

Marine Biosecurity Surveillance



Ports and marinas can often pose hazardous risks due to murky and dark water conditions, which in turn makes it difficult for divers to perform biosecurity inspections. The Boxfish remotely operated vehicle (ROV) is used by the National Institute of Water and Atmospheric Research (NIWA) to improve their underwater surveillance capabilities.

Hazardous Risk to Divers

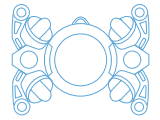
NIWA is contracted by the Ministry of Primary Industries to inspect the country's highest risk locations, or in other words, where there is a high volume of arrivals of international vessels. More specifically, NIWA is responsible for managing the risk factors due to marine pest incursions.

Typically, these underwater locations are dark and murky, and present low visibility for divers inspecting the area. Additionally, with the high number of vessels coming in and out of ports and marinas, and the occasional visit from large predators like leopard seals, sea lions, and sharks, divers are at even higher risk.



Watch the video to learn how NIWA uses the Boxfish ROV for underwater surveillance. Click on the icon above to view.

Boxfish Case Study



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Get Eyes Underwater with the Boxfish ROV

Due to the various dangers of humans inspecting underwater locations, NIWA needed a solution to complete tasks without this worry. That's when they turned to us to improve their surveillance checks using the Boxfish ROV.

The Boxfish ROV has allowed NIWA to perform thorough and detailed inspections and checks for pests by using its video capabilities. The team can now review underwater footage from the surface and ensure the safety of divers.

Not only are ROVs becoming more frequently used for these types of inspections, but NIWA is testing new ways to optimize their use of the Boxfish ROV for biosecurity and compliance with video analysis – including survey design and identification of specimens found in ports and marinas.

About NIWA

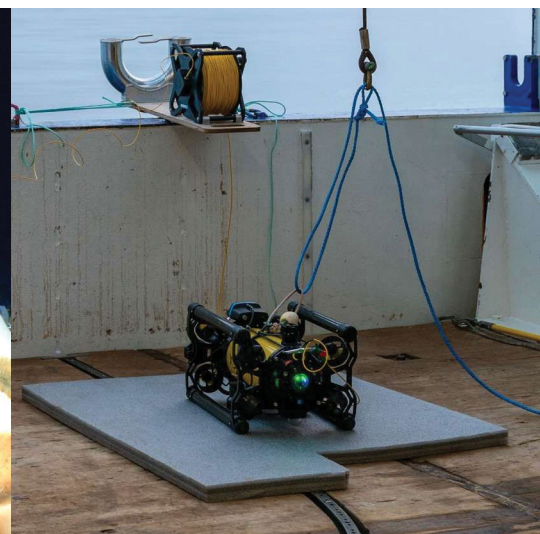
NIWA, the National Institute of Water and Atmospheric Research, is a Crown Research Institute established in 1992. It operates as a stand-alone company with its own Board of Directors and Executive.



Dr Leigh Tait, Marine Ecologist at NIWA holding the Boxfish ROV.



Screengrab from footage collected November 2019 by NIWA (Antarctica NZ Event K750-F), using their Boxfish ROV.



A Boxfish ROV was a part of NIWA's scientific equipment on research vessel Tangaroa's trip to Antarctica in 2021.