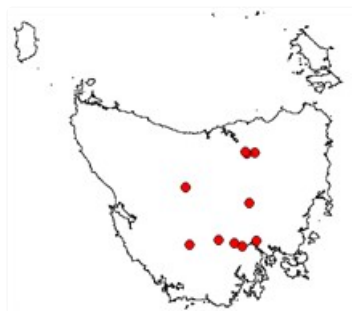




Glyptophysa vandiemenensis **(Sowerby, 1873)**



Glyptophysa (Glyptophysa) vandiemenensis (adult size up to 11 mm)



Distribution of *Glyptophysa vandiemenensis*.

Disclaimer

This genus is in need of revision, as the species concepts we have used have not been rigorously tested. Unpublished molecular data indicate that the species units we are using here are not accompanied by clear-cut morphological characters that allow separation based on shell characters alone. As the species units appear to be overall concordant with state boundaries, we have used these boundaries to aid delimiting species. This situation is not ideal, and can only be resolved by additional molecular and morphological studies involving dense sampling.

Diagnostic features

The taxonomy of *Glyptophysa* is very poorly understood. This is one of several species of relatively smooth shelled *Glyptophysa* that are variable in shape and in periostracal development (periostracal hairs and spirals can be present), even within a single population. A large number of species-group names are available and it is quite possible that more species occur in Australia. At present we are recognising only three, in addition to *G. aliciae*.

This species, as currently recognised, is restricted to Tasmania.

This species has a broader shell and greater periostracal development compared with the other Tasmanian species *G. (G.) novaehollandica* (note that the name *G. (G.) nitida* (Sowerby, 1874) is the earliest available name for the Tasmanian *novaehollandica*-like form should it eventually prove to be distinct). *G. (G.) vandiemenensis* superficially resembles some species of *Isidorella*, a genus that does not occur in Tasmania.

Classification

Glyptophysa vandiemenensis (Sowerby, 1873)

Common name: Isidorella-like Pouched Snail

Class Gastropoda

Infraclass Heterobranchia

Megaorder Hygrophila

Order Lymnaeida

Superfamily Planorboidea

Family Planorbidae

Subfamily: Miratestinae

Genus *Glyptophysa* Crosse, 1872

Original name: *Physa vandiemenensis* Sowerby, 1873. In Sowerby, G. B. (1873). Monograph of the genus *Physa* in Reeve, L.A. *Conchologia Iconica* London, L. Reeve and Co. Vol. 19 *Physa* pls. 2-10.

Type locality: Tasmania.

State of taxonomy

The taxonomy of *Glyptophysa* is very poorly understood. A large number of species-group names are available and it is quite possible that more species occur in Australia. This form from Tasmania (*G. (G.) vandiemenensis*) has an inflated shell with a relatively low spire and superficially resemble *Isidorella* spp.

This species is one of three that we are somewhat tentatively recognising (see statement under Notes) that were previously often referred to as *Glyptophysa gibbosa* (now treated as a synonym of *G. novaehollandica*). These taxa are in need of revision, as the species concepts we have used have not been rigorously tested.

Biology and ecology

On water weeds, wood, and similar substrates, in ponds, billabongs, swamps, and sluggish streams and rivers. Feeds on algae and detritus. Egg mass typically a bean(kidney)-shaped jelly strip containing many small eggs. Development direct.

Distribution

Tasmania.

Notes

This genus is similar to the common introduced *Physa acuta* (Physidae) in that both have similar-shaped, sinistral shells. *Glyptophysa* can be distinguished by the shell not being completely smooth (as it is in *Physa*), *Glyptophysa* often having some periostracal ornament and microscopic wrinkles or spiral ridges in the case of *Glyptophysa aliciae*. *Physa* has a mottled mantle which can usually be seen through the semi-transparent shell whereas *Glyptophysa* has a uniformly dark-coloured mantle. The animal of *Physa* has digitations (finger-like processes) along the mantle edge against the columella whereas this edge is smooth in *Glyptophysa*. *Physa* lacks a false gill (pseudobranch) which is present in *Glyptophysa* and all planorbids. The animal of *Glyptophysa*, if damaged when alive, has red-coloured blood whereas *Physa* blood is clear.

Glyptophysa differs from the otherwise similar genus *Isidorella* in the penial apparatus having a penial stylet and an accessory flagellum. *Isidorella* lacks a stylet and an accessory structure but the penis has two lobes.

Further reading

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