

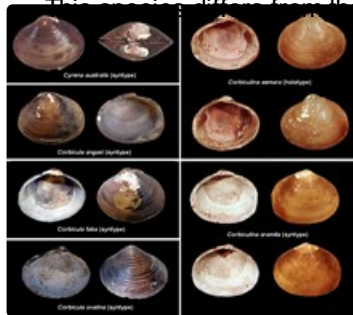


Corbicula australis (Deshayes, 1830)

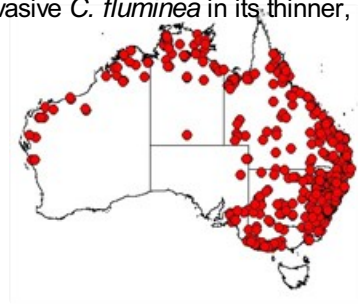
Diagnostic features



Corbicula australis (adult size up to 33 mm)



Various forms and synonyms of *Corbicula australis*.



Distribution of *Corbicula australis*.



Small channel of Roper River, Northern Territory.
Habitat of *C. australis*. Photo: V. Kessner.

more oval shell with finer concentric sculpture.

Juveniles of this species are sometimes mistaken for members of the Sphaeriidae but differ in having a more solid shell that has distinct collabral sculpture, the inhalant and exhalant siphons are fused by a mantle bridge and different hinge teeth, among other differences. They can also be mistaken for young hyriids, but again the closely-spaced collabral lirae are distinctive, as is the more oval shape and heterodont hinge.

Classification

Corbicula australis (Deshayes, 1830)

Common name: Australian Corbicula, little mussel.

Class Bivalvia

Infraclass Heteroconchia

Cohort Heterodonta

Megaorder Neoheterodonte

Order Venerida

Superfamily Cyrenoidea

Family Cyrenidae

Genus *Corbicula* Mühlfeldt, 1811.

Original name: *Cyrena australis* Deshayes, 1830. In Deshayes, G. P. 1830. *Encyclopédie Méthodique. Histoire naturelle des vers.* Paris: Agasse Vol. 2 pp. 1-136 [50].

Type locality: Nepean River, New South Wales

Synonyms: *Cyclas nepeanensis* Lesson, 1831; *Cyrena debilis* Gould, 1850; *Corbicula ovalina* Deshayes, 1855; *Corbicula minor* Prime, 1861; *Corbicula angasi* Prime, 1864; *Corbicula rivina* Clessin, 1877; *Corbicula sublaevigata* Smith, 1882; *Corbicula deshayesii* Smith, 1882; *Corbicula desolata* Tate, 1887; *Corbicula faba* Bullen, 1904; *Corbiculina permena* Iredale, 1943; *Corbiculina esculenta* Iredale, 1943; *Corbiculina mussoni* Iredale, 1943; *Corbiculina subovalina* Iredale, 1943; *Corbiculina aramita* Iredale, 1943; *Corbiculina semara* Iredale, 1943; *Corbiculina finkeana* Iredale, 1943.

State of taxonomy

This taxon is widely distributed in the Australian continent. Given the considerable variability and geographic spread it is possible that cryptic species may eventually be identified.

Previously referred to the genus *Corbiculina* which is now regarded as a synonym of *Corbicula*.

Biology and ecology

Shallow burrower in sand and gravel in rivers. In greatest abundance in well-oxygenated riffle habitats, often co-occurring with freshwater mussels (Hyriidae). Sometimes a pest because it can clog irrigation pipes. The biology of this species has been studied (Tham, 1971; Byrne *et al.* 2000) and like other corbiculids it is a suspension and deposit feeder and the larvae are brooded. Juveniles usually tethered to hard substrates such as rocks and logs by a byssal thread.

Distribution

In river systems throughout mainland Australia. Although the southwest corner does not have any collection records on our map, a few specimens from that area have been seen.

Notes

There are many names in the literature for the Australian species of this genus which reflect the morphological variability of the species. Only one native Australian species is recognised here, although this concept requires testing.

In a relatively recent treatment, Lamprell & Healy (1998) recognised three species in addition to *C. australis*, *C. ovalina* Deshayes, 1855, *C. esculenta* (Iredale, 1943), and the third species, *C. maroubra* (Iredale 1943), is here considered to be a synonym of *C. fluminea* while the other two are synonyms of *C. australis*.

Huber (2015) has recognised *C. australis*, *C. ovulina* and *C. desolata* Tate, 1887 as distinct species. While this may eventually prove to be correct, we treat these taxa as synonyms of *C. australis* pending more rigorous testing.

The Asian species, *Corbicula fluminea*, can be distinguished from *C. australis* in having a rather more triangular shape than most populations of *C. australis*. Also, *Corbicula fluminea* can be distinguished from *C. australis* in having coarser and more widely spaced collabral ribbing.

Further reading

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

Byrne, M., Phelps, H., Church, T., Adair, V., Selvakumaraswamy, P. & Potts, J. (2000). Reproduction and development of the freshwater clam *Corbicula australis* in southeast Australia. *Hydrobiologia* 418: 185-197.

Huber, M., Langleit, A. & Kreipl, K. (2015). *Compendium of Bivalves 2. A Full-Color Guide to the Remaining Seven Families. A Systematic Listing of 8,500 Bivalve Species and 10,500 Synonyms*. Hackenheim, Germany, ConchBooks.

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

Komiushin, A. V. & Glaubrecht, M. (2003). Novel reproductive modes in freshwater clams: brooding and larval morphology in Southeast Asian taxa of *Corbicula* (Mollusca, Bivalvia, Corbiculidae). *Acta Zoologica* 84: 293-315.

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

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

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

Tham, S. Y. (1971). Reproduction in *Corbiculina angasi* Prime (Mollusca: Bivalvia). BSc(Hons) thesis, Department of Zoology, Monash University, Victoria.

Willan, E. C. & Kessner, V. (2021). A conspectus of the freshwater molluscs of the Daly River catchment, Northern Territory. *Northern Territory Naturalist* 30: 108-137.

Woolford, T. (1984). A fouling bivalve, *Corbiculina australis* (Deshayes, 1830), in the Renmark irrigation pipelines: its biology and control options for the Renmark Irrigation Trust. Unpublished Honours Thesis. Zoology Department, University of Adelaide, Adelaide, South Australia.

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/

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