



***Bulinus* spp.**

Diagnostic features

Shells medium sized, elongate to ovate, sinistrally coiled. High to



Three species of *Bulinus* to illustrate some of the range of shell morphology in the genus

moderately raised to low spire; with or without umbilicus, whorls rounded (*Bulinus africanus*) to bluntly shouldered sometimes bluntly carinate (*Bulinus forskalii*) with indented sutures. Aperture large, ovate. With or without columella twist. Smooth or with periostracal spiral threads, nodules and setae. The protoconch is distinctly sculptured with spiral rows of punctae (a feature not seen in any Australian genera).

Animals have long slender tentacles and reddish blood that contains haemoglobin. Pseudobranch large, deeply folded and highly vascularised. Copulatory organ: the penis does not project freely into the penis sheath but is a long and coiled eversible tube attached at both the upper and lower end of the sheath. Praeputium present. Numerous prostatic lobes are concentrated into a compact organ. May have a ridge along the ventral surface of the kidney. No renal ridge. Mesocone of the first lateral tooth of the radula may be simple without cusps or with one or two lateral cusps either or on one side of the central cusp.

Classification

Bulinus O. F. Müller, 1781

Class Gastropoda

Infraclass Heterobranchia

Megaorder Hygrophila

Order Lymnaeida

Superfamily Planorboidea

Family Planorbidae

Subfamily: Bulinae

Genus *Bulinus* O. F. Müller, 1781 (Type species: *Bulinus senegalensis* Müller, 1781) (Synonyms - see <http://www.marinespecies.org/aphia.php?p=taxdetails&id=224352>).

Original reference: Müller O. F. (1781). Geschichte der Perlen-Blasen. *Der Naturforscher* 15: 1-20, Tab. I.

Type locality: Podor, Senegal, West Africa.

State of taxonomy

We follow Brown (2002)

Biology and ecology

On water weeds etc., in ponds, lakes, swamps and sluggish streams and rivers. Some capable of aestivation. Development direct.

Several species are important intermediate hosts of human diseases (see Notes).

Distribution

Widespread in Africa, islands of the Indian Ocean, Spain, Sicily and the Middle East.

Notes

This genus does not occur in Australia but is mentioned here as there is the possibility it could be accidentally introduced with potential serious consequences.

Bulinus africanus (Krauss, 1848) is an intermediate host of *Schistosoma haematobium* that causes schistosomiasis in humans and *S. mattheei* that causes bovine schistosomiasis. Schistosomiasis is a disease that affects the health of millions of people, as well as their livestock in Southern Africa. *Bulinus africanus* can also play a role in the transmission of cercarial dermatitis (swimmer's itch) (de Kock and Wolmarans 2005).

Bulinus forskalii (Ehrenberg, 1831) is an intermediate host for the parasites *Schistosoma guineensis*, *Schistosoma intercalatum*, *Schistosoma haematobium*, *Gastrodiscus aegyptiacus* and some other species of paramphistome trematodes that infect humans and stock.

Further reading

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Note: there is a vast literature on members of this genus, the above being only a small sample.

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

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