

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

Co-ordinated by:	NIWA
Report Number	#001
Date and time	11 July 2023
Period covered	17 July 1600 – 18 July 2000
Summary of day's activities	<ul style="list-style-type: none"> - 17 July 2023 1600- 1830 Mobilise from NIWA Bream Bay to Whangaruru to load equipment onto the Northland Dive Charter vessel Sunspy. Hull inspection was undertaken to ensure Sunspy was clear of any Unwanted Organisms prior to travelling south (Figure 1), the vessel hull was very clean, only a slime layer was present. The team stayed overnight on the vessel to ensure an early departure on the 18th of July. The team reviewed the safety plans and discussed the voyage plan for the next day with the skipper. Irene contacted Ngati Hei, Ngati Rehua and Ngati Manuhiri to make them aware of the work in their rohe. - 18 July 2023 0630-1400 Travel from Whangaruru to Opito Bay, it was decided to undertake this long leg of the trip today because of the favourable weather conditions. - 1430- 1645 Five fifteen-minute dive transect searches in the Opito Bay area (OPO110, OPO113, OPO114, OPO116 & OPO118). No exotic Caulerpa detected (Table 1, Figure 2). - 1645-1730 Anchor at Opito Bay for the night, debrief day and make a plan for diving tomorrow. The dive team updated Irene of the daily activities and sent the data through for SitRep - 1730 to 1900 Complete SitRep and Collate data.
Actions carried out	<ul style="list-style-type: none"> • Mobilisation to the charter vessel in Whangaruru • Vessel hull inspection • Transit from Whangaruru to Opito Bay area • 5 dives around the Opito Bay area • Data collation, mapping and SitRep.
Plan for tomorrow	<ul style="list-style-type: none"> • Complete 5 fifteen-minute dive searches in the Opito Bay areas and 10 fifteen-minute dive searches in the Whitianga area. • Transit to Ahuahu/Great Mercury Island.

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

Site ID (i.e. Dive01/Rov 01)	Start Coordinates		End Coordinates		Depth category ¹	Water temp	Max depth	Transect width	Substrate ²	Approx. Visibility (m)	Caulerpa (Y/N)
	Lat	Long	Lat	Long							
OPO110	175.811853	-36.7199587	175.813467	-36.7206093	S	14	5.8	6	3-5	8	N
OPO113	175.815941	-36.7150023	175.816667	-36.7124814	M	15	9.6	8	5-7(Algae bed)	8	N
OPO114	175.811853	-36.7127578	175.812551	-36.7148948	D	15	11.9	8	3-5(Scallops)	10	N
OPO116	175.815123	-36.7106013	175.813989	-36.7120886	D	15	15.3	6	3-5	8	N
OPO118	175.808948	-36.7160156	175.809166	-36.7181166	D	14	11.1	8	3-5	8	N

1Depth Category codes (NS <2m, S 2-5m, M, 5-10m, D >10m)
2Substrate 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

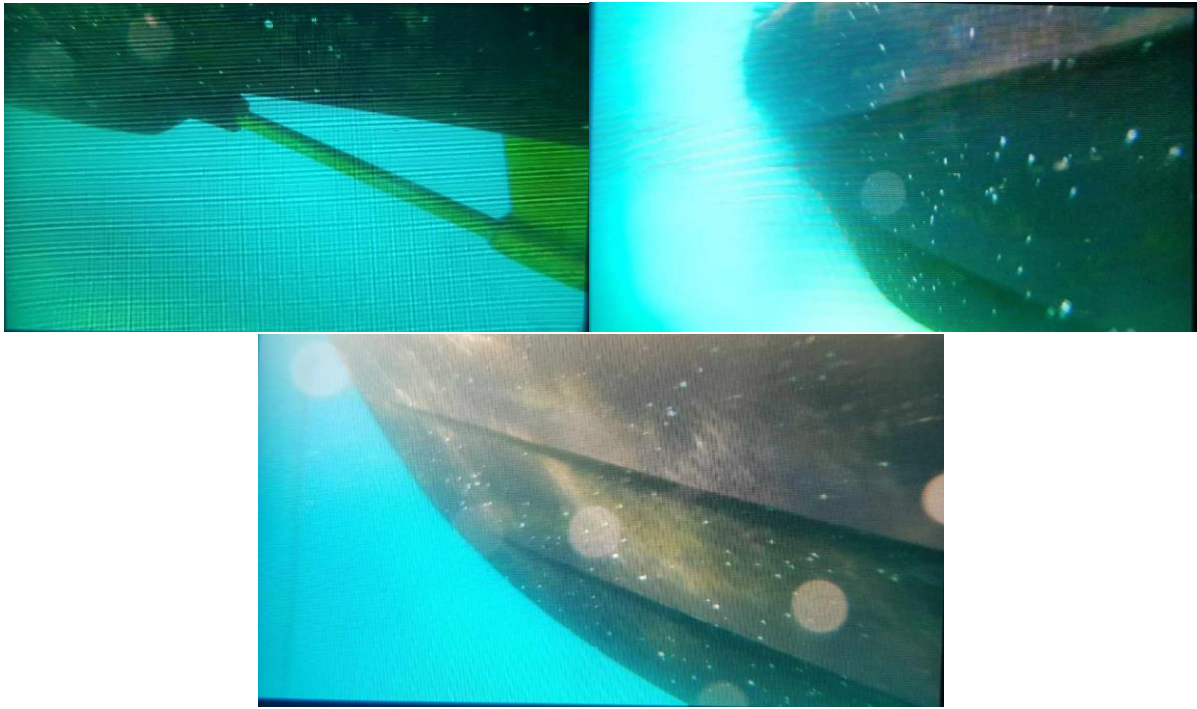
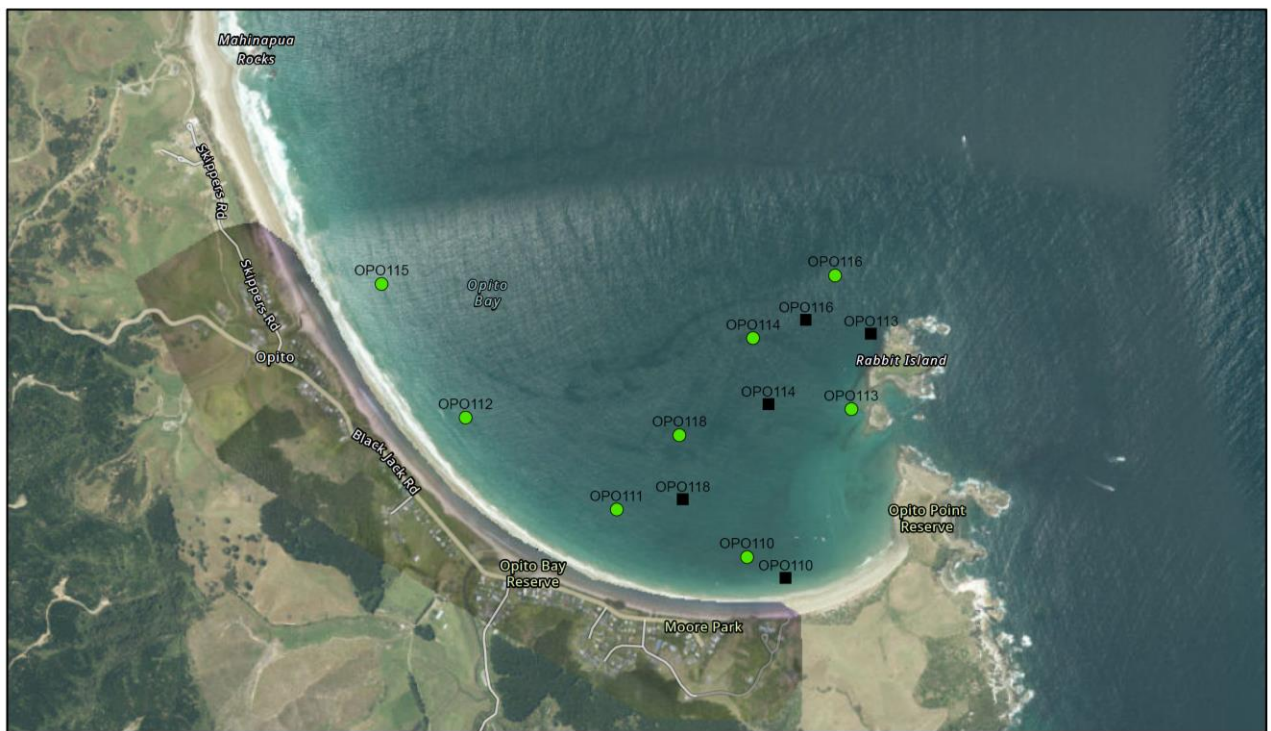


Figure 1: Clockwise from top left: propshaft, inner and outer hull of Sunspy from the hull inspection. Note the hull is extremely clean with only slimelayer present.



18/07/2023

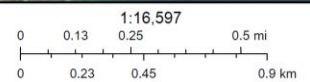


Figure 2: Start (Green circles) and end (black squares) points for the dive searches completed in Opito Bay on 18 July 2023. Note that the start points are pre allocated and sites OPO112, OPO115 and OPO111 still need to be surveyed.