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Eua mauga Cowie, 2019, new replacement name for *Partula montana* Cooke & Crampton, 1930 (currently *Eua montana*), a junior primary homonym of *Partula montana* Moellendorff, 1900 (Gastropoda: Partulidae). *Bishop Museum Occasional Papers* 131: 1–6 (2019)
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Eua mauga Cowie, 2019, new replacement name for *Partula montana* Cooke & Crampton, 1930 (currently *Eua montana*), a junior primary homonym of *Partula montana* Moellendorff, 1900 (Gastropoda: Partulidae)[1]

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The Partulidae are one of four land snail families endemic to the islands of the Pacific, the others being the Achatinellidae, Amastridae and Endodontidae (*sensu* Solem 1976) (Cowie 1996). All four families have suffered catastrophic rates of decline and extinction caused by habitat loss, predation by introduced species and to a lesser extent over-collection (Hadfield 1986; Cowie 1992; Sartori *et al*. 2014; Régnier *et al*. 2015). The Partulidae have been the subject of intensive international efforts to conserve what is left of their diversity, largely by *ex situ* breeding and most recently by release into the wild of captive bred individuals of a number of Society Island (French Polynesia) species (Coote *et al*. 2019).

The Partulidae comprise five genera with just over 100 species (Gerlach 2016; Slapcinsky & Kraus 2016). *Partula* Férussac, 1821 (in Férussac 1821–1822) is the most widespread and species-rich, with 77 species, primarily distributed in French Polynesia but with a number of species in Micronesia. *Samoana* Pilsbry, 1909 (in Pilsbry 1908–1910) is also widespread, from French Polynesia to the Mariana Islands of Micronesia but with far fewer species (21) than *Partula*. *Palaopartula* Pilsbry, 1909 (in Pilsbry 1908–1910), with three species, and *Sphendone* Slapcinsky & Kraus, 2016, with one, are known only from Palau in the far western Pacific. *Eua* Pilsbry & Cooke, 1934 , with just four species, occurs only in the Samoan and Tongan archipelagos.

In the Samoan archipelago, *Eua zebrina* (Gould, 1847) is endemic to the American Samoan islands of Tutuila and Ofu, having only been discovered on Ofu in 2001 (Cowie & Cook 2001). During surveys in American Samoa in 1998 and 2001, it was found to be by far the most widespread and abundant partulid species, though nonetheless uncommon (Cowie 2001). The partulids of independent Samoa are less well known than those of American Samoa. During surveys in 1992–1994 (Cowie & Robinson 2003), *Eua expansa* (Pease, 1871) was recorded at 12 sites, on both 'Upolu and Savai'i, while *Eua montana* (Cooke & Crampton, 1930) was recorded at only four sites on 'Upolu, to which island it is endemic. The other partulid species in the Samoan archipelago are all in the genus *Samoana*: *S. conica* (Gould, 1847), with two "varieties" listed by Cowie (1998), and *S. abbreviata* (Mousson, 1869) on Tutuila, *S. thurstoni* (Cooke & Crampton, 1930) on Ofu and Olosega, and *S. canalis* (Mousson, 1865) and *S. stevensoniana* (Pilsbry, 1909 in 1908-1910), which have both been recorded on 'Upolu and Savai'i; all are extremely rare (Cowie 1998, 2001; Cowie & Cook 2001; Cowie *et al*. 2002; Cowie & Robinson 2003). The fourth species of *Eua* is *E. globosa* Pilsbry & Cooke, 1934, from the island of Eua in the Tongan archipelago. It was still extant during surveys by Yoshio Kondo in 1967 and

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19a.—**Partula rufa**, sub-sp. **montana**, nov.

Bulimus guamensis, Pfr., Phil. Abb., ii, p. 113, Bul. t. 4, f. 9.— Mon. Hel., ii, p. 13.— *Partula guamensis*, Pfr., Mon. Hel., iii, p. 446.— *P. rufa*, Marts., Conch. Mitth., 1881, i, p. 95, t. 17, figs. 12—16.

Hab.—Ponape, ruins of Nanmatal (Finsch), in the hills (Etscheid, Kubary).

Whorls 5, very distinctly spirally striate, rather solid. Diam. 15, alt. 26 mm. (Pfr.), 16·26 (Marts.), 18·26 (the broadest of my own specimens).

The name *guamensis* cannot be retained inasmuch as this mollusc does certainly not live on the island of Guam, where my friend Quadras collected more than two months without finding it.

Fig. 1. The original proposal of *Partula rufa* subspecies *montana* Moellendorff, 1900.

John B. Burch in 1970 but is now probably extinct as a result of logging activities, with the last remaining suitable habitat being cleared in 1970 (Ó Foighil 2012). All these species are of considerable conservation concern.

Cowie (1998), followed by Gerlach (2016), noted that the name *montana* Cooke & Crampton, originally described in the combination *Partula montana* by Cooke & Crampton (1930) but since placed in *Eua* by Pilsbry & Cooke (1934), Kondo (1968), Richardson (1990), Cowie (1998) and Gerlach (2016), is a junior primary homonym of *montana* Moellendorff, which was originally proposed as *Partula rufa* subspecies *montana* by Moellendorff (1900) as a replacement name for *guamensis*, because he considered *guamensis* inappropriate as the taxon does not occur on Guam (Fig. 1) but only on Pohnpei, further east (Pelep & Hadfield 2011). However, being inappropriate is not justification for replacing a name according to the *International Code of Zoological Nomenclature* (ICZN 1999, Articles 18 and 23.3.7), and the name therefore remains available as a replacement name (*Code*, Article 12.2.3).

In general, junior homonyms are to be replaced, in which case a new name should be provided for *montana* Cooke & Crampton, 1930. However, in the interests of stability, prevailing usage should also generally be maintained, by reversing the precedence of the two names if necessary. The procedure to do this is straightforward (*Code*, Article 23.9.2) as long as two conditions (*Code*, Article 23.9.1) are met: 1) the senior homonym has not been used as a valid name after 1899 (*Code*, Article 23.9.1.1), and 2) the junior homonym has been used as the presumed valid name in at least 25 works, published by at least 10 authors in the immediately preceding 50 years and encompassing a span of not less than 10 years (*Code*, Article 23.9.1.2). Neither of these conditions appears to have been met. The first condition clearly has not been met as the senior homonym, although it may not have been used since it was introduced, was proposed in 1900 (i.e., after 1899). The second condition appears not to have been met as only four publications could be found that have used it in the last 50 years (i.e., since 1969), viz., Richardson (1990), Cowie (1998),

Fig. 2. Holotype of *Partula montana* Cooke & Crampton, 1930, now *Eua mauga* Cowie, 2019, **nom. nov.** Scale bar 5 mm (Courtesy Academy of Natural Sciences of Philadelphia).

Cowie & Robinson (2003) and Gerlach (2016). Of these, Richardson (1990) at least may not count as it is arguably just a list of names (*Code*, Article 23.9.6). Thus, based on usage of the junior homonym (*Code*, Article 23.9.1), it is not possible to reverse the precedence of *montana* Moellendorff, 1900 and *montana* Cooke & Crampton, 1930.

Nonetheless, the *Code* (Article 23.9.3) states that "[i]f the conditions of 23.9.1 are not met but nevertheless an author considers that the use of the older . . . homonym would threaten stability or universality or cause confusion, and so wishes to maintain use of the younger . . . homonym, he or she must refer the matter to the Commission for a ruling under the plenary power . . ." However, a strong case to refer this matter to the International Commission on Zoological Nomenclature can hardly be made, as *montana* Cooke & Crampton, 1930 has been mentioned in the literature only rarely since its description, and although fairly well known among Pacific island malacologists and conservationists, most of these people would readily become aware of a change of name, should that happen. The species has not been evaluated for the IUCN Red List, but when it does get evaluated, if under a new name this would be unlikely to cause confusion.

Furthermore, Article 23.9.5 of the *Code* does not apply. It states that "[w]hen an author discovers that a species-group name in use is a junior primary homonym . . . of another species-group name also in use, but the names apply to taxa not considered congeneric after 1899, the author must not automatically replace the junior homonym; the case should be referred to the Commission for a ruling under the plenary power . . ." However, *montana* Cooke & Crampton 1930 and *montana* Moellendorff, 1900 were congeneric in *Partula* until the former was placed in *Eua* by Pilsbry & Cooke (1934), and while the former is in use the latter is not, precluding this approach.

Thus, the only solution appears to be to provide a replacement name for *montana* Cooke & Crampton, 1930. There are no junior synonyms that could replace it (Cowie 1998; Gerlach 2016). A new name is therefore provided, as follows:

Eua mauga Cowie, 2019, *nom. nov. pro Partula montana* Cooke & Crampton, 1930, junior primary homonym of *Partula rufa* subspecies *montana* Moellendorff, 1900.

The name *mauga* is the Samoan word for mountain or mountainous, reflecting the original name, *montana*, of Cooke & Crampton (1930). It is here treated as a noun in apposition, and as it is not a Latin or latinized word it is indeclinable (*Code*, Article 31.2.3). The holotype (by monotypy) of *Partula montana* Cooke & Crampton, 1930 (Fig. 2) is in the Academy of Natural Sciences of Philadelphia (ANSP 292306) and this shell is therefore now the holotype of *Eua mauga* Cowie, 2019 (*Code*, Article 72.7).

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