Partners' Newsletter

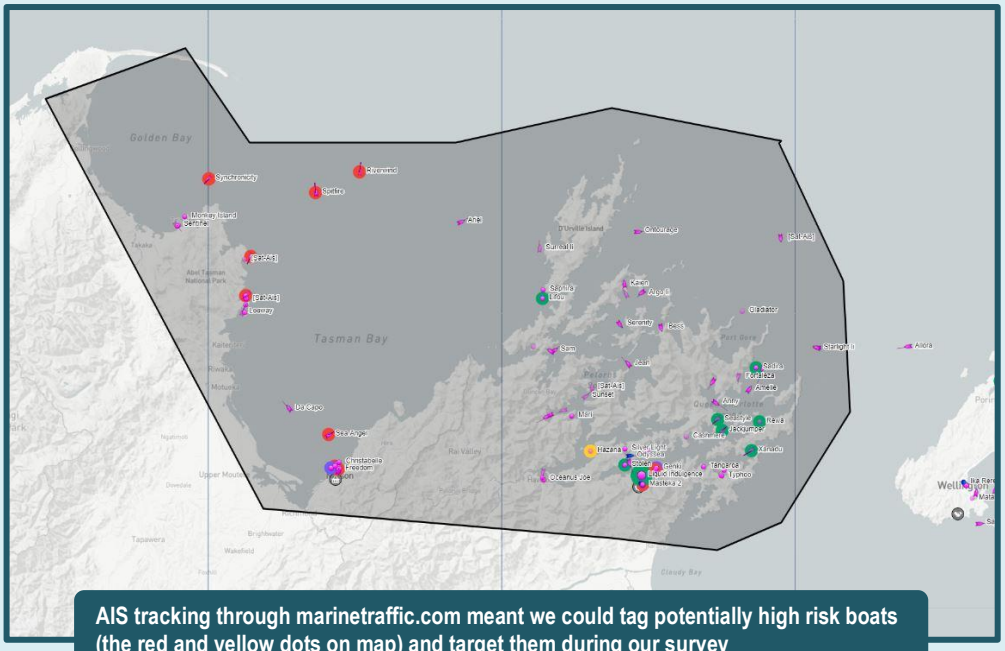
Keeping you informed

Autumn 2023

Summer Survey 2022/23

Our summer biosecurity survey has almost finished and the pressure is on with higher rates of visiting vessels post COVID and vessels still arriving with fanworm.

We spent 12 days on the water checking for marine pests, assessing fouling levels on hulls, and talking to boaters across the top-of-the-South (TOS). Overall, we surveyed 502 boats (mainly recreational), 606 structures (mainly swing moorings) and 90 seabed sites. Our tally over eight survey years has reached 3,425 boats, 2,970 structures and 441 seabed locations.



AIS tracking through marinetraffic.com meant we could tag potentially high risk boats (the red and yellow dots on map) and target them during our survey

Out-of-region boats made up more than one-third of all active boats last summer. Our ability to track and target boats arriving from outside the region using their AIS signal, and determine whether they'd previously been in locations with high-risk pests, was greatly improved by using a subscription to marinetraffic.com. This subscription gave us a 'live' view of boat movements, and an email alert when they came into the TOS. Of 100 boats from outside the TOS that we checked, 23 were from high-risk locations, and two had Mediterranean fanworm on their hulls, for which we arranged biosecure removal. The fanworm is a key species that the TOS Partnership is trying to prevent spreading into the region. Our monitoring suggests that the fanworm is still contained to Picton marina, Nelson marina and Port Tarakohe, where it's actively removed by divers.

Unlike fanworm, other long-established pests (Asian kelp *Undaria pinnatifida (Undaria)*, sea squirt *Didemnum vexillum*) are widespread regionally on vessels and structures. The more recently-established clubbed tunicate *Styela clava* is also becoming increasingly common on structures and/or vessels in a few locations (Tarakohe, Nelson, parts of Pelorus Sound), and for the first time we found a seabed population at Anchorage on the Abel Tasman National Park coast.

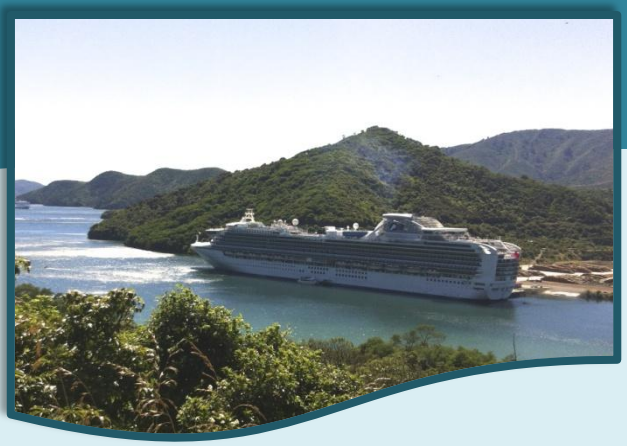
For the established species, the disjointed distribution is consistent with human-mediated spread rather than natural dispersal, highlighting the importance of managing spread by hull fouling. As a minimum, it's important to try and get a lift and clean before you leave for your holidays, especially if you know your boat is getting fouled. A lot of people we talk to are scrubbing the hull while moored up in nice spots. As well as the risk of dislodging pests that can then re-attach to the seabed, this practice is likely to wreck ablative antifouling coatings, leading to rapid fouling regrowth.

Finally, a big thanks to the Harbourmaster crews from Tasman, Nelson and Marlborough, and the Department of Conservation in Picton. We couldn't do this work without their support and the great team of skippers they have.

MORE INFO

You can find a summary of the latest survey, along with maps and data summaries for all surveys, on our web report: https://marinebiosecurity.gitlab.io/report/index.html.

Cruise season updates



New Zealand's biofouling requirements within the Craft Risk Management Standard for Biofouling apply to all commercial vessels, including cruise vessels, and have not changed since 2018. Often cruise vessels will need to meet the "long stay" category because they visit places that are not approved ports of first arrival or protected areas, such as Fiordland.

This summer there were numerous media reports around the world on the cruise season in New Zealand, as several cruise itineraries were interrupted and, in few cases, New Zealand ports of call were cancelled. Reports indicated that New Zealand had changed its requirements and how they were enforced leading to vessels suddenly being non-compliant. We would like to take this opportunity to confirm that our biofouling requirements have not changed nor have we changed how we enforce them.

There have been several factors that have led to some of the non-compliance in this cruise season. Border closures caused the previous two seasons to be cancelled, which led to long lay-ups during the pandemic and change in personnel. In addition, the cruise lines faced a short turn-around following confirmation of our maritime border re-opening and the cruise season commencing. This created a logistical challenge of re-joining the Australia-New Zealand loop and lining up biofouling service providers along the way to ensure their hulls were prepared. In some cases, communicating to service providers the high standard required of cruise vessels aiming to go to sensitive areas proved to be difficult. This resulted in cases where evidence was presented which was not of a quality to allow for accurate risk assessment, or biofouling was not removed to a level which complied with the thresholds.

Biosecurity New Zealand is continuing to work closely with the cruise lines and service providers to remedy these issues. We will continue to support both cruise lines and the underwater service provider industry to prepare them for the next cruise season at the end of this year. If you want to know more, feel free to contact us at: Standards@mpi.govt.nz

Marine biosecurity for Greater Wellington Regional Council

The Greater Wellington Regional Council has declared an interest in joining the TOS Partnership and being more active in marine biosecurity management.

This is very important for the Top of the South Island as 80% of the recreational vessels visiting Marlborough Sounds come from Wellington and Porirua. In the 2021/22 survey TOS checked 474 vessels (mainly recreational), 512 structures and 148 seabed locations. Of the vessels surveyed, 329 (69%) were classified as 'active' in the region (e.g. the boat was at anchor), of which 75 (27%) were visiting from outside the TOS. Of the latter, 53 vessels were from Wellington.

The Asian kelp *Undaria* is widespread in both Wellington and Porirua Harbours and the clubbed tunicate *(Styela clava)* is in high densities in Mana Marina. Fanworm is currently known only from Seaview Marina, which is the subject of a delimitation survey. Fanworm has been previously detected elsewhere in Wellington on vessels in the harbour but did not apparently establish in those incidents.

An initial assessment by the TOS Coordinator estimated 1,157 recreational vessel moorings and berths in the Greater Wellington region. We documented four service facilities that can take vessels up to 50 tonnes.

We are providing advice to the Greater Wellington Council and hopefully we will get to work more closely with them in the near future.

TOS dive team profiles

Sorrel O'Connell-Milne


Sorrell collecting invertebrate and seaweed data.

I grew up on the Kapiti Coast and had a childhood exploring seashores and sailing in windy Wellington, which developed my strong love for our marine environment. I formalised this passion by moving to Dunedin to undertake an undergraduate degree in Aquaculture and Fisheries at the University of Otago. After a year away on university exchange to Hawaii, I returned to Dunedin to complete an honours and masters degree with the Department of Marine Science. Although I work in a range of locations around New Zealand, I now call Otepoti my home - the beautiful coastlines and abundant marine fauna and flora, not to mention the great surf, has me hooked.

I joined the Top of the South biosecurity team this summer and carried out checks for marine pests on vessels, moorings, structures, and on the seabed in areas with high vessel use. It was great to find so many boaties expecting our checks and to see many examples of well looked after paintwork. We have a big focus on ensuring boats are clean as the level of fouling on a vessel is correlated with an increased risk of hosting a marine pest. Although our team occasionally use SCUBA diving to assess large numbers of moorings or larger vessels, generally we complete our Top of the South biosecurity inspections by free diving as this allows us to complete numerous short dives over the course of a day. Over the busy summer period, this means we can check many vessels in one day. Although we strive to check all active boats, we prioritise checking vessels visiting from other ports, as these can pose a higher risk of transporting pest organisms not yet established within the top of the south.

My interest in marine biosecurity was first piqued while studying in Hawaii, where I volunteered with an invasive algae eradication programme run by the Department of Land and Natural Resources (DLNR), which is a little like our Department of Conservation. The effort and energy going into this program was huge and highlighted to me the value of biosecurity education and preventative action. Coral reef in some locations was completely smothered by mats of this invasive algae, which would cause the coral to die due to lack of light. This control program used a 'super sucker' suction hose to essentially 'vacuum' the algae mat off the coral and up onto barges. As this algae could regrow from one small fragment, this allowed removal of the biomass while keeping it well contained. Once the algae had been removed, juvenile urchin from a land-based urchin hatchery were added to the reef to keep any new growth at bay. If the algae didn't grow back, these large numbers of urchins would eventually run out of food and reduce to normal densities. My observations from involvement with New Zealand biosecurity programs, such as control of the invasive seaweed *Undaria* in Fiordland, further support the value of a preventative approach to marine biosecurity.

Previously, I have carried out vessel biosecurity monitoring in Fiordland with Environment Southland (the Southland Regional Council), Biosecurity New Zealand, and the Department of Conservation. I have also assisted with biosecurity management plans for ocean and land-based aquaculture ventures. In addition to supporting Top of the South, I currently enjoy a range of roles carrying out marine ecological impact assessments, marine research at the University of Otago, reporting on estuary health informed by state of the environment monitoring, and monitoring the fish community and habitats within Fiordland's marine reserves.

If you're cruising the top of the South this coming summer, I look forward to hearing about your travels and checking your down below is clean and good to go!

Thomas Scott-Simmonds


Tom working on the Summer Survey.

Thomas Scott-Simmonds has been a member of the TOS marine biosecurity surveillance team since 2018, carrying out in-water inspections and assessments within the Marlborough and Nelson regions.

Thomas is a marine biologist, an ADAS accredited scientific diver and together with Courtney Rayes, owns and operates TC Environmental Limited. TC Enviro specialise in survey, monitoring and research services with a focus on aquatic biosecurity. Thomas also conducts routine SCUBA surveillance for Marlborough District Council to help prevent the spread of Mediterranean fanworm *Sabella spallanzanii* and works with the Department of Conservation and West Coast Regional Council to control the spread of unwanted aquatic macrophytes within lakes.

In addition to his biosecurity work, Thomas is involved in annual monitoring within Horoirangi, Tonga Island, Long Island and Hikurangi marine reserves as well as carrying out marine farm assessments, LakeSPI and freshwater mussel surveys and conducts estuarine habitat mapping throughout the South Island. Although sometimes at the expense of his fishing, Thomas spends much of his time working underwater and is in a prime position to pick up on any new and unwanted incursions within our region.

When is a slippery coating good for your boat?

The answer, says Glenn Clough, founder of Marine Protection Solutions New Zealand, is if your boat is osmosis-free, is not built from planked timber and travels at speeds of 35 knots or less. But for all other boats it's worth considering.

Silicon is hydrophobic, and by stopping things from attaching to it, slows down biofouling growth significantly. While conventional wisdom is that boat wraps and various slippery coatings are best for boats that are used a lot, such as ferries, Glenn says that new technologies developed in the European market are turning that around. He says one boat with a silicon film had sat unused for six months in the Bay of Islands, accumulated some fouling, but self-cleaned on its first run at speed. "With no biocides or ablative action, these boats can be wiped clean with a chamois or sponge, either in the water* or at an approved haul out." His company offers products that can be applied as a two-pot paint, or as a wrap and is trialling the use of these products in conjunction with ultra-sonic technologies such as H2O Sonic Shield and Shipsonic.

Glenn Clough (left) and Mitchell Clough (right) of Marine Protection Solutions.

*To avoid the risk of transporting marine pests to new locations, never clean it in the water or move it to a new location if marine pest species are present on your hull or underwater appendages. Please check the rules before starting and get advice from your regional council's marine biosecurity team.

Watch for the invitation to register for these webinars! Details being developed and dates finalised:

Who should pay for marine biosecurity?
10.00 am, Wednesday 24 May or the following day, same time

Filling gaps in our clean hull framework
10.00 am, Wednesday 1 June or the following day, same time

Marine biosecurity tools - a webinar for council staff
10.00 am, Wednesday 8 June or the following day, same time

www.marinebiosecurity.co.nz

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