



## ***Insuladrobia* Ponder & Köhler, 2024.**

### **Diagnostic features**

Shell small to minute, elongately ovate to pupoid, with convex whorls, smooth or spirally sculptured, usually with a thin periostracum. Aperture oval to D-shaped, with peristome partially or completely separated from parietal wall. Columella concave, straight or with convex bulge. Protoconch sculptured with minute, irregular, shallow pits. Operculum oval, flat, somewhat thickened, nucleus eccentric, with 0-5 calcareous pegs on, in some species, oval calcareous smear, situated in or near middle of inner surface. Penis simple, tapering with single penial duct opening terminally. Female genitalia similar to *Fluviopupa*, but with dense white part of capsule gland placed anterior to more translucent section. Seminal receptacle relatively larger than in *Fluviopupa* species. Head-foot pigmented to non-pigmented, eyes present in surface-living species, absent in subterranean species. Ctenidium present in most species, absent in one subterranean species. Intestine usually with loop on mantle roof.

### **Classification**

***Insuladrobia*** Ponder & Köhler, 2024

Class Gastropoda

Infraclass Caenogastropoda

Order Littorinida

Suborder Rissoidina

Superfamily Truncatelloidea

Family Tateidae

Genus *Insuladrobia* Ponder & Köhler, 2024

*Type species: Hemistomia gemma gemma* Ponder, 1982, Lord Howe Island.

*Original reference:* Ponder, W. F., & Köhler, F. (2024). A review of the relationships of the Tateidae of Lord Howe Island. *Molluscan Research*, pp. 1–7. <https://doi.org/10.1080/13235818.2024.2355680>

*Type locality:* Streams on eastern slopes of Mt Lidgbird, Lord Howe Island.

### **Biology and ecology**

The species of *Insuladrobia* live in the permanent streams and seepages on Lord Howe Island at all altitudes, and many populations are confined to disconnected pools during times of low precipitation. They do not seem to favour any particular habitat, with the exception of *I. minutissima* and *I. whiteleggei* which are phreatic. Where two species live together they do not appear to segregate, but share the same microhabitat. It is assumed that,

like most tateids, the Lord Howe Island species feed on bacteria, microscopic algae, diatoms and, possibly, decaying vegetation. In pools where snails were abundant, leaves were sometimes reduced to the veins, apparently as a result of feeding by the snails.

## Distribution

Lord Howe Island.

## Notes

Previously Ponder (1982) placed the Lord Howe Island species in *Hemistomia* Crosse, 1872, a genus now known to be restricted to New Caledonia.

Species of *Insuladrobia* are separated from other Australian tateid genera by their small, elongately ovate to pupoid shell, simple penis, opercular pegs and two to five basal cusps on the central teeth of the radula.

Molecular studies (Ponder & Köhler, 2024) have shown that species of *Insuladrobia* are not closely related to the New Caledonian type species but instead are related to *Austropyrgus*.

All the species of *Insuladrobia* are clustered into distinct geographical locations on Lord Howe Island.

## Further reading

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To contact the authors for comment or suggestions, please email: [fwmollusc@gmail.com](mailto:fwmollusc@gmail.com)

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