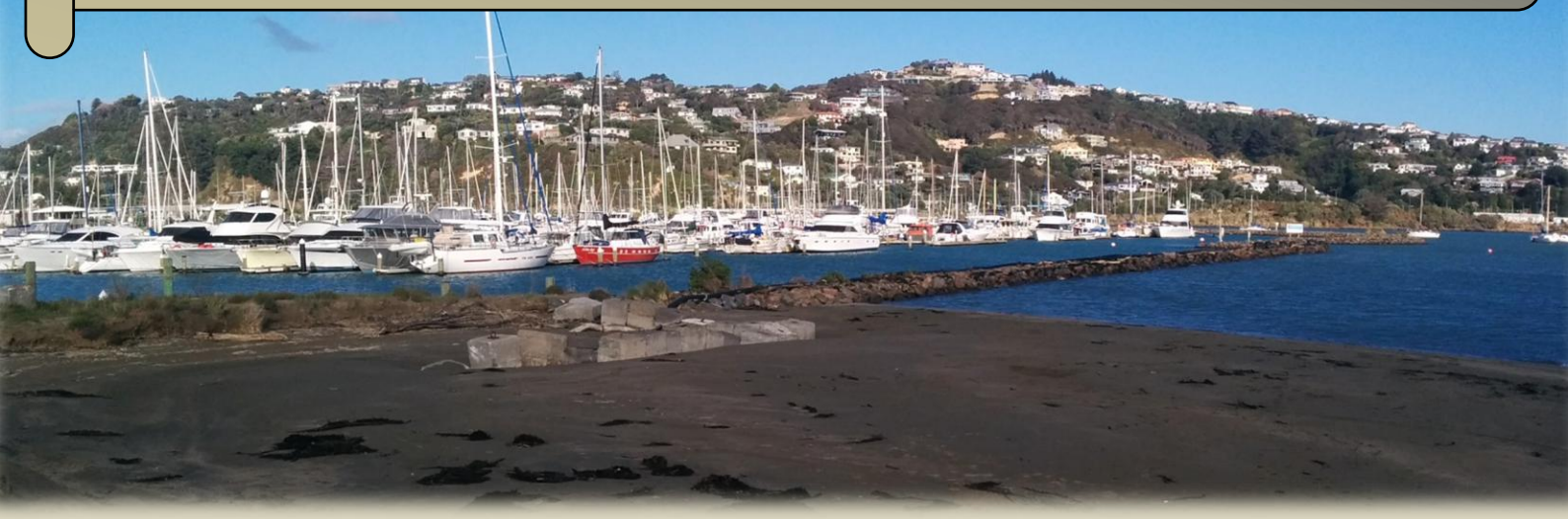
Partners Newsletter

Keeping you informed

August 2016



Mana Marina

Mana Marina north of Wellington city has become active in marine biosecurity risk reduction.

At the beginning of the year the marina was notified by the Coordination Team that we had found a yacht from Mana with the harmful clubbed tunicate (*Styela clava*) in Queen Charlotte Sound in the course of our summer survey. On receiving the information the marina manager put divers down and found approximately one *Styela* every 2-3 square metres of the marina environment. It was spread throughout the entire marina.

The Marina has 305 wet berths and is 92% full. Marina management says that the playground for most of these vessels is the Marlborough Sounds which is within 19 nautical miles.

The marina is situated in Porirua Harbour which consists of 200 square km of water and *Styela* may be widespread there and in the adjoining Pauatahanui Inlet.

Peter Hart, the Marina Manager says “The challenges we face are numerous. We need to be able to detect marine pests in the marina and on vessels resident there. We need systems to control or prevent pests spreading. Somehow we have to recoup the costs of eradicating marine pests, educating vessel owners, and dealing with multiple parties.”

Peter said that they had found a range of further concerns once they started looking, these included:

- Detection of *Ectopleura* in Onepoto Arm, on a vessel in the Lower Porirua Harbour in May 2016. This vessel transports people to Mana Island 3-4 times a week. It had been up on the hardstand and sandblasted and anti-fouled recently, but had considerable growth on it. Growth was around the waterline, although the bottom was relatively clean.
- Detection of *Clavelina lepadiformis* (light bulb ascidian) in Mana in April 2016. Divers checked and found little pockets through entire marina. It was clustered across three berths, on poles, and on marina structure. The marina undertook a wrapping process and within a week it had gone.

From here the marina management has resolved to:

- Continue to educate vessel owners.
- Monitor all new vessels to Mana Marina.
- Continue building relationships with biosecurity partners.
- Monitor marina structures.

Fiordland

New Zealand's first marine biosecurity pathway plan proposal was recently available for public consultation, submissions received are now under consideration. The Southland Regional Council, MPI, DOC and the Fiordland Marine Guardians have progressed this initiative to protect the Fiordland marine environment.

Richard Bowman, Biosecurity Manager at the Council says "The underwater Fiordland environment is a very special place. It has incredibly diverse unusual and unique marine ecosystems and there is a large fishing industry. Is Fiordland vulnerable to marine pests? Because it's very remote you'd think it is well protected, however in April 2010 *Undaria* was found on a mooring line on a barge in Sunday Cove. If *Undaria* establishes it could change the marine ecology significantly. If we can stop it establishing, the learning will help us deal with other marine pests. Since then approximately $1M has been spent, involving 80+ trips to Sunday Cove to search the sea floor and remove any *Undaria* found. Eight hectares gets searched every month by teams of up to eight divers."

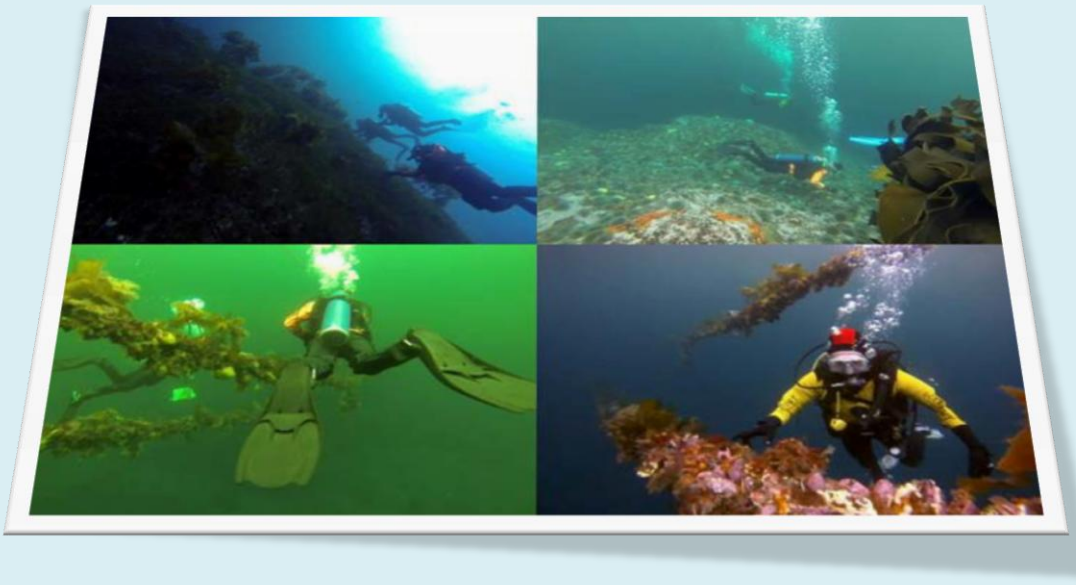
Richard adds "People are an important dynamic. Fiordland Marine Guardians protect the area. It operates under its own Act of Parliament. The Guardians represent the stakeholders and fishing industry, they have legal mandate to manage those values in Fiordland. The most important pest is marine pests. It comes down to dealing with the pathways of vessels. The risks are around vessels - massive ocean cruise ships (90+ go through Fiordland), canoeists, fishing industry, recreational boaties, tourism industry. Recreational are the biggest worry - Fiordland has become popular and accessible."

Under the proposed plan all vessels operating in Fiordland must meet the clean vessel, gear and residual seawater standards:

- Standard for vessels set as no more than a slime layer and goose barnacles.
- Standard for gear set as having to be visibly clean, free of sediment and dry.
- Standard for residual sea water set as seawater must be treated and/or is visibly clean and free of sediment.

The plan cannot control vessels outside the Southland Regional Council area but it is strongly recommended that vessel operators must have a valid Fiordland Clean Vessel Pass before they get to the Fiordland Marine Area(FMA). If they are found in the area breaching the rule the Council use the powers given by the plan to enforce its requirements.

Richard says "The Council is hoping to implement the plan in the second half of this year. The clean vessel pass is free and will be available on the internet. For 99% of people who have clean vessels there won't be any issues. Those that don't will have to think about things before they come to the Fiordland Marine Area."



Pete's Pondering

Learnings from travels


Smithsonian lab.

New Zealand is way ahead of other jurisdictions in taking practical steps to reduce marine biosecurity risks was the big conclusion from a world tour I was granted by the Winston Churchill Trust in April and May this year.

I visited the Great Barrier Reef, Nova Scotia, Boston, Chesapeake Bay, Vancouver and Monterey in California and talked with scientists and administrators there. While the main focus was on social processes around marine protected areas, I got some time with biosecurity people as well.

Most jurisdictions are either unconscious of the need for action, or are contemplating it rather than doing it. The Great Barrier Reef Marine Park Authority and the Queensland State government have no active marine biosecurity programmes.


Fouled boat in California.

Canadian scientists are completing a national report of the risks posed by recreational vessels, but there is no surveillance or incursion management by authorities despite ongoing problems with *Styela* and *Ciona* at Prince Edward Island in Nova Scotia. Canadian scientists at the Bedford Institute in Halifax were saying that global warming is opening new vector routes through the Artic in a complex international political environment that will make management difficult. This phenomenon may have parallels in other parts of the world.

The situation in the US is complex due to the federal and state jurisdictions. At the same time the scientists are on the ball and well networked. The staff at the Smithsonian invasives lab gave me a warm reception, and they were doing some great work on modeling transport of hull fouling organisms on international vessels.

Overall I found that the gap between knowledge and active risk reduction is a critical factor in achieving effective action on marine invasives around the world. Although we may feel in our infancy here, the fact that we have almost a decade of taking action means that we have as much to teach as to learn.

Barrie's Bilge

Summer Survey

Over the last six months we've been busy gathering information so we can better understand the biofouling risk from recreational boats on moorings or at marina berths. Over summer, we carried out a snorkel survey of 226 recreational boats and 135 moorings across the more remote parts of the region. We also distributed a questionnaire about boater habits, for which we've received just over 200 responses.


Fig. 1

In their responses, boaters reported antifouling at 1-2 year intervals. Nonetheless, about 16% of boats we checked were categorised as being "heavily fouled" (fouling cover ≥ 16%). We didn't find any pests that were new to the region. However, 30% of boats had at least one of six established marine pest species present. The prevalence of pests increased with the overall level of hull fouling, and the pests that have been established in the region the longest tended to be the most common. It was often the case that boats with light fouling overall had well-developed fouling in "niche" areas, especially on the keel, which is often not antifouled very well (see Fig. 1).


Fig. 2

The home port for 90% of boaters we surveyed was the top of the South, but 18 boats came from elsewhere in New Zealand and two from overseas. The New Zealand boats from outside the TOS mainly originated in Wellington marinas, and two of these had high profile marine pests on their hulls; one had the clubbed sea squirt (*Styela clava*) and the other had the Mediterranean fanworm (see Fig. 2). As a result of these findings we've already started working with other regions (especially Wellington) to get the message across about the importance of having a clean hull. Unless things change, existing and new marine pests are going to eventually become widespread across our region, and threaten the values that make it special.

Bruce Lines, Diving Services NZ

From its new base at the Nelson marina Diving Services NZ is playing a growing role in dealing with marine biosecurity incidents.

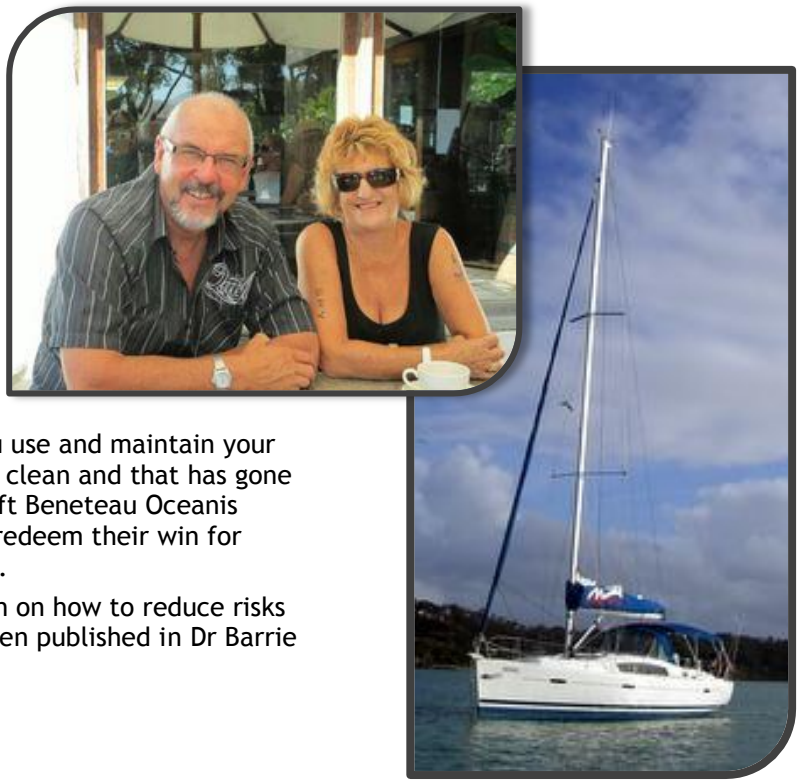
Bruce Lines, company owner and manager, described dealing with fanworm on a vessel on its way from Auckland to Fiordland.

“Environment Southland asked us to have a look at a yacht that had been certified as pest free before it left Auckland. They were not confident about the assessment and wanted a second opinion. That suspicion was well founded and we found quite large areas of fanworm up to 80mm long on areas around the keel that had not been antifouled and in the sea chest” said Bruce.

Diving Services have been using plastic wrap vessels since a logging barge brought *Didemnum vexillum* to Picton in 2004.

Bruce said “we have made a lot of advances since then. For the yacht going to Fiordland we used targeted encapsulation where only the areas with the fanworm were treated. Once the wrap was sealed we added Dichlor as allowed under our new resource consent. The chlorine killed the fanworm within minutes but we left the wrap on for 36 hours to be sure and then dosed with thiosulphate to neutralize the chlorine. The yacht was able to proceed on to Fiordland confident that it posed no risk to the World Heritage Area.”

More information on Diving Services can be found at http://www.divingservicesnz.com/.



Thank you everyone who filled in our survey on how you use and maintain your boat. There could only be one winner for a free lift and clean and that has gone to Dale and Ray Soppet for their yacht Shard, a 2007 40ft Beneteau Oceanis based with Compass Charters in Waikawa. They aim to redeem their win for Shard's annual maintenance prior to the summer season.

The data from this survey has given us great information on how to reduce risks from hull fouling on recreational vessels and this has been published in Dr Barrie Forrest's report on our website.

Congratulations and good sailing Dale and Ray.

www.marinebiosecurity.co.nz

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