

## WESTERN PORT BAY – CONTINUED VIGILANCE AGAINST MARINE PESTS

*Principal researchers: Greg Parry & Brian Cohen*

The Marine and Freshwater Resources Institute (MAFRI) in Queenscliff has recently completed a scientific study to determine the status of marine pest species in Western Port.

The MAFRI study considered a number of pest species that are listed on the Australian Ballast Water Management Advisory Council's (ABWMAC) Marine Target Species List. This list of pest species includes those that are likely to provide the greatest threat to our native marine ecosystems and that require action to prevent introduction to new areas.

This study aimed to determine whether selected species had, or had not, established populations in Westernport. This information was needed to establish whether shipping and maritime activities pose a risk of introducing these pests to Western Port.

The species targeted by the MAFRI study were the Japanese 'wakame' seaweed, *Undaria pinnatifida*, the European fanworm, *Sabella spallanzanii*, the small bivalve mollusc, *Corbula gibba*, and the microscopic dinoflagellates, *Alexandrium spp.* and *Gymnodinium catenatum*.

*Sabella* and *Corbula* are pests because they can occur in such high densities on the seabed that they outcompete native species for food and may also compete for space. The 2 metre high kelp, *Undaria*, can completely dominate the seafloor during winter and spring, so that it alters the natural community of plants and animals. The microscopic dinoflagellates targeted by the study have been responsible for toxic algal blooms.

Marine scientists carried out extensive surveys at different sites throughout Western Port. Whilst all these species (except for the dinoflagellate *G. catenatum*) had been recorded in Western Port in the past, the only species which appeared to have established self-sustaining populations were the dinoflagellates *Alexandrium spp.* For the remaining species, Western Port was given a clean bill of health emphasising the importance of continued action by industry, community and government to keep these pest species out.