

MARINE BIOSECURITY **PORTHOLE**: <https://marinebiosecurity.niwa.co.nz/rov-remote-operated-vehicle-for-marine-biosecurity-surveillance/>

Ministry for Primary Industries  
Manatū Ahu Matua



**NIWA**  
Taihoro Nukurangi

## ROV (remote operated vehicle) for marine biosecurity surveillance



Hazardous and murky conditions in our ports and marinas can make it challenging for divers to carry out important biosecurity inspections for introduced pest species.

NIWA scientists are pioneering the use of underwater remote operated vehicle (ROV) technology to improve surveillance checks and are working with the New Zealand tech company Boxfish to customise its equipment for the job.

NIWA is contracted by the Ministry for Primary Industries to check the country's high-risk locations (where there are high volumes of international vessel arrivals) for marine pest incursions. These locations typically have low visibility and, with the large numbers of craft movements and occasional presence of large predators such as leopard seals, sea lions and sharks, the waters can present dangers to divers.

The technology enables thorough checks for pests by reviewing footage beamed back from the ROV's cameras.

While the use of ROV's is generally becoming more common, NIWA is testing ways to optimise their use for biosecurity surveillance and compliance with video analysis backed up by good survey design, identification of specimens found and advice on appropriate responses to any detections.

Check out the ROV and its work here:

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View the NIWA article [here](#)