



A report to the States of Guernsey (Agriculture, Countryside & Land Management Services (ACLMS)) and La Société Guernesiate

Covering the Seasearch hardboat expedition in June 2019

Dr Charlotte Bolton, National Seasearch Coordinator

Funding through the Biodiversity Partnership is gratefully acknowledged

Summary of activities

A hardboat-based expedition to Guernsey had been planned since September 2018, with the intention of the larger platform enabling us to visit some of the more remote dive sites from a base in St Peter Port. Using a boat from the UK South Coast also circumvented the issues of travelling to the Channel Islands with dive gear, though our local hosts and facilitators were as ever instrumental in making the local logistics as straightforward as possible (as well as providing accommodation to the group). Unfortunately the planned involvement of local divers was more limited than intended due to their other commitments. This aspect is something we need to improve for future years.

The overall aim of the expedition was to ‘put more pins on the map’ with detailed Seasearch recording via the medium of survey forms. Particular objectives were the offshore sites on the west coast of Guernsey, for which there is very little formal data, and engaging with local divers to get more involved in Seasearch recording. Sublittoral records from Alderney are relatively sparse, not least due to the logistical difficulties of diving there. Again, the aim was to add data from previously-undived sites.

Unfortunately, the weather was not 100% co-operative throughout the week (24th – 30th June) and 1.5 days of planned diving were lost to the strong easterly winds. Future trips will avoid this time of year. The non-diving downtime was spent by carrying out 1) a day-trip to Herm, to investigate the western intertidal shore between the harbour and Oyster Point (the mint-sauce worm *Symsagittifer roscoffensis* was recorded here by the author in May 2019) and 2) a return trip to the Bioblitz area at L’Ancrese East to take more photographs to supplement the intertidal survey form completed on that occasion (NT19/054).

The trip in numbers (overview)

No. of dive sites: 8 (see list and maps below)

No. of Seasearch observation forms: 1

No. of Seasearch survey forms: 16

Dive site	Date	Survey forms	Observation forms
Noire Pute (E & W)	24/06/2019	NT19/125, 223	-
Le Boin	25/06/2019	NT19/126, 222, 229	-
Moulin Huet	25/06/2019	NT19/127, 226	-
Les Audames (N)	26/06/2019	NT19/128, 224, 225	NT19/230
Mouilliere	26/06/2019	NT19/129, 228	-
Les Banquiers de Fermain	28/06/2019	NT19/130, 221	-
Verte Tete (N), Alderney	29/06/2019	NT19/131, 227	-



Plans to dive the southern tip of Alderney, in the vicinity of The Noires Putes (photo below), were also thwarted by the weather, but the area was thoroughly reconnoitred in anticipation of future opportunities.



Looking NW at the Noires Putes on the southern tip of Alderney, Les Étacs in the background (left) and the main island of Alderney on the right.

Dive site details

Dive 1: Monday June 24th 2019

Noire Pute, East of Herm

49° 28.201'N 002° 25.064'W (RG & CDB, west side)

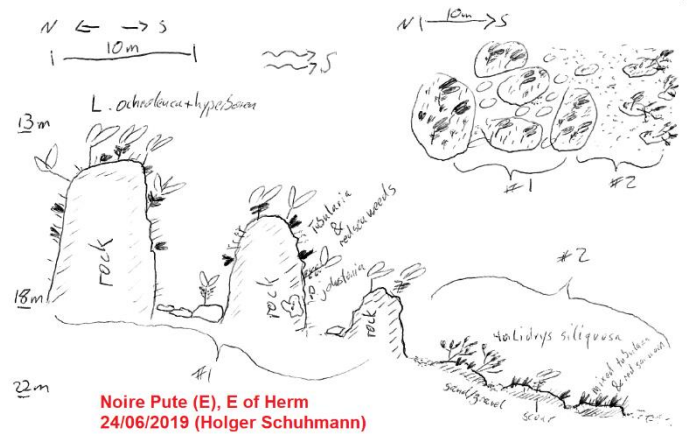
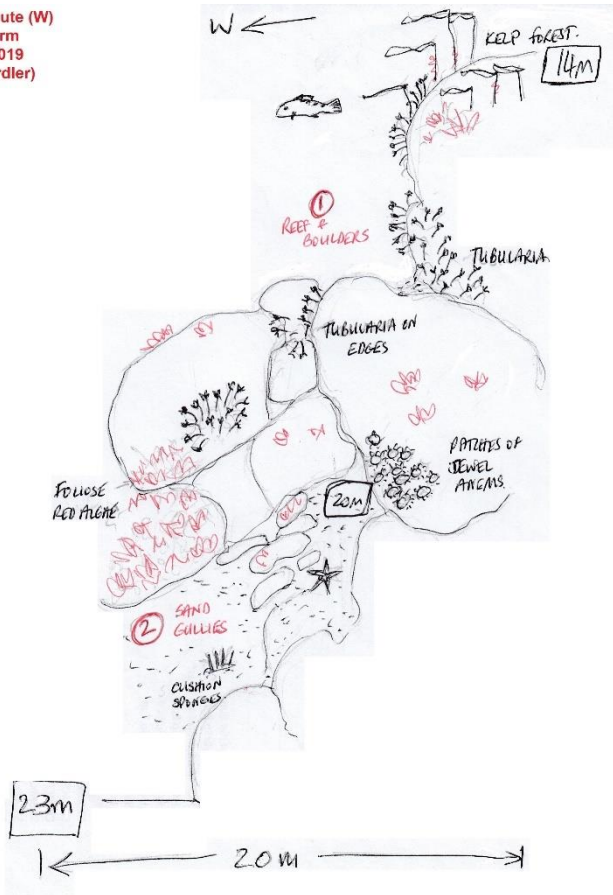
49° 28.203'N 002° 24.986'W (CW & HS, east side)

This site was chosen for the timing of the slack tide after the passage across the Channel from Portland, Dorset. Two buddy pairs carried out surveys here, one either side of the beacon-topped reef.



The Noire Pute beacon east of Herm, with Sark in the background.

Noire Pute (W)
E of Herm
24/06/2019
(Rik Girdler)



Survey form sketches illustrating the topography of the west (left) and east (above) sides of the reef marked by the Noire Pute beacon.

Both dive sites were characterised by rugged bedrock and boulder reef, topped by dense kelp forest (a mixture of *Laminaria hyperborea* and *L. ochroleuca* as is common in the Channel Islands) with an understory of red/brown algae and visually-dominant *Tubularia* hydroids particularly located on edges/corners. The reef dropped away to a mobile sediment seabed of coarse sand and shell gravel which scoured the intermittent boulders at the interface of the reef (17-18m bcd, below chart datum).



L. ochroleuca kelp with understory of red algae and dense *Tubularia indivisa* hydroids.



Scour-tolerant cushion and branching sponges in mobile shelly sediment at the base of the reef.

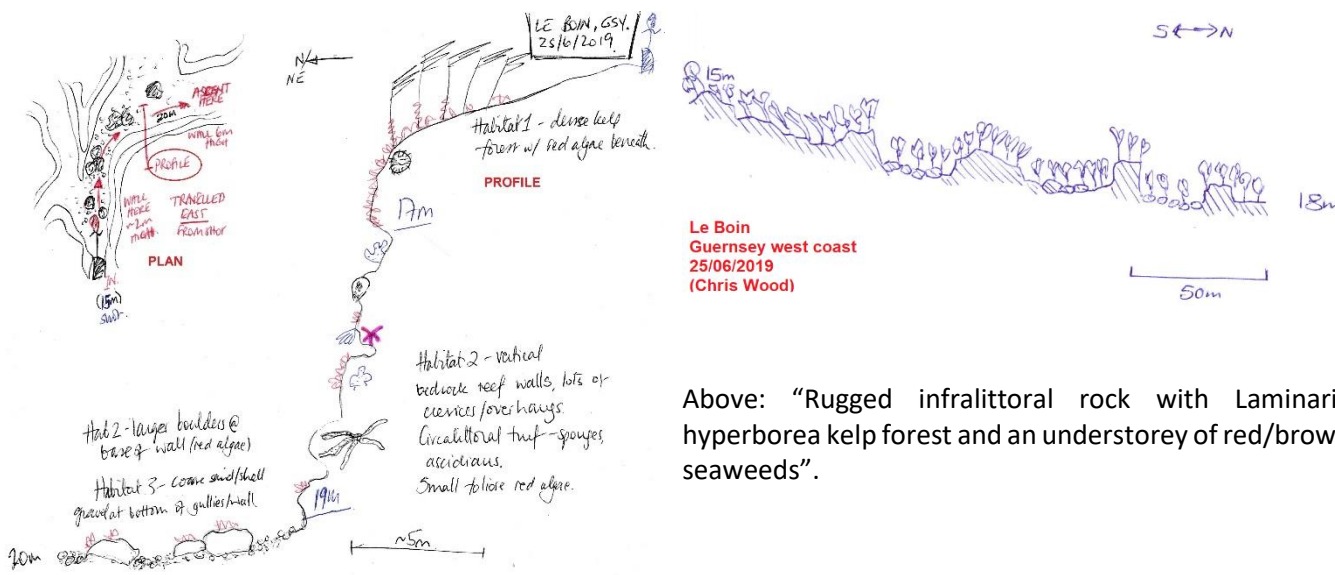
Dive 2: Tuesday June 25th 2019

Le Boin, West Coast of Guernsey

49° 29.401'N 002° 39.310'W

With all divers in the water for this survey, we spread out the directions of travel (initially at least) from the shot position given, to maximise coverage – one buddy pair went east, another north then east, and the third headed south.

This site lies inshore of one of the original targets (Boue Blondel), which was being actively fished at the time of the dive. The usual kelp forest on the top of the Le Boin reef (at ca. 9m bcd) with a dense understory of mixed (mostly red, occasional brown) algae was traversed by numerous gullies. The most rugged topography lay to the north-east of the shot, where a 4m-high reef wall was surveyed (below left).



Above: “Rugged infralittoral rock with *Laminaria hyperborea* kelp forest and an understory of red/brown seaweeds”.

The vertical wall & the bottom of the gully in the left-hand sketch were described as follows: “The ‘usual’ CI animal fauna on the walls (habitat 2) - sponges (erect/branching, cushion), *Alcyonium glomeratum* soft corals and *Stolonica socialis* ascidians. Mobile coarse sediment in gully bottom (habitat 3) – which widened out at end of dive (see plan).” It was in this area that two crawfish/spiny lobsters (*Palinurus elephas*) were recorded, as well as one pink seafan, *Eunicella verrucosa*, in reasonable condition, and the nudibranchs *Trapania pallida* and *Doris sticta*.



This sponge is now known to be *Hexadella topsenti* not *H. racovitzae* as previously recorded, whose distribution is restricted to the Mediterranean.



The sole pink seafan (*Eunicella verrucosa*) recorded at this site, with staghorn sponge *Axinella dissimilis* for scale on the left-hand side.



The nudibranch *Doris sticta* on a short animal turf of bryozoans and sea squirts with mixed red algae.



The nudibranch *Trapania pallida* on elephant-hide sponge *Pachymatisma johnstoni*



Two crawfish/spiny lobsters (*Palinurus elephas*) were recorded at this site.



The distinctive sponge *Ulosa stuposa* which seems to have a south-westerly distribution.



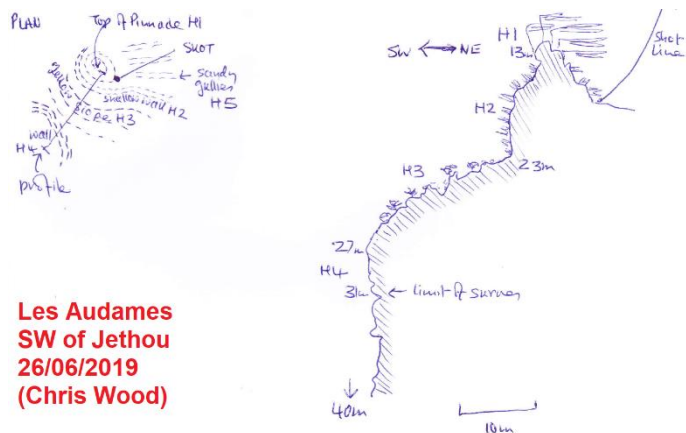
Small patches of pinhead squirts (*Pycnoclavella aurilucens* mixed with *P. stolonialis*) on the walls.

Dive 4: Wednesday June 26th 2019

Les Audames, SW of Jethou

49° 26.445'N 002° 29.036'W

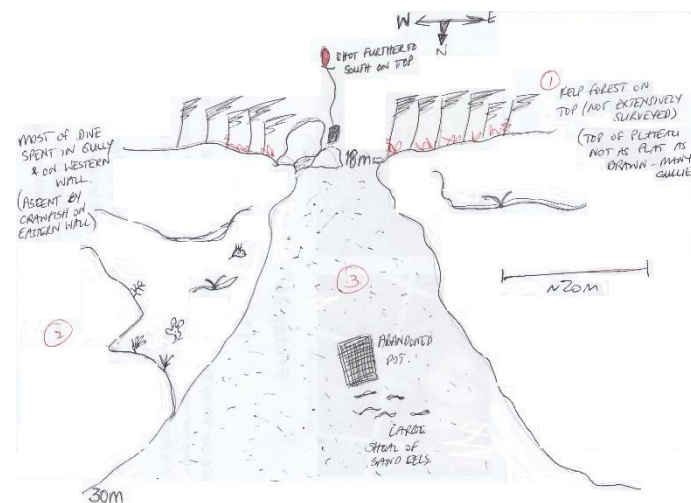
This site was a re-visit after the dive on the liveaboard expedition in 2016 encountered very poor visibility; this time was far more favourable with underwater visibility estimated at 10m or more. The dive took place on the north side of the spectacular pinnacle to minimise the effects of the tide and maximise the dive time. Local diver Terry Ozanne proved to be a crawfish/spiny lobster (*Palinurus elephas*) magnet but all divers recorded these charismatic animals at this site.



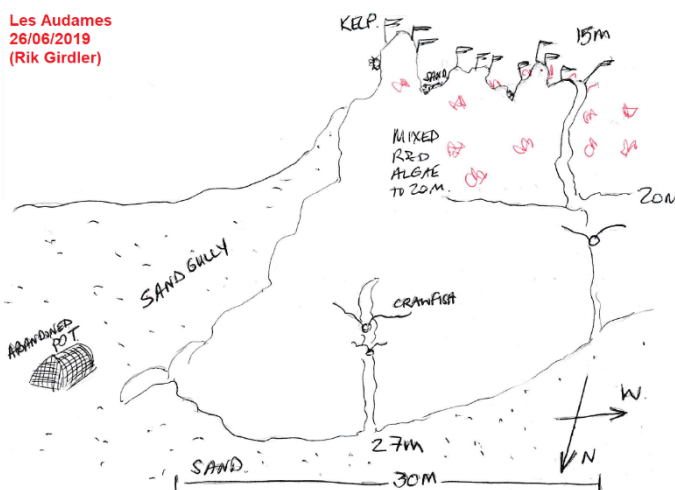
**Les Audames
SW of Jethou
26/06/2019
(Chris Wood)**

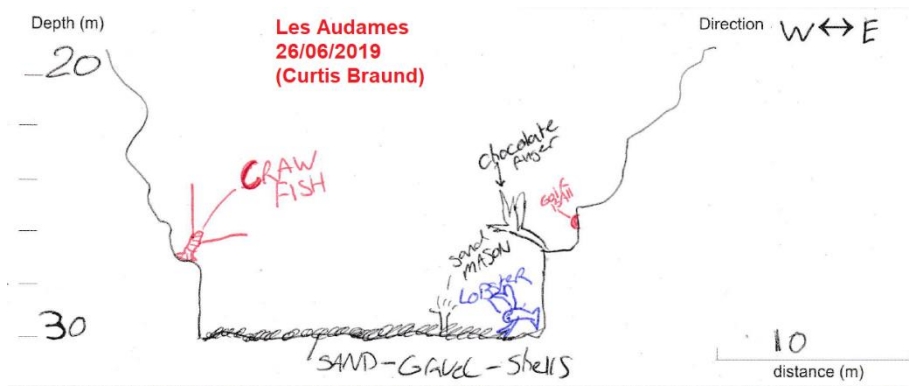
The top of the pinnacle was transected by shallow gullies collecting sediment at the bottom. Chris Wood carried out the most thorough survey of this area and reported it as follows: “Top of rocky pinnacle with *Laminaria ochroleuca* kelp forest. Huge robust plants. Understorey of *Tubularia indivisa* and red/brown seaweeds.” (Habitat 1 on sketch, left) while the gullies were described as “Infralittoral coarse shelly sand between rocky outcrops with scallops. Sand eel shoal above.” (Habitat 5).

Following the wide gully down to the north, the reef edges were characterised by “typical Channel Islands ‘yellow fauna’ of sponges, ascidians, soft and cup corals”. The many ledges and fissures were populated by crustaceans, while towards the sediment/reef interface were found more scour-tolerant fauna. Three seafans, *Eunicella verrucosa*, were recorded here, with only one described as being in reasonable condition.

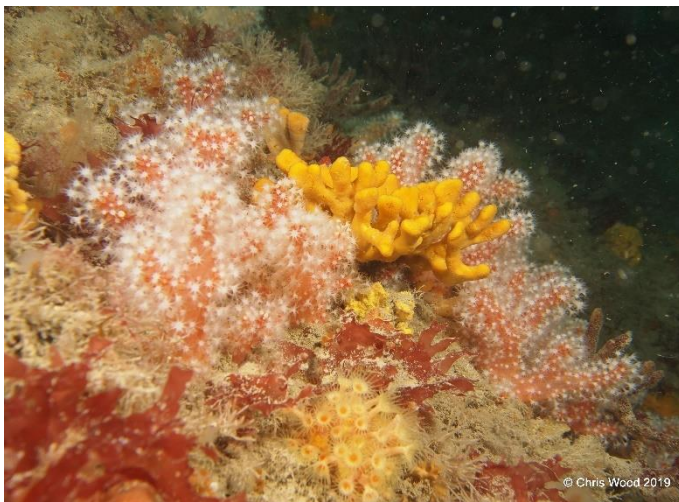


**Les Audames
26/06/2019
(Rik Girdler)**





An abandoned lobster pot was recorded in the wide gully filled with very mobile coarse sediment (mostly broken shell) and more sand eels were encountered here.



Another typical community of reef fauna, here with the yellow cluster anemone *Parazoanthus axinellae* in the foreground (often found with axinellid sponges as the name suggests).

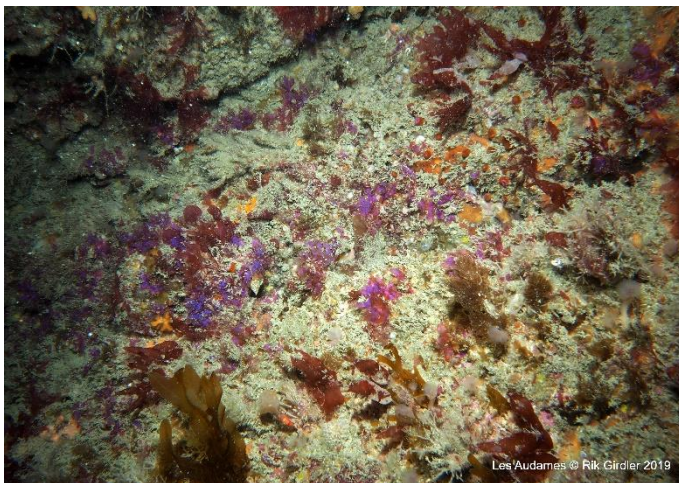
Right – the stalked sponge *Homaxinella subdola*



Fabulous jewel anemones (Corynactis viridis) were recorded as Frequent on the walls of the pinnacle, against a turf of short diverse bryozoans.



A crawfish/spiny lobster (Palinurus elephas) with a good choice of crevices and fissures in the rugged reef walls.



The spectacular purple iridescence of rainbow weed (Drachiella spectabilis) is unmistakable but this seaweed is probably over-recorded.



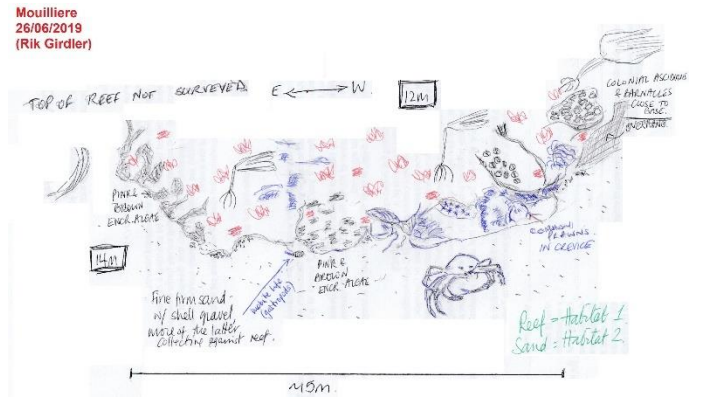
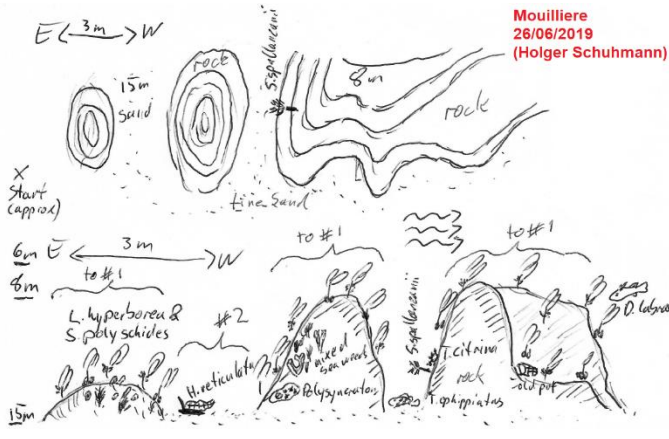
It is not unusual to see seafans, Eunicella verrucosa, overgrown like this in Guernsey.

Dive 5: Wednesday June 26th 2019

Mouilliere, SE Guernsey

49° 25.310'N 002° 32.818'W

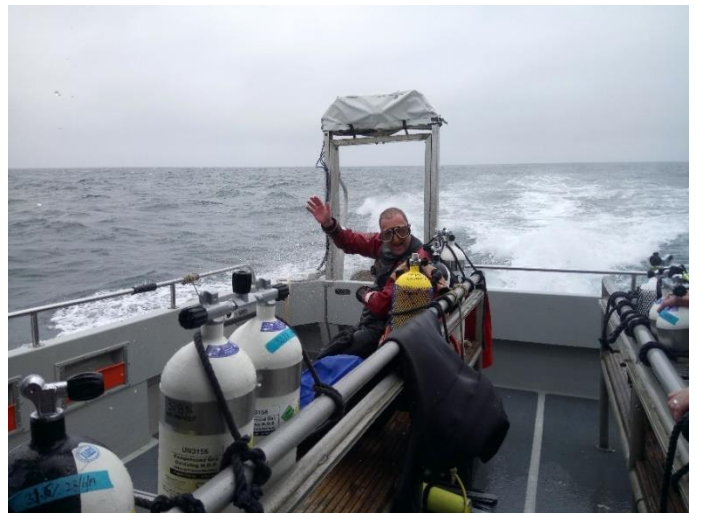
Another 'out of the tide and weather' site selection, Mouilliere is an area in the centre of Petit Port bay comprising small reef outcrops, some of which break the surface (see photo below left) from the surrounding seabed at ca. 9m bcd. One surveyor described the site thus: "Rocky reef with gutters and canyons in Southwards facing bay, rising from firm, sandy seabed up to approximately 6m, covered in kelp with rich undergrowth of mixed seaweeds, sea squirts, fine bryozoans and some sponges. Surrounding sediment had signs of life on it." As with the nearby Moulin Huet site, the kelp forest comprised *Laminaria hyperborea* and *Saccorhiza polyschides* but not *L. ochroleuca*. One abandoned lobster pot was reported here.



We just managed to fit the dive in ahead of the arrival of the very strong easterly winds (which made the journey back to St Peter Port somewhat 'exciting'...)



View of Mouilliere looking SE towards Jerbourg Point



A wet ride back to St Peter Port!



The nudibranch *Diaphorodoris alba*



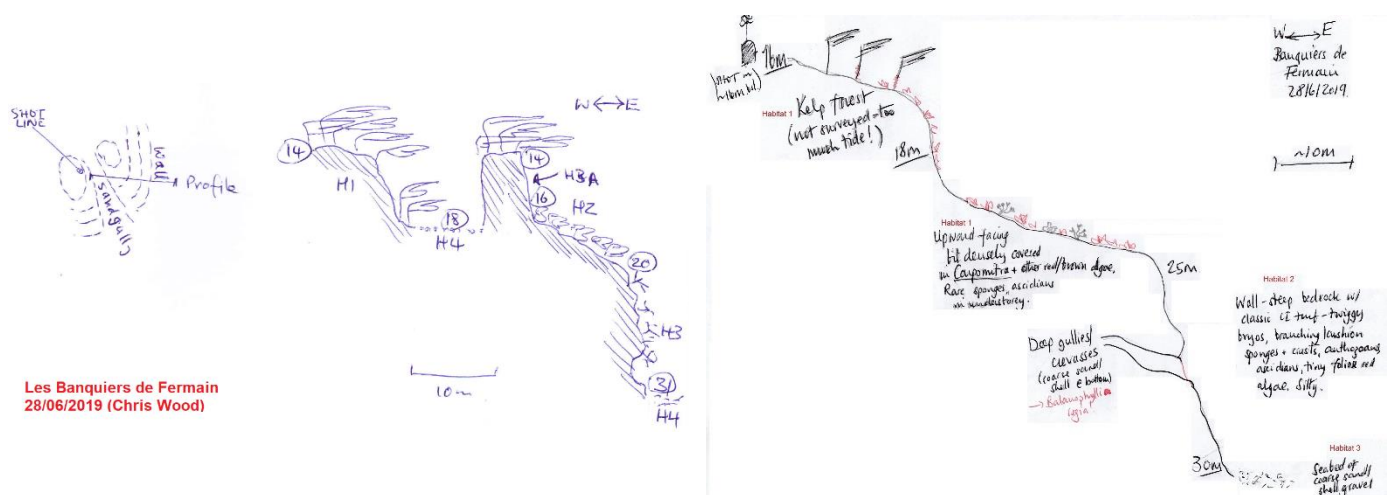
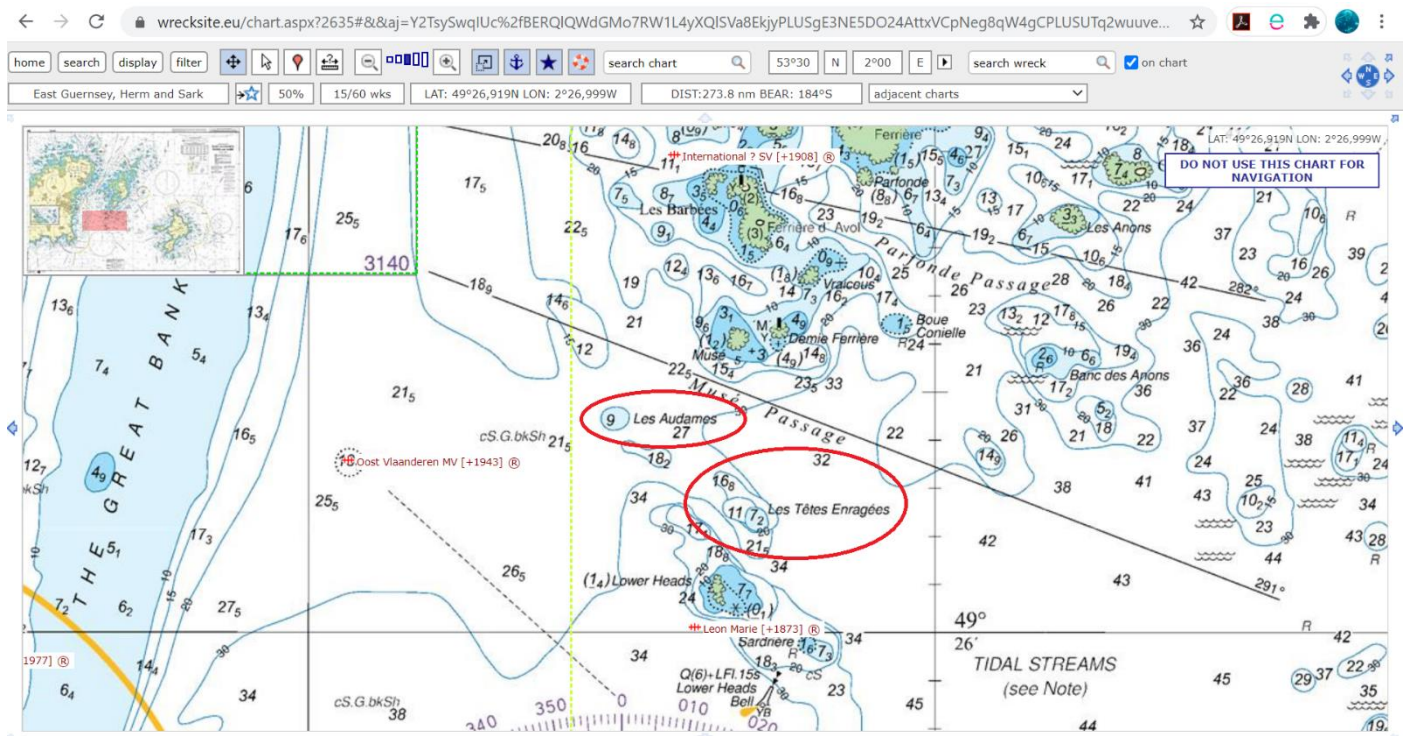
Large spiny spider crab *Maja brachydactyla*

Dive 6: Friday June 28th 2018

Les Banquiers de Fermain

49° 26.314'N 002° 31.576'W

This site was a fall-back choice when waiting for the slack at Les Têtes Enragées appeared to be a forlorn hope (very annoyingly, it turned out that we were not sufficiently patient, and having alerted Terry Ozanne to the site, he subsequently dived it the following week with a buddy from Blue Dolphins SAC and reported it as being much more spectacular than Les Audames...). The chart does not do justice to the complexity of pinnacles and walls at the site, as evidenced by the sounder on the boat. The site is very definitely on the list for a future re-visit.



Les Banquiers de Fermain
28/06/2019 (Chris Wood)

The site description "rugged rocky tideswept reef with kelp forest on top, seaweed-dominated slopes and diverse sponges and anthozoans on sloping and vertical circalittoral rock" is borne out pictorially by the sketches above, where the rugged nature of the east-facing reef wall is obvious. Less expected was domination by the brown tassel weed

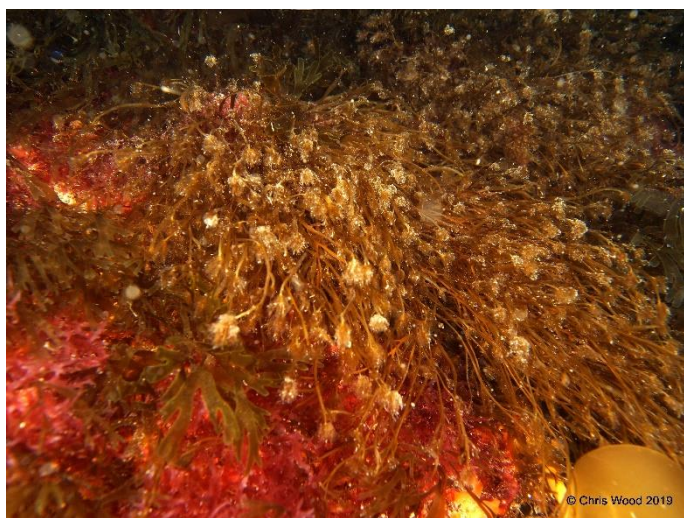
Carpomitra costata (a south-western “speciality”) of the area of upward-facing rock between 10-19m bcd. The deeper, steeper walls were riven with deep fissures and crevices within which were found crustaceans and the scarlet-and-gold cup coral, *Balanophyllia regia*, which favours this kind of micro-habitat. A sighting of the charismatic little fish, *Parablennius pilicornis*, still a relative rarity on the northern side of the Channel, was a highlight for one buddy pair. There was active potting in the area of the reef, and one lost pot/line was recorded.



A ring-necked blenny, *Parablennius pilicornis*, peeps out from a crevice



A scattering of scarlet-and-gold cup corals (*Balanophyllia regia*) in a fissure covered with deposited sediment



A veritable ‘turf’ of the brown tassel weed *Carpomitra costata* among other mixed red and brown algae



Classic reef fauna of the Channel Islands – soft coral *Alcyonium glomeratum* (red fingers), yellow axinellid sponges and the chocolate finger sponge *Raspailia ramosa* in the foreground

Dive 7: Saturday June 29th 2019

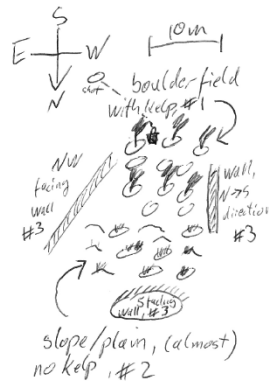
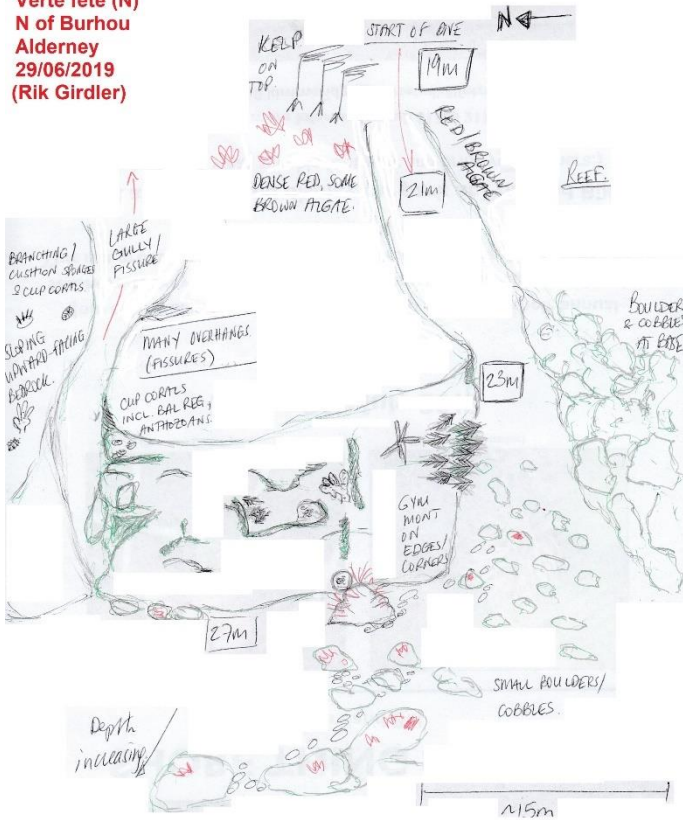
Verte Tete (N), NW of Burhou, Alderney

49° 44.311'N 002° 16.997'W

This was a spectacular high-energy site from a diver’s point of view (perhaps less so for the waiting skipper and crew), located on the northern edge of the Ramsar site just to the north of the Verte Tete islet (indicated in the aerial photo below).



Verte Tete (N)
N of Burhou
Alderney
29/06/2019
(Rik Girdler)



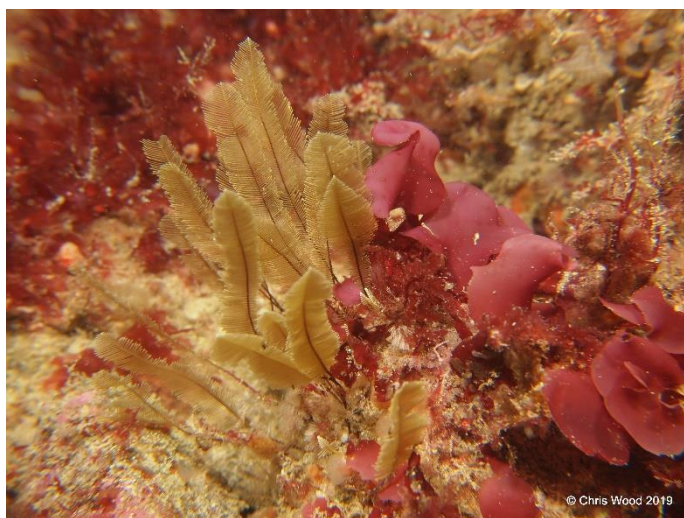
Verte Tete (N), Alderney 29/06/2019
(Holger Schuhmann)



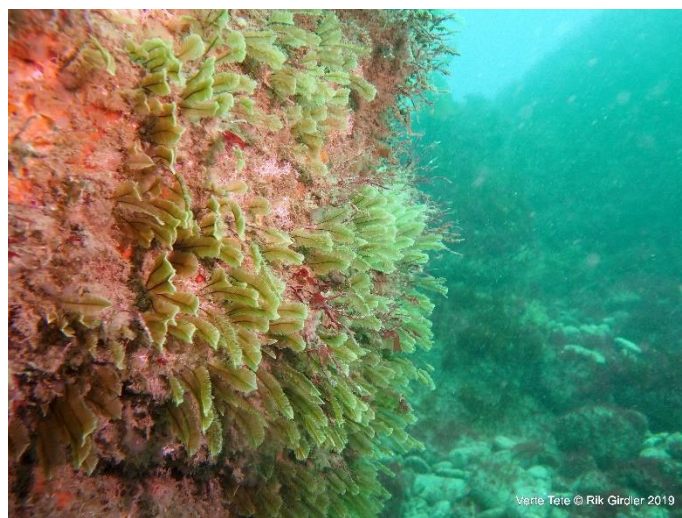
One buddy pair suffered a short dive at this site as they ventured away from the reef and into the main flow of the tide. The other two buddy pairs explored in different directions between the reef outcrops (as indicated on the sketches above, taken from the survey forms). Wide gullies with boulders and coarse sediment led down to increasing

depths north and west of the shot, with both the reef fauna and the scoured appearance of the boulders and base of the walls giving a good indication of the energetics at this site when the tide is running and during storms.

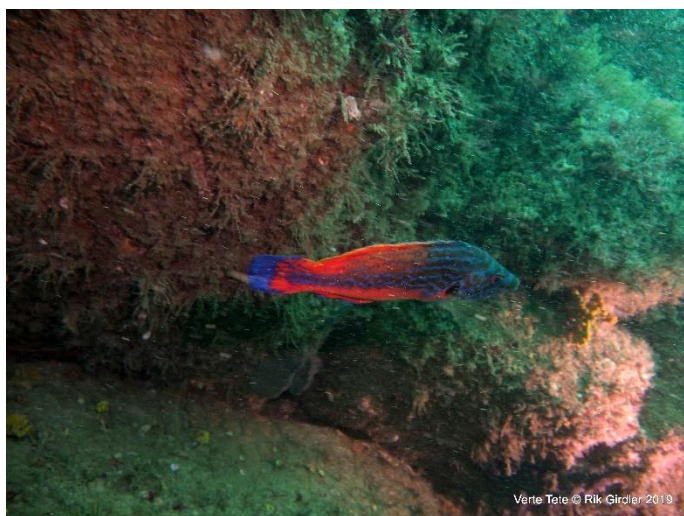
A raft of puffins was observed by the skipper/crew topside while the dive was in progress (no photo unfortunately!)



The distinctive appearance of the Indian feather hydroid (Gymnangium montagui) here with the equally distinctive pinky-red mermaid's ear (Meredithia microphylla) seaweed.



Here in a wider-angle shot the extent of the Gymnangium montagui is evident, as is a hint to the rugged nature of the site.



A male cuckoo wrasse (Labrus mixtus) makes a bolt for freedom; cup corals, including Balanophyllia regia, are visible scattered on the upward-facing rock at the base of the wall.



A tompot blenny (Parablennius gattorugine) lurks in a fissure in the reef wall.



There were plenty of these small cushion stars (*Asterina gibbosa*) amongst the dense red seaweeds on the shallower areas of the reefs.



A view looking upwards across the bryozoan-sponge turf scattered with red seaweeds, with a painted topshell (*Calliostoma zizyphnum*) to draw the gaze...

Marine life recorded

The volunteer divers on this expedition comprised a mixture of experienced and less experienced surveyors. No specialists were involved which is reflected in the broad distribution of taxa recorded. No specimens were collected on the trip due to the lack of facilities to deal with samples.

Phylum (Class)	Taxon record count	Most commonly recorded species
Algae (Rhodophyta, Chlorophyta, Ochrophyta)	254 (127+123+4)	<i>Dictyopteris polypodioides</i> (40 occurrences) <i>Dictyota dichotoma</i> , <i>Heterosiphonia plumosa</i> (21)
Angiospermata/Tracheophyta	2	<i>Zostera marina</i> (2)
Annelida	52	<i>Bispira volutacornis</i> (11)
Arthropoda	48	<i>Maja brachydactyla</i> (17)
Bryozoa	120	<i>Bugulina flabellata</i> (16), <i>Crisia</i> sp. (15), <i>Crisularia plumosa</i> (14)
Chordata (Actinopterygii, Ascidacea, Elasmobranchia)	196 (74+116+6)	<i>Aplidium elegans</i> , <i>Labrus bergylta</i> (14), <i>Ctenolabrus rupestris</i> (12), <i>Labrus mixtus</i> (11)
Cnidaria (Anthozoa, Hydrozoa, Scyphozoa)	130 (94+34+2)	<i>Corynactis viridis</i> (19), <i>Caryophyllia smithii</i> (17), <i>Alcyonium glomeratum</i> (15), <i>Tubularia indivisa</i> (12)
Echinodermata	37	<i>Marthasterias glacialis</i> (17)
Mollusca	88	<i>Calliostoma zizyphinum</i> (18), <i>Diaphorodoris alba</i> (16), <i>Tritia reticulata</i> (10)
Phoronida	1	<i>Phoronis hippocrepia</i> (1)

Phylum (Class)	Taxon record count	Most commonly recorded species
Platyhelminthes	5	<i>Prostheceraeus vittatus</i> (5)
Porifera	298	<i>Sycon ciliatum</i> (45), <i>Raspailia ramosa</i> (36), <i>Axinella dissimilis</i> (24), <i>Pachymatisma johnstonia</i> (20)
TOTAL no. of taxon records (not all to species level)	1231	

Habitats recorded

Habitats recorded on Seasearch surveys forms are assigned a biotope from the Marine Habitat Classification, with the best match in the judgement of an experienced surveyor/recorder. Seasearch observation forms record 'seabed cover types' corresponding to broad-scale habitat descriptions; these are assigned by the field recorder.

Biotope Code ¹	Description	No. of occurrences
CR.HCR.FaT	Very tide-swept faunal communities	1
CR.HCR.FaT.CTub	<i>Tubularia indivisa</i> on tide-swept circalittoral rock	6
CR.HCR.XFa	Mixed faunal turf communities	1
CR.HCR.XFa.ByErSp	Bryozoan turf and erect sponges on tide-swept circalittoral rock	6
CR.HCR.XFa.SpAnVt	Sponges and anemones on vertical circalittoral bedrock	7
IR.HIR.KFaR	Kelp with cushion fauna and/or foliose red seaweeds	2
IR.HIR.KFaR.FoR	Foliose red seaweeds on exposed lower infralittoral rock	1
IR.HIR.KFaR.FoR.Dic	Foliose red seaweeds with dense <i>Dictyota dichotoma</i> and/or <i>Dictyopteris membranacea</i> on exposed lower infralittoral rock	3
IR.HIR.KFaR.LhypR.Ft	<i>Laminaria hyperborea</i> forest with dense foliose red seaweeds on exposed upper infralittoral rock	2
IR.HIR.KFaR.LhypR.Loch	Mixed <i>Laminaria hyperborea</i> and <i>Laminaria ochroleuca</i> forest on exposed infralittoral rock	5
IR.HIR.KFaR.LhypR.Pk	<i>Laminaria hyperborea</i> park with dense foliose red seaweeds on exposed lower infralittoral rock	1
IR.HIR.KSed.XKHal	<i>Halidrys siliquosa</i> and mixed kelps on tide-swept infralittoral rock with coarse sediment	1
IR.MIR.KR	Kelp and red seaweeds (moderate energy infralittoral rock)	1
IR.MIR.KR.Lhyp	<i>Laminaria hyperborea</i> and foliose red seaweeds on moderately exposed infralittoral rock	1
IR.MIR.KR.Lhyp.Ft	<i>Laminaria hyperborea</i> forest and foliose red seaweeds on moderately exposed upper infralittoral rock	2
LR.HLR.MusB	Mussel and/or barnacle communities	1

¹ JNCC (2015) The Marine Habitat Classification for Britain and Ireland Version 15.03. [Accessed on multiple dates including 2020-07-08]. Available from: <https://mhc.jncc.gov.uk/>

Biotope Code ¹	Description	No. of occurrences
SS.SCS.CCS	Circolittoral coarse sediment	5
SS.SCS.ICS	Infralittoral coarse sediment	2
SS.SSa.CFiSa	Circolittoral fine sand	1
SS.SSa.IFiSa	Infralittoral fine sand	2
SS.SSa.IFiSa.IMoSa	Infralittoral mobile clean sand with sparse fauna	2
Seasearch 'seabed cover type'	Description	No. of occurrences
KF	Kelp forest	1
SAT	Short animal turf on rocks	1
TAT	Tall animal turf on rocks	1

All data has been entered into Marine Recorder after the standard Seasearch process of validation/verification and subsequently published on the NBN Atlas (<http://nbnatlas.org>) and shared with the Guernsey Biological Records Centre.

Acknowledgements

Diving volunteers: Chris Wood, Curtis Braund, Holger Schuhmann, Paul Lowry and Rik Girdler. "Skin Deeper" dive boat super-skipper David Sellers and crew Chiara Lenz. The Biodiversity Partnership for funding. Local divers Terry Ozanne and Ian Jowitt for local support, including free accommodation for the group and facilitating the gas fills at Dive Guernsey. Thanks to Chris Wood for entering all the survey data into Marine Recorder and biotoping the habitats.

All photographs and sketches © Charlotte Bolton 2019 if not otherwise indicated.





A blue jellyfish (Cyanea lamarcki) at Verte Tete, Alderney

