

ON THE RELATIONSHIPS OF TAYLOR'S MOUSE, SITOMYS  
TAYLORI.

BY

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In 1887, Mr. Oldfield Thomas described a very small mouse from San Diego, Texas, under the name of *Hesperomys (Vesperimus) taylori*.\* Later he gave a full description of it under the name of *Cricetus (Vesperimus) taylori*.†

For many years the National Museum possessed no examples of this interesting little species except a mutilated skin in alcohol, but on two occasions since 1887 it has received some complete specimens in alcohol from Mr. William Taylor, in whose honor the species was named.

This mouse is readily distinguishable from other American field-mice, as Mr. Thomas has pointed out, by its small size and nearly uniform coloration.

Mr. Thomas placed it unhesitatingly in the subgenus *Vesperimus*, and remarked "no detailed comparison is needed of this little mouse with its nearest allies." I propose to show, however, that it possesses characters intermediate between those of *Vesperimus* and *Onychomys*, and is typical of neither.

Dr. C. H. Merriam, in 1889, raised the subgenus *Onychomys* of Baird to the rank of a genus, giving as the principal characters the following:‡

1. Anterior upper molar with three external and two internal cusps. Last lower molar subcircular in outline.

2. "Coronoid process of mandible well developed, rising high above the condylar ramus and directed backward in the form of a large hook."

3. Nasals wedge-shaped behind.

4. Body stout and heavy; tail short and thick.

5. Hind feet with four phalangeal tubercles only.

These characters are contrasted with those of *Hesperomys* § (especially subgenus *Vesperimus*), in which the first upper molar has three cusps on each side, the last lower molar is somewhat elongated, the coronoid process is very short, the nasals are truncated behind, the tail is long, and the hind feet have six tubercles.

\*Ann. & Mag. Nat. Hist., 5th ser., XIX, 1887, p. 66.

†Proc. Zool. Soc., London, 1888, p. 446.

‡North Amer. Fauna, 2, 1889, p. 3.

§ = *Sitomys*.

Upon examining critically specimens of *Sitomys taylori*, I find that a different combination of characters exists. Thus, the anterior upper molar has three cusps on each side, and the last lower molar is somewhat elongated, as in *Vesperimus*, but, on the contrary, the coronoid process is high and prominent, as in *Onychomys*. The nasals are truncated behind, as in *Vesperimus*. In the proportion of the length of the tail, however, the species is intermediate between the two subgenera. Thus, in *Onychomys* the average length of the tail, for all the specimens of the several species cited by Dr. Merriam in 1889 (except *O. longipes*), is 46 per cent. of the length of the head and body; the longest tail, 62 per cent., is found in *O. longicaudus*, and the shortest, 36 per cent., in *O. melanophrys*. The average for four specimens of *Sitomys* (*Vesperimus*) *leucopus* is 89 per cent., while in *S. taylori* it is 65 to 70 per cent.

The hind feet in *S. taylori* have six tubercles, as in ordinary *Vesperimus*, but some hairs are found on the anterior part of the soles as far as the base of the toes, and even under the toes themselves.

On account of the peculiar combination of characters mentioned above, I am disposed to regard *S. taylori* as the type of a separate subgenus, which may be termed *Baiomys*.

**Baiomys**, subgen. nov.

Ascending ramus of mandible short and erect. Condyle terminal. Coronoid process well developed, uncinatè, and near the condyle.

Size very small, tail short. Plantar tubercles, six. Soles hairy.

With *Vesperimus* and *Onychomys*, this subgenus will form one section of the genus *Sitomys*. It is more closely allied to the former than to the latter. In *Vesperimus*, the nearest ally, as Mr. Thomas has pointed out, is *S. (Vesperimus) michiganensis*, which has many of the characteristics of *S. taylori*, but so far as regards the skull is typical of the subgenus to which it belongs.