

# Action Statement

Flora and Fauna Guarantee Act 1988

No. 110

## Sherbrooke Amphipod *Austrogammarus haasei*

### Description and Distribution

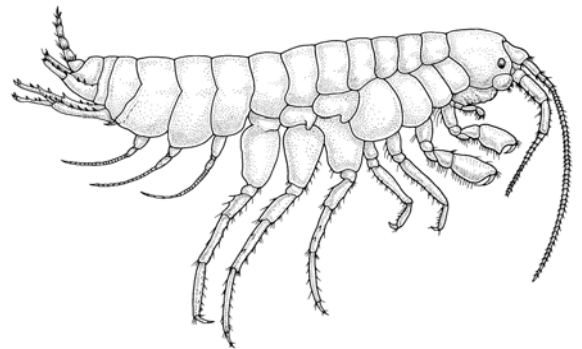
Amphipods are small, laterally flattened crustaceans, growing to between 1 and 1.65cm long (Williams 1980). The amphipod *Austrogammarus haasei* Sayce 1901 (Amphipoda: Paramelitidae) was first described by Sayce (1901) and redescribed by Williams & Barnard (1988).

The type locality for *A. haasei* is given as 'Monbulk at 250m altitude' (Williams and Barnard 1988). Unfortunately, no detailed location of this site is available, but the altitude suggests that it probably was in Sassafras or Emerald Creeks, above the town of Monbulk. Williams and Barnard (1988) did not mention any new localities recorded for the species from their survey.

A survey of 46 sites in the Dandenong Ranges was subsequently conducted in 1995, specifically for the Dandenong Freshwater Amphipod *Austrogammarus australis* (Doeg *et al.* 1996). This survey located *A. haasei* at two sites in the upper reaches of Sherbrooke Creek. The species was not located in creeks around the presumed type locality. Only two other amphipods occur in this area, the Dandenong Freshwater Amphipod *A. australis* and a species from the family Eusiridae (Doeg *pers. comm.*).

### Current conservation status in Victoria

The Sherbrooke Amphipod has been listed as a threatened taxon in Schedule 2 of the **Flora and Fauna Guarantee Act 1988**. The amphipod has a very restricted distribution in Victoria. Until recent successful surveys, it had not been collected since 1911, and is absent from the presumed type locality. Many other creeks in the vicinity have been degraded as a result of urban development.



**Sherbrooke Amphipod** *Austrogammarus haasei*  
(illustration by Savina Hopkins) (x8 approx.)



**Distribution in Victoria** ■ since 1970  
[source: Atlas of Victorian Wildlife, NRE 1999]

In its final recommendation (SAC 1996), the Scientific Advisory Committee has determined that the amphipod:

- is significantly prone to future threats which are likely to result in extinction, and
- is rare in terms of distribution or abundance.

### Major Conservation Objective

The major objectives are to:

- determine the distribution and conservation status of the species and, if rare, vulnerable or endangered, to prevent further decline in the range of the species;
- refine the knowledge of ecological requirements of the species;
- protect the current known sites from deleterious activities; and
- identify and manage likely threats to the survival and evolutionary development of the species and its habitat.

### Management Issues

#### Ecological issues specific to the taxon

The species still exists in a single headwater creek in the vicinity of previous collections of the amphipod, although the range has clearly declined since 1911. It is unknown whether the restricted range of the population is stable, or is the product of a serious decline. The creek in which it exists has been retained in good condition, in the Dandenong Ranges National Park.

Very little is known of the specific ecological requirements of the species. The creek in which it has been found has native riparian vegetation with a relatively closed canopy with greater than 75% shading (Doeg *et al.* 1996). However, the species was absent, or not recorded at, other sites with similar riparian flora, possibly due to other factors.

There is a need to further refine knowledge of the ecological requirements of the species. This will assist in identifying key components of the stream environment that need protection and may identify other areas where remediation works will allow the species to recolonise and expand the current range.

#### Wider conservation issues

Conservation of the species will involve protecting key in-stream and riparian habitat elements, which will also protect the environmental qualities of the creeks. This will assist in the protection of other stream fauna, including a wide variety of invertebrates and some fish species.

Protection of the in-stream and riparian environments will also assist in the conservation of the listed Dandenong freshwater amphipod *Austrogammarus australis* (DCE 1991a, Doeg *et al.* 1996), found only in the Dandenong Ranges.

#### Social and economic issues

Increased public and management authority awareness of the presence and conservation requirements of the species will also add to the general knowledge and appreciation of in-stream fauna, ecology and management issues. The conservation of the species may be compromised by potential increased tourist pressure.

#### Previous Management Action

The creation of the Dandenong Ranges National Park in 1987, in particular the inclusion of the Sherbrooke Unit in the Park, has allowed Sherbrooke Creek to be retained in a relatively good condition, and thus the known habitat suitable for the amphipod has survived. A survey in 1995 (Doeg *et al.* 1996) established the continued existence of the species and defined its range. A public talk for the City of Knox in 1996 and a local newspaper article raised awareness of the species. A variety of on-going management actions in the Dandenong Ranges outlined in the Dandenong Ranges National Park Management Plan (DCE 1991b) such as track restoration, road and sewer drainage improvements are likely to add to the protection and improvement of the habitat for the species.

#### Intended Management Action

##### Determine Conservation Status

1. The Parks, Flora and Fauna Division (PFF) of the Department of Natural Resources and Environment (NRE) will undertake a survey in 2002, conducted at the same sites as the 1995 survey and at other significant sites near the known range (e.g. upper Emerald Creek). This survey is to be done in conjunction with a survey outlined in the Action Statement for the Dandenong Freshwater Amphipod *Austrogammarus australis* (Action Statement No. 3) and will reassess the known range of species.

##### Protect species' habitat

2. By collecting habitat data in conjunction with Action 1, NRE will increase knowledge of the ecological requirements of the species. Consult with and advise relevant local authorities (e.g. Parks Victoria) on the presence of the amphipod, its ecological requirements and the importance of maintaining healthy

native riparian vegetation; and reducing road and track run-off (sediment, toxicants and nutrients).

## Other Desirable Management Action

### Information and Public Awareness

3. NRE (PFF) will publish and print the Technical Report of the 1995 survey.

### References

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Further information can be obtained from Department of Sustainability and Environment Customer Service Centre on 136 186.

Flora and Fauna Guarantee Action Statements are available from the Department of Sustainability and Environment website: <http://www.dse.vic.gov.au>

This Action Statement was first published in 2000 and remains current. This version has been prepared for web publication. It retains the original text of the action statement, although contact information, the distribution map and the illustration may have been updated.

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