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SIBERIAN ALTAI

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## TWO NEW MAMMALS FROM THE SIBERIAN ALTAI

By N. HOLLISTER.

The following two species of Siberian mammals complete the list of novelties obtained by the expedition organized in the interests of the National Museum and the Museum of Comparative Zoölogy, in 1912, by Prof. Theodore Lyman, of Harvard University.

### **APODEMUS NIGRITALUS**, new species

*Type* from Tapucha, Altai Mountains, Siberia (125 miles southeast of Biisk, and 50 miles northwest of Ongudai). United States National Museum No. 175164, skin and skull of ♂ adult (teeth considerably worn). Collected August 6, 1912, by N. Hollister; original No. 4438.

*General characters*.—A member of the *speciosus-peninsulae* group. Larger and darker colored than *Apodemus peninsulae*; tail relatively much shorter, considerably less than head and body.

*Color*.—Upperparts dark brown, finely lined with blackish-brown; darker on head; nose blackish. Some specimens show considerable chestnut color on rump. Sides lighter than back, with less mixture of blackish-brown, sharply marked from the grayish-white belly. Hands and feet grayish-white, a sharply marked blackish ring around ankle separating the colors of leg and foot. Tail sharply bicolor.

*Skull and teeth*.—Skull like that of *Apodemus peninsulae*, but averaging heavier and larger, the interpterygoid space constantly wider. Teeth essentially as in *peninsulae*.

*Measurements*.—Type: Head and body, 122 millimeters; tail vertebræ, 102; hind foot, without claws, 25. Average of five adults from type locality, compared with average of five adults of *A. peninsulae* from Shansi, the latter in parentheses: Head and body, 110 (87); tail vertebræ, 94 (91); hind foot, 23.4 (22.8). Skull of type: Greatest length, 29; condylobasal length, 27.5; zygomatic breadth, 14.8; palatal length, 15.2; nasals, 11.5; length of mandible, 17; upper tooth row, 4.1; lower tooth row, 4.0.

*Remarks*.—Two species of *Apodemus* occur together in the Altai.

Kastschenko's original description of *Mus tscherga*<sup>1</sup> relates wholly to the smaller species, a form of *Apodemus sylvaticus*; but in his second account of the animal<sup>2</sup> the two species are evidently confused, and the larger species passes as the adult of the smaller. This is plain from a number of statements, among them the measurements given for the hind feet. In the original description of *tscherga* the measurement of hind foot given is 20 millimeters. The young of the larger species, even those smaller than adults of the lesser, have the hind foot 23 or more, and in adults it ranges from 23 to 25. Aside from the greater external measurements, *Apodemus nigritalus* is readily distinguishable from *A. tscherga* by the more brownish color, the conspicuous black anklet, the larger skull with pronounced supraorbital beads, and the presence of eight mammæ instead of six. It appears to be nearly related only to *Apodemus peninsulae*, from which species it is readily separable by its larger size and by the relative length of head and body and tail vertebræ. In *peninsulae* the tail is about equal to, or slightly longer, than head and body. In *nigritalus* it is always considerably less. The ten specimens of *A. nigritalus*, all collected in August, have no traces of spines in the pelage, which is full and soft.

#### SOREX ROBORATUS, new species

*Type* from Tapucha, Altai Mountains, Siberia. United States National Museum No. 175436, skin and skull of ♂ adult (teeth unworn). Collected August 7, 1912, by N. Hollister; original No. 4451.

*General characters*.—A member of the *araneus* group, larger than *Sorex araneus borealis*, with much larger hind foot and relatively smaller teeth (molars actually smaller than in *S. a. tetragonurus*): first two upper unicuspid longer on crown than high at cone, the first nearly one and one-half times as long as high; line of posterior border sharply squared, with long shelving heel equal to posterior height of cusp; and highest point of cusp over anterior third of crown; upper cheek teeth with hypocones very much reduced and without pigment.

*Color of type*.—Back very dark hair brown; sides lighter, more drab; underparts anteriorly buffy-gray, posteriorly pale smoke gray. The tricolor pattern is evident but not conspicuous, and the color areas are not sharply marked. Feet drab brown; tail sharply bicolor, above dark brown, below ecru drab.

<sup>1</sup> Results Altai Zoölogical Expedition 1898, p. 46, Tomsk, 1899.

<sup>2</sup> Ann. Mus. Zoöl. Acad. St.-Pétersbourg, vol. 7, p. 301, 1902.

*Skull and teeth.*—Skull very much larger than that of *S. a. borealis*; braincase even considerably larger than in *S. a. tetragonurus*, broader, longer, and relatively flattened; lambdoid crest well developed in young adult. Incisors as in *araneus*; unicuspid teeth of same relative sizes as in *araneus*, but much longer crowned, the cones thus much wider apart, giving the appearance of wider spacing. The first two upper unicuspids longer than high, the first with length of crown about one and one-half times height at cone; the anterior line of profile steep; the posterior line sharply squared, with long shelving heel as long as posterior height of cusp above this shelf. The highest point of cusp of this tooth is distinctly over anterior third of crown. Second upper unicuspid with crown long, but considerably shorter than in first; third, fourth, and fifth much as in *araneus*. Large upper premolar with hypocone obsolete; first and second upper molars with hypocones much reduced, hardly noticeable, and without pigment. These teeth are in contact only on extreme outer edge, with wide spaces between centers and inner corners. Third upper molar with well developed pigmented protocone. Lower teeth much as in *tetragonurus*, but smaller, the molariform teeth much compressed laterally.

*Measurements of type.*—Head and body, 74 millimeters; tail vertebræ, 41; hind foot, without claws, 14. Skull: (Condylbasal length, estimated from broken skull, 22); breadth of braincase, 9.8; depth of braincase, 5.5; length of mandible, 10.8; length of upper molariform tooth row, 4.5; length of entire mandibular tooth row, 8.3.

*Remarks.*—In a series of ten shrews from the Altai Mountains, nine of which represent the *Sorex araneus borealis* of Kastschenko, this single specimen is conspicuous by its large size, dark color, large hind foot, and peculiar dental structure. Though of the "araneus group" it clearly represents a distinct species, which is readily recognizable in the flesh from the subspecies of *araneus* found in the same forests. The skull was broken by the trap, but the braincase is perfect and the dentition complete.