



CAULERPA MARINE PESTS



Caulerpa brachypus and *Caulerpa parvifolia*

What are exotic *Caulerpa*?

Caulerpa brachypus and *Caulerpa parvifolia* are two types of invasive exotic seaweed which have been found in New Zealand waters. We need your help in controlling the spread of these Unwanted Organisms by following the rāhui and Controlled Area Notice (CAN) requirements currently in place in bays around Aotea Great Barrier Island and Ahuahu Great Mercury Island. Find out more at biosecurity.govt.nz/caulerpa.

You can also help by reporting if you suspect you have found these exotic *Caulerpa* outside of controlled areas. This helps us make good biosecurity decisions to protect Aotearoa New Zealand's unique marine environment.

The threat

In favourable conditions, these exotic *Caulerpa* can spread rapidly, forming vast, dense beds or meadows. They compete with other species, including our own native *Caulerpa*, for space and upset the balance of local ecosystems. This presents a risk to recreational, cultural and commercial marine activities.

How to identify exotic *Caulerpa*

Both seaweeds are closely related and look identical. They have bright green vertical fronds in the shape of "solid" oar blades. These can be up to 10 centimetres long and rise from horizontal runners or roots known as stolons.

Exotic *Caulerpa* can be found growing below the tideline at between two metres and 30 metres, on both hard surfaces and in sandy areas.



Figure 1 Dense mat of exotic *Caulerpa*



Figure 2 Close up of exotic *Caulerpa* with ruler for scale

Photo courtesy of Oliver Erans, NIWA

These *Caulerpa* are native to the Indo-Pacific region, ranging from Africa to Australia, the Pacific Islands, and southern Japan. *Caulerpa brachypus* is considered an invasive pest in Florida, the United States, and Martinique in the Caribbean.

Seaweeds that look similar

There are two native *Caulerpa* species that have obvious differences.



Figure 3 *Caulerpa brownii* (sea rimu) has more three-dimensional fronds.



Figure 4 *Caulerpa articulata* has round lumps on the stem where the leaf blades emerge.

How do they spread?

Exotic *Caulerpa* can be spread through breaking into little pieces. This can happen by wave action, or when anchors and fishing gear are moved into or through weed beds. Fragments can be carried on coastal currents, tangled in or stuck on equipment and can survive out of water for up to a week or more in moist locations.

What you can do protect New Zealand's coastal waters and oceans

Keeping your boat and equipment clean is the best thing you can do to avoid spreading marine pests and diseases, including exotic *Caulerpa*.

Keep your vessel's hull clean and free of biofouling and make sure your antifouling paint is in good condition and applied according to the manufacturer's instructions. Check nooks and crannies such as the rudder, propeller, bait tanks and anywhere that could hold water. Remove any marine life entangled with your anchor or chain and throw it back where you pulled anchor.

What to do if you find exotic *Caulerpa*

If you spot either of these *Caulerpa* species, take a photo, record your location and phone the Pest and Disease Hotline at **0800 80 99 66** or complete the online reporting form at report.mpi.govt.nz.

For information on other known marine pests in New Zealand, visit the Marine Biosecurity Porthole: www.marinebiosecurity.org.nz

If you think you have seen something:



Take a photo



Record location



Call **0800 80 99 66**
All calls are confidential