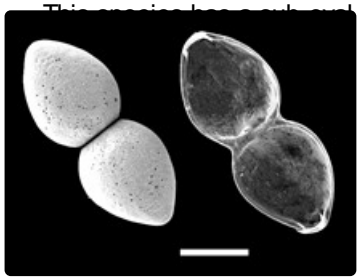
Alathyria jacksoni Iredale, 1934

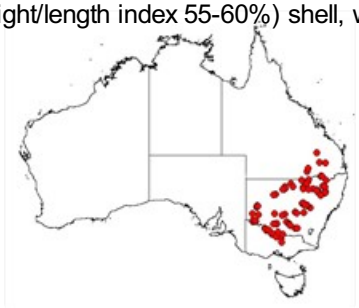
Diagnostic features

This species has a sub-oval (height/length index 55-60%) shell, with its

Alathyria jacksoni (adult size up to 200 mm)



Glochidia of *Hyridella* (*Hyridella*) *australis*. Scale bar 50 µm. SEM photo: M. Klunzinger.



Distribution of *Alathyria jacksoni*.

Barwon River, NSW, in flood, a habitat of *Velesunio ambiguus* and *Alathyria jacksoni* Photo M. Klunzinger.

anterior end comparatively narrow and the ventral edge more or less straight; maximum length about 200 mm; posterior dorsal margin winged in moderate currents, arched in strong currents; strong hinge, pseudocardinals erect and denticulate.

Classification

Alathyria ***jacksoni*** Iredale, 1934

Common name: River mussel

Class Bivalvia

Infraclass Heteroconchia

Cohort Palaeoheterodonta

Order Unionida

Superfamily Unionoidea

Family Hyriidae

Subfamily Velesunioninae

Genus Alathyria Iredale, 1934

Original name: *Alathyria jacksoni* Iredale, 1934. *In* Iredale, T. (1934). The freshwater mussels of Australia. *Australian Zoologist* 8: 57-78.

Type locality: Barwon River, New South Wales.

Synonyms: *Alathyria jacksoni allani* Iredale, 1943. *Alathyria selwyni* Iredale, 1943.

State of taxonomy

The last major taxonomic revision of Australian freshwater mussels was conducted by McMichael & Hiscock (1958). Based on recent molecular results, Walker et al. (2014) suggested that a reassessment of Australian hyriids is needed.

Biology and ecology

Main channels of the Murray-Darling River system in New South Wales, Victoria and South Australia. Shallow burrower in silty mud and sand in rivers and creeks, generally in flowing water.

Suspension feeder. Larvae (glochidia) are brooded in marsupia in the gills of females and, when released, become parasitic on fish gills and fins where they undergo metamorphosis before dropping to the sediment as free-living juvenile mussels. This species occurs as different growth forms in moderate to strong currents: the moderate current form has a distinct dorsal blade or 'wing', whereas the fast current form has a dorsal arch, apparently permitting greater foot extension and a more secure anchorage (Balla & Walker, 1991).

Distribution

Permanent lower sections of rivers in Murray-Darling Basin in Queensland, New South Wales, and Victoria.

Notes

There are two growth forms of *Alathyria jacksoni,* one being found in strong currents and has a pronounced dorsal arch (and a ventral sinuation in larger specimens) while shells from more moderate currents have a straight dorsal margin and the wing development is variable. The two forms intergrades are common (Walker 1981).

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