Partners' Newsletter

Keeping you informed

Autumn 2022

Marine Biosecurity Seminar Series 2022

Learn from industry experts and scientists leading the marine biosecurity field in New Zealand.

All seminars are held on Zoom and are free to attend, or you can watch them on YouTube after the event.

WATCH NOW!

Now available on YouTube are:

Marine biosecurity in aquaculture	with Dave Taylor Technical Director, Aquaculture New Zealand.
Marine pests in the top of the south region	with Barrie Forrest Principal Senior Scientist, Salt Ecology.
The important role of marinas -	with Nigel Skeggs of Nelson Marina, Karenza Harris of Westhaven Marina, Dave Munday of Whitianga Marina, with an introduction and overview by Don McKenzie, Northland Regional Council.
Current marine biosecurity science	with Oliver Floerl and Xavier Pochon of the Cawthron Institute.
The next big biosecurity threat	with Jess Russell of Biosecurity NZ, and Dr Graeme Inglis of NIWA.

Still to come at the time of publication are:

- **Marine pests in the Top of the North** - Wednesday 1 June 2022, 10.30 am-11.30 am.
- **Marine Biosecurity Pathways** - Wednesday 27 July 2022, 11.00 am-12.00 noon.

To register go to https://www.marinepests.nz/events.html

New pests and diseases reporting tool strengthens our biosecurity system

Biosecurity New Zealand has released a new web tool so people can report suspected exotic pests and diseases online.

"Alerts from the public about things that appear out of the ordinary to them, along with reports from our primary sector partners make up an important part of New Zealand's strong biosecurity system," says Biosecurity New Zealand's deputy director-general, Stuart Anderson.

"Strict importing rules, offshore agreements and inspections, and our frontline border operations keep New Zealand well protected from threats and make us one of the foremost biosecurity systems in the world.

"It's very important that people can easily report things to us, and this new tool will enable that, providing an alternative to the existing 0800 phone hotline."

From the Biosecurity New Zealand website, users are guided through the reporting process and can submit photos, location of finds and other information.

"Reports are then processed by our same team that handles phone hotline reports," says Mr Anderson.

"Submitters will receive a response from our investigation and specialist science teams in a similar timeframe to the current 0800 phone reporting system – generally within 24 hours. However, those reporting urgent matters such as mass mortalities of animals, for example birds, fish, and shellfish, and animal diseases will be directed to the phone line.

"The new reporting tool can be found online, alongside information on the priority exotic pests and diseases we're keeping an eye out for in New Zealand."

Online report form

Mr Anderson encourages people to contact Biosecurity New Zealand as soon as they suspect they've found something of concern, as early reports enable early action.

WATCH OUT!

Examples of marine pest species not yet in New Zealand

Chinese Mitten Crab *Eriocheir sinensis*

Impact:

- Can form dense colonies.
- Disrupts natural ecological balance.
- Accumulates toxins.
- Aggressive, highly effective predator.
- Displaces native and fisheries species.
- Damages fishing nets and catches.
- Burrowing weakens and collapses river/estuary banks.
- Can carry a liver fluke that harms humans.

Asian Clam *Potamocorbula amurensis*

Impact:

- Forms vast, dense colonies.
- Filter-feeder that competes with native species and preys on larvae of fisheries species.
- Displaces native, commercial and recreational fisheries species.
- High selenium content, which is toxic to animals that eat it.
- Disrupts natural ecological balance.

Northern Pacific Seastar *Asterias amurensis*

Impact:

- Fast growing.
- Forms vast, dense colonies.
- Displaces native and fisheries species.
- Voracious predator
- Highly detrimental to shellfish aquaculture and wild-harvest shell fisheries.

If found anywhere in New Zealand immediately call 0800 80 99 66

What will the next decade bring?

At the TOS Partnership meeting in March Guinny Coleman Chair of the outlined what she saw the next decade bringing.

So what will the next decade bring?

Pressures can be expected to increase. There are many new organisms in the top of the North Island that have yet to reach here. Lower water temperatures have protected us from some in the past but that is changing, increasing our risk profile. One-third of all identified marine pests around the world were never recorded as a pest anywhere else. Our next worst marine pest may be quite unknown yet.

All this points back to control of vectors. The work of the Top of the North on pathways management is very welcome. We need to build our ability to quickly respond and coordinate responses around the country.

New science and tools could be a big help. We have already trialled environmental DNA. Cawthron is continuing to develop this for passive surveillance. Deploying this and other tools could give us better early detection and perhaps confidence about pest free areas that we need to preserve.

Some of the pests already spreading in the region will have adverse effects that need to be managed. The clubbed tunicate is on mussel farms already. How this will affect the industry is not yet clear.

It will be important to sustain the Partnership through changes to local and central government structures. This is where the broader community, particularly our Treaty partners will be important. If the work is widely valued it will not be lost as things change.

The Mediterranean fanworm fouling mussel lines in New Zealand, Hauraki Gulf. [Image: Kathy Walls, Ministry for Primary Industries]

Eudistoma elongatum fouling an oyster rail in the Bay of Islands. [Image: Mike Page]

The clubbed tunicate *Styela clava* growing on a floating pontoon in the Viaduct Harbour. [Image: Mike Page]

TOS Committee member profile

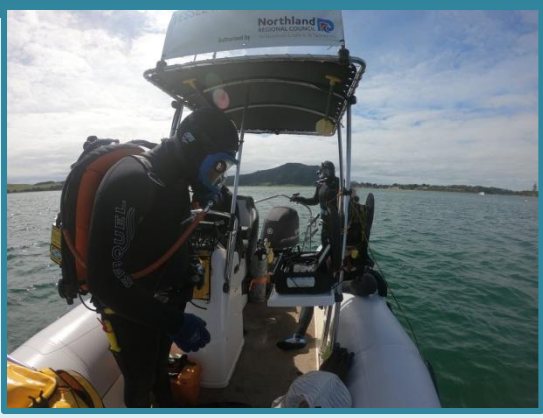
Dave Taylor

Dave Taylor (PhD) is the Technical Director at Aquaculture New Zealand (AQNZ), which is based in Nelson. In his role, he oversees the Sustainability, Innovation and Technology, and Biosecurity portfolios. Under the Biosecurity portfolio he has helped bring industry working groups together to develop industry biosecurity standards, which guide the development of industry biosecurity management plans. He also helped oversee the industry signing of the GIA-Biosecurity deed with government, which means that industry now works alongside government in decisions around biosecurity readiness and response. He is looking forward to working with central and local government on a coordinated national approach to marine biosecurity, and sees a future where biosecurity becomes second nature for all marine users.

Dave is a Marine Ecologist by training, with a PhD in Zoology from the University of Canterbury, which focused on intertidal seaweed ecology. Prior to working at AQNZ, Dave worked as a Coastal Scientist at Cawthron Institute in Nelson. Throughout his career he has worked with industry, communities, councils, and central government to create a better understanding of aquaculture and its environmental, social, and economic fit to ensure it remains one of New Zealand's most sustainable primary producers.

Dave is a father of two, with a 17-year-old daughter and a 19-month-old son keeping him busy. With any remaining spare time, he enjoys thrashing around in the wilderness doing the occasional adventure race.

It's official: Tutukaka has eliminated fanworm



Five years after Mediterranean fanworm was last spotted at Tutukaka north of Whangarei, the bay has officially been declared 'fanworm free'.

Eradication of a marine pest species, such as Mediterranean fanworm, can be difficult and depends on a number of factors, like how well established it has become before being detected and whether it can be easily and effectively removed without causing further spread, says Kathy Walls of Biosecurity New Zealand.

Success factors for Tutukaka:

1. Detection was early and action was taken quickly.
2. Collaboration and good relationships. From the moment that the marine pest was detected in the Bay of Plenty, the councils and the marina management communicated and worked together to organise a fast response.
3. It was thorough. Diving has been conducted twice a year and was intensive. Dive surveillance is incredibly difficult, so the regularity is important.
4. The marina has been consistent about communicating about and applying the 6-in-1 rule – even though it's challenging to tell boats that they can't come in. Even customers who have left for more than 30 days must adhere to it.
5. Northland Regional Council taps into experienced, diligent dive teams who leave no stone unturned.

www.marinebiosecurity.co.nz