



# Marine pests in underwater environments

### Report marine pests

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









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 can enjoy our oceans for recreation and navigation, protect marine habitats and biodiversity, and maintain sustainable seafood and marine industries.

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 and navigation equipment.

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 specialist 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 vessel niche areas, or in natural marine habitats like reefs and rocky shores. You can help stop the spread of marine pests by being the eyes of the underwater world and reporting anything unusual.

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 after the dive.** 

More information, including a comprehensive list of marine pests and identification guides, are available at <a href="marine-pests.gov.au">marine-pests.gov.au</a>

### How to protect the underwater marine environment

Divers rely on the good health of Australia's marine ecosystems for biodiversity, commerce, industry and recreation and they can be our first line of defence against invasive marine animal and plant pests. Specialist divers have the necessary training to work in the underwater marine environment.

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 or when operating underwater equipment.

## Report marine pests

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



## If you see something unusual, report it

Keeping marine pests out of Australian waters means we have clean and safe oceans to enjoy for recreation, and a sustainable seafood industry.

#### 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.
- If you are working commercially, ensure you keep your equipment clean between in-water inspections (e.g., ROVs, tools) or after underwater work.
- Inspect and frequently clean all marine equipment and gear that may get wet, including any diving gear and scientific equipment.

### Learn how to identify marine pests

Learn how to identify marine pests, especially in the areas you are diving or working as this varies around Australia. Some marine pests may be under a government eradication or management program.

Examples of marine pests in Australian waters include:

- Carpet sea squirt
- · Asian green mussel
- · Northern Pacific seastar
- · Asian kelp, wakame.

Other steps you can take:

- Raise awareness about marine pests with your local dive authority, employer or during diver debriefs and community events
- You can raise awareness about marine pests to <u>ADAS</u>, <u>AMSA</u> and the <u>MUA</u>.
- If you come across a marine pest during a dive, let your dive supervisor know and report it.

### **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 structures, 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 photos of the organism if you are able to use an underwater camera or remote operated vehicle (ROV). Only remove the suspected marine pest if you have the training, permits and certifications to do so (i.e., scientific divers, citizen scientists, biosecurity inspectors, contracted in-water cleaners & researchers).

Remember to report the organism after the dive and to **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 our eyes in the underwater world, whether you are working offshore, inspecting a vessel or researching marine environments.



**Record your location** *Screenshot your map/GPS* 



**Take a photo**Use a coin for reference



Go to marinepests.gov.au
To report