TWO NEW MAMMALS FROM KAZAKSTAN

BY GEORGE G. GOODWIN

The following descriptions are published in advance of a report on mammals collected in 1929 for The American Museum of Natural History by the Morden Graves North Asiatic Expedition. A detailed account of the collection will be given later.

Crocidura suaveolens mordeni, new species

Type.—No. 85315, Amer. Mus. Nat. Hist., female, adult; Tuz Bulak, altitude 600 feet; 150 miles north of Kizil Orda (Perovsk), Kazakstan, Central Asia; October 21, 1929; collector, George G. Goodwin. The type is a skin and skull in good condition.

General Characters.—A small pale-colored white-toothed shrew about the size and general proportions of Crocidura lignicolor Miller, but color paler, under parts nearly pure white, this color extending well up over sides of body and face; tail relatively long, distinctly bicolor, the line of demarcation sharply indicated.

Description.—Pelage moderately long and soft. Color of upper parts including upper surface of tail uniform, between verona brown and wood brown; fore and hind limbs and feet, lips, cheeks to eye, base of ear, and entire under parts white, lightly washed with pale buff. The dorsal area in the six paratypes varies in color from verona brown to pale wood brown, but under parts throughout the series are white. Skull about the size and general proportions of Crocidura lignicolor; the length of the upper tooth row averages slightly longer than in typical specimens from Djarkent, Eastern Turkestan, but general characters essentially the same.

Measurements of Type.—Taken in the flesh: total length, 90 mm.; length of tail vertebrae, 30 mm.; hind foot, including claws, 12.5 mm. Skull: condylobasal length, 16.8 mm.; least interorbital breadth, 4 mm.; greatest breadth of brain case, 8.2 mm.; length of entire maxillary tooth row, 7.9 mm.

Crocidura s. mordeni can readily be distinguished from Crocidura lignicolor by its white under parts and more sharply bicolor tail. I have not compared it with Crocidura ilensis Miller from Ili, but from the type description it differs in color, smaller feet, and some cranial characters. The type and six paratypes were taken in the open steppe country and in narrow ditches at the foot of an escarpment where the water from springs trickled down and dried up on the desert. Two specimens were taken at Tele Kul, sea level, in the flat, alkali lake district.
**Microtus gravesi**, new species

**Type.**—No. 85322, Amer. Mus. Nat. Hist.; male, adult; Tuz Bulak, altitude 600 feet, 150 miles north of Kizil Orda (Perovsk), Kazakstan, Central Asia; October 21, 1929; collector, George G. Goodwin.

**General Characters.**—A small light-colored vole with a short tail, small ears but not concealed in the fur; bullae much inflated; externally very similar to *Phaiomys blythi* from Ladak, India, but smaller, with relatively shorter tail, smaller feet, and widely different cranial characters. Fur long and soft, underside of feet moderately overgrown with hair, but toes and foot pads naked.

**Description.**—Color of upper parts: hair pinkish buff subterminally; tips dark brown, darkest on posterior dorsal area; fore and hind feet buffy white; tail indistinctly bicolor, light buff with a weak middle dusky stripe along the dorsal surface. Under parts light buff, the plumbeous basal color showing through. Skull angular and broad, with two low, distinct bow-shaped middle or lateral crests. Audital bullae large, their walls strengthened by dense, spongy bone tissue, inflated, and forming prominences on the sides of the occipit; interorbital area narrow, expanding abruptly posteriorly. The last upper molar with four well-developed projecting angles on inner side. The dorsal surface of the skull resembles Vinogradov's figure of *Phaiomys bucharensis* in his 'Key to the Rodents of Middle Asia,' but differs in having four well-developed projecting angles on inner side of last upper molar instead of three as designated for *Phaiomys* by Dr. Vinogradov.

**Measurements of Type.**—Taken in the flesh: total length, 120 mm.; length of tail, 25 mm.; hind foot, including claws, 18 mm. Skull: condylobasal length, 26 mm.; zygomatic breadth, 15.5 mm.; least interorbital breadth, 3.4 mm.; mastoid breadth, taken just behind the auditory meatus, 12.6 mm.; length of nasals, 7.5 mm.; length of anterior palatine foramina, 4.25 mm.; aveolar length of upper molar series, 6.2 mm. Besides the type there are four paratypes, three skins and skulls, and one alcoholic specimen.

This vole was taken in scattered clumps of grass near small springs that trickled down the side of an escarpment and dried up on the sand. It was active most of the day and lived in holes or burrows in the ground and fed on the succulent bases of the grasses. Apparently it is rather local and not very abundant. It was difficult to trap and two of the five specimens I caught with my hands.