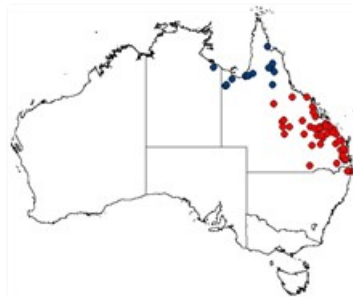




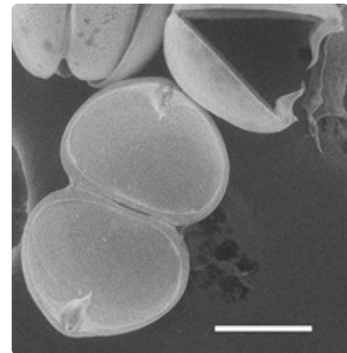
Alathyria pertexta pertexta Iredale, 1934



Alathyria pertexta pertexta (lectotype)



Distribution of *Alathyria pertexta pertexta* (red) and *A. pertexta wardi* (blue).



Alathyria pertexta pertexta glochidia. Scale 150 μ m
SEM photo M. Klunzinger.

Diagnostic features

A. pertexta differs from the other species of *Alathyria* in being less elongate (height/length ratio less than 56%). Two subspecies are recognised, with the shell of the typical subspecies differing from *A. pertexta wardi* in having a less truncate posterior end and a generally stronger hinge, as well as lacking a posterior ventral situation and in having a marked anterior dorsal excavation. Uneroded beaks are sculptured with nodules.

Classification

Alathyria pertexta pertexta Iredale, 1934

Common name: Purple nacre mussel

Class: Bivalvia

Infraclass: Heteroconchia

Cohort: Palaeoheterodonta

Order: Unionida

Superfamily Unionoidea

Family Hyriidae

Subfamily Velesunioninae

Genus *Alathyria* Iredale, 1934

Original name: Alathyria pertexta pertexta Iredale, 1934. In Iredale, T. (1934). The freshwater mussels of Australia. *Australian Zoologist* 8: 57-78.

Type locality: Upper Brisbane River, Queensland.

Synonyms: Unio shuttleworthi Lea, 1856 (*non Unio shuttleworthi* Küster, 1855). *Alathyria morti* Iredale, 1943.

State of taxonomy

The last major taxonomic revision of Australian freshwater mussels was conducted by McMichael & Hiscock (1958). Based on recent molecular results, Walker et al. (2014) suggested that a reassessment of Australian hyriids is needed.

Biology and ecology

Shallow burrower in sand or gravel. Suspension feeder. Larvae (glochidia) are brooded in marsupia in the gills of females. Although the post-brooding phase of the life cycle of this species has not been reported, they presumably become parasitic on fish gills or fins where they undergo metamorphosis before dropping to the sediment as free-living juvenile mussels.

Distribution

Coastal river systems and northern parts of the Murray-Darling drainage in mid-Queensland and northern New South Wales including the upper Condamine River (Graf et al. 2015). Also present in part of the Lake Eyre drainage in Queensland.

Another subspecies, *Alathyria pertexta magnifica* McMichael & Hiscock, 1958, occurs in Papua.

Further reading

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

Iredale, T. (1934). The freshwater mussels of Australia. *Australian Zoologist* 8: 57-78 pls 3-6.

Iredale, T. (1943). A basic list of the fresh water Mollusca of Australia. *Australian Zoologist* 10: 188-230.

Klunzinger, M. W. (2020). Description of the glochidia of *Alathyria pertexta pertexta* Iredale, 1934 (Bivalvia: Hyriidae) from south-eastern Queensland. *Australian Journal of Zoology* 67: 1-8.

Lamprell, K. & Healy, J. (1998). *Bivalves of Australia, volume 2*. Leiden, Backhuys Publishers.

McMichael, D. F. & Hiscock, I. D. (1958). A monograph of the freshwater mussels (Mollusca: Pelecypoda) of the Australian region. *Australian Journal of Marine and Freshwater Research* 9: 372-508.

Negri, A. P. & Jones, G. J. (1995). Bioaccumulation of paralytic shellfish poisoning (PSP) toxins from the cyanobacterium *Anabaena circinalis* by the freshwater mussel *Alathyria condola*. *Toxicon* 33: 667-678.

Smith, B. J. & Kershaw, R. C. (1979). *Field guide to the non-marine Molluscs of South-eastern Australia*. Canberra, A.N.U. Press

Walker, K. F. (1981a). The ecology of freshwater mussels in the River Murray. *Australian Water Research Council Technical Papers* 63: 1-119.

Walker, K. F. (1981b). The distribution of freshwater mussels (Mollusca: Pelecypoda) in the Australian zoogeographic region. Pp. 1233-1249 in A. Keast. *Ecological Biogeography of Australia*. The Hague, Dr W. Junk.

Walker, K. F. (2004). *A guide to the provisional identification of the freshwater mussels (Unionoidea) of Australasia*. Albury, Murray Darling

Freshwater Research Centre.

Walker, K. F., Byrne, M., Hickey, C. W. & Roper, D. S. (2001). Freshwater Mussels (Hyriidae) of Australasia. Pp. 5-31 in G. Bauer & Wächtler, K. *Ecology and Evolution of the Freshwater Mussels Unionoida. Ecological Studies*. Berlin, Springer-Verlag.

Walker, K. F., Jones, H. A. & Klunzinger, M. W. (2014). Bivalves in a bottleneck: taxonomy, phylogeography and conservation of freshwater mussels (Bivalvia: Unionoida) in Australasia. *Hydrobiologia* 735:61–79.

Zieritz, A., Sartori, A. F. & Klunzinger, M. W. (2013). Morphological evidence shows that not all Velesunioninae have smooth umbos. *Journal of Molluscan Studies* 79: 277–282.

To cite this resource: **Ponder, W. F., Hallan, A., Shea, M. E., Clark, S. A., Richards, K., Klunzinger, M. W., and Kessner, V. 2023. Australian Freshwater Molluscs. Revision 2.**

https://keys.lucidcentral.org/keys/v3/freshwater_molluscs/

To contact the authors for comment or suggestions, please email: fwmollusc@gmail.com

Copyright © 2023. All rights reserved. The Australian Museum.

