# PHILANDER AND FOUR-EYED OPOSSUMS ONCE AGAIN

## Philip Hershkovitz

Abstract.—Despite attempts by Pine (1973) and Husson (1978) to suppress Philander Tiedemann, 1808, as generic name for the four-eyed pouch opossum, Didelphis opossum Linnaeus (1758), it is shown that the type-species, P. virginianus Tiedemann, 1808, is a renaming or objective synonym of Didelphis opossum Linnaeus, with identical lectotype, the female four-eyed pouch opossum described and figured by Seba (1734).

Philander Tiedemann, 1808, with type Philander virginianus Tiedemann, 1808 = Didelphis opossum Linnaeus, 1758, was established as the name for the four-eyed pouch opossum in 1949 when I reported its availability and designated the type-species. In 1973, Pine raised the question that the type-species, originally described as "rötlich braun . . ." could well be the pouchless four-eyed opossum known as Metachirus nudicaudatus E. Geoffroy 1803. In Pine's opinion, the pouched form was grayish, never brownish. Thereupon, he suggested suppression of the name Philander Tiedemann. However, grayish and brownish individuals occur among both pouched and non-pouched four-eyed opossums (Hershkovitz, 1976), and only pouched opossums were known to Tiedemann and all authors cited by him in his description of Philander virginianus.

Husson (1978:27) agreed with Pine regarding suppression of *Philander* Tiedemann but "for different reasons." None are given unless Husson refers to the anticipated effect of his use of a nomenclatural strategem.

In my discussions of the status of *Philander* Tiedemann, 1808, I (1949:11) noted that *P. virginianus* "is merely a new name for the four-eyed pouch opossum, *Didelphis opossum* Linnaeus," and (1949:12, 1976:302) designated the type-species of *Philander* Tiedemann as the equation "*Philander virginianus* Tiedemann = *Didelphis opossum* Linnaeus." Notwithstanding, Husson (1978:27) claims I "made the mistake to consider the name *Philander virginianus* Tiedemann, 1808, a replacement for *Didelphis opossum* Linnaeus 1758. It is true that Linnaeus's name is given as a synonym in Tiedemann's account, but there is no indication that it should be treated differently from the other references given under *Philander virginianus*. In fact *Philander virginianus* Tiedemann is a composite species based in part on *Didelphis opossum* Linnaeus . . . partly on *Metachirus nudicaudatus* (E. Geoffroy, 1803) . . . and partly on *Didelphis marsupialis* Linnaeus, 1758

... and the mention of Virginia as one of the type localities." Husson then goes on to say that "so far as I know no lectotype has ever been designated for *Philander virginianus* Tiedemann, 1808, and therefore I now select as such the female specimen from Virginia discussed by Tyson (1698). In this way *Philander virginianus* Tiedemann, 1808, becomes a junior synonym of *Didelphis virginiana* Kerr (1792:103), and the generic name *Philander* Tiedemann, 1808, disappears in the synonymy of *Didelphis* Linnaeus, 1758."

Husson errs in his judgment of a work he did not see (Husson, 1978:546). There is more than one indication that Tiedemann proposed the name *Philander virginianus* as a replacement for *Didelphis opossum* Linnaeus which, as senior objective synonym, becomes the correct name for the taxon. Tiedemann, it is noted (see Hershkovitz, 1949:11, for extract) introduced the two names in direct apposition thus: "P[hilander]. virginianus (Did. opossum L.)." The construction, as used here, is more than a mere indication. It is an equation consisting of two objective synonyms. This interpretation is supported by the fact that Tiedemann described no specimens before him or new species and he mentions no other scientific name. He simply *replaced* the old name *Didelphis opossum* Linnaeus for four-eyed pouch opossums by the new name combination *Philander virginianus*. The reference to Virginia was made in ignorance. Neither Tiedemann nor his contemporaries knew the distributional limits of the species they described.

The construction of paired binomials in direct apposition is employed by Tiedemann (1808:427–428) for the two remaining species of his genus *Philander*, but with only the new generic name used as replacement in the equated binomials, thus:

- "2. Das mausartige Opossum P. murinus (Did. murina L.) . . . .
  - 3. Das kurzgeschwäntze Opossum. P. brachyurus (Did. brachyuros Penn.) . . . . ''

It is evident here and throughout his text that Tiedemann replaced older name combinations with new ones, whether his own or of other authors. Where alternate interpretations are possible, the decision of the first reviser holds.

A second indication is Tiedemann's diagnosis of *Philander virginianus*, "Körper rötlich braun. Ueber jedem Auge ein gelblich/weiser Flecken. Schwanz so lang als der Leibe./ 1 Fuss und 3 Zoll lang ohne den Schwanz." References to Buffon and Schreber's figures leave no doubt that Tiedemann defined only the four-eyed pouch opossum. The description is followed by bibliographic references to works on opossum anatomy by Tyson (1698) and Cowper (1704).

Third, Tiedemann (1808:426, footnote b, [a reference not included in my 1949 extract]) based on the generic name *Philander* on the "*Philandri*" of the non-binomialist Brisson (1762:207). The diagnosis for the species Bris-

son names "Philander" derives from the same animals described by Seba (1734) under the name "Philander" and which served Linnaeus (1758:55) for the following description of *Didelphis opossum*:

3. D[idelphis]. cauda semipilosa, superciliorum regione pallidiore, mammis binis.

Philander, Opossum s. Carigueja. Seb. mus. 1. p. 56. t. 36. f. 1. 2. Habitat in America

Abdomen circa mammas contrahitur in marsupium; polices postici mutici.

The repeated tautonomy in generic and specific names and the other indications pointed out above definitely equate *Philander virginianus* Tiedemann with *Didelphis opossum* Linnaeus. On the other hand, the genus *Philander* Tiedemann, 1808, is construed as a new taxon containing two of the five nominal species of the genus *Didelphis* Linnaeus, 1758, and "P. brachyurus (Did. brachyuros Penn.)" currently Monodelphis brevicaudata Erxleben, a species not included in the original Linnaean Didelphis.

Husson's motive for designating Tyson's animal as lectotype of *Philander* virginianus Tiedemann for the deliberate purpose of sinking the name Philander Tiedemann in the synonymy of Didelphis Linnaeus, is obscure. He could as readily have designated any of the four-eyed pouch opossums cited by Tiedemann. As it stands, Husson's action violates the letter and spirit of Recommendation 74A of the International Code of Zoological Nomenclature that "in designating a lectotype, a zoologist should in general act consistently with, and in any event should give great weight to, previous valid restrictions of the taxonomic species, in order to preserve stability of nomenclature." More to the point, Article 74(C) of the Code requires that "each designation of the lectotype must be made specifically for an individual nominal species [in this case Philander virginianus] and must have as its object the definition of that species." Tiedemann had already clearly defined his species as a four-eyed pouch opossum. Tyson's opossum is not that species and cannot serve for its definition. Such specimens not seen but cited by the author in or appended to the description of a species, are properly treated as misidentified referrals and not in the sense of syntypes. In any event, my (1976:297) prior designation of the female four-eyed pouch opossum described and figured by Seba (1734:56, pl. 36, fig. 2) as the lectotype of Didelphis opossum Linnaeus, 1758, makes it ipso facto the lectotype of the junior objective synonym Philander virginianus Tiedemann, 1808. Metachirops Matschie, 1916, also with type Didelphis opossum Linnaeus, is an objective junior synonym of Philander Tiedemann, 1808.

In conclusion, I find no zoological support for Pine's (1973) opinion that *Philander virginianus* Tiedemann is conspecific with *Metachirus nudicaudatus* E. Geoffroy, and no zoological or nomenclatural justification for Husson's (1978) attempt to convert the name *Philander virginianus* Tiedemann,

already restricted to four-eyed pouch opossums, into a synonym of *Didel*phis virginianus Kerr, for the Virginia opossum.

#### Literature Cited

(For a complete bibliography see Husson (1978) cited below.)

- Brisson, A. D. 1762. Regnum animale in classes IX. Distributum sive synopsis methodica.— Theodore Haak, Leiden, pp. 1-6, 1-296.
- Hershkovitz, P. 1949. Generic names of the four-eyed pouch opossum and the woolly opossum (Didelphidae).—Proc. Biol. Soc. Washington 62:11–12.
- ——. 1976. Comments on generic names of four-eyed opossums (family Didelphidae).— Proc. Biol. Soc. Washington 89(23):295–304.
- Husson, A. M. 1978. The mammals of Suriname.—Brill, Leiden, pp. i-xxxiv, 1-569.
- Linnaeus, C. 1758. Systema naturae per regna tria naturae secundum classes, ordines, genera, species cum characteribus, differentiis, synonymis, locis. (Ed. 10.)—L. Salvia, Stockholm, 1:1–824.
- Pine, R. H. 1973. Anatomical and nomenclatural notes on opossums.—Proc. Biol. Soc. Washington 86(33):391–402.
- Seba, A. 1734. Locupletissimi rerum naturalium thesauri accurata descriptio et iconibus artificiosissimis expressio, per universam physices historiam opus . . . —Amsterdam 1, 38 unnumbered, pp. 1–178, pls. 1–111, 2 unnumbered (frontispiece), 6 ornamental engravings.
- Tiedemann, D. F. 1808. Zoologie. Zu seinen Vorlesungen entworfen. Vol. 1, Allgemeine Zoologie, Mensch und Saugthiere.—Weberschen Buchhandlung, Landshut, pp. i-xvi, 1-610.

Field Museum of Natural History, Chicago, Illinois 60605.



Hershkovitz, Philip. 1981. "Philander And Four-Eyed Opossums Once Again." *Proceedings of the Biological Society of Washington* 93, 943–946.

View This Item Online: <a href="https://www.biodiversitylibrary.org/item/107589">https://www.biodiversitylibrary.org/item/107589</a>

Permalink: <a href="https://www.biodiversitylibrary.org/partpdf/45619">https://www.biodiversitylibrary.org/partpdf/45619</a>

#### **Holding Institution**

Smithsonian Libraries and Archives

### Sponsored by

**Biodiversity Heritage Library** 

#### **Copyright & Reuse**

Copyright Status: In copyright. Digitized with the permission of the rights holder.

Rights Holder: Biological Society of Washington

License: http://creativecommons.org/licenses/by-nc-sa/3.0/

Rights: <a href="https://biodiversitylibrary.org/permissions">https://biodiversitylibrary.org/permissions</a>

This document was created from content at the **Biodiversity Heritage Library**, the world's largest open access digital library for biodiversity literature and archives. Visit BHL at https://www.biodiversitylibrary.org.