



## ***Trochidrobia* Ponder, Hershler & Jenkins, 1989**

### **Diagnostic features**

Shell small (up to about 2mm in diameter), trochiform to depressed-trochiform, umbilicate, smooth, with only sculpture weak axial growth lines. Aperture oval, peristome thin, no external varix; outer lip simple, with thin edge. Periostracum smooth, thin. Operculum oval, nucleus subcentral, thin, simple. Penis with swollen basal portion and tapering distal portion that is usually pigmented; coiled anti-clockwise when at rest.

### **Classification**

*Trochidrobia* Ponder, Hershler & Jenkins, 1989

Class Gastropoda

Infraclass Caenogastropoda

Order Littorinida

Suborder Rissoidina

Superfamily Truncatelloidea

Family Tateidae

Genus *Trochidrobia* Ponder, Hershler & Jenkins, 1989

Type species: *Trochidrobia punicea* Ponder, Hershler & Jenkins, 1989

Original reference: Ponder, W. F., Hershler, R. & Jenkins, B. (1989). An endemic radiation of hydrobiid snails from artesian springs in northern South Australia: their taxonomy, physiology, distribution and anatomy. *Malacologia* 31: 1-140.

Type locality: Blanche Cup Spring, west of Lake Eyre South, South Australia.

## Biology and ecology

Abundant in most of the springs in which they occur, living in a variety of microhabitats and appear to be particularly abundant in shallow, firm-bottomed outflows. Egg capsules are spherical, cemented in umbilicus of shell with mucus (known only in *T. punicea*).

## Distribution

The Lake Eyre Supergroup artesian springs between Marree and Oodnadatta, northern South Australia.

## Notes

The species contained in *Trochidrobia* are similar in shell and opercular characters to *Posticobia*. However, *Trochidrobia* species have more depressed shells, and lack the peripheral keel typical of some specimens of *Posticobia*.

## Further reading

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

Fensham, R., Ponder, W. & Fairfax, R. (2010). *Recovery plan for the community of native species dependent on natural discharge of groundwater from the Great Artesian Basin. Report to Department of the Environment, Water, Heritage and the Arts, Canberra*. Queensland Department of Environment and Resource Management, Brisbane. <https://www.environment.gov.au/system/files/resources/0cefc83a-3854-4cff-9128-abc719d9f9b3/files/great-artesian-basin-ec.pdf>

Fensham, R. J., Silcock, J. L., Kerezsy, A. & Ponder, W. F. (2011). Four desert waters: setting arid zone wetland conservation priorities through understanding patterns of endemism. *Biological Conservation* 144: 2459-2467.

Murphy, N. P., Breed, M. F., Guzik, M. T., Cooper, S. J., & Austin, A. D. (2012). Trapped in desert springs: phylogeography of Australian desert spring snails. *Journal of Biogeography* 39(9): 1573-1582.

Murphy, N. P., Guzik, M. T., Cooper, S. J., & Austin, A. D. (2015). Desert spring refugia: museums of diversity or evolutionary cradles?. *Zoologica Scripta* 44: 693-701.

Perez, K. E., Ponder, W. F., Colgan, D. J., Clark, S. A. & Lydeard, C. (2005). Molecular phylogeny and biogeography of spring-associated hydrobiid snails of the Great Artesian Basin, Australia. *Molecular Phylogenetics and Evolution* 34: 545-556.

Ponder, W. F. (2004). Endemic aquatic macroinvertebrates of artesian springs of the Great Artesian Basin—progress and future directions. *Records of the South Australian Museum Monograph Series* 7: 101-110.

Ponder, W. (2019). Tateidae Thiele, 1925. Pp. 134-138 in C. Lydeard & Cummings, K. S. *Freshwater Mollusks of the World: a Distribution Atlas*. Baltimore, John Hopkins University Press.

Ponder, W. F., Eggler, P. E. & Colgan, D. J. (1995). Genetic differentiation of aquatic snails (Gastropoda: Hydrobiidae) from artesian springs in arid Australia. *Biological Journal of the Linnean Society* 56: 553-596.

Ponder, W. F., Hershler, R. & Jenkins, B. (1989). An endemic radiation of Hydrobiidae from artesian springs in northern South Australia: their taxonomy, physiology, distribution and anatomy. *Malacologia* 31: 1-140.

Rossini, R. A., Tibbetts, H. L., Fensham, R. J. & Walter, G. H. (2017). Can environmental tolerances explain convergent patterns of distribution in endemic spring snails from opposite sides of the Australian arid zone? *Aquatic Ecology* 51: 605-624.

Rossini, R. A., Fensham, R. J., Stewart-Koster, B., Gotch, T. & Kennard, M. J. (2018). Biogeographical patterns of endemic diversity and its conservation in Australia's artesian desert springs. *Diversity and Distributions* 24: 1199-1216.

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