



Hyridella (Hyridella) australis (Lamarck, 1819)

Diagnostic features

This species can be identified by its oblong-ovate rather inflated shell which is strongly ridged posteriorly, and has heavy sculpture restricted to the umbos which are raised above the dorsal margin. Its periostracum is distinctive in being glossy



Hyridella (Hyridella) australis (adult size 70-90 mm)
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Distribution of *Hyridella (Hyridella) australis*.
(C:/tmp/Mollucs/Images/hyridella_hyridella_australis/hyridella_australis.jpg)

purple-black in colour. It reaches about 90 mm in length, and the height/length ratio is about 60%.

Classification

Hyridella (Hyridella) australis (Lamarck, 1819)

Common name: Freshwater mussel

Class Bivalvia

Subclass Heteroconchia

Superorder Palaeoheterodonta

Order Unionida

Superfamily Unionoidea

Family Hyriidae

Subfamily. Hyriinae

Genus Hyridella Swainson, 1840

Original binominal: *Unio australis* Lamarck, 1819. Lamarck, J.B.P.A. (1819). *Histoire Naturelle des Animaux sans Vertèbres*. Paris : J.B.P. Lamarck Vol. 6 (1) 2nd Edn, 343 pp.

Type locality: Nepean River, New South Wales

Synonyms: *Unio dorsuosus* Gould, 1850; *Unio napeanensis* Conrad, 1850; *Unio lessoni* Küster, 1856. *Propehyridella nepeanensis opportuna* Iredale, 1934; *Propehyridella nepeanensis novata* Iredale, 1943.

State of taxonomy

The last major taxonomic revision of Australian freshwater mussels was by McMichael and Hiscock (1958).

Based on the available molecular results, Walker et al. (2014) pointed out that a re-assessment of Australian hyriids is needed.

Biology and ecology

Shallow burrower in silty sand/mud in streams and rivers, preferring quieter conditions (such as slack waters along stream edges) compared with other species of *Hyridella* (H. Jones pers. comm.). Suspension feeder. Larvae (glochidia) are brooded in the gills and, when released fish before dropping to the sediment as young mussels.

Additional information on the biology and ecology of members of this family can be found in Fauna of Australia, vol. 5A, p. 296-298.

Distribution

Coastal rivers and streams of southeast Queensland, New South Wales and eastern Victoria.

Further reading

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

Chamani, P. M., Wadige, M., Taylor, A. M., Maher, W. A., Ubrihien, R. P. & Krikowa, F. (2014). Effects of lead-spiked sediments on freshwater bivalve, *Hyridella australis*: linking organism metal exposure-dose-response. *Aquatic Toxicology* 149: 83-93.

Cotton, B.C. & Gabriel, C.J. (1932). Australian Unionidae. *Proceedings of the Royal Society of Victoria (ns)* 44: 155-160.

Haas, F. (1912). Die Unioniden. pp. 113-136 in Küster, H.C., Martini, F.W. & Chemnitz, J.H. (eds) *Systematisches Conchylien-Cabinet*. Nürnberg: Bauer & Raspe Bd 9 Abt. 2.

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

Jeffree, R. A., Markich, S. J. & Brown, P. L. (1993). Comparative accumulation of alkaline-earth metals by two freshwater mussel species from the Nepean River, Australia: consistencies and a resolved paradox. *Marine and Freshwater Research* 44: 609-634.

Jones, H. A. & Byrne, M. (2014). Changes in the distributions of freshwater mussels (Unionoida: Hyriidae) in coastal southeastern Australia and implications for their conservation status. *Aquatic Conservation: Marine and Freshwater Ecosystems* 24: 203-217.

Jones, H. A., Simpson, R. D. & Humphrey, C. L. (1986). The reproductive cycles and glochidia of freshwater mussels (Bivalvia: Hyriidae) of the Macleay River, Northern New South Wales, Australia. *Malacologia* 27: 185-202.

Ryan, S., Bacher, G. J. & Martin, A. A. (1972). The mussel *Hyridella australis* as a biological monitor of the pesticide endrin in fresh water. *Search* 3: 446-447.

Smith, B. J. (1992). Non-marine Mollusca. Pp. i-xii, 1-408 in W. W. K. Houston. *Zoological Catalogue of Australia*, 8. Canberra, Australian Government Publishing Service.

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

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 + 319 plates.

Shea, M. 1995. Freshwater molluscs of Sydney. *Australian Shell News* 88:4- 6.

Walker, K. F. (1981). 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., 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.

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