

**Situation Report: Aotea and Ahuahu Island exotic Caulerpa Delimitation (MPI Response Panel Contract)**

Co-ordinated by:	NIWA
Report Number	#008
Date and time	25 July 2023
Period covered	25 July 07:00-19:00
Summary of day's activities	<ul style="list-style-type: none"> <li>- 0700-0730 Breakfast at anchorage, toolbox meeting and clean anchor prior to transit to Okiwi to meet Jeff Cleave.</li> <li>- 0730-0845 Three fifteen-minute dive transects completed in The Cove at Arid Island (ARI161-ARI163; Figure 1, Table 1). <b>No exotic Caulerpa was detected.</b></li> <li>- 0900-1040 Transit from Arid Island to Port Fitzroy.</li> <li>- 1045-1315 Three fifteen-minute dive transect searches in the Port Fitzroy area adjacent to the exotic Caulerpa edges (FITZextra1-3; Figure 1, Table 1). <b>No exotic Caulerpa was detected.</b></li> <li>- 1330-1400 Disinfect entire vessel and all dive gear using Chlorine and detergent (Figure 2) prior to transit back up to Tutukaka to fuel up and anchor for the night. The dive team updated the project manager of the daily activities and sent the data through for SitRep. The two out of town divers will be dropped off at Tutukaka to fly home on Wednesday morning and the two Northland staff will stay on the vessel to transit to Whangaruru to demobilise equipment on Wednesday evening.</li> <li>- 1400-1730 transit from Port Fitzroy to Tutukaka</li> <li>- 1830-1900 Complete SitRep and collate data.</li> </ul>
Actions carried out	<ul style="list-style-type: none"> <li>• 6 dive transects around Port Fitzroy and Arid Island.</li> <li>• Vessel and gear disinfection and transit back to Northland.</li> <li>• Data collation, mapping, and SitRep.</li> </ul>
Plan for tomorrow	<ul style="list-style-type: none"> <li>• Disembark two out of town divers to travel back to Wellington and Nelson</li> <li>• Transit to Whangaruru and demobilise equipment</li> </ul>

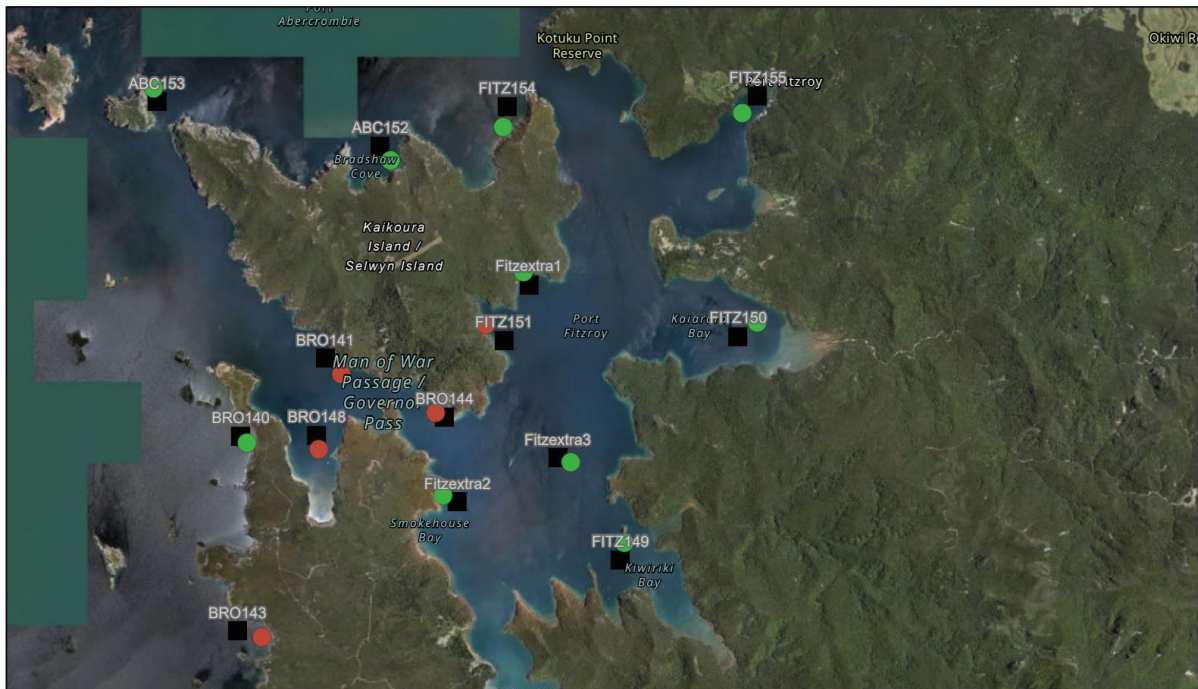
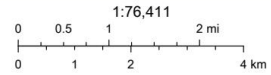
**Table 1:** Transect locations, substrate, depth and presence of exotic Caulerpa (in yellow) completed during the delimitation survey on 25 July 2023 by NIWA divers

Site ID (i.e. Dive01/Rov01)	Start Coordinates		End Coordinates		Depth category <sup>1</sup>	Water temp	Max depth	Transect width	Substrate <sup>2</sup>	Approx. Visibility (m)	Caulerpa (Y/N)
	Lat	Long	Lat	Long							
ARI161	175.49265	-36.11881561	175.4943118	-36.12014622	D	15	13.9	6	8-3	8	N
ARI162	175.4916261	-36.11829342	175.490979	-36.11911825	D	14	14.5	8	8-3	8	N
ARI163	175.4937996	-36.1205718	175.4919381	-36.11850946	D	15	14.7	8	3-8	8	N
Fitzextra1	175.3387185	-36.17903761	175.3382143	-36.17808145	D	14	17	8	3-5	8	N
Fitzextra2	175.3321931	-36.19654783	175.3307159	-36.19610442	D	14	16	4	3-5	5	N
Fitzextra3	175.3419992	-36.19288292	175.3432952	-36.19315445	D	14	19	2	8-9	6	N

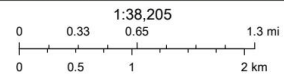
<sup>1</sup>Depth Category codes (NS <2m, S 2-5m, M, 5-10m, D >10m)  
<sup>2</sup>Substrate codes: 1- Sandy mud, 2- Muddy sand, 3- Sand, 4- Sandy gravel, 5- Shelly gravel, 6- Sand fowl, 7- Sand reef, 8- Reef, 9- Other (Please state), 10 - Mud can have multiple codes ADD COMMENTS



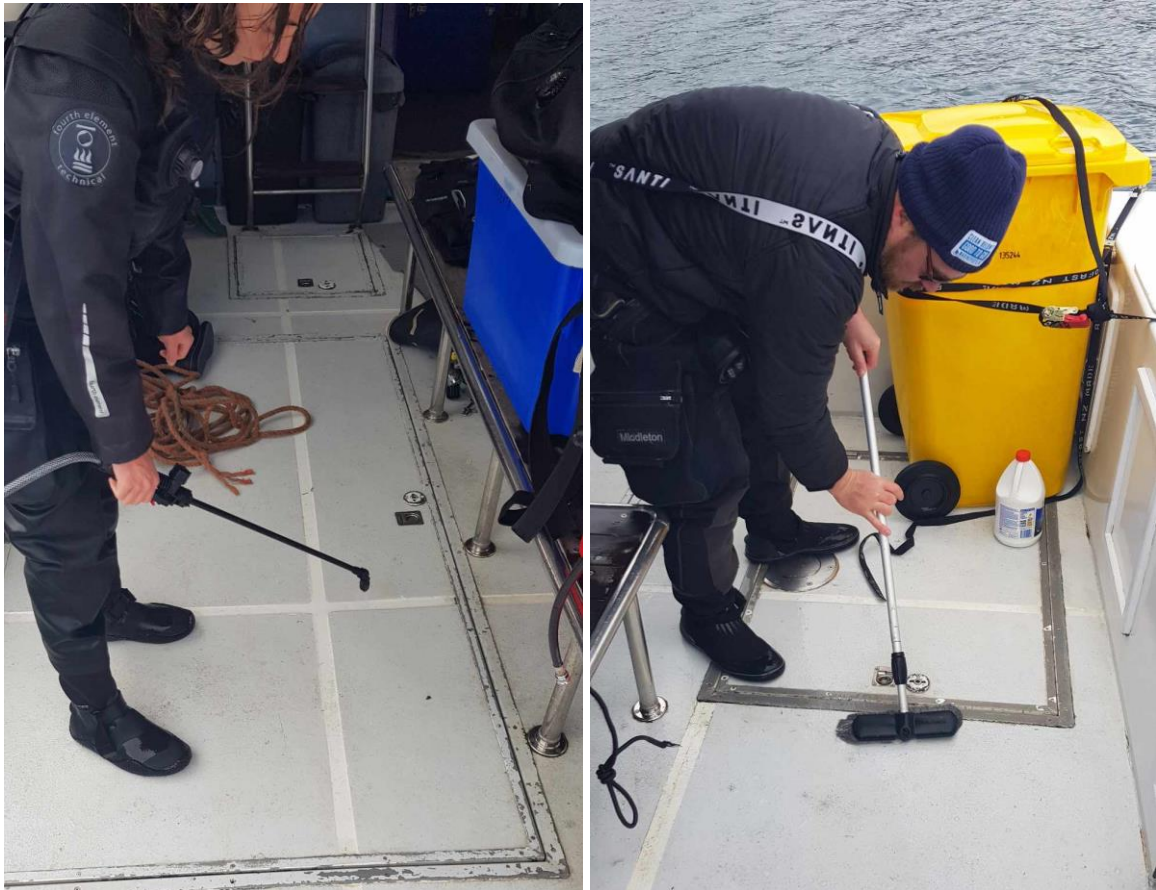
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**Figure 1:** Start points without exotic *Caulerpa* (green circles), start points with exotic *Caulerpa* (red circles), and end (black squares) points for the dive searches completed around Aotea/Great Barrier Island in July 2023. Arid Island and east coast sites in upper map and Port Fitzroy in lower map.



**Figure 2:** Chlorine spray and wash down of the vessel prior to leaving Aotea Island.