



## On the formation of family-group names and gender of genera based on the stem—*butis* (Teleostei: Perciformes: Gobioidei)

ANTHONY C. GILL<sup>1</sup> & DOUGLAS F. HOESE<sup>2</sup>

<sup>1</sup>Macleay Museum and School of Biological Sciences, Macleay Building A12, University of Sydney, New South Wales, 2006, Australia. E-mail: anthony.c.gill@sydney.edu.au

<sup>2</sup>Australian Museum, 6 College Street Sydney, New South Wales, 2010, Australia. E-mail: doug.hoese@austmus.gov.au

The familial classification of gobioid fishes is in a state of flux, reflecting incomplete understanding of phylogenetic relationships within the suborder. However, there has been rapid progress over the past decade or so, which is likely to continue, undoubtedly leading to the erection of new family-group names. One such family, Odontobutidae, was erected by Hoese and Gill (1993) for several Asiatic freshwater genera. Recently, the spelling of this taxon has been challenged (Kottelat, 2001; Chen *et al.*, 2002). According to Chen *et al.* (2002: 233): “Although commonly spelled Odontobutidae, a family-group name based on the genus group name *Odontobutis* should be spelled Odontobutididae as the stem of the genus group name is odontobutid- (ICZN art. 29). The spelling Odontobutidae can be retained under ICZN art. 29.3.1.1 only if it is the “prevailing usage”, but ICZN is logically flawed on this point as it does not provide a tool to objectively decide what is the “prevailing usage”. Both spellings are in use, and it seems thus logical to stick to the letter of the ICZN.”

The purpose of this note primarily is to clarify the spelling of this family group name, and, by extension, of other current or potential family-group names based on the stem—*butis* (e.g., *Butidae* Bleeker; names formed from *Gymnobotis* Bleeker, *Neodontobotis* Chen, Kottelat & Wu, *Prionobotis* Bleeker). Each of these names is ultimately based on *Cheilodipterus butis* Hamilton, the type species (by tautonymy) of *Butis* Bleeker.

Chen *et al.* (2002) did not provide an explicit justification for an odontobutid- stem, but presumably their case rests specifically on Article 29.3.1 of the ICZN: “If a generic name is or ends in a Greek or Latin word, or ends in a Greek or Latin suffix, the stem for the purposes of the Codes is found by deleting the case ending of the appropriate genitive singular.” Surprisingly, however, they did not demonstrate an origin for the name, but presumably assumed it was Greek because of the *-is* ending.

Hamilton (1822) offered no explanation for the origin of his name *C. butis*. We therefore searched Greek and Latin dictionaries in the extensive library of the Natural History Museum, London, but were unable to find any reference to *butis*. However, a search of Indian literature revealed a match: *butis* (*buti*-singular) is a decorative, circular design woven, embroidered or printed on cloth, and is particularly common in sari fabric. *Butis* designs usually contrast vividly with the background fabric, e.g., orange, gold, yellow, red or white over a dark field colour (Bhattacharyya, 1995; S. Guha, pers. comm.). We believe that Hamilton’s name refers to this *butis*. Our interpretation is in keeping with Hamilton’s description of the live colours of *C. butis*: “[it] is of a blackish colour, with the hinder fins spotted with red, and ventrals with black. There are two red spots at the roots of the pectoral fins” (Hamilton, 1822: 57). Moreover, Hamilton (1822) also used unchanged Indian words for numerous other species he described (e.g., *Cyprinus aprana*, *Cobitus balgara*, *Cyprinus barna*, *Cyprinus bhola*, *Ophisurus boro*, *Platystacus chaca*, *Gobius gutum*, *Ophisurus harancha*).

Given this interpretation—that *butis* is not of Greek or Latin origin—the case falls under Article 29.3.3: “If a generic name is or ends in a word not Greek or Latin, or is an arbitrary combination of letters, the stem for the purposes of the Code is that adopted by the author who establishes the new family-group taxon [...]”

Therefore, the spelling proposed by Hoese and Gill (1993), *Odontobutidae*, is to be retained. Similarly, the spelling of *Butidae* Bleeker 1874 (originally as *Butii*), should be also retained. The spelling of new family group names based on genera ending in *-butis* would be determined by the authors of those names. However, in the interest of consistency, we advocate the use of a *-but* stem rather than *-butid* stem.

Also relevant to this issue is the gender of generic names formed from the *-butis* stem. Article 30.2 of the Code treats generic names formed from words that are neither Latin nor Greek. Considering other issues (origin not from a