

NOMENCLATURE REVISION CONCERNING SOME GENERA OF THE ORDER TRIGONIIDA (BIVALVIA)

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THE authors have become aware of a couple of nomenclatural conflicts involving Mesozoic trigoniid genera, which are in need of clarification and proposal of replacement names:

The case of Protrigonia. The subgenus *Trigonia* (*Protrigonia*) Guo, 1985 (p. 204, 269; type species *Trigonia* (*Protrigonia*) *yunnanensis* Guo, 1985), was proposed to encompass those species referred to the genus *Trigonia* which, according to that author, have small and nearly smooth shells and relatively weak teeth. Guo (1985) also included other Triassic species: *Trigonia gaytani* (von Klipstein, 1843) and *Trigonia zlabachensis* Haas, 1909. According to Fang *et al.* (2009, p.55) there was a wrong translation from the Chinese text to the English summary, and the subgenus was thus characterized as “prosogyrate” when actually the original Chinese version meant opisthogyrate. However, the name *Protrigonia* happens to be preoccupied by *Protrigonia* Hampson, 1896, a monotypic genus of Lepidoptera (Insecta), which denotes an extant moth from India.

In August 2001, Repin (in Paevskaya *et al.*, 2001, p. 124) defined the monotypic subgenus *Trigonia* (*Primatrigonia*) (type species “*Trigonia zlabachensis* Haas, 1910” [sic]), differing from *Trigonia* Bruguière, 1789, s. s. by the absence of marginal carina and possession of weak costellae. Hautmann (December 2001, p. 120) proposed the subgenus *Trigonia* (*Modestella*) (type species “*Trigonia zlabachensis* Haas, 1909” [sic]); in so doing, he stressed the opisthogyrate umbo as the main difference from *Trigonia* (*Protrigonia*) Guo, 1985, and he included *Trigonia gaytani* (von Klipstein, 1843)

within his concept of *Modestella*. Subsequently, Hautmann (2009), realized that the name *Modestella* was preoccupied by *Modestella* Owen (in Casey, 1961, p. 573; Brachiopoda, Terebratulida), and he introduced the replacement name *Modesticoncha* for the junior homonym. Notice that both of Hautmann’s genus-group names are thus objective synonyms of Repin’s. Incidentally, the epithet “*zlabachensis*” is the correct original spelling which has long been in prevailing use (e.g., Deecke, 1925; Rosenberg, 1936; Zapfe, 1967; Guo, 1985), whereas the unintentional, incorrect subsequent spelling “*zlabachensis*” is unavailable (ICZN, 1999, Art. 33.3). Besides, the designation of a type species cited in the form of a *nomen nullum* is deemed to have been cited in its correct original form (ICZN, 1999, Art. 67.6).

Since the name *Trigonia* (*Modestella*) was proposed for opisthogyrate species based on the mistranslation of Guo (1985), Fang *et al.* (2009, p.55) considered that this subgenus is a junior synonym of *Trigonia* (*Protrigonia*) Guo. But, since *Protrigonia* itself is also preoccupied (by Hampson’s name, see above), the next oldest available name (ICZN, 1999, Art. 23.3.5) is *Trigonia* (*Primatrigonia*) Repin in Paevskaya *et al.*, 2001, which is considered the valid one.

Yet, the description of *Trigonia yunnanensis* shows some significant differences with the characterization of *Trigonia* (*Primatrigonia*), like a well-developed keel-like and acute carina (Guo, 1985, *vide* Fang *et al.*, 2009, p. 53), and may still be generically different. Further studies to confirm -or reject- that subjective synonymy are pending and beyond the

scope of this note. In the meantime, we consider advisable to propose herein the substitute name *Guoprotrigonia* nom. nov. (meaning ‘Guo’s Protrigonia’) to objectively replace *Protrigonia* Guo, 1985 (non *Protrigonia* Hampson, 1896), as it would automatically take *Trigonia* (*P.*) *yunnanensis* as its type species.

The case of Trigonellina. In November 1981, Parnes (p. 36) proposed the subgenus *Myophorella* (*Trigonellina*) (type species *Myophorella* (*Trigonellina*) *delicata* Parnes, 1981) to denote prominently trigonal, small myophorelline trigonids occurring in the Middle Jurassic of Israel. The new subgenus was diagnosed on the basis of the peculiar nature and arrangement of flank ribs, ornamentation of area, sharp marginal and escutcheon carinae. A second species, *Myophorella* (*Trigonellina*) *amitaii* Parnes, 1981, from the same region and formation, was included as well.

However, the same genus-group name has long been in use for a Late Jurassic genus of terebratulid brachiopods. The genus *Trigonellina* was established earlier by Buckman (1907, p. 342), being clearly a senior homonym currently valid. Therefore, it is necessary to introduce a new substitute name (ICZN, 1999, Art. 60.3) to replace *Trigonellina* Parnes, 1981 (non *Trigonellina* Buckman, 1907), for which *Parnesellina* nom. nov. (named after Parnes) is herein proposed. This action is independent of whether the taxon may be regarded as a subgenus of *Myophorella* Bayle, 1878, or not.

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