Sea squirt in Sounds has marine farmers worried

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"A parasitic sea squirt discovered on a barge in Picton may have the potential to cost Marlborough’s burgeoning mussel industry millions of dollars in lost production, says a marine scientist. The organism is an ascidian (sea squirt) belonging to the didemnum family, and is capable of spreading quickly, especially on artificial structures such as mussel lines.

The Cawthron Institute and the National Institute of Water and Atmospheric Research are investigating whether it has spread throughout the Sounds. The find has baffled overseas scientists, who disagree on its origins, and has angered the New Zealand Marine Farming Association, which is concerned over a lack of action.

Association executive officer, Graeme Coates said the incursion was very concerning, especially considering a lack of action or knowledge from key agencies such as the Ministry of Fisheries. "Look at what happened with Undaria (an invasive marine weed). It was confined to Wellington harbour, then 10 years later it was decided it was a pest," he said.

Cawthron Institute marine biosecurity scientist, Ashley Coutts, said the sea squirt was first discovered at Shakespeare Bay last December on a barge which had come from Tauranga. A similar species found in the Marlborough Sounds in 1998 cost the mussel industry $10 million in lost production each year, he said. Conditions have been very favourable to the sea squirt's growth over the past year in the Marlborough Sounds.

Nearly three tones have established on the barge since its arrival, and half a tonne on the sea bed. There was about 24 tonnes of fouling, or total growth matter, surrounding the hull, he said.

Mr Coates said the find was a national biosecurity issue going unnoticed because it was marine rather than land-based. "The first thing we should do is identify it. If it was a known threat something
would have been done by now," he said. Action depended on an investigation to determine its origins and how widespread it was in the Sounds, Mr Coutts said. "If it's widespread throughout the Sounds there is little point in eradicating it from the barge," he said. The results of a NIWA survey canvassing the Sounds are due very soon, Mr Coutts said. But if it was limited to the barge, efforts would be made to eradicate, which could be very expensive - up to $50,000, he said. Eradication would probably be a joint effort between those leasing the barge, the mussel industry, the Ministry of Fisheries and the Marlborough District Council, he said.

But Mr Coates said he did not see why the mussel industry should pay when it had not had anything to do with the incursion or its spread. "There's no way we should have to pay for this. That's rubbish," he said. Mr Coates said he had acted on the matter when he learned of it months ago by writing to Government ministers and MFish. If the marine farming industry thought it was going to have to pay, he would have expected action immediately, he said.

The barge's resource consent to moor near Picton has been granted, but is dependent on Mr Coutts' confirmation it did not carry an unwanted exotic marine organism.

"That's the problem - while the mussel industry may see it as unwanted, we don't know if it's native, or exotic," Mr Coutts said. The resource consent calls for the sea squirt to be removed as soon as possible if it is confined to the barge. The barge lessees had been very cooperative at all times, he said.

MFish chief technical officer for marine biosecurity, Chris O'Brien, said there was always a number of fouling threats to the aquaculture industry. MFish kept the marine farming industry fully informed of any new species, he said.

(note from Ashley Coutts after fending off responses from various irate sources: he meant that discussions on eradication options would be a joint effort - not the funding! Such are the delights of science communication! - ed.)

Contact: Ashley Coutts
Relevant links:

Cawthron Report No. 744 "A biosecurity investigation of a barge in the Marlborough Sounds" (Executive Summary)

Sea Squirt research earns top conservation award for Queen Charlotte College student

Cawthron's Biosecurity Group