Biomphalaria glabrata (Say, 1818)

Biomphalaria glabrata (adult size 6-10 mm)

Diagnostic features

Shells medium sized, planispiral, biconcave, whorls evenly convex, rounded, angular or carinate, in some species the last whorl descends, sinistrally coiled. Almost flat to sunken spire; with relatively narrow to very wide shallow umbilicus, indented sutures. Aperture large, ovate to broadly lunate. Without columella twist. Animals have long slender tentacles and reddish blood that contains haemoglobin. Copulatory organ: the penis has a long narrow sheath and a long narrow praeputium. Variable number of lobes on the prostate and presence of vaginal pouch, large number of diverticulae on the ovotestis. May or may not have an elongated renal ridge. Mesocone of the lateral teeth of the radula may be angular or non angular.

Classification

Biomphalaria glabrata (Say, 1818)

Class Gastropoda

Subclass Heterobranchia

Order Hygrophila

Superfamily Planorboidea

Family Planorbidae

Subfamily: Planorbinae

Genus Biomphalaria Preston, 1910 (Type species: *Biomphalaria smithi* Preston, 1910, Lake Albert Edward, Uganda) (Synonyms - see http://www.marinespecies.org/aphia.php?p=taxdetails&id=718742).

Original name: *Planorbis glabratus* Say, 1818. *In* Say, T. 1818. Account of two new genera, and several new species, of fresh water and land shells. *Journal of the Academy of Natural Sciences of Philadelphia* 1: 276-284.

Type locality: Incorrectly given as North Carolina but is probably from the Caribbean island of Guadeloupe, Lesser Antilles.

Synonyms: *Planorbis guadaloupensis* Sowerby, 1822; *Planorbis ferrugineus* Spix, 1827, *Planorbis olivaceus* Spix, 1827, *Planorbis nigricans* Spix, 1827, *Planorbis albescens* Spix, 1827, *Planorbis viridis* Spix, 1827, *Planorbis lugubris* J. A. Wagner, 1827; *Planorbis* (*Planorbina*) *preglabratus* Marshall, 1926, *Australorbis gladratus christopherensis* Pilsbry, 1934.

Biology and ecology

Biomphalaria glabrata inhabits small streams, ponds and marshes. It feeds on bacterial films, algae, diatoms and decaying plants. It is capable of aestivating for a few months.

The freshwater snail *Marisa cornuarietis* is a predator of *Biomphalaria glabrata*: it feeds on its eggs, juvenile and adult snails.

Distribution

West Indies and northern South America. (The genus is distributed in the Americas, Africa, Madagascar and the Middle East. Introduced into Hong Kong and Romania).

Notes

This species does not occur in Australia, but is mentioned here as it could be accidentally introduced. *Biomphalaria* is the most important and widely distributed intermediate host of *Schistosoma mansoni*, a blood fluke responsible for human intestinal schistosomiasis in Africa and the Americas.

Further reading

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

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