

Bennetts Seaweed - *Vanvoorstia bennettiana*

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Threatened Species Unit, Port Stephens Fisheries Institute



Figure 1: Bennetts Seaweed (Photo: A. Millar)

Introduction

First discovered in 1855, Bennetts Seaweed is a marine red alga named after the English-born Australian physician and naturalist, George Bennett. Since its discovery, the species has only been collected from two localities in Port Jackson, Sydney – east side of Spectacle Island (1855) and between Point Piper and Shark Island (1886). At the time of being first described, the species was thought to be prolific however after extensive sampling the species suffered a complete population decline. Comprehensive surveys since this time around Port Jackson, specifically the known habitat sites and the entire NSW coastline have failed to provide any specimens.

Bennetts seaweed is listed as a **species presumed extinct** in NSW.

Description

Bennetts Seaweed has flat, fine-meshed structures with a 'net-like' blade. It is morphologically similar to the other three species in the genus *Vanvoorstia* (*Vanvoorstia spectabilis*, *Vanvoorstia incipiens* and *Vanvoorstia coccinea*). Bennetts Seaweed can be distinguished from other species in its genus by its smaller size (about the size of an outstretched hand) and by the structure of its reproductive organs.

Habitat and ecology

- There is limited information on the ecology of this species but it is assumed that it was highly sensitive to environmental change.
- The species is thought to not have a crustose or resting stage in its life cycle, which may have allowed it to lie dormant for many years until environmental conditions were favourable. Therefore both life stages are susceptible to the same environmental parameters and the species could not have persevered undetected in microscopic form.

Why did Bennetts Seaweed become extinct?

- Bennetts Seaweed probably suffered severe population decline as a result of human activities including shipping traffic, dredging and urban run-off, all of which result in heavy siltation. From observations of similar structured red algae, heavy siltation can clog the fine netted structure of seaweeds, blocking essential light needed for photosynthesis.
- The population may have also been impacted by over sampling.

Legal implications

Although Bennetts Seaweed is presumed extinct, there is a possibility that it may still exist in some areas. As with all threatened species in NSW, it is illegal to collect, buy, sell, possess or harm Bennetts Seaweed without a specific permit, licence or other appropriate approval, and significant penalties apply.

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](#).

Bibliography and further reading

Fisheries Scientific Committee (1999)
Recommendation: *Vanvoorstia bennettiana* – (Bennetts Seaweed).

Millar, A.J.K. (2003) *Vanvoorstia bennettiana*.
The IUCN Red List of Threatened Species 2003:
e.T43993A10838671.<http://dx.doi.org/10.2305/IUCN.UK.2003.RLTS.T43993A10838671.en>.
Downloaded on 29 February 2016.

Threatened Species Scientific Committee (2001)
Commonwealth listing advice on *Vanvoorstia bennettiana* (Bennetts Seaweed), a marine red alga

For further information

See the [NSW DPI website](#).

Contact the NSW DPI Threatened Species Unit:
Locked Bag 1
Nelson Bay NSW 2315

Email: fisheries.threatenedspecies@dpi.nsw.gov.au

However, because of advances in knowledge, users are reminded of the need to ensure that information upon which they rely is up to date and to check currency of the information with the appropriate officer of the Department of Primary Industries or the user's independent advisor.

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