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Hawaiian land snail records: *Lyropupa cookei* Clench, 1952 (Pulmonata: Vertiginidae) and *Strobilops aeneus* Pilsbry, 1926 (Pulmonata: Strobilopsidae)

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This note clarifies the status of two taxa of land snails that have been reported to occur in the Hawaiian Islands. *Lyropupa cookei* Clench, 1952, is shown to be a synonym of *Lyropupa anceyana* Cooke & Pilsbry *in* Pilsbry & Cooke, 1920. The sole Hawaiian record for the North American *Strobilops aeneus* Pilsbry, 1926, is almost certainly based on a mislabeled specimen, and accordingly this species should be removed from the Hawaiian faunal list.

Lyropupa cookei Clench, 1952

Lyropupa Pilsbry, 1900, is a genus of pupilloid land snails endemic to the Hawaiian Islands. In their monograph of the genus, Pilsbry & Cooke (1920 *in* 1918–1920: 253–254, pl. 26, figs. 3, 6) published a description of "*Lyropupa anceyana* C. & P., n. sp.," based on specimens from Ola'a on the Island of Hawai'i held in the collections of Bishop Museum and the Academy of Natural Sciences of Philadelphia. They stated that their new species had previously been misidentified by Ancey (1904:124) as *Lyropupa lyrata* (Gould, 1843). Several pages earlier, in their systematic treatment of that species, Pilsbry & Cooke (1918–1920: 235) had also set forth their conclusion that Ancey had misidentified Gould's species and stated that in fact Ancey's "description of *lyrata* was based on specimens of an unnamed species for which the name *L. anceyana* is proposed".

In his list of the species described by Cooke, Clench (1952) treated the references to *L. anceyana* on pp. 235 and 253–254 of Pilsbry & Cooke (1918–1920) as constituting two independent taxonomic acts creating two separate new taxa with the same name (*i.e.*, two simultaneously published homonyms) but with different authorship ("Pilsbry & Cooke" for the text reference on p. 235, "C. & P." [= Cooke & Pilsbry *in* Pilsbry & Cooke] for the description on pp. 253). Accordingly, in a footnote noted by Johnson (2003) but overlooked by Cowie *et al.* (1995) and Pokryszko (1997), Clench (1952: 32, fn. 2) proposed the new name *L. cookei* for "*Lyropupa anceyana* Cooke and Pilsbry, 1920, Manual of Conchology II, **25**: 253, non *Lyropupa anceyana* Pilsbry and Cooke, idem., p. 235."

Clench's belief that Pilsbry and Cooke intended to erect two separate taxa bearing the same name is without foundation; clearly, their reference to *L. anceyana* on p. 235 was not intended to stand alone as the establishment of a new taxon but was instead a mere cross-reference to the subsequent description of *L. anceyana* on p. 253–254. This is demonstrated by the fact that they listed only a single *L. anceyana* in their tabular summary of the distribution of the genus *Lyropupa* and in their key for the identification of its species (Pilsbry & Cooke 1918–1920: 229 and 230, respectively). Clench's new name *L.*

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cookei is thus superfluous and is a synonym of *L. anceyana* Cooke & Pilsbry *in* Pilsbry & Cooke, 1920.

Strobilops aeneus Pilsbry, 1926

Haas (1945:14) reported that "[a]mong a lot of minute insects collected in the Waianae Range, about 1.5 miles north of Ekahanui Gulch, Oahu, Hawaiian Islands by Mr. [Henry] Dybas, there was one specimen of the North American land shell *Strobilops aenea*; with it were collected the Hawaiian land shells *Tornatellina* (*Tornatellina*) baldwini Ancey, and *T. (Laminella) cylindrica* Sykes." He went on to add that "Mr. Dybas did not use strainers for collecting his minutia, collecting by picking up every object individually, so there is no possibility of introduction of the specimen by him. We must assume that *Strobilops aenea* is now established in the Hawaiian Islands."

Pursuant to Article 30.1.4.3, International Code of Zoological Nomenclature (International Commission on Zoological Nomenclature 1999), the gender of the genus-group name *Strobilops* is masculine, not feminine as assumed by Pilsbry and Haas, and accordingly the spelling "*aeneus*" is used here.

Haas's report was cited by Pilsbry (1948), and reports of its presence in Hawai'i by Cowie (1997, 1998, 2001) and Ziegler (2002) are based upon it; there are no independent records of the species' occurrence in the Hawaiian Islands.

Strobilops aeneus and its subspecies are widely distributed in eastern North America and Mexico (Pilsbry 1927–1935, 1948; Hubricht 1985). Other than Haas' report, no confirmed records of the occurrence of *S. aeneus* outside its American homeland have been located. Although Climo (1979) concluded that the description of *Laoma elegans* Suter, 1896, a supposed New Zealand species, was based on a mixed lot of *S. aeneus* and *S. labyrinthicus* (Say, 1817), another North American species, he considered it highly probable that Suter's specimens were mislabeled. Subsequent reviews of the introduced land mollusks of New Zealand (Barker 1982, 1999) have not included *Strobilops* in that nation's fauna.

Dr. C. Montague Cooke, Jr., then Malacologist at Bishop Museum, visited Chicago in 1947 (letter dated March 7, 1947, from Cooke to Fritz Haas) and examined Dybas's specimen of *S. aeneus* in the collection of the Chicago Museum of Natural History (now Field Museum). In a memorandum dated April 26, 1947, in the files of Bishop Museum's malacological collections, Cooke stated: "Had a talk with Dybas, who collected the specimen. He admitted that there was a possibility that the tube in which the shell was preserved might not have been clean. The fresh appearance of the shell, unlike most of the shells from this area, leads me to the opinion that it is not authentic."

Notwithstanding Haas's endorsement of Dybas's field techniques, the latter's statement to Cooke raises questions as to the authenticity of this specimen. Furthermore, careful field techniques do not negate the possibility of mislabeling during subsequent processing, as may have happened with another land snail collected by Dybas. Solem & Haas (1964) concluded that the report by Haas (1947) of the occurrence in South Carolina of the Central American cyclophorid *Adelopoma costaricense* Bartsch and Morrison, 1942, was based on a mislabeled and misidentified specimen of a Mariana Islands diplommatinid, *Palaina taeniolata taeniolata* Quadras & Moellendorf, 1894. They noted that the South Carolina specimen was identical to those in a large series of that species collected by Dybas in 1945 on Guam and attributed the discrepancy to a curatorial error in Chicago. In light of doubts as to the authenticity of Dybas's specimen, the absence of subsequent collections confirming the presence of *S. aeneus* in the Hawaiian Islands, and the lack of evidence that this species has become established elsewhere as an introduced species, it is highly probable that the only record of its occurrence here is erroneous. Accordingly, it should be removed from the Hawaiian faunal list.

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