

AMERICAN MUSEUM NOVITATES

Number 383

Published by
THE AMERICAN MUSEUM OF NATURAL HISTORY
New York City

Nov. 4, 1929

59.9,32 M (8)

TWO NEW GENERA OF RODENTS FROM SOUTH AMERICA

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The American Museum has been fortunate in the acquisition of mammal material from South America, and in recent years the collections from this region have been greatly increased. In identifying these specimens, undescribed forms are being discovered, and pending the more detailed final reports which will be published on the particular expeditions or localities of major importance, it is deemed advisable to give preliminary descriptions of the material new to science.

Among the many interesting mammals collected by Mr. G. H. H. Tate in northern Venezuela, in 1925, there are two specimens of fish-eating rat which represent a new genus. This capture considerably extends the eastern range of the group of which *Ichthyomys* is the best known member and rather hints that these rodents, difficult to trap and apparently nowhere abundant, may be much more widely distributed than we have hitherto imagined. The fact that the new rat calls for the erection of a genus is also suggestive, for this genus makes the fifth in the South American group of highly specialized, fish-eating rodents, and we are finding many intermediate characters to bridge over the gap from the generalized, terrestrial cricetines. Oddly enough, the first described genus of the group, *Ichthyomys*, is the most highly specialized in the characters of predatory dentition and of modified hind foot. *Anotomys* alone of the other genera has a comparable swimming organ in the broadly fringed foot; the three remaining genera of so-called fish-eating rats have the hind foot much narrower and less widely fringed with stiff hairs than in *Ichthyomys*. The new genus may be known as *Daptomys*.

DAPTOMYS, new genus (Cricetidæ)

DESCRIPTION.—A small rat of the so-called fish-eating group typified by *Ichthyomys* to which it is closely related. External form not highly modified for an aquatic habit; hind feet of normal proportions, not developed into broad swimming organs, marginal fringe of hairs scarcely discernible; ear small but noticeable; upper lip narrowly cleft (judging from dried skins); tail densely haired; pelage showing moderate aquatic specialization, composed of close underfur and hard, glistening

guard-hairs. Skull most like that of *Ichthyomys*; rostrum broad and heavy; zygomatic arch incomplete; brain-case but slightly inflated; superior outline essentially a straight line; interparietal a very narrow strap-shaped element; supraorbital foramen opening laterally; incisors sharp and predatory in type, anterior faces of incisors slightly inclined toward each other; molar dentition very much as in *Ichthyomys* except for last molar which is somewhat smaller in upper jaw, decidedly smaller in the lower, and with only a rudiment of the posterior half of the pattern shown by *Ichthyomys*; bullæ inflated.

GENOTYPE.—*Daptomys venezuelæ*, new species.

Daptomys venezuelæ, new species

TYPE.—No. 69907, Amer. Mus. Nat. Hist.; ♂ ad.; Neveri, about 15 miles west of Cumanacoa, northern Venezuela; altitude 2400 feet; March 8, 1925; collector, G. H. H. Tate. The type is a skin in good condition accompanied by its skull and trunk skeleton.

GENERAL CHARACTERS.—About the size of *Ichthyomys hydrobates* of Merida, Venezuela, but differing conspicuously in size and development of hind foot, character and color of pelage, and in cranial characters; superficially resembling *Neusticomys monticolus* of the Ecuadorean Andes, with which it agrees in the degree of aquatic specialization of hind foot, character and color of pelage, and in some cranial characters, such as inflated bullæ and lateral position of supraorbital foramina, but differing from it in heavier built skull, broader rostrum, and less inflated brain-case.

DESCRIPTION.—Color above, uniform blackish brown, the tips of the long hairs glistening black and the pelage slate-colored at the base; sides of head and body slightly lighter in tone than back; underparts grizzled gray and slate-color, the tips of the long hairs silvery whitish; tail brownish black above and below, the hairs quite long and thick; toes of forefoot whitish, the rest of upper surface of forefeet clove-brown; hind feet above, hair-brown, sparsely haired.

Skull strongly built; rostrum thick and heavy; interorbital region with but little constriction, about as broad as rostrum; top of skull flat, nasals, frontals, and parietals forming a straight line in profile; supraorbital foramina opening laterally into orbit rather than upward as in *Ichthyomys*; brain-case but slightly rounded, showing very little inflation; zygomatic arch incomplete and reduced to mere thread just posterior to the orbit, where a short gap occurs; parietal a very narrow element, but with considerable transverse extent; bullæ moderately inflated and not pinched in anteriorly as in *Ichthyomys*; incisive foramina fairly long and broad, not quite reaching to plane of first molars; a noticeable pair of processes just anterior to and outside of the first upper molars, on the anterior zygomatic root; incisors slender, acutely pointed, their anterior faces slightly inclined toward one another; molars simple, last upper molar quite small, a mere peg, last lower molar with but one functional lamina or "cusp."

MEASUREMENTS.—Taken in the flesh: total length, 236 mm.; length of head and body, 131; tail vertebræ, 105; hind foot, 27. Skull, greatest length, 28.5; length of nasals, 10.2; breadth of rostrum just anterior to zygomatic root, 5.9; zygomatic breadth, 13.6; interorbital breadth, 5.4; breadth of brain-case, 12.9; incisive foramina, 4.7×2.0; length of upper molar series, 4.0; auditory bullæ, 5.3×4.7.

A COMPARISON OF THE FIVE KNOWN GENERA OF THE *Ichthyomys* GROUP

	Hind Foot	Character of Pelage	Ear	General Character of Skull	Last Lower Molar
<i>Ichthyomys</i> (Based upon 26 specimens)	Broad, heavily fringed with stiff hairs	Semi-hispid, long guard-hairs abundant	External ear small but functional conch present; bullæ not inflated	Strongly built, rostrum heavy, brain-case inflated laterally	Tooth divided into two easily distinguished subequal sections
<i>Anotomys</i> (3 specimens)	Ditto	Soft, guard-hairs comparatively few in number	External ear rudimentary, no functional conch; bullæ not inflated	Not so heavily built, rostrum more slender, nasals meeting frontals at an angle, brain-case inflated	Ditto. Posterior section about half as large as anterior
<i>Daptomys</i> (2 specimens)	Not very broad; marginal hairs weakly developed, scarcely visible	Fairly soft, guard-hairs not so abundant	Conch present and fairly conspicuous; bullæ inflated	Strongly built, rostrum heavy, brain-case rather small	Posterior section reduced to mere vestige
<i>Rheomys</i> (1 specimen)	Ditto. Hallux not reduced, tip of claw reaching beyond most posterior plantar tubercle	Ditto	Ditto	Not especially robust, rostrum slender (comparatively), brain-case moderately rounded	Posterior section reduced but $\frac{1}{2}$ - $\frac{1}{2}$ as large as anterior section
<i>Neusticomys</i> (19 specimens)	Not broad, fringe weakly developed; hallux reduced, tip of claw not reaching to plane of most posterior plantar tubercle	Soft, guard-hairs inconspicuous	Ditto	Ditto	Posterior section reduced to vestigial cone

Daptomys appears to be intermediate between the highly specialized *Ichthyomys* and *Anotomys* on the one hand, and the more generalized *Rheomys* and *Neusticomys* on the other. Externally the new form is most like *Rheomys* and *Neusticomys*; indeed, on the basis of skins alone, the three might well be classed as congeneric. The skull of *Daptomys* has more in common with the skull of *Ichthyomys*, for the skulls of both these genera are much more heavily built than in the case of *Rheomys* and *Neusticomys*.

Among the mammals collected by Mr. G. H. H. Tate on the summit of Mt. Roraima, British Guiana, is a small series of a rodent which appears to be somewhat intermediate in character between *Akodon* and *Oxymycterus*. For this mouse the following new genus is proposed.

PODOXYMYS, new genus (Cricetidæ)

GENERAL CHARACTERS.—A mouse with the external appearance of a dark-colored *Akodon* and the skull of an *Oxymycterus*.

DESCRIPTION.—Claws of forefeet long and slender, slightly longer than those of hind feet; eye small; tail about as long as length of head and body; pelage long and lax. Skull long and slender, especially in anterior half; zygomatic plate narrow and with backward sloping anterior margin; interparietal very small; incisive foramina very long and reaching from just posterior of incisors well beyond plane of first molars.

GENOTYPE.—*Podoxymys roraimæ*, new species.

***Podoxymys roraimæ*, new species**

TYPE.—No. 75586, Amer. Mus. Nat. Hist., ♀ ad.; summit of Mt. Roraima, British Guiana; altitude 8600 feet; November 27, 1927; collector, G. H. H. Tate. The type is a skin in good condition accompanied by its skull, and trunk in alcohol. The skull is in good condition except for slightly crushed interparietal region and fragments broken out midway on each jugal.

GENERAL CHARACTERS.—External appearance that of a dark-colored, long-tailed *Akodon*, with long, slender claws (which suggest the generic name); skull with long, slender rostrum, narrow zygomatic plate and general appearance of *Oxymycterus*.

DESCRIPTION.—Pelage long and lax, 10–11 mm. long on back, blackish slate at base and for most of the length of the hair, only the tip being colored. Above, finely mixed clay-color and blackish, the minute specks of color at the tips of the hairs being insufficient to dominate the black and the general impression resulting in a rather dark pelage; there is a tendency (shown by two out of five specimens) for the color pattern to be darkest on the rump, but otherwise the upperparts are fairly uniform; sides of head and underparts slightly lighter in tone than back; hands and feet clove-brown above; tail about half of total length, very sparsely haired, hair-brown

above and below; ears of fair size but partially hidden in the long pelage; eye rather small; claws of forefeet long (third claw extending 3 mm. beyond pad), slender, strongly compressed laterally, slightly curved, those of hind feet a trifle shorter.

Skull long and slender, with marked resemblance to *Oxymycterus*. Rostrum elongate; interorbital region approximately parallel-sided, no trace of supraorbital beading, margins rounded; brain-case proportionally rather small, evenly rounded; zygomatic arches scarcely flaring beyond plane of brain-case, weak and thread-like at mid-point; interparietal greatly reduced, a mere slip; incisive foramina very long, narrow, and extending almost the entire length of the diastema, the posterior termination reaching well beyond plane of first molars; interpterygoid fossa broad; bullæ of moderate size, slightly inflated; dentition presenting no unusual features, m¹ with no notch on anterior face.

MEASUREMENTS.—Taken in the flesh: total length, 196 mm.; length of head and body, 101; tail vertebrae, 95; hind foot, 23. Greatest length of skull, 27.5; length of nasal, 11; zygomatic breadth, 12.3; interorbital breadth, 6; breadth of rostrum at mid-point, 4.2; breadth of brain-case, 11.5; incisive foramina, 7×2; length of diastema, 7; length of maxillary toothrow, 4.4.

There are five specimens in the series of *Podoxymys roraimæ*, all collected on the summit of Mt. Roraima. The topotypes agree with the type in all essential characters and about the only variation in color occurs in the amount of black on the rump, a very slight difference.

A small series of *Akodon xrosus*, topotypes, the species made the genotype of the subgenus *Chalcomys* by the late Oldfield Thomas when he worked out the relationships of the Muridæ commonly referred to *Akodon* (Ann. and Mag. Nat. Hist., 1916, p. 336), is selected as a basis for comparison between *Akodon* and *Podoxymys*. At first glance the skins appear to be very similar, but can be easily separated on the basis of the following characters: *Podoxymys* has noticeably longer and more slender claws (more especially on hands); pelage is distinctly longer and softer; and the tail is proportionally longer. In cranial characters the two genera have little in common, for *Podoxymys* has a much narrower, elongate skull, a different type of zygomatic plate, longer incisive foramina which are not narrowed posteriorly, and somewhat weaker dentition.

There are no species of *Oxymycterus* in the collection of the American Museum which are comparable in size and color with *Podoxymys roraimæ*, but in many characters *Oxymycterus* and *Podoxymys* resemble each other. The two are alike in the long, lax pelage but differ in the longer and more slender claws of *Podoxymys*. The skull of *Podoxymys* resembles that of *Oxymycterus* in being slender and elongate (although it shows this character in a more advanced degree than the latter), in the narrow and backwardly sloping zygomatic plate, in the parallel-

sided and rounded interorbital region, and in the prolongation of the nasals beyond the plane of the incisors. The principal differences between the skulls of the two genera are the more elongate incisive foramina of *Podoxymys*, its more reduced interparietal, flatter superior profile, and lower, less falciform coronoid process on mandible.