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OF SIBERIA

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NEW MAMMALS FROM THE HIGHLANDS OF SIBERIA

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Through the interest and liberality of Dr. Theodore Lyman, of Harvard University, the United States National Museum was invited to coöperate with the Museum of Comparative Zoölogy at Harvard, in an expedition to the Altai Mountains, Siberia and Mongolia, during the summer of 1912. The object of the expedition, which was under the personal direction of Doctor Lyman, was to collect the mammals and birds of this region for the institutions interested; with the wonderful wild sheep of the Altai as a special incentive. The results were far beyond the expectations, and among the mammals are several new species, diagnoses of which are here given.

MYOPUS MORULUS, sp. nov.

Type from Tapucha,¹ Altai Mountains, Siberia. No. 175107, United States National Museum; skin and skull; adult ♂. Collected August 6, 1912, by N. Hollister, Orig. No. 4437.

General characters.—Size of *Myopus schisticolor*; coloration darker, more blackish; rusty dorsal area duller and extending forward between ears to center of head; sides and underparts unicolor. Audital bullæ smaller and flatter.

Color of type.—Face between eyes, cheeks, sides, and underparts dark slate gray; nose slightly lighter. Upperparts with rusty stripe from head, forward of ears, extending backward to near base of tail; becoming more intense in color posteriorly, and broadening to cover lower back between hips. Hands like sides; feet and tail black.

Skull and teeth.—Skull like that of *Myopus schisticolor* but with audital bullæ smaller and much flatter. Upper and lower teeth compressed laterally; the enamel loops rounder, and the teeth slightly smaller, though of about same length as in *schisticolor*. Incisors weaker.

Measurements of type.—Head and body, 86 mm.; tail vertebrae, 14; hind foot, without claw, 16. Skull: Condylbasal length, 22.7; nasals, 6.6; upper tooth row, 6.6.

¹Tapucha is 125 miles southeast of Biisk, and 50 miles northwest of Ongudai, on the post road to Kosh-Agatch. The exact locality is 5 miles south of Tapucha, at 6875 feet elevation.

Remarks.—Only a single specimen of this interesting new species was collected. It was caught under a log in a mountain nut-pine forest, in a region of heavy rainfall. The skull was broken by the trap, but has been repaired so that the length and tooth-row measurements are virtually accurate. The discovery of a species of *Myopus* in the Altai goes far toward the fulfillment of Middendorff's prophecy that these lemmings would be found eventually to range across the continent; and his excellent account of the specimen from the coast of the Okhotsk Sea (*Sibirische Reise*, bd. 2, p. 108) seems, in the light of this find, convincing.

SICISTA NAPAEA, sp. nov.

Type from Tapucha, Altai Mountains, Siberia. No. 175195, United States National Museum; skin and skull; adult ♂. Collected August 6, 1912, by N. Hollister. Orig. No. 4427.

General characters.—A yellowish, unstriped species, nearest to *S. flava*; but differing conspicuously in having the ears brown, not black; and with smaller hind foot and shorter tail.

Color of type.—Above yellowish-buff, finely mixed with brownish; ears brown, with rufous spot above and below the base. Underparts pure cream-buff, brighter on lower belly and anal region. Hands and feet grayish-white, a rufous spot above heel. Tail distinctly bicolor; brown above, gray below.

Skull and teeth.—Skull about the size of that of *S. flava*; but with shorter rostrum and more inflated, rounded braincase; zygomata more spreading; audital bullæ larger. Teeth essentially as in *flava*.

Measurements of type, compared with an adult male of *flava*, the latter in parentheses; Head and body, 73 mm. (76); tail vertebrae, 84 (118); hind foot, without claws, 16 (21). Skull of type: Condylbasal length, 18.5; occipitonasal length, 20; zygomatic breadth, 10.5; upper tooth row, crowns, 3.0.

Remarks.—The single specimen of this jumping mouse was caught in a thicket in a very damp piñon forest at 6875 feet elevation. This is doubtless the animal recorded by Kastschenko, from the Little Altai, as *Sminthus concolor* Büchner. The species seems closely related only to *flava*.

ALLACTAGA GRISESCENS, sp. nov.

Type from Chuisaya Steppe (8 miles south of Kosh-Agatch), Siberia. No. 175494, United States National Museum; skin and skull; adult ♀. Collected July 28, 1912, by N. Hollister. Orig. No. 4395.

General characters.—Like *A. mongolica*, but smaller and grayer, with much smaller skull.

Color of type.—General color of upperparts pale drab-gray, more brownish on rump; sides light gray; sides of face and underparts, and rump stripes, pure white. Legs gray outside, white inside; arms, hands, and feet white. Tail brownish above for two-thirds its length, then band of grayish-white, band of black, and tip of pure white; below grayish-white, with black sub-terminal band and white tip.

Skull and teeth.—Skull like that of *mongolica*, but very much smaller, with broader rostrum; teeth smaller.

Measurements of type.—Head and body, 143 mm.; tail vertebrae, 183; hind foot, 66. Skull compared with skull of adult female *A. m. longior*, the latter in parentheses: Greatest length, 36 (30.5); condylo-basal length, 34 (37.5); zygomatic breadth, 23.5 (26); upper tooth row, alveoli, 7.5 (8.4).

Remarks.—This new jerboa seems related only to *A. mongolica* and *A. m. longior*. It is possibly confined to the isolated Chuisaya Steppe. Two specimens were collected.

PHODOPUS CREPIDATUS, sp. nov.

Type from Chuisaya Steppe (eight miles south of Kosh-Agatch), Altai District, Siberia; altitude 7300 feet. No. 175480 United States National Museum; skin and skull; adult ♂. Collected July 28, 1912, by N. Hollister. Orig. No. 4393.

General characters.—Palms and soles completely haired. Externally resembling *P. songarus* and *P. campbelli*. Differs from *songarus* in absence of shoulder stripes, faintness or lack of median stripe on crown and nape, strong suffusion of buffy on sides and underparts, and much smaller, slenderer skull, with large audital bulke. Differs from *campbelli* in shortness of the dorsal stripe, which stops abruptly on rump fully an inch from base of tail; tail buffy, not silvery white; and skull long and slender, with large audital bulke.

Color of type.—Upperparts grayish wood-brown, the hairs wood-brown tipped with blackish; underfur dark slate; a narrow blackish stripe from between shoulders to rump. Lips and cheeks creamy white; ears dark brown and buffy outside, white inside. Tail buffy near root, tip and lower side white. Shoulders bright buff, the three light areas on body and entire underparts whitish, with strong suffusion of buffy.

Skull.—Skull smaller and narrower than a skull of *songarus* from Akmolinsk, Siberia, with greater interorbital breadth and much

larger bullæ; of quite different proportions than skull of *campbelli*; longer and narrower; audital bullæ large.

Measurements of type.—Head and body, 102 mm.; tail vertebræ, 13; hind foot, 13.5, without claws. Skull: Greatest length, 27; condylobasal length, 25; zygomatic breadth, 13; nasals, 11.1; interorbital breadth, 3.7; breadth of braincase, 11.1; upper tooth row, 4.0.

Remarks.—A series of seventeen specimens of *Phodopus crepidatus* was collected. The species seems to have no nearer known relative than *P. campbelli*, from northeastern Mongolia, which it resembles much more than it does *songarus* of the Siberian plains. It inhabits the isolated Chuisaya Steppe, near the Mongolian border, between the Kurai Mountains and the frontier range.

OCHOTONA NITIDA, sp. nov.

Type from Tchegan-Burgazi Pass, Altai Mountains, Siberia (near Mongolian border, south of Kosh-Agatch). No. 175390, United States National Museum; skin and skull; adult ♀. Collected July 8, 1912, by N. Hollister. Orig. No. 4257.

General characters.—Differs from *Ochotona alpina*, its nearest relative, in smaller size, smaller skull, and darker coloration; with more dark reddish-brown and blackish above, and less yellowish below, in fresh fall pelage. Lining of ear cream-buff, not black as in *alpina*; soles of feet considerably darker, almost black.

Color.—Fresh fall pelage: General color of upperparts dark mummy brown, a mixture of russet and black; nose, cheeks, and area behind ear lighter. Ears outside blackish-brown; inside pale cream buff, with no black, a faint narrow band of brownish bordering the rim of buffy. Sides bright cinnamon, with less blackish and brown than back, blending into the pure cinnamon of lower sides and underparts. Hands and feet grayish-buffy, the soles of feet blackish, not brown as in *alpina*. Summer specimens in the long left-over winter coat are much lighter, and lack most of the blackish and cinnamon color. The underfur is broadly dark slate; the individual hairs banded with cream buff and tipped with black. The type specimen shows both pelages, the animal having renewed the coat on the forward half of body.

Measurements of type.—Head and body, 208 mm.; hind foot, 30. Skull: Occipitonasal length, 47.6; condylobasal length, 43.6; greatest breadth, 22.4; length of nasals, 15; least interorbital constriction, 5.1; length of upper tooth row, 8.5; lower tooth row, 8.5.

Remarks.—Pallas described his *Lepus alpinus* from the Altai and Kolywan region, east to Kamchatka. The eastern forms have long since been separated, and inasmuch as two apparently distinct species are found in the region between Kolywan and the Mongolian border, it becomes necessary to further restrict the type locality of *alpina*. The animal described and figured by Pallas, and later by Waterhouse, is unquestionably the northern, large skulled form, represented in the United States National Museum by a single specimen from Barnaul. The pikas from the higher Altai to the southward are smaller, with much smaller skulls; and differ conspicuously in general color, without the striking black inner ear of the northern form. It seems necessary, therefore, to restrict the type locality of *alpina* to the Kolywan and Barnaul region, where the species doubtless inhabits the outlying ranges of the northern Altai, and to provide a name for the pika of the Little Altai to the southeast. True *alpina* may range to that higher part of the Altai system to the southwest of the region inhabited by *nitida*,¹ but the uniform series of thirty-one specimens taken by us in the Tchegan-Burgazi Pass near the Mongolian border and in the forested mountains near Tapucha, would seem to indicate that *nitida* is the only species found in this general region. Pikas of the very different *daurica* and *ladacensis* groups have been described by Thomas from a comparatively short distance to the southeast, on the Mongolian side of the range.

MUSTELA LYMANI, sp. nov.

Type from Tapucha, Altai Mountains, Siberia. No. 175198, United States National Museum; skin and skull; adult ♂. Collected August 10, 1912, by N. Hollister. Orig. No. 4494.

General characters.—A stoat related to *Mustela erminea*, but with summer pelage very much paler, the reddish-brown color entirely wanting; no white spot behind eye; underparts with only the faintest tinge of very pale yellow; tail long.

Color of type, summer pelage.—Upperparts, including arms above to wrist, and legs above to middle of foot, Isabella color; slightly darker on head and center of back; no white spot behind eye and ear only faintly rimmed with lighter color. Hands above from wrist, and terminal half of feet above buffy-white. Anterior half of tail

¹There are probably no pikas in the immediate vicinity of Kolywan and Barnaul, the country being much too flat. The specimens probably came from some one of the outlying ranges of the Altai back from the Obi and northward from the "Little Altai", the type locality of *nitida*.

above, darker than general tone of back; below buffy at root, then yellowish-buff, then with band of brown; terminal half black above and below. Underparts of body, limbs, and feet, white, with very faint tinge of pale straw on arm pits and lower belly. Lips white.

Skull and teeth.—Skull almost precisely like skulls of *Mustela erminea* from Sweden. Teeth, especially upper molar, lower carnassial, and last lower molar, smaller than in *erminea*.

Measurements of type.—Head and body, 275 mm.; tail vertebrae, 103; hind foot, without claws, 43. Skull: Condylbasal length, 47.6; palatal length, 20; least interorbital constriction, 10.6; upper molar-premolar row, 11; lower molar-premolar row, 12.5.

Remarks.—This new stoat differs conspicuously from *Mustela erminea* in the color of the upperparts, and appears to resemble in that character the *Mustela erminea ferghanae* of Thomas from Ferghana. From the latter species it differs, however, in its much greater size, less yellow in coloration below, the absence of a white spot behind eye, and the much longer tail, as well as in other minor details.

MYOTIS PETAX, sp. nov.

Type from Kosh-Agatch, Chuisaya Steppe, Altai District, Siberia; Altitude 7300 feet. No. 175189, United States National Museum; skin and skull; adult ♀. Collected July 30, 1912, by N. Hollister. Orig. No. 4412.

General characters.—Like *Myotis daubentonii* but slightly larger and less reddish-brown; skull larger and teeth actually smaller.

Color of type.—Above sepia, lacking the reddish-brown tint of *daubentonii* in good coat. Below white, the bases of hairs seal brown. White of underparts extending on checks to base of ears. Wings blackish-brown; interfemoral membrane dark brown above, much lighter below.

Skull and teeth.—Skull larger than in *M. daubentonii* (longer and with broader braincase, rostrum, and palate). Teeth smaller than in *daubentonii*; narrower, but with tooth row of about same length.

Measurements of type.—Head and body, 55; tail vertebrae, 37; hind foot, without claw, 10; forearm, 39.5. Skull: Greatest length, 14.5; zygomatic breadth, 9.2; least interorbital constriction, 4.2; breadth of braincase, 7.6; upper tooth row, including incisors, 6.1.

Remarks.—While this form may be found eventually to intergrade with true *daubentonii*, the relative size of skull and teeth, and the marked differences of color pattern and tone, do not warrant considering it at present a geographical race of that species. The type was captured in a house in Kosh-Agatch; far from cliffs or trees, on the steppe.