

Rectification of nomenclature for two species in the family Strombidae
(Gastropoda)

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As the Latin word *urceus* is a simple noun in apposition, the original spelling of the specific epithet derived directly from it must be retained (as *urceus*) in future, regardless of the gender of the genus with which it is combined (International Code of Zoological Nomenclature 1999, Article 31.2.1). The name *microurceus* is herein deemed to be a correct original spelling because it is in prevailing usage, and it must be retained with the original author and date (i.e., Kira, 1959) in future, regardless of the gender of the genus with which it is combined (International Code of Zoological Nomenclature 1999, Article 33.3.1).

Key words: Gastropoda, Caenogastropoda, Strombidae, *Strombus*, *Canarium*, nomenclature.

INTRODUCTION

At the present time, two different spellings are in use for the specific names (= epithets) of two common, tropical, western Pacific species of Strombidae. These species were originally called *Strombus urceus* Linnaeus, 1758, and *Canarium microurceum* Kira, 1959. The confusion caused by these dual spellings is worsening because, nowadays, both these species are placed in *Strombus* (a masculine genus) by some authors including RCW and *Canarium* (a neuter genus) by other authors including GCK, so there are four possible permutations. A cladistics-based phylogeny will clarify the generic position, but the spellings of both the specific names will continue to be a source of confusion unless this can be resolved permanently. This contribution fulfils that objective by showing that both epithets are nouns in apposition (and hence can never change spelling). By directly invoking an Article in the International Code of Zoological Nomenclature (ICZN, 1999) relating to subsequent spellings (ICZN, Article 33.3.1), we elect to retain the spelling *microurceus* attributed to Kira, 1959, as the "correct original spelling". Because this spelling is clearly in prevailing usage (see Appendix 1A), there is no need to make a formal application to the International Commission on Zoological Nomenclature to retain it.

The specific name *urceus* Linnaeus, 1758

Linnaeus (1758: 745, species number 440) described *Strombus urceus* (illustrated here in fig. 1). As all of his descriptions were written in Latin, there was no statement about the

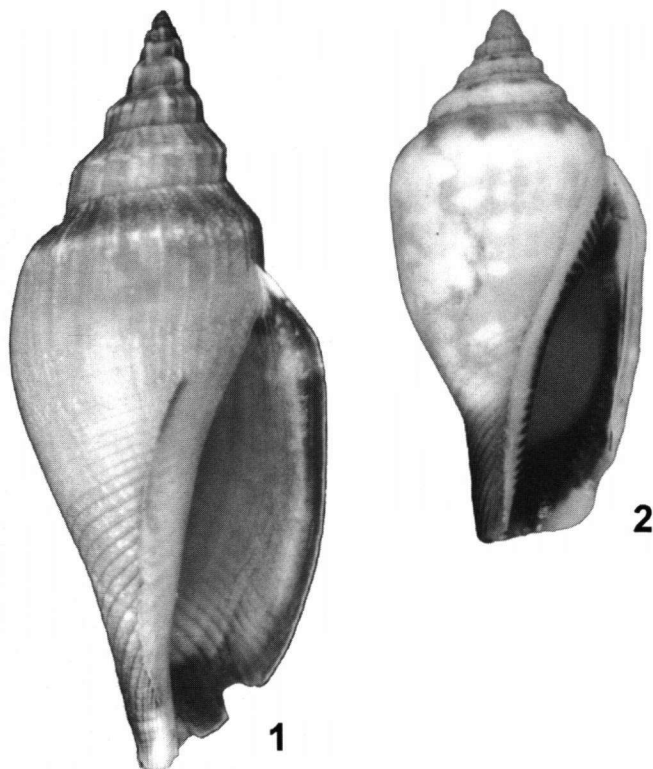
meaning of the specific epithet *urceus*, that is, there was no etymology. That name, *Strombus urceus*, had gained almost general acceptance, particularly through the influential monograph of Abbott (1960). But, on the other hand, a minority of authors have spelt the epithet *urceum* in combination with the genus *Canarium* (i.e., Kira, 1959: 34; Higo et al., 1999: 109; Raven, 2002: 9, pl. 1 fig. 5; Kronenberg & Vermeij, 2002: 50), treating the epithet as an adjective and hence changing its termination to agree with the gender (neuter) of the genus *Canarium*. However, the word *urceus* is a Latin noun meaning 'pitcher' or 'water-pot' (Lewis & Short, 1980; Brown, 1979). Linnaeus frequently used the names of familiar objects and animals, directly as nouns in apposition, as epithets for his new species. Had he intended the name to be an adjective, he would have written it as *urceolaris* or *urceolatus* (Backer, 1936). Therefore, *urceus* can be regarded only as a noun in apposition and the specific epithet *urceus* cannot be spelt otherwise, no matter the gender of the genus with which it is combined. This fact was already recognised by Yokogawa (1999: 39), who stated: "When I obtained a 'Nejimaki-gai' (= *Gibberulus gibberulus gibbosus*), I could also collect 'Ohaguro-gai', *Canarium urceus*, alive (sometimes this specific name is written as *urceum*, but *urceus* is a noun in the Latin language. There is no change of ending as happens with adjectives.)". So *urceum* is an incorrect subsequent spelling (ICZN, Article 33.3) and is not an available name.

The specific name *microurceus* Kira, 1959

The fact that *urceus* is a noun in apposition has implications for the spelling of *microurceum/microurceus*, an epithet for another species in the family Strombidae. This species (illustrated here in fig. 2), is closely related and similar to, but smaller than, *Strombus* (or *Canarium*) *urceus*. Kira (1959: 35, pl. 15 fig. 5) originally described it as *Canarium microurceum*. *Canarium microurceum* in earlier editions of Kira's work is a nomen nudum (see Bieler & Petit, 1990: 136.) Kira indicated that he had adopted the name from a manuscript by Kuroda. The original description (Kira, 1959: 35) is very brief and says nothing about the derivation of the epithet *microurceum*. We assume Kuroda and/or Kira mistakenly believed Linnaeus' name, on which this species' name was most probably based, was an adjective [Kira wrote that name as *urceum* (sic), in the combination *Canarium urceum*], but, as we have demonstrated above, *urceus* is definitely a noun in apposition. We conclude that the epithet *microurceum*, which should be translated into English as 'small pitcher', would therefore also have to be a noun in apposition, with the spelling ending in *us* to match that of its root *urceus*. In fact, Abbott (1960) emended the name to *microurceus*, in the combination *Strombus microurceus*, not because it was originally incorrect, but because he too assumed it was an adjective. Regardless, the spelling *microurceus* immediately gained general acceptance. Appendix 1 lists 40 usages of *microurceus* and only eight usages of *microurceum* during the period 1960 to present.

Therefore, the epithet *microurceum* should be regarded as an incorrect original spelling and should be corrected into *microurceus* (ICZN, Articles 32.4 and 32.5), the spelling in prevailing usage. Furthermore, we invoke ICZN Article 33.3.1 to retain the spelling *microurceus* with attribution to Kira, 1959, as deemed to be the correct original spelling.

Retention of Kira's original spelling (i.e., *microurceum*) would not only run counter to ICZN 33.3.1, but it would also result in the undesirable, indeed highly confusing, situation of having the epithets *urceus* and *microurceum* in use for two closely-related species in the same genus.



Figs 1-2. Strombidae, *Strombus* (*Canarium*) species discussed in this article. 1, *S. (C.) urceus* (Linnaeus, 1758), Museum & Art Gallery of the Northern Territory P2140, actual height 41.6 mm; Bali, Indonesia. 2, *S. (C.) microurceus* Kira, 1959, Museum & Art Gallery of the Northern Territory P12607, actual height 21.0 mm; Port Moresby, Papua New Guinea.

CONCLUSIONS

The epithets for these two species must be *urceus* Linnaeus, 1758, and *microurceus* Kira, 1959. The names *urceum* and *microurceum* are an incorrect subsequent spelling and an incorrect original spelling, respectively, and are unavailable.

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APPENDIX 1

PART A. List of published works using the specific epithet *microurceus* (assigned to Kira, 1959) to designate a species-group taxon in the Strombidae during the period 1960 to present.

1. Abbott, 1960. *Indo-Pacific Mollusca* 2: 71, pl. 20 figs 24, 25.
2. Abbott & Dance, 1982. *Compendium of seashells: 77.*
3. Abbott & Dance, 1990. *Compendium of seashells. Ed. 2: 77.*
4. Beechey, 1989. *Sydney Sheller, for September 1989: 3.*
5. Cernohorsky, 1965. *Records of the Fiji Museum* 1: 3-4, pl. 4 fig. 20.

6. Cernohorsky, 1972. *Marine shells of the Pacific* 2: 75, pl. 19 fig. 13.
7. DeTurck, Kreipl, Man in 't Veld & Poppe, 1999. *A Conchological Iconography. Family Strombidae*: 12, 36, pl. 66 figs 1-4, pl. 127 fig. 2.
8. Dharma, 1988. *Siput dan kerang Indonesia (Indonesian Shells)*: pl. 11 fig. 5.
9. Fukuda, 1993. *Ogasawara Research* 19: 43, pl. 15, species no. 210.
10. Habe & Kosuge, 1964. *A list of the Indo-Pacific Mollusca concerning to the Japanese molluscan fauna (2) Class Gastropoda (Superfamily Stromboidea)*: 4 (species number 29) (as of Kira, 1958).
11. Hinton, 1972. *Shells of New Guinea and the Central Indo-Pacific*: 11, pl. 5 nos 19, 20.
12. Hinton, 1977. *Guide to Australian shells*: pl. 12 nos 15, 15a.
13. Hinton, 1978. *Guide to shells of Papua New Guinea*: pl. 9 nos 15, 15a.
14. Inchaustegui, 1990. *Hawaiian Shell News* 361: 4.
15. Jansen, 1995. *Seashells of Central New South Wales*: 39.
16. Johnson, 1977. *Hawaiian Shell News* 215: 5.
17. Kaicher, 1974. *Card catalogue of world-wide shells* 5: card 416.
18. Kay, 1987. *The natural history of Enewetak Atoll, Vol. 1*: 112.
19. Kronenberg & Berkhout, 1984 (dated 1981). *Vita Marina* sect. *Buikpotigen*: 337-338, pl. 7 fig. 10.
20. Kurata et al., 1969. *Publication of the Tokyo Metropolitan Fisheries Experimental Station* 208: 116, species no. 98.
21. Loch, 1990. *Australian Shell News* 71: 5.
22. Ma Siu-tung, 1976. *Studia Marina Sinica* 11: 356 (list), 360, pl. 1 fig. 1.
23. Offord, 1994. *Keppel Bay Tidings* 32(4): 6.
24. Okutani (in Okutani, ed.), 2002. *Marine mollusks in Japan*: 181, pl. 90 fig. 10.
25. Richards, 1989. *Hawaiian Shell News* 360: 9.
26. Romagna Manoja, 1980. *La Conchiglia* 134-135: 16-17.
27. Robertson, 1981. *Tryonia* 4: 5.
28. Short & Potter, 1987. *Shells of Queensland and the Great Barrier Reef. Marine gastropods*: pl. 16 fig. 8.
29. Signor, Keeler & Biasca, 1986. *Science in New Guinea* 12(1): 8.
30. Smith, 2003. *Micronesica* 35-36: 255.
31. Springsteen & Leobrera, 1986. *Shells of the Philippines*: 68, pl. 15 fig. 8.
32. Wagner & Abbott, 1978. *Standard catalog of shells*: 09-655.
33. Walls, 1980. *Conchs, tibias, and harps*: 101, 102 top figs.
34. Wells, 1993. *Records of the Western Australian Museum, Supplement* 44: 30.
35. Wells, 1994. *Atoll Research Bulletin* 410: 8.
36. Wells, Bryce, Clark & Hansen, 1990. *Christmas Shells*: 33, pl. 13 fig. 70.
37. Willan, 1993. *The marine biological resources and heritage values of Cartier and Hibernia Reefs, Timor Sea*: 112.
38. Willan, in press. *Ashmore Reef Proceedings. The Beagle* 20.
39. Wilson, 1993. *Australian marine shells 1 – Prosobranch Gastropods*: 156, pl. 21 fig. 4a, b.
40. Wolfe, 1977. *Hawaiian Shell News* 211: ii, 7.

PART B. List of published works using the specific epithet *microurceum* (assigned to Kira, 1959) to designate a species-group taxon in the Strombidae during the period 1960 to present.

1. Asakura et al., 1994. Atoll Research Bulletin 383: 17.
2. Eisenberg, 1981. A collector's guide to seashells of the world: 52, pl. 34 fig. 4.
3. Higo, Callomon & Goto, 1999. Catalogue and bibliography of the marine shell-bearing Mollusca of Japan: 109.
4. Kira, 1962a. Colored illustrations of the shells of Japan (Enlarged and revised Ed.): 35, pl. 15 fig. 5.
5. Kira, 1962b. Shells of the Western Pacific in colour: 34, pl. 16 fig. 5.
6. Kronenberg & Vermeij, 2002. Vita Malacologica 1: 50.
7. Raven, 2002. Vita Malacologica 1: 9, 24, pl. 1 fig. 3.
8. Rice, 1997. A catalog of dealers' prices for shells: marine, land & freshwater (Ed. 15): 98.