



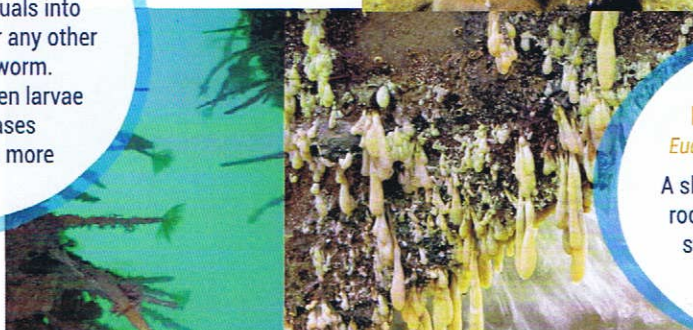
Do you know your marine pests?

The dive spots, idyllic bays and pristine coastlines we know and love as boaties could change for the worse if marine pests get to them. Here is what to look out for... and why.

MEDITERRANEAN FANWORM

*Sabella spallanzanii**

With the ability to pack 1,000 individuals into a single square metre, it's difficult for any other species to survive where there is fanworm. Feeds on nutrients, plankton, and even larvae of our favourite fish species. Decreases vessel performance and costs you more in fuel.



PYURA SEA SQUIRT

Pyura doppelganger

Do your kids love exploring rock pools? Then be cautious about this species that has the potential, in the right conditions, to alter our precious intertidal communities.



AUSTRALIAN DROPLET TUNICATE

Eudistoma elongatum

A slimy species that forms big colonies on rocks, aquaculture equipment and marine structures. Spreads easily. Leaves no space for native species. Ugly to look at on our beaches.



JAPANESE MANTIS SHRIMP

Oratosquilla oratoria

An aggressive competitor with a dangerous but impressive ability to stun prey. It lives in burrows in the sand and mud, causing damage and making it hard to trap.



CLUBBED TUNICATE

Styela clava

Grows on marine structures and boat hulls, affecting your boat's performance and hitchhiking to other places. Very costly for the marine aquaculture industry.



WAKAME

Undaria pinnatifida

A fast grower that forms dense colonies on any hard surface. Crowds out native species and steals their light. A threat to our favourite dive spots.



ASIAN PADDLE CRAB

Charybdis japonica

A strong swimmer with an aggressive bite that spreads by attaching to heavy biofouling or as larvae in ballast water. Out competes native species for space and food.



In New Zealand most regions have marine biosecurity rules and requirements for all visiting boats. Protect the coastlines we love... clean your boat and check it for marine pests.

Also check out www.marinepests.nz for ideas, advice and rules about marine biosecurity for boaties.

***Sabella* is a notifiable organism. If you spot *Sabella*, or anything else unusual, take a sample or photo and report it to the Marine Biosecurity Hotline 0800 809 966.

marinepests.nz

CLAVELINA MARINE PESTS



Clavelina oblonga and *Clavelina lepadiformis*

What are *Clavelina*?

Clavelina oblonga and *Clavelina lepadiformis* are two types of sea squirt, or ascidian, that have recently established in New Zealand waters. We need your help to track their spread so we can learn more about their impact. This helps us make good biosecurity decisions that will go further to protect New Zealand's amazing marine environment.

The threat

While they are nice to look at, these *Clavelina* are marine pests that form dense colonies that grow on natural and built structures and stationary species. They feed on tiny particles that they filter from the water and compete with other species for food. For these reasons they present a risk to New Zealand's aquaculture industry and local ecosystems.

How to identify these two *Clavelina*

The colonies of both these *Clavelina* species are made up of many transparent and gelatinous individuals that are about 2cm long.

Clavelina oblonga was first found around Great Barrier Island in 2019. It originates from North America, the Caribbean, Brazil and some parts of the Mediterranean.



Clavelina lepadiformis was recently found in the Auckland region, after being first detected in Nelson. Commonly called the "lightbulb sea squirt", it is originally from the waters around Britain and Ireland.



(Photo courtesy of C. Woods, NIWA)

How do they spread?

Clavelina species are spread by vessels, ballast water, and movement of aquaculture equipment and stock.

What you can do protect New Zealand's harbours and oceans

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

- Check, clean and dry your boat and equipment, including fishing and diving gear, before you move to a new spot. A bucket of fresh water and detergent is all you need.
- Keep your boat hull free of foul. It should have nothing more than a thin layer of slime.
- Inspect and clean your boat hull regularly. Check nooks and crannies such as the rudder, propeller, bait tanks and anywhere that could hold water. Remove any marine life and dispose in the rubbish back on land – not overboard.
- Apply antifouling paint to your vessel hull, when moored.

What to do if you find *Clavelina*

If you spot either of these *Clavelina* species, take a photo, record your location and phone the Pest and Disease Hotline: 0800 80 99 66. Sometimes, we may ask you to collect a sample – if that's the case, we'll step you through how to do this without disturbing and spreading it.

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



Collect a sample



Record location



Call 0800 80 99 66

All calls are confidential

