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Replacement names and nomenclatural comments for problematic species-group names in Europe's Neogene freshwater Gastropoda

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Abstract

Over the last 250 years of taxonomic descriptions of freshwater gastropods a large number of primary and secondary homonyms were produced. Several of them have now been uncovered in the course of a new database project. To overcome the associated nomenclatural problems we propose 10 replacement names: *Theodoxus pseudodacicus* nom. nov., *Theodoxus stoicai* nom. nov., *Viviparus deleeuwi* nom. nov., *Viviparus lubenescuae* nom. nov., *Viviparus wesselinghi* nom. nov., *Melanopsis anistratenkoi* nom. nov., *Melanopsis gearyae* nom. nov., *Melanopsis magyari* nom. nov., *Melanopsis vrcinensis* nom. nov., and *Pyrgula rusti* nom. nov. Additionally, we discuss taxa that might become secondary homonyms because of uncertain genus attributions. The genera *Melanoptychia* Neumayr, 1880 and *Boistelia* Cossmann, 1909 are synonymized with *Melanopsis* Férussac, 1807 in Férussac & Férussac, 1807 based on the lack of sufficient separation criteria. Involved combinations are expounded and recombined accordingly. The nomenclatural problems regarding *Melanopsis costata* Fuchs, 1870 (non Olivier, 1804) and *Planorbis varians* Fuchs, 1870 sensu Bandel (2010) are discussed.

Key words: homonyms, synonyms, nomina nova, fossil freshwater gastropods

Introduction

Since the first binominal descriptions by Linnaeus (1758) many thousand species and subspecies have been introduced for freshwater gastropods. Word-wide there are about 4,000 described and valid species of Recent freshwater gastropods (Strong *et al.* 2008). For the European Neogene, the number of described species-group taxa is more difficult to determine. In his Fossilium Catalogus, Wenz (1923–1930) listed (and partly synonymized) all the records from the older literature and catalogued about 1,600 species and subspecies for the Neogene. Considering the pile of papers written since then, an actual number of 2,000–3,000 presently valid species-group names might be reasonable.

This incredible and growing number of existing names naturally increases the probability and actual presence of primary and secondary homonyms in the literature. Especially among highly diverse groups with many species and/or subspecies described the chance to introduce an already preoccupied name is considerable. This is particularly true when choosing as name a common descriptive Latin or Latinized like "*carinatus*", "*rugosus*", "*elongatus*" or many others. Moreover, both species and subspecies names, as well as variety- and forma-names published before 1961, are treated as species-group names by the International Code on Zoological Nomenclature (ICZN 1999, Articles 45 and 57.1). According to the Principle of Coordination (Article 46) they are established at all ranks within the species-group at the time of their original description. Therefore, they compete in homonymy issues even if originally established at different ranks. Especially in the older literature, where a huge number of varieties and forms named with descriptive terms was introduced, this resulted in a great many of primary and secondary homonyms.

The recently launched FreshGEN (Freshwater Gastropods of the European Neogene) database project

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confused several species. Firstly, "*Muellerpalia varians*" sensu Bandel rather corresponds to "*Valvata bicincta* Fuchs, 1870" in Fuchs (1870b) [= *Muellerpalia bicincta* (Fuchs, 1870)]. Secondly, specimens illustrated as "*Muellerpalia bicincta*" by Bandel rather resemble "*Valvata carinata* Fuchs, 1870" in Fuchs (1870b) [= *Muellerpalia carinata* (Fuchs, 1870)]. Conversely, *Muellerpalia carinata* (Fuchs, 1870) sensu Bandel, 2010 may represent *Muellerpalia bicincta*. The new combinations of both latter taxa with the new genus *Muellerpalia* still remain valid.

The presence of a second, fainter keel on the umbilical side in "*Muellerpalia varians*" sensu Bandel (2010) [= *Muellerpalia bicincta* (Fuchs, 1870)], which is not discernible in the original material of Fuchs (1870a), is regarded as intraspecific variability herein, as all other features correspond quite well. Unfortunately, Bandel did not provide an illustration of the apical region, which would show a distinct keel if our determination as *M. bicincta* is correct. Nevertheless, the endpoint of keel-like structure is visible in the apertural view (Bandel 2010, pl. 8, fig. 94). Even if it might turn out that this tentative placement is wrong, it still remains well separated from *Marinescugyra varians*.

In conclusion, the genus *Marinescugyra*, with *Planorbis varians* Fuchs, 1870 as type species, remains valid and the combination *Marinescugyra varians* (Fuchs, 1870) is the only accepted one. The combination *Muellerpalia varians* (Fuchs, 1870) is based on a misidentification of the species. We tentatively synonymize this record with *Muellerpalia bicincta* (Fuchs, 1870).

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