

## *Cabassous tatouay* (Cingulata: Dasypodidae)

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**Abstract:** *Cabassous tatouay* (greater naked-tailed armadillo) is the largest naked-tailed armadillo. This fossorial denizen of forest and savanna habitats burrows for ants and termites in east-central South America. *C. tatouay* is listed as “Least Concern” by the International Union for Conservation of Nature and Natural Resources.

**Key words:** anteater, armadillo, Edentata, edentate, South America, Xenarthra

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Synonymy completed 9 August 2013  
DOI: 10.1644/909

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### *Cabassous tatouay* (Desmarest, 1804) Greater Naked-tailed Armadillo

*Loricatus*. *tatouay* Desmarest, 1804:28. Type locality not given. Restricted to “Paraguay, a 27° de lat. sur” by Cabrera (1957 [1958]:219).

[*Dasypus*] *dasyercus* G. Fischer, 1814:124. Type locality “Paraquaiä.”

[*Dasypus*] *gymnurus* Illiger, 1815:108. Nomen nudum.

[*Tatus*]. *gymnurus* Olfers, 1818:220. Type locality “Paraguay.”

*Tatusia tatouay*: Lesson, 1827:311. Name combination.

*Dasypus gymnurus*: Rengger, 1830:290. Name combination.

*Xenurus nudicaudis* Lund, 1839a:231. Nomen nudum.

*Xenurus nudicaudus* Lund, 1839b:81 [1841:143]. Type locality “Rio das Velhas, Minas Gerais, Brazil” (Wetzel et al. 2007:150).

*Dasypus 12-cinctus*: Burmeister, 1854:282. Variant spelling of, but not, *Dasypus duodecimcinctus* Schreber, 1774.

*Xenurus tatouay*: Gervais, 1855:254. Name combination.

*Xenurus unicinctus*: Gray, 1865:378. Part; not *Dasypus unicinctus* Linnaeus, 1758.

*Xenurus gymnurus*: Fitzinger, 1871:242. Name combination.

*Tatoua unicincta*: Miller, 1899:2. Not *Dasypus unicinctus* Linnaeus, 1758.

*Xenurus duodecimcinctus*: Winge, 1915:32. Not *Dasypus duodecimcinctus* Schreber, 1774.

[*Dasypus*]. *nudi-cauda* Larrañaga, 1923:343. Type locality “provincial paracuarensi; longitudine 27 1/3 pollices,” based on Azara’s number LV (1802:131) “Tatouai” (Wetzel et al. 2007:150).

*Cabassous nudicaudatus*: Vuori, 1931:16. Name combination and incorrect subsequent spelling of *nudicaudus* Lund, 1839b.

*Cabassous tatouay*: Cabrera, 1957 [1958]:219. First use of current name combination.

*Cabassous gymnurus*: Ximénez, Langguth, and Praderi, 1972:14. Name combination.

*Cabassous duodecimcinctus*: Paula-Couto, 1973:267. Name combination.

*Cabassous totoay* Kasper et al. 2007:55. Incorrect subsequent spelling of *tatouay* Desmarest, 1804.

CONTEXT AND CONTENT. Order Cingulata, family Dasypodidae, subfamily Tolypeutinae, tribe Priodontini. Synonymy



**Fig. 1.**—An adult male *Cabassous tatouay* from Avare, São Paulo, Brazil. Used with permission of the photographer, Flávio Kulaif Ubaid.



**Fig. 2.**—Dorsal, ventral, and lateral views of skull and lateral view of mandible of an adult male *Cabassous tatouay* (United States National Museum [USNM] 019545/A35381) from Santa Catharina, Brazil. Greatest length of skull is 111.4 mm.

modified from Gardner (2005, 2007) and Wetzel et al. (2007). *C. tatouay* is monotypic (Wetzel et al. 2007).

**NOMENCLATURE NOTES.** The generic name, *Cabassous*, is a latinized form (latinized by McMurtrie [1831]) of a French term used by Cuvier and Buffon, originally from a native name, *capacou* (Galibi, the native language of people from French Guiana), and referring to an armadillo (Palmer 1899; Gotch 1979). The species name, *tatouay*, also is derived from a native name for the animal but from

which language is unclear. Other common names are *tatú-de-rabo-mole-grande* (Wetzel 1982); *cabasú grande*, Chaco-Nacktschwanz-Gürteltier, *tatú-ai*, *tatú-ai mayor*, *tatú de rabo molle*, and *tatu rabo mole* (Superina and Aguiar 2006); *tatu-mundéu* and *tatu-boi* (Cherem et al. 2004); *kabassu* (Gray 1865); and *tatou à douze bandes* (Gervais 1855).

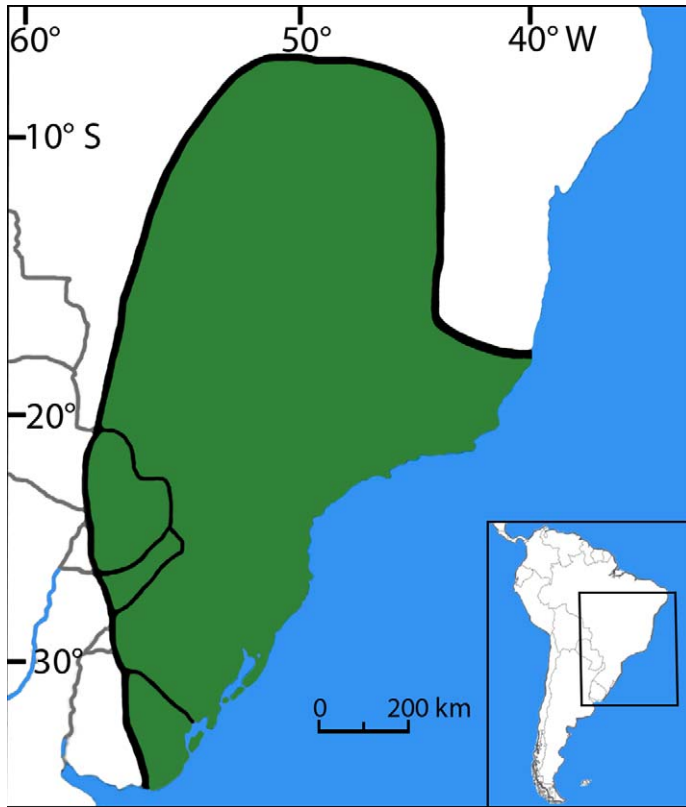
## DIAGNOSIS

*Cabassous tatouay* (Fig. 1) is larger than *C. unicinctus*—southern naked-tail armadillo (mean length of head and body: 458 versus 382 mm [Redford 1994; Hayssen 2014]). *C. tatouay* also has a larger ratio of palatal length to length of maxillary tooththrow than the 3 other species (*C. centralis* [northern naked-tail armadillo], *C. chacoensis* [Chacoan naked-tail armadillo], and *C. unicinctus*): 1.81 for *C. tatouay* versus 1.62–1.68 for the other 3 species (Wetzel 1980).

## GENERAL CHARACTERS

Mean external measurements (mm) for *Cabassous tatouay* (with parenthetical range, *n*) of unknown sex and across the distributional range were: length of head and body, 457.8 (410–490, 5); length of tail, 179.0 (150–200, 5); length of hind foot, 82.2 (80–86, 5); length of ear, 41.7 (40–47, 3—Redford and Eisenberg 1992; Redford 1994). An animal from Brazil had the following measurements (mm): total length, 660; length of tail, 180; total carapace length, 380; carapace width, 350 (Ubaid et al. 2010).

Cranial (Fig. 2) measurements (mm) for 2 adult *C. tatouay* in the United States National Museum (unknown sex, USNM 283468, and male, USNM 019545/A35381, respectively) were: skull: greatest length, 105.52, 111.48; width across zygoma at postorbital process, 52.24, 58.21; length of upper tooththrow, 41.55, 34.33; posterior margin of last molar to tip of premaxilla, 67.53, 67.72; mandible: greatest length, 78.19, 86.11; width from angle to coronoid, 20.71, 26.31; length of lower tooththrow, 38.54, 33.82; posterior margin of last molar to tip of mandible, 60.09, 57.82. Mean (with parenthetical range, *n*) cranial measurements (mm) for *C. tatouay* of unknown sex and across the distributional range were: condylo-nasal length, 109.9 (100.5–123.2, 26); rostral length, 53.0 (48.1–59.7, 25); palatal length, 68.2 (61.0–76.2, 25); palatal width, 17.1 (15.2–19.6, 26); anterior rostral width, 17.0 (13.7–20.2, 26); interlac-rimal width, 44.4 (37.0–49.3, 26); interorbital width, 33.8 (31.7–35.8, 26); zygomatic width, 56.3 (50.2–61.2, 24); mastoid width, 49.7 (41.7–48.2, 26—reported mean falls outside the range of values presented by Wetzel [1980]); height of cranium, 42.4 (35.6–46.3, 25); length of maxillary tooththrow, 38.2 (33.9–43.7, 16); length of mandibular tooththrow, 35.0 (32.2–38.2, 14—Wetzel 1980). One carapace from Uruguay



**Fig. 3.**—Geographic distribution of *Cabassous tatouay* (modified from Wetzel et al. 2007). The northern extent of the range is uncertain (Wetzel 1980; Wetzel et al. 2007) and is not included on the International Union for Conservation of Nature and Natural Resources map (Abba and Superina 2010). The distribution depicted on the IUCN map extends farther east in Brazil and not as far south into Uruguay (Abba and Superina 2010). *C. tatouay* is monotypic.

was 610 mm in length with a 135-mm-long tail (Ximénez and Achaval 1966).

### DISTRIBUTION

*Cabassous tatouay* occurs “in Uruguay, the Argentine provinces of Misiones and Buenos Aires, southern Paraguay east of the Río Paraguay, and in Brazil from the states of Pará, Mato Grosso, Goiás, Minas Gerais, and Espírito Santo, south to Rio Grande do Sul” (Fig. 3; Wetzel et al. 2007:150). No fossils are known.

### FORM AND FUNCTION

*Cabassous tatouay* has no incisors or canines and 8 or 9 upper and 8 or 9 lower uniform cheek teeth (2 specimens at the United States National Museum). Dental microwear on M6 (6th tooth from anterior end of premaxilla) from 5 animals included an average of 8 scratches and 55.5 pits;

gouges were present on all teeth (Green 2009). Teeth are compressed mediolaterally.

Tail and cheek area below eye have isolated scales. The dorsal surface of the pinna is scaled. Scutes on 1st and 2nd complete band of the scapular shield have transverse widths that are less than their anteroposterior lengths, except for 1 or 2 medial scutes. Mean counts of scutes (with parenthetical *SD*, *n*) were: cephalic shield, 48.3 (3.7, 20); 1st complete band of scapular shield, 21.8 (5.5, 9); last band of scapular shield, 29.0 (1.5, 9); 3rd movable band, 31.0 (1.7, 9); 4th movable band, 30.8 (1.6, 13); 1st band of the pelvic shield, 29.1 (1.4, 9); last band of the pelvic shield, 8.0 (1.3, 9). The number of movable bands is 12.8 (*SD* = 0.6, *n* = 18—Wetzel 1980). The number of scutes on the 13 moveable bands is 29–32 (Ximénez and Achaval 1966).

### ECOLOGY

*Cabassous tatouay* frequents open areas (Redford and Eisenberg 1992) as well as forests. In São Paulo State of Brazil, *C. tatouay* occurs in seasonal, semideciduous forests (Antunes and de Eston 2009). In Brazil, *C. tatouay* has a high probability of occurrence in the Cerrado, Pantanal, and Atlantic Forest (Anacleto et al. 2006). In Argentina, *C. tatouay* has a higher probability of occurrence in the Paranaense forest with less-frequent occurrence in the Mesopotamian savanna (Abba et al. 2012). *C. tatouay* feeds primarily on terrestrial ants and termites (Wetzel et al. 2007).

Ectoparasites include the tick *Amblyomma pseudoconcolor* (Ixodidae—Botelho et al. 1989). Although the protozoan *Trypanosoma cruzi* uses *C. tatouay* as a host (Jeremías 2008), neither the protozoan *Toxoplasma* nor the bacterium *Leptospira* was detected in 2 animals (da Silva et al. 2008). One animal was not reactive in a serological test for *Brucella* (Antunes et al. 2010). Two animals were polymerase chain reaction negative for the leprosy bacterium, *Mycobacterium leprae* (Pedrini et al. 2010).

Anesthesia was induced by 0.2 ml/kg of tiletamine and zolazepam (Zoletil—da Silva et al. 2008).

### BEHAVIOR

Twenty-seven circular burrows had a mean width of 17.7 cm and mean height of 18.1 cm (Anacleto and Diniz-Filho 2008), whereas 5 oval burrows were 20–25 cm wide and 15 cm tall (Carter and Encarnaçao 1983). The mean slope of the oval burrows was 47.7° and the mean slope of the ground around the entrance was 12° (Carter and Encarnaçao 1983). Burrow entrances tend to be placed where the prevailing winds blow away from the entrance (Carter and Encarnaçao 1983) and burrows were in new termite mounds (Carter and Encarnaçao 1983).



## GENETICS

The diploid chromosome number (2n) from 1 male is 50 (fundamental number for autosomes, 68) with 10 pairs of metacentric and submetacentric autosomes and 14 pairs of acrosomes (Barroso and Seuánez 1991). The X is a small metacentric chromosome and the Y is acrocentric (Barroso and Seuánez 1991). Images of the karyotype and meiotic studies are available (Barroso and Seuánez 1991). The Duffy phenotype Fy (a- b-) characterizes red blood cells (Silva et al. 2005).

## CONSERVATION

*Cabassous tatouay* is listed as “Least Concern” by the International Union for Conservation of Nature and Natural Resources (Abba and Superina 2010). The major threats are from habitat loss and hunting (Abba and Superina 2010).

## ACKNOWLEDGMENTS

F. Kulaif Ubaid provided the photograph of the animal and graciously reviewed a previous version of the manuscript. The skull plate was created by D. Chen from photographs by S. Gaffney. K. Geissler created the map. Funding was from the Blakeslee Grant for Genetics Research at Smith College.

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