

# Quarterly report of investigations of suspected exotic marine and freshwater pests and diseases: July to September 2020

## New to New Zealand nudibranch, Tauranga

A new to New Zealand nudibranch, *Goniodoris meracula*, was identified from photos collected by the University of Waikato. The specimen was found on a settlement plate in Tauranga Harbour in 2017, but not identified until July 2020 when the photos were sent to an international nudibranch expert who identified it as *G. meracula*. The photographed specimen was one of several observed on the plates. *Goniodoris meracula* is native to Australia and typically lives in a burrow inside a colonial ascidian. Nudibranchs pose a low biosecurity risk as they are typically rare in time and space. They do not typically reach densities that would have a significant effect on local species.

## Dead octopuses, Otago Harbour

A member of the public reported seeing six to eight dead octopuses washed up in Sawyers Bay, Otago Harbour. The notifier described the water in the area as discoloured and foamy. No obvious signs of trauma were visible on the octopuses, suggesting the incident was unlikely to be fishing-related. Information from Otago Regional Council suggested it was not uncommon for octopuses to wash up dead over winter. Octopuses die naturally after spawning but it is considered unusual to see more than one or two dead animals at a time. It is unclear what species of octopus they were.

## Suspect *Aeromonas salmonicida* in trout, Taupo

A local fisherman in the Hinemaiaia Stream, Lake Taupo, contacted MPI after catching a rainbow trout (*Oncorhynchus mykiss*) with a large, open lesion on its side. Lesions of this nature can be caused by the pathogen *Aeromonas salmonicida*, a notifiable organism that is not present in New Zealand. *Aeromonas salmonicida* causes a disease known as furunculosis. The fish was released back into the waterway after photos were taken of the lesion, so no samples were

Exotic disease investigations are managed and reported by the MPI Diagnostic & Surveillance Directorate, Wallaceville. The following is a summary of investigations of suspected exotic marine and freshwater diseases and pests during the period from July to September 2020.

available for testing. An MPI pathologist examined the photos but could not draw any conclusions without a sample for testing. The lesion was consistent with those caused by *A. salmonicida*, but also those caused by other pathogens such as *Flavobacterium psychrophilum*. As the Hinemaiaia Stream is within the Taupo freshwater region a local Department of Conservation ranger was informed. The ranger stated that wounds of this nature were commonly seen on trout in the area at this time of year, as the fish were in a weakened post-spawning state. The causative agent was typically a parasitic nematode worm, *Eustrongylides* sp., known locally as shagworm because it is vectored by shags (and other birds). The nematodes cause large cysts to develop, typically near the gut cavity, which eventually erupt and leave an open wound. The investigation was closed.

## Dead stingrays in Orakei Basin, Auckland

Several members of the public contacted MPI to report a number of dead stingrays in Orakei Basin, Auckland. The Orakei Basin is a small (~730 m across) lagoon enclosed by floodgates that isolate it from the sea. The floodgates are opened roughly fortnightly for two tidal cycles to flush and replenish the water, but owing to a fault with the gates the water was retained within the basin from May to early August.

In total nine dead stingrays were reported from around the edge of the basin. They were a mixture of long-tailed stingrays (*Bathytoshia lata*) and short-tailed stingrays (*B. brevicaudata*), ranging in size from about 50 cm to more than 1 m wide. The presence of stingrays in the Orakei Basin appears to be a rare event,

though one member of the public noted seeing a live one there in March 2020. The dead rays were in an advanced state of decomposition and had been dead for some time. No samples were able to be taken for testing.

The stingrays were likely stranded when the water was released on 4 August 2020 and the carcasses remained trapped. Some of the dead animals had become buoyant, which is highly unusual as sharks and rays do not have swim bladders. This supports the theory that the stingrays had been dead for some time and had become buoyant owing to decomposition gases. Auckland Council was notified, to investigate the possibility of water-quality issues, but the water parameters they measured were normal. Auckland Council stated that the earliest notification of a dead stingray was received the day after the floodgates were last closed and they employed contractors to remove the dead stingrays (13 in total). While the cause of death is inconclusive it seems most likely that it was related to the fault in the floodgates and the retention of the water.

## “Odd-looking” crab, Mt. Maunganui

A crab described as “odd-looking” was spotted in the marina at Mount Maunganui. The notifier took several photos for identification but then released the crab into the water. The photos were sent to the Marine Invasives Taxonomic Service (MITS) at the National Institute of Water & Atmospheric Research (NIWA) for identification. MITS identified the crab from the photos as a native species, *Metadromia wilsoni*, using the morphological characteristics that the submitter managed to get in the photos.

## Shellfish mortality event, Ninety Mile Beach

A Waikato University marine ecologist reported a mass mortality of toheroa (*Paphies ventricosa*) at Ahipara, Ninety Mile Beach, disclosed by a local contact. Mass mortalities of shellfish on Ninety Mile Beach have been recorded on numerous occasions; the cause appears to be multi-factorial and may be related to the presence of certain *Endozoicomonas*-like organisms in the shellfish. In this case the shells washing up on the beach were empty so no samples were able to be collected for testing. A record was made for further reference.

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