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THE TAXONOMIC HISTORY OF THE NEOTROPICAL CRICETID GENERA HOLOCHILUS, NECTOMYS. SCAPTEROMYS, MEGALOMYS, TYLOMYS AND OTOTYLOMYS

BY G. H. H. TATE

This review, the third of a series of historical papers on the rats of South and Central America, deals with those genera which contain the larger rat-like species. Although not very closely related, they are conveniently handled in a single article.

HISTORICAL STATEMENT HOLOCHILUS Brandt

demonstration (m. CO) M

1819.	Desmarest described (p. 62) Mus brasiliensis (n. sp.), col- lected by Auguste F. C. P. de Saint-Hilaire, a botanist
	who traveled over most of Brazil. The credit given
	Geoffroy was probably for the unpublished name brasiliensis.
1820.	Desmarest (p. 305) opined that his brasiliensis was the same
	as angouva (an Oruzomus) and treated it as a synonym.
	But he had probably never seen a specimen of <i>ananua</i> .
	which he had previously based upon the BAT TROISIEME
	of Azara.
1827.	Brants described (p. 137) Mus vulpinus (n. sp.) and (p. 139)
	Mus physodes (n. sp.), giving credit for both names to
	Lichtenstein.
1830.	Lichtenstein further described (Pl. XXXIII) Mus vulpinus and
	(Pl. XXXIV) Mus physodes. [In 'Einleitung zum sieben-
	ten Heft.' Lichtenstein clearly gave Brants credit for
	prior publication. This work bears only the inclusive
	dates 1827–1834, but Trouessart gives 1830 for Scap-
	teromus tomentosus Lichtenstein.]
1835.	Brandt erected (p. 428) Holochilus new subgenus of Mus.
	including in it Mus (Holochilus) leucogaster (n. sp.)
•	which was synonymized by Trouessart, 1898, with
	physodes, and (p. 430) Mus (Holochilus) anguya (n. sp.).

- 1839. Waterhouse described (p. 58) a rat which he identified as Mus brasiliensis from Bahia Blanca, thinking it equal to brasiliensis Desmarest. He stated that he had examined what he believed to be the original specimen of brasiliensis in Paris, and took care to point out that angouya Desmarest (an Oryzomys), confused by some authors with brasiliensis, was quite a different animal. He thought the description of anguya Brandt more like brasiliensis. With the erection (p. 75) of his Hesperomys, brasiliensis became included therein.
- 1841. Lund wrote (p. 279) of "vulpinus," giving measurements and description of color. His animal was apparently an Oryzomys.
- 1842. Wagner re-diagnosed (p. 14) Holochilus in detail, treating it as a full genus, and discussed the species which ought to be included in it. He described Holochilus sciureus (n. sp.). He was later convinced (p. 288) that the 'brasiliensis" of Waterhouse belonged in Holochilus.
- 1843. Wagner placed (p. 536) physodes with auritus (a Reithrodon) and orobinus, subflavus and angouya (none of them Holochilus) in a subgeneric group of Hesperomys which he gave no name but described as having "tarsi mediocres, auriculae majusculae nec non cauda elongata nudiuscula." In a footnote (p. 544) he wrote that vulpinus Lichtenstein and vulpinus Lund were distinct from each other. He treated (p. 548) Holochilus as a full genus, listing in it brasiliensis, leucogaster (Wagner), canellinus, sciureus, and vulpinus. He remarked in numerous footnotes upon the relationships of these species.
- 1844. Pictet and Pictet wrote of (p. 53) Mus brasiliensis Geoffroy. They thought (p. 80) that *leucogaster* Brandt might in reality be a rat imported from the Old World.
- 1845. Wagner described (p. 147) "Hesperomys leucogaster," which from its color and rather large size may be referable to Holochilus. Judging by the proportions of the measurements given in each case, leucogaster Wagner is quite distinct from leucogaster Brandt.
- 1847. Gay described (p. 108) and figured (Pls. vI and vII) Mus lutescens (n. sp.), in reality one of the Old World rats (see Wolffsohn, 1910).

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- 1850. Wagner added information (p. 306) about his *leucogaster* and described *Hesperomys russatus* (n. sp.).
- 1854. Burmeister in the 'Systematische Uebersicht' made Holochilus (including Nectomys) and Calomys subgenera of Hesperomys. Under the former he described robustus, n. sp. (a Nectomys), and included vulpinus (Lichtenstein), squamipes, and physodes. He placed brasiliensis of Waterhouse in the synonymy of vulpinus, sciureus under squamipes, and russatus under physodes.

Leucogaster (Wagner) was put in Calomys, and leucogaster (Brandt) was compared (p. 171) with physodes.

- 1855. Burmeister (1854, p. 5) treated Holochilus, plus Nectomys, as a sub-group of Hesperomys and remarked upon robustus (a Nectomys), stating that robustus was the rat which the Pictets (1844) referred to brasiliensis and probably the aquaticus of Lund. He also discussed vulpinus, to which he referred the brasiliensis of Waterhouse; squamipes, under which he placed sciureus Wagner, anguya Brandt and canellinus Wagner; and physodes, with which he synonymized russatus Wagner.
- 1866. Lilljeborg made (p. 17) *Holochilus* (including *Nectomys*) a full genus.
- 1867. Fitzinger listed (p. 89) under Holochilus: brasiliensis, robustus (a Nectomys), leucogaster, russatus, physodes, squamipes (a Nectomys), canellinus, sciureus, vulpinus, and arviculoides (a Zygodontomys).
- 1872. Hensel dispensed with (p. 32) all subgeneric names, listing instead all South American Cricetids under *Hesperomys* (sensu lato). The only *Holochilus* dealt with was vulpinus, which he distinguished from other rats by the vague character: "cheek-teeth without cusps, lacking enamel."
- 1876. Alston treated (p. 84) *Holochilus* as a full genus, but seemingly included *Nectomys* in it.
- 1879. Burmeister listed (p. 210) vulpinus under Hesperomys (Holochilus).
- 1882. Thomas recorded (p. 101) specimens of apicalis (Nectomys) under "Holochilus (Nectomys)."

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- 1883. Pelzeln commented (p. 67) upon leucogaster (Wagner) obtained by Natterer. He listed (p. 71) russatus, physodes, and (p. 73) brasiliensis.
- 1884. Thomas treated (p. 448) *Holochilus* (including *Nectomys*, p. 451) as a full genus.
- 1885. Trouessart, in course of discussing the status of Megalomys, reviewed (pp. 1–18) the inter-relationships of Holochilus and Hesperomys.
- 1887. Winge placed (p. 21) vulpinus under Sigmodon. (Thomas, 1897, p. 495, stated that Winge's animal was sciureus.)
- 1894. Ihering listed brasiliensis, physodes, leucogaster, and sciureus, but his synonymy and identifications appear to be open to question.
- 1896. Thomas listed (p. 1020) *Holochilus* as a full genus, including in it *Nectomys*.
- 1897b. Thomas described (p. 495) Holochilus nanus, n. sp., comparing it with sciureus. He added that Nectomys and Holochilus were really distinct genera. He proposed darwini, new name for the brasiliensis of Waterhouse. One or both of the names vulpinus and canellinus were thought applicable to the species of the Parana and Uruguay River systems. Brasiliensis Geoffroy (Desm. 1819) and leucogaster Brandt (1835) could not then be identified.

Trouessart moved Megalomys into Holochilus as a separate subgenus. He listed in true Holochilus: brasiliensis Desmarest, vulpinus, darwini, sciureus, canellinus, nanus, physodes, russatus, and lutescens.

Anguya Brandt, though of earlier date, was suppressed in favor of canellinus Wagner. This was probably done on account of an idea that Mus (Holochilus) anguya Brandt was pre-occupied by Mus angouya Desmarest. However, since the rule defining homonyms ('Int. Rules Nomencl.,' 1926, Art. 35) does not apply to ou and u, Mus angouya Desmarest cannot now be considered as preoccupying Mus anguya Brandt, and Orzomys angouya and Holochilus anguya are valid names connoting perfectly distinct animals. Leucogaster Brandt was made a synonym of physodes, another irregularity; leucogaster Wagner was omitted, and leucogaster Pictet was made a synonym of Mus (Epimys)

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rattus. Vulpinus Lund (1841) was placed (p. 421) in the synonymy of subflavus Wagner.

- 1900. Phillippi described (p. 29) Mus simpsoni (n. sp.), which he characterized as the largest rat in Chile, but which may possibly only be a form of Rattus. He compared it with darwini ("brasiliensis Geoffroy") and lutescens. He also described Mus agilis (n. sp.), comparing it with lutescens. I do not consider agilis a Holochilus; but Trouessart lists it (1905, p. 412) with a query.
- 1901a. Thomas described (p. 149) Holochilus guianz, n. sp.
- 1902. Miller and Rehn (p. 89) designated the type of *Holochilus* as *leucogaster* Brandt.
- 1904. J. A. Allen described (p. 330) Holochilus venezuelæ, n. sp.
- 1905. Trouessart listed in Holochilus (p. 411): brasiliensis, vulpinus, darwini, sciureus, guianæ, canellinus, nanus, physodes, physodes leucogaster, russatus, lutescens, simpsoni and questionably agilis. The main change from his list of 1898 was the recognition of leucogaster (Brandt). He removed (p. 415) Megalomys from Holochilus.
- 1906a. Thomas described (p. 446) Holochilus chacarius, n. sp., and (p. 447) Holochilus balnearum, n. sp.
- 1910 Wolffsohn quoted (p. 96) from a letter in which Thomas stated that *Holochilus lutescens* was nothing but *Mus rattus.* "I have seen the type in Paris." (See Gay, 1847.)
- 1915. Osgood described (p. 188) *Holochilus amazonicus*, n. sp. He remarked upon the relationships of *amazonicus* and upon the geographical range of *Holochilus*.
- 1921. Thomas described (p. 226) Holochilus incarum, n. sp. He doubted whether guianæ and amazonicus should have been separated from sciureus.
- 1927. Thomas wrote under *sciureus* (p. 369): "I now see no sufficient reason for distinguishing the Peruvian Red Water-rat from that of the Lower Amazon."
- 1928. Thomas wrote (p. 260): "As time goes on and material increases, I am more and more convinced of the essential identity of all the *Holochilus* water-rats of the whole of the Amazonian drainage area, from Pernambuco to Peru, Guiana to Bolivia, and equally that of the Rio San Francisco." He considered that due to aquatic habits

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the "hind-foot length" of water-rats must be used with caution. He thought with Winge that the dentition might indicate some affinity with Sigmodon.

NECTOMYS Peters

- 1827. Brants described (p. 138) Mus squamipes (n. sp.), giving Lichtenstein credit for the name.
- 1841. Lund wrote of (p. 279) Mus aquaticus, describing its swimming feet, measurements and color. The description fits Nectomys.
- 1843. Wagner placed (p. 515-516) squamipes with Scapteromys tomentosus, Oxymycterus rufus and some Oryzomys under a heading: Hesperomys (incertx sedis).
- 1854. Burmeister (p. 164) described Hesperomys (Holochilus) robustus (n. sp.) and kept squamipes in Hesperomys (Holochilus).
- 1855. Burmeister wrote (1854, p. 5) on *Holochilus* plus *Nectomys*, referring *aquaticus* (Lund 1841) to his *Holochilus robustus*.
- 1860. Peters erected (p. 135) Nectomys, n. g., to contain squamipes. He described Nectomys apicalis, n. sp.
- 1866. Lilljeborg in his system included (p. 17) Nectomys in Holochilus.
- 1867. Fitzinger gave (p. 84) only aquaticus Lund under Nectomys. He listed squamipes in Holochilus.
- 1872. Hensel, omitting subgeneric terms, discussed (p. 34) only Hesperomys squamipes.
- 1872. Liais wrote (p. 507) concerning a form of *Nectomys* which he called *Potamys brasiliensis*.
- 1879. Burmeister stated (p. 212) "Mus aquaticus Lund is a true Nectomys and identical with N. squamipes Licht. (H. robustus Burm.)."
- 1882. Thomas placed apicalis under "Holochilus (Nectomys)."
- 1883. Pelzeln described (p. 73) Hesperomys rattus (n. sp.), asserted by Thomas (1897) to be Nectomys.
- 1886. Leche concluded (p. 690) that apicalis was a synonym of squamipes.
- 1887. Winge compared (p. 57) squamipes with "Calomys laticeps," treating Nectomys as a full genus.
- 1893. Allen and Chapman described (p. 209) Nectomys palmipes, n. sp.

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- 1896. Thomas included (p. 1020) Nectomys in the full genus Holochilus.
- 1897a. Thomas stated (p. 486): "Nectomys should be restored to full (generic) rank at 74a" (in his 'Genera of Rodents,' 1896).
- 1897b. Thomas discussed (p. 497) Nectomys, stating that Hesperomys rattus Pelzeln was a Nectomys and reviewing other existing species. He described Nectomys grandis, n. sp., Nectomys magdalenæ n. sp., and Nectomys fulvinus, n. sp.
- 1897c. Thomas described (p. 546) Nectomys saturatus, n. sp., and (p. 547) Nectomys russulus, n. sp.
- 1897. J. A. Allen erected (p. 38) Sigmodontomys, n. g., with type Sigmodontomys alfari, n. sp., based upon a single specimen.
- 1898. Trouessart listed (pp. 521-2) squamipes, rattus, apicalis, palmipes, grandis, magdalenæ, and fulvinus. Aquaticus, robustus and brasiliensis Pictet were placed in the synonymy of squamipes. He listed Sigmodontomys Allen separately.
- 1899a Thomas described (p. 41) Nectomys garleppii, n. sp.
- 1901b Thomas described (p. 250) Nectomys esmeraldarum, n. sp. He considered that esmeraldarum, russulus and probably Sigmodontomys "alfaroi" Allen formed a special group less adapted for aquatic life than typical Nectomys.
- 1903. Thomas described (p. 238) Nectomys squamipes mattensis, n. subsp.
- 1905. Thomas described (p. 586) Nectomys dimidiatus, n. sp. He stated: "Allen's Sigmodontomys alfari and the closely allied Nectomys russulus are forms with more Oryzomyslike fur; but their exact generic position is not at present easy to define, owing to want of specimens with unworn teeth."
- 1905. Trouessart listed (p. 412) squamipes, rattus, garleppi, palmipes, grandis, saturatus, magdalenæ, fulvinus, russulus, and esmeraldarum.

He again listed (p. 427) Sigmodontomys Allen.

- 1908. J. A. Allen described (p. 655) Oryzomys ochraceus, n. sp. (Removed later, 1916, to Nectomys.)
- 1910. Thomas described (p. 185) Nectomys squamipes melanius, n. subsp.

1911. Miller designated (p. 180) squamipes as type of Nectomys.

- 1913. Goldman described (p. 7) Nectomys alfari efficax, n. subsp. He contrasted it with Sigmodontomys alfari and Nectomys esmeraldarum and concluded that Sigmodontomys should be placed under Nectomys.
- 1913. Thomas described (p. 570) Nectomys hammondi, n. sp. He wrote: ". . . Nectomys falls into two groups, firstly the . . . species related to N. squamipes (N. apicalis, garleppi, fulvinus, etc., etc.,) . . . and secondly a few isolated species . . . showing their relationship to the ordinary Nectomys by their glossy fur and heavily ridged skull." In these he included russulus, hammondi, esmeraldarum, dimidiatus, and saturatus.
- 1914. Hollister described (p. 104) Nectomys squamipes pollens, n. subsp.
- 1914. Osgood suggested (p. 160) that Guiana rather than Quito might well be type locality of N. fulvinus Thomas.
- 1916. Goldman transferred (p. 127) Oryzomys ochraceus Allen to Nectomys as a synonym of Sigmodontomys (=Nectomys) alfari Allen.
- 1928. Thomas wrote (p. 260): "In the genus *Nectomys* there seems to be a greater tendency for the development of local races than is the case with *Holochilus*." He thought that *Nectomys* showed some relationship with *Rhipidomys*.

SCAPTEROMYS Waterhouse

- 1830. Lichtenstein described (Pl. XXXIII) Mus tomentosus (n. sp.).
- 1837. Waterhouse described Mus tumidus (n. sp.) and erected (p. 20) Scapteromys new subgenus of Mus to contain tumidus, making tumidus the type of the genus by monotypy.
- 1839. Waterhouse further described (p. 57) tumidus. When he proposed (p. 75) his blanket-genus Hesperomys, he ignored his own name Scapteromys but included tumidus.
- 1841. Lund spoke of (p. 276) Mus principalis and fossorius: ".... two recent species which, however, I only find as skeletons in caves. One I call Mus principalis, since it exceeds all other species in size; the other Mus fossorius, because it shows such strong development of the crests of the humerus that it must have ability to burrow in the ground highly developed."

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- 1841. Wagner, who apparently had not yet heard of Waterhouse's new genus *Hesperomys*, suggested (p. 125) in a footnote that *Scapteromys* probably belonged in *Reithrodon*.
- 1843. Wagner discussed (pp. 515-516) tuntidus under Hesperomys (Scapteromys). Tomentosus, with squamipes (a Nectomys), rufus (an Oxymycterus), and several Oryzomys, was located in a group under the caption "incertæ sedis."
- 1859. Baird combined (p. 453) Scapteromys with "Oxymicterus" to make a single genus Oxymicterus.
- 1860. Peters remarked (p. 135) that *Mus tomentosus* constituted a second species of the subgenus *Scapteromys*.
- 1867. Fitzinger, in addition to tumidus, placed (p. 80) dasytrichos Wied (an Oxymycterus) in Scapteromys (made a full genus); but he put tomentosus in Habrothrix.
- 1872. Hensel, omitting subgeneric names, discussed (p. 46) Hesperomys tumidus.
- 1884. Thomas considered (p. 449) Scapteromys a subgenus of Hesperomys (sensu lato).
- 1887. Winge described (p. 39) Scapteromys labiosus, n. sp., treating Scapteromys as a full genus. He gave (p. 42) a detailed description of principalis Lund as well as that of a fossil form, fronto, n. sp.
- 1896. Thomas listed (p. 1020) *Scapteromys* as a full genus.
- 1898. Trouessart listed (p. 534) in Scapteromys: tumidus, tomentosus, labiosus, and principalis.
- 1905. Trouessart made (p. 431) no changes in his list of 1898.
- 1914. Ribeiro described (p. 37) Scapteromys gnambiquaræ, n. sp., doubtfully distinct from principalis Lund and (p. 39) Scapteromys modestus, n. sp., "resembling Scapteromys labiosus Lund." (Winge, not Lund, described labiosus.) No type locality was given nor was any type specimen named for either species.
- 1917. Thomas stated (p. 96) that he thought *Scapteromys tomen*tosus merely a black form of the grayer tumidus.
- 1920. Thomas discussed (p. 477) the Scapteromys of the Parana Delta. He modified his remarks of 1917 and cited Matschie as having informed him that tomentosus, which he now thought quite distinct, was from near Maldonado. He proposed Scapteromys aquaticus, n. sp., for the delta form.

1929. Sanborn (p. 158) quoting Thomas (1920) suggested that tumidus and tomentosus may in time prove to be synonyms. But in the same article the latter said "In size tomentosus would appear to exceed considerably both tumidus and the delta form, as its hind foot, including claws, is said to be 2 inches in length." At that time, therefore, Thomas regarded them as distinct species.

1932. Gyldenstolpe described Scapteromys chacoensis, n. sp. He compared it with the fossil form fronto Winge and mentioned that a cotype of gnambiquaræ Ribeiro was now in the British Museum.

MEGALOMYS Trouessart

- 1658. DeRochefort wrote (p. 124) of "Les rats musqués, que nos francais appellent Piloris."
- 1667. Père du Tertre remarked upon these animals. [I have not seen his account.]
- 1763. Buffon spoke (p. 3) of the "piloris."
- 1771. Pennant wrote (p. 247) of Cavia moschata.
- 1777. Zimmermann discussed (p. 509) Castor piloris.
- 1778. Pallas wrote (p. 91) under *Mus* (*Pilorides*) a composite description based partly upon a rodent from Ceylon and partly upon the West Indian piloris.
- 1827. Desmarest employed (p. 483) *Mus pilorides* to describe a rat "peu plus petite que le surmulot" and considered it altogether distinct from the piloris of de Rochefort.
- 1829. Fischer described (p. 360) M[us] desmarestii (n. sp.). He had previously characterized M. pilorides Pallas.
- 1830. Geoffroy St. Hilaire and Cuvier published a very important colored figure, accompanied by a less important description of the "pilori."
- 1843. Wagner (p. 444) listed "Mus Pilorides Pallas" in an appendix under Mus.
- 1881. Trouessart stated (p. 356) that after examining the mounted and alcoholic specimens in the Paris Museum, sent many years before by M. Plée from Martinique, he had no doubt that they were members of the genus *Hesperomys* (sensu lato) and erected Megalomys, n. subg., with type "Mus pilorides (Desmarest)," placing

it near *Nectomys*. Additional specific characters and measurements were given.

- 1884. Thomas said (p. 450): "Megalomys Trouess. founded on H. pilorides, Pall., seems to me to fall within the genus Holochilus, Bdt., and not to be a true Hesperomys at all."
- 1885. Trouessart took exception (Article 5) to *Thomas's* (1884) statement. He listed in detail the five specimens in the Paris Museum, published a plate showing the skull (dorsal and lateral views), teeth, and feet of *Megalomys*, compared the anatomy in detail with that of other South American genera, and concluded by giving (p. 13) a new diagnosis of the subgenus.
- 1898. Trouessart listed (p. 520) Megalomys as a subgenus of Holochilus. The only species given was pilorides Pallas.
- 1901. Major stated (p. 205) that one of the cotypes "from Martinique, presented by Plée to the Paris Museum, has found its way to the Leyden Museum, and its skull was kindly lent to me by Dr. Jentinck." He had also before him B.M. 53.12.16.4 from Santa Lucia and a fossil species which he did not describe. He concluded from this material that the rats in question belonged in the genus Oryzomys, and after listing the synonymy of "Oryzomys piloris (Zimmerm.)" described Oryzomys lucia, n. sp., with the specimen mentioned above as type.
- 1902. Miller and Rehn placed (p. 89) *pilorides* in *Holochilus*, full genus.
- 1902. J. A. Allen, discussing the Piloris, said (pp. 20-21): "If the name Mus pilorides given to this animal by Desmarest in 1826 is preoccupied by Mus pilorides Pallas, 1786, as seems to be the case, the proper name of the Rat musqué, or Piloris, will be Mus desmaresti of Fischer, 1829, = Megalomys desmaresti (Fischer), or Oryzomys desmaresti (Fischer) for those who believe, with Mr. Forsyth Major, that Megalomys is not separable from Oryzomys."
- 1903. Trouessart retracted his belief that Megalomys and Holochilus were closely allied. He opposed entirely Major's view that Megalomys was related to Oryzomys, and, considering his own name Megalomys preoccupied by Megamys Laurillard, substituted Moschomys, new name.

He stated that *pilorides*, being a composite name based upon two distinct species, ought to be dropped; that *piloris* and *moschata* were unavailable; but that *desmaresti* Fischer might be employed. In conclusion he listed three species: *Moschomys desmaresti* (Fischer), *M. lucix* (Major), and *M.* species (Major's unnamed fossil).

- 1904. Poche, referring to Trouessart's discussion of *Megamys* and *Megalomys* (1903), cited the international nomenclature rules regarding preservation of the original spelling of a name, and concluded that *Megalomys* was *not* preoccupied by *Megamys*, so that *Moschomys* would have to be set aside, and *Megalomys* reinstated.
- 1904. Elliot, ignorant of Poche's note, found (p. 270) Moschomys Trouessart preoccupied by Moschomys Bellberg and proposed Moschophoromys instead.
- 1905. Trouessart, having several times changed his views regarding the status of this genus, now gave it (p. 415) full rank and set it well away from *Holochilus*. He proposed *majori*, n. sp.—a nomen nudum—for the unnamed fossil species mentioned by Major (1901), and listed also desmaresti and luciæ.
 - G. M. Allen followed (pp. 415–16) Trouessart's arrangement (1905) and recited the known history of each species.
- 1911. Miller placed (p. 178) Megalomys next to Tylomys. [The plate by Geoffroy and Cuvier (1830), portraying the living animal, suggests Tylomys in certain respects—notably in the color pattern, but the tail is very different. I have compared the skulls of several genera, Tylomys, Ototylomys, Holochilus, and Nectomys, with the figures given by Trouessart (1885). Unfortunately, he neglected to give a palatal view, so I could not learn whether or not Megalomys possesses very large palatal foramina as in Tylomys. Its teeth (separately drawn) are very different from those of Tylomys, and I can only conclude that it represents a thoroughly distinct genus.]

Hopwood described (p. 328) and figured (Pl. XII, figs. 1–2) Megalomys audreyi, n. sp. This represented the hitherto undescribed fossil of Major (1901) and majori (nomen nudum) Trouessart. From the wording (p. 330), luciæ would appear to be truly a Megalomys and not an Oryzomys.

1911.

1926.

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1866.

1873.

1880.

1890.

1893.

1897.

Tylomys Peters

Peters erected (pp. 404–409) Hesperomys (Tylomys), n. subg., to contain nudicaudatus, n. sp. He figured the skull with great care. Gray erected (p. 417) Neomys, n. g., to contain Neomys panamensis, n. sp., whose skull he figured. Alston placed (p. 150) Neomys Gray in the synonymy of Tylomys.J. A. Allen further described (p. 210) nudicaudatus (from Costa Rica). Allen and Chapman described (p. 211) Tylomy's couesi, n. sp. (See Allen and Chapman, 1897.) Allen and Chapman removed (p. 29) couesi (1893) from Tylomys to Rhipidomys. Trouessart listed (p. 520) nudicaudatus, couesi, panamensis

- 1898. and "carri." The last was an error (p. 1324), carri referring not to Tylomys but to Thylamys, a murine opossum.
- 1899. Thomas described (p. 278) Tylomys miræ, n. sp., and Tylomys watsoni, n. sp.
- Merriam described (p. 560) Tylomys tumbalensis, n. sp., and 1901. (p. 561) Tylomys bullaris, n. sp.
- Miller and Rehn designated (p. 88) nudicaudatus type of 1902. Tylomys.
- 1905. Trouessart listed (p. 411) miræ, nudicaudatus, panamensis, tumbalensis, bullaris, and watsoni.
- 1916. Anthony described (p. 366) Tylomys fulviventer, n. sp.
- 1920. Goldman remarked upon (p. 90) panamensis, watsoni, and fulviventer.

OTOTYLOMYS Merriam

- Merriam erected (p. 561) Ototylomys, n. g., to contain Oto-1901. tylomys phyllotis, n. sp., and Ototylomys phyllotis phæus, n. subsp. He contrasted the new genus with Tylomys, and also with Xenomys, Peromyscus, and Neotoma.
- 1905. Trouessart listed (p. 410) phyllotis and phyllotis phaus.
- J. A. Allen described (p. 658) Ototylomys fumeus, n. sp. 1908.
- Thomas described (p. 669) Ototylomys guatemalæ, n. sp. 1909.
- 1931. Osgood described (p. 145) Ototylomys phyllotis australis, n. subsp. He suggested that phyllotis, fumeus, and guatemalæ differ in characters of only subspecific importance.

PRESENT STATUS OF THE GENERA

Genus Holochilus Brandt

Genus Nectomys Peters

Genus Scapteromys Waterhouse

Genus Megalomys Trouessart

Genus Tylomys Peters

Genus Ototylomys Merriam

- Type by subsequent designation (Miller and Rehn, 1902): Mus (Holochilus) leucogaster Brandt
- Type by subsequent designation (Miller, 1911): Nectomys squamipes Brants
- Type by monotypy: Scapteromys tumidus Waterhouse
- Type by subsequent designation (Allen, 1902): Megalomys desmarestii (Fischer)
- Type by monotypy: Tylomys longicaudatus Peters
- Type by monotypy: Ototylomys phyllotis Merriam

LIST OF SPECIFIC AND SUBSPECIFIC NAMES¹ WITH TYPE LOCALITIES.

Holochilus brasiliensis (Desmarest) vulpinus (Brants)

physodes (Brants) leucogaster (Brandt) anguya (Brandt) sciureus Wagner leucogaster (Wagner) (preoccupied) russatus (Wagner) nanus Thomas darwini Thomas simpsoni (Philippi) guianae Thomas venezuelæ Allen chacarius Thomas

balnearum Thomas amazonicus Osgood incarum Thomas Nectomys Peters squamipes squamipes (Brants) squamipes mattensis Thomas

squamipes pollens Hollister squamipes melanius Thomas Brazil
Brazil (Brants); Uruguay, coll. by Sello (Lichtenstein)
São Paulo, Brazil
Brazil
Brazil
Rio San Francisco, Brazil
Woods of Ypanema, São Paulo, Brazil

Ypanema, São Paulo, Brazil Marajó Island, lower Amazon, Brazil Bahia Blanca, Argentina Santo Domingo Island, W. Patagonia Kanuku Mts., British Guiana El Llagual, Venezuela Chaco, one league NW. of Concepcion, Paraguay Bañado de San Felipe, Tucuman, Argentina Itacoatiara, R. Amazon, Brazil Santa Ana, near Cuzco, Peru

Brazil

Santa Ana de Chapada, Sierra de Chapada, 30 miles NE. of Cuyaba, Matto Grosso, Brazil Sapucay, Paraguay

Lower Essequibo R., 12 miles from mouth, British Guiana

¹Since no works of a revisional nature have been published on these genera, it has been thought advisable to list all specific and subspecific names, even though some already have been and others unquestionably will be placed in synonymy.

aquaticus (Lund) robustus (Burmeister) apicalis Peters rattus (Pelzeln) palmipes Allen and Chapman grandis Thomas magdalenae Thomas

fulvinus Thomas saturatus Thomas russulus Thomas alfari alfari (Allen) alfari efficax Goldman garleppii Thomas esmeraldarum Thomas dimidiatus Thomas ochraceus (Allen) hammondi Thomas Scapteromys Waterhouse tomentosus (Lichtenstein) tumidus (Waterhouse) principalis (Lund) fossorius¹ (Lund) labiosus Winge gnambiguarae Ribeiro

modestus Ribeiro

aquaticus Thomas chacoensis Gyldenstolpe Megalomys Trouessart desmarestii (Fischer) (= pilorides Pallas) luciae (Major) Tylomys Peters nudicaudatus Peters panamensis (Gray) mirae Thomas watsoni Thomas tumbalensis Merriam bullaris Merriam fulviventer Anthony **Ototylomys Merriam** phyllotis phyllotis Merriam phyllotis phaeus Merriam

Lagoa Santa, Brazil Northeastern Brazil Guavaguil, Ecuador Marabitanas, Rio Negro, Brazil Princestown, Trinidad Concordia, Medellin, Colombia Near Rio Magdalena, West Cundinamarca, Colombia "Believed to be Quito," but may be Cayenne Ibarra, northern Ecuador Valdivia, Colombia; 1200 metres Jimenez, Costa Rica Cana, Eastern Panama Ocabamba, Cuzco, Peru St. Javier, Prov. Esmeraldas, W. Ecuador Escondido R., 3 miles below Rama, Nicaragua Rio Grande, south of Tuma, Nicaragua Mindo, NW. of Quito, Ecuador Wooded parts of Uruguay

Maldonado, Uruguav Lagoa Santa, Brazil Lagoa Santa, Brazil Lagoa Santa, Brazil Range: "In the campos of Chapadao, from Ultimo Acampamento northward" Range: Caceres and Porto Espiridiao, Matto Grosso, Brazil Isla Ella, Parana Delta Rio de Oro, Chaco Austral, Argentina

Martinique

St. Lucia

Guatemala Panama Paramba, Rio Mira, N. Ecuador Bogava, Chiriqui, NW. Panama Tumbala, Chiapas, Mexico Tuxtla, Chiapas, Mexico Tacarcuna, Darien, Panama

Tunkas, Yucatan, Mexico Yohaltun, Campeche, Mexico

¹Fossorius, based solely upon bones found in a cave or hole, is given no standing by Trouessart, 1998 and 1905. Its inclusion here as a living form is, of course, provisional. It may have represented fragments of *Blarinomys*.

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fumeus Allen Matagalpa, Nicaragua guatemal[®] Thomas Tucuru, Polochie R., about 50 miles East of Coban, Guatemala BIBLIOGRAPHY ALLEN, G. M. 1911. Bull. Mus. Comp. Zoöl., LIV, pp. 175 - 263.1890. Bull. Amer. Mus. Nat. Hist., III, Allen, J. A. pp. 263-310. 1897. Bull. Amer. Mus. Nat., Hist., IX, pp. 31 - 44.Bull. Amer. Mus. Nat. Hist., XVI, 1902. pp. 13–22. 1904. Bull. Amer. Mus. Nat. Hist., XX, pp. pp. 327-335. 1908. Bull. Amer. Mus. Nat. Hist., XXIV, pp. 647–670. Allen, J. A., and Chapman, F. M. 1893. Bull. Amer. Mus. Nat. Hist., V, pp. 203-234. Bull. Amer. Mus. Nat. Hist., IX, pp. 1897. 13 - 30.ALSTON, E. R. 1876. Proc. Zool. Soc. London, pp. 82–85. 1880. 'Biologia Centrali-Americana,' Mammalia. ANTHONY, H. E. 1916. Bull. Amer. Mus. Nat. Hist., XXXV, pp. 357-376. 1859. 'Mammals of North America.' BAIRD, S. F. BRANDT, J. F. 1835. Mem. Acad. St. Petersburg, (6) III, pp. 357-442. 1827. 'Het geschlacht Muizen . . . ,' p. 137. BRANTS, A. BUFFON, G. L. L. DE. 1763. Hist. Nat., 2nd Ed., X, p. 3. BURMEISTER, H. 1854. 'Syst. Uebersicht der Thiere Brasiliens.' 1854. Abh. Naturf. Ges. Halle, II (1), Sitz., pp. 3–10. [Berg shows (Anales Mus. Nac. Buenos Aires, (2) I, p. 334) that the date of actual publication of this volume was 1855.] 'Descrip. Phys. Argentina,' III. 1879. DEROCHEFORT, C. 1658. 'Hist. Nat. Morale Iles Antilles,' I, p. 124. 1819. Nouv. Dict. d'Hist. Nat., 2nd Ed., DESMAREST, A. G. XXIX, pp. 40–71. 'Mammalogie,' II, p. 305. 1820. 1827. Dict. Sci. Nat., XLIV, p. 483. ELLIOT, D. G. 1904. Field Mus. Nat. Hist., Zool. Ser., III, No. 15. FISCHER, J. B. 1829. 'Geographische Gesch.,' II, p. 360.

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