

DPI Primefact

Caulerpa taxifolia in NSW

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DPI Aquatic Biosecurity, Animal Biosecurity, Biosecurity and Food Safety

What is *Caulerpa taxifolia*?

Caulerpa taxifolia (*Caulerpa*) is a bright green, fast growing alga from tropical areas of the Indo-Pacific, including northern Australia. It is not native to NSW (except Lord Howe Island). It was first identified in mainland coastal locations in 2000 and is now found in 14 estuaries and coastal lakes throughout NSW.

Once a popular aquarium plant *Caulerpa* is now banned in NSW from possession and sale, although it is no longer considered a severe threat.

Why is it a problem?

Caulerpa is considered a marine pest due to its hardy nature and ease of translocation. The species has caused severe habitat changes in the Mediterranean and it was feared that similar impacts would be possible in NSW.

Resources were made available to investigate how *Caulerpa* spreads and impacts native biodiversity in NSW.

15 years of scientific observations and published research into the impact of *Caulerpa* on native seagrasses in NSW indicate it is not as severe as once thought. *Caulerpa* management practices have changed as a result.

How to identify *Caulerpa*

- *Caulerpa* has light to bright green feather-like fronds that are attached to a main stem (stolon) that runs along the ground.
- The stolon can measure over 1 m long and has root-like structures called rhizoids to attach to the substrate.
- *Caulerpa* can be distinguished from other similar species by the characteristic branching pattern of the pinnules (small lateral branches on the fronds), which attach directly opposite each other on the fronds.

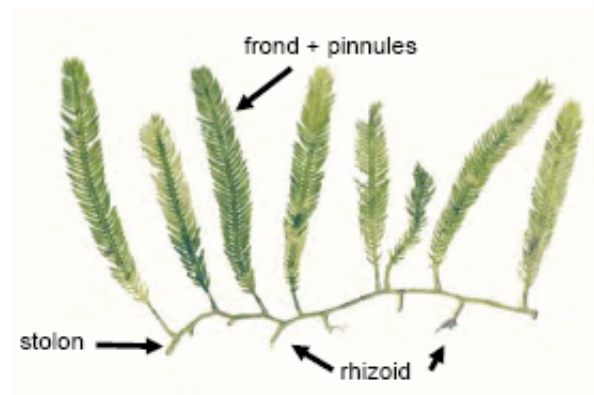


Figure 1 *Caulerpa taxifolia*. Photo: Tim Glasby

What is NSW DPI doing about *Caulerpa*?

After the discovery of *Caulerpa* in NSW in 2000 it was listed as a marine pest in legislation, which prohibited the possession and sale of the species.

In 2004 a Control Plan was developed which has recently been reviewed based on current information. Management activities for *Caulerpa* have been updated in line with the findings that *Caulerpa* does not pose as significant a threat as once thought.

The most recent information from research and observations has confirmed that it is very difficult if not impossible to eradicate or control *Caulerpa* populations in NSW.

The future management approach will focus on minimising the further spread to unaffected estuaries. Control efforts in estuaries where *Caulerpa* has been known to occur will no longer be supported.

A 2015 NSW DPI risk assessment regarding *Caulerpa* in NSW noted observations that the species is transient and dynamic in nature, meaning it is known to increase and decrease dramatically without human intervention and in response to natural environmental fluctuations.

The risk assessment concluded that management of *Caulerpa* should focus on minimising spread from affected estuaries, as it can spread within affected estuaries as a result of natural factors, including wading birds, water currents, wind, waves and tides. Likewise, *Caulerpa* may disappear by natural means.

As Closures have been found to be ineffective in managing *Caulerpa*, Section 8 Fishing Closures under the Fisheries Management Act 1994 will no longer be used to minimise the risk of spread of within estuaries.

NSW DPI will investigate new reports of suspected *Caulerpa* only in waterways where *Caulerpa* has not been known to occur, to assess the incursion and consider potential communication activities. Control works will only be considered if the new detection in a previously unaffected estuary is found to be small, contained, appears to be recent, is easily accessible and if there are sufficient resources available.

Caulerpa is known to exist in 14 coastal estuaries and lakes in NSW and it is the responsibility of all waterway users to ensure that this marine pest is not spread to unaffected locations.



Figure 2 *Caulerpa* in a NSW estuary. Photo: Tim Glasby

What you can do to help

Make clean part of your routine!

Caulerpa is spread by fishing and boating activities. Propellers and anchors can cut the fragments into small pieces which can then colonise new areas.

Any fragments of *Caulerpa* that end up on fishing gear, nets or anchor well can remain viable for days in the right conditions.

All fragments should be put in a sealed plastic bag and disposed of in a rubbish bin.

More information

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These NSW DPI publications can be found at
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Figure 3 Fragment of *Caulerpa* on anchor chain.

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