BASTERIA, 60: 177-182, 1996

Thiele's pyramidellacean gastropod names

Jacobus J. VAN AARTSEN

Adm. Helfrichlaan 33, 6952 GB Dieren, Holland

& James X. CORGAN

Austin Peay State University, Clarksville, Tennessee 37044, USA

Examining 134 pyramidellacean names introduced by Johannes Thiele (1860-1935) shows that 125 are free of major problems. Names for five Indonesian species are replaced: *Pyrgiscus thielei* is proposed for *Turbonilla (Pyrgisculus) erna* Thiele, 1925, not *T. erna* Bartsch, 1915; *Pyrgulina bantama* replaces *P. pygmaea* Thiele, 1925, not *Actaeon pygmaea* Grateloup, 1838; *Tiberia navella* is proposed for *Pyramidella (Tiberia) umbilicata* Thiele, 1925, not *P. umbilicata* Deshayes, 1861; *Turbonilla magister* is a new name for *T. (Elusa) augusta* Thiele, 1925, not *T. augusta* Deshayes, 1861; *Turbonilla indonesiae* takes the place of *T. helena* Thiele, 1925, not *T. helena* Semper, 1861, not *T. helena* Bartsch, 1915. From Australia, *Turbonilla bayensis* replaces *T. planulata* Thiele, 1930, not *Chemnitzia planulata* Gabb, 1864. From the Antarctic region, *Odostomia kergueleae* replaces *O. peregrina* Thiele, 1912, not *O. peregrina* Boettger, 1901. Finally, from deeper waters off East Africa, *Puposyrnola dorotheae* is proposed for *Eulimella parvula* Thiele, 1925, not *E. parvula* Bajarunas, 1910, and *Tiberia analoga* takes the place of *Pyramidella (Tiberia) similis* Thiele, 1929, not *P. (T.) similis* Boettger, 1901. While none of Thiele's pyramidellacean generic names poses a problem, *Euparthenia* Thiele, 1929, has been interpreted inappropriately.

Key words: Gastropoda, Prosobranchia, Pyramidellacea, nomenclature, taxonomy, Thiele, Indo-Australia, East Africa, Antarctica

INTRODUCTION

Johannes Thiele (1860-1935) had a distinguished career in malacology (Bieler & Boss, 1989; Boss & Bieler, 1991). Among many accomplishments, he described 129 species of gastropods that he placed in the family Pyramidellidae. Thiele's type material came from all over the world because he worked on the collections of oceanographic expeditions. He often was the first person to describe minute molluscs from remote areas. Thiele's descriptions and illustrations are good and his concepts of pyramidellid species remain useful; he always treats morphology in detail and provides geographic data. Many descriptions contrast new species with other taxa and discuss genus-level placement.

Thiele referred his 129 pyramidellacean species to 31 genus-group taxa. He proposed four genus-group names that were based on type species that he described: *Bacteridium* Thiele (1929: 236), *Ebalina* Thiele (1929: 236), *Oopyramis* Thiele (1930: 580), and *Stylopyramis* Thiele (1929: 236). He also named *Euparthenia* Thiele (1929: 233) as an objective synonym of, and thus a replacement for, *Parthenia* Lowe, 1841.

Today, most of Thiele's genus group names are little-used. *Euparthenia* is used most frequently. Usage is inconsistent. To cite two examples, Fekih (1969: 12) ranks it as

a subgenus of *Actaeopyramis* Fischer, 1885, and Vaught (1989: 63) views it as a synonym of *Miralda* A. Adams, 1863. Both the names *Actaeopyramis* and *Miralda* pose problems. *Actaeopyramis* Fischer is a junior objective synonym of *Monotygma* Gray, 1847 (Van Aartsen, 1986). *Miralda* had an original content of three Asian species, some quite imperfectly known (Adams, 1863: 3). We do not see a clear relationship between *Euparthenia* and either *Monotygma* or *Miralda*. In our view, *Parthenia* Lowe, 1841 not Robineau-Desvoidy, 1830, is validly replaced by *Euparthenia* Thiele. *Parthenia bulinea* Lowe, 1841, a species that was originally described from Madeira, was designated as type species of *Parthenia* by Monterosato, 1880 and is therefore also the type species of *Euparthenia* Thiele, 1929.

While none of Thiele's genus-group names poses a major nomenclatural problem, 10 of his 129 species-group names are troublesome. Since Thiele's taxa form a single body of academic work, it seems desirable to clarify nomenclature in one report.

SIMPLE CASES

Eight problems posed by Thiele's species group names are simple. We believe that virtually anyone would agree with the changes we propose.

(1) **Pyrgiscus thielei** nom. nov.

NOT *Turbonilla (Ptycheulimella) erna* Bartsch (1915: 75, pl.16 fig. 2).
Turbonilla (Pyrgisculus) erna Thiele (1925: 126-127, pl.16 fig. 13).

Geographic setting. — German Deep-Sea Expedition Station 199: 0° 15.5'N, 98° 4'E, in 470 m. The site is off Sumatra, Indonesia.

Remarks. — Thiele's report uses two sets of page and plate numbers. Low numbers refer to Thiele's work; high numbers places Thiele's report within a volume of expedition proceedings. Thiele always cited the low numbers; we follow his practice. To convert, add 34 to page numbers and 12 to plate numbers.

In assigning this species to *Turbonilla (Pyrgisculus)*, Thiele followed long precedent (e.g., Dall & Bartsch, 1904) but this usage was never universal. Sacco (1892) preferred *Pyrgulina (Pyrgisculus)*, Cossmann (1921) used *Pyrgostylus (Pyrgisculus)*, and others held other views. We believe that *Pyrgiscus* Philippi, 1841, is the senior name that should be used for *Turbonilla*-like species with spiral sculpture.

(2) **Turbonilla indonesiae** nom. nov.

NOT *Turbonilla helena* Semper (1861: 364).
NOT *Turbonilla (Pyrgiscus) helena* Bartsch (1915: 77, pl. 14 fig. 1).
Turbonilla (Chemnitzia) helena Thiele (1925: 288, pl. 17 figs. 19-19a).

Geographic setting. — Padang, Sumatra, Indonesia.

Remarks. — After extended research that, in part, is published, Van Aartsen (1981) concluded that the type species of *Turbonilla* Risso, 1826, is *T. costulata* Risso, 1826; the type of *Chemnitzia* d'Orbigny, 1840, is *Melania campanellae* Philippi, 1836; both names are synonyms of *Turbo lactea* Linnaeus, 1758. Thus we do not use the name *Chemnitzia*. We do believe that *Turbonilla* may need revision.

(3) **Turbonilla bayensis** nom. nov.

NOT *Chemnitzia planulata* Gabb (1864: 115).
Turbonilla planulata Thiele (1930: 580, pl. 4 fig. 49).

Geographic setting. — Shark Bay, Western Australia.

Remarks. — See the discussion of *Chemnitzia* under *Turbonilla indonesiae*, above. Since *Turbonilla* and *Chemnitzia* are synonyms, Thiele's name is preoccupied by Gabb's.

(4) **Puposyrnola dorothea** nom. nov.

NOT *Eulimella parvula* Bajarunas (1910: 256, figs.)
Eulimella parvula Thiele (1925: 116, pl. 13 fig. 26)

Geographic setting. — The type specimen came from German Deep Sea Expedition Station 251, 1°40.6'S, 41° 47.1'E, in 693 m. The site is off southeastern Africa.

Remarks. — The opening pages of Thiele's report provide a chronology for the manuscript. While the Introduction dates from February 1925, the manuscript was received by the editor in October 1918. The pyramidellid text was published in its original form. Thus, Thiele does not cite the major work in which Cossmann (1921: 229-230) proposed *Puposyrnola*. We believe this species is a *Puposyrnola*, a genus that is well-represented in Pacific faunas (Corgan, 1972).

The species is named after the second author's wife.

(5) **Odostomia kergueleae** nom. nov.

NOT *Odostomia peregrina* Boettger (1901: 100).
Odostomia peregrina Thiele (1912: 235, pl. 11 fig. 32a-b).

Geographic setting. — Observatory Bay, Kerguelen Archipelago, near Antarctica.

(6) **Pyrgulina bantama** nom. nov.

NOT *Actaeon pygmaea* Grateloup (1838: 282, pl. 6 figs. 77-78).
NOT *Pyrgulina pygmaea* (Grateloup), Sacco (1892: 69).
Pyrgulina pygmaea Thiele (1925: 123, pl. 14 fig. 25).

Geographic setting. — German Deep-Sea Expedition Station 193: 0° 30.2'N 97° 59.7'E, at 132 m. The site is off W. Sumatra, Indonesia.

Remarks. — Grateloup's species has been referred to *Pyrgulina*, at least by some workers, for more than a century. During that span of time, some experts have viewed *Pyrgulina* A. Adams, 1863, as a subgenus of *Odostomia* Fleming, 1813 (e.g., Dall & Bartsch, 1904). At the other extreme, it has been set apart from *Odostomia* at the subfamilial level (e.g., Saurin, 1959). Many people rank it as a genus (e.g., Cossmann, 1921). We believe that ranking is proper.

(7) **Tiberia analoga** nom. nov.

NOT *Pyramidella (Tiberia) similis* Boettger (1901: 96).
Pyramidella (Tiberia) similis Thiele (1925: 114, pl. 13 fig. 17).

Geographic setting. — German Deep-Sea Expedition Station 245, 5° 27.9'S, 39° 18.8'E, at a depth of 463 m. The site is in the Zanzibar Channel.

Remarks. — There is confusion as to the nature of *Tiberia* Monterosato, 1875. De Geronimo (1973: 218, fig. 2) provides a modern illustration of *Pyramidella minuscula* Monterosato, 1880. This Mediterranean species is the type by monotypy of *Tiberia* Monterosato, 1875. Concepts of *Tiberia* easily grew convoluted because Monterosato published a manuscript name that originated with J. G. Jeffreys. Jeffreys eventually established *Tiberia* Jeffreys (1884: 363). However, he also stated that the Mediterranean species (known as *P. minuscula*) was equal to an unillustrated Asian species, first described as *Syrnola nitidula* by Adams (1860: 335) and used that name for it .

This caused great confusion, as there now seemed to be two different genera named *Tiberia*. Cossmann (1900: 44) tried to clarify matters by offering *Tiberiola* as a replacement for Jeffrey's preoccupied name but experts such as Dall & Bartsch (e.g., 1909: 9), identified Adams' oriental species as the type of *Tiberia* Monterosato, 1875, *Tiberia* Jeffreys, 1884, and *Tiberiola* Cossmann, 1900. While the complexities of a name introduced by Monterosato should lie beyond the province of this study, one of Thiele's notable accomplishments was to use the name *Tiberia* Monterosato in a correct fashion.

(8) **Tiberia navella** nom. nov.

NOT *Pyramidella umbilicata* Deshayes (1861: pl. 21 figs. 30-31; 1862: 587).
Pyramidella (Tiberia) umbilicata Thiele (1925: 114, pl. 13 fig. 18).

Geographic setting. — German Deep-Sea Expedition Station 191, 0° 39.2'S, 98° 52.3'E, at a depth of 750 m, near Siberut Island, Mentawai Islands, Indonesia.

COMPLEX CASES

For each problem discussed above, there is a clear solution that involves much-used rules of nomenclature. The two cases discussed below are more challenging.

(9) **Turbonilla magister** nom. nov.

NOT *Turbonilla augusta* Deshayes (1861: pl. 20 figs. 13-14).
NOT *Turbonilla angusta* Deshayes (1862: 575).
Turbonilla (Elusa) augusta Thiele (1925: 286, pl. 17 fig. 14).

Geographic setting. — Padang, Sumatra, Indonesia.

Remarks. — Names introduced by Deshayes involve a lapsus calami. Deshayes' senior name preoccupies the name proposed by Thiele, which is here replaced. Thiele referred this species to *Turbonilla (Elusa)* but using the name *Elusa* A. Adams, 1861, poses problems. Some regard *Elusa* as a synonym of *Turbonilla* Risso, 1826 (e.g., Dall & Bartsch 1909: 29), or as a synonym of *Tropaeas* Dall & Bartsch, 1904 (e.g., Vaught,

1989: 63). Others rank it as a subgenus of *Syrnola* A. Adams, 1860 (e.g., Cossmann, 1921: 231-232) or as a full genus (e.g., Saurin, 1959: 233).

When the name was first used (Adams, 1861: 297), *Elusa* was monotypic for *Elusa teres* A. Adams, 1861. This Recent oriental species may never have been illustrated. Many years ago, Iredale (1916) noted that *Elusa* Adams, 1861, is a preoccupied name but he did not offer a replacement. We agree that the name is preoccupied and we follow Iredale's model of restraint. It would be inappropriate to replace Adams' genus-group name in an article on Thiele's taxa. Further, Adams' genus was described as *Terebra*-like. Thiele's species does not strongly resemble *Terebra* Bruguière, 1792. It is clearly part of the turbonillid stock. No subgeneric name seems necessary.

(10) *Turbonilla rex* Thiele, 1925

NOT *Rissoina rex* Pilsbry (1904: 27, pl. 4 figs. 42-42a).
Turbonilla rex Thiele (1925: 123, pl. 16 figs. 1-1a).

Geographic setting. — Known from three Indian Ocean sites, ranging from 400 to 1134 m. Sites parallel the African coast from Tanzania to Somalia.

Remarks. — We agree with authors who rank *Mormula* A. Adams, 1863, as a genus distinct from *Turbonilla* Risso, 1826 (e.g., Kuroda & Habe in Kuroda, Habe & Oyama, 1971: 277). Yet, many malacologists interpret *Mormula* as a subgenus of *Turbonilla* (e.g., Vaught, 1989: 63). Perhaps everyone who works with pyramidellaceans would agree that *Rissoina rex* Pilsbry is a species of *Mormula* (e.g.: Kuroda & Habe in Kuroda, Habe & Oyama, 1971: 277). If *Mormula* is viewed as a genus, *Turbonilla rex* Thiele and *Mormula rex* (Pilsbry) both remain useful names. For those who view *Mormula* as a subgenus of *Turbonilla*, the name proposed by Thiele is preoccupied. It would require replacement since there is no available synonymous name.

REFERENCES

AARTSEN, J.J. VAN, 1981. European Pyramidellidae: II. Turbonilla. — Boll. malacol. 17: 61-88.

——, 1986. Nomenclatural notes. 1. On Actaeopyramis as related to Monoptygma, Monotigma and Monotygma. — Boll. malacol. 22: 182-184.

ADAMS, A., 1860. On some new genera and species of Mollusca from Japan. — Ann. Mag. nat. Hist. 6: 331-337.

——, 1861. On a new genus and some new species of Pyramidellidae from the north of China. — Ann. Mag. nat. Hist. 7: 295-299.

——, 1863. On the species of Pyramidellidae found in Japan. — J. Proc. Linn. Soc. London 7: 1-6.

BAJARUNAS, M.V., 1910. The fauna of the Stavropoler Miocene Sand. — Mem. Soc. Naturalists Kieve 21: 239-268 (Russian, German summery).

BARTSCH, P., 1915. Report on the Turton collection of South African marine Mollusks, with additional notes on the South African shells contained in the United States National Museum. — Bull. U.S. Natn. Mus. 91: 1-305.

BIELER, R., & K.J. BOSS, 1989. Thiele and his contributions to zoology. Part 1. Biography and bibliography. — Nemouria 34: 1-30.

BOETGER, O., 1901. Zur Kenntnis der Fauna der mittelmiocänen Schichten von Kostej im Krassó-Szörényer Komitat. — Verhandl. Ver. Naturwiss. Hermannstadt 1901: 1-200.

BOSS, K.J., & R. BIELER, 1991. Johannes Thiele and his contributions to zoology. Part 2. Genus-group names (Mollusca). — Nemouria 39: 1-77.

CORGAN, J., 1972. Pacific species of Nesiodostomia Pilsbry, 1918, and Puposyrnola Cossmann, 1921 (Gastropoda: Pyramidellacea). — Veliger, 14: 355-360.

COSSMANN, A.E.M., 1900. Rectifications de nomenclature. — Rev. crit. Paléozool. 4: 42-46.

— —, 1921. Essais de Paléoconchologie comparée 12: 1-348.

DALL, W., & P. BARTSCH, 1904. Synopsis of the genera, subgenera, and sections of the family Pyramidellidae. — Proc. Biol. Soc. Wash. 17: 1-16.

— & —, 1909. A monograph of the West American pyramidellid mollusks. — Bull. U.S. Natn. Mus. 68: i-xii, 1-258.

DAUTZENBERG, PH., & H. FISCHER, 1896. Campagnes scientifiques de S. A. le Prince Albert 1 de Monaco. Dragages effectués par l'Hirondelle et par la Princesse-Alice, 1888- 1895.—.I. Mollusques, Gastéropodes. — Mém. Soc. zool. France 9: 395-498.

DESHAYES, G.P., 1861- 1863. Description des animaux sans vertèbres découverts dans le bassin de Paris pour servir de supplément à la description des coquilles fossiles des environs de Paris, comprenant une revue générale de toutes les espèces actuellement connues. Tome deuxième. Mollusques cephales, Première Partie: 1-968. Paris.

FEKIH, M., 1969. Pyramidellidae récoltés dans le Pliocène de l'Oued El Galaa (Menzel Bourguiba). — Notes Serv. Géol. Tunisie 29: 1-81.

GABB, W.M., 1864. Description of the Cretaceous fossils. — Pal. Cal. 1: 57-243.

GERONIMO, I. DI, 1973. Tiberia octaviana n. sp. di Pyramidellidae (Gastropoda, Opisthobranchia) del Mediterraneo. — Conchiglie 9: 217-222.

GRATELOUP, J.P.S. DE, 1838. Conchyliologie fossile des terrains tertiaires du bassin de l'Adour. — Act. Soc. Linn. Bord. 10: 251-290.

IREDALE, T., 1916. On some new and old molluscan generic names. — Proc. Malac. Soc. Lond. 12: 27-37.

JEFFREYS, J.G., 1884. On the Mollusca procured during the cruise of H. M. S. Triton, between the Hebrides and the Faeroes in 1882. — Proc. zool. Soc. Lond. 1883: 341-372.

KURODA, T., T. HABE & K. OYAMA, 1971. The sea shells of Sagami Bay collected by His Majesty, the Emperor of Japan: 1-741 (Japanese), pl. 1-121, 1-489 (English), index: 1-51. Tokyo.

PILSBRY, H.A., 1904. New Japanese marine Mollusca: Gastropoda. — Proc. Acad. Sci. Philad. 56: 5-37.

SACCO, F., 1892. I molluchi dei terreni terziarii del Piemonte e della Liguria. Parte XI. Eulimidae e Pyramidellidae (Parte) : 1-100. Torino.

SAURIN, E., 1959. Pyramidellidae de Nha-Trang (Vietnam). — Ann. Fac. Sci. Saigon 1959: 223-283.

SEMPER, J.O., 1861. Beiträge zur Kentniss der Tertiärformation. — Arch. Ver. Freunde Naturgesch. Mecklenburg 15: 221-409.

THIELE, J., 1912. Die antarktischen Schnecken und Muscheln. — Deutsche Südpolar-Expedition, 1901-1903, 13 (Zool. 5)(2): 183-285.

— —, 1925. Gastropoda der Deutschen Tiefsee-Expedition. II. Teil. — Wissenschaftliche Ergebnisse der Deutschen Tiefsee-Expedition auf dem Dampfer "Valdivia" 1898-1899, 17: 1-348.

— —, 1929. Handbuch der systematischen Weichtierkunde. 1: i-vi, 1-376. Jena.

— —, 1930. Gastropoda und Bivalvia. In: W. Michaelsen & R. Hartmeyer, Die Fauna Südwest Australiens 5: 559-596. Jena.

VAUGHT, K., 1989. A classification of the living Mollusca: 1-196.