

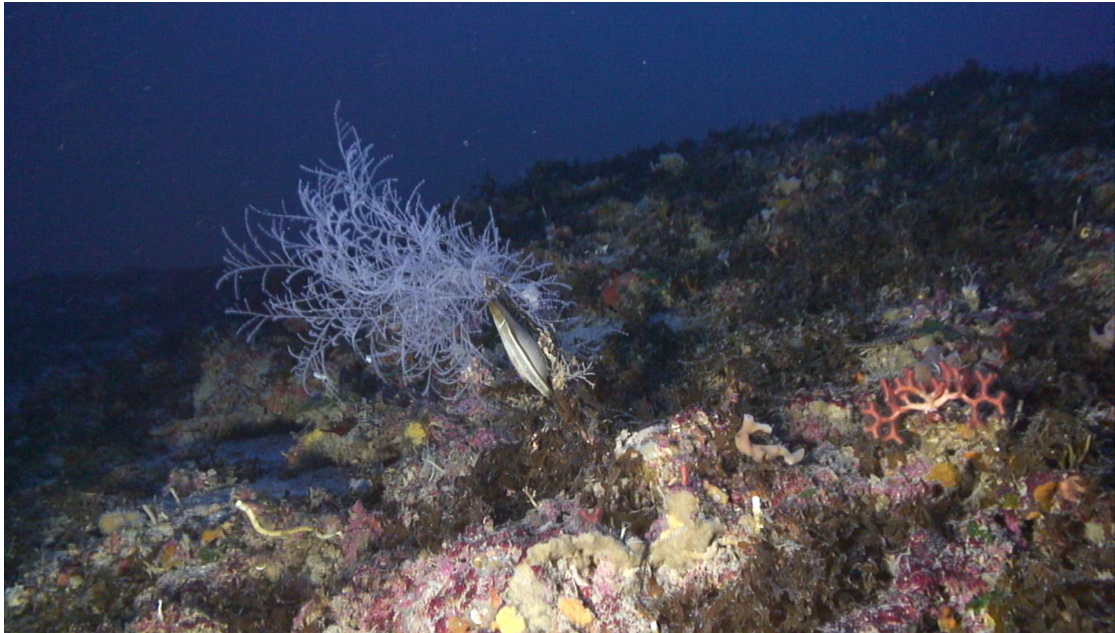
Cruise Report

RV Hercules

Valletta-Valletta, 01.07.2018

MARCAN Project – ROV survey

Aaron Micallef



Εθνική Μετεωρολογική και Ωκεανογραφική Υπηρεσία
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Contents

1. PARTICIPANTS.....	3
2. OBJECTIVES	3
3. METHODS.....	3
4. CRUISE DIARY	5
5. ACKNOWLEDGEMENTS	5

1. Participants

Name	Role	Institution
Prof. Aaron Micallef	Chief Scientist	University of Malta, GEOMAR
Mr Fiorenzo Pascale	Scientist	University of Malta

2. Objectives

- To identify and sample bedrock outcrops along an escarpment to the NE of Malta;
- To identify weathering landforms across the escarpment and box canyons.

3. Methods

A Seaeye Panther Plus Remotely Operated Vehicle was deployed from the RV Hercules on the 1st July 2018. Continuous video footage was recorded along 4 transects (Figure 1; Table 1). The manipulator arm on the Remotely Operated Vehicle was used to collect four bedrock samples from the seafloor (Figure 1; Table 2).

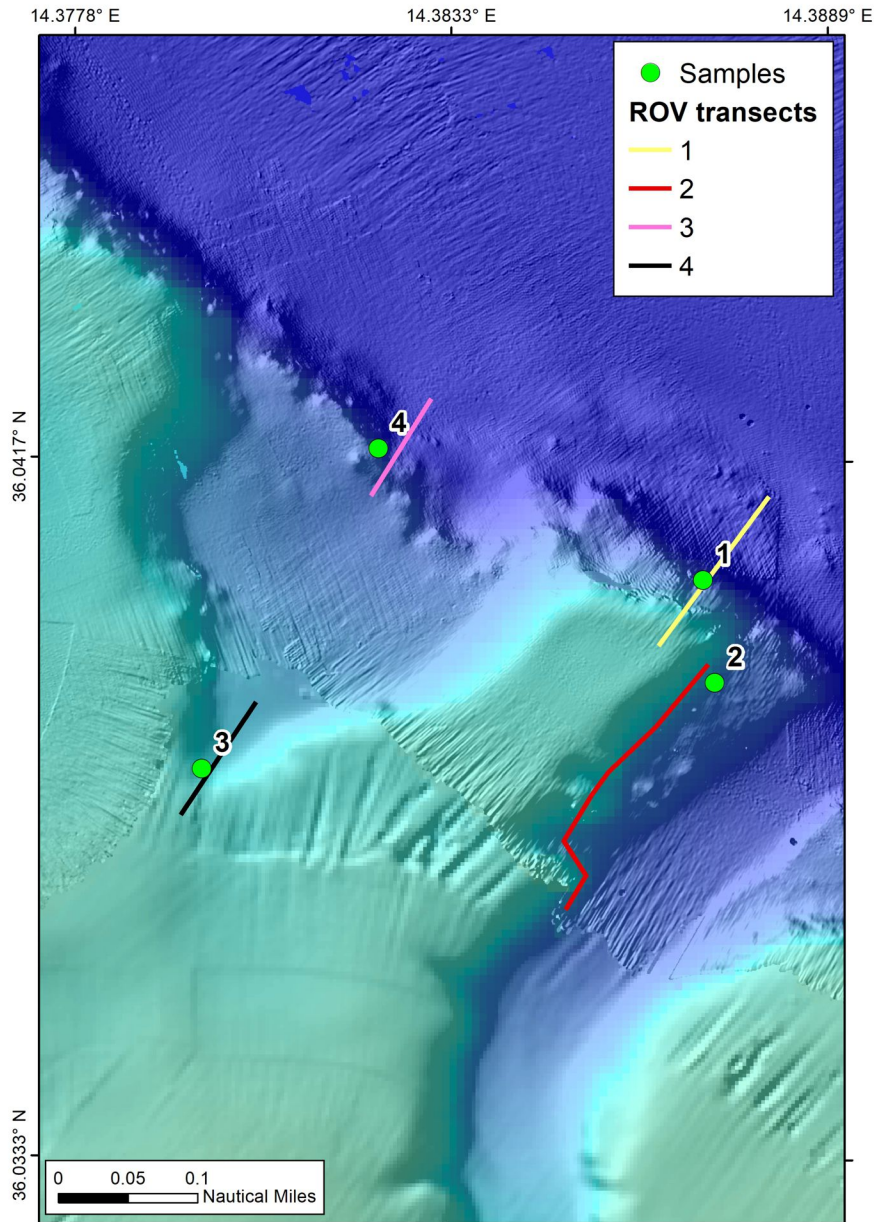


Figure 1: Location of ROV transects and samples.

Table 1 ROV transects

Transect	Start point			End point		
	Latitude (°N)	Longitude (°e)	Depth (m)	Latitude (N)	Longitude (E)	Depth (m)
ROV1	36.041242	14.388081	140	36.039453	14.386470	75
ROV2	36.036289	14.385120	93	36.039237	14.387206	83
ROV3	36.042388	14.383087	132	36.041219	14.382204	102
ROV4	36.038761	14.380537	87	36.037402	14.379420	76

Table 2 ROV samples

Time	Depth (m)	Longitude (°E)	Latitude (°N)	Sample
12:50:00	99	14.387117	36.040244	1
13:36:00	93	14.387300	36.039017	2
16:19:00	77	14.379732	36.037958	3
17:24:00	110	14.382311	36.041789	4

4. Cruise diary

Table 3: Cruise diary (time in CEST)

Start time	End time	Duration	Task
08:00:00	09:15:00	01:15:00	Transit from Manoel Island to site ROV1
09:15:00	09:40:00	00:25:00	ROV deployment
09:40:00	10:15:00	00:35:00	ROV in water; issue with with TMS and rear camera, bailer
10:15:00	10:33:00	00:18:00	ROV on deck
10:33:00	10:50:00	00:17:00	ROV in water; issue with bailer
10:50:00	11:52:00	01:02:00	ROV on deck
11:52:00	12:21:00	00:29:00	ROV in water, waiting for bailer to operate regularly
12:21:00	13:03:00	00:42:00	ROV on bottom; survey ROV1
13:03:00	13:15:00	00:12:00	Transit to ROV2
13:15:00	13:49:00	00:34:00	survey ROV2
13:49:00	15:05:00	01:16:00	Transit to ROV4; ROV on deck, issue with TMS/bailer
15:05:00	15:25:00	00:20:00	ROV in water; issue with bailer
15:25:00	15:50:00	00:25:00	ROV on deck
15:50:00	16:27:00	00:37:00	ROV in water; survey ROV4
16:27:00	17:24:00	00:57:00	Transit to ROV3; problem with TMS camera
17:24:00	18:00:00	00:36:00	survey ROV3
18:00:00	19:30:00	01:30:00	ROV retrieval; transit to Manoel Island

5. Acknowledgements

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