

Case 2729***Fusus* Helbling, 1779 (Mollusca, Gastropoda): proposed confirmation of unavailability**

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Abstract. The purpose of this application is the rejection of the name *Fusus* Helbling, 1779, by a ruling that it is unavailable as it was not treated as a valid genus-group name when first published. A consequence of this rejection would be the conservation of *Fusus* Bruguière, 1789, a name which was long used for species currently placed in *Fusinus* Rafinesque, 1815.

1. In 1779 Helbling published a paper in which he used the term 'Fusus' in parentheses. This term, which we consider to be a cheironym (i.e. published as a term intermediate between the generic and specific names and not possessing the status of a subgeneric name), and therefore unavailable, was inserted between the genus name (*Murex*) and four different species names in a manner similar to that in which modern subgenera are cited (e.g., on p. 116, '*Murex (Fusus) granosus*'). However, there is no indication that Helbling had any concept of subgenera and it appears that his use of 'Fusus' was to call to attention the fact that his species were of the same general morphology as those species called 'Fusus' by pre-Linnaean authors. The word 'Fusus' is in a different type-style from the generic and specific names used by Helbling and we consider this to be further evidence that he did not consider 'Fusus' to be a part of the names being introduced. If Helbling did not consider 'Fusus' to be a valid genus-group name, then under Article 11d of the Code it is unavailable. We have been unable to establish a 'starting date' for the use of subgenera in zoological nomenclature, but we believe it to be considerably later than 1779.

2. The problem of 18th Century intermediate names was touched on by Hemming (1954, p. 183); names published by Linnaeus and J.C. Fabricius in this way were ruled to be unavailable in Opinions 279 and 382.

3. E. von Martens (1869, pp. 234–236) published a short paper on Helbling's previously neglected species-group taxa, citing the taxa in a manner suggesting that 'Fusus' was indeed a subgenus of *Murex* (sensu Helbling). It is noteworthy that von Martens made no mention of 'Fusus' as a genus-group taxon although he did point out that *Stomatia*, which was not placed in parentheses, dates from Helbling (1779, p. 124). The omission of any such mention by von Martens, especially as this portion of his paper is entitled *Helbling's Namen*, certainly indicates that he did not consider 'Fusus' to be more than a parenthetical expression.

4. 'Fusus', as a genus-group taxon attributable to Helbling, was not used in the scientific literature until Dall (1906, p. 290) stated that Helbling's use of 'Fusus' was binomial [sic] and that this usage preoccupied *Fusus* Bruguière, 1789, then current in systematic malacology and paleontology. Dall's statement that Helbling's usage was a valid introduction of 'Fusus' into the scientific literature has remained largely unchallenged although a study of Helbling's work shows that his conclusion is invalid. Dall (1906, p. 292) stated: '... the influence of Lamarck prevailed to such an extent as to cause a general acquiescence in his nomenclature...', an indictment equally applicable to Dall. Dall's 1906 paper was critically reviewed by Dollfus (1908) who called Dall's actions 'déplorable subterfuge'.

5. Dall (1906, p. 293) attempted to fix the type of *Fusus* Helbling by the process of elimination, but did not actually state that he was making a type designation. Iredale (1915, p. 466), in stating that Dall had selected *Murex intertextus* Helbling, 1779 (p. 120) as type, thereby established (Article 69a(iv)) a type for the putative nominal genus *Fusus* Helbling, 1779. *Murex intertextus* was stated in its description to be from Sicily, and Dall (1906), Iredale (1915), Malatesta (1960) and others have stated that it is a senior subjective synonym of *Tritonium reticulatum* Blainville, 1829, a well-known European species usually placed in *Colubraria* Schumacher, 1817.

6. Malatesta (1960, p. 146), although using *Fusus* Helbling as a valid genus, and showing in the citation of the type species that '*Triton* [sic] *reticulatum* Blainville = *Fusus intertextus* Helbling', cites the species as *Fusus reticulatus* (Blainville, 1826 [sic]). He accepted Helbling's 'genus' but rejected, for reasons unstated, Helbling's nominal species.

7. Dodge (1947, p. 488), in listing *Fusus* Bruguière, 1789, states: 'Antedated by *Fusus* Helbling, 1779 (= *Cumia* Bivona, 1838) which, however, was not validly proposed'. We agree with Dodge's conclusion.

8. The putative nominal genus *Fusus* Helbling, although dating from 1779 if available, has been used as valid only in the compilations of Dall (1906), Iredale (1915, pp. 465–466), Wenz (1941, p. 1194), Malatesta (1960, p. 146) and Beu & Maxwell (1987, p. 61).

9. *Fusus* Helbling, 1779 was declared a nomen oblitum by Glibert (1963, p. 74), with explicit reference to Article 23b of the 1961 Code. Article 79c(iii) of the current edition states that Glibert's rejection must stand unless overruled by action of the Commission. However, the relegation of *Fusus* Helbling to nomen oblitum status affects only its status under the Principle of Priority and does not affect its status as a senior homonym under the Principle of Homonymy. It is our opinion that suppression of *Fusus* Helbling is not necessary because it has no standing in nomenclature, but that it should be put on the Official Index of Rejected and Invalid Generic Names.

10. Dall (1906), Iredale (1915), Beu & Maxwell (1987) and others have pointed out that if *Fusus* Helbling is allowed to stand it will replace, as a senior subjective synonym, *Cumia* Bivona-Bernardi, 1838 (and possibly *Colubraria* Schumacher, 1817). It is not clear why authors have considered *Fusus* Helbling to be available insofar as it would preoccupy *Fusus* Bruguière, 1789, but unavailable insofar as it would replace *Cumia* and/or *Colubraria*, an attitude later taken by Dall. In describing *Colubraria pervaricosa*, Dall & Ochsner (1928, p. 108) state: 'This shell belongs to the group of

which the type (by elimination) should carry the name of *Fusus* Helbling, not Lamarck. The adoption of this name, however, would involve such confusion that we hesitate to use it'. It is obvious that *Fusus* Helbling must be either available or not, and cannot be accepted for one purpose and rejected for another.

11. Cernohorsky (1971, p. 153) mentions that recognition of *Fusus* Helbling 'presents taxonomic problems', but he offers no solutions, stating only that *Fusus* Helbling, 1779 would have priority over *Colubraria* Schumacher, 1817.

12. *Fusus* Bruguière, 1789 (p. xv) was introduced as a genus without included species and no nominal species were assigned to it until Lamarck did so in 1799 (p. 73), making *Murex colus* Linnaeus, 1758 (p. 753) the type by subsequent monotypy. The first post-Linnaean usage of *Murex colus* Linnaeus was by Born (1778, pp. 309–310) who also listed the French vernacular name for the species, 'Le Fuseau'.

13. Röding (1798, p. 118) also introduced the pre-Linnaean term 'Fusus' for a genus-group taxon, but nowhere in his work is there any indication that he was aware of Bruguière's work nor is there any citation of Bruguière. It is obvious that Röding's introduction of *Fusus* was based on its pre-Linnaean usage and had no direct relation to Bruguière's previous introduction of the same name. *Fusus* [Röding], 1798 is a junior homonym of *Fusus* Bruguière, 1789.

14. *Fusinus* Rafinesque, 1815 (p. 145), an unjustified emendation of *Fusus* 'Lamarck' (Bruguière, 1789; Lamarck, 1799), has been used by most authors since the publication of Dall's 1906 paper, although some Old World systematists continue to use *Fusus* Bruguière. Dodge, noted for his publications on the histories of various nominal taxa, writing about *Fusus colus* (Linnaeus) stated (1957, p. 153) '... other generic names have been proposed to contain it ... although only *Fusinus* Rafinesque enjoyed any appreciable currency'.

15. *Fusus* Bruguière, 1789 was treated as a valid name by Thiele (1929, p. 329), who did not mention Helbling. It was also treated as a valid name by Korobkov (1955, p. 372) who cited it as 'non *Fusus* Helbling, 1779' and as a 'nomen conservandum' (although there has not been a Commission ruling declaring it to be a conserved name). Glibert (1963, p. 141) and Strausz (1966, pp. 340–341) both accepted *Fusus* Bruguière as valid and referred to Korobkov's use of the term 'nomen conservandum'.

16. Placement of *Fusus* Bruguière, 1789 on the Official List of Generic Names will eventually do more to stabilize nomenclature than would validation of *Fusus* Helbling, 1779. Most taxa congeneric with *Fusus colus* (Linnaeus) were originally described in *Fusus* Bruguière, 1789, this nominal taxon having been in use by many authors until recent years. Sherborn (1902–33) and Ruhoff (1980) list over 1100 species-group names proposed in combination with *Fusus*, none of which were proposed in 'Fusus' sensu Helbling.

17. To stabilize the nomenclature and to resolve the problems discussed above, we suggest that *Fusus* Helbling, 1779 be declared unavailable, which we believe it to be. This action would allow *Cumia Bivona-Bernardi*, 1838 to remain in use, and would also conserve *Fusus* Bruguière, 1789, which was in general usage for over a century and which is still used by some systematists.

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

- (1) to rule that the name *Fusus* Helbling, 1779 is unavailable because it was not treated as a valid genus-group name when published;

- (2) to place on the Official List of Generic Names in Zoology the name *Fusus* Bruguière, 1789 (gender: masculine), type species by subsequent monotypy by Lamarck (1799) *Murex colus* Linnaeus, 1758;
- (3) to place on the Official List of Specific Names in Zoology the name *colus* Linnaeus, 1758, as published in the binomen *Murex colus* (specific name of the type species of *Fusus* Bruguière, 1789);
- (4) to place on the Official Index of Rejected and Invalid Generic Names in Zoology the name *Fusinus* Rafinesque, 1815 (a junior objective synonym of *Fusus* Bruguière, 1789).

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