

SPECIES MANAGEMENT PROFILE

Beddomeia briansmithi Hydrobiid Snail (Fern Creek)

Group: Mollusca (shellfish), Gastropoda (snails and slugs), Hypsogastropoda, Tateidae

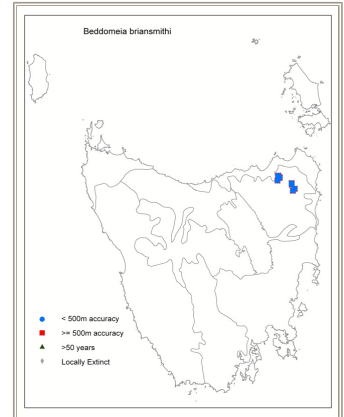
Status: *Threatened Species Protection Act 1995:* vulnerable
Environment Protection and Biodiversity Conservation Act 1999: Not listed

Endemic: Endemic in Tasmania and restricted

Status:



Beddomeia briansmithi is a tiny (2-3 mm) freshwater snail occurring in small streams between Mt Horror and Weldborough, northeast Tasmania. The species has a narrow range and is known only from nine streams in unrelated catchments. The principal threats to *B. briansmithi* are agricultural and forestry practices, mining and dam construction which result in habitat modification or degradation. The species occupies small streams, several of which flow through in pine plantations. *B. briansmithi* may also be impacted by competition with and displacement by the exotic snail *Potamopyrgus antipodarum*, introduced from New Zealand. The principal management objectives for *B. briansmithi* include preventing the loss or degradation of habitat at known localities, and improving the species' reservation status.



Key Points

- Important:** Is this species in your area? Do you need a permit? Ensure you've covered all the issues by checking the Planning Ahead page.
- Important:** Different threatened species may have different requirements. For any activity you are considering, read the Activity Advice pages for background information and important advice about managing around the needs of multiple threatened species.

Habitat

- 'Habitat' refers to both known habitat for the species (i.e. in or near habitat where the species has been recorded) and potential habitat (i.e. areas of habitat with appropriate characteristics for the species and within the species' potential range which have not yet been adequately surveyed).
- If in doubt about whether a site represents potential habitat for this species, contact the Threatened Species Section for further advice.
- The known range of *B. briansmithi* includes nine small streams in north eastern Tasmania (see distribution map, above). The potential range for *B. briansmithi* is unlikely to extend greatly beyond the current known range.
- Habitat for *B. briansmithi* includes the following elements: submerged leaf litter, woody debris and rocks in the stream channels, located under the submerged material.

What to avoid

- Damage to known localities through agricultural, forestry and mining practices
- Damage to downstream habitat through upstream agricultural, forestry and mining practices
- Damage to stream habitat through altered flow regimes (e.g. due to construction of water impoundments upstream of known localities)

Surveying

Key	Survey reliability more info
M	Peak survey period
M	Potential survey period
M	Non-survey period

To ensure you follow the law - check whether your survey requires a permit. Always report any new records to the Natural Values Atlas, or send the information direct to the Threatened Species Section. Refer to the Activity Advice: Surveying page for background information.

Species	Spring				Summer				Autumn				Winter											
<i>Beddomeia briansmithi</i>	S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A

- B. briansmithi* is a very small, hard to find species which can be difficult to tell apart from other species of *Beddomeia* and some other hydrobiid snails. Identification to species level normally requires a specialist.
- For further information on surveying or identifying this species, contact the Threatened Species Section.

Helping the species

- If you live or work in the area where the species occurs (see distribution map, above), look out for and record any observations of the species. All records of this species can provide important information on distribution and abundance.
- Important! Always report any observations of the species to the DPIPWE Natural Values Atlas, or else provide the data direct to the Threatened Species Section. Records stored on the NVA are a permanent record and are accessible to other people interested in this species.
- Consider the needs of the whole habitat. Preserving a threatened species' habitat is the best way to manage both the species and the environment in which it lives.
- For long-term protection of populations on private land – consider protection of habitat through a vegetation management agreement or conservation covenant. See the DPIPWE Private Land Conservation Program for more details.

Cutting or clearing trees or vegetation

- Activities which result in habitat degradation are the principal threat to *B. briansmithi*, including clearing of streamside vegetation.
- To avoid damage to stream habitat – do not remove streamside vegetation around known localities.
- To avoid downstream impacts – do not clear streamside vegetation upstream of known localities.

Burning

- Activities which result in habitat degradation are the principal threat to *B. briansmithi*, including burning of streamside vegetation.
- To avoid damage to stream habitat – do not burn streamside vegetation around known localities.
- To avoid downstream impacts – do not burn streamside vegetation upstream of known localities.

Agriculture

- Activities which result in habitat degradation are the principal threat to *B. briansmithi*, including clearing of streamside vegetation and conversion to pasture or plantation.
- To avoid downstream impacts on the species - do not clear and convert (e.g. to pasture or plantation) streamside vegetation upstream of known localities.

Stock grazing

- To avoid damaging habitat – protect streamside habitat from stock by fencing and provide alternative access to water.

Construction

- Activities which result in habitat degradation are the principal threat to *B. briansmithi*, including alterations to flow conditions within stream habitat.
- To avoid damage to stream habitat – avoid alterations to stream flow conditions, for example through construction of water impoundments upstream of known localities.

Mining

- Activities which result in habitat degradation are the principal threats to *B. briansmithi*, including clearing vegetation, siltation, chemical runoff and altered flow conditions from mining operations.
- To avoid damage to stream habitat - do not remove vegetation that will result in habitat clearance or habitat degradation at known localities.
- To avoid downstream impacts - do not remove vegetation or construct roading or impoundments that will result in alterations to runoff at known localities.
- To avoid downstream impacts resulting from chemical runoff or acidification - do not construct settling ponds in catchments immediately above known localities.

Changing water flow / quality

- Activities which result in habitat degradation are the principal threat to *B. briansmithi*, including alterations to flow conditions within stream habitat and pollution of the waterway.
- To avoid damage to stream habitat – avoid alterations to stream flow conditions, for example through construction of water impoundments upstream of known localities.

Use of chemicals

- Activities which result in habitat degradation are the principal threat to *B. briansmithi*, including pollution of the waterway. Sources of chemical pollution include pesticides and herbicides, and fertiliser runoff into waterways.
- To avoid damage to stream habitat – do not use herbicides and pesticides in the vicinity of known localities where this could lead to input of chemicals into the waterway.
- To avoid damage to stream habitat – avoid application of fertiliser in the vicinity of known localities where this could lead to runoff of fertiliser into the waterway.

Further information

Check also for listing statement or notesheet pdf above (below the species image).

Cite as: Threatened Species Section (2021). *Beddomeia briansmithi (Hydrobiid Snail (Fern Creek))*: *Species Management Profile for Tasmania's Threatened Species Link*. [https://www.threatenedspecieslink.tas.gov.au/Pages/Hydrobiid-Snail-\(Fern-Creek\).aspx](https://www.threatenedspecieslink.tas.gov.au/Pages/Hydrobiid-Snail-(Fern-Creek).aspx). Department of Primary Industries, Parks, Water and Environment, Tasmania. Accessed on 4/3/2021.

Contact details: Threatened Species Section, Department of Primary Industries, Parks, Water and Environment, GPO Box 44, Hobart, Tasmania, Australia, 7001. Phone (1300 368 550).

Permit: A permit is required under the Tasmanian *Threatened Species Protection Act 1995* to 'take' (which includes kill, injure, catch, damage, destroy and collect), keep, trade in or process any specimen or products of a listed species. Additional permits may also be required under other Acts or regulations to take, disturb or interfere with any form of wildlife or its products, (e.g. dens, nests, bones). This may also depend on the tenure of the land and other agreements relating to its management.