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Source: *Acta Chiropterologica*, 10(2) : 380-382

Published By: Museum and Institute of Zoology, Polish Academy of Sciences

URL: <https://doi.org/10.3161/150811008X414962>

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**Mistakes in the formation of species-group names for Neotropical bats:
Micronycteris and *Sturnira* (Phyllostomidae)**

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Key words: *Micronycteris*, *Sturnira*, original spellings, nomenclature, Phyllostomidae

Nomenclatural rules for creating species, genera, and family group names are found in the International Code of Zoological Nomenclature (ICZN, 1999), hereinafter referred to as the Code. The Nomenclature Committee of the American Society of Mammalogists (ASM) offers advice on its interpretation for fellow mammalogists. Over the last few years, I have become aware of certain inconsistencies and mistakes in the formation of species-group names (names of species and subspecies) based on personal names and applied to Neotropical bats of the family Phyllostomidae. Therefore, it is important to discuss these mistakes in the context of a proper use of those Nomenclature rules.

My intention here is to provide guidance for authors describing new species and for subsequent users of the names created thereby. The formation and subsequent changing of names are subject to rules which are sometimes ignored or misapplied. In particular, I will be discussing certain aspects of what does and does not constitute ‘incorrect original spellings’ that may properly be subject to emendation. Herein, I present examples involving names based on modern personal names and for species of Neotropical bats of the genera *Micronycteris* Gray 1866 (Phyllostominae) and *Sturnira* Gray 1842 (Stenodermatinae).

Pirlot (1967) described a subspecies of *Micronycteris* from western Venezuela, and named it *M. megalotis homezi*. After introducing the new name, the author made clear his gratitude to Professor J. Homez and to M[onsieur]. A. Homez (owners of the property where Pirlot caught the type specimen; p. 265). The status of this taxon was essentially ignored for almost 30 years, until Simmons and Voss (1998) reported additional specimens from

French Guiana and validated use of the name at the species level. However, Ochoa and Sanchez (2005) reviewed the bats which had been referred to in the literature as *M. megalotis* (Gray), *M. minuta* (Gervais), and *M. homezi*, and concluded that *homezi* was a junior synonym of *minuta*.

Peterson and Tamsitt (1968) described a new species of *Sturnira* from northwestern South America, which they named *S. aratathomasi*. In their introduction (p. 1), the authors made it clear that it was their intention to honor the contributions of Mr. Maurice Thomas and Dr. Andrew Arata, both of Tulane University, who had obtained the specimen. A similar instance occurred when McCarthy *et al.* (2006) described a new species from the Chocó of Ecuador and Colombia, and named it after Karl F. Koopman and John E. Hill (p. 102), as *S. koopmanhilli*.

The current edition of the Code (ICZN, 1999) has detailed criteria for formation of new species-group names. These are given in Art. 31, including names formed from personal names. Thus, Art. 31.1.2 states that a species-group name formed directly (without being Latinized) from a modern personal name is to be formed by adding any of the four specific endings as is appropriate. However, the Code (Art. 32.5) does not explicitly designate names with incorrect endings as constituting incorrect original spellings which are subject to emendation. However, there are cases in which such emendation has been done (e.g., Groves, 1993; *Aotus nancymai* Hershkovitz 1983 to *A. nancymae*, after Nancy Ma, a woman). The issue is debatable (see Brandon-Jones *et al.*, 2007; Dubois, 2007) but, in the interest of long-term stability, the original spelling should be preserved when there is no evidence of

a correctable error in the sense of the Code. For these examples, I consider the absence of clear indication that the names are Latin or Latinized as evidence that those species names are formed from unmodified personal names.

It should be noted that *homezi* and *aratathomasi* were proposed under the second edition of the Code (1964), in which current Art. 31 was merely a recommendation. According to Brandon-Jones *et al.* (2007), the requirements of the current article are not considered to be retrospective, because nothing in the Code indicates that they should be and therefore names should not be corrected. An opposite view (Gardner and Hayssen, 2004; Dubois, 2007), which I follow here, argues that everything in the Code is to be considered retrospective unless it explicitly states otherwise.

At least in the case of *Micronycteris homezi*, it is clear that the author, although intending to create a name honoring two people, erroneously used the termination *-i* as if the name were intended to honor only one male individual, which was not the case. Pirlot (1967) did not identify J. Homez and A. Homez as ‘the Homezes’, rather he identified each of them. Because this species name constitutes an incorrect original spelling under the current Code (Art. 32.3 and 32.5), subsequent users are required to apply the appropriate gender or number attributed to the name. Therefore, spelling, author, and date for this name should be corrected to *Micronycteris megalotis homezorum* Pirlot 1962.

The situation with the two species of *Sturnira* is less straightforward. This is not only because the personal names involved are different names (Arata and Thomas, Koopman and Hill), but also because more than one interpretation of the authors’ intentions is possible. To treat these epithets as arbitrary combinations of letters ignores the fact that it was the original and explicit intention of the authors to honor the people in question. If we choose to change the first name by appending the Latin ending (*-orum*), this could be interpreted as ‘in honor of several persons whose family name is Aratathomas’. By the wording in the Code, a modern personal name refers to one name, not to two or more names. Therefore, the last item in a compound name such as *aratathomasi* or *koopmanhilli* should settle the issue of gender and plurality (A. L. Gardner, personal communication). At most, these species-names could be considered incorrect latinizations (see Dubois 2007), and according to Art. 32.5.1 they must not be corrected. However, it should be noted that neither corresponds to the

name of a single individual (as is implied by the English name ‘Aratathomas’s Yellow-shouldered Bat,’ as employed by Simmons, 2005).

Incorrectly formed names and their corrected versions should be included in checklists and other taxonomic references, in part, to promote understanding of nomenclatural issues and concepts. The name *aratathomasi* has been in use for almost 40 years and has become well-established in the literature (e.g., Jones and Carter, 1976; Hutson *et al.*, 2001; Simmons, 2005). Because the emendation of *M. m. homezi* to *M. m. homezorum* is justified by the Code, the original author and date is to be maintained (Gardner and Hayssen, 2004; Dubois, 2007). The incorrect original spelling has no separate availability and cannot enter into homonymy (Art. 33.4), although it is a synonym.

The Code supplies universal rules for naming biological entities and provides ways to communicate about them, and so a Code-compliant and stable nomenclature provides a precise mean for exchanging information concerning biodiversity and all its aspects (e.g., conservation — Hutson *et al.*, 2001). However, future misapplication of the rules will occur because conflicts persist between Latin grammar and the intention of the Code, especially in regard to creation of species names as nouns in the genitive case and formed from personal names (Art. 31.1 — see Brandon-Jones *et al.*, 2007; Dubois, 2007). One may hope that authors, as well as editors and reviewers of journals, will carefully review their copies of the Code when new species-group names are proposed and published.

ACKNOWLEDGEMENTS

The advice and help of other members of the Nomenclature Committee of the ASM is greatly appreciated. I especially thank J. L. Eger (Chair), A. L. Gardner, and R. H. Pine for additional insight concerning this issue. Dr. Pine also helped with the manuscript. A. Dubois (Muséum National d’Histoire Naturelle, France) made available relevant publications. Comments by members of the ICZN Zoological Nomenclature Discussion Group (especially T. Pape, M. Spies, and G. Rosenberg) and an anonymous reviewer improved previous drafts.

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Received 27 March 2008, accepted 29 August 2008