Floating docks are an important new tool in the kit for treating hull bio-fouling.

Northland Regional Council has had a large floating dock built for this purpose and has worked with local company “Incept Marine” to make the facility available. They are targeting the invasive fanworm *Sabella spallanzanii* (also known as the Mediterranean fan worm), and report that the approach can effectively treat a wide range of pests.

Northland Biosecurity Manager Don McKenzie says “Testing over the last year showed that the dock can be a very effective and quick way of managing risk vessels. A vessel can be brought into the dock and the gate is raised behind it enclosing all the seawater and preventing any marine pests escaping. An exercise to test the dock was recently undertaken in Auckland and a team of biosecurity staff from Northland Regional Council and NIWA scientists treated the hull of a vessel using the portable treatment facility. The dock can accommodate a variety of vessel shapes and is 16m long, and 5.5m wide. Many launch and small barge designs will fit, and it also has a 3m draft to fit yachts with a large keel. If a vessel hull is carrying a marine pest like fanworm the dock can be used to contain and treat the hull of the vessel before the pest spreads any further. Aquaria trials indicated that fanworm are very susceptible to chlorine over a short exposure time and this treatment is quick and easier to administer once the vessel is enclosed within the dock.”

Don reports that the trial appeared to work very well “During the course of the day NIWA scientists were able to collect data regarding the survival of fanworm on the hull. NIWA has offered to write up the results of the trial which we expect to be available later in the year. Northland staff are also considering trials of other solutions to use in the dock, such as acetic acid and freshwater”.

In Northland, as in Nelson, most vessel owners know that clean hulls and fresh antifoul prevent fanworm and other marine pests from establishing, and that slipping, cleaning and antifouling vessels on a regular basis will prevent marine pest transfer. However, Don says that “In some remote harbours where slipping and cleaning facilities are not available, eg. Whangaroa and the far North, the treatment dock can provide a safeguard which can be used in emergencies to treat a fanworm infected hull. We have been encouraged by the efficiency of the dock, and another slightly smaller version has just been constructed so that we can have two on hand in the event of an emergency.”

The Northland Regional Council is encouraging all vessel owners who are thinking about voyaging beyond the fanworm infested Waitemata this year to book their hull for a clean and antifoul early. Their message is “if you are just getting a lift and wash we encourage you to do this in the month before you leave to prevent the spread of marine pests - especially fanworm.”

The Top of the South Coordination Team is following these developments with interest and is recommending that marina operators and councils here consider following a similar course.

**Styela clava**

After six *Styela* were found in Waikawa Marina and Bay in April 2014, the first dive survey under the Picton Long Term Management Plan (LTMP) for *Styela clava* was scheduled for May 2014. Marlborough District Council and the Ministry for Primary Industries agreed to proceed with the dive work and spread it across both Picton and Waikawa in three days of diving. Approximately 1.25 days were spent covering the head of the Picton Marina and targeted locations moving outward, and the remaining 1.75 days spent in Waikawa. Some areas not previously dived in the Waikawa Marina were covered along with virtually all the swing moorings in the main part of Waikawa Bay (where the three *Styela* were found in April).

Final numbers of *Styela* found and removed were:
- 57 Picton Marina + 4 dead ones found (2 in one location) in July.
- 3 Waikawa Marina in July + 3 in April 2014
- 16 Waikawa Bay swing moorings + 3 in April 2014

The LTMP decision-making team are currently discussing next steps with a continuation of the dive work looking likely to be carried out early December 2014.

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**Sabella**

*Sabella*, the Mediterranean fan worm, not yet established in the Top of the South Island, but certainly has a foot in the door.

Despite extensive searching in Waikawa Bay after the discovery of the fan worm on a recreational vessel, the Prince of Tides, no further fan worms have been found there. Marlborough District Council and the Ministry for Primary Industries are working together to respond to this detection.

Five locations visited in Queen Charlotte Sound by the vessel over the last year may also be searched, but at the time of writing there is no fan worm known anywhere in the Marlborough Sounds. This means it is particularly important that we are notified of any vessels coming from known fan worm locations, principally the Waitemata Harbour, and also Lyttleton.

Meanwhile *Sabella* was found and removed from the sea chests of the coastal trader, the Spirit of Independence, by Diving Service NZ Ltd in a follow up action commissioned by Ministry for Primary Industries and supported by Nelson City Council and the shipping company. The implications of this find are now being assessed by the Ministry for Primary Industries. Several further occurrences of fan worm have also been detected in the Nelson marina, showing this in an ongoing issue in Nelson. Nelson City Council and the Ministry for Primary Industries are working jointly to respond to the incursion in Nelson.
Pathways Plan Proposal

A proposal for a marine biosecurity Pathways Plan is now being prepared for the consideration by the TOS Partnership. Our region joins Northland and Southland in preparing proposals for regional plans that would give a legal basis for managing the spread of marine pests by human activities. The process for such a plan and its content and quality is set out in the 2012 amendment to the Biosecurity Act. The idea is simple, identify the risks, their consequence, and if the benefits exceed the costs of control, proceed. There are many hurdles to jump and a lot of work to do, though, to get to a decision.

You might ask why this is happening here? The answer is that our region with its labyrinth of sheltered waterways, and abundance of marine farming has more to lose than most parts of the country. The Partnership has elected not to sit on its hands and wait for more marine invaders to appear, but to act now and secure options for the future.

Anyone wanting to contribute should contact me.

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Feature Marine Pest

Northern Pacific Seastar, *Asterias amurensis*

Status in New Zealand:
Not presently detected
Unwanted Organism under the Biosecurity Act 1993.

Why is this a threat?
Voracious predator of native species and economically important farmed shellfish. Potentially serious impacts on aquaculture, fisheries and wild shellfish populations.

Key features:
- Five arms with pointed, upturned tips.
- Yellow/orange, often with purple markings on top - yellow underneath.
- Arms covered with numerous unevenly-arranged small spines.
- Generally 12cm to 24cm across, but can grow to 40-50cm.

Where are they found?
- Grows best in cold temperate waters.
- Down to 200m depth - usually shallower than 25 metres.
- Mud, sand or pebbles or artificial structures including wharf piles and mussel lines.
- Prefers sheltered waters - estuaries, bays, rock pools.
- Currently a pest in Australia - Derwent Estuary, Tasmania and Port Philip Bay, Victoria.

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 pest and disease hotline on 0800 80 99 66.
Survey Monkey results

Thirty-one of you responded to our questionnaire. You highly valued good marine biosecurity, scoring it 9 out of 10. You were concerned about a wide range of harmful organisms, including the unknown ones.

Twenty responses said the marine biosecurity was well managed in TOS and six that it was not well managed. Three thought the Partnership was very effective, 13 that it was effective, and three that it was not effective.

Many of you distribute the newsletter to others with one forwarding it to more than 100. You gave the newsletter a score of 7 out of 10 for usefulness with no-one rating it as not useful at all. Most of you reported taking action based on information in the newsletter.

ou said our website was effective and more than half would be interested in attending a workshop on practical marine biosecurity.

We now have an A2 size poster available free to people within the Top of the South region. The poster details the marine pests that are currently present in New Zealand, as well as the ones we need to watch out for, and what to do if you find them.

If you would like a poster, please email us with your details: tosmarinebio@gmail.com

Note: For those outside the region there will be a cost of $20 + postage.

www.marinebiosecurity.co.nz