

SPECIES MANAGEMENT PROFILE

Galaxias fontanus Swan Galaxias

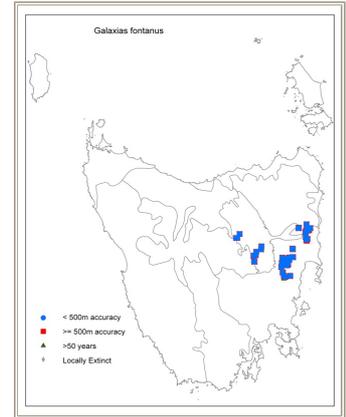
Group: Chordata (vertebrates), Actinopterygii (bony fish), Salmoniformes (salmonids), Galaxiidae

Status: *Threatened Species Protection Act 1995:* **endangered**
Environment Protection and Biodiversity Conservation Act 1999: **Endangered**

Endemic Status: Found only in Tasmania



The Swan Galaxias (*Galaxias fontanus*) is a small native freshwater fish (up to 135 mm long). The species is restricted to a few very small populations in headwater streams in eastern Tasmania, which have in the past been protected from invasive introduced fish such as trout and Redfin Perch. These remaining populations include nine natural populations (all occurring in the Swan River and Macquarie River catchments and between upper St Pauls River in the north and Rocka Rivulet in the south) and a small number of translocated populations. Key threats to the species are from introduced fish and from changes to water flow and quality. Streams supporting healthy populations of the Swan Galaxias are all protected from trout invasion by some form of barrier (waterfall, marsh, small channel), and the maintenance of these barriers to fish movements (while avoiding alteration to water flow or quality) is vital for the long-term survival of the remaining Swan Galaxias populations.



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 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 Swan Galaxias includes headwater streams in eastern Tasmania in the Swan River and Macquarie River catchments, and between upper St Pauls River in the north and Rocka Rivulet in the south (see distribution map, above). The potential range for the Swan Galaxias may include other as yet un-surveyed streams in the Tamar catchment.
- The species has also been successfully translocated to a number of exotic fish-free streams, with a total of nine translocated populations in the St Pauls, Cygnet, Lost Falls, South Esk, Macquarie and Little Swanport catchments.
- Habitat for the Swan Galaxias includes the following elements: streams generally in forested country, with low gradient and range in size from extremely small, spring-fed streams to large rivers. Streams occupied by healthy populations are protected from trout invasion and establishment by some form of barrier (waterfall, marsh, variable flow).

What to avoid

- Spread of exotic fish (Brown Trout, Redfin Perch) or Common Jollytail (not native to area) into the species' habitat
- Changes to water quality and water flow

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.

<i>Galaxias fontanus</i>	Spring	Summer	Autumn	Winter
Swan Galaxias	S S O O N N	D D J J F F	M M A A M M	J J J J A A

- The principal method for surveying for freshwater fish including the Swan Galaxias involves electro-fishing. This technique requires specialist equipment and expertise, where an electric current is passed through the stream water to stun any fish present. When performed correctly, the sampled fish are unharmed. This technique should only be performed by trained specialists with the appropriate permits.

Helping the species

- In order to recognise the species if it occurs on your property, learn to identify the Swan Galaxias. If in doubt, seek expert assistance with identification.
- 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
- If you are interested in knowing for certain whether the species occurs on your land, organise a formal survey. You will need to employ an ecological consultant to do this.
- 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.
- Remember the potentially devastating impacts of introducing trout or Redfin Perch to waters where they are currently absent.
- Avoid any activities which could inadvertently lead to exotic fish introductions, and inform others about the potential risks of introducing exotic fish.
- 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

- Removing streamside vegetation can have profound effects on in-stream water flow and water quality.
- To avoid impacting on known populations – do not remove trees or other streamside vegetation around and upstream of known populations.
- To avoid permanent loss of streamside vegetation - do not convert areas around and upstream of known populations to plantation or pasture.

Burning

- To avoid changes to hydrology, including increased sedimentation from ash or soil washed from the surrounding land – avoid uncontrolled burning of streamside vegetation in the vicinity of known populations.

Dam construction

- Streams supporting the Swan Galaxias are all protected from trout invasion by some form of barrier (waterfall, marsh, small channel), and maintaining these barriers to trout movements is vital in protecting the populations.
- Construction of dams and water storages can lead to the loss of these barriers to trout movement.
- To avoid loss of remaining populations – do not construct dams or other water storages in locations where these may lead to loss of trout barriers to Swan Galaxias populations.
- To avoid loss of habitat for this species – ensure appropriate surveys are undertaken during the planning stage for dam/water storage construction in areas of habitat.

Changing water flow / quality

- To avoid inundation of habitat, alteration of water flow regimes and breaching of barriers to introduced fish – avoid construction of water storages in or near known populations of the Swan Galaxias.

Use of chemicals

- To avoid in-stream impacts on the survival and breeding of populations – do not use herbicides and pesticides in the vicinity of known populations where this could lead to input of chemicals toxic to the species into the waterway.

Fish stocking

- The Swan Galaxias cannot coexist with introduced fish, particularly Brown Trout and Redfin Perch, and the native Common Jollytail *Galaxias maculatus*.
- To avoid introduction of exotic fish to waters currently free from these species – do not carry out any activities, including active stocking, which could lead to the establishment of introduced fish in streams supporting the Swan Galaxias.

Road construction

- To avoid significantly increased risk to populations from illegal stocking - do not create new roads near known populations of the species.

Recreation

- This species cannot coexist with introduced fish, particularly Brown Trout and Redfin Perch, and also the native Common Jollytail *Galaxias maculatus*. To avoid increasing the risk of population extinction – do not carry out any activities which could enable these fish to enter streams supporting the Swan Galaxias.

Further information

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

Listing Statement

Recovery Plan

Cite as: Threatened Species Section (2019). *Galaxias fontanus (Swan Galaxias): Species Management Profile for Tasmania's Threatened Species Link*. <https://www.threatenedspecieslink.tas.gov.au/Pages/Swan-Galaxias.aspx>. Department of Primary Industries, Parks, Water and Environment, Tasmania. Accessed on 23/9/2019.

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.