

SMITHSONIAN

MISCELLANEOUS COLLECTIONS

VOL IV

QUARTERLY ISSUE

PART 2

NOTES ON A SMALL COLLECTION OF MAMMALS FROM THE PROVINCE OF KAN-SU, CHINA

BY MARCUS WARD LYON, JR.

ASSISTANT CURATOR, DIVISION OF MAMMALS, U. S. NATIONAL MUSEUM

Mr. W. W. Simpson, of Taocheo, province of Kan-su, north-western China, has recently sent to the U. S. National Museum a small but interesting collection of mammals, and among them are two new species. The general region of northwestern China had previously been entirely unrepresented, so far as mammals are concerned, in the Museum collection. In addition to the specimens listed below, a very young spotted fawn of a rather large deer was collected.

Mr. Simpson also sent to the Museum a photograph from a freshly killed specimen of what is apparently the rare goat antelope *Nemorrhædus argyrochatus* (Heude), shot by Mr. W. N. Ruhl in the fall of 1906. Unfortunately no part of the animal was saved. This photograph is reproduced on plate XVI.

PETAURISTA XANTHOTIS (Milne Edwards)

1868-1874. *P[teromys] xanthotis* MILNE EDWARDS, Recherches Mammifères, p. 301.

The skin and skull of a large flying-squirrel may be referred to this species. Milne Edwards considered his tentative *Pteromys xanthotis* as identical with his *P. melanopterus*. The animal sent by Mr. Simpson, however, differs from the description of *P. melanopterus* in almost precisely the same manner that *P. xanthotis* is said to differ. The skull of the present specimen is much larger and heavier than Milne Edwards' natural size illustrations (Recherches Mammifères, pl. 15a, fig. 2) of *P. melanopterus*. I cannot believe

that this difference is due to age, for while the Taocheo skull is fully adult, it is not that of an old individual.

External measurements in the flesh, taken by the collector (Cat. No. 144,021, U. S. N. M.): Total length, 780 mm.; tail vertebræ, 350; hind foot, 80. Cranial measurements: Greatest length, 71.5 mm.; zygomatic breadth, 48.5; basal length, 62.4; basilar length, 59; maxillary tooth-row, 18; mandibular tooth-row, 18.6.

MARMOTA ROBUSTA (Milne Edwards)

1870. *Arctomys robustus* MILNE EDWARDS, Nouvelles Archives du Muséum, VII, Bull., p. 92.

1868-1874. *Arctomys robustus* MILNE EDWARDS, Recherches Mammifères, p. 309, pl. XLVII, pl. XLIX, fig. 2.

Seven marmots, two adults and five half-grown young, collected by Mr. Simpson, seem to be identical with *Arctomys robustus* Milne Edwards. The adults are in worn pelage and the black about the head is less conspicuous than indicated in the original descriptions, while the black on the end of the tail has changed to dull reddish brown. In the young specimens the tails are black-tipped. The skulls of the two adults agree in all essential respects with the illustrations of the skull of the type of *Marmota robusta*, the only noticeable differences being the rather longer and wider nasals and longer sagittal crests in the two Taocheo skulls.

External measurements, made in the flesh by the collector, of the two adults, males (Cat. Nos. 144,038 and 144,039 respectively): Total length, 645 mm., 657 mm.; tail vertebræ, 162, 145; hind foot, 102, 92. Cranial measurements of the same two specimens respectively: Greatest length, 103 mm., 103.5 mm.; greatest width, 65, 64.5; basal length, 96.5, 98; maxillary tooth-row (alveoli), 25.6, 25; mandibular tooth-row (alveoli), 23.6, 23.5.

MUS NORVEGICUS Erxleben

Five specimens of the common house rat, an adult and four young of varying ages, were secured by Mr. Simpson. He fails to state whether they were taken in houses or in the open.

MYOTALPA CANSUS, new species

Type.—Skin and skull of adult female, Cat. No. 144,022, collected at Taocheo, Kan-su, northwestern China, May 7, 1906, by W. W. Simpson. Original number, 7.

Diagnostic characters.—Similar to *Myotalpa fontanierii* (Milne Edwards),¹ but nasals much broader anteriorly, zygomata more spreading, and claws of second and fourth manal digits practically equal in length (in *M. fontanierii* claw of second manal digit is distinctly longer than that of fourth).

Color.—Base of fur everywhere slate color, the hairs usually with light ochraceous-buff or dull pinkish buff terminal or subterminal bands, especially on the upper parts of the body, where the mixture of ochraceous-buff and slate produces a general effect not unlike clay color. On the underparts the slate bases of the hairs are more conspicuous than the ochraceous-buff tips. On the throat and chin there are practically no ochraceous tips, and the slate color is rather lighter than elsewhere. The light markings on the head so conspicuously shown in Milne Edwards' plate of *Myotalpa fontanierii* (Recherches Mammifères, pl. 7) are practically absent in *M. cansus*. Just above the naked nose area there is an ill-defined light buffy patch, becoming grayish between the eyes, and thence blending in with the color of the upperparts. Tail nearly naked, clothed with a few scant whitish hairs. Dorsal surface of hind feet practically naked, containing a few short light-colored hairs. Dorsal surface of fore feet covered with short dark-grayish hairs.

Fect.—Fore foot with five digits; the first very short, laterally compressed, and with a much laterally compressed claw, 3 mm. long; second digit with a long, slender, curved claw, 11.5 mm.; third digit with long and rather heavy claw, 14 mm.; fourth digit with claw equal in length to that of second digit, but much heavier, nearly as thick as claw on third digit; claw on fifth digit 7 mm. in length. Hind foot with five digits, the first small and short, with 3 mm. claw; second digit short and stout, claw 5 mm.; third and fourth digits subequal in size, claws respectively 7.5 mm. and 7 mm.; fifth digit small, intermediate in size between first and second, its claw 4.5 mm.

Ears.—The ears are reduced to a mere ridge about 1 mm. high, around a meatus about 4 mm. in diameter.

Skull and teeth.—The skull closely resembles that of *Myotalpa fontanierii* in general form and size. Apparently it is much more angular and with more prominent ridges, characters, however, which may be the result of age. The zygomata are more bowed outward than they are in *M. fontanierii*, and the nasal bones have a peculiar

¹ Ann. des Sci. Nat., 5th ser., VII, 1867, p. 376, and Recherches Mammifères, pp. 122-126, plate 7, figs. 1-4, plate 8, figs. 6-9 and 13, plate 9, figs. 5 and 8.

terminal expansion and subterminal contraction, better shown in figure 5, plate xv, than described. The enamel pattern of the teeth does not differ from that of *M. fontanicrii*, illustrated by Milne Edwards.

Measurements.—Field measurements taken in flesh by the collector: Total length, 260 mm.; tail, 55; hind foot, 36. Cranial measurements of the type: Greatest length, 47 mm.; greatest width, 34; basal length, 44.8; basilar length, 38; interorbital constriction, 6.4; maxillary tooth-row (crowns), 10.3; mandibular tooth-row (crowns), 10.9.

Specimens examined.—One adult, the type, and four half-grown young, all from Taocheo.

Remarks.—Although closely related to *Myotalpa fontanicrii*, *M. cansus*, with its differently shaped nasal bones and claws, is a well marked form. The different tooth patterns for members of the genus *Myotalpa*, as illustrated by Milne Edwards, seem to me to be of more than specific value. It is probable that when the fauna of Asia is better known *Myotalpa* will be found to contain two or more groups of species that may be regarded as subgenera.

OCHOTONA CANSUS, new species

Type.—Adult male, skin and skull, Cat. No. 144,030, U. S. N. M.; collected at Taocheo, Kan-su, China, June 8, 1906, by W. W. Simpson. Original number, 13.

Diagnostic characters.—Closely allied to *Ochotona tibctana* (Milne Edwards),¹ but smaller and zygomatic width of skull considerably narrower.

Color.—General color of upperparts and sides wood-brown, irregularly lined or grizzled with blackish. Behind each ear and toward the back is an ill-defined light spot. On the sides of neck the wood-brown is tinged with cinnamon. Underparts grayish, like No. 9 gray, Ridgway, tinged along the median line and on throat with dull ochraceous-buff. Upper surfaces of fore and hind feet dull cream buff. Base of fur of upperparts slate black; of underparts, slate color. Soles of fore and hind feet densely clothed with light, dirty-brownish hairs.

Skull and teeth.—(Plate xv, figs. 1-3). The skull and teeth are in general similar to those of *Ochotona tibctana*, but evidently

¹ Nouvelles Archives du Muséum, vii, Bull., p. 93, and Recherches Mammifères, p. 314, pl. XLVIII, and pl. XLIX, fig. 1.

smaller, zygomatic width distinctly less, and audital bullæ larger and the depression of the cranium between cerebrum and cerebellum more pronounced.

Measurements.—External measurements of the type and an adult female (Cat. No. 144,029, U. S. N. M.), taken in the flesh by collector: Head and body, 152, 161 mm.; hind foot, 25, 26; ear from crown, measured from dry skin by writer, 13, 14. Cranial measurements of the type and Cat. No. 144,029: Greatest length, 36.6, 34.3; zygomatic width, 16.4, 16.1; basal length, 30.3, 29.5; maxillary tooth-row (alveoli), 7, 6.9; mandibular tooth-row (alveoli), 7.2, 6.8.

Specimens examined.—Four adults and three young.

Remarks.—Although I have been unable to compare *Ochotona cansus* directly with *O. tibetana*, an examination of the natural size figure of the skull of the latter shows the two forms to be distinct. The differences are too great to be accounted for by inaccuracy in drawing. The length of hind foot in *O. tibetanus* is given as 31 mm., while in *O. cansus* it is only 25–26 mm. I fail to understand, however, why the total length of *O. tibetanus* is only 134 mm., while that of *O. cansus* is between 150 and 160. It may possibly be accounted for by Milne Edwards' measurement being taken from a specimen in alcohol. The account of *Ochotona hodgsoni* (Blyth) given by Bonhote¹ shows that animal to be larger, reddish brown instead of wood-brown in color, and upper surfaces of feet rufous instead of buffy.

¹ Proc. Zoöl. Soc., London, 1904, II, p. 218.

EXPLANATION OF PLATES

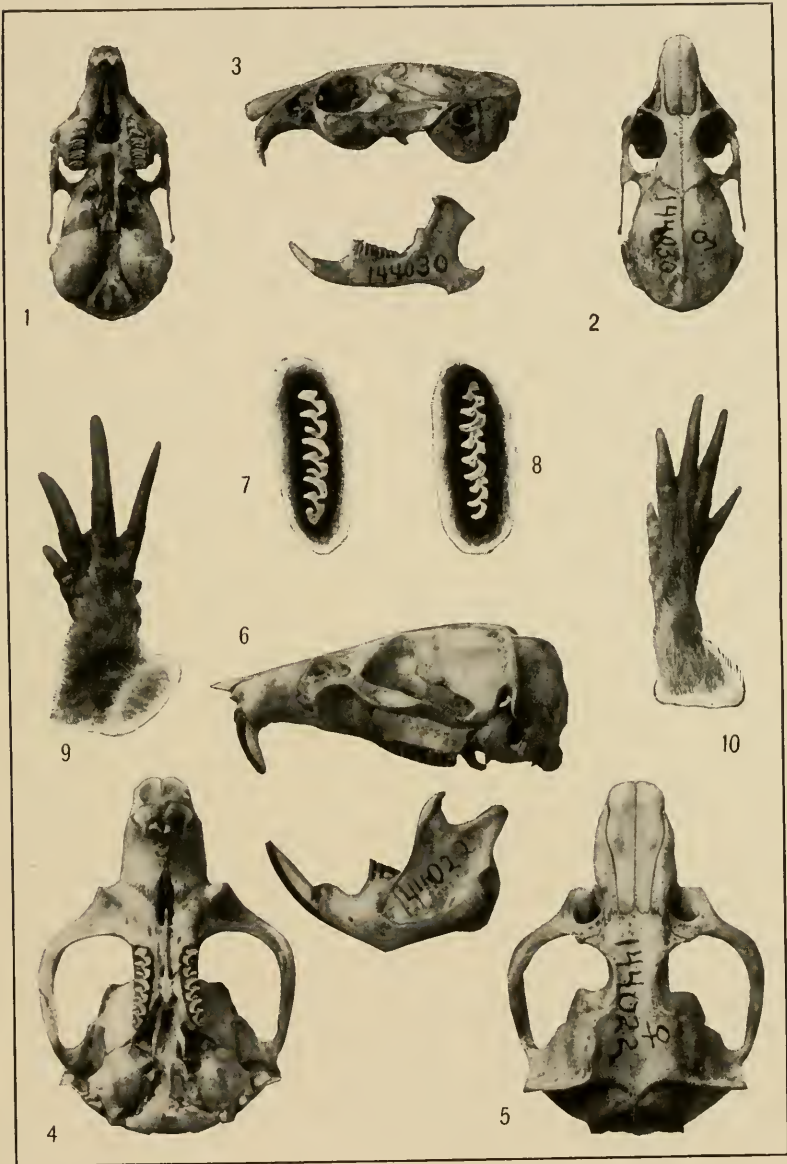
PLATE XV

All figures natural size except 7 and 8, which are enlarged about one and three-fourths.

- FIG. 1. Ventral view of skull of *Ochotona cansus*, Cat. No. 144,030, U. S. N. M., type, from Taocheo, province of Kan-su, China.
2. Dorsal view of same.
 3. Lateral view of same.
 4. Ventral view of skull of *Myotalpa cansus*, Cat. No. 144,022, U. S. N. M., type, from Taocheo, province of Kan-su, China.
 5. Dorsal view of same.
 6. Lateral view of same.
 7. Enlarged view of right upper molar series of same.
 8. Enlarged view of right lower molar series.
 9. Left fore foot of same.
 10. Left hind foot of same.

PLATE XVI

Nemorrhadus argyrochactus (Hende), shot by W. N. Ruhl, near Taocheo, China, in fall of 1906.



MAMMALS FROM KAN-SU, CHINA
For explanation see page 138



GOAT ANTELOPE, KAN-SU, CHINA

For explanation see page 138