

Pholadomya (Pholadomya) Miyanoharaensis, a New Replacement Name for Pholadomya japonica Amano, 1956, Non Yokoyama, 1920 (Mollusca: Bivalvia: Pholadomyidae)

Author: Matsubara, Takashi

Source: Paleontological Research, 24(4): 316-317

Published By: The Palaeontological Society of Japan

URL: https://doi.org/10.2517/2019PR018

The BioOne Digital Library (<u>https://bioone.org/</u>) provides worldwide distribution for more than 580 journals and eBooks from BioOne's community of over 150 nonprofit societies, research institutions, and university presses in the biological, ecological, and environmental sciences. The BioOne Digital Library encompasses the flagship aggregation BioOne Complete (<u>https://bioone.org/subscribe</u>), the BioOne Complete Archive (<u>https://bioone.org/archive</u>), and the BioOne eBooks program offerings ESA eBook Collection (<u>https://bioone.org/esa-ebooks</u>) and CSIRO Publishing BioSelect Collection (<u>https://bioone.org/csiro-ebooks</u>).

Your use of this PDF, the BioOne Digital Library, and all posted and associated content indicates your acceptance of BioOne's Terms of Use, available at <u>www.bioone.org/terms-of-use</u>.

Usage of BioOne Digital Library content is strictly limited to personal, educational, and non-commercial use. Commercial inquiries or rights and permissions requests should be directed to the individual publisher as copyright holder.

BioOne is an innovative nonprofit that sees sustainable scholarly publishing as an inherently collaborative enterprise connecting authors, nonprofit publishers, academic institutions, research libraries, and research funders in the common goal of maximizing access to critical research.

Pholadomya (Pholadomya) miyanoharaensis, a new replacement name for *Pholadomya japonica* Amano, 1956, non Yokoyama, 1920 (Mollusca: Bivalvia: Pholadomyidae)

TAKASHI MATSUBARA

Laboratory of Earth Sciences, Faculty of Education, Kushiro Campus, Hokkaido University of Education. 1-15-55 Shiroyama, Kushiro, Hokkaido 085-8580, Japan (e-mail: matsubara.takashi@k.hokkyodai.ac.jp)

Received July 20, 2019; Revised manuscript accepted August 24, 2019

Key words: Bivalvia, Cretaceous, new replacement name, nomenclature, Pholadomya

Introduction

The bivalve genus Pholadomya G.B. Sowerby I, 1823 in 1821–1825 (type species: Pholadomya candida G.B. Sowerby I, 1823 in 1821–1825, by subsequent designation of Gray, 1847: p. 194) is known as the "living fossil" (e.g. Runnegar, 1972; Morton, 1980; Díaz and Torres, 2009); its oldest fossil records can be traced back to the Late Triassic (e.g. Cox and Newell, 1969; Nevesskaja et al., 2013). In Japan, this genus is recorded from the Late Jurassic onwards (Tamura, 1960), and more than a dozen fossil and the Recent species have been described or reported (e.g. Dall, 1907; Nagao, 1943; Omori, 1952; Habe, 1958; Hayami, 1975; Matsuda, 1985; Matsukuma, 1989; Ueda, 1995; Okutani, 2017). However these species are known to include several members in the family Parilimyidae Morton, 1981 (e.g. Coan, 2000; Kurihara, 2010; Huber, 2015), and further taxonomical and nomenclatural studies are required to fix the true constituents. I herein propose a new replacement name, Pholadomya (Pholadomya) miyanoharaensis nom. nov., for the preoccupied Late Cretaceous species from Japan.

Proposal of a new replacement name

Pholadomya (Pholadomya) miyanoharaensis nom. nov.

- Pholadomya japonica Amano, 1956, p. 80–81, pl. 2, figs. 1–5. [non Yokoyama, 1920]
- Pholadomya (Pholadomya) japonica Amano. Hayami, 1975, p. 148;
 Matsuda, 1985, p. 10–11, pl. 3, figs. 4–6; Tashiro and Takatsuka, 1991, p. 8–9, pl. 1, fig. 31; Tashiro, 1992, p. 265, pl. 76, fig. 8;
 Hirose and Ugai, 2012, figs. 4-20, 4-21.

Discussion.—Pholadomya japonica Amano, 1956, was originally described from the Upper Cretaceous Miyanohara Formation in the Sakawa area, Shikoku, southwestern Japan. It has long been regarded as a valid species in the subgenus *Pholadomya* s.s. However, I noticed that this species name is a primary junior homonym of *Pholadomya japonica* Yokoyama, 1920 (Yokoyama, 1920: p. 106–107, pl. 6, figs. 30, 31), from the Middle Pleistocene Naganuma Formation in the southern Yokohama area, central Honshu, Japan. Since it has no valid junior synonym, I herein propose *Pholadomya (Pholadomya) miyanoharaensis* nom. nov. for the preoccupied *Pholadomya japonica* Amano, 1956. The new replacement name is after its type locality, Miyanohara in the Sakawa area.

It may be noted that *Pholadomya japonica* Yokoyama, 1920, is the type species of the subgenus *Barnea* (*Umitakea*) Habe, 1952, in the family Pholadidae Lamarck, 1809 (by original designation).

Acknowledgments

I am grateful to T. Ubukata (Kyoto University; associate editor of PR) and an anonymous reviewer for their critically reading the manuscript and providing valuable comments.

References

- Amano, M., 1956: Some Upper Cretaceous fossils from southwestern Japan (Part 1). *Kumamoto Journal of Science, Series B, Section 1*, vol. 2, p. 63–93.
- Coan, E. V., 2000: A new species of *Panacca* from Chile (Bivalvia: Pholadomyoidea: Parilimyidae). *Malacologia*, vol. 42, p. 165–

170.

- Cox, L. R. and Newell, N. D., 1969: Family Pholadomyidae Gray, 1847. In, Moore, R. C. and Teichert, C. eds., Treatise on Invertebrate Paleontology, Part N. Mollusca 6. Bivalvia, Vol. 2, p. N827–N838. Geological Society of America, Boulder / University of Kansas, Lawrence.
- Dall, W. H., 1907: Descriptions of new species of shells, chiefly Buccinidae, from the dredgings of the U.S.S. "Albatross" during 1906, in the northwestern Pacific, Bering, Okhotsk, and Japanese seas. *Smithsonian Miscellaneous Collections*, vol. 50, p. 139–173.
- Díaz, J. M. and Torres, D. C., 2009: Rediscovery of a Caribbean living fossil: *Pholadomya candida* G. B. Sowerby I, 1823 (Bivalvia: Anomalodesmata: Pholadomyoidea). *Nautilus*, vol. 123, p. 19–20.
- Gray, J. E., 1847: A list of the genera of Recent Mollusca, their synonyma and types. *Proceedings of the Zoological Society*, vol. 15, p. 129–219.
- Habe, T., 1952: Genera of Japanese Shells. Pelecypoda, No. 3, p. 185– 278. Kairui Bunken Kankō-Kai, Kyōto. (in Japanese)
- Habe, T., 1958: Descriptions of five new Bivalves from Japan. Venus (Japanese Journal of Malacology), vol. 20, p. 173–180.
- Hayami, I., 1975: A systematic survey of the Mesozoic Bivalvia from Japan. *The University Museum*, *The University of Tokyo*, *Bulletin*, no. 10, p. i–vi, 1–249.
- Hirose, K. and Ugai, H., 2012: Fossils of "Trigonia Sandstone Fossil Hunting Park"—Fossils of the Gannohana Member (Enokuchi Formation, the Goshonoura Group)—. Bulletin of the Goshoura Cretaceous Museum, no. 13, p. 19–24. (in Japanese)
- Huber, M., 2015: *Compendium of Bivalves 2*, 907 p. + 1 CD. Conch-Books, Harxheim.
- Kurihara, Y., 2010: Middle and Late Miocene marine Bivalvia from the northern Kanto Region, central Japan. *National Museum of Nature* and Science Monographs, no. 41, p. i–vii, 1–87.
- Lamarck, J. -B. -P. -A., 1809: *Philosophie Zoologique, ou Exposition, Tome Premier*, xxv + 428 p. Dentu and J. -B. Lamarck, Paris.
- Matsuda, T., 1985: The bivalve fauna from the Miyanohara Formation (Lower Cenomanian) of Sakawa Area, Shikoku. *Transactions and Proceedings of the Palaeontological Society of Japan, New Series*, no. 137, p. 1–18.
- Matsukuma, A., 1989: Studies on the Kawamura Collection (Mollusca) stored in the National Science Museum, Tokyo: VI. Living pholadomyid bivalves from the northwestern Pacific, with description of a new species. *Venus*, vol. 48, p. 207–221.

Morton, B., 1980: Anatomy of the "living fossil" Pholadomya candida

Sowerby 1823 (Bivalvia: Anomalodesmata: Pholadomyacea). *Videnskabelige Meddelelser fra dansk naturhistorisk Forening i København*, vol. 142, p. 7–101.

- Morton, B., 1981: The Anomalodesmata. *Malacologia*, vol. 21, p. 35–60.
- Nagao, T., 1943: Pholadomya from Japan. Journal of the Geological Society of Japan, vol. 50, p. 255–262.
- Nevesskaja, L. A., Popov, S. V., Gocharova, I. A., Guzhov, A. V., Janin, B. T., Polubotko, I. V., Bialov, A. S. and Gavrilova, V. A., 2013: Phanerozoic Bivalvia of Russia and surrounding countries. *Transactions of the Paleontological Institute, Russian Academy of Sciences*, vol. 294, p. 1–524. (*in Russian with English title*)
- Okutani, T., 2017: Pholadomyidae. *In*, Okutani, T. *ed.*, *Marine Mollusks in Japan, Second Edition*, p. 549 (plate), p. 1206 (text). Tokai University Press, Hiratsuka.
- Omori, M., 1952: A new species of fossil *Pholadomya* from the Japanese Miocene. *Venus (Japanese Journal of Malacology)*, vol. 17, p. 23–26.
- Runnegar, B., 1972: Anatomy of *Pholadomya candida* (Bivalvia) and the origin of the Pholadomyidae. *Proceedings of the Malacologi*cal Society of London, vol. 40, p. 45–58.
- Sowerby, G. B., I, 1821–1825: The Genera of Recent and Fossil Shells, for the Use of Students, in Conchology and Geology, Vol. 1. Text, 247 p. G. B. Sowerby, London.
- Tamura, M., 1960: A note on *Neoburmesia*, a peculiar Jurassic pelecypod with description of mytilids and myacids from the upper Jurassic Soma Group in Japan. *Transactions and Proceedings* of the Palaeontological Society of Japan, New Series, no. 28, p. 275–283.
- Tashiro, M., 1992: ["The Illustrated Book of Fossils": Mesozoic Cretaceous Bivalves from Japan], 307 p. M. Tashiro, Sakawa. (in Japanese; original title translated)
- Tashiro, M. and Takatsuka, K., 1991: Upper Albian bivalves from the Goshonoura Group. *Memoirs of the Faculty of Science, Kochi* University, Series E, vol. 12, p. 1–10.
- Ueda, T., 1995: *Pholadomya turunagai* Tan from the Miocene Tari Formation in the southwestern part of Tottori Prefecture, Southwest Japan. *Venus (Japanese Journal of Malacology)*, vol. 54, p. 307– 316.
- Yokoyama, M., 1920: Fossils from the Miura Peninsula and its immediate north. *Journal of the College of Science, Imperial University* of Tokyo, vol. 49, article 6, p. 1–193.