



***Austropeplea* Cotton, 1942**

Disclaimer

This genus is in need of revision, and the species concepts we have used have not been rigorously tested. There are few morphological characters that allow separation between species and they are difficult to separate based on shell characters alone. This situation needs to be resolved by additional molecular and morphological studies, involving comprehensive sampling.

Diagnostic features

The shell is small to medium, oval, and the columella is rather indistinctly twisted. The spire is low to moderately raised and there is usually a well-defined parietal area.

The animal has a reflected mantle border and the cephalic tentacles are short and triangular. The prostate gland has a single large internal fold, and the radula has tricuspid inner lateral and multicuspid outer lateral teeth.

Classification

Austropeplea Cotton, 1942

Class Gastropoda

Infraclass Heterobranchia

Megaorder Hygrophila

Order Lymnaeida

Superfamily Lymnoidea

Family Lymnaeidae

Subfamily Amphipepleinae

Genus *Austropeplea* Cotton, 1942

Type species: *Limnea papyracea* Tate, 1879 (= *Austropeplea (Austropeplea) papyracea* (Tate, 1879))

Original reference: Cotton, B.C. 1942. Some Australian freshwater Gastropoda. *Transactions of the Royal Society of South Australia*. 66: 75-82.

Type locality: Penola, South Australia

Synonyms: *Simlimnaea* Iredale, 1943; *Glacilimnaea* Iredale, 1943.

Two subgenera are recognised:

Austropeplea (*Austropeplea*) Cotton, 1942

Austropeplea (*Kutikina*) Ponder & Waterhouse, 1997

State of taxonomy

Until recently, a large number of available names for these Australian lymnaeids (e.g., Iredale 1943, 1944) were lumped as *Austropeplea tomentosa* (e.g., Boray & McMichael, 1961), a name based on a New Zealand species. Recent studies have shown that *A. tomentosa* is very different from the Australian taxa (Puslednik et al. 2009). However, unlike Puslednik et al. (2009), we tentatively recognise three species in SE Australia, based on differences in anatomy and molecules.

This genus is in need of revision and the species concepts we have used have not been rigorously tested. There are no clear-cut shell characters that allow separation. The current situation is clearly far from satisfactory and can only be resolved by additional molecular and morphological studies involving dense sampling.

Biology and ecology

Members of the typical subgenus are found amongst water vegetation in dams, ponds, billabongs, rivers, streams, water-logged pasture, springs and swamps. They are semi-amphibious - often found out of the water along the banks on damp mud. Common. They feed on algae and detritus. The egg mass a crescent-shaped jelly strip containing many small eggs. Development is direct.

The only species in the subgenus *Kutikina* is fully aquatic, occurring below the water line, attached to smooth or algal and liverwort-covered vertical or near vertical limestone rocks, boulders or rock faces on the edges of the river where there is a fast flow.

Distribution

South-eastern Australia, including Tasmania.

Notes

This genus differs from the other native lymnaeid genus *Bullastra* in its much smaller size and less inflated shell. It differs from the introduced lymnaeid genera *Radix*, *Lymnaea*, *Pseudosuccinea* and *Orientogalba* in having a less raised spire and, in the case of *Pseudosuccinea*, lacking spiral sculpture.

Species in this genus are vectors of the liver fluke parasite (*Fasciola hepatica*) that infects sheep, cattle and occasionally humans.

Austropeplea belongs to a group of Asian and Australasian lymnaeids (and including *Radix*) having 16 pairs of chromosomes and having a single large fold in the prostate gland.

Further reading

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To cite this resource: **Ponder, W. F., Hallan, A., Shea, M. E., Clark, S. A., Richards, K., Klunzinger, M. W., and Kessner, V. 2023. Australian Freshwater Molluscs. Revision 2.**

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