



Gyraulus Charpentier, 1837

Diagnostic features

Shell small, less than 10 mm. Flat, open spiral, acutely keeled to angular to bluntly angular whorls; smooth or spirally ribbed shells; sunken upper whorls with concave undersides, with a widely open umbilicus. Shell lacking internal lamellae. Animal with thin pointed tentacles and a blunt snout. Native species have plain greyish or unpigmented animals and mantle. The introduced *Gyraulus* (*Gyraulus*) *chinensis* has a mottled mantle. Penis with a dagger-like chitinous stylet.

Classification

Gyraulus Charpentier, 1837

Class Gastropoda

Infraclass Heterobranchia

Megaorder Hygrophila

Order Lymnaeida

Superfamily Planorboidea

Family Planorbidae

Subfamily: Planorbinae

Genus *Gyraulus* Charpentier, 1837

Type species: *Planorbis hispidus* Draparnaud, 1805, designated by Dall, 1870(=*Planorbis albus* Müller, 1774)

Original reference: Charpentier, J. de (1837). Catalogue des mollusques terrestres et fluviatiles de la Suisse.

Neue Denkschriften der allgemeinen Schweizerischen Gesellschaft für die gesammten Naturwissenschaften 1(2): 1-28.

Type locality: Bex, Switzerland.

Synonyms: *Glyptanisuus* Iredale, 1943; *Plananisuus* Iredale, 1943; additional synonyms at <http://www.marinespecies.org/aphia.php?p=taxdetails&id=153936>.

Two subgenera are recognised in Australia:

Gyraulus (*Gyraulus*) Charpentier, 1837

Gyraulus (*Pygmanisuus*) Iredale, 1943

Biology and ecology

On water weeds, leaves, wood and stones, and similar substrates, in ephemeral and permanent waterholes, ponds, lakes, springs, billabongs, sphagnum bogs, swamps and sluggish streams and rivers. Feeds on detritus. Egg mass presumably a jelly strip containing small eggs. Development direct.

Brown (1981, 1998, 2001) described the anatomy of the Australian species of this genus.

Distribution

The genus *Gyraulus* occurs worldwide, with the subgenus *Gyraulus* found throughout Australia.

Notes

This genus consists of small discoidal freshwater snails, with a keeled to bluntly angular periphery.

They can be distinguished from the somewhat similar Glacidorbidae by their flatter, brownish shells and their blunt snout, their eyes situated on the inner sides of the base of the tentacles (rather than in the middle of each base) and the lack of an operculum.

A few other genera of Planorbidae are similar to *Gyraulus*, the most important being the genus *Biomphalaria* Preston, 1910, some species of which are intermediate hosts of significant animal and human parasites, including one of the human blood flukes (*Schistosoma mansoni*). *Biomphalaria* differs from *Gyraulus* in its larger shell size (up to nearly 20 mm in diameter) and the penis lacks a chitinous stylet.

Further reading

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

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Hubendick, B. (1955). Phylogeny of the Planorbidae. *Transactions of the Zoological Society of London* 28: 453-542.

Ponder, W. F., Clark, S. A. & Dallwitz, M. J. (2000). *Freshwater and estuarine molluscs: an interactive, illustrated key for New South Wales*. Melbourne, CSIRO Publishing.

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.

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

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