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Short note

Bruckneria nom. nov., a new replacement name for *Walteriella* Brückner, 2006 (Hexactinellida: Euplectellidae), a junior homonym of *Walteriella* Kazantsev, 2001 (Insecta: Cantharidae)

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A comprehensive study of an Upper Cretaceous (Coniacian) siliceous sponge fauna from Bornholm, Denmark was conducted by Brückner (2006), with three new genera and 18 new species described. Among them, the monotypic euplectellid genus *Walteriella* Brückner, 2006 and its type species *Walteriella plectilis* Brückner, 2006 were established based on the following unique characteristics: choanosomal diactines and rare hexactines, missing hypodermalia, autodermal hexactines, and supradermal hexactines and pentactines. The genus name *Walteriella* was derived from the morphologically similar extant euplectellid genus *Walteria* Schulze, 1886 from the Western Pacific, South Australia, and the Indian Ocean (Brückner, 2006; Tabachnick *et al.*, 2019).

However, *Walteriella* Brückner, 2006 was recently found to be a junior homonym of *Walteriella* Kazantsev, 2001, a genus of Asian soldier beetles comprising ten species (Kazantsev, 1999; Kazantsev, 2001; Švihla, 2004; Okushima, 2008; Satô *et al.*, 2014). *Walteriella* Brückner, 2006 is therefore invalid due to homonymy and needs to be replaced according to the International Code of Zoological Nomenclature (ICZN). In recognition of the original author of *Walteriella* Brückner, 2006, Dr. Anke Brückner, and her extensive contributions to the paleontology of hexactinellid sponges (Brückner, 2006), we here propose *Bruckneria* nom. nov. (gender feminine) as a new replacement name for *Walteriella* Brückner, 2006. The type species *Walteriella plectilis* Brückner, 2006 is therefore transferred to *Bruckneria* as *Bruckneria plectilis* (Brückner, 2006) comb. nov. The holotype (SMF XXVI 362: Figure 1), including both a part (SMF XXVI 362a) and counterpart (SMF XXVI 362b), is currently housed at the Senckenberg Museum of Natural History in Frankfurt, Germany. The publication and nomenclatural acts herein are registered under ZooBank LSID urn:lsid:zoobank.org:pub:F8EDB286-64B8-4125-907E-4863368BF2DA and urn:lsid:zoobank.org:act:ECD2231A-81F0-4206-B9E4-41B8076DCA7B.

Notably, *Walteriella* is a popular name in nomenclature, and *Walteriella* Brückner, 2006 is not the first junior homonym of *Walteriella* Kazantsev, 2001 (Arthropoda) to be discovered. Mendoza-Palmero and Hsiao (2020) addressed the homonymy of *Walteriella* Mendoza-Palmero, Mendoza-Franco, Acosta and Scholz, 2019 (Platyhelminthes), a genus of gill parasites found in South American catfishes (Mendoza-Palmero *et al.*, 2019), and proposed *Boegeriella* Mendoza-Palmero and Hsiao

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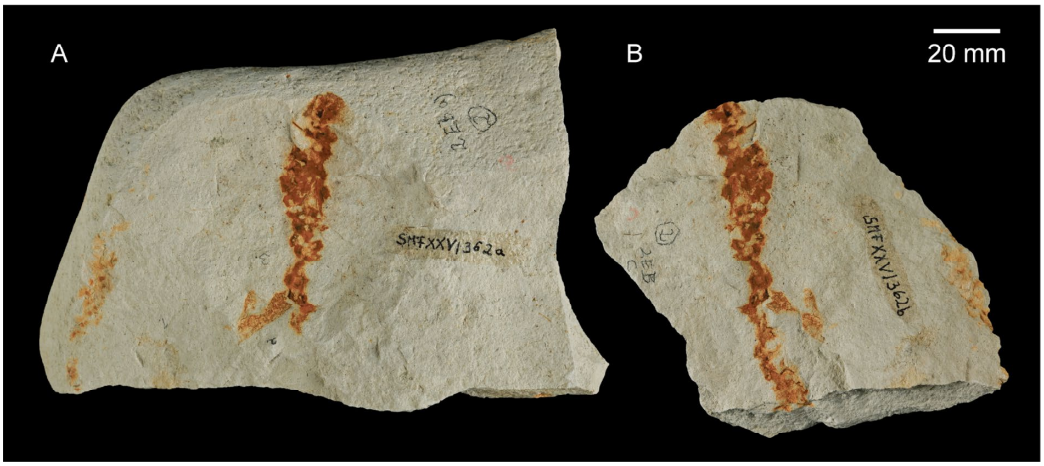

Figure 1. Holotype of *Bruckneria plectilis* (Brückner, 2006) comb. nov. (SMF XXVI 362: Senckenberg Museum of Natural History, Frankfurt, Germany) from the Arnager Limestone Formation, Coniacian (Upper Cretaceous), Bornholm, Denmark. **A,** SMF XXVI 362 a (part); **B,** SMF XXVI 362 b (counterpart).

2020 (Platyhelminthes) as a new replacement name. Furthermore, the genus name *Walteriella* Kazantsev, 2001 (Arthropoda) is itself a replacement name for *Walteria* Kazantsev, 1999 (Arthropoda), which was preoccupied by *Walteria* Schulze, 1886 (Porifera) (Kazantsev, 2001). Both *Walteria* and *Walteriella* (e.g. *Walteria* Kazantsev, 1999 [Arthropoda], *Walteriella* Brückner, 2006 [Porifera], and *Walteriella* Mendoza-Palmero, Mendoza-Franco, Acosta and Scholz, 2019 [Platyhelminthes]) should be avoided in future zoological nomenclatural acts.

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References

Brückner, A., 2006: Taxonomy and paleoecology of lyssacinosan Hexactinellida from the Upper Cretaceous (Coniacian) of Bornholm, Denmark, in comparison with other Postpaleozoic representatives. *Abhandlungen der Senckenbergischen Naturforschenden Gesellschaft*, vol. 564, p. 1–103.

Kazantsev, S. V., 1999: Revision of *Lycocerus* Gorham of Indochina and adjacent regions, with the description of *Walteria*, a new genus (Coleoptera, Cantharidae). *Entomologica Basiliensia*, vol. 21, p. 115–134.

Kazantsev, S. V., 2001: New taxa of soldier-beetles (Coleoptera, Cantharidae) from Central Asia and the Caucasus. *Zoologicheskiy Zhurnal*, vol. 80, p. 1076–1082.

Mendoza-Palmero, C. A. and Hsiao, Y., 2020: *Boegeriella* nom. nov. (Monogenoidea: Dactylogyridae) for *Walteriella* Mendoza-Palmero, Mendoza-Franco, Acosta and Scholz, 2019, a junior homonym of *Walteriella* Kazantsev, 2001 (Coleoptera: Cantharidae). *Systematic Parasitology*, vol. 97, p. 857–858.

Mendoza-Palmero, C. A., Mendoza-Franco, E. F., Acosta, A. A. and Scholz, T., 2019: *Walteriella* n. g. (Monogenoidea: Dactylogyridae) from the gills of pimelodid catfishes (Siluriformes: Pimelodidae) from the Peruvian Amazonia based on morphological and molecular data. *Systematic Parasitology*, vol. 96, p. 441–452.

Okushima, Y., 2008: A new species of the genus *Prothemus* (Coleoptera: Cantharidae) from Taiwan, with records of Taiwanese Cantharidae in the Shibata collection. *Special Publication of the Japan Coleopterological Society*, vol. 2, p. 273–300.

Satô, M., Okushima, Y., Takahashi, N., Li, C.-L., Yang, Y.-X. and Hsiao, Y., 2014: Checklist of the Cantharidae of Taiwan (Coleoptera: Elateroidea). *Collection and Research*, vol. 27, p. 43–69.

Schulze, F. E., 1886: Über den Bau und das System der Hexactinelliden. *Abhandlungen der Königlichen Akademie der Wissenschaften zu Berlin (Physikalisch-Mathematisch Classe)*, vol. 1886, p. 1–97.

Švihla, V., 2004: New taxa of the subfamily Cantharinae (Coleoptera, Cantharidae) from southeastern Asia with notes on other species. *Entomologica Basiliensia*, vol. 26, p. 155–238.

Tabachnick, K., Fromont, J., Ehrlich, H. and Menshenina, L., 2019: Hexactinellida from the Perth Canyon, Eastern Indian Ocean, with descriptions of five new species. *Zootaxa*, vol. 4664, p. 47–82.

Author contributions

C.-H. H. completed the first draft of the manuscript. Y. H. designed and organized the study. Both authors reviewed, contributed to, and edited the manuscript.