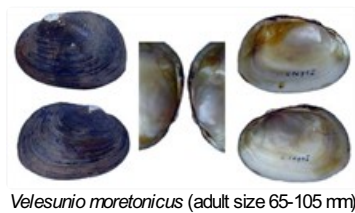




## ***Velesunio moretonicus* (Sowerby, 1865)**



*Velesunio moretonicus* (adult size 65-105 mm)



Distribution of *Velesunio moretonicus*.

### **Diagnostic features**

The shell is slightly swollen as adults, compressed as juveniles, and the anterior and posterior ends are rounded while the ventral margin is straight over the mid-section. The shell length is up to 120 mm and the height/length ratio is about 62%. The anterior adductor scar usually deeply impressed, and the hinge has grooved pseudocardinal teeth.

### **Classification**

*Velesunio moretonicus* (Sowerby, 1865)

*Common name:* Shuttleworth's mussel

*Class* Bivalvia

*Infraclass* Heteroconchia

*Cohort* Palaeoheterodonta

*Order* Unionida

Superfamily Unionoidea

Family Hyriidae

Subfamily Velesunioninae

Genus *Velesunio* Iredale, 1934

*Original name: Unio moretonicus* Sowerby, 1865. In Sowerby, G.B. (1867). Monograph of the genus *Unio*. *Conchologia Iconica* 16: pls 55-60.

*Type locality:* Tamar River system, Tasmania.

*Synonym: Unio legrandi* Petterd, 1889.

## State of taxonomy

The last major taxonomic revision of Australian freshwater mussels was by McMichael & 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, billabongs, and slow-flowing rivers. Suspension feeder. Larvae (glochidia) are brooded in the marsupia in the gills of females and, when released, become parasitic on the fins or gills of fish where they undergo metamorphosis before dropping to the sediment as free-living juvenile mussels.

## Distribution

Tamar river system of northern Tasmania.

## Notes

Referred to as *V. legrandi* by McMichael & Hiscock (1958) but name changed by Hiscock (1960) to *V. moretonicus*.

This species shows evidence of decline in its distribution (Jones & Byrne 2014) and is listed as Near Threatened (NT) on the IUCN Red List (Klungzinger et al. 2014).

## Further reading

Davies, P.E. & Humphries, P. (1996). *An Environmental Flow Study of the Meander, Macquarie and South Esk Rivers, Tasmania*, Department of Primary Industries and Fisheries, Hobart, Tasmania.

DPIPWE. (2009). Status of fish communities and observations on South Esk freshwater mussel (*Velesunio moretonicus*) populations in the Macquarie River catchment upstream of Lake River Report No. WA 09/02, Department of Primary Industries, Parks, Water and Environment, Hobart, Tasmania.

Hiscock, I. D. (1960). Supplementary data on freshwater mussels (Mollusca: Pelecypoda) of the Australian region. *Australian Journal of Marine and Freshwater Research* 11: 123-126.

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

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

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

Klungzinger, M, Walker, KF & Jones, H. A. (2014). *Velesunio moretonicus*. The IUCN Red List of Threatened Species 2014: e.T10743A58526458. <http://dx.doi.org/10.2305/IUCN.UK.2014-3.RLTS.T10743A58526458.en>

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.
- 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.
- Smith, B. J. & Kershaw, R. C. (1981). *Tasmanian Land and Freshwater Molluscs*. Hobart, University of Tasmania.
- 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. (2004). *A guide to the provisional identification of the freshwater mussels (Unionoida) 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.

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[https://keys.lucidcentral.org/keys/v3/freshwater\\_molluscs/](https://keys.lucidcentral.org/keys/v3/freshwater_molluscs/)

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