

DESCRIPTION OF A NEW SPECIES OF GREAT ANT-EATER FROM CENTRAL AMERICA.

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The restricted genus *Myrmecophaga* has long been considered monotypic, the single species *tridactyla* being accorded a range from Guatemala to Brazil. An examination of material in the collection of the United States National Museum as well as in the collections of the Museum of Comparative Zoölogy, Cambridge; American Museum of Natural History, New York; and the Academy of Natural Sciences, Philadelphia, shows that constant specific differences exist between skulls of individuals from South America and those of individuals from Central America. The material now available is insufficient for determining whether these internal differences are correlated with external differences.

I am indebted to Mr. Outram Bangs, Cambridge, Massachusetts, Dr. J. A. Allen, New York City; and Messrs. Witmer Stone and James A. G. Rehn, Philadelphia, Pennsylvania, for the loan of specimens from the collections under their care, for use in connection with the preparation of this paper.

GENERIC NAMES OF THE GREAT ANT-EATERS.

Myrmecophaga.—First used by Linnæus in 1758^a with three species, namely, *didactyla* Linnæus, from South America (type of *Cyclopes* Gray 1821), *tridactyla* Linnæus (type of the genus *Myrmecophaga*, by elimination) and *tetradactyla* Linnæus (type of *Uroleptes* Wagler 1830.)^b

^aSystema Naturæ, 10th ed., I, p. 35.

^bFor a discussion of the term *Myrmecophaga* see Rehn, American Naturalist, XXXIV, 1900, pp. 575, 576; Thomas, idem., XXXV, 1901, pp. 143, 144; and Allen, Proc. Biol. Soc. Washington, XIV, 1901, pp. 91, 92; whence it is evident that *Myrmecophaga* is the proper generic designation of the Great Ant-eaters.

Mammyrmecophagus.—Herrera, 1899, "Sinonimia vulgar y científica de los principales Vertebrados Mexicanos," proposed as a modification of Linnæus' term *Myrmecophaga*.

Falcifer.—Rehn, 1900;^a type, *Myrmecophaga jubata* Linnæus from Brazil; proposed as a name for the Great Ant-eater under the erroneous belief that the type of *Myrmecophaga* was *tetradactyla* and not *tridactyla*.^b

SPECIFIC NAMES OF THE GREAT ANT-EATERS.

Tridactyla Linnæus,^c "Habitat in America meridionali." Type of the genus *Myrmecophaga* Linnæus by elimination.^d

Jubata Linnæus,^e "Habitat in Brasilia, Cap. b. spei." Type of *Falcifer* Rehn (see above). It is antedated by *tridactyla* as a specific term for the Brazilian Great Ant-eater.

As no name is available for the Great Ant-eater of Central America, it may be known as

MYRMECOPHAGA CENTRALIS, new species.

Type.—Young adult skull, Cat. No. 15963 (no skin), U.S.N.M.; collected at Pacuare, Costa Rica, June, 1876, by José C. Zeledon. Original No. 86.

Diagnostic characters.—Like *Myrmecophaga tridactyla*, but median anterior extension of frontal bones not produced much farther forward than lateral anterior extensions of same bones (Plate XIV, figs. 1 and 2); most anterior point of squamosal extending forward decidedly less than half way between the middle of the root of the zygomatic process and the most anterior point of the alisphenoid (see Plate XIV, fig. 3).

In *Myrmecophaga centralis* the antero-inferior angle of the parietal extends downward and inward so that it appears on the inferior surface of the skull for a distance of 5 to 10 mm., the inferior portion being separated from the lateral portion by a more or less evident ridge, while in *M. tridactyla* scarcely any of the antero-inferior angle of the parietal appears on the under side of the skull. Owing to the forward extension of the squamosal in the Brazilian Ant-eater the lateral portion of the alisphenoid is narrower behind than in front, while in the Central American animal, owing to the downward extension of the antero-inferior angle of the parietal, the lateral portion of the alisphenoid is narrower in front than behind. (See Plate XIV, figs. 3 and 4.) In *M. tridactyla* the most anterior point of the squamosal is about midway between the most anterior point of the alisphenoid and

^a American Naturalist, XXXIV, 1900, p. 576.

^b Rehn, Thomas, and Allen. For references see foot note on p. 569.

^c Systema Naturæ, 10th ed., I, 1758, p. 35.

^d Thomas, American Naturalist, XXXV, 1901, p. 143. Linnæus' first reference, "Tamandua-guacu, Marcgr. bras 225," permits the type locality to be fixed as Brazil.

^e Systema Naturæ, 12th ed., I, 1766, p. 52.

the middle of the root of the zygomatic process, in *M. centralis* the same point is situated much more posteriorly.

The differences in size between the two specimens figured is due to age or to individual variation, as some Central American skulls are as large as the South American skull figured, and some South American skulls are as small as the Costa Rican skull figured. The interorbital constriction seen in the Brazilian skull is probably individual.

Considerable variation is seen in various parts of the skulls of the Great Ant-eaters, especially in the region of the lachrymal bone, the antero-posterior diameter of which is relatively short in all the Central American skulls, while in some of the South American skulls it is much elongated, and in others it is short. It is possible that when large series of specimens are obtained from definite localities, other forms of the Great Ant-eater may be recognized.

SKULLS EXAMINED.

Myrmecophaga centralis

Cat. No. 15963. U.S.N.M. Pacuare, Costa Rica, Type.

Cat. No. 14107. U.S.N.M. Talamanca, Costa Rica.

Cat. No. 14155. U.S.N.M. Talamanca, Costa Rica.

Cat. No. 10095. Mus. Comp. Zool. (Bangs coll.), Divala, Panama.

Myrmecophaga tridactyla.^a

Cat. No. 13004. U.S.N.M. Surinam.

Cat. No. 143131. U.S.N.M. Surinam.

Cat. No. 49597. U.S.N.M. San Sebastian, Marajo, Brazil.

Cat. No. 22986. U.S.N.M. (mounted skeleton). Locality unknown.

Cat. No. 20753. U.S.N.M. (mounted skeleton). Locality unknown.

Cat. No. 8414. Mus. Comp. Zool. (Bangs coll.). Dibuila, Colombia.

Cat. No. 194. Amer. Mus. Nat. Hist. Brazil.

Cat. No. 16137. Amer. Mus. Nat. Hist. Ciudad Bolivar, Venezuela.

Cat. No. 16924. Amer. Mus. Nat. Hist. Maripa, Venezuela.

Cat. No. 4634. Acad. Nat. Sci. Phila. Brazil.

Cat. No. 4639. Acad. Nat. Sci. Phila. Brazil.

EXPLANATION OF PLATE XIV.

All figures about $\frac{9}{20}$ natural size.

Figs. 1 and 3. *Myrmecophaga centralis*, No. 15963, Type from Pacuare, Costa Rica.

Figs. 2 and 4. *Myrmecophaga tridactyla*, No. 49597, from San Sebastian, Marajo, Brazil.

In both skulls the fronto-nasal sutures, and those about the squamosal and alisphenoid have been intensified by the use of pigment before the photographs were taken.

^aThe skull represented in Flower's Osteology of the Mammalia, 1885, p. 230, fig. 69, belongs to the South American species. The locality is not given. Specimen No. 115 from Surinam, represented in Elliot's Land and Sea Mammals of Middle America and West Indies, 1904, p. 29, fig. 8, as judged from the illustration, also belongs to this species.



Lyon, Marcus Ward. 1906. "Description of a new species of great ant-eater from Central America." *Proceedings of the United States National Museum* 31(1496), 569–571. <https://doi.org/10.5479/si.00963801.31-1496.569>.

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DOI: <https://doi.org/10.5479/si.00963801.31-1496.569>

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