



## Seasearch Survey of Guernsey



July 2017

A report to La Société Guernesiaise and the States of Guernsey

by  
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LA  
SOCIÉTÉ  
GUERNESIAISE

## Seasearch

Seasearch is a volunteer underwater survey project for recreational divers to record observations of marine habitats and the life they support. The information gathered is used to increase our knowledge of the marine environment and contribute towards its conservation. Seasearch is co-ordinated by the Marine Conservation Society on behalf of the Seasearch Supporters which comprise the Marine Conservation Society, Wildlife Trusts, Joint Nature Conservation Committee, Natural England, Natural Resources Wales, Scottish Natural Heritage, Department of the Environment Northern Ireland, Environment Agency, Marine Biological Association, British Sub Aqua Club, Sub Aqua Association, Professional Association of Diving Instructors, Scottish Sub Aqua Club and Irish Underwater Council. Seasearch is supported financially by the Marine Conservation Society in the main and some others of the organisations listed above. Volunteer divers can participate in training courses and this report describes one of many surveys organized during the diving season. For more information visit [www.seasearch.org.uk](http://www.seasearch.org.uk)

The objectives of the Seasearch programme are:

- To gather information on seabed habitats and associated marine wildlife in Britain and Ireland through the participation of volunteer recreational divers.
- To encourage the participation of volunteer recreational divers in marine conservation through gathering data, particularly for areas where little data exists or where there is a conservation need,
- To provide training in recording skills to enable volunteer recreational divers to participate in Seasearch,
- To make quality assured Seasearch data available to partner organisations and the general public,
- To raise public awareness of the diversity of marine life and habitats in Britain and Ireland through the dissemination of information gathered and the identification of issues arising from it.

## Marine Conservation Society

The Marine Conservation Society (MCS) is the UK Charity dedicated to the protection of the marine environment and its wildlife. Since its formation in 1983, MCS has become a recognized authority on marine and coastal conservation and produces the annual *Good Beach Guide*, as well as promoting public participation in volunteer projects and surveys such as *Adopt-a-Beach*, *Seasearch* and *Basking Shark Watch*.

Marine Conservation Society, Overross House, Ross Park, Ross-on-Wye, HR9 7US. Tel: 01989 566017, Website [www.mcsuk.org](http://www.mcsuk.org)



## Table of Contents

Synopsis		4
1	Introduction	4
2	Site Descriptions	7
	2.1 Platte Fougere Lighthouse	7
	2.2 Forein Pinnacle	8
	2.3 East of Parfonde, south of Jethou	9
	2.4 Piette (North)	10
	2.5 Piette	11
	2.5 Gabrielle Rock	13
	2.5 Marble Bay Eelgrass	15
3	Discussion	16
	3.1 Priority species	16
	3.2 Non-native species	19
	3.2 Range of habitats and biotopes	19
	3.3 Diversity of species	19
	Appendix 1 Species List	21
	Appendix 2 JNCC sublittoral biotopes identified	28
	Acknowledgements	29

Cover photo: Jethou and Guernsey from Herm by Charlotte Bolton

Below: Male cuckoo wrasse (*Labrus mixtus*) by Dawn Watson



## Synopsis

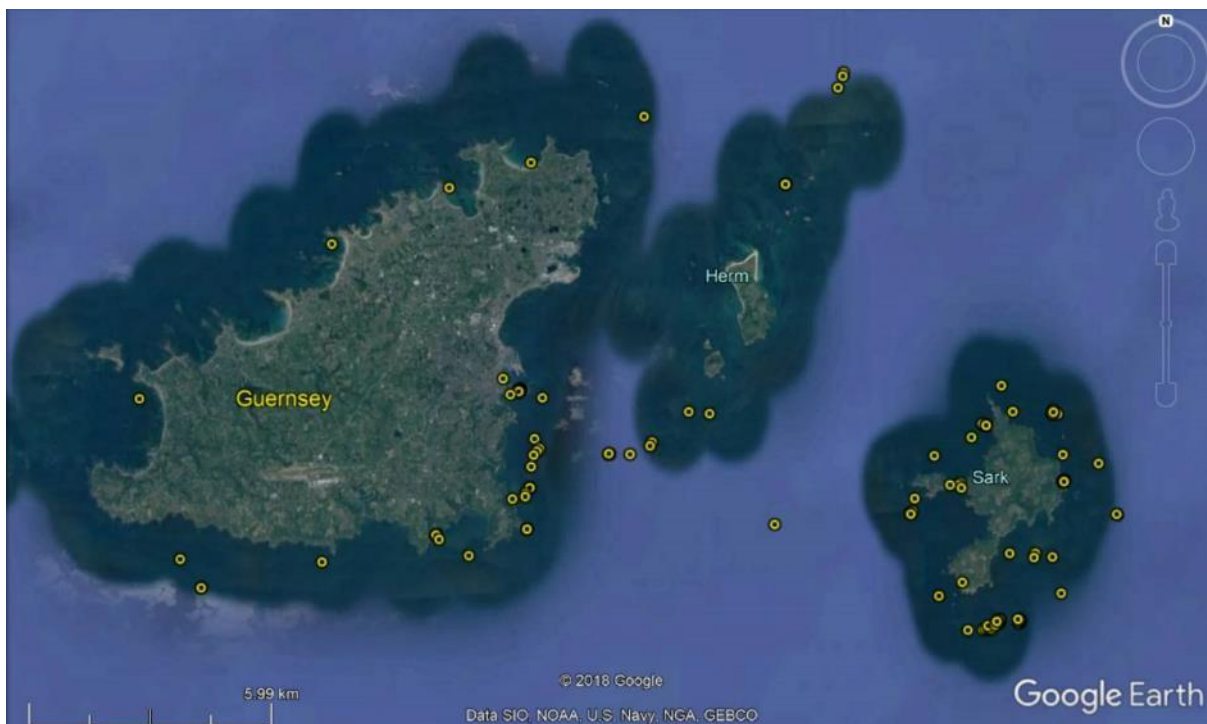
This report presents the results of a survey of sublittoral marine habitats and species carried out in Guernsey in July 2017. The surveys used the Seasearch methodology and were carried out by three volunteer divers from Dorset and Suffolk (two experienced Surveyors and one Observer).

Adverse weather conditions generally restricted survey activity to the south-east coast, though dives were carried out south of Jethou and at the exposed Platte Fougere Lighthouse at the northern end of the Little Russel (north-east of the Guernsey mainland).

At each site records were made of the habitats and species present, using the standard Seasearch survey form, which enabled the assignment of biotopes; these data are described on a site by site basis in the report. Additional records of crawfish (spiny lobster, *Palinurus elephas*) were made on that specific recording form where appropriate.

## 1. Introduction

Seasearch surveys have been carried out around the main island of Guernsey since 2008, by local and visiting divers. The large tidal range and strong tidal streams make diving around the island challenging and local knowledge of the sites and conditions is invaluable. The conditions are particularly tricky on the west coast, as evidenced by the very small number of Seasearch dives carried out in this area. Shore diving necessarily explores the intertidal habitat unless very long swims are undertaken, and there are few commercial dive charter boats available. As a result, Guernsey is somewhat deficient in terms of marine data, especially that in the public domain (all Seasearch data is freely available to download from the National Biodiversity Network under a CC-BY, Creative Commons attribution licence<sup>1</sup>).



**Figure 1:** Seasearch dives in Guernsey (excluding Alderney) 2008-2017

Most diving on this trip was carried out from the Blue Dolphins Sub Aqua Club RIB, with one day on Andy Linehan's Rodman 800. The diving took place over a 3-day period between 29<sup>th</sup> and 31<sup>st</sup> July, chosen for the neap tides. Unfortunately, adverse weather conditions (strong winds from the prevailing south-westerly direction) restricted survey activities until the final day when we were able to dive south of Jethou and at the exposed Platte Fougere Lighthouse.

<sup>1</sup> <https://creativecommons.org/licenses/by/4.0/>  
Seasearch Survey of Guernsey, July 2017



Seven survey forms were completed from the 7 sites shown in the map below, with crawfish forms additionally being completed for Platte Fougere Lighthouse, East of Parfonde and Piette (North). Photographs were taken at all sites.

Date	Site Name	Event reference (see map)
29/07/2017	Gabrielle Rock	NT17/129
29/07/2017	Piette	NT17/130
30/07/2017	Marble Bay Eelgrass	NT17/131
30/07/2017	Forein Pinnacle	NT17/132
31/07/2017	East of Parfonde	NT17/133
31/07/2017	Piette (North)	NT17/134
31/07/2017	Platte Fougere Lighthouse	NT17/161

The data on the recording forms have been entered into the Marine Recorder database by the former National Coordinator, Chris Wood, and subsequently have been made available to the Guernsey Biological Records Centre, La Société Guernesiaise and the States of Guernsey Biodiversity Section in the form of a Marine Recorder snapshot.



**Figure 2:** Sites surveyed in 2017



**Figure 3:** Two of the dive team with members of the Blue Dolphins Sub Aqua Club



**Figure 4:** Seasearch base camp at Vaugrat campsite, St Sampsons, Guernsey

## 2. Site Descriptions

The 2017 sites are described below in order from north to south.

### Site 1 Platte Fougere Lighthouse, 49° 30.829N 002° 29.138W

Surveyed 31/07/2017 by Dawn Watson and David Sellers. One Survey Form and 1 crawfish form completed.

#### Physical Environment

A high-energy site, tide-swept reef with deep gullies, surrounded by fine sand with little mobile animal life.

#### Habitat/Community Types

The top and upward-facing surfaces of the reef area (5-10m bcd) was covered in kelp forest (mainly *Laminaria hyperborea* with *Laminaria digitata*) with an understory of red algae (on the rock and the kelp stipes). There was noticeably more animal turf (bryozoans and hydroids) on the gully walls than at the more sheltered sites. Very little mobile animal life on the sand, apart from some red algae and *Saccharina latissima* (sugar kelp) attached to pebbles, and a large shoal of sand eels.

#### Observations/Features of Interest

One crawfish (spiny lobster/crayfish, *Palinurus elephas*) was recorded at this site, in a horizontal crevice within the vertical reef walls.

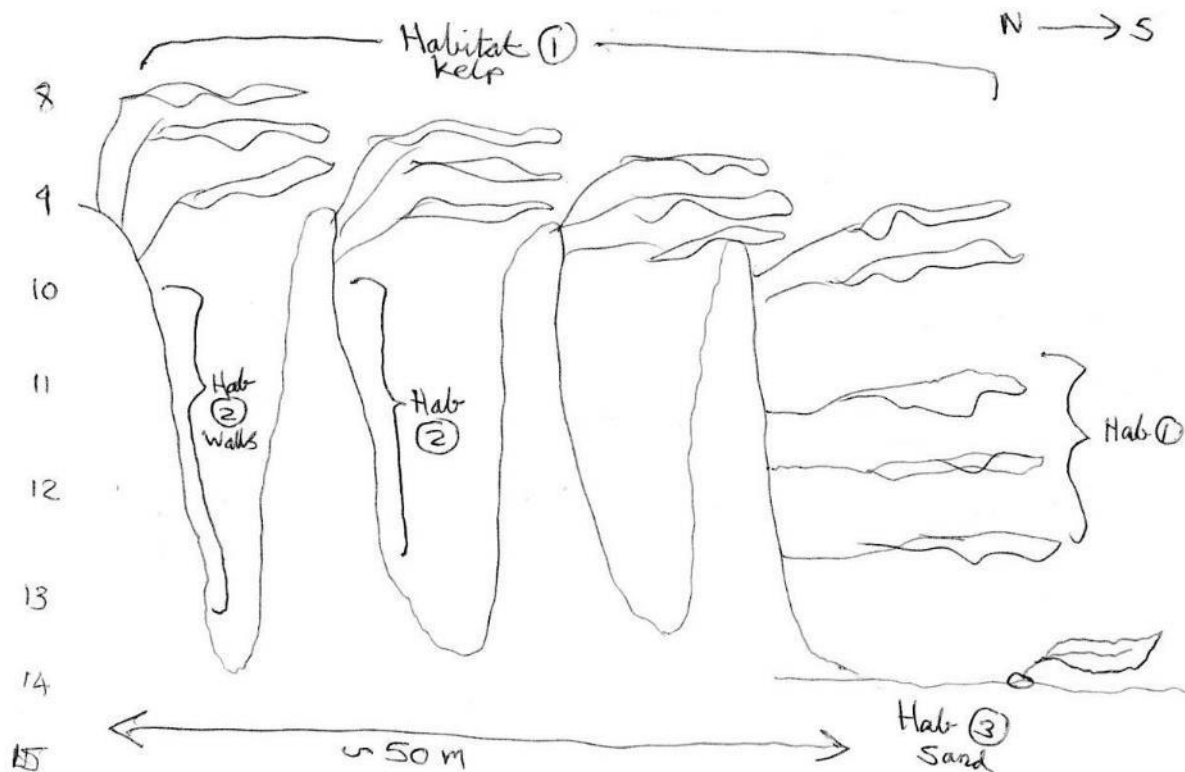


Figure 5: Profile of Platte Fougere Lighthouse reef (DW)





**Figure 6:** Large shoal of sandeels (*Ammodytes* sp.) at Platte Fougere

**Site 2 Forein Pinnacle, 49° 27.095N 002° 31.236W**

Surveyed 30/07/2017 by Charlotte Bolton, David Sellers and Dawn Watson. 1 Survey Form completed.

**Physical Environment**

A dramatic pinnacle located just outside the entrance to St Peter Port harbour, surveyed from the top at ca. 10m bcd to ca. 20m bcd but dropping away to much greater depth. Very rugged with many overhangs, gullies and fissures.



**Figure 7:** Forein Pinnacle is located just south-of the entrance to St Peter Port harbour, with very heavy commercial and recreational traffic in the vicinity.

**Habitat/Community Types**

Kelp park and mixed algae on the upper surfaces (with a very large flat fish, *Scophthalmus rhombus*, brill), becoming animal turf of soft corals (red fingers, *Alcyonium glomeratum*), bryozoans, sponges, ascidians and pink seafans (*Eunicella verrucosa*) on the deeper vertical surfaces.

**Observations/Features of Interest**

Seafans were again in poor condition – many heavily fouled and others merely sickly-looking. Five crawfish (*P. elephas*) recorded, all in crevices in the reef walls. *Dromia personata* (the sponge crab or sleepy crab) was a new species to these recorders, there being few records from the UK mainland outside Wales, North Devon and Sussex/Isle of Wight. There was a lot of litter/jetsam at this site, it apparently being a popular site for dumping rubbish, including a gas cylinder, lots of lost angling tackle and a lost lobster pot.



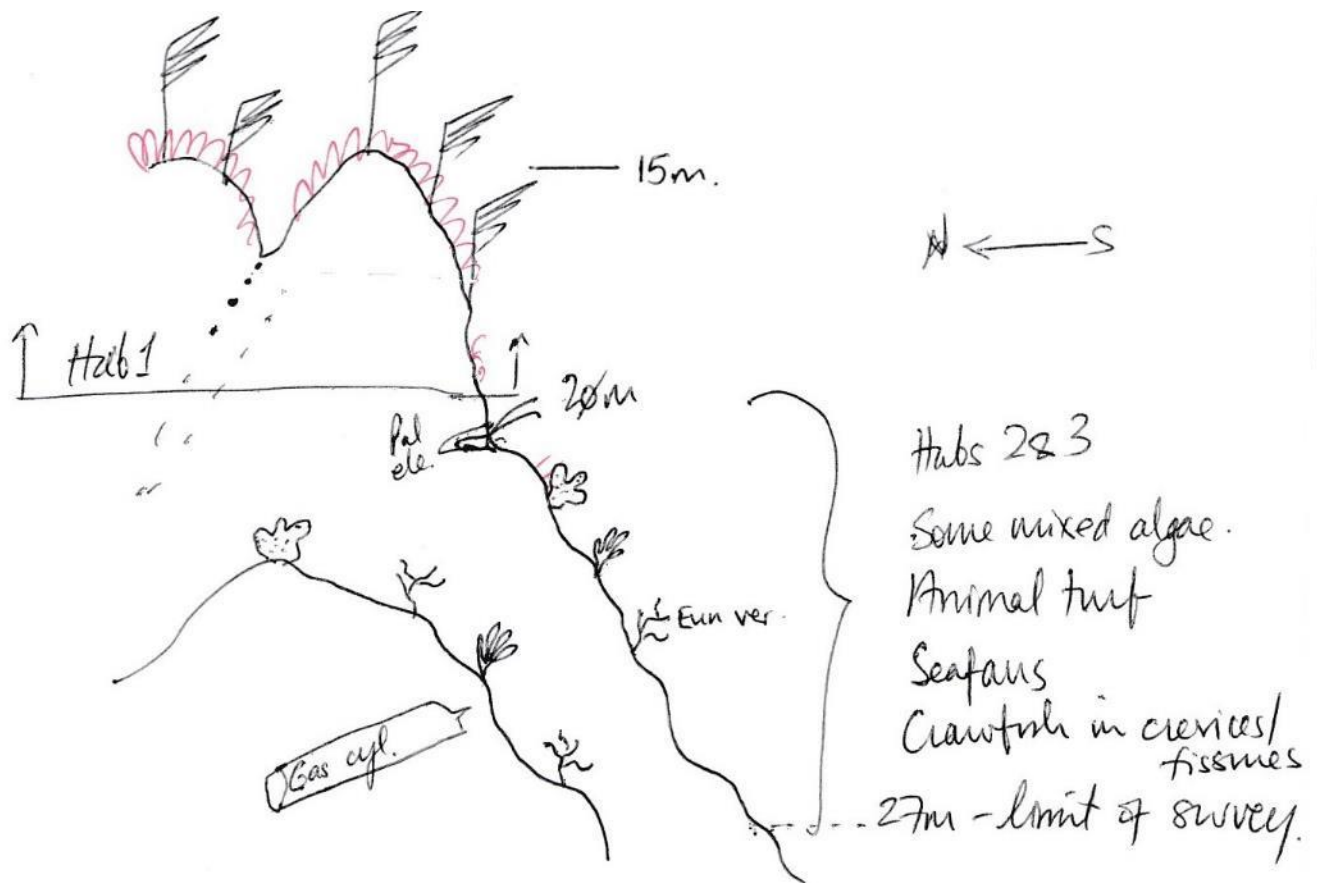


Figure 8: Profile of Forein Pinnacle (CB)



Figure 9: *Dromia personata*, the sleepy crab

**Site 3 East of Parfonde (South of Jethou), 49° 26.876N 002° 27.822W**

Surveyed 31/07/2017 by Charlotte Bolton, David Sellers and Dawn Watson. One Survey Form and one crawfish form completed.

**Physical Environment**

Scattered large boulders well-spaced on a seabed of silty coarse gravel and pebbles at ca. 10m bcd which deepened to the west as the boulders became more closely packed and rugged, forming caves. A west-facing vertical rock wall dropped from ca. 16m bcd to beyond 25m bcd (surveyed to 21m bcd).

**Habitat/Community Types**

The usual southern species including the sandy un-named colonial ascidian were recorded. The dive was more interesting for its topography than the marine life.



### Observations/Features of Interest

Several of the seafans were observed to be in an unhealthy condition, some with litter entangled in the branches and others with an almost total covering of hydroids and bryozoans (presumably with little or no coenenchyme tissue beneath). Other divers further south from this survey site reported crawfish in reef/boulder habitat at 17.5-21.5m bcd. Large shoal of large sandeels (*Ammodytes* sp.) at the safety stop. Potting on site.



**Figure 10:** Tassel weed (*Carpomitra costata*), boulder caves with jewel anemones (*Corynactis viridis*), a seafan (*Eunicella verrucosa*) in poor/fouled condition and a (ghost?) pot at Parfonde

### Site 4: Piette (North), 49° 26.385'N 002° 31.355'W

Surveyed 31/07/2017 by David Sellers and Dawn Watson. One Survey Form and 1 crawfish form completed.

### Physical Environment

This site comprised a large reef pinnacle from 10m bcd down to beyond 30m bcd (surveyed to 23m bcd). The pinnacle walls were very rugged with many overhangs and fissures; muddy sediment was collecting on shelves and in the fissures.

### Habitat/Community Types

The 'usual' kelp forest on the upper surfaces, with animal turf and small red algae on the verticals.

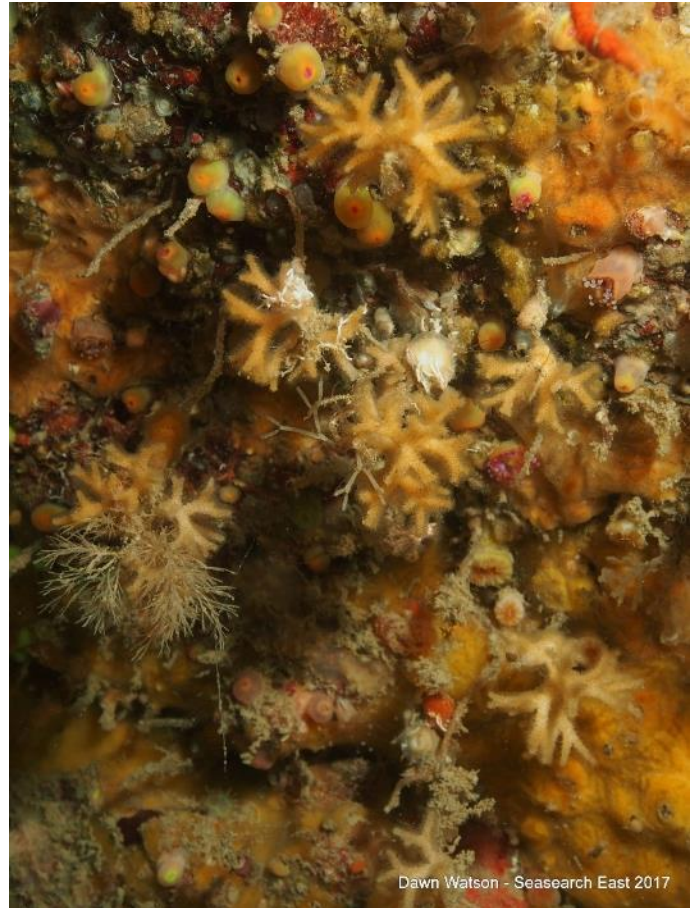
### Observations/Features of Interest

Several crawfish (*P. elephas*) were recorded on this dive, and several pink sea fans (*Eunicella verrucosa*), plus one cuttlefish (*Sepia officinalis*). No litter was recorded on this dive but there is potting in the vicinity. Overall this site seemed to be lower in biodiversity than the others but this may be a reflection of surveyor effort.





**Figure 11:** The classic combination of yellow cluster anemone (*Parazoanthus axinellae*) with an axinellid sponge, here the crumpled duster sponge *Axinella damicornis*.



**Figure 12:** Dense animal turf of bryozoans (mostly monkey-puzzle bryozoan, *Omalesecosa ramulosa*) with jewel anemones (*Corynactis viridis*) and encrusting sponges.

**Site 5: Piette, 49° 26.334'N 002° 31.420'W**

Surveyed 29/07/2017 by Charlotte Bolton, David Sellers and Dawn Watson. 1 Survey Form completed.

**Physical Environment**

Bedrock reef formed into short gullies and outcrops emerging from silty shell gravel/sand seabed.

**Habitat/Community Types**

Upper surfaces of reef with *Laminaria hyperborea* park and mixed algae. Many overhangs in reef walls, which supported a dense turf of sponges and ascidians. Mostly mobile life on the sediment.

**Observations/Features of Interest**

The un-named sandy colonial ascidian was a dominant component of the animal turf at this site (abundance Frequent), as was the monkey-puzzle bryozoan *Omalesecosa ramulosa*. Several cuttlefish (*Sepia officinalis*) were recorded in the large gully in the north of the survey area.

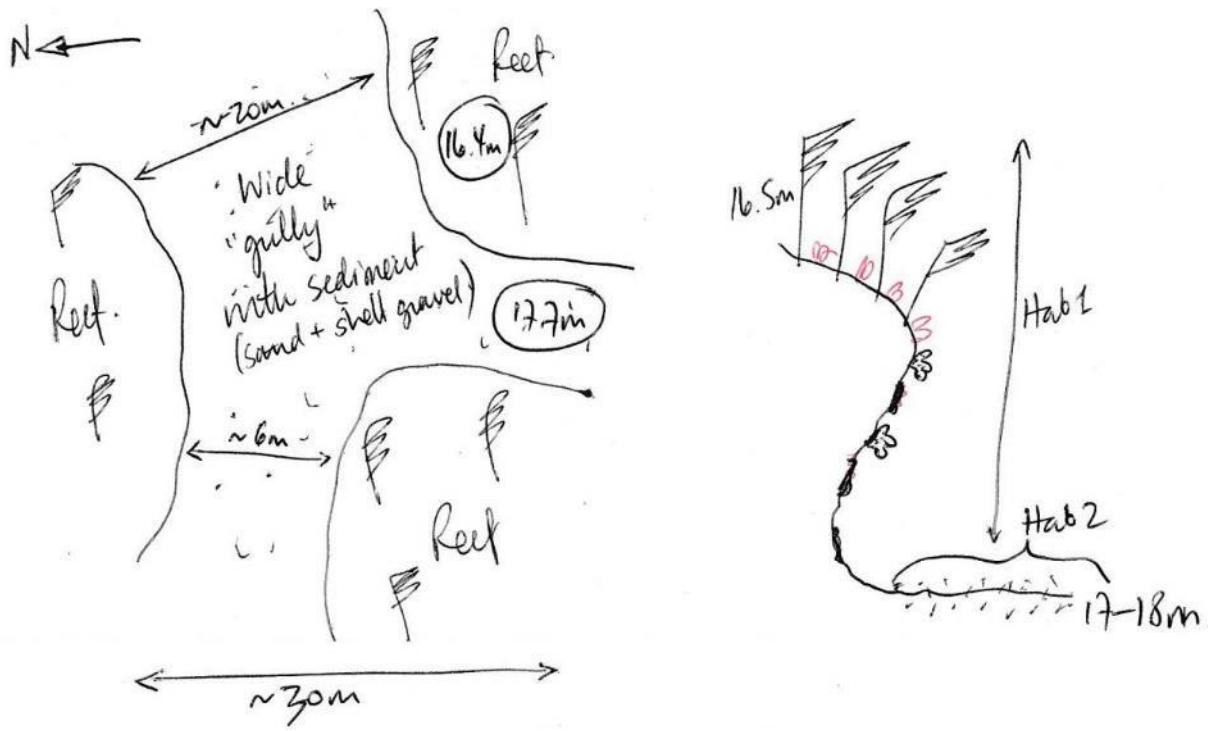


Figure 13: Plan and profile at Piette (CB)



Figure 14: The un-named sandy polyclinid ascidian



Figure 15: Monkey-puzzle bryozoan, *Omalesecosa ramulosa*





Dawn Watson - Seasearch East 2017

**Figure 16:** One of the several large cuttlefish (*Sepia officinalis*) sighted in the gully at Piette

**Site 6: Gabrielle Rock, 49° 25.783'N 002° 31.595'W**

Surveyed 29/07/2017 by Charlotte Bolton, David Sellers and Dawn Watson. 1 Survey Form completed.

**Physical Environment**

Reef outcrops running approximately north-south, intervening gullies (at 13-14.5m bcd) filled with coarse shell gravel (some live maerl, <1% cover) and occasional boulders.

**Habitat/Community Types**

The top of the reef supported a relatively sparse kelp park with mixed red algae understory becoming dense animal turf of twiggy bryozoans, sponges and ascidians on the reef walls.

**Observations/Features of Interest**

One single juvenile crawfish (*P. elephas*) was recorded on this dive, in a crevice approximately half-way up the reef wall on the western side of the gully (see below). An un-named sandy colonial ascidian formed an Occasional constituent of this animal turf. This is a popular dive site and some litter was seen on the dive (piece of disintegrating metal, 4 glass bottles).

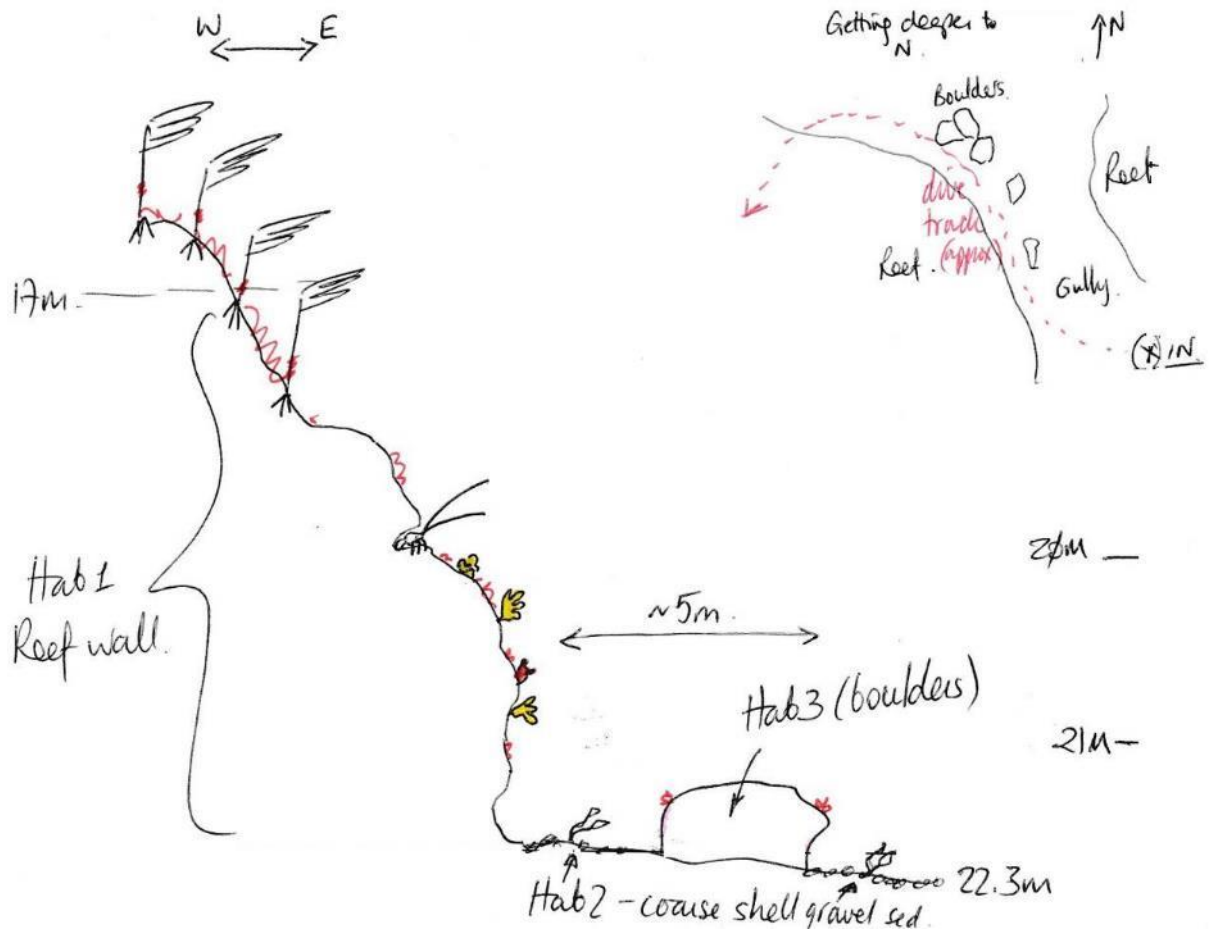


Figure 17: Plan and profile of the dive at Gabrielle Rock (CB)





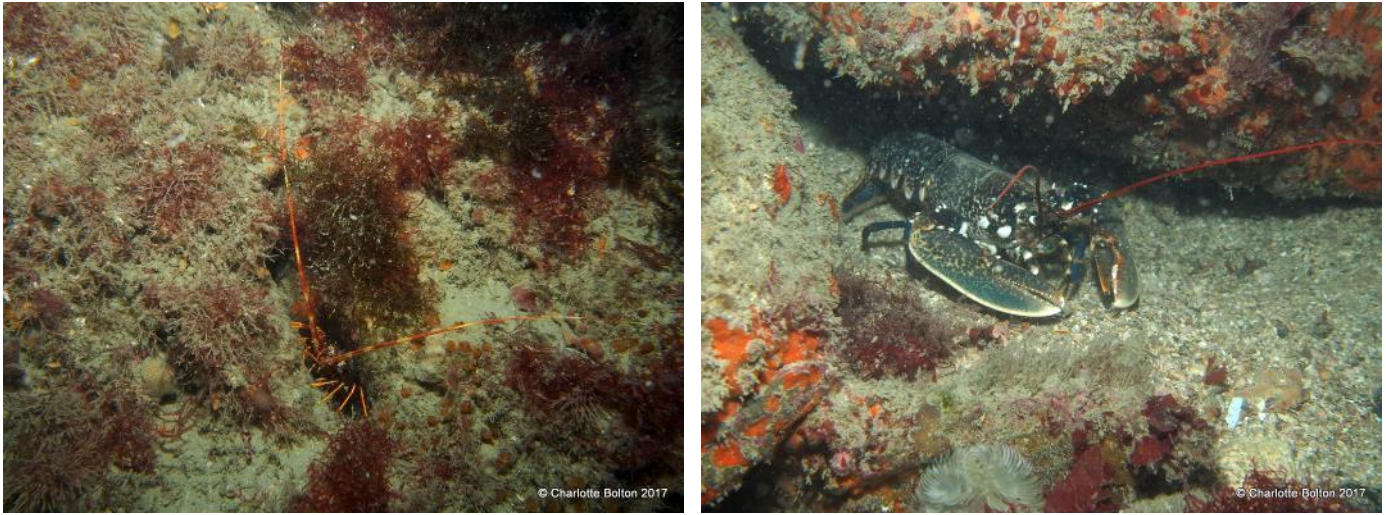


Figure 18: Classic Channel Islands ‘yellow reef’ view, juvenile seafan and charismatic crustaceans at Gabrielle Rock

**Site 7: Marble Bay Eelgrass, 49° 25.752’N 002° 31.856’W**

Surveyed 30/07/2017 by Charlotte Bolton, David Sellers and Dawn Watson. 1 Survey Form completed.

**Physical Environment**

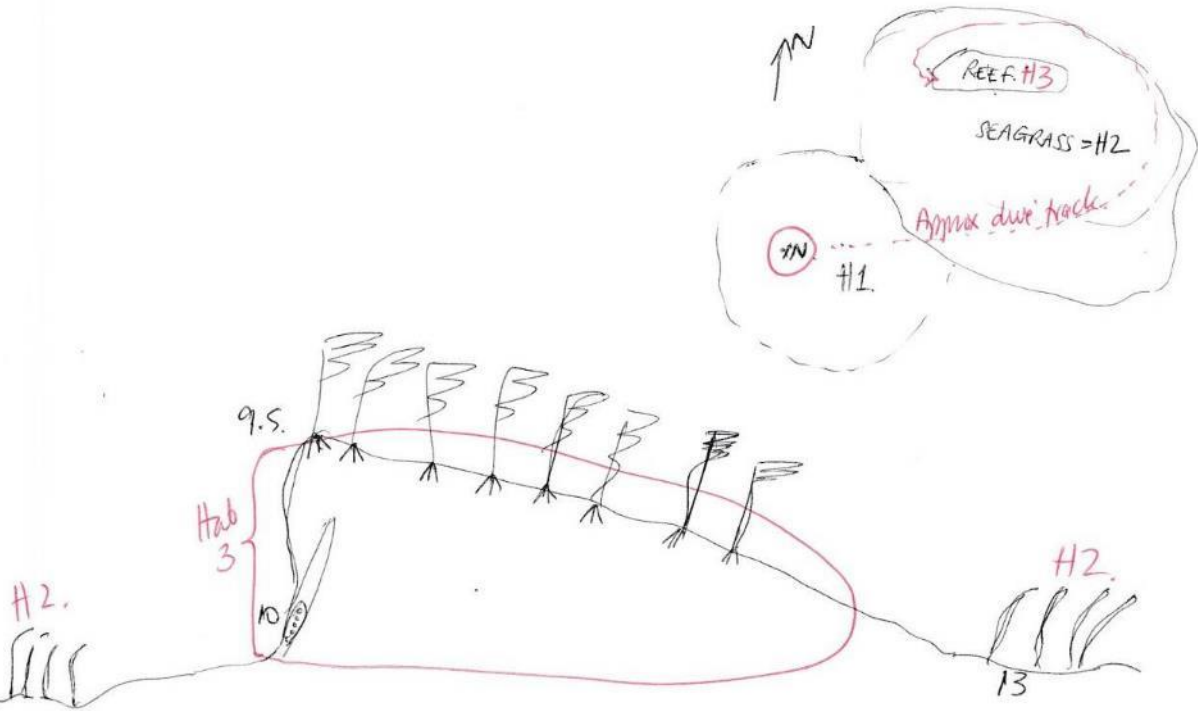
The dive started well inshore to keep out of the tidal current and wind, on a firm sandy seabed at 2.5-6.5m bcd. To the east, the seabed became more gravelly around an extensive seagrass bed (fairly dense cover, blades up to 1m long) which surrounded a small reef outcrop.

**Habitat/Community Types**

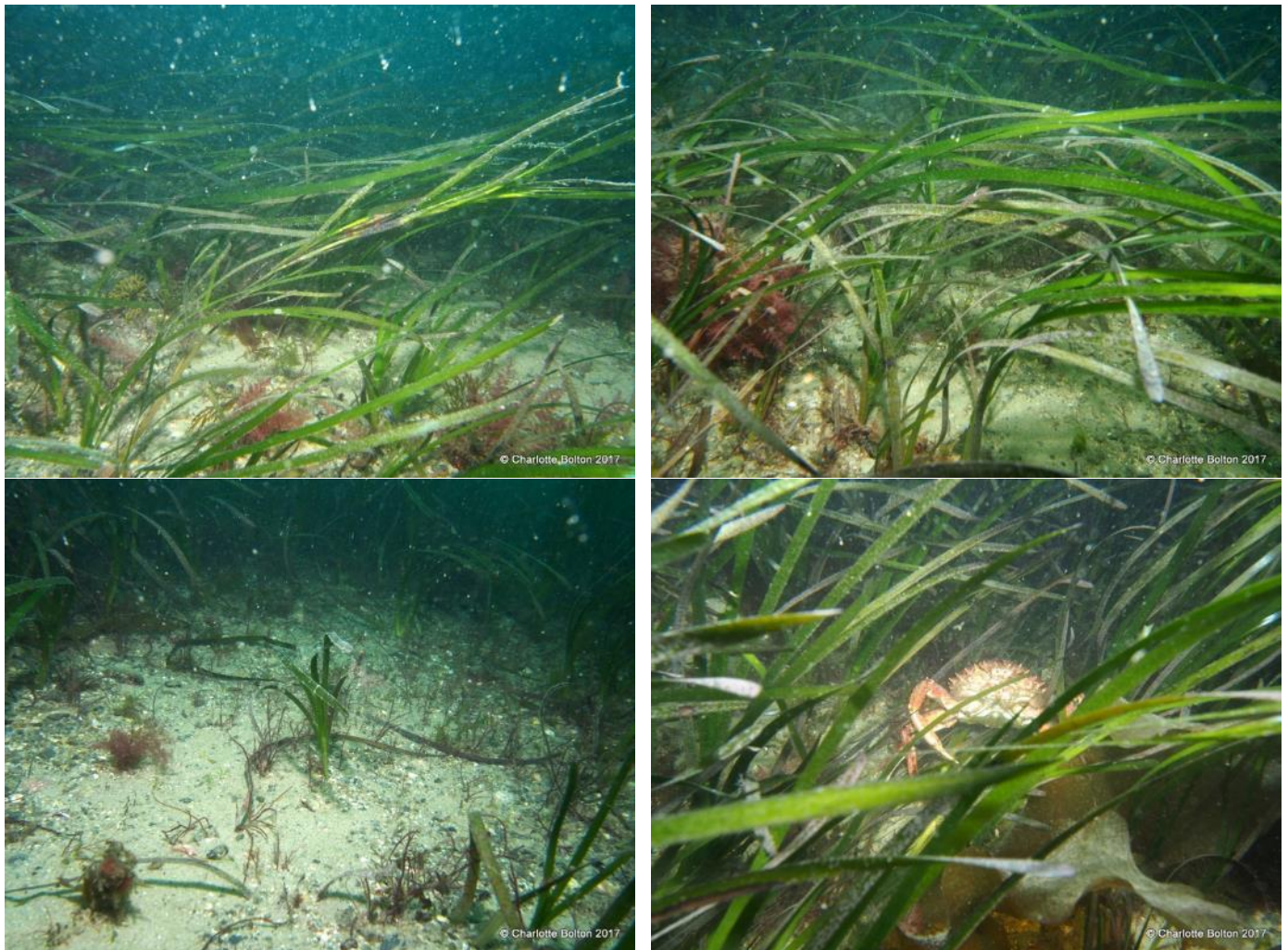
Little life in the fine sand at the sublittoral fringe, other than extensive bioturbation from unseen infauna. Dense *Laminaria digitata* and mixed red seaweeds on upward-facing reef surfaces; overhang and crevice on SW-side, the latter containing one ormer (*Haliotis tuberculata*).

**Observations/Features of Interest**

This area of seagrass/eelgrass (*Zostera marina*) was previously unknown to our local contacts, presumably because there are other ‘more interesting’ dive sites on neighbouring reefs in the vicinity. There is potting in the vicinity and angling activity on the nearby shore at Bec du Nez, but no evidence of potting damage was seen in the seagrass bed itself. We did not establish the extent of the seagrass bed which would benefit from re-surveying with divers equipped with GPS buoys.



**Figure 19:** Plan and profile of the dive at Marble Bay Eelgrass (CB)



**Figure 20:** Context views of the eelgrass bed at Marble Bay showing the sandy/gravel seabed

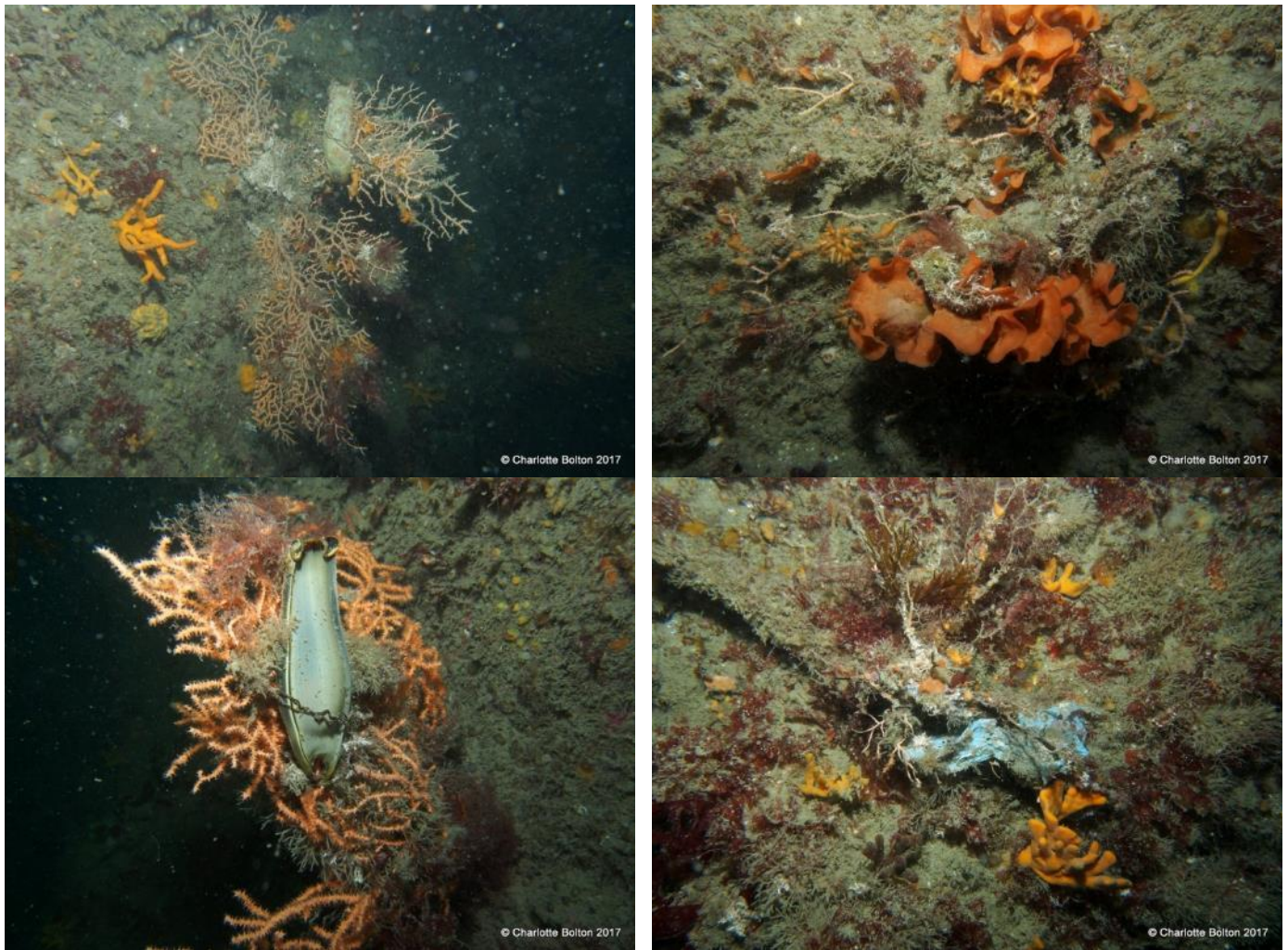
### 3 Discussion

#### 3.1 Priority species (seafans, *Eunicella verrucosa*; crawfish/crayfish/spiny lobster *Palinurus elephas*; maerl)

In general, the seafans recorded at the sites on this trip were in relatively poor condition, either tangled in litter, heavily fouled with epizoic species (bryozoans, hydroids) or sickly-looking with polyps withdrawn. Specific seafan recording forms<sup>2</sup> were not completed on these dives. Post-dive assessment of the colonies to assign a condition score could be carried out if required.

<sup>2</sup> See <http://www.seasearch.org.uk/seafan.html> for more details, the recording forms and the guidance notes Seasearch Survey of Guernsey, July 2017





**Figure 21:** Seafans in various states of entanglement and poor condition at Forein Pinnacle

Nonetheless, the associated nudibranch species *Tritonia nilsodhneri* was recorded (at the Forein Pinnacle and Piette North sites), along with its egg coils.



**Figure 22:** The seafan nudibranch *Tritonia nilsodhneri* (left) and its egg coil (above), In both cases the seafan polyps are retracted and the colony is not feeding.

A total of 13 crawfish (*P. elephas*) were recorded at the seven sites dived on this trip, distributed as follows:

Site	Number of <i>P. elephas</i> seen
Platte Fougere	1
Forein Pinnacle	5
East of Parfonde	3
Piette (North)	3 (DS) – Survey form (DW) says ‘several’, abundance O
Piette	0
Gabrielle Rock	1
Marble Bay Eelgrass	0

Animals on the inshore sites appeared to be generally smaller than those ‘offshore’ (Parfonde, Platte Fougere), though this is only a qualitative observation; all of the animals were relatively small (below MLS) and located in crevices in the reef. Photographs were taken but the animals were not disturbed in order to estimate carapace size more accurately.

Maerl (not identified to species) was recorded at Rare abundance at two sites (Piette and Gabrielle Rock), with live nodules providing less than 1% cover. This is insufficient to constitute a maerl bed (biotope SS.SMp.Mrl) with a proposed threshold of 5% live cover being required to create this habitat<sup>3</sup>.

<sup>3</sup> Moore, C.G. 2014. The distribution of maerl and other coarse sediment proposed protected features within the South Arran pMPA - a data review to inform management options. Scottish Natural Heritage Commissioned Report No. 749. Seasearch Survey of Guernsey, July 2017





**Figure 23:** Small pieces of live (pink) and dead (golden) maerl at Piette (left) and Gabrielle Rock (right).

### 3.2 Non-native species

Only *Sargassum muticum* and *Styela clava* are listed as ‘alien invasive species’ for Guernsey on the Global Invasive Species Database (GISD)<sup>4</sup>. Wireweed, *Sargassum muticum*, was recorded at Rare abundance at the Marble Bay site (and nowhere else); there were no records of *Styela clava* in 2017.

### 3.3 Range of habitats and biotopes

JNCC biotopes have been identified for all sites. The list of biotopes identified is shown in Appendix 2.

Fourteen different biotopes were identified, the majority of which (6) are for Infralittoral Rock (3 Circalittoral Rock, 5 Sublittoral Sediment). This is unsurprising given that the sites surveyed were generally inshore because of the conditions. One biotope was identified that correlates with a priority habitat – SS.SMp.SSgr.Zmar – seagrass bed.

### 3.4 Diversity of species

Appendix 1 contains a list of all of the species recorded and the sites at which each species was present. It also shows the range of abundance for each site. This is because separate habitats are recorded and species may occur in more than one. Abundances use the SACFOR scale (superabundant-abundant-common-frequent-occasional-rare). In cases where species were subsequently identified from photographs, or where the recorder was uncertain, P for present is substituted for the abundance scale.

Phylum/group	Total number of taxa records	Number of unique taxa recorded
Sponges (Porifera)	83	18
Hydroids, anemones and corals (Cnidaria)	63	21
Worms (Annelida)	29	9
Horseshoe worms (Phoronida)	2	1
Crustaceans (including Pycnogonids)	24	14
Foraminiferans	2	1
Molluscs (including Polyplacophora, chitons)	32	17
Bryozoans	61	18
Echinoderms	6	3
Sea squirts (Ascidians)	48	17
Fish (bony and cartilaginous)	44	18

<sup>4</sup> <http://www.iucngisd.org/gisd/>

Phylum/group	Total number of taxa records	Number of unique taxa recorded
Algae	124	47
Angiosperms (flowering plants)	1	1
	519	147

Surprisingly few echinoderms and molluscs were recorded. None of the surveyors is a phycologist and the total algae count could undoubtedly have been higher given more expertise and also facilities for sampling and preserving (no specimens were taken on this trip).

Some typically southern/south-western species were recorded, namely the ormer (*Haliotis tuberculata*), the crumpled duster sponge (*Axinella damicornis*), the yellow cluster anemone (*Parazoanthus axinellae*), tassel weed (*Carpomitra costata*) and a colonial ascidian that lacks a common name (*Polysyncraton lacazei*). The un-named sandy colonial ascidian recorded at four of the sites (East of Parfonde, Piette North, Piette and Gabrielle Rock) also seems to have a similar southern/south-western distribution. Further work will be required to identify this to species.



## Appendix 1: Species List

	Species Qualifier	Uncertain?	PLATTE FOUGERE	FOREIN	PARFONDE	PIETTE (N)	PIETTE	GABRIELLE	MARBLE BAY
Porifera	WHITE			O	R				
Porifera indet crusts								OR	
Porifera indet crusts	ORANGE		O	OO	O		O		R
Porifera indet crusts	YELLOW		O	O					
<i>Sycon ciliatum</i>			O						
<i>Dercitus (Dercitus) bucklandi</i>			O		R				
<i>Pachymatisma johnstonia</i>			O	O	R	OO	R		
<i>Dysidea fragilis</i>			O	OO	R	O	R	R	R
<i>Cliona celata</i>			RR		R	OOO	O	R	
<i>Polymastia</i>								R	
<i>Polymastia boletiformis</i>				O			F	O	
<i>Suberites</i>	ORANGE		R						
<i>Tethya citrina</i>			R	OO		OO	O	O	
<i>Axinella damicornis</i>			F	FO	R	OOO	O		
<i>Axinella dissimilis</i>			O	F	R	FO	F	O	
<i>Haliclona fistulosa</i>			O						
<i>Haliclona (Reniera) cinerea</i>			O						
<i>Haliclona (Reniera) cinerea</i>		(?)		O					
<i>Hemimycale columella</i>			FF	O		O		R	
<i>Raspailia</i>	YELLOW		OO	O					
<i>Raspailia (Raspailia) ramosa</i>			O	FO		OO	O	O	R
<i>Anemonia viridis</i>									RR
<i>Peachia cylindrica</i>									R
<i>Actinothoe sphyrodeta</i>				R			R	R	
<i>Cereus pedunculatus</i>			R				R		RR

<i>Alcyonium glomeratum</i>				F	F	FOR	F	O	
<i>Eunicella verrucosa</i>			OO	OO	O		R	R	
<i>Corynactis viridis</i>			O	AOO	F		F	OR	
<i>Caryophyllia (Caryophyllia) inornata</i>								R	
<i>Caryophyllia (Caryophyllia) smithii</i>			F	FOO	O		O	R	R
<i>Epizoanthus couchii</i>								P	
<i>Parazoanthus axinellae</i>			F	F			O	R	
Hydrozoa	HERRINGBONE						O	OO	
<i>Tubularia indivisa</i>			R						
<i>Aglaophenia pluma</i>			OO						
<i>Gymnangium montagui</i>			R						
<i>Clytia hemisphaerica</i>			OO						
<i>Obelia geniculata</i>			F				A		O
<i>Halecium halecinum</i>				O					
<i>Halopteris catharina</i>			O						
<i>Sertularella gayi</i>								P	
<i>Sertularella rugosa</i>			OO						
<i>Arenicola</i>			R						
<i>Arenicola marina</i>	CASTS								O
<i>Bispira volutacornis</i>			O	O	R	RR	R	RR	
<i>Protula tubularia</i>			OO						
<i>Salmacina dysteri</i>			FO	OO	R		O	O	
<i>Spirorbis</i>			O	FF					PR
Terebellida			R						
Terebellidae							O		R
Terebellidae	TUBES								R
<i>Lanice conchilega</i>							R		
<i>Caprella</i>			AA						

<i>Cancer pagurus</i>				O					
<i>Dromia personata</i>				R					
<i>Inachus</i>									R
<i>Macropodia</i>									R
<i>Maja brachydactyla</i>			R				R	R	R
<i>Homarus gammarus</i>			R					R	
<i>Pagurus</i>									R
<i>Pagurus bernhardus</i>									R
<i>Palinurus elephas</i>			R	O		OO		R	
<i>Necora puber</i>			O		R				
<i>Megatrema anglicum</i>				O					
Cirripedia			A						
<i>Pecten maximus</i>							R		
<i>Sepia officinalis</i>						R	O		
<i>Calliostoma zizyphinum</i>				O	RR	RR	O		R
<i>Haliotis tuberculata</i>									R
<i>Gibbula cineraria</i>			O						R
<i>Gibbula magus</i>									R
<i>Jujubinus striatus</i>								P	
<i>Monophorus perversus</i>			R						
<i>Euspira nitida</i>	EGGS				R		O		R
<i>Rissoa parva</i>			O						
<i>Trivia</i>	EGGS								OR
<i>Ocenebra erinaceus</i>								P	RR
<i>Nassarius</i>	EGGS			O					
<i>Nassarius reticulatus</i>			O						
<i>Doris pseudoargus</i>	EGGS		R						
<i>Tritonia nilsodhneri</i>			RR	O					

<i>Pycnogonida</i>			O						
Bryozoa indet crusts	ORANGE							P	
<i>Aetea anguina</i>			SA						
<i>Pentapora foliacea</i>				OO	O	O		O	
<i>Schizomavella linearis</i>			O						
<i>Bugula flabellata</i>			O						
<i>Bugula plumosa</i>			O	O			O	O	R
<i>Scrupocellaria</i>			F	F				R	R
<i>Cellaria</i>			O	AF	F	AF	S	A	
<i>Omalosecosa ramulosa</i>							F	R	
<i>Electra pilosa</i>			A	FO				R	R
<i>Carbasea</i>			O	O				R	
<i>Celleporella hyalina</i>			F	F					
<i>Membranipora membranacea</i>			A				F		R
<i>Alcyonidium diaphanum</i>			OO						
<i>Nolella stipata</i>			S						
<i>Vesicularia spinosa</i>				OO				R	
<i>Crisia</i>			SF	SF	FO	SAF	S	F	R
<i>Disporella hispida</i>			F						
<i>Marthasterias glacialis</i>				R	R	O		R	
<i>Asterina</i>					R				
<i>Asterina gibbosa</i>			O						
Asciacea	SANDY COLONIAL				R	OO	F	O	
Didemnidae									R
<i>Didemnum coriaceum</i>		(?)							R
<i>Didemnum maculosum</i>			O				O		R
<i>Didemnum maculosum</i>	VAR. DENTATA								R



<i>Diplosoma spongiforme</i>			O						
<i>Lissoclinum perforatum</i>			O					R	
<i>Polysyncraton lacazei</i>			O	O			O	O	
<i>Aplidium elegans</i>				O	R	FOO	F	R	
<i>Aplidium pallidum</i>			R						
<i>Aplidium punctum</i>			O	FO	R	OO	O	R	R
<i>Polyclinum aurantium</i>			O						
<i>Pycnoclavella aurilucens</i>			F						
<i>Pycnoclavella stolonialis</i>			O						
<i>Ascidia mentula</i>			O		O				
<i>Perophora listeri</i>			F						
<i>Botryllus schlosseri</i>									R
<i>Stolonica socialis</i>			A	FO	F		A	A	
<i>Pollachius pollachius</i>									R
<i>Trisopterus luscus</i>			R				R	R	
Gobiesociformes							R		
<i>Ammodytes</i>					P				
<i>Ammodytes tobianus</i>			F						
<i>Callionymus</i>	JUV						A		F
<i>Callionymus</i>	JUVENILES							F	
<i>Callionymus lyra</i>			O						
<i>Gobiusculus flavescens</i>			OO			FO	O	O	O
<i>Pomatoschistus</i>							F		O
<i>Thorogobius ephippiatus</i>			O	R	R			R	R
<i>Centrolabrus exoletus</i>					O				
<i>Ctenolabrus rupestris</i>			O		R			R	
<i>Labrus bergylta</i>					R	R			R
<i>Labrus mixtus</i>				OO	F	OO	O	R	
<i>Dicentrarchus labrax</i>			O						

<i>Scophthalmus rhombus</i>				R					
<i>Liparis</i>								R	
Scyliorhinidae	EGGS			OO					
Polyplacophora									R
<i>Phoronis hippocrepia</i>			O	O					
<i>Halyphysema tumanowiczii</i>			F	O					
<i>Desmarestia</i>							R		
<i>Desmarestia ligulata</i>								R	R
<i>Desmarestia viridis</i>			O						
<i>Dictyopteris polypodioides</i>			FO	OO	F		A	RR	
<i>Dictyota dichotoma</i>			OO	FO	O		FO	OR	RRR
<i>Cystoseira nodicaulis</i>		(?)							R
<i>Halidrys siliquosa</i>			OO				O	R	R
<i>Sargassum muticum</i>									RR
<i>Chorda filum</i>									R
<i>Laminaria digitata</i>			F						A
<i>Laminaria hyperborea</i>			S	S	O	A	F	O	O
<i>Saccharina latissima</i>			O						
<i>Colpomenia peregrina</i>									R
<i>Halopteris filicina</i>			FF	F				R	
<i>Carpomitra costata</i>			R		R		R		
<i>Sporochnus pedunculatus</i>							R		R
<i>Saccorhiza polyschides</i>				O					R
encrusting algae indet.	PINK		F	FF				R	R
encrusting algae indet.	RED			OO					
Filamentous green algae								P	

<i>Ulvales</i>			O						
<i>Ulva lactuca</i>	FLAT	(?)							R
Foliose red algae								O	
<i>Asparagopsis armata</i>					O			R	O
<i>Bonnemaisonia asparagoides</i>								P	
<i>Heterosiphonia plumosa</i>			O	OO	F		O	RR	OR
<i>Acrosorium ciliolatum</i>								R	
<i>Delesseria sanguinea</i>			F	FO		O			R
<i>Hypoglossum hypoglossoides</i>								P	
<i>Membranoptera alata</i>			O						
<i>Chondria dasyphylla</i>									R
<i>Osmundea</i>									R
<i>Halurus equisetifolius</i>			OO						
<i>Halurus flosculosus</i>								P	
Maerl indet							R	R	
<i>Calliblepharis ciliata</i>			FO	FO	O		OO	R	R
<i>Dilsea carnosa</i>			OO						R
<i>Halarachnion ligulatum</i>							OO		O
<i>Chondrus crispus</i>			F	O					O
<i>Callophyllis laciniata</i>			F						R
<i>Meredithia microphylla</i>			F						
Gracilariales									R
<i>Gracilaria gracilis</i>									R
<i>Scinaia furcellata</i>							O		
<i>Palmaria palmata</i>			OO						
<i>Plocamium</i>			O						O
<i>Lomentaria articulata</i>			FO						
<i>Zostera (Zostera) marina</i>									A

## Appendix 2 JNCC biotopes<sup>5</sup> identified

Site name (right)	Platte Fougere Lighthouse	Forein Pinnacle	East of Parfonde, south of Jethou	Piette (north)	Piette	Gabrielle Rock	Marble Bay Eelgrass
<b>Biotope Code (below)</b>							
CR.HCR						X	
CR.HCR.XFa	X	X		X	X		
CR.HCR.XFa.SpAnVt	X	X	X	X		X	
IR.HIR.KFaR.FoR.Dic		X					
IR.HIR.KFaR.LhypFa					X		
IR.MIR.KR.Ldig							X
IR.MIR.KR.Lhyp.Ft				X			
IR.MIR.KR.Lhyp.Pk		X	X				
IR.MIR.KR.LhypT.Ft	X						
SS.SCS.CCS					X	X	
SS.SCS.ICS			X				
SS.SMp.SSgr.Zmar							X
SS.SSa.IFiSa							X
SS.SSa.IFiSa.IMoSa	X						

### Circalittoral rock biotopes

CR.HCR	High energy circalittoral rock (Gabrielle Rock)
CR.HCR.XFa	Mixed faunal turf communities (East of Parfonde, Piette, Piette North, Platte Fougere Lighthouse)
CR.HCR.XFa.SpAnVt	Sponges and anemones on vertical circalittoral bedrock (East of Parfonde, Forein Pinnacle, Gabrielle Rock, Piette North, Platte Fougere Lighthouse)

### Infralittoral rock biotopes

IR.HIR.KFaR.FoR.Dic	Foliose red seaweeds with dense <i>Dictyota dichotoma</i> and/or <i>Dictyopteria membranacea</i> on exposed lower infralittoral rock (Forein Pinnacle)
IR.HIR.KFaR.LhypFa	<i>Laminaria hyperborea</i> forest with a faunal cushion (sponges and polyclinids) and foliose red seaweeds on very exposed upper infralittoral rock (Piette)
IR.MIR.KR.Ldig	<i>Laminaria digitata</i> on moderately exposed sublittoral fringe rock (Marble Bay)
IR.MIR.KR.Lhyp.Ft	<i>Laminaria hyperborea</i> forest and foliose red seaweeds on moderately exposed upper infralittoral rock (Piette North)
IR.MIR.KR.Lhyp.Pk	<i>Laminaria hyperborea</i> park and foliose red seaweeds on moderately exposed lower infralittoral rock (East of Parfonde, Forein Pinnacle)
IR.MIR.KR.LhypT.Ft	<i>Laminaria hyperborea</i> forest, foliose red seaweeds and a diverse fauna on tide-swept upper infralittoral rock (Platte Fougere Lighthouse)

### Sublittoral sediment biotopes

SS.SCS.CCS	Circalittoral coarse sediment (Gabrielle Rock, Piette)
SS.SCS.ICS	Infralittoral coarse sediment (East of Parfonde)
SS.SMp.SSgr.Zmar	<i>Zostera marina/angustifolia</i> beds on lower shore or infralittoral clean or muddy sand (Marble Bay) <b>PRIORITY HABITAT</b>
SS.SSa.IFiSa	Infralittoral fine sand (Marble Bay)
SS.SSa.IFiSa.IMoSa	Infralittoral mobile clean sand with sparse fauna (Platte Fougere Lighthouse)

<sup>5</sup> JNCC (2015) The Marine Habitat Classification for Britain and Ireland Version 15.03 [Online]. [Accessed 2018-02-19]. Available from: [jncc.defra.gov.uk/MarineHabitatClassification](http://jncc.defra.gov.uk/MarineHabitatClassification)

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