

OPINION 2276 (Case 3479)***Cuvieronius* Osborn, 1923 (Mammalia, Proboscidea): usage conserved by designation of a type species**

Abstract. The generic name *Cuvieronius* Osborn, 1923, for South American gomphotheriid proboscideans, has been conserved by setting aside all previous type species fixations and designating *Mastotherium hyodon* Fischer, 1814 as the type species of *Cuvieronius* and by designating a neotype for that species.

Keywords. Nomenclature; taxonomy; Mammalia; Proboscidea; GOMPHOTHERIIDAE; Brazil; *Cuvieronius*; *Mastotherium hyodon*; *Cuvieronius tarijensis*; South America; Ecuador; Chile.

Ruling

- (1) Under the plenary power:
 - (a) it is hereby ruled that all previous type species fixations for *Cuvieronius* Osborn, 1923 are set aside and *Mastotherium hyodon* Fischer, 1814 is designated as the type species;
 - (b) the Commission hereby sets aside all previous type fixations for *Mastotherium hyodon* Fischer, 1814 and designates the skull and lower jaw from Tarija, Bolivia originally described and illustrated by Boule & Thevenin (1920, pls. 1–3): MNHN TAR 1270 (Musée National d’Histoire Naturelle, Paris) as neotype of *Mastotherium hyodon*.
- (2) The name *Cuvieronius* Osborn, 1923 (gender: masculine), type species *Mastotherium hyodon* Fischer, 1814, as ruled in (1)(a) above, is hereby placed on the Official List of Generic Names in Zoology.
- (3) The name *hyodon*, as published in the binomen *Mastotherium hyodon* Fischer, 1814 (specific name of the type species of *Cuvieronius* Osborn, 1923) as defined by the neotype designated in (1)(b) above, is hereby placed on the Official List of Specific Names in Zoology.

History of Case 3479

An application to conserve the generic name *Cuvieronius* Osborn, 1923, for extinct South American gomphotheriid proboscideans, by setting aside all previous type species fixations and designating *Mastotherium hyodon* Fischer, 1814 as the type species of *Cuvieronius* and by designating a neotype for that species was received from Spencer G. Lucas (*New Mexico Museum of Natural History, Albuquerque, NM, U.S.A.*) on 15 October 2008. After correspondence the case was published in BZN 66: 265–270 (September 2009). The title, abstract and keywords of the case were published on the Commission’s website. One comment in support was published in BZN 67: 95–96.

Decision of the Commission

On 1 September 2010 the members of the Commission were invited to vote on the proposals published in BZN 66: 267. At the close of the voting period on 1 December 2010 the votes were as follows:

Affirmative votes – 19: Bouchet, Brothers, Fautin, Halliday, Harvey, Kojima, Kottelat, Krell, Kullander, Lamas, Lim, Pape, Papp, Patterson, Rosenberg, van Tol, Yanega, Zhang and Zhou.

Negative votes – 5: Ballerio, Bogutskaya, Grygier, Minelli and Winston.

Štys abstained. Alonso-Zarazaga, Ng and Pyle were on leave of absence.

Voting FOR Halliday commented that the proposal presented in case 3479 was persuasive and should be effective in stabilising the names of the taxa concerned. He felt, however, that one further action was needed for a complete solution to the problem: the Commission must explicitly set aside the existing holotype of *hyodon*, invoking Article 75.5, before designating specimen number MNHN TAR 1270 as the neotype of *hyodon*. He felt this request should have been included in the Case.

Voting AGAINST, Bogutskaya suggested that a better solution to the problems that surround *Cuvieronius* that would promote the stability and universality of nomenclature was to keep *M. humboldtii* Fisher, 1814 as the type species of *Cuvieronius* and designate as its neotype the skull and lower jaw from Tarija, Bolivia: MNHN TAR 1270 (holotype of *C. tarijensis*). This would provide the same result, but with no replacement of the type species of *Cuvieronius*. Minelli, voting AGAINST, said that fixing the concept of the type species of *Cuvieronius* Osborn, 1923 by replacing the poor type material of the oldest nominal taxa involved in the case is a sensible choice. However, this does not require setting aside all previous type species fixations for *Cuvieronius* Osborn, 1923, to allow designating *Mastotherium hyodon* Fischer, 1814, as the type species. A simpler solution, not affecting the original type species fixation, would be to fix the specimen from Tarija MNHN TAR 1270 as neotype of *Mastotherium humboldtii* Fischer, 1814. Also voting AGAINST, Grygier advocated that if there was any possibility of obtaining and matching fragmentary gene sequences from the holotype tooth of *hyodon* Fischer and well-characterised fossils of *Cuvieronius* and *Haplomastodon*, we should wait for such data. If not, this unidentifiable-to-taxonomic-genus tooth was the main thing needing resolution. Two ways were available to accomplish this, both with problems. The current proposal represented one approach. However, the long-term preponderant usage of *hyodon* and the acceptance of Cabrera's invalid type-species designation have evidently occurred in relatively few works (only about 30 are cited, by relatively few authors), and the proposed type locality is distant from the original type locality. Another possible solution, which he slightly favoured because it did not involve endorsement of earlier repeated mistakes, was conditional suppression of *humboldtii* Fischer and *hyodon* in favour of the currently best-understood name *tarijensis* Ficcarelli et al., designation of the latter as the type species of *Cuvieronius*, and full suppression of *andium* Cuvier, 1824 (*humboldtii* Cuvier, 1824, being invalid as both an objective junior synonym and secondary junior homonym of *humboldtii* Fischer, 1814 does not require suppression). Grygier said that designating *tarijensis* as the type might be regarded as one step too far, but in both solutions the same individual, whether it be called the holotype of *tarijensis* or the neotype of *hyodon*, would become central to the concept of the genus. As an aside, there is an inconsistency concerning the original locality of Cuvier's *humboldtii*: paragraph 1 states that it was from Chile, but paragraph 8 says the type specimen was from 'either Chile or Ecuador near Concepcion'. While there is a city called Concepcion in Chile, there is apparently no such municipality in Ecuador. Also, the Case was brought under Articles 68 and 75,

but it should have been brought under Articles 75.5 and 81.1; Article 68 does not require anything to be referred to the Commission.

Štys ABSTAINED, with the criticism that he felt the Case was poorly presented, with many irrelevant details, the present taxonomic situations not clearly outlined, and that the reader was not unambiguously told what would happen if all the illegitimate nomenclatural actions would be simply ignored (as they should have been).

Original references

The following are the original references to the names placed on Official Lists by the ruling given in the present Opinion:

Cuvieronius Osborn, 1923, *American Museum Novitates*, **99**: 1.
hyodon, *Mastotherium*, Fischer von Waldheim, 1814, *Zoognosia Tabulis synopticis illustrata*, vol. 3, p. 341.