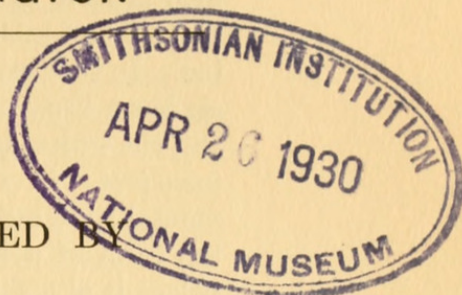


PROCEEDINGS
OF THE
BIOLOGICAL SOCIETY OF WASHINGTON



NEW ASIATIC MAMMALS COLLECTED BY
F. R. WULSIN.

BY A. BRAZIER HOWELL.

Among the more than two hundred Asiatic mammals collected by F. R. Wulsin while on the Central China Expedition of the National Geographic Society and presented by that organization to the United States National Museum, are specimens representing four undescribed subspecies, which may be known by the following diagnoses.

Arthur deC. Sowerby (Journ. Mamm., 1. 1920, p. 223) has stated that there has not heretofore been available any specimens of black bear from the forested country northeast of Peking, where the presence of this animal has been reported. It was to be expected that the bear of this area might represent a distinct race and the present material, consisting of an old and two younger females, in addition to a small cub, shows this to be the case. In recognition of the value of Mr. Wulsin's work in accumulating specimens of Chinese mammals this may be known as follows:

***Selenarctos thibetanus wulsini*, subsp. nov.**

Type.—Female adult, skin and skull No. 240,668, U. S. National Museum, from the area of Eastern Tombs, Chihli, China; purchased in Peking by F. R. Wulsin: original No. 1140.

Diagnosis.—Similar to the race *ussuricus* but the white chin spot more restricted and size probably slightly smaller. The skull is relatively somewhat broader, with narrower interorbital; jugal consistently much more slender (9 to 10 vs. 13.5 mm. in height); and last upper molar longer.

Skin.—This specimen was selected as the type because it is the only one that is thoroughly adult. Although the skull shows that it is not an aged individual the skin appears somewhat senescent and is doubtless not entirely characteristic of the usual adult. It shows a very marked

grizzled graying of the face, and to a lesser extent, of the axillary region and about the groin. The chin also is lightly grizzled and the white mental spot is practically obsolescent. The crescent upon the chest is pinkish buff rather than pure white, which is probably the result of staining. In the two younger adults there is no grizzling whatever. The muzzle has a brownish tinge, which is less pronounced than in true *thibetanus*, and the white chin spot is about 35 mm. in diameter, being smaller than in *ussuricus*. In a juvenile of the race *moupinensis* there is a small white mental spot, but in an adult of *thibetanus* from the Himalayas this takes the form of a whitish border to the lower lips. The remainder of the pelage is of a shining black as usual.

Skull.—Fortunately the skull of the type is precisely the same size as one of a female *ussuricus* at hand. In the latter the nasal and premaxillary sutures are distinct, while in the type of *wulsini* they have become obliterated, suggesting that the latter race may be the smaller. In comparing these two skulls it is seen that the interorbital is narrower, the jugal is consistently and strikingly more slender in vertical dimension, and the last maxillary molar is both wider and longer—longer even in the subadult females than in a large adult male *ussuricus*. In the type the base of the rostrum is conspicuously narrower than at the canines, but this detail may be purely individual, for it is not a characteristic of the other skulls.

Measurements.—The skins lack measurements. The skull of the type measures: length, 293; width, 193; least interorbital width, 66; height through postglenoid process of the squamosal, 110; length of the last maxillary molar, 30.5; and greatest molar width, 16.5 mm.

Remarks.—These specimens were purchased from a taxidermist in Peking by Mr. Wulsin, who took pains to ascertain that they were killed in the Eastern Tombs district. Here I understand that the forests recently covered an area of some 4000 square miles, but that they are being rapidly destroyed.

In spite of the great number of races of pika already described from China and the adjacent territories, it is now necessary to add to the list two more, representing groups which heretofore have evidently not been detected so far south in this region as the province of Kansu.

***Ochotona (Pika) alpina argentata*, subsp. nov.**

Type.—Female adult, skin, skull and skeleton No. 240,726, U. S. National Museum, from 15 miles north-northwest of Ninghsia, northern Kansu, China. Collected May 16, 1923, by F. R. Wulsin: original No. 1059.

Diagnosis.—A relative of *O. a. nitida* but winter (spring) pelage a paler silvery gray with the yellowish tinge over the back very much reduced. Head paler, and face, as well as the hinder rump, pronouncedly yellowish. Feet white above, grayish below, and longer than in *nitida*.

Skin.—The two specimens available were taken in May and are still in winter pelage that is almost unworn. The entire back is of a striking

silvery color, the hairs being a pale steel grayish with fine black tips. This is modified in the axillary region by a slight tinge of ochraceous, which occurs also over the nape in the type only. The hinder rump is strongly buffy and this color covers the muzzle also, more pronouncedly and palely than in *nitida*. The feet are white with a suggestion of buffiness and are much paler than in all but a very few specimens of *nitida*, and the soles, instead of being sooty, are grayish. The underparts are white tinged with buffy, and not strongly ochraceous as in *nitida*.

Skull.—Unfortunately neither skull is perfect, but that of the type lacks only the floor of the braincase and bullae. Compared with *nitida* the orbit is markedly larger (in length, as 12.2 compares with 10, in skulls of equal size), and the posterior palatine foramina are longer.

Measurements.—Collector's measurements are: head and body, 220 (the type) and 208; foot, 32 and 35 (33.5 and 33 in the dried skins). The skull of the type measures: total length, 48; width, 24, and interorbital width, 5 mm.

Remarks.—The interrelationship of several of the more northern and western races of this subgenus has never been properly settled, but the above evidently constitutes a perfectly tenable form and is an interesting addition to the fauna of this portion of Kansu.

Ochotona (Ochotona) erythrotis vulpina, subsp. nov.

Type.—Male adult, skin and skull No. 240,723, U. S. National Museum, from 30 miles west of Sining, Kansu, China. Collected August 12, 1923, by F. R. Wulsin: original No. 1103.

Diagnosis.—A pika of the true *erythrotis* type with ears and back in summer pelage of the same bright reddish color, but size smaller. Orbits and posterior palatine foramina markedly smaller.

Skin.—The two adults and one juvenile at hand are evidently in summer pelage (August), although this is as long and full as one would expect to occur in winter. The coloration is a bright and uniform reddish exactly as represented over the anterior half of the second figure of Buchner's plate 21 in his original description of *erythrotis*. This color covers the entire dorsal surface of the body, including the head and ears. The belly, chin, legs and feet are white, the hairs being plumbeous at base, but the throat is faintly tinged with reddish and there is a bit of this color upon the outer part of the hind legs. The ears are very large, and considerably larger than in the plate of *erythrotis* mentioned above, or in *alpina*, and their reddish color is characteristic of the former group.

Skull.—In comparison with that of *erythrotis typicus* the skull of *vulpina* has larger orbits, bullae a trifle smaller, and the posterior palatine foramina very much shorter (6 vs. 9 mm.). The frontal vacuities are of fair size.

Measurements.—Collector's measurements of the two adults are: head and body, 215 in both, and foot, 30 (the type) and 34, but these figures seem to be inaccurate for in the dried skins the foot measures 37.5 in both. The skull of the type measures: total length, 37.3, width, 13.4, interorbital width, 6.2, and length of posterior palatine foramina, 6 mm.

Remarks.—The discovery of this Chinese race with summer pelage exactly comparable to that of typical *erythrotis* causes me to question whether the relationship of the browner, darker forms of this subgenus such as *gloveri*, are closer to *erythrotis* than merely subgeneric.

***Pseudois nayaur caesia*, subsp. nov.**

Type.—Male, young adult, skin and skull No. 240,683, U. S. National Museum, from Archuen, Minshan Mountains, 140 miles south of Lanchow, Kansu, China. Collected September 4, 1923, by F. R. Wulsin: original No. 1129.

Diagnosis.—A bharal with brown tints entirely suppressed in the summer coat: lateral black line of the body reduced and no blackish facial marks, at least in individuals of this age. Horn tips of males projecting rearward almost parallel to body axis.

Skin.—In the typical race the pelage is browner in summer and grayer in winter, but in *caesia* the summer pelage shows no trace of brown, while the winter coat is very faintly so tinged. The type is still in summer coat, with but little evidence of wear, and this is uniformly steel gray with fine whitish ticking caused by annulations of some of the hairs. As usual the tail is black, the black striping of the hind limb is continuous and that of the foreleg is interrupted by the white knee. The side stripe is not continuous with that of the hind leg and is restricted both in width and in length, and does not extend nearly to the axilla. In the type the hairs of the midbelly are extensively tipped with brownish gray, but this is not so in the case of the females. The hairs of the lower throat are white at base and, especially centrally, are so extensively tipped with black as to form an area solidly black; but more laterally many of these hairs are white practically to their tips. The hairs of the side of the face are coarsely annulated dark gray and whitish, while along the center of the nose the darker markings of the hairs greatly preponderate, making an illly defined line: but there is no black upon the face. May females from northern Kansu are still in the winter coat and are considerably browner than the type. Black body marks are limited to a small patch upon the brisket, which evidently extends into the axillary region, but the hair here is worn almost entirely away by the action of the forelegs. There is no vestige of the lateral black stripe which is present upon the body of females of the typical form, and the face is no darker than the back.

Skull.—The skull of the type indicates an animal perhaps four years of age, with nasal, lachrymal, and maxillary sutures entirely distinct. Unfortunately there is available no adult male skull of typical *nayaur* with which to make comparisons. Two weathered skulls from rams of good size (horns with basal circumference of 243 and 232 mm.) indicate that the form of the horns in *caesia* is somewhat different, for near the extremities the tips turn not only down, but directly backward parallel with the body axis and then slightly upward, which is a shape different from that shown in the numerous illustrations of *nayaur* throughout the literature.

Measurements.—Collector's measurements of the type are: head and body, 1620; tail, 150; hind foot, 350; and ear, 115 mm. The skull of the type measures: greatest length, 250; greatest width, 132; greatest length of nasals, 83 mm. The basal circumference of the horns is 212; length of horn over curve of ridge, 370; and distance between the horn tips, 540 mm.

Remarks.—Hodgson originally described the bharal under the name *nayaur*, subsequently changing it to *nahoor*. Under current nomenclatural usage such action is not permitted, for the older name did not constitute an obvious misprint for *nahoor*, and in consequence the former must stand. The comparative material in the National collection is not at all satisfactory in this instance, but I have no hesitation in naming this race as new, for there are so many excellent illustrations and descriptions of *nayaur* throughout the literature that the distinctiveness of the Kansu animal seems to be beyond question, a fact that has been predicted by more than one investigator. The new race is represented in the National Museum by a pair of winter yearlings or two-year-olds, a pair of summer adults, two lambs and two weathered rams' skulls.



Howell, A. Brazier. 1928. "New Asiatic mammals collected by F. R. Wulsin." *Proceedings of the Biological Society of Washington* 41, 115–119.

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