

A Clean Boat is a Good Boat

Pollution to our marine environment comes in many forms, such as in plastic or oils but this report concerns pest pollution. The number of invasive marine pest species that hitchhike on the hulls of boats is concerning. Stewart Island/Rakiura has a lot of visiting recreational boats, fishing boats and cruise ships. It's extremely important to protect our waters from harmful marine pests, we already have Underia in the waters surrounding our beautiful island and everyone is working super hard to get rid of it.



Mediterranean Fan Worm (Sabella Spallanzanii)

There are eleven species of marine pests that the Ministry of Primary Industries (MPI) has identified and are of particular concern, they are; The Asian paddle crab, Chinese mitten crab, European shore crab, Mediterranean fan worm, Northern Pacific seastar, Australian droplet tunicate, Clubbed tunicate, Pyura, Aquarium Caulerpa Wakame/Undaria, and the Asian clam. The three that Stewart Island should be most concerned about are; Mediterranean fan worm, Underia, and Clubbed tunicate. Mediterranean fan worm because it can form dense colonies of up to 1000 individuals per square metre that exclude the settlement of other organisms. Undaria can change the structure of ecosystems, especially in places where native seaweeds are absent and could potentially impact biodiversity by outcompeting native species for space, and also because we already have it on Stewart Island. The clubbed tunicate is of significant concern to New Zealand's aquaculture industry. This species of Tunicate can foul aquaculture gear such as mussel lines and compete for space and food with farmed species.

The Fiordland communities were also concerned about this issue and decided that to protect their marine life, they must first put in place a clean vessel pass. The Fiordland clean vessel pass asks questions like, What sort of vessel do you have? How often do you clean it? And when and where will you be in Fiordland? Their clean vessel pass is valid for 12 months for as many trips as you make during that time. Their clean vessel pass applies to EVERY vessel (no matter how big or small) coming into Fiordland. Its standard for cleanliness is that the hull and niche areas have no more than a slime layer and goose barnacles.



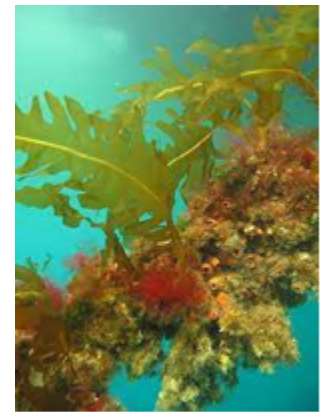
Clubbed Tunicate (Styela Clava)

I contacted local marine guardian and marine biologist, Rebecca Guest, to get a better understanding of the damage marine pests can cause “We know from experience that it is extremely hard, and often impossible, to get rid of marine pests once they have infested somewhere new. So preventing them from getting there in the first place is by far a better option. At the end of the day, prevention all comes down to human behaviour. People need to be

aware of the risk their vessel and gear carries, know how to reduce the risk (through hull cleaning, antifoul treatments, gear treatment) and also CARE enough to do the right thing.”

I asked local boat owners what they thought about this issue and all but one said they wanted a clean hull pass. None of them said that it would affect them that much, they all said that it would be a good idea, but that it would, of course, have some difficulties and disadvantages.

One boat owner brought up a very interesting point, that there were not enough places where you can clean your boat, also that it was quite expensive, and that if we were to get a clean hull/vessel pass then we would need more boat cleaning stations around Stewart Island/Rakiura and Bluff. Another boat owner also brought up the problems with cruise ships that travel all around the country and could easily end up giving us awful marine pests.



Undaria (Undaria Pinnatifida)

In case the Stewart Island community decided that they do want a clean hull pass, I contacted MPI and Environment Southland to ask how to start this process. In Fiordland, a Marine Regional Management Pathway Plan was established and included the clean hull pass. For the Stewart Island marine protection, a similar pathway plan would need to be developed

Prevention is better than cure, especially regarding marine pests. One of the best ways to prevent this is to educate people about this threat. Controlling and/or eradicating marine pests is often expensive and requires lots of time and effort. Often it is unsustainable to continue control of marine pests. By simply putting in a few measures such as a clean hull pass, the risk of marine pests becoming established is reduced and people are more aware, this is more sustainable marine management.

“We need to respect the oceans and take care of them as if our lives depended on it. Because they do.”-Sylvia Earle

By Sayla Ware

Bibliography:

<https://www.mpi.govt.nz/biosecurity/exotic-pests-and-diseases-in-new-zealand/marine-pest-disease-management/marine-pest-management-system/>

<https://www.boprc.govt.nz/environment/pests/marine-pests/clubbed-tunicate>

<https://www.doc.govt.nz/nature/pests-and-threats/weeds/common-weeds/asian-seaweed/>

<https://www.brainyquote.com/authors/sylvia-earle-quotes>

Thanks to Rebbeca Guest for her time.