

Arthritica korniushini Ponder, 2023

Arthritica korniushini (adult size 2.5-2.8 mm)

Diagnostic features

This small bivalve is superficially similar to some sphaeriids, but differs



Distribution of Arthritica korniushini.

in its anatomy and hinge features. It is most readily distinguished by the ligament which is housed in a pit below the posterior part of the hinge. In sphaeriids, the ligament is in a pit on the outer edge of the posterior hinge plate.

Classification

Arthritica korniushini Ponder, 2023

Class Bivalvia

Infraclass Heteroconchia

Cohort Heterodonta

Megaorder Neoheterodontei

Order Venerida

Superfamily Galeommatoidea

Family Lasaeidae

Genus Arthritica Finlay, 1926 (type species: Kellia bifurca Webster, 1908; New Zealand, marine)

Original name: Arthritica korniushini Ponder, 2023. In Ponder, W. F. (2023). The first galeommatoidean from inland waters: a new species of Arthritica (Bivalvia, Lasaeidae) from artesian springs in South Australia, with comments on other Australian members of the genus. Molluscan Research, 1-12.

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Type locality: Billa Kalina Springs, spring at Old Billa Kalina ruin, Lake Eyre Supergroup, South Australia.

State of taxonomy

Ponder (2023) provided a review of the Australian species of Arthritica, all of which are marine except for the present species.

Biology and ecology

This species lives in swampy springs, amongst vegetation and sediment. It is the only known freshwater galeommatoidean. The fertilized eggs are brooded in the gills and released as crawl-away juveniles.

Distribution

In a few freshwater springs in the Lake Eyre basin spring complex, South Australia.

Notes

This species is only known from only three spring groups and is potentially threatened.

Further reading

Beesley, P. L., Ross, G. J. B. & Wells, A., Eds. (1998). Mollusca: The Southern Synthesis. Parts A & B. Melbourne, CSIRO Publishing.

Lewis, M., White, D. & Gotch, T. (2013). Spatial Survey and Remote Sensing of Artesian Springs of the Western Great Artesian Basin, Allocating Water and Maintaining Springs in the Great Artesian Basin National Water Commission, Canberra ACT.

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Ponder, W. F. & Walker, K. F. (2003). From mound springs to mighty rivers: The conservation status of freshwater molluscs in Australia. Aquatic Ecosystem Health & Management 6: 19-28.

Wells, F. E. & Threlfall, T. J. (1982a). Salinity and temperature tolerance of Hydrococcus brazieri (T. Woods, 1876) and Arthritica semen (Menke, 1843) from the Peel-Harvey estuarine system, Western Australia. Journal of the Malacological Society of Australia 5: 151-156.

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https://keys.lucidcentral.org/keys/v3/freshwater molluscs/

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