

Haswell's Caprellid – *Metaprotella haswelliana*

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Aquatic Ecosystems Unit, Port Stephens Fisheries Institute

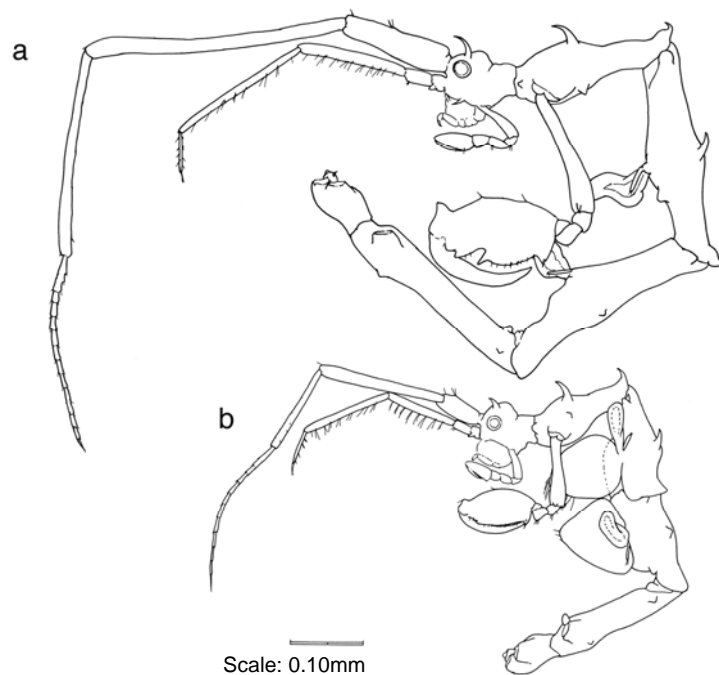


Figure 1: (a) Neotype male and (b) female Haswell's Caprellid from Albany, Western Australia. (Illustration from Takeuchi & Lowry, 2007)

Introduction

The Haswell's Caprellid is a marine amphipod crustacean. It belongs to the family Caprellidae, and is one of ten species in the genus *Metaprotella*.

A majority of the *Metaprotella* species have a restricted distribution, with Haswell's Caprellid only being recorded in three locations - Port Jackson NSW, Port Phillip Victoria and Emu Point (Albany) Western Australia.

Haswell's Caprellid was originally described from a specimen discovered in 1882 in Port Jackson, New South Wales. However despite extensive targeted research, this species has not been reported in over 100 years in New South Wales and over 35 years in Victoria. With no recent records and its known short lifecycle, Haswell's Caprellid is therefore presumed extinct in New South Wales.

Haswell's Caprellid is currently listed as a **species presumed extinct** in NSW

Description

While Haswell's Caprellid resembles a praying mantis from its large distinctive eyes and two antennae; it is a very small marine amphipod, measuring only a few millimetres long.

Habitat and ecology

- Haswell's Caprellid attach themselves to algae and seaweed, where they prey on small organisms moving past in the water.
- Caprellids brood their young in a brood pouch (or marsupium) formed from thin flattened plates on their legs. Females lay their eggs into the pouch where the young develop.
- There is no larval stage and once developed, the juveniles walk out of the brood pouch.
- Caprellids may breed seasonally or annually and the life-cycle lasts from about 8 to 18 months.

Why did Haswell's Caprellid become extinct?

- Because the species has not been recorded in New South Wales in over 100 years, it is possible that changes in environmental conditions during the last century have contributed to its extinction.
- Observations indicate that caprellids are good indicators of environmental stress as they are susceptible to a range of pollutants.
- Caprellid amphipods have been known to be susceptible to tributyltin and copper which are used in boat antifouling paints.
- There is no direct evidence that these pollutants caused the extinction of Haswell's Caprellid however there is conclusive information showing that these threats exist in former habitats of Haswell's Caprellid, and their susceptibility to these types of pollutants.

Legal implications

Although Haswell's Caprellid is presumed extinct, there is a possibility that it may still exist in some areas or be rediscovered. As with all threatened species in NSW, it is illegal to collect, buy, sell, possess or harm Haswell's Caprellid without a specific permit, licence or other appropriate approval.

There can also be significant penalties for causing damage to the habitat of a threatened species without approval.

The impact of developments or activities that require consent or approval (in accordance with the *Environmental Planning and Assessment Act 1979*) must be assessed and considered by consent or determining authorities.

Where such actions are likely to result in a significant impact on a threatened species or its habitat, a detailed species impact statement must be prepared.

How can you help?

Be on the lookout for the species in your local area.

If you think you may have found the species, report the sighting via the NSW DPI online form: www.dpi.nsw.gov.au/fisheries/species-protection/report-it

Bibliography and further reading

Fisheries Scientific Committee (2008) Final Determination: *Metaprotella haswelliana* – Haswell's caprellid.

Guerra-García, J.M. (2004) The Caprellidea (Crustacea, Amphipoda) from Western Australia and Northern Territory, Australia. *Hydrobiologia*, **522**: 1–74.

Takeuchi, I. & Lowry, J.K. (2007) Description of *Metaprotella haswelliana* (Mayer, 1882) (Crustacea: Amphipoda: Caprellidae) from Western Australia with designation of a neotype. *Zootaxa*, **1466**: 11-18.

For further information

See the NSW DPI website: www.dpi.nsw.gov.au

Contact the NSW DPI Threatened Species Unit:
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