

SPECIES MANAGEMENT PROFILE

Astacopsis gouldi Giant Freshwater Crayfish

Group: Arthropoda, Malacostraca (crabs, lobsters, shrimps, woodlice), Decapoda, Parastacidae

Status: *Threatened Species Protection Act 1995*: vulnerable
Environment Protection and Biodiversity Conservation Act 1999: Vulnerable

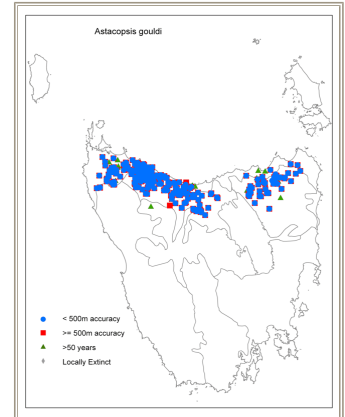
Endemic Status: Found only in Tasmania



The Giant Freshwater Crayfish (*Astacopsis gouldi*) is the largest freshwater crayfish in the world, and is found only in rivers in the north of Tasmania. Mature adults are capable of reaching 6 kg in weight, although 2-3 kg animals are now considered large. The species originally occurred in all northern rivers flowing into Bass Strait except those of the Tamar River catchment, but now has a much more fragmented distribution. Giant Freshwater Crayfish live in streams containing snags, pools and undercut banks, and with native vegetation along the banks. The species is very slow growing, slow to colonise new areas, has low breeding potential, and is easily caught. These characteristics combined with many years of overfishing and loss of habitat have led to a significant decline in this species. Illegal fishing for the Giant Freshwater Crayfish and continuing loss of healthy stream habitat continue to threaten the species.

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 the Giant Freshwater Crayfish includes rivers and streams in the Arthur River catchment and all rivers and streams flowing into Bass Strait except those of the Tamar River catchment and rivers east of Gladstone. The potential range of the species is not likely to extend outside the known range. The species has also been introduced to the North Esk catchment (St Patricks River) and the Derwent River catchment (Clyde River).
- Habitat for the Giant Freshwater Crayfish includes the following elements: flowing and still waters mainly below about 400 m in altitude, in all sizes of stream; the species can also occur in farm dams; adult lobsters generally live in still, deep pools, sheltering beneath submerged logs and undercut banks, as well as moving through shallow riffle zones; juvenile lobsters have been found in areas with large rocks or logs with low levels of silt substrates.

What to avoid

- Fishing and/or collecting (fishing and collecting this species are illegal without a permit)
- Removal of stream-side vegetation
- Removal of snags (decaying wood) from streams
- Inflows of agricultural chemicals and nutrients to streams
- Alterations to stream flow
- Access to streams by stock
- Excessive water extraction from streams

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
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S	S	O	O	N	N	D	D	J	J	F	F	M	M	A	A	M	M	J	J	J	J	A	A
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- The Giant Freshwater Crayfish is listed as a 'protected fish' under the Tasmanian *Inland Fisheries Act 1995*. It is illegal to fish or collect this species without a permit.
- Surveys for the Giant Freshwater Crayfish for scientific purposes may use a range of methods, including baited lines, excavating burrows, and searching under rocks and logs. The Giant Freshwater Crayfish can be distinguished from other crayfish by the presence of a raised ridge on the rostrum (forehead) between the eyes.

Helping the species

- In order to protect habitat for the Giant Freshwater Crayfish retain stream-side vegetation, leaves and snags (dead wood) in streams, exclude or limit access to streams by stock, and reduce inflows of chemicals or nutrients to streams.
- 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.
- If you have Giant Freshwater Crayfish habitat on your land consider protection of habitat through a vegetation management agreement or conservation covenant.

Cutting or clearing trees or vegetation

- The Giant Freshwater Crayfish requires intact stream-side vegetation and snags in the stream to maintain habitat quality.
- To maintain habitat quality - avoid clearing streamside vegetation and removing snags in areas where the species is known to occur or in areas of potential habitat within the species' range.

Stock grazing

- Habitat of the Giant Freshwater Crayfish can be degraded in agricultural areas by allowing stock access to streams.
- To maintain habitat quality - limit stock access to streams and stream side vegetation and provide alternative sources of water for stock away from streams.

Burning

- The Giant Freshwater Crayfish requires intact stream-side vegetation to maintain habitat quality.
- To maintain habitat quality - avoid uncontrolled burning of streamside vegetation in areas where the species is known to occur or in areas of potential habitat within the species' range.
- Always seek advice and/or obtain permits from relevant authorities (e.g. Tasmanian Fire Service, Parks and Wildlife Service, DPIPWE) prior to undertaking burning in areas that contain Giant Freshwater Crayfish habitat.

Construction

- Activities which alter stream flow and thermal regime can impact on habitat for the Giant Freshwater Crayfish.
- To maintain habitat quality for the Giant Freshwater Crayfish - avoid all construction activities that may impact on stream flow and water temperatures both within and adjacent to habitat for the species.

Water extraction

- Activities which alter stream flow can impact on habitat for the Giant Freshwater Crayfish.
- To maintain habitat quality for the Giant Freshwater Crayfish - avoid excessive water extraction from streams, particularly during periods of low stream flow.

Use of chemicals

- Habitat of the Giant Freshwater Crayfish can be degraded by inflows of chemicals (e.g. pesticides and herbicides) and nutrients (e.g. fertilizers).
- To maintain habitat quality for the Giant Freshwater Crayfish - avoid using chemicals and fertilizers in the vicinity of stream habitat.

Recreation

- Fishing for the Giant Freshwater Crayfish is illegal.
- To help maintain populations of Giant Freshwater Crayfish - report all illegal fishing to the Inland Fisheries Service and/or the Parks and Wildlife Service.

Further information

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

Cite as: Threatened Species Section (2021). *Astacopsis gouldi* (*Giant Freshwater Crayfish*): *Species Management Profile for Tasmania's Threatened Species Link*. <https://www.threatenedspecieslink.tas.gov.au/Pages/Giant-Freshwater-Crayfish.aspx>. Department of Primary Industries, Parks, Water and Environment, Tasmania. Accessed on 26/2/2021.

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.