



# Partners Newsletter

## Keeping you informed

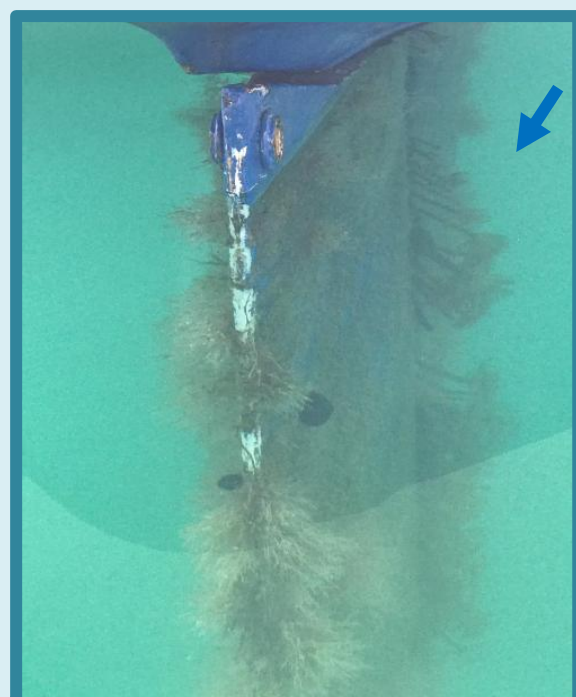
Autumn 2020



## Fanworm in the Top of the South

Fanworm, *Sabella spallanzanii*, remains our number one target pest. The good news is that suppression in ports and marinas seems to be working. The bad news is that we are detecting more incursions than ever before, but these have all been treated to remove the risk.

- 6 May 2019** Marlborough Marinas picked up the worst case we have had to-date of Mediterranean fanworm on a vessel. The fanworm were discovered after an owner-requested lift. Further surveillance found ~146 further fanworm on the seafloor underneath where this vessel was berthed in the Waikawa Marina. During delimiting, a second vessel in the marina was also found with two small juvenile suspicious fanworm.
- 14 June 2019** A routine work by Diving Services NZ Ltd found 50-60 fanworm on a catamaran in Port Nelson.
- 22 July 2019** One fanworm was found during MPI-NIWA Marine High Risk Site Surveillance winter survey in Nelson Marina.
- July 2019** An owner noticed small fanworm growing in the hinge area of the rudder on his yacht on a mooring in the Grove Arm. Diving Services NZ Ltd wrapped the vessel and treated it with Dichlor. This vessel reported further fanworm on 5 November when moored in Port Underwood and was again treated.
- 20 Nov 2019** During diver surveillance in Grove Arm, 15 suspected fanworm were discovered on the sea floor. A return visit on 2 December 2019 found another 12 fanworm, ranging from 100-200mm long, close to where the original ones were found. This is suspected as the same incursion.
- 26 Nov 2019** As part of scheduled delimitation/elimination work, a single fanworm specimen was found in Nelson Marina. As part of further work on 24 February 2020 a second fanworm was found.
- 3 Dec 2019** Fanworm found on a mussel farm in the eastern Port Underwood.
- 5 Jan 2020** As part of a routine summer surveillance in Pelorus Sound, fanworm was found on a yacht from the Far North anchored in Chance Bay, Pelorus Sound.
- 21 Jan 2020** A sail training vessel was inspected at D'Urville Island and found to have a few hundred small fanworm and 18 larger ones.
- 30 Jan 2020** A local yacht that had visited Auckland was found with fanworm in Onahau Bay, Queen Charlotte Sound.
- 18 March 2020** As part of a routine summer surveillance in Nelson Harbour, fanworm was found on a yacht moored by the Boulder Bank. The vessel had come from Auckland.



Fanworm on rudder of vessel in Grove Arm, Queen Charlotte Sound.

Please report any potential fanworm vessels to Peter Lawless, TOS Coordinator, on 021 894 363.

# Science - what's happening in TOS?

## Port Nelson Settlement Plate Project with schools

by Richard de Hamel, Marine Educator, University of Otago

The saying that the “Nelson runs on Seawater”, really appeals to me, when I think of the reliance the region has on the ocean and its life. I have always felt the children growing up here should have a good understanding of what makes it tick and the processes that help to create this region's life stream.

While talking to some scientists last year at the Cawthron Aquaculture Park, we felt there should be an opportunity to create a citizen science programme that could involve primary school students in discovering an insight into the marine environment. It needed to be topical, relevant and be useful to the wider community.

The best fit was a project that used settlement plates as an easy way to record what is happening locally in the Nelson Haven. By putting a new set of plates out every three months we get information on the presence of colonizing species and have the added advantage of seeing seasonal differences. We hope the plates may allow us to monitor any changes brought about by changes in ocean temperature and/or pH. The concept was encouraged by NCC, Enviro-schools, Port Nelson Ltd, Cawthron, University of Otago and the TOS Marine Biosecurity Partnership.

The first plates were put down in December 2019, so in early March this year, a keen band of students from Appleby School arrived at the Nelson Marina to photograph the plates and retrieve samples. Port Nelson Ltd sponsored the programme by purchasing an underwater drone that allows students and teachers to ‘see’ what the drone is seeing. The drone's VR headset allows you control the drone as you turn or tilt your head.

Using microscopes, we were able to take a closer look at the critters and watch them in an aquarium to see them filtering the water. For most of the students this was their first introduction to the often colourful world of sea-squirts, ascidians and various bugs and critters associated with them.

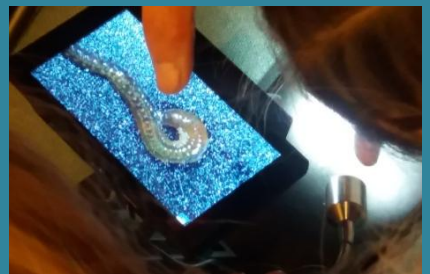
The plan is to repeat the sessions every three months, in June, September and December, with other classes.



Three months growth crowds the bottom of a settlement plate in Nelson.



An Appleby School student uses a microscope to get a close-up look at a sample.



A polychaete worm looks a lot scarier under the digital microscope!

## Aotearoa Impacts & Mitigation of Microplastics Project

by Xavier Pochon, Research Scientist, Cawthron Institute

On Wednesday March 18, a Cawthron team led by Xavier and Anastasija successfully deployed three large metallic structures in the Nelson marina as part of AIM<sup>2</sup> (Aotearoa Impacts & Mitigation of Microplastics), a national research programme looking at the impacts of plastics on New Zealand's coastal environments.

These metal structures were deployed simultaneously in the Nelson Marina and Ports of Lyttelton and Auckland. Each structure contains arrays of five types of plastic polymers (virgin and artificially aged), representing those commonly found polluting our oceans, which will be sampled at regular time intervals during a period of 12 months. A variety of molecular tools will be used to study the succession and preferential settlement of biological communities associated with different plastics, from bacteria to large marine invasive pests.

The outcomes of this research will provide more information on the impact and degradation of plastics in our marine environment and may identify possible solutions for global plastic waste.





# Update from Biosecurity NZ

We're kaitiaki. We're guardians. We're all responsible for protecting Aotearoa from pests and diseases. <https://www.thisisus.nz/>

## National Approach to Marine Biosecurity

MPI are looking to develop a nationally coordinated approach to managing marine biosecurity. This program of work will look to co-design a framework for managing domestic marine biosecurity alongside regional councils, iwi, government departments, partnerships, industry and other stakeholders. This will be an opportunity to strengthen the actions that are already being undertaken in many regions as well as looking to consider what other instruments (regulatory and non-regulatory) would be efficient and effective in marine biosecurity protection. At this stage, a proposed project plan is being developed to ensure an effective approach is undertaken. The key contact for this program of work is Sophia Clark ([Sophia.clark@mpi.govt.nz](mailto:Sophia.clark@mpi.govt.nz)).

## Results of summer surveys Picton and Nelson Harbours December 19/January 20

This survey is part of a national surveillance programme that searches for non-native marine organisms that could impact on our marine environment, kai moana, economy and wider values that marine and coastal areas provide for us all.

**No new-to-New Zealand** species were detected during these surveys but the pear crab *Pyromaia tuberculata* was found for the first time in Nelson Haven (1 of 100 benthic sled locations). This represents a significant range extension and is the first record from the South Island.

In November 2019 NIWA staff, while conducting other fieldwork, collected the red algae *Bonnemaisonia hamifera* from Dieffenbach Point in the Marlborough Sounds. This species was reported as new-to-New Zealand in May 2019 when it was collected in Karitane, Dunedin. This collection therefore represents a range extension for this species.

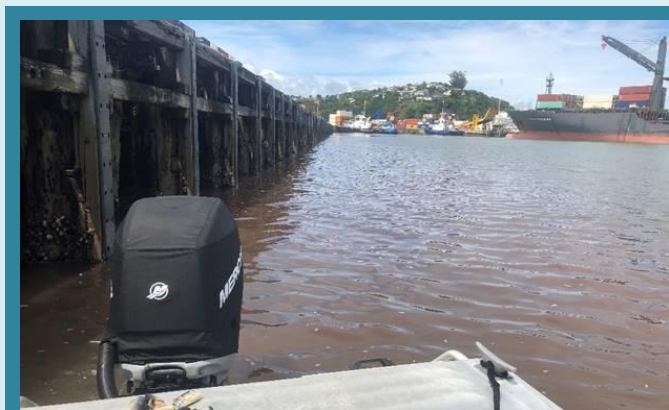
## Marine surveillance educational video

An animated marine surveillance educational video aimed at 9-12 year olds has recently been created and can be found at <https://www.youtube.com/watch?v=3QObzVnK1uE>. The video can be incorporated into school biodiversity or biosecurity programmes, so feel free to share with your networks

## *Bonamia ostreae*

The Technical Advisory Group (TAG) report on options for the future of flat oyster farming was presented to the Bonamia Governance Group at the end of February. Affected stakeholders will soon be contacted by Biosecurity New Zealand about providing an opportunity to give feedback on those options.

This feedback will be considered by the Governance Group along with the TAG report before providing their recommendations on the future of flat oyster farming to Biosecurity NZ.



Port Nelson on 18/12/19, the day after heavy rain causing postponement of diving due to low visibility – Photo courtesy of Megan Carter, NIWA



## Anti-fouling workshops

Unfortunately, due to Covid-19, we had to postpone the anti-fouling workshops that were due to be held in Nelson on 28 March and Waikawa on 29 March. The good news is that these workshops should be able to be re-scheduled at a later date, once things return to normal.

# TOS Committee member profile

## Vikki Ambrose

Vikki joined MPI in January 2019, first with Fisheries and then in October she joined Biosecurity New Zealand where she is a Senior Adviser and the Bonamia Long Term Management Programme Manager.

Vikki's background is as a clinical and environmental microbiology and molecular bioscience research scientist. This work involved researching pathogens in water, soil, shellfish, biowaste and humans. Her current role focuses on prevention and management of risks from harmful, unwanted organisms to protect the New Zealand environment, ecosystems, human health and economy.

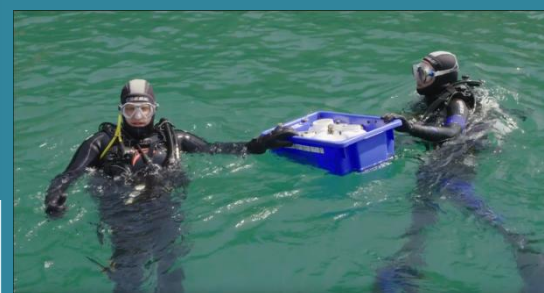
Vikki's interests are in environmental protection, especially in the marine environment, and wanting to protect New Zealand's unique biodiversity and ecosystems.

Vikki sees biosecurity priorities as being collaboration, implementation and uptake of best practice biosecurity measures at a national level, involving all sectors who are users of the marine environment.



## Waikawa marine life move

On 1 March, the Coordination Team was busy at Waikawa, where marine life was being moved in advance of an expansion to the marina. Waikawa Dive Centre had organised volunteer divers to collect marine critters from the location of the marina extension and move them out to similar habitats at Curious Cove, about half-way down the main channel of Queen Charlotte Sound. Waikawa Dive Centre runs dive lessons where the marina was going to be built and over the years had found a wide diversity of marine life. Although the impact assessment report for the marina expansion said there would not be significant adverse impacts on marine ecology, Waikawa Dive Centre owner Stuart Scaife was keen to give a "second chance" to some of the marine life that would otherwise be lost. So, with support from Te Atiawa, Port Marlborough, Marlborough District Council and Cawthron Institute, the idea became a reality.



The relocation day got off to an early start, with volunteer divers from local clubs, Cawthron Institute and elsewhere collecting marine life from the areas of the marina extension that were below the tide. At the same time, school kids and others were working along the shoreline. The Coordination Team was there to check for marine pests in the material collected, to make sure that harmful organisms would not be spread with the relocation. All of the collected material was shuttled to the main vessel where Coordination Team marine biologist Barrie Forrest was onboard sorting through the range of critters that were brought on board. This involved washing off the mud and sorting the different animals into fish bins - sea stars, sea cucumbers, mussels, marine snails - the list goes on. Encouragingly, no marine pests were found in the material.

After a frantic morning and quick lunch, everyone moved en masse to Curious Cove, where the entire process was repeated in reverse, with marine life relocated to similar depths and habitats from which it had been collected. Waikawa Dive Centre plans to occasionally check the relocation area to see how the marine life is getting on in its new home.



View a video of what happened on the day (ctrl + click to follow link): [Waikawa marine life move](https://www.marinebiosecurity.co.nz)



[www.marinebiosecurity.co.nz](https://www.marinebiosecurity.co.nz)



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DISTRICT COUNCIL



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