Case 3055

*Osilinus* Philippi, 1847 and *Austrocochlea* Fischer, 1885 (Mollusca, Gastropoda): proposed conservation by the designation of *Trochus turbinatus* Born, 1778 as the type species of *Osilinus*

Serge Gofas

Muséum National d’Histoire Naturelle, Laboratoire de Biologie des Invertébrés marins et Malacologie, 55 rue Buffon, F-75005 Paris, France

David G. Herbert

M.B. Museum, Private Bag 9070, Pietermaritzburg 3200, South Africa

Abstract. The purpose of this application is to conserve the accustomed understanding and usage of the name *Osilinus* Philippi, 1847 by the designation of *Trochus turbinatus* Born, 1778 as the type species, thereby conserving also the name *Austrocochlea* Fischer, 1885 (family TROCHIDAE). At present *Monodonta constricta* Lamarck, 1822 is the valid type species of both *Osilinus* and *Austrocochlea*. The name *Osilinus* is used either at generic rank or for a subgenus of *Monodonta* Lamarck, 1799 and relates to an eastern Atlantic group of species which range from the southwestern British Isles to Angola, the Canary Islands, Madeira and the Mediterranean. The name *Austrocochlea* is widely used for species known from Southern Australia, Tasmania, New Caledonia, and New Zealand if *Fractarmilla* Finlay, 1926 is accepted as a synonym. Both genera include species that are important components of the intertidal fauna of temperate rocky shores.

Keywords. Nomenclature; taxonomy; Gastropoda; TROCHIDAE; molluscs: *Osilinus*: *Austrocochlea*: *Osilinus turbinatus*: *Austrocochlea constricta*.

1. *Monodonta* Lamarck, 1799 is based on the Indo-Pacific species *Trochus labio* Linnaeus, 1758 (type species by monotypy); it is characterized by a non-nacreous inner labial varix and a very strong columellar tooth, unusual among the tribe GIBBULINI in which it is classified (see Hickman & McLean, 1990, p. 97). Related species lacking such an inner labial varix and with a weakly developed tooth or bulge on the columella have been separated at generic or subgeneric rank.

2. Philippi (February 1847, pp. 19–20) introduced the genus *Osilinus* in a long sentence, which reads (in translation) ‘next to [the true *Monodonta*] we can find a construction, in a species-group starting from *M. constricta*, [M.] *taeniata*, and going into *M. fragarioides*, *Trochus crassus* … where instead of the clearly defined tooth of *T. labio*, there is only a small bulge … and I propose therefore the denomination *Osilinus*, from a species here belonging and named *Osilin* by Adanson [1757] …’. The first two of the species originally included are Australian, the remainder are eastern Atlantic or Mediterranean.
3. Herrmannsen (September 1847, p. 167) designated the Australian species *Trochus constrictus* ‘Macleay’ (a species introduced as ‘Monodonta constricta Macleay’ by Lamarck, 1822, p. 36) as the type species of *Osilinus*. This designation has been overlooked and subsequent authors have followed Wenz (1938, p. 229) who designated the Atlantic species *Trochus turbinatus* Born, 1778 (p. 340) as the type species, although Philippi (1847) had not included *T. turbinatus* in his genus *Osilinus*.

4. *Trochocochlea* is a pre-Linnaean name originating with Klein (1753) and first mentioned by Herrmannsen (1849, p. 616) without description, previous reference or included species. The name was made available by Mörc (1852, p. 154) who included *Trochocochlea constricta* (Lamarck) and *T. turbinata* (Born) among other species and cited *Osilinus* as a synonym. We could not trace a type designation earlier than that of Bucquoy, Dautzenberg & Dollfus (1885, p. 401), who selected *Trochus turbinatus* Born, 1778 as type species. The name *Trochocochlea* thus relates to the northeastern Atlantic-Mediterranean species-group.

5. Monterosato (1884, p. 43) established *Caragulus* for Mediterranean species included in *Trochocochlea* and noted that the latter should be used for ‘another group of tropical species’. In his review of Monterosato’s (1884) work, Crosse (1885, p. 140) designated *Monodonta turbinata* ‘Bonanni’ (a typographical error for Born in Monterosato, 1884) as the type species of *Caragulus*.

6. Fischer (1885, p. 820) introduced *Austrocochlea* for a separate Australian species-group originally included in *Osilinus*; *Monodonta constricta* Lamarck, 1822 is the type species by monotypy. Fischer characterised the genus as having ‘Tubercule de la base de la columelle non tronqué, peu saillant’. The name *Austrocochlea* has been, and continues to be, widely used, and has appeared in many publications in the fields of ecology (see, for example, Mapstone, Underwood & Creese, 1984; Little, 1989; Petraitis, 1992; Astles, 1993; Anderson & Underwood, 1997) and ecotoxicology (Alsanullah & Williams, 1989; Walsh, Dunstan & Murdoch, 1995). The genus includes a number of abundant littoral species in Australia (see Parsons, 1996).


8. We do not favour the view that a valid nomenclatural act should be set aside simply because it has been overlooked. However, recognition of Herrmannsen’s (1847) type species designation for *Osilinus* would render the name *Austrocochlea* a junior objective synonym of *Osilinus*; the latter name would become valid for the Australian species and another name would be required for those from the eastern Atlantic. The name *Austrocochlea* is widely accepted and its use for Australian species encompasses publications in many areas of invertebrate biology. We propose that *Trochus turbinatus* Born, 1778 be designated the type species of *Osilinus*, thereby maintaining the current use of *Austrocochlea* for the Australian species and of *Osilinus* for the European and West African ones. This designation will render the names *Trochocochlea* Mörch. 1852 and *Caragulus* Monterosato, 1884 junior objective synonyms of *Osilinus*. 
9. We have consulted with colleagues from Australia and New Zealand (Dr Winston Ponder of Sydney, Dr Bruce Marshall of Wellington, and Dr Fred Wells of Perth) and we are all agreed on the desirability of conserving the name *Austrocochlea*.

10. *Neptheusa* Leach, 1852 (pp. 146, 174) was published in the same year as Mörch's work but has never been used subsequently; the type species of the genus (by monotypy) *Trochus crassus* Pulteney, 1799 (a junior synonym of *Osilinus lineatus* (da Costa, 1778)) is a common northeastern Atlantic species congeneric with *T. turbinatus*. *Neptheusa* is a subjective synonym of *Osilinus* which does not threaten current usage and might be required in the future. It was misspelled 'Nephteusa' by Monterosato (1888, p. 178). *Gibbium* Gray, 1842 (type species: *T. crassus* Pulteney, 1799, by monotypy) is preoccupied by *Gibbium* Scopoli, 1777 (Coleoptera) and need not be further considered. *Trochus* Leach in Gray, 1847 (p. 270) first appeared in the publication (Gray, 1847a) of Leach's manuscript on the classification of the British Mollusca, with *Trochus crassus* as the sole included species, but is considered to be a misspelling of *Trochus Linnaeus*, 1758, one of the numerous misspellings transcribed from Leach's manuscript (e.g. 'Thieolia' for *Tricola* Risso, 1826. 'Aphorais' for *Aporrhais* da Costa, 1778 and 'Simia' for *Simmia* Risso, 1826). 'Trochius' was nevertheless mentioned by Gray (1847b, p. 145) as a synonym of *Labio* Oken, 1815.

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

(1) to use its plenary powers to set aside all previous type fixations for the nominal genus *Osilinus* Philippi, 1847 and to designate *Trochus turbinatus* Born, 1778 as the type species;

(2) to place on the Official List of Generic Names in Zoology the following names:
   (a) *Osilinus* Philippi, 1847 (gender: masculine), type species by designation under the plenary powers in (1) above *Trochus turbinatus* Born, 1778;
   (b) *Austrocochlea* Fischer, 1885 (gender: feminine), type species by monotypy *Monodonta constricta* Lamarck, 1822;

(3) to place on the Official List of Specific Names in Zoology the following names:
   (a) *turbinatus* Born, 1778, as published in the binomen *Trochus turbinatus* (specific name of the type species of *Osilinus* Philippi, 1847);
   (b) *constricta* Lamarck, 1822, as published in the binomen *Monodonta constricta* (specific name of the type species of *Austrocochlea* Fischer, 1885);

(4) to place on the Official Index of Rejected and Invalid Generic Names in Zoology the following names:
   (a) *Trochocochlea* Mörch, 1852 (a junior objective synonym of *Osilinus* Philippi, 1847);
   (b) *Caragulus* Monterosato, 1884 (a junior objective synonym of *Osilinus* Philippi, 1847 and of *Trochocochlea* Mörch, 1852).

References


