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Blarinomys breviceps.

By John O. Matson and J. Paul Abravaya

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Blarinomys Thomas, 1896

Blarinomys Thomas, 1896:310. Type species *Oxymycterus breviceps* Winge, 1888, by monotypy.

CONTEXT AND CONTENT. Order Rodentia, Family Muridae, Subfamily Cricetinae. The genus *Blarinomys* is monotypic.

Blarinomys breviceps (Winge, 1888)

Oxymycterus breviceps Winge, 1888:34. Type locality "Lapa do Capão Secco" Lagôa Santa, Minas Gerais, Brazil.

CONTEXT AND CONTENT. Context as noted above. *Blarinomys breviceps* is monotypic.

DIAGNOSIS. This diagnosis applies to both genus and species. The pelage is short, crisp, and velvety; color of upper parts is slate gray basally, reddish or brownish distally; venter is somewhat paler. The eyes are minute, hidden in fur (figure 1): ears are small (8 to 12 mm), well haired; tail is unicolored, short, usually less than 50% of head and body length. Skull has interparietal absent; zygomatic plate is narrow with large infraorbital foramen; general shape of skull is conical; teeth are high crowned (figures 1 and 2).

For more detailed descriptions see Thomas (1896:310), Gyldenstolple (1932:135), Ellerman (1941:422), and Davis (1944: 369).

GENERAL CHARACTERS. Form soricine (figure 1), superficially resembling the insectivore genus *Blarina*. The shrewlike external characters easily separate this mouse from all other Neotropical murids.

Mean measurements (extreme in parentheses) in millimeters of selected characters of adult male and female specimens, respectively, from Espírito Santo, Brazil are as follows (from Abravaya and Matson, 1975): total length, 142.4 (129 to 157), 152.1 (143 to 161); length of tail, 40.4 (30 to 49), 44.6 (40 to 52); length of hind foot, 18.2 (16 to 21), 18.4 (16 to 20); length of ear, 9.6 (8 to 10), 9.9 (9 to 10); greatest length of skull, 26.0 (24.9 to 27.4), 25.5 (24.8 to 25.9); condylobasal length, 23.4 (22.2 to 24.0), 22.3 (21.7 to 22.7); length of incisive foramen, 5.1 (4.8 to 5.4), 5.0 (4.3 to 5.3); least interorbital breadth, 6.8 (6.5 to 7.2), 6.7

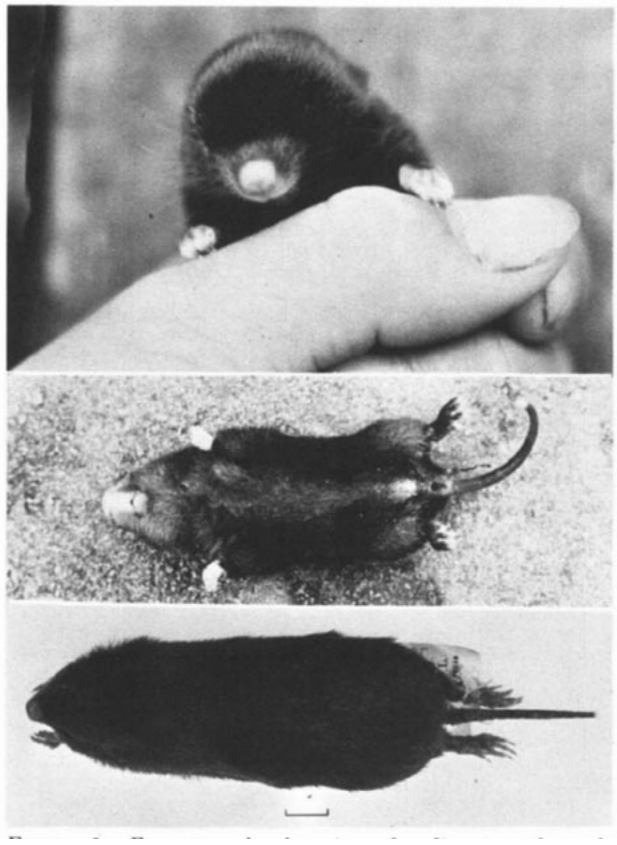

FIGURE 1. From top, head region of a live juvenile male *Blarinomys breviceps* from Santa Teresa, Espírito Santo (Museo Nacional, Rio de Janeiro); ventral view of same individual (notice white-tipped tail); dorsal view of study skin of an adult female from same locality (LACM 49800). Scale on bottom is 10 mm.

FIGURE 2. Skull of *Blarinomys breviceps* (adult male from Santa Teresa, Espírito Santo, LACM 49801), in dorsal, ventral, and lateral views (top to bottom), and right mandible at bottom. Scales in mm. Photographs by Larry Reynolds, Natural History Museum of Los Angeles County.

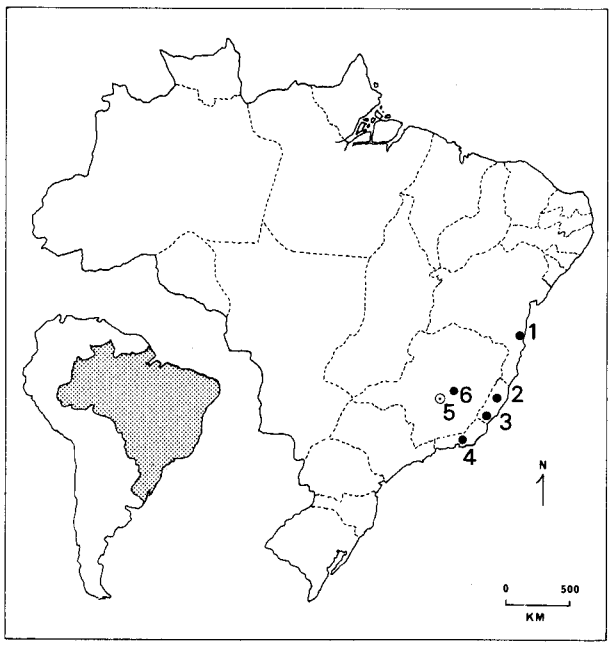

FIGURE 3. Map showing records of occurrence of *Blarinomys breviceps*: 1) Ilhéus, Bahia; 2) Santa Teresa, Espírito Santo; 3) Castelo and Cachoerio de Itapemirim, Espírito Santo; 4) Terezópolis, Rio de Janeiro; 5) Lagôa Santa, Minas Gerais (type locality and fossil locality); 6) Conceição do Mato Dentro, Minas Gerais.

(6.5 to 7.0); zygomatic breadth, 14.0 (13.4 to 14.6), 13.3 (12.9 to 13.6); length of nasals, 11.4 (11.4), 11.3 (10.9 to 12.0); length of maxillary toothrow, 4.4 (4.2 to 4.6), 4.4 (4.3 to 4.6).

DISTRIBUTION. Recent specimens of *Blarinomys breviceps* have been collected from several places in the southeastern Brazilian Highlands (figure 3). Recorded elevations for all localities are above 750 m. The locality of Ilhéus, Bahia, recorded by Moojen (1952) and Avila-Pires (1960) is a coastal city, but could also refer to the larger political division (Municipio), which includes montane areas. In light of other published records (Goeldi, 1902; Davis, 1944, 1945; Avila-Pires, 1960; and Abravaya and Matson, 1975), we suppose that *B. breviceps* occurs chiefly in montane areas.

FOSSIL RECORD. The type specimen of *B. breviceps* is a fossil skull fragment (Winge, 1888) of the Lujanian Age (Pleistocene) (Patterson and Pascual, 1972).

Lund (1841, not seen) described *Mus fossorius* and *M. talpinus*, also from caves at Lagôa Santa. Tate (1932*a* and 1932*b*) believed that both of these may be species of *Blarinomys*. Later, Paulo Couto (1950) decided that *M. fossorius* belonged to the genus *Nectomys*, even though the taxon was described only on the basis of an isolated humerus. Winge (1888), on the other hand, considered this description to be indeterminable and Hershkovitz (1966) concurred (although suspected that it might represent a scapteromyine). Because the postcranial morphology of *B. breviceps* is unknown, it is not possible, at this time, to demonstrate its affinities, if any, with *M. fossorius*.

Lund's *Mus talpinus* was listed as *Blarinomys talpinus* by Paulo Couto (1950), although Winge (1888) listed this species as an *Oxymycterus* and included a drawing of its skull. At this time we are inclined to agree that it is not a *Blarinomys*.

FORM. Externally *B. breviceps* is shrewlike with pelage as noted above in the diagnosis.

Abravaya and Matson (1975) found sexual dimorphism in two of 11 characters of adult specimens they studied. Females had a greater total length, whereas males had a greater condylobasal length of skull. The coefficients of variation were low for most cranial measurements (range 1.89 to 6.18, most between 2 and 3). The low coefficients of variation are considered to be a reflection of the specialized nature and restricted distribution of *B. breviceps*. The tail length was the most highly variable structure (CV 17.26 for males and 10.02 for females), possibly indicating a vestigial structure. A juvenile male had a white-tipped tail (figure 1).

Other aspects of the form of *B. breviceps* remain unknown.

ECOLOGY. Specimens of *B. breviceps* have been taken only in the highlands of southeastern Brazil in montane forests as described by Davis (1944, 1945) and Abravaya and Matson (1975). The species is fossorial, the burrows were partially described in Walker (1968). Abravaya and Matson (1975) reported catching five specimens that had emerged from leaf litter to enter snap traps (baited with corn).

The diet of *B. breviceps* is unknown, although it is speculated that the species is insectivorous. A captive specimen refused to eat, even though it was offered fruit, corn, and meat (Abravaya, notes). Also, captives were reported to be docile but died within a few hours of capture (Davis, 1944; Abravaya and Matson, 1975).

Most collecting efforts have produced no more than a single individual; however, Abravaya and Matson (1975) reported taking as many as five in a single night and a total of 22 in a period of three weeks. They attributed the "high density" to flooding, which forced the mice out of their burrows.

Davis (1945) reported a pregnant female in the month of September and a male with scrotal testes in January. Abravaya and Matson (1975) recorded pregnant and lactating females and males with scrotal testes in January and February. Of 10 adult females recorded in these months by Abravaya and Matson (1975), three had one embryo each and one contained two embryos.

REMARKS. Winge (1888) originally described *B. breviceps* in the genus *Oxymycterus*, the name *breviceps* referring to its skull, which is shorter than in typical *Oxymycterus*. The generic name *Blarinomys* was erected by Thomas (1896) when a Recent specimen became available. The name *Blarinomys* refers to a superficial external resemblance to the shrew *Blarina*. Winge (1941) did not feel that separate generic status was warranted, but most modern authorities have retained *Blarinomys*.

The distribution of *B. breviceps* corresponds to the Serra do Mar dispersal center described by Müller (1973). Presumably, *B. breviceps* differentiated from an akodont ancestor (Hershkovitz, 1966) that became isolated in this region, possibly as early as late Pliocene.

Only about 40 specimens of *B. breviceps* are on record. Specimens of this species can be found in the following museums: Zoological Museum, Copenhagen (holotype); Museo Nacional, Rio de Janeiro; Museu de Biologia, "Prof. Mello Leitão," Santa Teresa, Espírito Santo, Brazil; Natural History Museum, Los Angeles County; British Museum of Natural History; and United States National Museum.

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Principal editor for this account was SYDNEY ANDERSON.

J. O. MATSON, NATURAL HISTORY MUSEUM, LOS ANGELES CO., 900 EXPOSITION BLVD., LOS ANGELES, CALIFORNIA 90007 (PRESENT ADDRESS: THE MUSEUM, MICHIGAN STATE UNIVERSITY, EAST LANSING, 48824), AND J. P. ABRAVAYA, DEPARTMENT OF BIOLOGY, CALIFORNIA STATE UNIVERSITY, NORTHRIDGE, 91324.