

Communication

## *Mieniplotia* gen. nov. for *Buccinum scabrum* O.F. Müller, 1774, with comments on the nomenclature of *Pseudoplotia* Forcart, 1950, and *Tiaropsis* Brot, 1870 (Gastropoda: Caenogastropoda: Cerithioidea: Thiaridae)

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### Abstract

*Mieniplotia* gen. nov. is established for *Buccinum scabrum* O.F. Müller, 1774, which is currently assigned to the unavailable genus-group name *Pseudoplotia* Forcart, 1950. Nomenclatural notes on the other genus-group names that *Buccinum scabrum* has been historically assigned are provided. *Mieniplotia* gen. nov. currently contains only the type species, *Mieniplotia scabra* (O.F. Müller, 1774), **comb. nov.**

<http://zoobank.org/urn:lsid:zoobank.org:pub:BCCDC02B-CE85-4788-BC11-234EA9C9CEFB>

### Introduction

The freshwater gastropod currently referred to as *Plotia scabra* or *Pseudoplotia scabra* (Figs. 1 and 2) is known to occur from the east coast of South Africa to Fiji (Glaubrecht *et al.*, 2009: 230; Mienis, 2012: 14, 15), and is also a recognised invasive species in several areas outside of its native distribution (e.g., Thompson *et al.*, 2009; Heller *et al.*, 2014; Nasarat *et al.*, 2014; Vaisman & Mienis, 2014). The species was first described as *Buccinum scabrum* by O.F. Müller (1774: 136). *Buccinum scabrum* O.F. Müller, 1774, is currently considered to be a valid species that should be placed in its own genus on the basis of morphological and molecular data (Glaubrecht *et al.*, 2009: 212, 226–237; Mienis, 2012: 14).

There has, however, been some debate as to the correct generic assignment of *Buccinum scabrum* O.F. Müller, 1774. Four genus-group names have been applied: *Plotia* Röding, 1798 (e.g., Glaubrecht *et al.* 2009: 226, 227), *Plotiopsis* Brot, 1874 (e.g., Abbott 1948: 291, 292), *Pseudoplotia* Forcart, 1950 (e.g., Mienis, 2012: 14), and *Thiara* Röding, 1798 (e.g., Morrison 1954: 378).

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Fig. 1. *Mieniplotia scabra* (Röding, 1798) **comb. nov.**: an *in situ* photograph of two individuals (Upper Seletar Reservoir, Singapore) (Photograph: S.K. Tan).

Until Mienis (2012), the name *Pseudoplotia* Forcart, 1950, has been almost universally been considered to be a synonym of *Thiara* Röding, 1798 (e.g., Morrison 1954: 378; Pace 1973: 56; Burch 1984: 104). The only other author to consider *Pseudoplotia* Forcart, 1950, to be a valid name was Starmühlner (1957: 459), who used the name as valid when he recorded “*Thiara (Pseudoplotia) scabra*” from Iran. Following Mienis (2012), the combination *Pseudoplotia scabra* (O.F. Müller, 1774), has been accepted and used in the scientific literature (e.g., Dechruksa *et al.*, 2013; Heller *et al.*, 2014; Nasarat *et al.*, 2014; Sternberg *et al.*, 2014; Vaisman & Mienis, 2014).

However, the genus-group name *Pseudoplotia* Forcart, 1950, is not an available name as it does not fulfil

Articles 13.1, 13.2 or 13.3 of the Code (ICZN, 1999: 17), namely it was not “accompanied by a description or definition that states in words characters that are purported to differentiate the taxon”, nor was it “accompanied by a bibliographic reference to such a published statement”, nor was it “proposed expressly as a new replacement name (*nomen novum*) for an available name”. No other available name could be located, and *Mieniplotia gen. nov.* is herein proposed for *Buccinum scabrum* O.F. Müller, 1774, which is designated as the type (and only) species.

**Nomenclatural background.** As discussed by Glaubrecht et al. (2009: 227), *Buccinum scabrum* O.F. Müller, 1774, cannot be assigned to the genus *Plotiopsis* Brot, 1874 (type species *Melania balonnensis* Conrad, 1850), or *Thiara* Röding, 1798 (type species *Helix amarula* Linnaeus, 1758), as the type species of both genera are not congeneric with *Buccinum scabrum* O.F. Müller, 1774.

Mienis (2012: 14) discussed that the genus-group name *Plotia* Röding, 1798, can no longer be used as a genus for *Buccinum scabrum* O.F. Müller, 1774, or any other freshwater gastropod as the International Commission on Zoological Nomenclature has ruled *Plotia* Röding, 1798, to be an objective synonym of *Pyramidella* Lamarck, 1799, a genus of marine gastropods (ICZN, 1956: 233). *Buccinum scabrum* O.F. Müller, 1774, cannot therefore be assigned to *Plotia* Röding, 1798.

Mienis (2012: 15) revalidated the genus-group name *Pseudoplotia* Forcart, 1950, for *Buccinum scabrum* O.F. Müller, 1774. In proposing the genus-group name *Pseudoplotia*, as a subgenus of *Thiara* Röding, 1798, Forcart (1950: 77) had come to the same conclusions as Mienis (2012) in realising the need for a genus for *Buccinum scabrum* O.F. Müller, 1774. *Pseudoplotia* Forcart, 1950, was established with *Buccinum scabrum* O.F. Müller, 1774, as its type species by original designation (Article 68.2 of the *International Code of Zoological Nomenclature*, hereafter the Code, ICZN, 1999: 70).

Unfortunately, the genus-group name *Pseudoplotia* Forcart, 1950, is not an available name as it was proposed after 1930 and does not fulfil Article 13 of the Code (ICZN, 1999: 17), as discussed above.

When proposing the name *Pseudoplotia*, Forcart (1950: 14) listed all genus-group names (with their respective type species) in which *Buccinum scabrum* O.F. Müller, 1774, had been referred to and stated that: “*Aus obiger Aufstellung ist ersichtlich, daß keine der ursprünglichen Arten von Plotia der Gruppe von Thiara scabra (Müller) angehören. Für dieses Subgenus stelle ich den neuen Namen Pseudoplotia n. subgen, auf ...*” [“From above table it can be seen that *Thiara scabra* (Müller) does not belong to any of the types of the *Plotia* the group. For this subgenus I propose the new name *Pseudoplotia* n. subgen. ...”]. As discussed above, no diagnosis or



Fig. 2. *Mieniplotia scabra* (Röding, 1798) **comb. nov.**: a close-up photograph of an individual (Upper Seletar Reservoir, Singapore) (Photograph: S.K. Tan).

description accompanied the proposal of the genus-group name *Pseudoplotia* Forcart, 1950.

Another genus-group name that may be available for *Buccinum scabrum* O.F. Müller, 1774, is *Tiaropsis* Brot, 1870. *Tiaropsis* was established by Brot (1870: 298) with the inclusion of *Melania winteri* Philippi, 1842, and nine other species. Brot (1874: 7) designated *Melania winteri* Philippi, 1842, as the type species of *Tiaropsis*. Morphologically, *Melania winteri* Philippi, 1842, may be congeneric with *Buccinum scabrum* O.F. Müller, 1774. This would mean that *Buccinum scabrum* O.F. Müller, 1774, could potentially be referred to *Tiaropsis* Brot, 1870. However, *Tiaropsis* Brot, 1870, is a junior homonym of *Tiaropsis* L. Agassiz, 1850 (Cnidaria), and is not an available name (Article 53.2 of the Code, ICZN, 1999: 57).

### ***Mieniplotia gen. nov.***

**Type species.** *Buccinum scabrum* O.F. Müller, 1774, herein designated. Depository of type material of this species is not known.

**Diagnosis.** Shell rather small (10–20 mm), somewhat ovoid-conical, with elevated and prominently stepped spire (apex often eroded and decollated), shoulder profile straight and slightly sloping, edge rounded or with a pronounced keel; body whorl large, with low axial ribs that usually terminate posteriorly as short pointed spines or rounded nodules; shell sculptured with spiral striate, stronger spiral ridges usually present around the basal part of body whorl. Shell colour yellowish-brown to olive greenish-brown, usually with darker brown or red speckles or flame-like patterns.

**Etymology.** *Mieniplotia* gen. nov. is derived from combining the name Mienis (in honour of Henk K. Mienis who has contributed greatly to the taxonomy and nomenclature of molluscs, especially invasive taxa in the Mediterranean region), and the name *Plotia* Röding, 1798, that forms the root of several thiarid genus-group names (e.g., *Plotiopsis* Brot, 1874, *Pseudoplotia* Forcart, 1950). The gender of the genus is feminine.

**Remarks.** *Mieniplotia* gen. nov. currently contains only the type species, *Mieniplotia scabra* (O.F. Müller, 1774), **comb. nov.** A second species, *Melania winteri* Philippi, 1842, may also be referable to *Mieniplotia* gen. nov., but further research will be necessary to determine its generic placement.

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