

Case 3528

Ephippus* Cuvier, 1816, EPHIPPIDAE Gill, 1861, *Scatophagus* Cuvier, 1831 and SCATOPHAGIDAE Bleeker, 1876 (Osteichthyes): proposed conservation of current usage by designation of *Chaetodon orbis* Bloch, 1787 as type species of *Ephippus

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Abstract. The purpose of this application, under Articles 65.2.1 and 65.2.2 of the Code, is to preserve stability in the nomenclature and taxonomy of two families of marine fishes by designating *Chaetodon orbis* Bloch, 1787 as the type species of the genus *Ephippus*. It has long been overlooked that the type species of *Ephippus* is actually *C. argus* and not *C. orbis*. *Chaetodon argus* is also the type species of *Scatophagus*. Under current usage, *Ephippus* and *Scatophagus* are the type genera of the family-group names EPHIPPIDAE and SCATOPHAGIDAE, respectively, two widely known families in fisheries, the pet trade, and medical and popular literature. Application of the Code would create confusion with the use of these two family-group and two genus-group names. It is proposed that *C. orbis* be designated as type species of the genus *Ephippus* to stabilise the current usage.

Keywords. Taxonomy; nomenclature; SCATOPHAGIDAE; *Scatophagus*; scats; EPHIPPIDAE; *Ephippus*; spadefishes; batfishes.

1. In the first edition of his *Règne animal*, Cuvier (1816, p. 335) established the genus name *Ephippus* with the following included species: *Chaetodon argus* Linnaeus, 1766 (p. 464) (currently in SCATOPHAGIDAE), *C. orbis* Bloch, 1787 (p. 81, pl. 202, fig. 2) (EPHIPPIDAE), *C. faber* Broussonet, 1782 (pl. 2, fig. 2) (EPHIPPIDAE) *C. tetracanthus* La Cèpède, 1802 (pp. 726, 727) (SCATOPHAGIDAE), *C. punctatus* Linnaeus, 1758 (p. 273) and its unnecessary replacement name *C. falcatus* La Cèpède, 1802 (pp. 452, 471) (DREPANEIDAE) and *C. bicornis* Cuvier, 1816 (p. 335) (CHAETODONTIDAE).

2. In the second edition of the *Règne animal*, Cuvier (1829, p. 191) recognised 4 unnamed divisions in his *Ephippus* (here called Divisions 1–4 in order to ease reading). The species originally included in Cuvier (1816) were placed in Division 1 (*C. faber*, *C. orbis*), Division 2 (*C. punctatus*, *C. falcatus*) and Division 3 (*C. argus*, *C. tetracanthus*). The content of Division 4 is not relevant here. His earlier (1816) *C. bicornis* had been made available by indication to Renard (1719, pl. 30, fig. 164); in 1829 Cuvier placed it in *Taurichthys*, as *T. varius*, also available by indication to the same figure and therefore an objective junior synonym.

3. Cuvier (in Cuvier & Valenciennes, 1831, p. 112) further elaborated on these divisions, retaining the name *Ephippus* for Division 1, while creating the new generic

names *Drepane* (p. 132) for Division 2, and *Scatophagus* (p. 136) for Division 3. Nothing in the text can be interpreted as a type-species designation. Later authors referring to *Ephippus* have used it as 'restricted' in Cuvier & Valenciennes (1831) to Division 1.

4. Cantor (1849) considered that *Ephippus* was preoccupied by *Ephippium* Latreille, 1805 (p. 341) (Diptera) and proposed *Ilarches* Cantor, 1849 (p. 1142) as a replacement name for '*Ephippus*, Cuvier 1829' [Division 1]. As *Ephippus* is not a homonym of *Ephippium*, *Ilarches* is an unnecessary replacement name. By *Ephippus*, Cantor clearly meant Cuvier's (1829) Division 1.

5. Cantor (1849) also created the name *Cacadoxus* Cantor, 1849 (p. 1145) to replace *Scatophagus*, which he considered pre-occupied by *Scatophaga* Meigen, 1803 (p. 277). These two names are not in fact homonyms (Article 56.2 of the Code) and further, *Scatophaga* is an incorrect subsequent spelling of *Scathophaga* (Article 54.3 of the Code); therefore, *Cacadoxus* is an unnecessary replacement name. *Prenes* Gistel, 1848 (p. x) is another unnecessary replacement name for *Scatophagus*.

6. Virtually all subsequent authors have until now used *Ephippus* for Cuvier's (1829) Division 1. Jordan & Evermann (1917, p. 105) listed the type species of *Ephippus* as *C. orbis* but explicitly refer to *Ephippus* as 'restricted' by Cuvier & Valenciennes (1831).

7. Bleeker (1876, p. 302) is one of the few authors to have used *Ephippus* by referring to Cuvier (1816) and applied it to Division 3. He designated '*Ephippus argus* Cuv. = *Scatophagus argus* CV' as type species of '*Ephippus* Cuv. (1817) nec Cuv. 1829'. He was probably influenced by the fact that in the 1816 edition Cuvier mentioned only *C. argus* in the text while all other included species were merely listed in a footnote. Bleeker listed *Scatophagus* Cuvier, 1831, *Cacadoxus* Cantor, 1849 and *Sargus* Gronow, in Gray, 1854 (p. 65) as synonyms of *Ephippus*. *Chaetodon argus* is also the type species of *Scatophagus*, by subsequent designation by Jordan & Evermann (1917, p. 136). This makes *Scatophagus* a junior objective synonym of *Ephippus*.

8. Bleeker (1876, p. 301) had to use a name to replace the '*Ephippus* CV (nec Cuv.)' [Division 1] and he used *Ilarches*, and listed *C. orbis* as type species. But, *Ilarches* is a replacement name for *Ephippus* Cuvier, 1816 (Article 67.7 of the Code), and therefore it is also a junior objective synonym of *Scatophagus*. There is presently no available genus name for Division 1 of *Ephippus* of Cuvier (1829).

9. *Scatophagus* is the type genus of the family-group name Scatophagiformes Bleeker, 1876 (p. 302). *Ephippus* is the type genus of the family-group name EPHIPPIINAE Gill, 1861 (p. 34). When creating EPHIPPIINAE, Gill intended it for Division 1 of *Ephippus* of Cuvier (1829).

10. Both EPHIPPIDAE and SCATOPHAGIDAE are in current use. As presently understood they are distinct families; both include species of interest to fisheries and the aquarium-fish trade and there is hardly a book on Indo-Pacific fishes or on aquarium fishes that does not mention one or both. EPHIPPIDAE includes about 15 species in 8 genera, e.g. *Platax* (batfishes), *Ephippus* (spadefishes). The SCATOPHAGIDAE includes at least two species of *Scatophagus* (scats) and *Selenotoca multifasciata* (silver scat). Further, species of SCATOPHAGIDAE have venom glands at the base of the spines and therefore enter also the medical literature. Because of their genus name (faeces eater) scats have also gained some notoriety in the non-ichthyological literature.

11. Article 65.2.1 of the Code states that if 'confusion is likely to be caused by the discovery that the type genus was misidentified (that is, interpreted in a sense other than that defined by its type species) when the family-group name was established, the case is to be referred to the Commission for a ruling'. This was established in point (9) above. Article 65.2.2 carries the same requirement 'if confusion is likely to be caused by the discovery of an overlooked fixation of type species for the type genus'. This was established in point (7) above.

12. In compliance with Articles 65.2.1 and 65.2.2 of the Code, the International Commission on Zoological Nomenclature is requested to set aside all previous fixations of type species for the nominal genus *Ephippus* Cuvier, 1816 and to designate *Chaetodon orbis* Bloch, 1787 as the type species.

13. Retaining *C. argus* as type species of *Ephippus* would create confusion as the name EPHIPPIDAE should then be used for the present SCATOPHAGIDAE [Division 3] and *Scatophagus* would become *Ephippus*. Additionally, a new genus name would be needed for the present *Ephippus* [Division 1]. The family name of Division 1 too, should then be replaced. Existing family-group names based on genera currently included in Division 1 are Proteracanthiformes Bleeker, 1876 (p. 296), Chaetodipteriformes Bleeker, 1876 (p. 300), and Plataciformes Bleeker, 1876 (p. 308). As they were simultaneously proposed, and in the apparent absence of a first reviser action, I give here precedence to PLATACIDAE Bleeker, 1876, because the name occasionally appears in the literature for a subset of Division 1.

14. The spellings EPHIPPIDAE, EPHIPPIIDAE and EPHIPPIDIDAE appear in the literature. *Ephippus* is not a Latin word (the word exists, but it is the personal name of a Latin writer). It is a latinisation of the Greek ἑφιππος (ephippos, riding on horse back) as is obvious from Cuvier's (1829) heading 'Les Ephippus ou cavaliers' [the Ephippus or horsemen]. Therefore the stem is *Ephipp-* (Article 29.3.2 of the Code) and the name is EPHIPPIDAE.

15. The International Commission on Zoological Nomenclature is accordingly asked:

- (1) to use its plenary power to set aside all previous fixations of type species for the nominal genus *Ephippus* Cuvier, 1816 and to designate *Chaetodon orbis* Bloch, 1787 as the type species;
- (2) to place on the Official List of Generic Names in Zoology the name *Ephippus* Cuvier, 1816 (gender: masculine), type species *Chaetodon orbis* Bloch, 1787, as designated in (1) above;
- (3) to place on the Official List of Specific Names in Zoology the name *orbis* Bloch, 1787, as published in the binomen *Chaetodon orbis* (specific name of the type species of *Ephippus* Cuvier, 1816, as ruled in (1) above).
- (4) to place on the Official List of Family-Group Names in Zoology the name EPHIPPIDAE Gill, 1861, type genus *Ephippus* Cuvier, 1816;

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Acknowledgement of receipt of this application was published in BZN 67: 198.

Comments on this case are invited for publication (subject to editing) in the *Bulletin*; they should be sent to the Executive Secretary, I.C.Z.N., c/o Natural History Museum, Cromwell Road, London SW7 5BD, U.K. (e-mail: iczn@nhm.ac.uk).



Kottelat, Maurice. 2010. "Case 3528 Ehippus Cuvier, 1816, ehippidae Gill, 1861, Scatophagus Cuvier, 1831 and scatophagidae Bleeker, 1876 (Osteichthyes): proposed conservation of current usage by designation of Chaetodon orbis Bloch, 1787 as type species of Ehippus." *The Bulletin of zoological nomenclature* 67(4), 303–306.

<https://doi.org/10.21805/bzn.v67i4.a13>.

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DOI: <https://doi.org/10.21805/bzn.v67i4.a13>

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