

PROCEEDINGS
OF THE
BIOLOGICAL SOCIETY OF WASHINGTON

TWO NEW GENERA OF SOUTH AMERICAN
RODENTS (CRICETINAE)

By PHILIP HERSHKOVITZ
Curator, Division of Mammals

Descriptions of the following genera are based on specimens preserved in the British Museum (Natural History) and in the Chicago Natural History Museum.

Thanks are expressed to the authorities of the British Museum for permission to study the collection of mammals in their charge and for the many courtesies shown me.

Examination of material in the British Museum was made possible by a grant from the National Science Foundation.

WIEDOMYS (new genus)

Type species—*Mus pyrrhorhinos* Wied-Neuwied.

Characters.—A small, scansorial, red-nosed, red-eared, red-rumped mouse; tail about two-thirds total length, fifth hind toe nearly as long as fourth, claws short and recurved; skull with unexpanded zygomatic arches, non projecting anterior zygomatic plate, divergent sided and ridged supra-orbital region well developed interparietal, greatly inflated bullae, long incisive foramina, long and wide bony palate; incisors unspecialized, molars bunobrachyodont, with mesoloph obsolescent, mesolophid absent, anterior median fold well defined in upper and lower first molars.

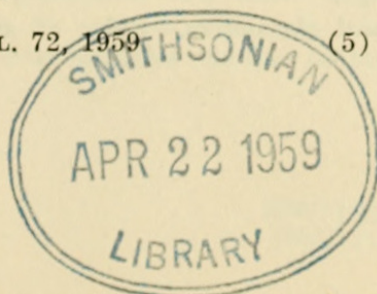
Remarks.—This monotypic genus is named in honor of Prince Maximilian zu Wied-Neuwied, the discoverer of the type species and one of the great naturalist-travelers of the nineteenth century.

The following description of *Wiedomys* and comparisons with other forms are made in terms of its type and only known species. For explanations of cranial and dental terms, see Hershkovitz (1959, *Fieldiana*, in press).

Wiedomys pyrrhorhinos Wied-Neuwied

Mus pyrrhorhinos Wied-Neuwied, 1821, *Reise nach Brasilien*, 2:177 (footnote). Schinz, 1821, *Cuvier Das Thierreich*. 1:228—BRAZIL: Bahía.

Mus pyrrhorhinus [sic], Wied-Neuwied, 1823, *Abbild. Naturg. Brasil.*, Lief. 3, pl. 2 (animal). Lund, 1841, *Afh. Vid. Danske Selsk. Nat. Math.*, 8:276—BRAZIL: Lagôa Santa, Minas Gerais. Lesson, 1842, *Nouv. Tabl. Reg. Anim.*, p. 142. Goodwin, 1953, *Bull. Amer. Mus. Nat. Hist.*, 102:300—type history.



- M[us] pyrrhorhinus* [sic], Wied-Neuwied, 1826, Beitr. Naturg. Brasil., 2:418—BRAZIL: Bahía; characters.
- Hesperomys pyrrhorhinus* [sic], Burmeister, 1854, Syst. Uebers. Thiere Brasil., 1:172—BRAZIL: Sertong von Bahía. Thomas, 1886, Ann. Mag. Nat. Hist., (5), 18:421—part, regarded as referable to *Oryzomys*.
- [?] *Oryzomys pyrrhorhinus* [sic], Bertoni, 1914, Deser. Fis. Econ. Paraguay, p. 73—PARAGUAY: Sina, Trinidad.
- Oryzomys pyrrhorhinus* [sic], Thomas, 1928, Ann. Mag. Nat. Hist., (10), 1:155—BRAZIL: distribution (Ceará to Minas Gerais); characters; comparisons. Ellerman, 1941, Families and genera of living rodents, 2:341, 342, 345, 349—characters; comparisons; relationships.
- Orizomys* [sic] *pyrrhorhinus* [sic], Moojen, 1943, Bol. Mus. Nac., Rio de Janeiro, Zool., no. 5:11—BRAZIL: Poção, Pernambuco; Ceará; Monte Alegre; habits.
- [*Rhipidomys*] *pyrrhorhinus* [sic], Tate, 1932, Novit. Amer. Mus., no. 581:4, 5, 6, 19—taxonomic history.
- [*Oecomys*] *pyrrhorhinus* [sic], Osgood, 1933, Journ. Mammal., 14:370 BRAZIL: Ibiapaba, Piahy; Lamarão. Bahía; characters; taxonomic history.
- Thomasomys pyrrhorhinus*, Moojen, 1952, Os roedores do Brasil, p. 61—BRAZIL: Ceará; Pernambuco; Paraíba do Norte; Barreira, Bahía; Minas Gerais; northern Mato Grosso; Paraná; Rio Grande do Sul; breeding and nesting.
- Thomasomys pyrrhorhinus* [sic], Vieira, 1955, Arq. Zool., São Paulo, 8:413—listed.

Type.—Female, skin only (tail missing), mounted, American Museum of Natural History, no. 574; collected by Prince Maximilian zu Wied-Neuwied and acquired with the Maximilian collection.

Type locality.—"Riacho da Ressaque," i.e., Rio Ressauro, a small tributary of the Guaviao (which flows into the Rio Contas), southern Bahía, eastern Brazil.

Distribution.—Eastern Brazil, from the States of Piahy and Ceará south into Rio Grande do Sul, west into Minas Gerais and, possibly, Mato Grosso and Paraguay.

External characters.—Size small, about equal to *Oryzomys bicolor* but head and tail proportionately longer; pelage long, loose, coarse; back mixed buffy and brown; sides buffy; nose, eye ring, preauricular tufts, inner and outer sides of ears, outer sides of fore and hind limbs, and rump bright reddish-orange in marked contrast with pale coloration of remainder of body; underparts sharply defined white; tail averaging two-thirds total length of animal, the fine scales not hidden by the hair, gray-brown above, somewhat paler beneath, pencil absent; hind feet buffy above, claws short, recurved and hidden by digital tufts; fifth hind toe, less claw, reaching end of second phalanx of fourth, first hind toe less claw, extending a short distance beyond base of second digit; plantar surface of heel hirsute, sole with six tubercles, the four postdigital tubercles enlarged; mammae, 1-2 = 6 (fide Wied-Neuwied).

Color of young like that of adult but with paler reddish-orange markings.

Cranial characters.—Sides of supraorbital region weakly ridged and

divergent posteriorward; mid-transverse width of paired frontals more than greatest width of rostrum; nasals relatively short, not markedly tapered behind, the proximal tips rounded or truncate and approximately in line with fronto-maxillary sutures; anterior zygomatic plate more or less vertical in position and hardly visible when skull is viewed from directly above; antorbital foramen only slightly excised on dorsal surface; fronto-parietal suture crescentic; braincase moderately inflated, not vaulted; interparietal large; hamular process of squamosal long, slender and clearly defined by large temporal vacuities; incisive foramina well open and extending behind to plane between procingulum and protocone of first molar; palate between first molars slightly wider than alveolar length of m^1 ; posterolateral border of palatine extending well behind third molar and marked by one or two pits; mid-posterior palatal border sub-concave or V-shaped, the notch extending quite or slightly anteriorly to posterior plane of third molars; width of mesopterygoid fossa at base of hamular processes less than width of parapterygoid fossa measured at same plane; paired hamular processes of pterygoids parallel-sided; sphenopalatine vacuities large; bullae greatly inflated, depth of either bulla three times or more distance between both bullae measured along basioccipital suture; length of bulla, less tube, subequal to length of incisive foramina and greater than alveolar length of molar row; coronoid process short; capsule encasing posterior tip of lower incisor forming a ridge but not projecting as a blunt spinous process.

Dental characters.—Upper incisors opisthodont, ungrooved; molar rows parallel-sided; upper molars bunobrachyodont, the inner and outer cusps of equal height, crowns of lower molars bilevel, i.e., inner cusps crested, outer lower, but not plane; anteromedian fold of $m \frac{1}{1}$ well defined, procingulum of upper with two fully developed conules, the inner about one-half size of outer, procingulum of lower first molar with subequal conules; major fold widely trenchant, with enterostyle (id) present in first and second molars, an enteroloph (ectolophid) present in first molars; first minor folds present in all molars; second secondary folds absent in all but newly erupted $m \frac{1}{2}$; mesoloph low and obsolescent, mesostyle present and fused with paralophule; mesolophid absent, mesostylid and/or entolophid present.

Systematic position and comparisons.—Obsolescence or absence of the mesolophostyle (id) separates *Wiedomys* from all oryzomyine and true peromyscine (including *Rhipidomys* and *Thomasomys*) rodents. The narrow mesopterygoid fossa, long wide palate with posterolateral palatine pits, well developed interparietal, simplified molar enamel pattern and special details of external structure place *Wiedomys* near such phyllotine genera as *Calomys* (= *Hesperomys*) and *Eligmodontia*. Wied's red-nosed mouse, however, is separated from all phyllotines by its color pattern, slight dorsal excision of the antorbital foramen and somewhat less specialized molars. It differs from the specialized vole-like and shrew-like mice composing the *Akodon*-group by color pattern, long tail, short, recurved claws, short rostrum, greatly inflated bullae, ridged supraorbital edges, fully developed interparietal and other characters of lesser note.

Externally, *Wiedomys pyrrhorhinos* is remarkably similar to the pos-

sibly sympatric *Thomasomys oenax* and has been confused with it (Thomas, 1886, *Ann. Mag. Nat. Hist.*, [5], 18:421). The latter is much larger with underparts not well defined from sides, the basal portions of the hairs dark gray, plantar surface of heel bare, supraorbital region parallel-sided and square, not ridged. Also, a functional mesolophostyle (id) is present in all species of *Thomasomys*. Wied's red-nosed mouse has also been treated as a *Rhipidomys* and as an *Oecomys*, a subgenus of *Oryzomys*. Resemblances between these small arboreal cricetines are parallelisms common to many climbing, tree nesting rodents, irrespective of ancestry. Ellerman (1941, *Families and genera of living rodents*, 2: 342, 349) classified *pyrrhorhinos* as a "species group" of *Oryzomys*. He pointed out, however, that the mouse was unlike any *Oryzomys* he had seen and that in a final revision it "will prove to be the type of a very distinct group or probably subgenus."

Habitat and habits.—The red-nosed mouse is an inhabitant of the scrub forests or *caatingas* of northeastern Brazil. Wied-Neuwied saw the animal, a female with five young, in an abandoned nest of a thorn bird, *Anabates rufifrons*. The nest of this bird, which may be from three to six feet long, is made of dry intertwined branches and attached to lianas. Moojen (1943, *Bol. Mus. Nac., Zool.*, 1:11; 1952, *Os roedores do Brasil*, p. 62) also reports finding the mouse in old bird nests, including termite cartons previously excavated and occupied by parrots. In one such, A. L. Carvalho (in Moojen) counted 8 adults and 13 young of different sizes. Moojen adds that the mouse makes its own nest too, in stone walls, hollow trunks of trees, canopies of thick shrubs and low palms. Dry leaves, grass or cotton fibers are used in the construction. Up to six young, usually five, are produced in a litter. The mouse was observed to be an agile climber. According to Moojen, it is called *rato-de-fava* (bean rat) in Pernambuco, *rato-de-palmatorio* (palmatory rat) in Paraíba. Wied-Neuwied used the name *catanga-mouse* for the one he described from Bahia.

Measurements (in millimeters)—Of two adults, one from Lamarão, Bahia, the other from Ladeira Grande, Ceará: Head and body, 105, 100; tail, 160, 193; hind foot, dry (with claw), 25, 26; ear, from notch, 18, 20; greatest length of skull, 30.0, 29.7; zygomatic breadth, 14.4, 15.1; interorbital constriction, 4.7, 4.6; midfrontal breadth, 6.4, 6.0; greatest width of rostrum, 5.2, 5.2; nasals, 11.0, 10.4; braincase, 13.0, 12.8; interparietal, 4.0×10.4 , 3.8×9.3 ; incisive foramina, 6.8, 6.6; diastema, 7.0, 7.1; width of zygomatic plate, 2.5, 2.5; length (less tube) and depth of bullae, 6.3×5.4 , 6.4×5.3 ; alveolar length of molar row, 4.7, 4.7. Comparable measurements of the type, from the original description: Head and body, 117; tail, 202.

Specimens examined.—Three. Lamarão, Bahia, 1 (British Museum [Natural History]); Ladeira Grande, Ceará, 1 (British Museum [Natural History]); Ibiapaba, 1, juvenal (Chicago Natural History Museum).

PSEUDORYZOMYS (new genus)

Type species.—*Oryzomys wavrini* Thomas (1921, *Ann. Mag. Nat. Hist.* [9], 7:177).

Characters.—The type and only known species of the genus resembles *Oryzomys palustris* in size, external appearance and, very probably, in habits. Cranial and dental characters of *wavrini*, however, prove it to be

more nearly related to *Phyllotis* than to any oryzomyine. A monograph of the phyllotine rodents, including a fully documented account of the characters and systematic position of *Pseudoryzomys* will appear in a forthcoming number of *Fieldiana*.

Remarks.—In addition to the type of *Pseudoryzomys wavrini* from Jesematathla, Chaco Boreal, Paraguay, there is another specimen in the British Museum from Misión, Chaco Boreal, and a third, in the Chicago Natural History Museum, from Tacaagle, Río Porteño, Formosa, Argentina.

A Note on *Rhipidomys macconelli* de Winton.

In comparing *Wiedomys pyrrhorhinos* (see above) with species of *Rhipidomys* and *Thomasomys* in the British Museum, it was found that the Mt. Roraima specimen originally described as *Rhipidomys macconelli* by de Winton (1900, Trans. Linn. Soc. London, [2], 3:52) is correctly allocated to genus. It is a member of the *Rhipidomys latimanus* group and most nearly related to *R. fulviventer*. For no apparent reason, *R. macconelli* was transferred to *Thomasomys* by Thomas (1917, Ann. Mag. Nat. Hist., [8], 20:195) where it has been kept by all subsequent compilers.



Herskovitz, Philip. 1959. "Two new genera of South American rodents (Cricetinae)." *Proceedings of the Biological Society of Washington* 72, 5-9.

View This Item Online: <https://www.biodiversitylibrary.org/item/107739>

Permalink: <https://www.biodiversitylibrary.org/partpdf/46105>

Holding Institution

Smithsonian Libraries and Archives

Sponsored by

Biodiversity Heritage Library

Copyright & Reuse

Copyright Status: In copyright. Digitized with the permission of the rights holder.

Rights Holder: Biological Society of Washington

License: <http://creativecommons.org/licenses/by-nc-sa/3.0/>

Rights: <https://biodiversitylibrary.org/permissions>

This document was created from content at the **Biodiversity Heritage Library**, the world's largest open access digital library for biodiversity literature and archives. Visit BHL at <https://www.biodiversitylibrary.org>.