# **Marine pests in underwater environments – generalist divers**

Australia’s marine environment is teeming with unique animals and plant life. Our marine environment is beautiful and diverse, but it’s also fragile. Keeping marine pests out of Australian waters and reducing their spread means we have safe and productive oceans to enjoy for recreation, and a sustainable seafood industry.

Marine pests are **marine plants and animals that are not native to Australia.** They include crabs, mussels, sea stars, worms and algae. Marine pests can compete with native species and spread disease, can impact on native biodiversity and damage marine infrastructure including vessels.

If marine pests go unreported and establish in our marine environment, it becomes almost impossible to get rid of them. Prevention is therefore the key to limiting the risk of successful introductions, and early detection and reporting is essential to limit the spread of these pests.

As a diver, you can play a key role in helping to prevent the spread of marine pests by learning how to identify them and report anything unusual after your dive. Look for marine pests on underwater structures, on the bottom of vessels, or in natural marine habitats like reefs and rocky shores.

Marine pests must be reported to the department of agriculture or primary industries in the state or territory on which they are found. It is critical that authorities are notified as soon as possible to have the best chance of containing the pest. Remember**, if you see a suspected marine pest, report it.** More information, including a comprehensive list of marine pests and identification guides, are available at marinepests.gov.au

## Report marine pests

Protect our marine environment. Look out for marine pests in underwater marine habitats, or on submerged structures and vessels.

An image containing five ship porthole graphics. Within each porthole is a photograph of a different marine pest. 

Image of carpet sea squirt
Image of Asian green mussel
Image of Asian paddle crab
Image of Asian kelp, wakame
Image of northern Pacific seastar

## How to protect the underwater marine environment

Divers rely on the good health of Australia’s marine ecosystems for biodiversity, commerce and recreation and they can be our first line of defence against invasive marine animal and plant pests. Given the nature of the activity, divers can see more of the marine environment than most people. There are simple steps you can take to help protect our marine environment, biodiversity and infrastructure before or after you dive.

• Keep it clean

• Learn how to identify marine pests

• Report unusual marine animals or plants after the dive.

## Keep it clean

Keeping your dive equipment and dive vessels clean plays a critical part in stopping the spread of marine pests into and around Australian waters.

• Clean and dry your dive vessel and gear between dive locations as much as practical, especially between marinas.

• Inspect and frequently clean all marine equipment and gear that may get wet, including any diving gear, before changing dive locations.

## Report marine pests

Protect our marine environment. Look out for marine pests in underwater marine habitats, or on submerged structures and vessels.

## Learn how to identify marine pests

While we need to be vigilant for new pests arriving, we also need to be alert to pests that have spread to new locations. Some marine pests may be under a government eradication or management program. In Victoria look out for:

• Carpet sea squirt

• Asian green mussel

• Asian paddle crab

• Northern Pacific seastar

• Asian kelp/wakame.

Other steps you can take:

• Raise awareness about marine pests with your local dive club or during diver debriefs and community events

• PADI AWARE or SSI Blue Oceans may be good avenues for raising awareness on marine pest issues with other divers.

• If you come across a marine pest during a dive, let your dive instructor or dive leader know after the dive and report it

• If you are experienced at diving and have access to an underwater camera, take photographs of the suspected marine pest (if it is safe to do so). Pictures help a lot!.

## Keep watch for marine pests

Marine pests can be found attached to vessel hulls or niche areas like sea chests, or attached to submerged structures, such as pontoons, moorings, docks and buoys. In marine habitats, marine pests can be found on or in the sediment, or can attach and grow on natural or man-made substrates, such as jetty pylons or rocky reefs.

If you see something unusual during a dive, record your location (GPS if possible), water depth, and take a photo of the organism if you are able to. Do not remove the organism while diving and remember to report the organism after the dive. **Never put yourself or others at risk while diving.**

Good biosecurity is everyone’s responsibility—you can help stop the spread of marine pests by being the eyes of the underwater world. If you see something unusual, report it

## If you see something unusual, report it

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Go to marinepests.gov.au to learn more.