



Partners Newsletter

Keeping you informed

March 2014



There is a high risk that harmful marine organisms will adversely affect the environment and economy of Tasman, Nelson and Marlborough in the foreseeable future. Recent experience has shown that incursions of harmful marine organisms are continuing. Mediterranean fan worm in Nelson and the clubbed tunicate in Picton were both new incursions in 2013 and there have been further detections already in 2014.

The best economic analysis available on potential impacts is the Deloitte's 2011 assessment on the clubbed tunicate. Delaying the entry of this one harmful organism to the Marlborough Sounds was estimated to deliver a benefit to the regional economy of \$1.6 - \$53.5M. The clubbed tunicate is only one of the harmful organisms already in New Zealand, but it is the closest to Marlborough, being present in Nelson, Picton and the Mana marina in Wellington.

Marine biosecurity is the shared responsibility of central and regional government, and other stakeholders. Effective risk reduction will also be a shared activity and the Top of the South is fortunate to be well advanced in bringing the stakeholders together. The large uncertainties in the timing of arrival and level of damage from harmful marine organisms makes cost benefit analysis difficult. What is clear, however, is that the costs of prevention are far less than the costs of dealing with incursions, both in terms of response and the costs to the regional community.

Pathway management to reduce risks associated with vectors is far more effective than dealing with pests once they arrive. The current list of national priority organisms, including those legally declared unwanted, is far from being a complete set of organisms that pose a risk to the Top of the South Island. There are many feasible methods for reducing risks from pathways but very few viable methods for eradicating harmful marine organisms once they have arrived.

The Top of the South Marine Biosecurity Partnership is currently considering a report commissioned by the Ministry for Primary Industries (MPI) that suggests exploring the following options to manage risk pathways:

1. Hull fouling - education, voluntary agreements with facilities managers, Biosecurity Act regulation
2. Aquaculture - voluntary agreements and codes of practice supported by relevant RMA consent processes
3. Ballast water - education and voluntary agreements
4. Dredging - voluntary agreements and codes of practice
5. Bilge water - education
6. Gear and equipment - include in relevant RMA consent processes and use codes of practice for industries
7. Coastal structures - include in relevant RMA consent processes
8. Trailered craft - do nothing beyond MPI education programmes.

These ideas will be raised with the three councils and MPI this year, and regional action will be coordinated with MPI's ongoing work on domestic pathway management.



Clogged sea chest. Photo: Cawthron Institute.

Barrie's Bilge



Summer boat fouling survey

Last summer, I carried out a survey of vessel fouling on small boats that included almost 600 vessels in the Top of the South. These were vessels on berths in Nelson marina, and swing moorings in Nelson Harbour and Waikawa Bay. The aim was to provide a snapshot of vessel fouling in the region to compare with earlier surveys. The 2014 survey is currently underway, and will be finished in March. It is hoped that vessel fouling levels will decrease over time, as boaters take up the message to keep their hulls clean and antifouled. Watch for survey results in the next newsletter.

What are we learning from recent pest incursions?

Two exotic species, designated as 'unwanted organisms' under the Biosecurity Act, have become high profile in the Top of the South over the past few months. The clubbed tunicate, *Styela clava*, was discovered in June 2013 in Picton marina. This species has had some major impacts on mussel culture in Canada, and it is feared that the same could occur in Marlborough at the heart of New Zealand's mussel industry. This risk has prompted MDC to lead a programme involving dive surveys to remove *Styela* from vessels and marine habitats in the Picton marina area.

In November 2013, a second marine pest, the Mediterranean fanworm *Sabella spallanzanii*, was found in Nelson marina. Diver removal surveys instigated by Nelson City Council have only found a few individuals, and these have been confined to the marina area. Divers are also discovering low levels of *Styela* in the marina, which are also being removed while the Council considers long-term control options.

The TOS response to both species has been rapid, thanks to the communication networks and systems put in place under the TOS Partnership. Rapid response is critical to successful management, and it provides the best chance of putting effective measures in place before the 'horse has bolted' completely. In both the Picton and Nelson situations, it is expected that reducing Mediterranean fanworm and/or clubbed tunicate populations to very low levels will limit the spread of these species; especially spread via movements of infected boats.

On the down side, marine pest population control usually involves dive teams, and is very expensive and often feasible only at small scales, such as in a single port or marina. A particular thorn in the side of the TOS situation is that the regional spread of *Styela* and *Sabella* in the long term is probably inevitable. This is because unmanaged populations of these species occur in New Zealand outside the TOS, and nationally coordinated efforts to manage risks from vessels and other vectors that move among regions are in their infancy. Nonetheless, ongoing efforts to reduce vector risk in the TOS may at least slow spread within our region, which is a worthwhile goal for economically important industries like aquaculture. Achieving this goal requires a committed effort from all marine users to reduce the risk from hull fouling and other mechanisms that disperse marine pests far and wide.



Sabella spallanzanii (Mediterranean Fanworm)

Styela clava (Sea Squirt)



Pete's Ponderings



Networking

Networking is vital to effective marine biosecurity. The trouble is, marine biosecurity is everybody's business, which makes it really hard for it to be anyone's core business. In four recent fanworm incidents in Nelson, pest incursions were discovered in different ways and good networks were the key to effective action.

Fanworm was found twice by Bruce Line's commercial diving services in the course of other work, once more by Bruce in an inspection commissioned by MPI, and also in the regular NIWA port survey. The NIWA surveys also picked up the *Styela* incursion in Picton.

Advice on how to deal with these drew on experience by the Marlborough District Council, NIWA, Bruce Lines, Tasman District Council, MPI, Northland Regional Council and the TOS Marine Biosecurity coordination team.

Addressing ports and marinas as biosecurity nodes requires the involvement of port companies and marina operators. In addition, as the focus comes on to vessels as vectors that spread pests, we increasingly need to be working with commercial and recreational vessel operators and owners.

Nationally the Marina Operators Association have been highly supportive of efforts to inform marina users about the need to keep their boats clean, and locally the port companies and marina operators have assisted with recent response efforts.

It is not so much that a network of shared responsibility will work best in marine biosecurity, it is the only way it can work.

Email: tosmarinebio@gmail.com

Feature Marine Pest

Asian clam, *Potamocorbula amurensis*

Status in New Zealand: Not presently detected

Why is this a threat?

Reduces planktonic food sources, causing decline in abundance and diversity of native species, and decline or collapse of commercial fisheries and farmed shellfish. Reaches extremely high densities, altering the soft sediment community structure of an area by changing the sediment and reducing the space available for other species.

Key features:

- Has distinctive overbite – the two shells are uneven in size.
- Shell dirty white, tan or yellow in colour, frequently with brown staining.
- Thin and smooth shell (older shells may be wrinkled at edges).
- Generally 2-3cm in length, but can be as small as 0.5cm.

Where are they found?

- Most often on mixed sand and mud substrates.
- Clams are partially buried in soft material.
- Mostly subtidal, but also intertidal.
- Can live in most freshwater upper estuarine creek areas through to full marine habitats.
- Subtropical to cold temperate waters.



Report sightings:

- Note exact location.
- Take a photo or sample where possible.
- Seal in plastic bag with small amount of seawater and chill, or preserve in methylated spirits.
- DO NOT FREEZE
- Call MPI on 0800 80 99 66.





Marine Biosecurity Compliance & Inspection Workshop

The first marine biosecurity compliance and workshop, held at Port Nelson on the 28th of November 2013, was a success according to the dozen marine professionals that participated. Increasing the contact with other partners, continuing to build relationships and understanding our/their roles were some of the positive comments. Applications are now open for the Marlborough workshop on 12 March 2014 in Picton. Details and contact information are on the website at www.marinebiosecurity.co.nz.

The workshops are for marine biosecurity stakeholders in the top of the south and are free to participants thanks to funding from MPI, TDC, NCC and MDC. Key personnel from the local Councils, ports, marinas, science organisations, slipways and diving companies come together and learn more about the various requirements of the Biosecurity Act and the regional pest management strategies.

Participants first learn about the legislation around marine biosecurity, which in most cases is the Biosecurity Act, and also where different agencies responsibilities lie. Matt Molloy & Peter Lawless from the Top of The South Marine Biosecurity Partnership coordination team facilitate this session along with independent Biosecurity contractor Grant Crossett. For many participants in November, this was a refresher. However for many others, this was their first introduction to some of the provisions in the Biosecurity Act such as powers, duties and enforcement.

In November, Lindsay Vaughan from TDC presented on the Tasman Nelson Regional Pest Management Strategy and Jono Underwood will do the same in Picton to add a local flavour to the workshop. The ensuing discussions as a result of the presentations were particularly interesting with many participants sharing their practical experiences in compliance and inspection.

The afternoon session is taught by Dr Barrie Forrest, an experienced local marine scientist. His session focuses on the identification of marine pests and also hull fouling. Actual examples and life models of marine pests are available for all to see what these pests actually look like, plus simple instructions for taking a sample of suspect organisms. The participants go to the local marina where they undertake an assessment of the level of hull fouling. All participants go away with an increased understanding of the Biosecurity Act, a better appreciation of what marine pests look like, and a better understanding of potentially high risk levels of vessel fouling.



www.marinebiosecurity.co.nz



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PORT NELSON

The Region's Gateway to the World