

Article XV.—NOTE ON THE GENERIC NAMES
DIDELPHIS AND PHILANDER.

By J. A. ALLEN.

Mr. James A. G. Rehn, in the 'American Naturalist' for July, 1900 (Vol. XXIV, pp. 575-578), discusses the standing of the Linnæan genera *Myrmecophaga* and *Didelphis*. While I agree with his conclusions in respect to the former, I cannot share his view with regard to the latter. In the case of *Didelphis*, he claims with Alston (Biolog. Centr.-Amer., Vol. I, p. 196, footnote) and the present writer (Bull. Am. Mus. Nat. Hist., Vol. IX, 1897, p. 43) that *D. marsupialis* "is unrecognizable." Mr. Alston adopted the name *D. virginiana* Kerr for the North American Opossum as being "the earliest name which can be clearly and certainly identified with this species"; he adding: "Linnæus's *D. marsupialis* (Syst. Nat. [ed. 12], I, p. 71) is evidently founded on a confusion of the North American Opossum with some of the South American forms, probably *D. cancrivora* Gmelin; and the same remark applies to descriptions of his earlier followers. In such a case it seems advisable to relinquish the uncertain title altogether." In 1897 (*l. c.*) I said: "The name *marsupialis* is here recognized only provisionally, and in the belief that it should be discarded as indeterminable, in view of the fact that several quite distinct forms have been included under it. The original Linnæan species *marsupialis* was intricately composite. . . . If we take Linnæus's diagnosis (Syst. Nat., ed. 10, 1758, p. 55) as the basis of the name, it seems to point to *D. aurita* rather than to *D. virginiana*—to an animal with a tail as long as the body and the ears black, tipped with white. It is clearly not *D. karkinophaga*."

As the above quotations show, Mr. Rehn is perhaps fairly justified in citing Alston and myself in support of his side of the question. But since, through Mr. Rehn's action in the matter, the case has become more serious, it seems desirable to go once more over the subject, for his position, if really tenable, involves a most serious overturn of names long currently accepted. As stated by Mr. Rehn, three of Linnæus's four valid species were

successively removed from the Linnæan genus *Didelphis* as types of new genera, namely *D. philander*, as the type of the genus *Philander*; *D. marmosa*, as the type of the genus *Marmosa*; and *D. opossum*, as the type of the genus *Metachirus*; leaving only *D. marsupialis*, which is claimed to be unrecognizable. As *D. opossum* was the last recognizable species removed from the genus *Didelphis*, this species, according to prevailing rules of nomenclature, he claims must be taken as the type of *Didelphis*, and *Sarigua* (Muirhead, "1819"¹) be employed for the group of species for which *Didelphis* has been hitherto almost universally employed. It therefore seems almost as desirable to conserve Linnæus's species *marsupialis* as his genus *Didelphis*.

It may be noted, first, that there is no doubt whatever that the name *marsupialis* applies almost strictly to the large Opossums of the *virginiana* type, of both North America and South America. The trouble is to restrict the name satisfactorily to some one form of the group of species and subspecies described since Linnæus published the name *marsupialis*. It is a recognized rule of nomenclature that a name applied to a composite group, whether specific or generic, must be conserved for some one of its components when the group is later subdivided. Where a diagnosis is imperfect or indecisive, as in the case of a large proportion of the species of the older authors, including Linnæus, it is necessary, in attempting to restrict the name to some particular form included in a composite group, to examine the references on which the name was originally based, as well as the diagnosis, the former often being of far greater importance than the latter.

In this case Linnæus's first reference is to the Philander of Seba ("Mus. I, p. 64, t. 39"), which is not an American animal, but a species of *Phalanger* from Amboyna, and hence not the animal called Philander from South America.

Linnæus's second reference is to Tyson. Dr. Tyson's first memoir is entitled 'Carigueya, seu Marsupiale Americanum; or, The Anatomy of an Opossum,' published in the 'Philosophical

¹ Mr. Rehn says: "The large opossums formerly called *Didelphis* require a name, and the oldest one available is *Sarigua* Muirhead, with *S. virginiana* as the type. The complete reference is *Sarigua* Muirhead, Brewster's *Amer. Edition Edinburgh Encyclopædia*, Vol. XII, Part II, p. 505, 1819."

This reference, however, is erroneous as to date, and misleading as to the title of the work cited. The correct citation would be Brewster's *Edinburgh Encyclopædia*, Amer. Ed., Vol. XII., Pt. 2, p. 505, 1832. The important error is in the date, which is 1832 instead of 1819. The reference to the original edition, where the matter is the same, is Brewster's *Edinburgh Encyclopædia*, Vol. XIII, p. 429, 1830—the date being in this case 1830 instead of 1832.

Transactions' in 1698 (Vol. XX, No. 239, pp. 105-164, with 2 pll.), and based on an animal "brought alive from Virginia," of which he gave not only a scientific and detailed account of its anatomy but also of its external characters. Linnæus's reference is to Tyson's second memoir on the same animal, published six years later (Philos. Trans., Vol. XXIV, 1704, pp. 1565-1575), which is followed by a memoir by Dr. Cowper, on 'The Anatomy of those Parts of a Male Opossum that differ from the Female' (*ibid.*, pp. 1576-1590, with 1 pl.). "This male Opossum," says Dr. Cowper, "as well as the female dissected by Dr. Tyson, was brought from Virginia, and presented to the Royal Society." Then follow references to DeLaet, Marcgrave, Piso, and Hernandez, which mainly relate to the large South American Opossums, but not very distinctly to any particular form of this varied group. In the reference to Tyson we have distinctly a reference to the Virginia Opossum, and to that member of the Opossum group only. It therefore seems consonant with the rules of nomenclature for such cases, as well as with current usage, to fix the name *Didelphis marsupialis* upon the Virginia Opossum, which thus becomes, by elimination, the type of the Linnæan genus *Didelphis*. Then we have, in chronological sequence, *Didelphis karkinophaga* Zimmermann (1780), based exclusively on 'Le Crabier' of Buffon (Suppl., Vol. III, p. 272, pl. liv) from Cayenne, for the form from northeastern South America; *D. azaræ* Temminck (1826¹) for the animal of Paraguay and Bolivia, and *Didelphis aurita* Wied (1826) for the form from southeastern Brazil. Later followed *Didelphis californica* and *D. breviceps* (1833), based on specimens from Mexico.

The name *Sarigua*, in the French vernacular form *Sarigues*, was used by G. Cuvier (Tabl. élém. de l'Hist. Nat. Anim., an 6 [=1798], p. 124) as early as 1798 for the American Marsupials collectively, as the name of the first of his three divisions of *Didelphis* Linn., the others being, respectively, *Dasyures* and *Phalangers*, for the Australian Marsupials. Desmarest used the term *Sarigue* as a vernacular equivalent of *Didelphis* Linn. in

¹ As there seems to be no doubt that the second volume of Wied's 'Beiträge zur Naturgeschichte von Brasilien' was published in 1826, it seems certain that that part of Temminck's 'Monographies de Mammalogie' treating of the Opossums should bear at least as early a date, as Wied cites this part of Temminck's work, giving page references. Thus *aurita* has evidently *not* "a year's clear priority over *azaræ*," as stated by Alston (Biol. Cent.-Am., p. 197), but is of somewhat later date.

1804 (Nouv. Dict. d'Hist. Nat., Vol. XXIV, 1804, Mamm., p. 19), whence Muirhead evidently obtained it, as he ascribes the name to Desmarest.¹ The name Sarigue was used in a vernacular sense by Buffon (Hist. Nat., Vol. X, p. 279 *et seq.*) in 1763, evidently as a modification of *Carigueya* of Tyson, who derived it from still earlier writers.

The genus *Philander* is usually ascribed to Tiedemann (1808), but as used by this author it is a pure synonym of *Didelphis* Linnæus, being merely a renaming of the genus, as long since pointed out by Mr. Thomas (Cat. Marsup. and Monotr. Br. Mus., 1888, p. 336, footnote). The name *Philander*, however, was first employed in a generic sense by Brisson in 1756, who included under it all of the Marsupials known to him, and again in 1762 for the same species. The first use of the name *Philander* by Brisson being previous to 1758, the name is not tenable from its first date, but would be from 1762, had not Linnæus in the meantime established the genus *Didelphis*, for practically the same species.² The exception is a species of *Phalanger* from the East Indies. According to current usage in similar cases,³ *Philander* should be thrown out as untenable for any generic group, unless, by the process of elimination, it can be fixed upon the group to which Storr in 1780 gave the name *Phalanger*. This would, of course, do away with any availability it might otherwise have in American mammalogy.

Dr. J. E. Gray in 1843 (List Mamm. Br. Mus., 1843, pp. xxi, 100) again made use of the name "*Philander* Brisson" for such a heterogeneous assemblage as *D. nudicauda* Desm., *D. karkino-*

¹ The manner in which Dr. Muirhead used the name *Sarigua* is shown by the following transcript from his article on the "Suborder Pedimana."

"1. GENUS SARIGUA, Desmar. DIDELPHIS, Lin. . . . [Here follows a short diagnosis of the genus.]

"1. *S. marsupialis*, *Didelphis marsupialis*, *cancrivora*, Lin. *Amboyna*, or *Molucca opossum*. Eight teats within the pouch. 2. *S. virginiana*, *Didelphis virginiana*, Pennant and Geoff. *Long-haired opossum*. Body covered with long brown hair; head white with a brown spot. 3. *S. opossum*, *Didelphis opossum*, Lin. *Common* or *Virginian opossum*. Half of the tail hairy; a light colored spot above the eyes. 4. *S. murina*, *Didelphis murina*, Lin. *Murine opossum*, or *marmose*. Tail hairy at the base. 5. *S. cayopollin*, *Didelphis cayopollin*, and *dorsigera*, Lin. *Mexican* or *Merian opossum*. Tail longer than the body, margin of the orbits black. 6. *S. brachyura*, *Didelphis brachyura*, Lin. *Short-tailed opossum*. Tail short; ears naked; body rufous. 7. *S. memmina*, *Didelphis memmina*, Cuv. *Yapock* or *Little otter of Guiana*. Tail hairy above, naked beneath, and nearly as long as the body. 8. *S. crassicaudata*. *Thick-tailed opossum*. Tail large and strong; upper parts of the body of a bright cinnamon hue, the under parts of a bright gray. 9. *S. pusilla*, *Didelphis pusilla*, Desmar. *Dwarf opossum*. Body of a leaden hue, and whitish underneath.

"*S. opossum*. (Pl. ccclv, Fig. 20.) This species is about the size of a small cat . . ."

Then follows, under this name, about one column on the North American Opossum.

² Cf. Merriam, Science, N. S., II, No. 39, p. 418, Sept. 27, 1895.

³ See the treatment of such nearly parallel cases as *Myodes Pallas* and *Cuniculus Wagler* by Mr. G. S. Miller, Jr. (N. Am. Fauna, No. 12, 1896, pp. 15 and 16).

phaga Zimmermann, *D. murina* Linn., etc., leaving *D. virginiana* and *D. azarae* in *Didelphis*. No type was designated, but the first species was *D. nudicauda* Desm., which later became the type of *Metachirus* Burmeister. Still later the name *Philander* was used by Burmeister (1856) in a generic sense with *D. philander* Linn. as the type.

As already shown, however, both *Sarigua* and *Philander* are properly synonyms of *Didelphis*, and as a new name should be provided for the genus of late recognized under the name *Philander*, I suggest **Caluromys**, with *Didelphis philander* Linn. as type.

Caluromys will include not only the species now usually referred to *Philander*, but also *Didelphis cinerea* Temminck, now commonly placed in *Marmosa*; as *D. cinerea* agrees with the former not only in external characters, as notably in the heavily furred basal portion of the tail, but also in the principal characters of the skull, as in the presence of well-developed postorbital processes and in the absence of large vacuities in the posterior palate, in comparison with the species of the *Marmosa* group. The forms of *Caluromys* will thus stand as follows:

1. *Caluromys philander* (Linn.). Guiana, Venezuela, and northeastern Brazil.
2. *Caluromys cicur* (Bangs). Northeastern Colombia.
3. *Caluromys affinis* (Wagner, ex Natterer MS.). Matto Grosso, Brazil.
4. *Caluromys trinitatis* (Thomas). Trinidad.
5. *Caluromys derbianus* (Waterhouse). Ecuador (?); Central America.
6. *Caluromys derbianus ornatus* (Tschudi). Peru.
7. *Caluromys laniger* (Desm.). Paraguay.
8. *Caluromys laniger guayanus* (Thomas). Western Ecuador.
9. *Caluromys laniger pallidus* (Thomas). Northwestern Panama.
10. *Caluromys cinereus* (Desm.). Southeastern Brazil.

II. **Caluromys alstoni**, sp. nov.

Didelphis cinerea, ALSTON, Biol. Centr.-Am. Mamm. 199, pl. xxi (Oct. 1880). Not of Temminck.

Type, No. 11710, ♂ ad., Tres Rios, Costa Rica, Aug. 17, 1893; coll. George K. Cherrie. Cotypes, 1 ♀ ad. and 4 young, one fourth to one half grown.

Larger than *C. cinereus*, with the tips of the hairs of the dorsal surface dark chestnut brown instead of rufous brown, and the lower parts more strongly yellowish. Head and body in male, 180 mm.; tail, 250; hind foot (without claws), 25.

Known only from Costa Rica.

It may be of interest to state in this connection that what may be fairly considered as the type of *Didelphis cinerea* Temminck — the mounted specimen sent to Temminck by Wied (*cf.* Wied, *Beiträge zur Naturg. von Bras.*, II, 1826, p. 409, *footnote) for description — is now in this Museum, it having been received as a part of the Maximilian Collection, purchased in 1870. It is in poor condition, having suffered from long exposure as a mounted specimen, but it still has attached to it Wied's original label, which bears the legend: "No. 33, Mas. Jupatí."¹

It is without doubt the type of Wied's description of the species (*l. c.*, pp. 406-411), and certainly a cotype of Temminck's original description (*Monog. de Mamm.*, 1825, p. 46); he must, however, have described the female from another specimen, from Bahia, loaned him, as he states, by the Vienna Museum.

¹ Says Wied, "Dieses Beutelthier lebt im östlichen Brasilien. Ich erhielt es in den Wäldern des *Mucuri* zu *Morro d'Asara*, wo man es unter der Benennung *Jupatí* mit den übrigen verwandten Arten verwechselt" (*l. c.*, p. 410).