Article XVIII.—DESCRIPTION OF A NEW MOUSE FROM SOUTHERN NEW MEXICO AND ARIZONA.

By GERRIT S. MILLER, Jr.

Four skins of a species of White-footed Mouse, collected by Mr. A. W. Anthony, in Grant County, New Mexico, have for several years lain in my collection unidentified. The specimens appeared to represent an undescribed form, but lack of material for comparison made it unwise to attempt to name and characterize it. Through the kindness of Dr. J. A. Allen I now have before me a fine series of *Sitomys rowleyi* Allen, recently described in this Bulletin (*antea*, p. 74), and also the mice from Pinal County, Arizona, referred in the same paper with some hesitation to that species (l. c., p. 77). The Pinal County specimens are identical with those from Grant County, New Mexico. These two series taken together represent a form easily separable from *S. rowleyi*, and probably the Lower Sonoran representative of the latter. Although no distinctly intermediate specimens have yet come to light I prefer to treat the two animals as subspecies. Hence the new form may stand as:

Sitomys rowleyi pinalis, subsp. nov.

Smaller than *Sitomys rowleyi* Allen, with general coloring richer and more yellow. Cranium more highly arched than in *S. rowleyi*.

Adult Male (Type, No. 338, collection of Gerrit S. Miller, Jr.,[1] Granite Gap, Grant County, New Mexico, December 1, 1889; A. W. Anthony, collector) dorsal surface olive buff, deepening to buff yellow on the sides and becoming somewhat grayer on the head and face, the fur everywhere except in a narrow line separating the color of the back from that of the belly moderately shaded with sepia-tipped hairs which are most numerous over the rump and middle of the back; an indistinct dark eye ring; color of sides extending about to wrists and ankles, and completely surrounding base of tail; dorsum of manus and pes and whole ventral surface pure white; tail bicolor, hair brown dorsally and at tip, white ventrally, the hairs forming a distinct pencil and everywhere rather

[1] Mr. Miller has generously presented the type specimen of *Sitomys rowleyi pinalis* to the American Museum of Natural History, where it is now catalogued as No. $\frac{82158}{82852}$.—J. A. A.]

long, but nowhere close enough to conceal the annuli ; ears very scantily clothed with exceedingly short silvery hairs ; whiskers reaching beyond shoulders, mixed dark brown and silvery gray.

An immature male (No. $\frac{1404}{646}$, Am. Mus. Nat. Hist., Pinal County, Arizona, December 2, 1885; W. E. D. Scott, collector) is smoke gray dorsally, fading into pure white on the ventral aspect, the back darkened as in the adult with sepia.

Older specimens have the colors of the adult appearing first on the sides, and then gradually replacing throughout the pelage the smoke gray which disappears last on the nape and occiput.

Unfortunately none of the specimens of *Sitomys rowleyi pinalis* were measured in the flesh ; but such measurements as can be obtained from the dry skins form a satisfactory basis for comparison with *S. rowleyi*, as shown by the following tables :

Sitomys rowleyi ALLEN.

Locality.	Number of Specimens.	Hind Foot.			Ear from Crown.		
		Max.	Min.	Average.	Max.	Min.	Average.
Bluff City, Utah.	11	23.0	21.2	21.98	16.2	14.0	15.76
Nolan's Ranch, "..	4	22.4	21.2	21.95	16.0	14.8	15.30
Bradshaw, Ariz. ..	10	23.0	21.4	22.10	15.4	14.0	14.60

Sitomys rowleyi pinalis MILLER.

Locality.	Number of Specimens.	Hind Foot.			Ear from Crown.		
		Max.	Min.	Average.	Max.	Min.	Average.
Pinal Co., Arizona.	11	22.2	20.0	20.94	15.0	12.4	13.58
Grant Co., N. Mex.	4	21.6	21.0	21.25	12.4	12.4	13.50

Among fully adult individuals of *Sitomys rowleyi pinalis* there are no great variations in color. Some specimens are slightly more tinged with yellow than others ; and the tail varies from very sharply bicolor to but indistinctly so. The ventral surface is without exception pure white with no indication of a pectoral spot.

As compared with *Sytomys rowleyi* this form is distinguishable in color by its yellower back and sides. The back is sometimes more heavily shaded with sepia than in *S. rowleyi*, but this character is inconstant. The buff stripe separating the color of the back from that of the belly is noticeably brighter in *S. rowleyi pinalis* than in *S. rowleyi*. In both species the fur is everywhere blackish slate at base, but this color is perhaps a shade darker in *Sitomys rowleyi pinalis*. The soles in both animals are haired to about the same extent, namely from the heel to within about two millimeters of the proximal tubercle.[1]

The skull of *Sitomys rowleyi pinalis* is smaller than that of *S. rowleyi* with brain-case narrower and less flattened. The characters are such as might be due in part at least to age, but the average of good series of specimens of each form show differences too marked to be ignored. The average basilar length of fifteen skulls of *S. rowleyi pinalis* is 21.9 mm.; maximum 23.0; minimum, 20.8. Seventeen skulls of *S. rowleyi* give: average 23.6; maximum 24; minimum 22.4. The ratio of parieto-basioccipital depth to mastoid width varies in *S. rowleyi pinalis* (sixteen specimens) from 65.0 to 71.6, average 68.07; in *S. rowleyi* (eighteen specimens) from 60.0 to 65.3, average 62.22. In general form the skull of *Sitomys rowleyi pinalis* approaches that of *S. americanus*, while the cranium of *S. rowleyi* is so flattened as to resemble that of *S. eremicus*, *S. fraterculus*, or *S. californicus*. The long, slender nasal bones, extending well back of the nasal branches of the premaxillaries, will, however, at once distinguish the skull of *S. rowleyi* from that of *S. eremicus* and its allies. In dentition and in the form of the mandible, *Sitomys rowleyi* and *S. rowleyi pinalis* agree perfectly.

Mr. Scott has, so far as I know, made no notes on the habits of this mouse as observed by him in Arizona. He states, however, on the label of a specimen taken December 4, 1885, that the uterus of this individual contained three two-thirds grown embryos. Regarding the specimens taken at Granite Gap, Mr. Anthony writes as follows: "They were caught in a drift of big granite boulders—hardly a cliff, but answering all the requirements, I

[1] The statement in the diagnosis of *S. rowleyi*: "Soles entirely naked as in *S. eremicus*" is incorrect. The true condition is alluded to in the fourth paragraph on page 77, l. c.

suppose. The country immediately surrounding was thickly covered with the dry desert grasses, and used as a stock range. The *Hesperomys* subsist largely on the seeds and perhaps also on the dry stems of these rank grasses, and I think, when in season, the 'Mesquite' beans form a part of their diet."