$.

exterior to the sulci about one millimeter longer than remaining portion of the teeth, and ending in sharp points. Enamel faces of incisors paler orange than in the type of *S. innuitus*.

Measurements.—Type of *S. sphagnicola* (in flesh): total length 132; tail vertebræ 24; hind foot 20. Type of *S. innuitus* (in alcohol): total length 115; tail vertebræ 17; hind foot 17.5.

Cranial measurements of type.—Occipito-nasal length 27.5; basilar length 26; zygomatic breadth 16; mastoid breadth 12; interorbital constriction 28; length of nasals 8; length of incisive foramina 5.5; upper molar series, 7. Type skull of *S. innuitus* (No. 24729, U. S. Nat. Mus.): occipito-nasal length 19.6; basilar length 18.3; zygomatic breadth 15; mastoid breadth 11.5; interorbital constriction 3.1; length of nasals 6.3; length of incisive foramina 4.8; upper molar series 6.5.

General remarks.—The discovery of a species of *Mictomys* in the White Mountains, within the limits of the Canadian Zone, and at a comparatively low altitude (about 1,600 feet) is one of the many surprises that mod-

ern methods of collecting have brought to light, even in this thickly settled region. The type and only known specimen was taken near the banks of a small stream (called on some maps Dartmouth Brook), which leisurely winds its way through a piece of swampy ground well grown up to alders and other small trees, just before losing itself in the noisy Ammonoosuc. The carriage road leading from Fabyans to the base of Mt. Washington crosses the brook at this point after covering about a mile of its course. To the left of this road, where my collecting was done, the ground is swampy and quite densely carpeted with moss, through which spring many grasses and swamp-loving plants, overtopping, to a great extent, the logs, stumps, and fallen trees with which the ground is strewn.

My traps, set here for three nights, captured numerous specimens of meadow mice (*Microtus*), woodmice (*Peromyscus*), short-tailed shrews (*Blarina*), red-backed mice (*Evotomys*), two species of jumping mice (*Zapus hudsonius* and *Z. insignis*), in addition to the *Synaptomys* here described. The *Synaptomys* was taken in a runway in the moss, beneath a small fallen tree.

Whether this species is a wanderer from the Hudsonian Zone on the neighboring mountains, guided thence by that ideal highway, a mountain stream, or whether it is a regular inhabitant of the Canadian Zone throughout this region, is an interesting question, to be solved by future investigations.



Preble, Edward Alexander. 1900. "Description of a new lemming mouse from the White Mountains, New Hampshire." *Proceedings of the Biological Society of Washington* 13, 43–45.

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