nrm SOUTH
NATURAL RESOURCE MANAGEMENT

DO YOU HAVE

AMMONITE PINWHEEL SNAILS ON YOUR LAND?

AMMONITE SNAIL HABITAT AT INALA RESERVE, TAROONA. IMAGE: JAMES HATTAM

WHAT ARE THEY?

The ammonite pinwheel snail (***Ammoniropa vigens)*** is a terrestrial air-breathing micro-snail, found only in the Hobart region. It is listed as Critically Endangered under the Environment Protection and Biodiversity Conservation Act 1999 and Endangered under the Tasmanian Threatened Species Protection Act 1995.

They are a very small, pale bodied with no visible eyestalk pigment. The shell is small and flattened like a disc, ~ 2.5 to 3.5 mm in diameter and either off-white to yellow-grey, brownish-yellow or rarely orange.

COMMON NAME

Ammonite pinwheel snail

SCIENTIFIC NAME

Ammoniropa vigens

LISTING STATUS

CRITICALLY ENDANGERED
Environment Protection and Biodiversity Conservation Act 1999 (EPBC)

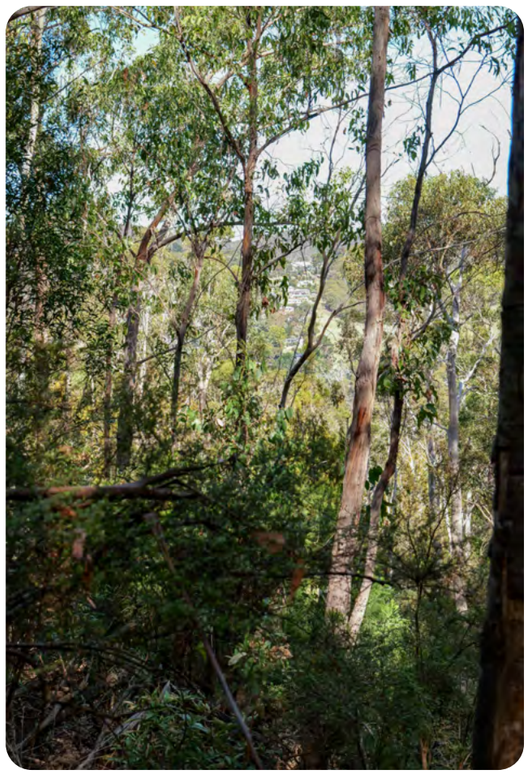
ENDANGERED
Tasmanian Threatened Species Protection Act 1995 (TSPA)

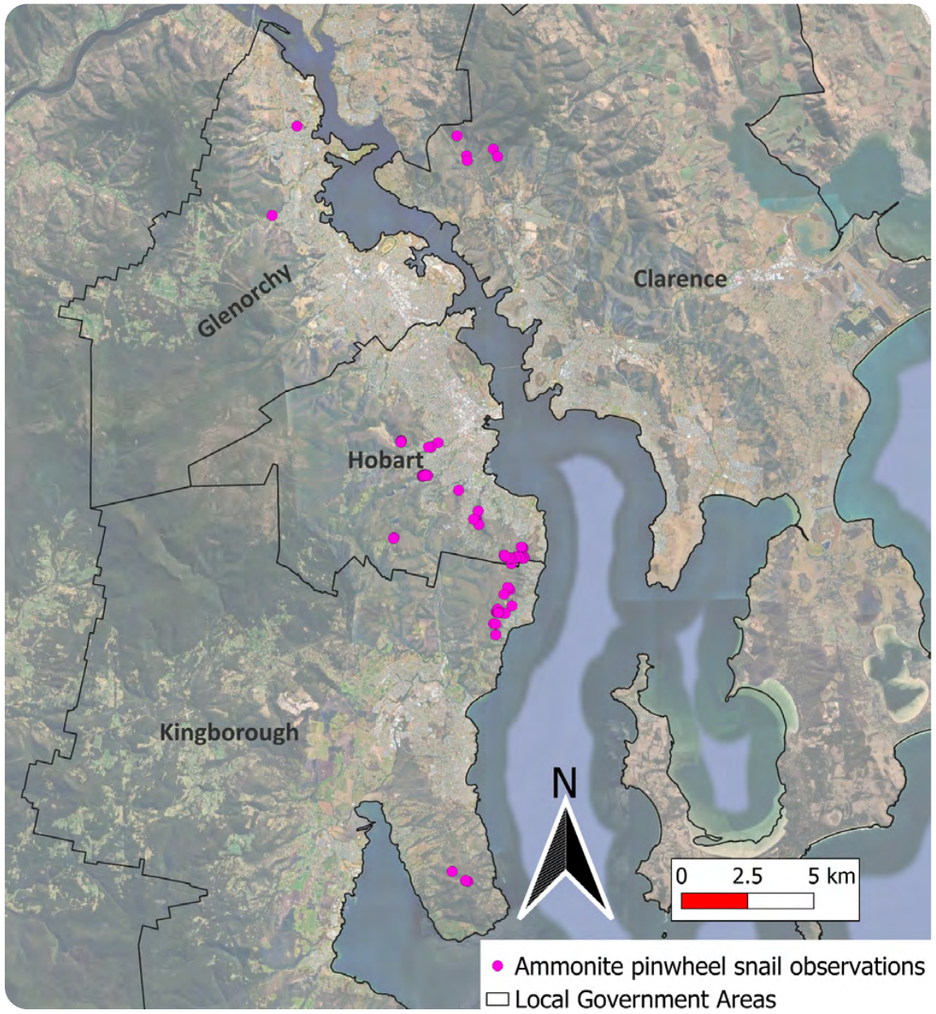
Magnified dorsal, lateral and ventral view of an ammonite pinwheel snail shell.

WHERE ARE THEY FOUND?

Known locations on the River Derwent's western shore are mostly on the eastern slopes of the Kunanyi/Wellington and Nelson Ranges from Poimena Reserve and Faulkners Rivulet in the northern suburbs of Glenorchy, through the slopes of Hobart and Taroona to the Tinderbox Hills, south of Kingston. They appear more restricted on the River Derwent's eastern shore with just a few live records on the eastern slopes of Mount Direction and shells (long-dead specimens) from Grass Tree Hill.

They like very specific microhabitats and are only found in dolerite landscapes, in low-altitude (< 300 m) forests under partially embedded rock at the interface with soil. They are usually found within about 30 m of creeks or drainage lines. Their main habitat is wet and often dark gullies. They sometimes occur in slightly less wet gullies, e.g. on Knocklofty and around Mt Direction. They have been found at Tinderbox Hills in semi-open eucalypt forest with a thin line of wet forest shrubs along a steep rocky creek gully, but this is unusual.





Pink dots showing locations of ammonite snail observation, sourced from the Tasmanian Natural Values Atlas and the personal records of Dr Kevin Bonham. In a few locations, such as Grass Tree Hill, Poimena Reserve and Liverpool Crescent Hobart, the species has only ever been detected by shells, whereas all other locations have known live populations of the species.

WHY ARE THEY ENDANGERED?

They are vulnerable to a range of threats, primarily habitat loss or degradation. Their plight is worsened by their specific microhabitat requirements and limited geographic range in an urban landscape. Threats to ammonite snails include:

- **Loss or damage to their habitat.** Removal or substantive changes to forest vegetation cover or litter can affect the snail's microhabitat.
- **Infrastructure in their habitat.** The addition of structures such as tracks, landscaping, barriers and pipes that disturb vegetation, rocks or soil are likely to impact the species.
- **Changes to water courses.** This can threaten the species through inundation or drying of the soil.
- **Recreation.** Inappropriately sited tracks, not staying on the tracks and the addition of, short-cuts or jumps risk harming their habitat.
- **Fire.** They are vulnerable to intense fires that destroy the midstory and impact the soil layer.
- **Pollution.** Pollutants such as heavy metals, pesticides or herbicides may be toxic to snails.
- **Climate change.** Likely to bring drier and hotter conditions, more frequent fires, and potentially very wet periods (i.e. flooding) to their range.

HOW TO PROTECT THEM

Identify the actual and potential threats in their habitat.

Retain vegetation and rocks. Avoid clearing vegetation and removing rocks and soil

Control weeds before they become a problem. Remove weeds slowly to allow native revegetation or rehabilitation of the cleared patches before further weed removal occurs. When manually removing weeds, try not to disturb the soil and avoid the snail's microhabitat.

Avoid broad use of herbicides or pesticides and prevent these and other pollutants - including wastewater - entering creeks and gullies. Where necessary use direct application methods such as cut and paste or drill and fill.

Avoid infrastructure. Plan your construction activities outside their habitat.

Retain natural water courses.

Keep recreation out of their habitat. Don't create new paths by cutting through their habitat on bikes or by foot.

Avoid burning. No intense fires in their habitat. Maintain a fire-free buffer zones (e.g. 30 m) around localised populations.

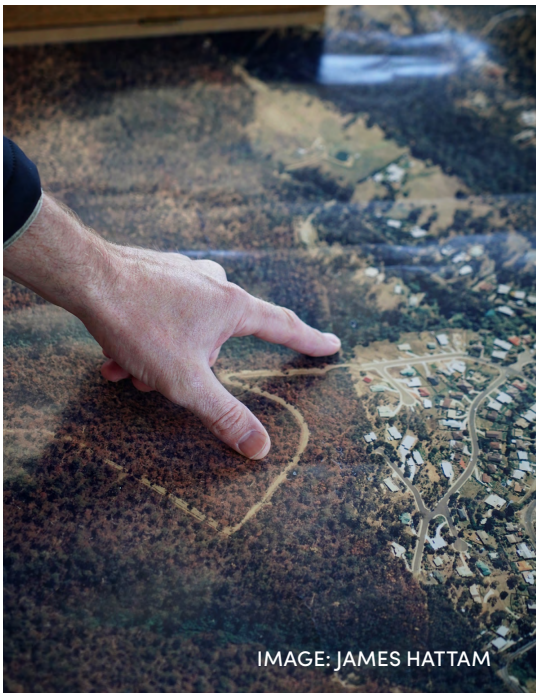


IMAGE: JAMES HATTAM

COULD THIS SNAIL BE ON MY PROPERTY?

There are no detailed maps of ammonite pinwheel snail habitat at present but the following resources will assist in identifying potential habitat:

Talk to the Threatened Species Section at NRE Tasmania

Look at the Tasmanian Natural Values Atlas for observations of the ammonite pinwheel snail.

Refer to the Geology and Topography layers on The List – the species is only known from dolerite rocks and altitude below c.300m.

Identify Hydrology Lines – the species is generally associated with the banks and hillsides of creeks, stormwater and other drainage routes.

FOR MORE INFORMATION ON NRM SOUTH'S AMMONITE SNAIL PROJECT, VISIT OUR WEBSITE

Australian Government

NRM SOUTH

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