PROCEEDINGS
OF THE

## BIOLOGICAL SOCIETY OF WASHINGTON

## THREE NEW SUBSPECIES OF GRASSHOPPER MCE.

BY N. HOLLISTER.<br>[Published by permission of the Secretary of the Smithsonian Institution.]

Three hitherto umamed forms of grasshopper mice, in the collection of the [nited States National Museum, are describeck below.

Onychomys torridus clarus subsp. nov.
Type from Kecer, Inyo Connty, California. U. S. National Museum (Biological survey Collection), No. $\frac{25}{3} \frac{45}{2} \frac{5}{6} \frac{3}{7}$, skin and skull of adult $\sigma^{7}$ (teetli considerably worn). Collected December 30, 1890, by Vernon Bailey. Orig. No. 2?14.

Diagnosis.-Like Onychomys torridus longicauclus, but clearer amt brighter colored, with very little dark streaking above. Resembling O. t. pulcher, but much more intensely pinkish-cimamon. Skull as in lonqicaudus, but with anterior palatine foramina averaging longer, reaching lackward fully to line of fronts of first molars.

Color of adult in full winter coat: upperparts bright pinkish-cimnamon, palest on nose ant head and most intense and glossy on lower hack and ramp, with very little or mo darker admixture from the hair tips. Underfur dark neutral-gray; hairs with subapical band of buff, tipped with deep cimamon. Ears very thinly haired, narrowly rimmed with brown; tufts at bases creamy-white, comparatively inconspicnons. Nose, cheeks, lower sides, limbs, hands, feet, and muderparts, white, the underfur narrowly nentral-gray. Tail whitish, with narrow, indistinct stripe of grayish-brown along upper side for two-thirds its length.

Measurements of type. -Total length, 143 mm .; tail vertebre, 51 ; hind foot, 20.5; ear from motch in dry skin, 15.7. sknll: Condylobasal length, 23.3 ; zy\&omatic breadth, 13.2; breadth of braincase, 11.6; maxillary tooth row, 3.7.

Onychomys leucogaster capitulatus subsp. nov.
Type from lower end of Prospect Valley, 4500 feet, Ilnalpai Indian Reservation, Grand Canyon, Arizona. U. S. National Museum (Biological Survey Collection), No. 202612 , skin and skull of adult $\delta^{\circ}$ (teeth
moderately worn). Collected September 26, 1913, by E. A. Goldman. Orig. No. 22234.

Diagnosis.-Coloration much like that of Onychomys leucogaster ruidosx; but size less, and skull considerably smaller and weaker. 1)arker than O. l. melanophrys; lighter, more reddish-brown, than O. l. fuliginosus.

Color.-The color, in all pelages, closely resembles that of O. l. ruidosic.
Measurements of t!pe.-Total length, 142; tail vertebre, 4:3; hind foot, 21 ; ear from noteh in dry skin, 14.6. Skull: Condylobasal length, ơ. 1 ; zygomatic breadth, 14; breadth of braincase, 1:3.0; maxillary tooth row, 4.3.

## Onychomys leucogaster breviauritus sulかp, now.

Type from Fort Reno, Oklahoma. U.S. National Mnsemm, No. $\frac{1921}{3 \frac{1}{5} 5}$, skin and skull of adult of (teeth moderately worn). Collected February 16, 1890, by Dr. J. C. Merrill. ()rig. No. 18.

Diagnosis.-Most like Onychomys leucogaster lomgipes, but darker and richer colored, with shorter tail, smaller hind foot, and smaller ears.

Color of adult in full winter pelage: Head and hack a rich blackishbrown, the ground color pinkish-cimamon, the overlying hairs with long backish tips which streak and darken the ground color; cheeks and sides with less of the dark streaking, the hips and lower romp almost pure pinkish-cinnamon. Center of nose gray ; cinnamon spots at base of whiskers, between the gray of nose and white of lips. Ear tufts cimanonbuff; tail grayish-brown above to near tip, sharply bicolor, the materside and tip white. Arms, hands, lower legs, and entire underparts white, with dark gray mulerfur everywhere except on chin.

Measurements of type.-Total length, 164; tail vertebre, 42 ; hind foot, 21; ear from notel in dry skin, 13.2. skull: Condylobasal length, 27.4; zygomatic breadth, 15.1; breadth of braincase, 12.5; maxillary tooth row, 4.7. Aserage measurement of ear from noteh in dry skin in seven adnlts is 12.8 ; in twelve adults of 0.1 . longipes, 16.1.

