



# Fal and Helford SAC DDV Maerl Habitat Survey

## 2022



## Field Report for the 2022 Fal and Helford Drop Down Video Maerl Habitat

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## Summary

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This report summarises the operations and data acquired during the 2022 drop down video (DDV) survey of maerl habitats within the Fal and Helford Special Area of Conservation (SAC). The survey was carried out over three days, on the 12<sup>th</sup> May 2022, 1<sup>st</sup> June 2022 and 13<sup>th</sup> July 2022.

The aim of the survey was to collect high-quality video and still imagery from 25 survey sites within the SAC to verify acoustic signatures from side-scan imagery collected by Cornwall Inshore Fisheries and Conservation Authority (IFCA) in 2021 (Sturgeon *et al.*, 2021). One additional site was added during the survey. Video and stills imagery were successfully collected from 26 survey sites.

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## 1 Background and Introduction

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Cornwall Inshore Fisheries and Conservation Authority (Cornwall IFCA) carried out a survey between May and July in 2022 of the maerl feature of the Fal and Helford Special Area of Conservation (SAC). The aim of the survey was to get a better understanding of the varying types of maerl habitats present including: dense maerl (live and dead or dead), maerl sediment (live and dead or dead), sparse maerl (live and dead), scattered maerl (live and dead), maerl veneer (live and dead, static or live and dead, mobile) and areas of potential maerl which lack detail, and to provide an updated extent and distribution map within the Fal and Helford SAC. There were two parts to this survey and the current report details the second part. The first part consisted of an initial side-scan sonar survey in the Fal and Helford SAC, which was carried out by Cornwall IFCA in 2020 and 2021 (Sturgeon *et al.*, 2021). The initial survey gathered acoustic data within the SAC, focusing on Falmouth Bay and covered an area from Pendennis Point to the Helford River out to the Fal and Helford SAC boundary from Zone Point towards Manacle Point (Figure 1). This second part uses the acoustic data gathered in part one to identify transitions between different acoustic signatures, with the aim of verifying habitat types represented by the given acoustic signals, using drop down video and stills, and is reported below and in Jenkin *et al.*, 2023.

The survey was carried out to provide additional information in respect of the distribution of differing maerl habitats within Falmouth Bay. The results will aid in the finalisation of the Habitats Regulations Assessment (HRA) which is investigating the impact of potting on maerl, a designated feature of the Fal and Helford SAC. The purpose of the HRA is to ascertain whether the fishing activity, in this instance potting, has an effect equivalent to a Likely Significant Effect (LSE), or an Adverse Effect on Integrity (AEOI) of, the feature/ sub-features of the SAC. The outcome of the HRA will determine whether management measures are required in order to ensure that the assessed fishing activity, or activities, will have no adverse effect on the integrity of the SAC. Cornwall IFCA currently considers the likelihood of the activity (potting) occurring within the live maerl bed habitat is possible and the risk to the sensitive maerl habitat is medium and required more evidence to define the areas of live maerl within the Fal and Helford SAC.

The HRA is part of the revised approach to the management of commercial fisheries in European Marine Sites (EMS), that the Department for Environment, Food and Rural Affairs (Defra) announced in 2012. The objective of the revised approach was to ensure that all existing and potential commercial fishing activities were managed in accordance with Article 6 of Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora, the 'Habitats Directive'. The marine aspects of the Habitats Directive (Council Directive 92/43/EEC) were transposed to domestic law in the Conservation of Habitats and Species Regulations 2017.

The revised approach was implemented on an evidence based, risk-prioritised, and phased basis. Risk prioritisation is informed by using a matrix of the generic sensitivity of the sub-features of EMS, to a suite of fishing activities, as a decision making tool. These sub-feature/activity combinations have been categorised according to specific definitions, as red, amber, green or blue (high, medium, low or no risk respectively).



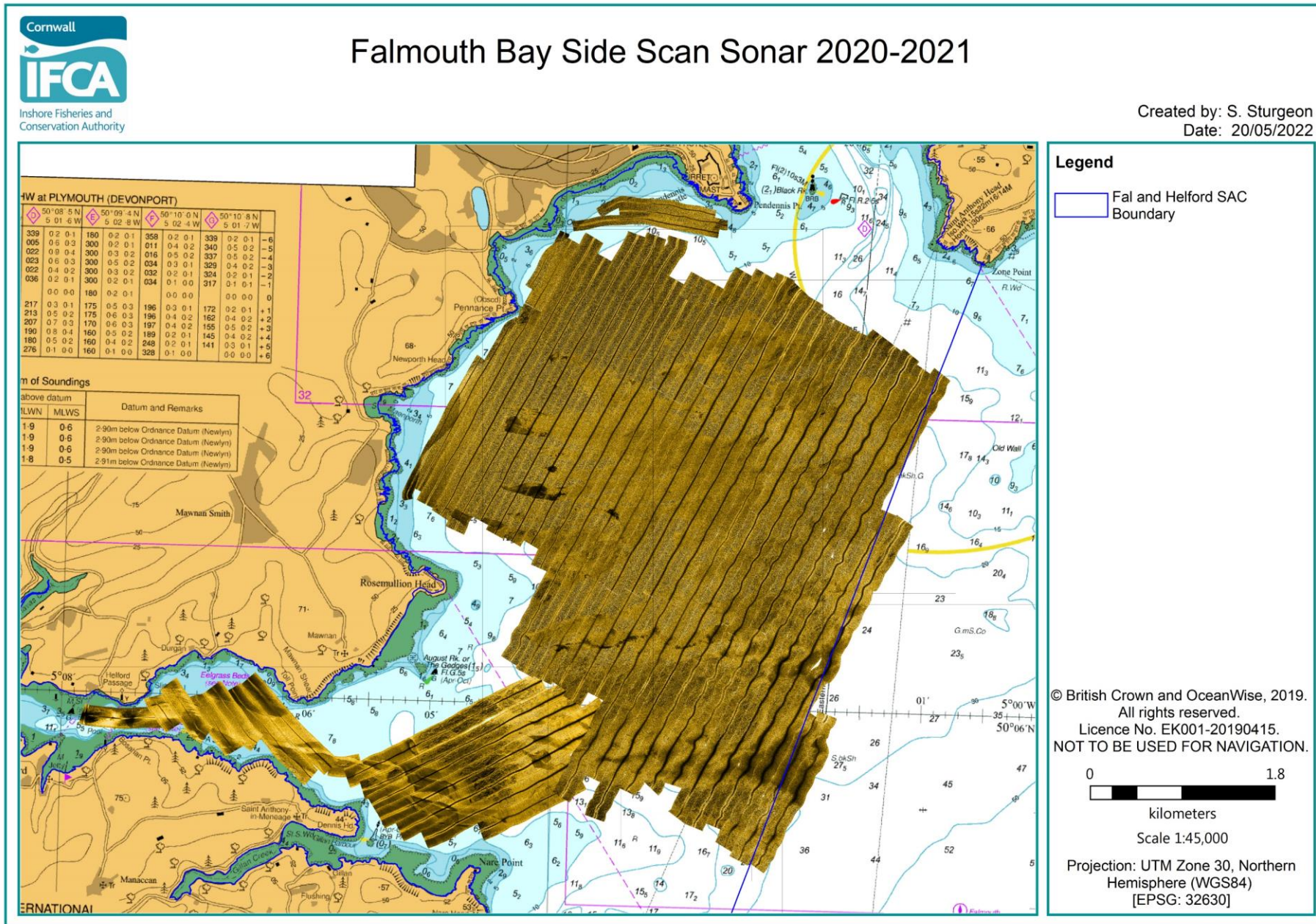


Figure 1: Side scan sonar survey completed within Falmouth Bay using an EdgeTech 4200 side scan sonar by Cornwall IFCA in 2020 to 2021



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The interaction of potting on the maerl feature was categorised as amber. An amber interaction is defined as “Where there is doubt as to whether conservation objectives for a feature (or sub-feature) will be achieved because of its sensitivity to a type of fishing, in all EMSs where that feature occurs, the effect of that activity or activities on such features will need to be assessed in detail at a site specific level. Appropriate management action should then be taken based on that assessment”. Activity/feature interactions identified within the matrix as amber risk require assessment to determine whether management of an activity is required to conserve site features.

Maerl beds have previously been assessed as having a high sensitivity to heavy potting activity, medium sensitivity to moderate levels of potting and low sensitivity to light and single use potting (Hall *et al.*, 2008). The levels were defined as;

- Heavy — Lifted daily, more than five pots per hectare (i.e. 100m by 100m) (equivalent to over 182,500 pot hauls per km<sup>2</sup> per year);
- Moderate — Lifted daily, two to four pots per hectare (equivalent to 73,000–182,500 pot hauls per km<sup>2</sup> per year);
- Light — Lifted daily, less than two pots per hectare (equivalent to less than 73,000 pot hauls per km<sup>2</sup> per year); and
- Single — Single accidental fishing event of a string.

The assessment aimed “to assess habitat sensitivity to fishing by comparing the severity of a fishing event against the rate of habitat recovery to derive a habitat sensitivity score (high, medium or low)” (Hall *et al.*, 2008). The sensitivity assessment result is based on the fact that maerl is fragile and is highly sensitive to damage from any source (Hall-Spencer, 1998) as it takes a very long time to recover (Walmsley *et al.*, 2015) due to having slow growth rates of around 1-2mm per year (Perry and Jackson, 2017).

The Natural England conservation advice describe the Fal and Helford SAC maerl bed feature as (Natural England, 2021);

“the largest outside of Scotland, Brittany or Ireland. The Fal and Helford maerl bed habitats range from pristine live maerl beds with up to 100% coverage to extensive areas of dead maerl with little to no live maerl. Two species of maerl occur on the site including the nationally scarce *Lithothamnion corallioides* and *Phymatolithon calcareum*.

The live maerl bed at St. Mawes is the largest and probably best known maerl habitat within the SAC. The large bed to the northwest and the smaller bed to the west of Castle Point are dominated by *L. corallioides* with a smaller area of *P. calcareum* found in the centre of the larger, northwest bed (Allen *et al.*, 2014; Howson *et al.*, 2004). Live maerl is also found in a large bed at Helford Passage (Gall, 2014) and throughout Falmouth Bay and Carrick Roads (Allen *et al.*, 2014).

There are extensive areas of dead and crushed maerl, and living maerl overlaying dead maerl found within the site (Allen *et al.*, 2014; Howson *et al.*, 2004), as well as an area of maerl in sediment. These areas of mixed maerl and sediments are comprised of maerl fragments combined with various sediment types including coarse sand,

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fine sediment, shells and stones. In places, expanses of maerl in sediment form small undulations on the sea floor (Scottish Natural Heritage (SNH), 1994).

Over fifty species of seaweed and many animal species associated with maerl habitats have been recorded at the site, including rarely recorded species such as the red algae *Gracilaria multipartita* and *Halymenia* species, and Couch's goby *Gobius couchi*. Maerl sediments provide important habitat for a range of species including deep burrowing species, attached seaweed, bivalves and crustaceans (Moore *et al.*, 1999). Infaunal core samples from dead maerl in the Outer Carrick Roads recorded in excess of 230 taxa at genus level (Posford Haskoning, 2004), highlighting that both live and dead maerl habitats support diverse communities".

The 2020 condition assessment found the maerl bed feature to be in unfavourable – declining condition (Table 1).

The drivers for the feature condition are historical aggregate extraction, water quality, both recreational and commercial anchoring and mooring (Natural England, 2020).

Condition Assessment: (Natural England, 2020)

Table 1: The Natural England condition assessment for maerl (Natural England, 2020).

Feature	Sub feature name	Assessment date	Feature condition	Confidence
H1130 Estuaries	A5.51 - Maerl beds	02/03/2020	Unfavourable - Declining	High
H1160 Large shallow inlets and bays	A5.51 - Maerl beds	02/03/2020	Unfavourable - Declining	High
H1110 Sandbanks which are slightly covered by sea water all the time	A5.51 - Maerl beds	02/03/2020	Unfavourable - Declining	High

Pressures that potting on the maerl habitat could cause as advised as 'Sensitive' by Natural England in the Advice on Operations for the site are (Natural England, 2022);

- Abrasion/disturbance of the substrate on the surface of the seabed
- Removal of non-target species
- Deoxygenation
- Introduction of light
- Introduction or spread of invasive non-indigenous species (INIS)
- Organic enrichment
- Penetration and/or disturbance of the substratum below the surface of the seabed, including abrasion

Historic survey data detailing maerl positions in the Fal and Helford SAC was collated to help identify suitable survey locations for the current survey (Figure 2). Historic data was downloaded from EMODnet and included EUNIS points, Broad-scale habitat (BSH) points and BSH polygons. Such historic surveys have frequently categorised any maerl present, whether live or dead, as a 'maerl bed'. Cornwall IFCA officers believe that live maerl beds and dead maerl gravel should be considered separately due to the structure (2D/ 3D), mobility, substratum and species present. This issue was raised with Natural England during a regular catch up meeting on 4<sup>th</sup> June 2020. A categorisation system for maerl bed habitats in England was produced by Natural England (Axelsson, 2022).



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## 1.1 Aims & Objectives

### 1.1.1 Aims

- To update the extent and distribution of maerl habitats within Falmouth Bay.

### 1.1.2 Objectives

- Collect high quality video and still imagery from 25 sites within the Fal and Helford SAC using the mapping European seabed habitats recommended operating guidelines for underwater video surveys (Coggan, 2007).
- Collect high quality video and still imagery of habitat transitions within the Fal and Helford SAC.
- Verify side scan sonar signatures from imagery collected during the survey.
- Map the distribution of the different maerl habitats using the Natural England maerl categorisation.



## 2 Methodology

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### 2.1 Survey Area

The survey was carried out within the Fal and Helford SAC on the south coast of Cornwall (Figure 2).

### 2.2 Survey sites

A total of 25 survey sites were planned as shown in Figure 3.



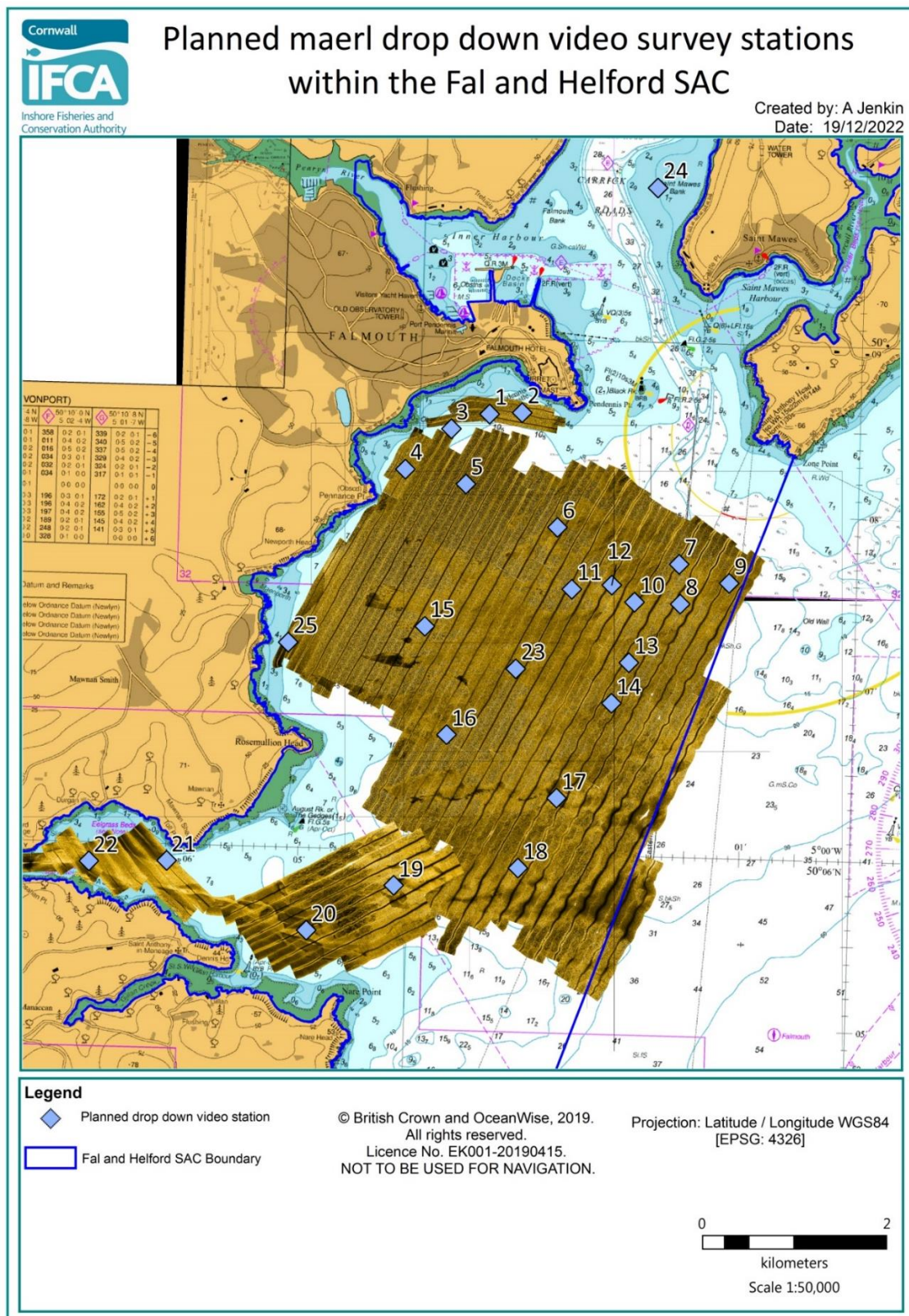


Figure 3: Planned survey sites for the Cornwall IFCA drop down video maerl survey within the Fal and Helford Special Area of Conservation (SAC)

### 2.3 Vessel Specifications

Research vessel (R/V) Tiger Lily VI is Cornwall IFCA's survey vessel (Figure 4) and was used as the platform for this survey. She is a South Boats 11 m Island MkII catamaran with twin IVECO 450hp engines; her Callsign is MRWR7. The general layout of Tiger Lily VI is shown in Appendix 1.

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Tiger Lily VI has been refitted for survey work and includes a purpose built survey station within the wheelhouse, fitted with an uninterruptable power supply (UPS) and a dedicated Global Positioning System (GPS) with NMEA outputs.



Figure 4: R/V Tiger Lily VI – Cornwall IFCA’s survey vessel.

### 2.4 Personnel

The crew during the survey days consisted of one Principal Scientific Officer, two Scientific Officers and an independent skipper onboard. The crew roles consisted of operating the stills camera and video, running software Hypack, survey logs and operating the winch. Three visitors from the University of Exeter were present during the survey over two of the three survey days.

### 2.5 Personal Protective Equipment (PPE)

Life jackets with personal location beacons (PLBs) and steel toe capped waterproof boots were worn while working on deck. During periods of rain and wind, waterproofs were worn. Hard hats were worn during deployment and recovery of the camera frame. There were no reported accidents or near misses during the survey.

### 2.6 Survey methodology

Video and digital still imagery was acquired using a STR SeaSpyder drop camera system (Appendix 2). The survey was carried out in line with Mapping European Seabed Habitats (MESH) recommended operating guidelines for underwater video and photographic imaging techniques (MESH, 2008).

The tows were planned at 200 m with a still image every 10 m at a speed of 0.5 knots aiming for 10 to 15 minutes per tow. Planned survey sites were loaded into Hypack Max Version 2019 for navigation purposes with 10 10 m radius rings around each site with the aim of having one still image at each ring. If the tide or wind moved the vessel off course a 10 m radius ring was added to each target so the officer would know when the vessel had moved 10 m.

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Prior to the deployment of the SeaSpyder for each tow, the video text overlay was checked and adjusted to display the survey name and tow number (e.g. "Cornwall IFCA\_01/06/2022. Fal Bay\_DDV\_02\_T1") and the GPS, heading and depth info was checked to ensure that it was updating correctly. The .jpeg file name prefix was checked and adjusted to display the survey name, tow number, date, time (UTC) and automatic image number (e.g. "CIFCA\_FalBay\_02\_T1\_20220601\_\_14\_23\_20\_\_0094.JPG"). The SeaSpyder camera was deployed through the A-Frame at the stern of Tiger Lily and lashed securely to the starboard side of the vessel between tows.

The video was set to record once the camera was just above the seabed. Com Port A was set to log to record all positional information from the USBL GPS antenna (Lat/ Long WGS84) for the entire tow. A target was created in Hypack to indicate the start of line (SOL); this was repeated at the end of line (EOL). The SeaSpyder was 'flown' with the frame legs just above the seabed for the tow. The camera frame was landed on the seabed every 10 m for a still image to be captured. Image separation varied slightly to ensure that the stills taken were of good quality (e.g. taken when the camera was focused on the seabed and the lens unobstructed) this sometimes led to a delay. Immediately upon having captured a still image a target was created in Hypack. Field notes were recorded for each target in Hypack such as image number, speed over ground and real-time observations of substrate and taxa (comma delimited) when possible.

For vessel and equipment specifications see Appendix 1 and Appendix 2.

### 2.7 Data handling

Hypack targets were used in data processing to obtain the exact time of each still image and the Easytrak Alpha USBL GPS log was used to obtain the exact location of each still image. All position information was recorded in the Lat/Long WGS84 projection and taken from a single GPS (USBL GPS antenna). GPS targets were recorded using the USBL GPS antenna set up on the wheelhouse roof of Tiger Lily. Hypack was set up to log a vessel position recorded every second and the Com Port A file was recording the USBL position from the camera for the duration of each tow. Hypack targets were extracted as a .txt file format and opened in Microsoft Excel (comma delimited). The Hypack 'logging' function was left running both survey days which outputs as a .RAW file. This data was opened with Microsoft Excel and cut to only include relevant strings of data such as date, time, position and depth. The data has not been extracted per tow but is available if required. Com Port A data was logged for the duration of each tow and saved in a .txt file format to the Topside PC.

Still images from the SeaSpyder camera were initially stored on the internal computer (sub-surface), then on completion of each tow the still images were transferred to the SeaSpyder topside control unit using FileZilla and filed by site number. Video files were captured to the SeaSpyder topside unit data drive (D:/). The stills and video files were transferred from the topside unit to a WD Passport for transport and storage at the end of each survey day. The log sheets were worked on from the network and saved regularly throughout the day.



## 2.8 Data analysis

Image analysis was carried out post-survey with each still image being assessed in terms of quality with categories good, acceptable or poor as follows;

- Good: Clear, camera on seabed and sediment type and fauna distinguishable
- Acceptable: Can make out the sediment type and what fauna are present but not the best quality
- Poor: Can't make out the sediment type or what fauna is present

Any poor-quality images were not carried forward for further analysis.

The position data for each tow were transferred to MapInfo Professional Version 17.0.2 and points were created to show the position of each still image (good and acceptable quality images only) and SOL/ EOL positions.

## 3 Results

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### 3.1 Cruise Narrative

All times are Universal Time Coordinated (UTC).

#### **21<sup>st</sup> March 2022**

R/V Tiger Lily departed Mylor at 10:00 on the 21/03/2022 with three Scientific Officers, an independent skipper and one member of staff from the University of Exeter on board. The vessel transited to St Mawes Bank first and the camera was deployed at 10:12. The visibility was too poor to collect good quality stills or video. The vessel then transited to the Exclusion Zone within the Fal Fishery and the camera was deployed at 10:39 to check if the visibility was any better at a different location. The visibility was too poor to collect good quality stills or video. The vessel returned to Mylor at 11:00 to drop off the guest and returned to the River Fal to trial the USBL beacon.

#### **12<sup>th</sup> May 2022**

R/V Tiger Lily departed Mylor at 08:20 on the 12/05/2022 with three Scientific Officers and an independent skipper. The vessel transited to the first site and the camera was deployed at 08:25. A total of ten tows were completed, obtaining 02:27:49 of video and 207 still images pre-QC (Table 2). The time and position on the video for Sites 08, 11, 06 and 05 was set to update at two second intervals.

Seaweed was stuck on the camera during the last tow which was finished early due to restricted visibility. The camera was recovered to deck by 15:33 and Tiger Lily departed for Mylor, arriving alongside at 17:15.

#### **1<sup>st</sup> June 2022**

R/V Tiger Lily departed Mylor at 07:50 on the 01/06/2022 with two Scientific Officers onboard, one whose role was skipper. Two students from the University of Exeter were also onboard. The vessel transited to the first site and the camera was deployed at 08:25. A test run was carried out initially to show the students how the equipment operates. A total of five tows were completed, obtaining 02:17:22 of video and 93 still images pre-QC (Table 3).

The camera was recovered to deck by 14:35 and Tiger Lily departed for Mylor, arriving alongside at 15:02.

#### **13<sup>th</sup> July 2022**

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R/V Tiger Lily departed Mylor at 06:20 on the 13/07/2020 with three Scientific Officer and an independent skipper on board. The vessel transited to the first site and the camera was deployed at 07:45. A total of 12 tows were completed, obtaining 03:22:53 of video and 293 still images pre-QC (Table 4).

The time and position did not update on the video overlay at Site 19 so the tow was finished after 16 images were captured. This is likely to be due to the location of the tow causing the vessel to lose GPS. One of the tows at Site 17, was a repeat. The camera was recovered to deck by 15:36 and Tiger Lily departed for Mylor, arriving alongside at 16:20.

High definition video footage and digital still images of the seabed (with scaling lasers and dedicated lighting) was acquired, using the downward facing camera, at 26 sites (Figure 5). One additional site was completed in addition to the 25 planned sites.

The daily logs are shown in Appendix 3. Tow information including still image and video position are summarised in Appendix 4.



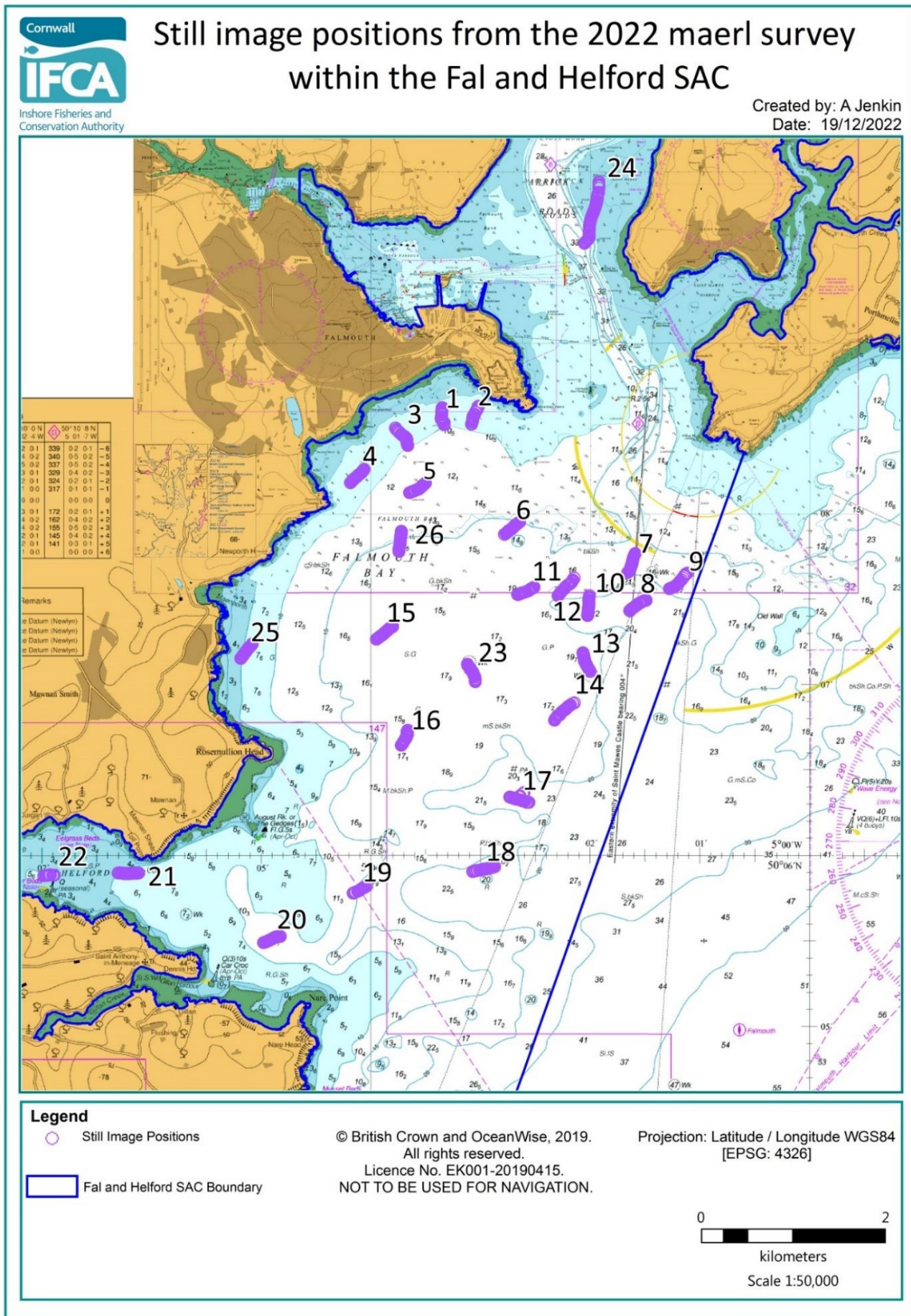


Figure 5: Still image positions and survey sites from the 2022 maerl survey within the Fal and Helford Special Area of Conservation (SAC)

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Table 2: Summary of video and still metadata and brief description of each tow from 12<sup>th</sup> May 2022.

Date	Site	Tow	Video Start Time	Video End Time	Video Length	No. of Stills per QA	No. of Stills post QA	Comments
12/05/2022	08	T1	09:43:42	10:09:31	00:25:49	22	22	Mixed sediment. Dead maerl and Live/ Dead maerl
12/05/2022	11	T1	10:27:53	10:58:26	00:30:33	23	22	Fine sediment/ Mixed sediment/ shell fragments. Sparse dead maerl, Dead maerl and Live/ Dead maerl.
12/05/2022	06	T1	11:09:23	11:22:45	00:13:22	22	22	Mixed sediment. Dead maerl, Live/ Dead maerl and Sparse Dead maerl
12/05/2022	05	T1	11:36:48	11:49:21	00:12:33	21	21	Maerl sediment, shell fragments. Live/ Dead maerl
12/05/2022	04	T1	12:41:34	12:53:44	00:12:10	22	22	Maerl sediment, shell fragments. Dead maerl and Live/ Dead maerl
12/05/2022	25	T1	13:15:06	13:26:39	00:11:33	21	21	Fine sediment, scattered shell/ Maerl sediment, shell fragments. Dead maerl, Live/ Dead maerl
12/05/2022	15	T1	13:41:56	13:52:08	00:10:12	21	21	Mixed sediment. Dead maerl and Live/ Dead maerl
12/05/2022	20	T1	14:25:01	14:37:07	00:12:06	21	21	Mixed sediment/ Fine sediment. Dead maerl, Live/ Dead maerl, Sparse dead maerl
12/05/2022	21	T1	14:59:27	15:12:10	00:12:43	22	22	Mixed sediment/ Sand, scattered pebbles/ shell fragments.
12/05/2022	22	T1	15:25:41	15:32:09	00:06:28	12	11	Sand/ shell fragments. Live/ Dead maerl, Live maerl, Dead maerl
<b>Total</b>	<b>10</b>				<b>02:27:29</b>	<b>207</b>	<b>205</b>	

Table 3: Summary of video and still metadata and brief description of each tow from 1<sup>st</sup> June 2022.

Date	Site	Transect	Video Start Time	Video End Time	Video Length	No. of Stills per QA	No. of Stills post QA	Comments
01/06/2022	23	T1	09:17:40	09:42:31	00:24:51	21	20	Mixed sediment/ Fine sediment, scattered shells. Dead maerl, Live/ Dead maerl, Sparse dead maerl
01/06/2022	16	T1	10:10:35	10:51:20	00:40:45	22	22	Mixed sediment. Live/ Dead maerl, Sparse Dead maerl, Sparse Live/ Dead maerl and Dead maerl

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01/06/2022	17	T1	11:28:19	11:49:06	00:20:47	8	7	Mixed sediment/ Fine sediment, scattered shells. Dead maerl
01/06/2022	01	T1	13:23:27	13:50:43	00:27:16	22	21	Live/ Dead maerl, dead shell
01/06/2022	02	T1	14:01:11	14:24:54	00:23:43	20	20	Live/ Dead maerl, dead shell transitioned to Mixed sediment. Live/Dead maerl transitioned to Mixed sediment. Sparse Live/ Dead maerl
<b>Total</b>	<b>5</b>				<b>02:17:22</b>	<b>93</b>		90

Table 4: Summary of video and still metadata and brief description of each tow from 13<sup>th</sup> July 2022.

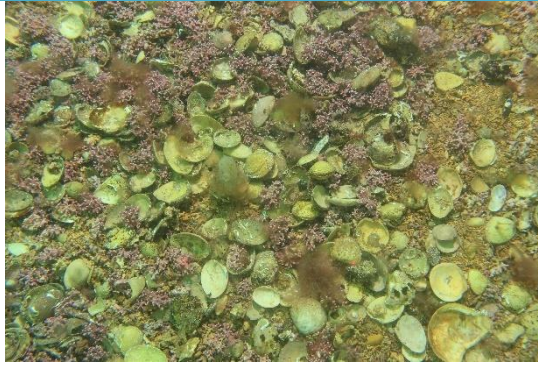



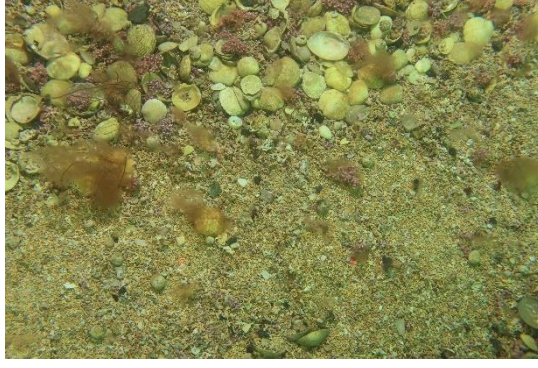



Date	Site	Transect	Video Start Time	Video End Time	Video Length	No. of Stills per QA	No. of Stills post QA	Comments
13/07/2022	24	T1	07:57:51	08:34:33	00:36:42	48	48	Maerl bed/ Fine/Maerl sediment, shell fragments. Live/ Dead maerl
13/07/2022	07	T1	09:03:34	09:17:02	00:13:28	22	22	Maerl sediment, shell. Live/ Dead maerl and Dead maerl
13/07/2022	09	T1	09:26:57	09:40:27	00:13:30	23	23	Mixed sediment. Live/ Dead maerl and Dead maerl
13/07/2022	12	T1	10:00:08	10:13:53	00:13:45	22	22	Mixed sediment. Dead maerl and Live/ Dead maerl
13/07/2022	10	T1	10:24:27	10:38:05	00:13:38	22	22	Mixed sediment/ Fine sediment. Dead maerl, Live/ Dead maerl and Sparse dead maerl
13/07/2022	13	T1	10:52:36	11:11:02	00:18:26	22	22	Mixed sediment, shell. Dead maerl
13/07/2022	14	T1	11:17:16	11:34:00	00:16:44	24	24	Mixed sediment. Live/ Dead maerl and Dead maerl
13/07/2022	19	T1	12:43:43	12:58:14	00:14:31	16	16	Fine sediment/ Maerl sediment, shell. Sparse dead maerl and Live/ Dead maerl
13/07/2022	18	T1	13:20:56	13:34:30	00:13:34	23	23	Mixed sediment. Dead maerl and Live/ Dead maerl
13/07/2022	17	T2	13:48:00	14:06:04	00:18:04	25	25	Fine sediment, shell fragments/ Mixed sediment. Dead maerl, Sparse dead maerl, Live/ Dead maerl
13/07/2022	03	T1	14:51:12	15:05:16	00:14:04	23	22	Maerl sediment, shell. Live/ Dead maerl
13/07/2022	26	T1	15:14:07	15:30:34	00:16:27	23	23	Maerl sediment, shell. Live/ Dead maerl
<b>Total</b>	<b>12</b>				<b>03:22:53</b>	<b>293</b>		



### 3.2 Representative Still Images



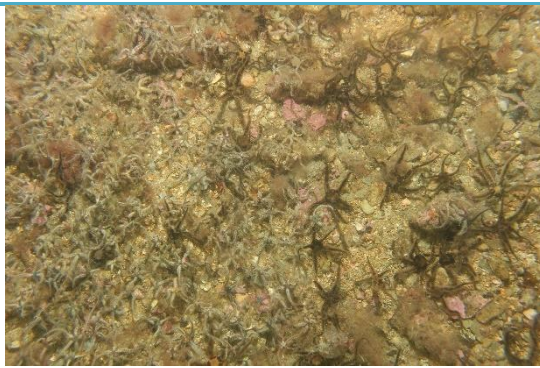
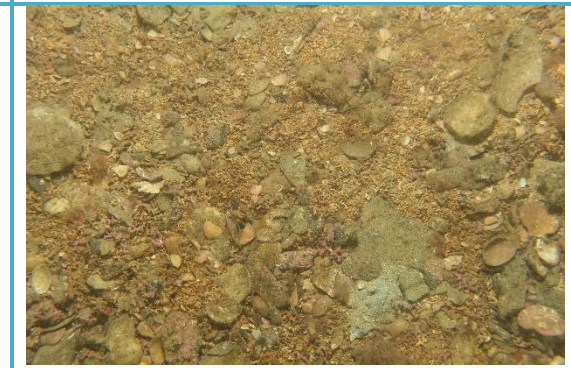
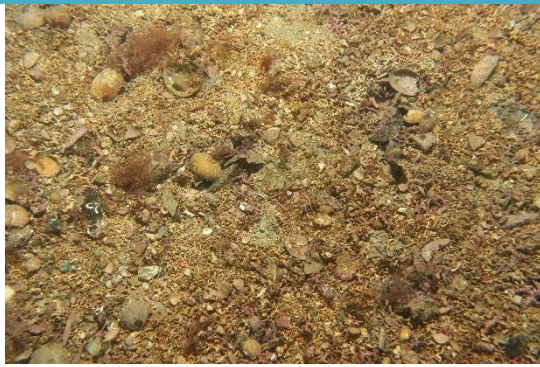



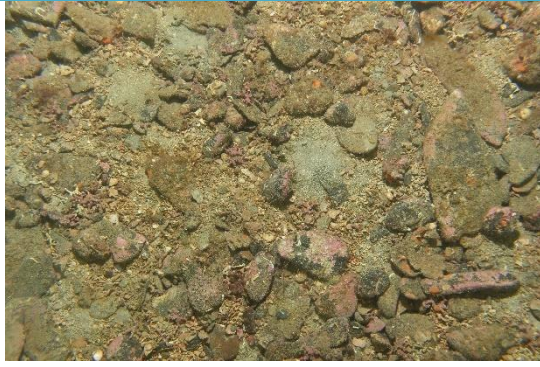

Representative still images from each tow at each site are shown in Table 5.

Table 5: Digital stills representative of the habitats recorded during the 2022 maerl survey within the Fal and Helford Special Area of Conservation (SAC)

Site	Tow	Image 1	Image 2
01	T1		
02	T1		
03	T1		
04	T1		



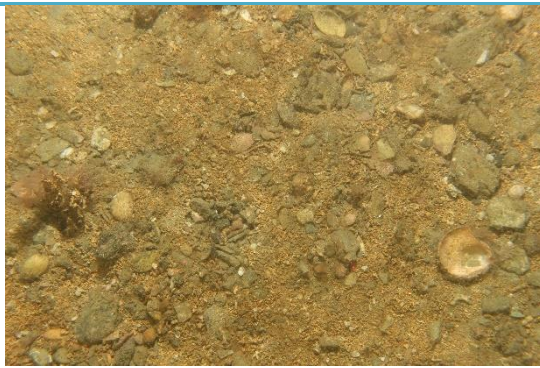









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05	T1		
06	T1		
07	T1		
08	T1		
09	T1		




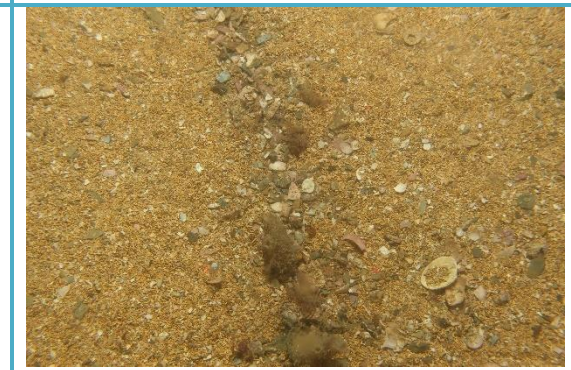








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10	T1		
11	T1		
12	T1		
13	T1		
14	T1		



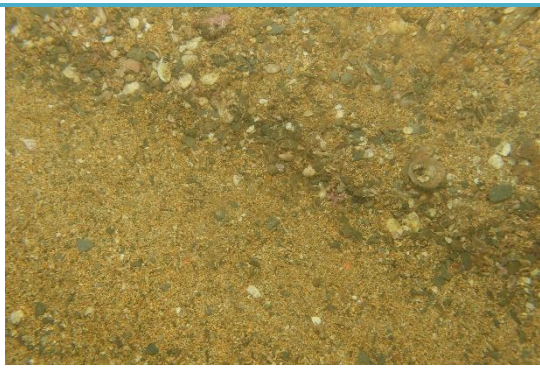

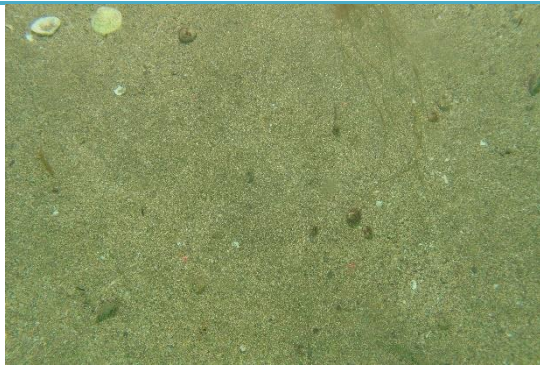
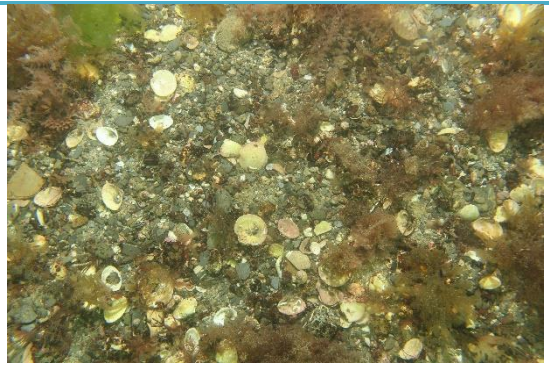






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15	T1		
16	T1		
17	T1		
17	T2		
18	T1		

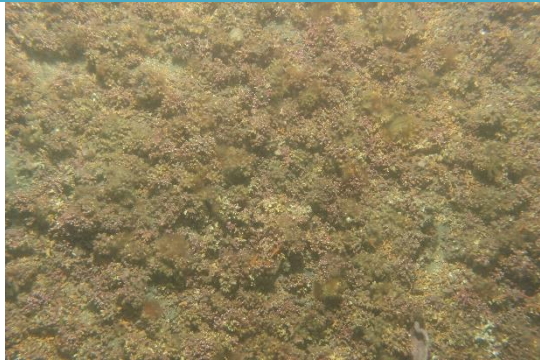


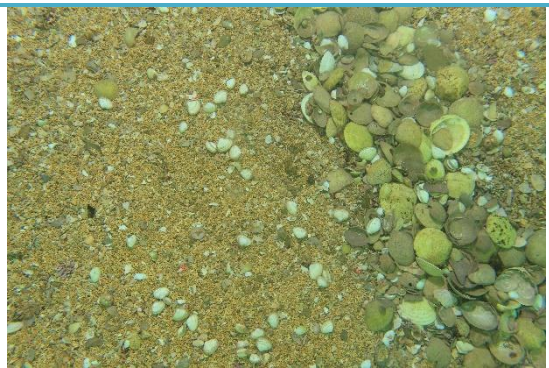




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19	T1		
20	T1		
21	T1		
22	T1		
23	T1		



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24	T1		
25	T1		
26	T1		

#### 4 Discussion

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The survey was successful in verifying different maerl habitats using high quality still images and video which can be used to verify habitat types represented by the given acoustic signal. Full details of the analysis and detailed results are reported on by Jenkin *et al.*, 2023 in the survey report for the 2022 Fal and Helford Drop Down Video Maerl Habitat Survey.

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Natural England, 2022. Natural England Advice on Operations Fal and Helford SAC. Available from:

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## 6 Appendices

### Appendix 1. Vessel specification

#### 6.1 R/V Tiger Lily VI

The survey was undertaken from Cornwall IFCA's Research Vessel (R/V) Tiger Lily VI and vessel specification is shown in Annex Table A. Tiger Lily VI is an MCA coded Cat 2 vessel. The vessel has been refitted for survey work and includes a purpose built survey station within the wheelhouse. All times are recorded as UTC and taken from the same source as the position data. The clocks on all of the data capture PCs were synched prior to departing the vessel's mooring.

Annex Table A: Research Vessel Tiger Lily VI Vessel Specification

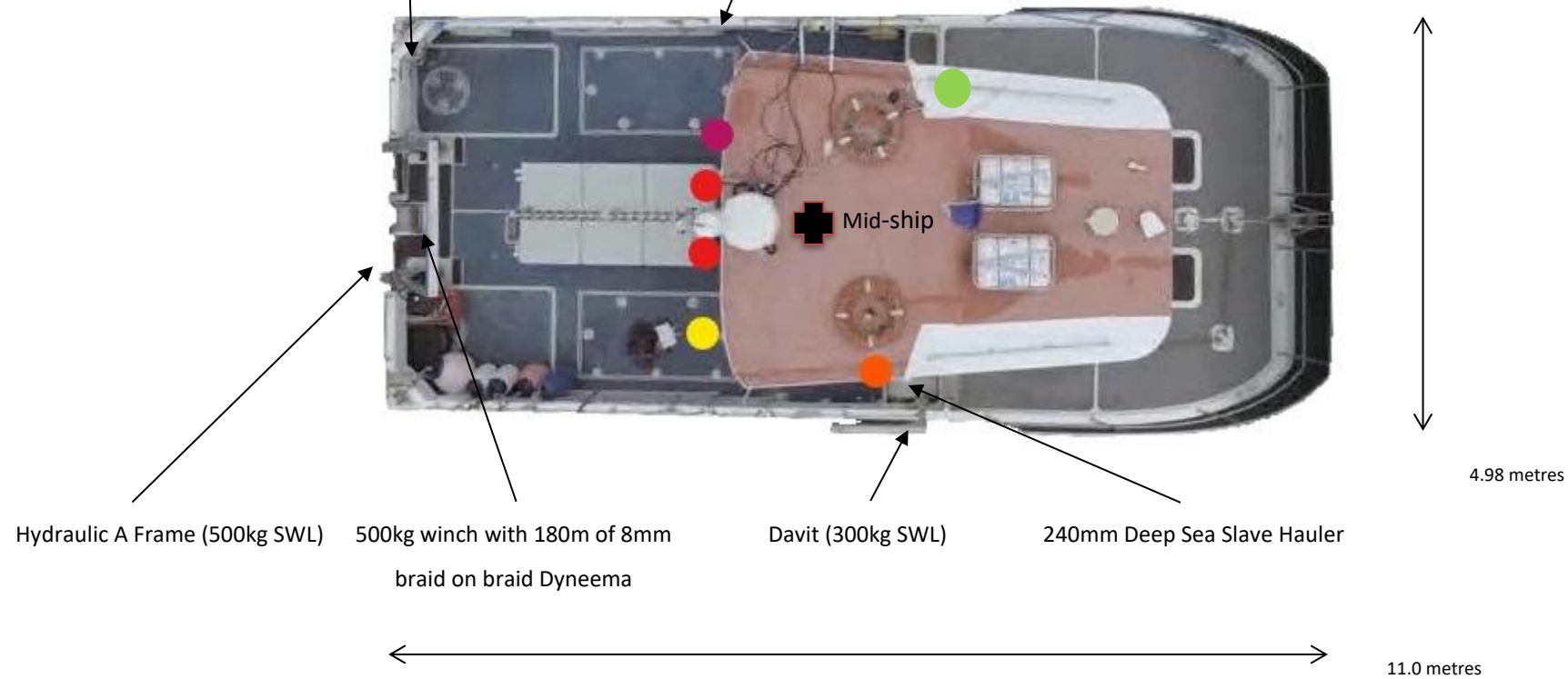
Builder	South Boats Ltd
Model	Island MkII
Built	2007
LOA	11.0m
Beam	4.98m
Draught	1.1m (aft)
Tonnage	c.10 tonnes
Area of operation	MCA Category 2
Call sign	MRWR7
MMSI Number	235054954
MECAL Certification number	M07WB0111059
Complement	14 (including min 2 crew)
Propulsion	2 x 450hp Iveco NEF series
Speed	Cruising: 16 – 18 knots Top: 24 – 26 knots
Range	c. 400 nautical miles
240v AC supply	Victron 3Kw power inverter 5KvA Volvo-Perkins generator (All 240 AC power is accessed via APC Smart UPS C1500)
Stern Gantry	500kg SWL
Winch (on stern gantry)	Spencer Carter 0.5t with scrolling level wind
Slave hauler	Sea Winch 200m dia.
Electric line hauler	12v Spencer Carter Bandit
Positioning	Hemisphere V500 GNSS 3 x Furuno GP32
NMEA data outputs	4 x USB 4 x Serial 4 x banjo
Navigation	Olex with data export Knockle Hypack Max
Connectivity	SATFI 4G Mobile broadband

**Appendix 2. Equipment specification**

**6.2 Positioning Software and Offsets**

Clamp for secondary davit position

Over the side pole mount



Equipment				Offset (m)				
NMEA Device	Plan Symbol	Make/Model	Offset Name	X (from bow)	X (mid-ship)	Y (from bow)	Y (mid-ship)	Z (from WL)
Navigation depth sounder	●	Furuno Navnet	Furuno transducer	6.10m	-0.60m	0.40m	2.09m	- 0.50m
GPS	●	Furuno GP32 x 2	Furuno mushroom antenna	6.40m	-0.90m	2.30m/2.85m	0.19m/-0.36m	+ 4.25m
GPS	●	Furuno GP32	Furuno mushroom antenna	4.80m	0.70m	0.80m	1.69m	+ 2.90m
GNSS	●	Hemisphere V500	Main GPS	6.40m	-0.90m	3.20m	-0.71m	+ 3.85
Portable GPS antenna	●	Applied Acoustics Easytrak	Portable GPS					



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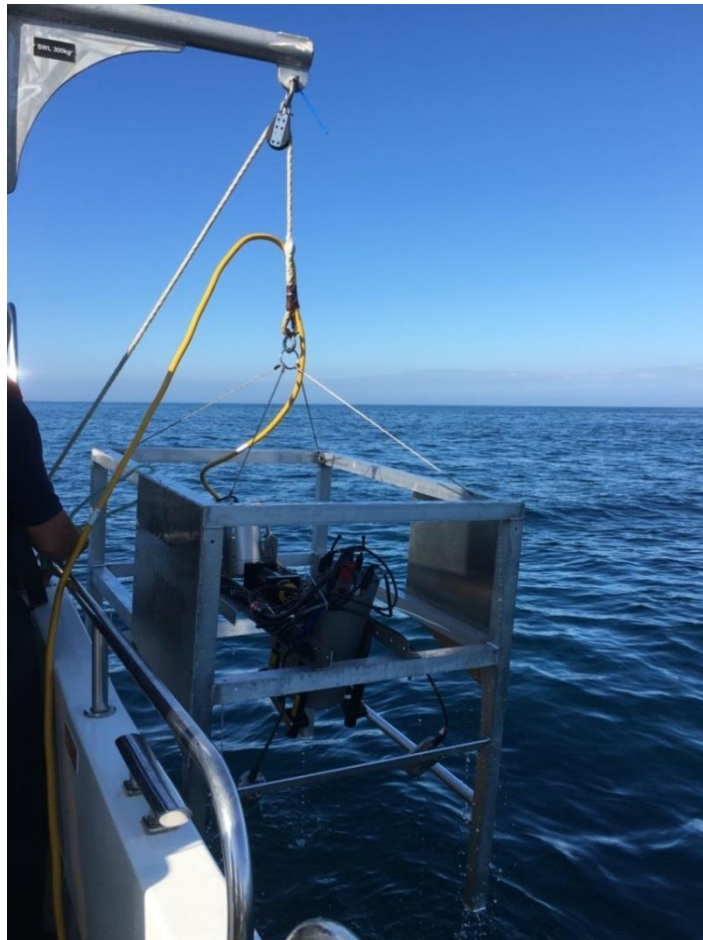
### 6.3 STR SeaSpyder drop camera system

Details of the system are available online: <http://www.str-subsea.com/sales/str-SeaSpyder-drop-camera-system>.

Appendix Table A shows the camera system specification and Appendix Figure A **Error! Reference source not found.** shows the camera system on the starboard side of R/V Tiger Lily.

Appendix Table A: SeaSpyder Drop Camera specification

Equipment	Camera System
Manufacturer	Subsea Technology & Rentals Ltd
Video	HD video 600 lines PAL
Stills	18 mega pixels
Height control	Video footage
Lighting	Four high density LED 20w lamps
Image scaling	4 Dual lasers for precise imagery scaling
Shutter control	Remote from deck
Additional info	<ul style="list-style-type: none"> <li>• Full remote control of camera functions including automatic and manual focus control</li> <li>• 'On-the-fly' image download</li> <li>• High speed digital telemetry link to camera and sensors</li> <li>• High power underwater flash</li> <li>• Inbuilt compass and depth sensors</li> </ul>



Appendix Figure A: Drop Down Video mounted camera system and frame used onboard R/V Tiger Lily

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#### 6.4 Applied Acoustics Easytrak Alpha USBL

Details of the system are available online: <https://www.aatechnologiesgroup.com/applied-acoustics/products/easytrak-usbl-systems/easytrak-alpha-2665-alpha-portable-2655/>


Appendix Table B shows the USBL system specification.

Appendix Table B: Applied Acoustics Easytrak Alpha USBL specification

Equipment	USBL System
Manufacturer	Applied Acoustics
Model	Easytrak Alpha 2665 Series
Range Resolution	10 cm
Position accuracy	2.0° RMS, 3.5% of slant range. Excluding effects due to GPS error, incorrect VOS, ray bending, compass, pitch and roll effects, and acceptable S/N ratio.
Heading sensor accuracy	<0.5° RMS
Tilt sensor accuracy	Accuracy $\pm$ <1.0° RMS Range $\pm$ 80°
Internal GPS / DGPS	SiRF StarIII Chip set Receiver <10m, 2D RMS <5m 2DRMS, SBAS (WAAS, EGNOS, MSAS...) corrected.


## Appendix 3. Daily Logs

21<sup>st</sup> March 2022

Project	2022_CIFC_FAH_DDV_Maerl		Survey code	20220321_CIFCA_FAH_DDV_Maerl			
Date	2022-03-21	Coordinate reference system	WGS84	Weather			
Location	Falmouth Bay	Position Fix	Hemisphere V500 GNSS (GPS)	Wind direction	ESE		
Survey Type	DDV	Horizontal Accuracy	0.5 m	Wind speed	14-20 mph		
Vessel	Tiger Lily	Time zone	UTC	Beaufort scale	4		
Skipper	David Raymond	Depth reference system	Lowest Astronomical Tide	Cloud coverage	2/8		
IFCA officers	Colin Trundle, Stephanie Sturgeon, Annie Jenkin			Time recorded	10:00		
Visitors	None			Weather			
Time depart Mylor	10:00	Camera make and model	STR SeaSpyder drop camera system.	Wind direction	-		<i>Data entered by</i>
Time return Mylor	11:00	Height of camera	0.6 m	Wind speed	-		AJ / SS(2022-03-21)
High water time	07:04 (UTC)	Calibration Notes	Laser scaling: horizontal 210 mm, vertical 200 mm	Beaufort scale	-		
High water (m)	5.18 m	Toolbox time	09:45	Cloud coverage	-	QA	
Tide recorded from	Falmouth	Induction	Not required	Time recorded	-	AJ (2022-05-18)	
Description of survey	Day one of the maerl survey. Poor visibility. No camera tows completed.						
Time	Type	Details/description					
07:45		On board, setting up					
10:00		Depart Mylor					
10:12	DDV	Transit to survey site. Deploying camera frame. Camera in water					
10:15	DDV	Camera on seafloor. Poor viz					
10:27	DDV	Recovering camera					
10:29	DDV	Camera recovered - transit to St.Mawes					
10:39	DDV	Camera deployed					
10:40	DDV	Camera on seafloor. Poor viz					
10:43	DDV	Recovering camera					
10:47	DDV	Camera recovered - transit to Mylor					
11:00		Arrive Mylor					
11:10		Depart Mylor for other survey work					




12<sup>th</sup> May 2022

Project	2022 Falmouth Bay Maerl DDV		Survey code	20220512_CIFCA_DDV_Fal			
Date	2022-05-12	Coordinate reference system	WGS84	Weather			
Location	Falmouth Bay	Position Fix	Easytrak Alpha USBL GPS antenna	Wind direction	W		
Survey Type	DDV	Horizontal Accuracy	0.5 m	Wind speed	9-13 mph		
Vessel	Tiger Lily VI	Time zone	UTC	Beaufort scale	2		
Skipper	David Raymond	Depth reference system	Lowest Astronomical Tide	Cloud coverage	5/8		
IFCA officers	Colin Trundle, Stephanie Sturgeon, Annie Jenkin			Time recorded	08:15		
Visitors	None			Weather			
Time depart Mylor	08:20	Camera make and model	STR SeaSpyder drop camera system.	Wind direction	N/A		<i>Data entered by</i>
Time return Mylor	17:15	Height of camera	0.6 m	Wind speed	N/A		AJ SS (2022-05-12)
High water time	08:24:00 (UTC)	Calibration Notes	Laser scaling: horizontal 210 mm vertical 220mm	Beaufort scale	N/A		
High water (m)	1.34	Toolbox time	08:20	Cloud coverage	N/A	QA	
Tide recorded from	Falmouth	Induction	Not required	Time recorded	N/A	AJ (03/08/2022)	
Description of survey	DDV survey of maerl habitats within the Fal and Helford SAC						
Time	Type	Details/description					
07:15		On board, setting up					
08:20		Depart Mylor					
09:16	DDV	Deploying camera frame. Camera in water					
09:20	DDV	Camera on seabed					
09:28	DDV	Finish setting up beacon					
09:33	DDV	Beacon set up. Recover camera to surface to re-position vessel					
09:40	DDV	On site. Deploying camera to seabed					
09:43:42	DDV	Site 8_T1_SOL					
10:09:31	DDV	Site 8_T1_EOL					
10:27:53	DDV	Site 11_T1_SOL					
10:58:26	DDV	Site 11_T1_EOL					
11:09:23	DDV	Site 6_T1_SOL					
11:22:45	DDV	Site 6_T1_EOL					
11:36:48	DDV	Site 5_T1_SOL					
11:49:21	DDV	Site 5_T1_EOL					
12:41:34	DDV	Site 4_T1_SOL					
12:53:44	DDV	Site 4_T1_EOL					
13:15:06	DDV	Site 25_T1_SOL					
13:26:39	DDV	Site 25_T1_EOL					
13:41:56	DDV	Site 15_T1_SOL					
13:52:08	DDV	Site 15_T1_EOL					
14:25:01	DDV	Site 20_T1_SOL					

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14:37:07	DDV	Site 20_T1_EOL
14:59:27	DDV	Site 21_T1_SOL
15:12:10	DDV	Site 21_T1_EOL
15:25:41	DDV	Site 22_T1_SOL
15:32:09	DDV	Site 22_T1_EOL
15:33:00	DDV	Weed stuck on camera. Recover camera to deck.
15:45		Depart site
17:15		Arrive Mylor
18:15		Depart vessel

1<sup>st</sup> June 2022


Project	2022 Falmouth Bay Maerl DDV		Survey code	20220601_CIFCA_DDV_Fal			
Date	2022-06-01	Coordinate reference system	WGS84	Weather			
Location	Falmouth Bay	Position Fix	Easytrak Alpha USBL GPS antenna	Wind direction	NW		
Survey Type	DDV	Horizontal Accuracy	0.5 m	Wind speed	2-5mph		
Vessel	Tiger Lily VI	Time zone	UTC	Beaufort scale	2		
Skipper	Colin Trundle	Depth reference system	Lowest Astronomical Tide	Cloud coverage	2/8		
IFCA officers	Colin Trundle, Stephanie Sturgeon			Time recorded	07:41		
Visitors	UoE Students - SP, KC			Weather			
Time depart Mylor	07:50	Camera make and model	STR SeaSpyder drop camera system.	Wind direction	N/A		<i>Data entered by</i>
Time return Mylor	15:45	Height of camera	0.6 m	Wind speed	N/A		SS (2022-06-01)
High water time	06:12 (UTC)	Calibration Notes	Laser scaling: horizontal 21 mm, 20.5 mm, vertical 21 mm, 21 mm	Beaufort scale	N/A		
High water (m)	4.71	Toolbox time	07:50	Cloud coverage	N/A	QA	
Tide recorded from	Falmouth	Induction	06:10	Time recorded	N/A	SS (2022-06-06)	
Description of survey	DDV survey of maerl habitats within the Fal and Helford SAC						
Time	Type	Details/description					
06:00		On board, setting up					
07:50		Depart Mylor					
08:00		Hypack Log started, Echosounder error					
08:25	DDV	Deploying camera frame. Camera in water					
08:30	DDV	Finish setting up beacon					
08:41	DDV	SeaSpyder camera time 20 seconds ahead, unable to change					
08:45	DDV	On site. Deploying camera to seabed					
08:49:39	DDV	Site Test_T1_SOL					
08:53:19	DDV	Site Test_T1_EOL					
09:17:40	DDV	Site 23_T1_SOL					
09:42:31	DDV	Site 23_T1_EOL					
10:10:35	DDV	Site 16_T1_SOL					
10:51:20	DDV	Site 16_T1_EOL					
11:28:19	DDV	Site 17_T1_SOL					
11:49:06	DDV	Site 17_T1_EOL					
11:55	DDV	Attempting to restart Site 17 but wind changing drift direction each time repositioning					
12:40	DDV	Lunch					
13:23:27	DDV	Site 01_T1_SOL					
13:50:43	DDV	Site 01_T1_EOL					



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14:01:11	DDV	Site 02_T1_SOL
14:24:54	DDV	Site 02_T1_EOL
14:35	DDV	Recover camera to deck.
14:45		Depart site
15:02		Arrive Mylor
15:45		Depart vessel

13<sup>th</sup> July 2022

<b>Project</b>	2022 Falmouth Bay Maerl DDV		<b>Survey code</b>	20220713_CIFCA_DDV_Fal			
<b>Date</b>	2022-07-13	<b>Coordinate reference system</b>	WGS84	<b>Weather</b>			
<b>Location</b>	Falmouth Bay	<b>Position Fix</b>	Easytrak Alpha USBL GPS antenna	<b>Wind direction</b>	N		
<b>Survey Type</b>	DDV	<b>Horizontal Accuracy</b>	0.5 m	<b>Wind speed</b>	10mph		
<b>Vessel</b>	Tiger Lily VI	<b>Time zone</b>	UTC	<b>Beaufort scale</b>	2		
<b>Skipper</b>	David Raymond	<b>Depth reference system</b>	Lowest Astronomical Tide	<b>Cloud coverage</b>	6/8		
<b>IFCA officers</b>	Colin Trundle, Annie Jenkin, Stephanie Sturgeon			<b>Time recorded</b>	07:00:00 (UTC)		
<b>Visitors</b>	None			<b>Weather</b>			
<b>Time depart Mylor</b>	07:20	<b>Camera make and model</b>	STR SeaSpyder drop camera system.	<b>Wind direction</b>	N/A		<i>Data entered by</i>
<b>Time return Mylor</b>	16:20	<b>Height of camera</b>	0.6 m	<b>Wind speed</b>	N/A		SS/ AJ (2022-07-13)
<b>High water time</b>	04:25 (UTC)	<b>Calibration Notes</b>	Laser scaling: horizontal (top) 200mm (bottom) 210mm and vertical 210mm	<b>Beaufort scale</b>	N/A		
<b>High water (m)</b>	4.87	<b>Toolbox time</b>	07:30	<b>Cloud coverage</b>	N/A	QA	
<b>Tide recorded from</b>	Falmouth	<b>Induction</b>	Not required	<b>Time recorded</b>	N/A	SS/ AJ (2022-08-03)	
<b>Description of survey</b>	DDV survey of maerl habitats within the Fal and Helford SAC						
<b>Time</b>	<b>Type</b>	<b>Details/description</b>					
06:20		On board, setting up					
07:20		Depart Mylor					
07:35	DDV	Finish setting up beacon					
07:40	DDV	Beacon set up					
07:45	DDV	Deploying camera frame. Camera in water					
07:49		Re-position vessel					
07:55	DDV	Camera on seabed					
07:57:51	DDV	Site 24_T1_SOL					
08:34:33	DDV	Site 24_T1_EOL					
09:03:34	DDV	Site 07_T1_SOL					
09:17:02	DDV	Site 07_T1_EOL					
09:26:57	DDV	Site 09_T1_SOL					
09:40:27	DDV	Site 09_T1_EOL					
10:00:08	DDV	Site 12_T1_SOL					
10:13:53	DDV	Site 12_T1_EOL					
10:24:27	DDV	Site 10_T1_SOL					
10:38:05	DDV	Site 10_T1_EOL					
10:52:36	DDV	Site 13_T1_SOL					
11:11:02	DDV	Site 13_T1_EOL					

## CIFCA\_SAC\_FAH\_2022\_DDV\_Maerl\_FieldReport

11:17:16	DDV	Site 14_T1_SOL
11:34:00	DDV	Site 14_T1_EOL
11:45		Lunch
12:43:43	DDV	Site 19_T1_SOL
12:58:14	DDV	Site 19_T1_EOL
13:20:56	DDV	Site 18_T1_SOL
13:34:30	DDV	Site 18_T1_EOL
13:48:00	DDV	Site 17_T2_SOL
14:06:04	DDV	Site 17_T2_EOL
14:51:12	DDV	Site 03_T1_SOL
15:05:16	DDV	Site 03_T1_EOL
15:14:08	DDV	Site 26_T1_SOL
15:30:34	DDV	Site 26_T1_EOL
15:36	DDV	Recover camera to deck.
15:40		Depart site
16:20		Arrive Mylor
17:30		Depart vessel



## Appendix 4. Still and Video position data

## Site 1 Tow 1

Project Code	20220601_CIFCA_DDV_Fal	SOL Time (hh:mm:ss)	13:23:27	SOL depth (m)	10	Video file name(s)	CIFCA_FalBay_01_T1_20220601_VID_13_23_46	
Date	01/06/2022	EOL Time (hh:mm:ss)	13:50:43	EOL depth (m)	6.2	Hypack track file (vessel position)	Hypack_DDV_Fal_Maerl_20220601_0000_0800.RAW	
Vessel	Tiger Lily VI	Length of video	00:27:16	Number of stills pre QC	22	Com port A file (USBL position)	ComPortA_Site01_T1_20220601_1323.txt	
Site ID	Falmouth Bay	GPS recorded from	Easytrak Alpha USBL GPS antenna	Number of stills post QC	21	Winch operator	CT	
Tow ID	Site 1 Tow 1	Time recorded from	Hemisphere V500 GNSS	Avg vessel speed (kts)	0.3	Camera operator	SS	
Description of tow (direction/ current/ tides/ overall habitat)							Data recorder	SS
Waves of maerl sediment and shell with live and dead maerl. NW tow, partial using engines then N drift.								
Still Time	File name (.JPG)	Lat	Long	Depth (m)	Speed (kts)	Comments / description	Quality	Reason
13:23:27	Site 01_T1_SOL	50.141943	-5.055555			Depth shallow, some images with green hue.		
13:24:25	CIFCA_FalBay_01_T1_20220601_13_24_21_0054	50.142027	-5.055575	10.0	0.2	Maerl sediment, shell. Live/ Dead maerl	Acceptable	Colour balance
13:24:25	CIFCA_FalBay_01_T1_20220601_13_24_23_0055			10.0	0.2	N/A	Poor	Duplicate
13:25:29	CIFCA_FalBay_01_T1_20220601_13_25_27_0056	50.142118	-5.055600	10.0	0.2	Maerl sediment, shell. Live/ Dead maerl	Good	
13:27:36	CIFCA_FalBay_01_T1_20220601_13_27_37_0057	50.142193	-5.055612	9.7	0.3	Maerl sediment, shell. Live/ Dead maerl	Good	
13:29:19	CIFCA_FalBay_01_T1_20220601_13_29_16_0058	50.142240	-5.055590	9.5	0.4	Maerl sediment, shell. Live/ Dead maerl	Good	
13:30:19	CIFCA_FalBay_01_T1_20220601_13_30_17_0059	50.142330	-5.055747	9.3	0.1	Maerl sediment, shell. Live/ Dead maerl	Good	
13:32:55	CIFCA_FalBay_01_T1_20220601_13_32_49_0060	50.142415	-5.055847	9.0	0.2	Maerl sediment, shell. Live/ Dead maerl	Good	
13:34:30	CIFCA_FalBay_01_T1_20220601_13_34_29_0061	50.142507	-5.055893	8.9	0.3	Maerl sediment, shell. Live/ Dead maerl	Good	
13:37:46	CIFCA_FalBay_01_T1_20220601_13_37_45_0062	50.142560	-5.055960	8.4	0.3	Maerl sediment, shell. Live/ Dead maerl	Acceptable	Silt cloud
13:40:37	CIFCA_FalBay_01_T1_20220601_13_40_37_0063	50.142578	-5.056045	8.3	0.4	Maerl sediment, shell. Live/ Dead maerl	Good	
13:41:34	CIFCA_FalBay_01_T1_20220601_13_41_30_0064	50.142688	-5.056022	7.9	0.4	Maerl sediment, shell. Live/ Dead maerl	Acceptable	Out of focus
13:42:06	CIFCA_FalBay_01_T1_20220601_13_42_05_0065	50.142748	-5.056020	7.7	0.4	Maerl sediment, shell. Live/ Dead maerl	Good	
13:42:58	CIFCA_FalBay_01_T1_20220601_13_42_55_0066	50.142857	-5.056002	7.5	0.4	Maerl sediment, shell. Live/ Dead maerl	Good	
13:44:05	CIFCA_FalBay_01_T1_20220601_13_44_04_0067	50.143007	-5.055968	7.1	0.4	Maerl sediment, shell. Live/ Dead maerl	Acceptable	Colour balance
13:44:47	CIFCA_FalBay_01_T1_20220601_13_44_44_0068	50.143070	-5.055953	7.0	0.4	Maerl sediment, shell. Live/ Dead maerl	Acceptable	Silt cloud
13:45:32	CIFCA_FalBay_01_T1_20220601_13_45_30_0069	50.143153	-5.055958	6.9	0.4	Maerl sediment, shell. Live/ Dead maerl	Good	
13:46:27	CIFCA_FalBay_01_T1_20220601_13_46_26_0070	50.143253	-5.055945	6.7	0.4	Maerl sediment, shell. Live/ Dead maerl	Good	
13:47:12	CIFCA_FalBay_01_T1_20220601_13_47_11_0071	50.143340	-5.055933	6.5	0.4	Maerl sediment, shell. Live/ Dead maerl	Good	
13:48:00	CIFCA_FalBay_01_T1_20220601_13_47_59_0072	50.143428	-5.055933	6.4	0.4	Maerl sediment, shell. Live/ Dead maerl	Good	
13:48:45	CIFCA_FalBay_01_T1_20220601_13_48_44_0073	50.143508	-5.055922	6.2	0.4	Maerl sediment, shell. Dead maerl	Acceptable	Colour balance
13:49:29	CIFCA_FalBay_01_T1_20220601_13_49_28_0074	50.143612	-5.055908	6.2	0.4	Maerl sediment, shell. Dead maerl	Acceptable	Colour balance
13:50:19	CIFCA_FalBay_01_T1_20220601_13_50_17_0075	50.143705	-5.055887	6.2	0.4	Maerl sediment, shell. Dead maerl	Good	
13:50:43	Site 01_T1_EOL	50.143760	-5.055872					



## Site 2 Tow 1

Still Time	File name (.JPG)	Lat	Long	Depth (m)	Speed (kts)	Comments / description	Quality	Reason
14:01:11	Site 02_T1_SOL	50.142037	-5.051460					
14:01:37	CIFCA_FalBay_02_T1_20220601_14_01_35_0076	50.142085	-5.051430	9.9	0.5	Maerl sediment, shell. Live/ Dead maerl	Good	
14:02:17	CIFCA_FalBay_02_T1_20220601_14_02_14_0077	50.142165	-5.051407	9.7	0.4	Maerl sediment, shell. Live/ Dead maerl	Good	
14:03:25	CIFCA_FalBay_02_T1_20220601_14_03_21_0078	50.142307	-5.051348	9.4	0.4	Maerl sediment, shell. Live/ Dead maerl	Good	
14:04:13	CIFCA_FalBay_02_T1_20220601_14_04_10_0079	50.142387	-5.051290	9.1	0.3	Maerl sediment, shell. Live/ Dead maerl	Good	
14:05:00	CIFCA_FalBay_02_T1_20220601_14_04_58_0080	50.142458	-5.051282	9.4	0.3	Maerl sediment, shell. Live/ Dead maerl	Good	
14:06:36	CIFCA_FalBay_02_T1_20220601_14_06_35_0081	50.142573	-5.051243	8.6	0.2	Maerl sediment, shell. Live/ Dead maerl	Good	
14:07:34	CIFCA_FalBay_02_T1_20220601_14_07_33_0082	50.142647	-5.051228	8.6	0.3	Maerl sediment, shell. Live/ Dead maerl	Good	
14:09:12	CIFCA_FalBay_02_T1_20220601_14_09_11_0083	50.142748	-5.051212	8.8	0.4	Maerl sediment, shell. Live/ Dead maerl	Good	
14:10:26	CIFCA_FalBay_02_T1_20220601_14_10_25_0084	50.142833	-5.051197	8.3	0.3	Mixed sediment. Live/ Dead maerl	Good	
14:13:25	CIFCA_FalBay_02_T1_20220601_14_13_20_0085	50.142893	-5.051183	8.6	0.4	Mixed sediment. Live/ Dead maerl	Good	
14:14:58	CIFCA_FalBay_02_T1_20220601_14_14_56_0086	50.142998	-5.051068	8.5	0.4	Mixed sediment. Live/ Dead maerl	Good	
14:15:46	CIFCA_FalBay_02_T1_20220601_14_15_44_0087	50.143077	-5.050990	8.3	0.4	Mixed sediment. Live/ Dead maerl	Good	
14:16:33	N/A			8.0	0.3	Image didn't take		
14:17:23	CIFCA_FalBay_02_T1_20220601_14_17_21_0088	50.143247	-5.050842	8.0	0.3	Mixed sediment. Live/ Dead maerl	Good	
14:18:19	CIFCA_FalBay_02_T1_20220601_14_18_17_0089	50.143330	-5.050770	8.6	0.3	Mixed sediment. Live/ Dead maerl	Good	
14:19:10	CIFCA_FalBay_02_T1_20220601_14_19_08_0090	50.143403	-5.050698	8.6	0.3	Mixed sediment. Live/ Dead maerl	Good	
14:20:14	CIFCA_FalBay_02_T1_20220601_14_20_11_0091	50.143485	-5.050632	7.8	0.3	Mixed sediment. Sparse Dead maerl	Good	
14:21:15	CIFCA_FalBay_02_T1_20220601_14_21_14_0092	50.143568	-5.050573	7.7	0.3	Mixed sediment. Sparse Live/ Dead maerl	Good	
14:22:16	CIFCA_FalBay_02_T1_20220601_14_22_14_0093	50.143653	-5.050505	7.6	0.3	Mixed sediment. Sparse Live/ Dead maerl	Good	
14:23:22	CIFCA_FalBay_02_T1_20220601_14_23_20_0094	50.143748	-5.050448	7.5	0.3	Mixed sediment. Sparse Live/ Dead maerl	Good	
14:24:33	CIFCA_FalBay_02_T1_20220601_14_24_30_0095	50.143837	-5.050393	7.4	0.3	Mixed sediment. Sparse Live/ Dead maerl	Good	
14:24:54	Site 02_T1_EOL	50.143860	-5.050360					

## Site 3 Tow 1

Project Code	20220713_CIFCA_DDV_Fal	SOL Time (hh:mm:ss)	14:51:12	SOL depth (m)	11.5	Video file name(s)	CIFCA_FalBay_03_T1_20220713_VID_14_51_13	
Date	13/07/2022	EOL Time (hh:mm:ss)	15:05:16	EOL depth (m)	14.4	Hypack track file	Hypack_DDV_Fal_Maerl_20220713_0000_0752	
Vessel	Tiger Lily VI	Length of video	00:14:04	Number of stills pre QC	23	Com port A file	ComPortA_Site03_T1_20220713_1451	
Site ID	Falmouth Bay	GPS recorded from	Easytrak Alpha USBL GPS antenna	Number of stills post QC	22	Winch operator	CT	
Tow ID	Site 03 Tow 1	Time recorded from	Hemisphere V500 GNSS	Avg vessel speed (kts)	0.7	Camera operator	AJ	
Description of tow (direction/ current/ tides/ overall habitat)	Maerl sediment with live and dead maerl							
Still Time	File name (.JPG)	Lat	Long	Depth (m)	Speed (kts)	Comments / description	Quality	Reason
14:51:13	Site 03_T1_SOL	50.141893	-5.063108	11.5	0.6			
14:52:06	CIFCA_FalBay_03_T1_20220713_14_52_06_0248	50.141722	-5.063000	11.8	1.0	Maerl sediment, shell. Live/ Dead maerl.	Acceptable	No flash
14:52:43	CIFCA_FalBay_03_T1_20220713_14_52_43_0249	50.141602	-5.062873	11.9	0.9	Maerl sediment, shell. Live/ Dead maerl.	Acceptable	No flash
14:53:13	CIFCA_FalBay_03_T1_20220713_14_53_13_0250	50.141502	-5.062725	12.1	0.8	Maerl sediment, shell. Live/ Dead maerl.	Acceptable	No flash
14:53:38	CIFCA_FalBay_03_T1_20220713_14_53_38_0251	50.141435	-5.062625	12.2	1.0	Maerl sediment, shell. Live/ Dead maerl.	Good	
14:54:08	CIFCA_FalBay_03_T1_20220713_14_54_08_0252	50.141343	-5.062492	12.4	0.9	Maerl sediment, shell. Live/ Dead maerl.	Acceptable	No flash
14:54:41	CIFCA_FalBay_03_T1_20220713_14_54_41_0253	50.141248	-5.062345	12.4	1.0	Maerl sediment, shell. Live/ Dead maerl.	Acceptable	No flash
14:55:14	CIFCA_FalBay_03_T1_20220713_14_55_14_0254					Maerl sediment, shell. Live/ Dead maerl.	Poor	Camera upside down
14:55:31	CIFCA_FalBay_03_T1_20220713_14_55_31_0255	50.141128	-5.062120	12.6	0.6	Maerl sediment, shell. Live/ Dead maerl.	Good	
14:56:07	CIFCA_FalBay_03_T1_20220713_14_56_07_0256	50.141052	-5.062002	12.7	0.6	Maerl sediment, shell. Live/ Dead maerl.	Good	
14:56:48	CIFCA_FalBay_03_T1_20220713_14_56_48_0257	50.140988	-5.061850	12.9	0.8	Maerl sediment, shell. Live/ Dead maerl.	Good	
14:57:24	CIFCA_FalBay_03_T1_20220713_14_57_24_0258	50.140925	-5.061683	12.9	0.9	Maerl sediment, shell. Live/ Dead maerl.	Good	
14:57:57	CIFCA_FalBay_03_T1_20220713_14_57_57_0259	50.140848	-5.061545	13.0	0.9	Maerl sediment, shell. Live/ Dead maerl.	Good	
14:58:24	CIFCA_FalBay_03_T1_20220713_14_58_24_0260	50.140778	-5.061418	13.3	0.6	Maerl sediment, shell. Live/ Dead maerl.	Good	
14:59:00	CIFCA_FalBay_03_T1_20220713_14_59_00_0261	50.140678	-5.061312	13.3	0.9	Maerl sediment, shell. Live/ Dead maerl.	Good	
14:59:28	CIFCA_FalBay_03_T1_20220713_14_59_28_0262	50.140592	-5.061277	13.4	0.7	Maerl sediment, shell. Live/ Dead maerl.	Good	
14:59:58	CIFCA_FalBay_03_T1_20220713_14_59_58_0263	50.140530	-5.061245	13.5	0.6	Maerl sediment, shell. Live/ Dead maerl.	Good	
15:00:25	CIFCA_FalBay_03_T1_20220713_15_00_25_0264	50.140457	-5.061265	13.7	0.3	Maerl sediment, shell. Live/ Dead maerl.	Good	
15:01:09	CIFCA_FalBay_03_T1_20220713_15_01_09_0265	50.140370	-5.061278	13.6	0.3	Maerl sediment, shell. Live/ Dead maerl.	Good	
15:02:03	CIFCA_FalBay_03_T1_20220713_15_02_03_0266	50.140313	-5.061255	13.7	0.4	Maerl sediment, shell. Live/ Dead maerl.	Good	
15:02:50	CIFCA_FalBay_03_T1_20220713_15_02_50_0267	50.140242	-5.061223	13.9	0.4	Maerl sediment, shell. Live/ Dead maerl.	Good	
15:03:31	CIFCA_FalBay_03_T1_20220713_15_03_35_0268	50.140165	-5.061185	14.1	0.4	Maerl sediment, shell. Live/ Dead maerl.	Good	
15:04:15	CIFCA_FalBay_03_T1_20220713_15_04_15_0269	50.140083	-5.061153	14.1	0.4	Maerl sediment, shell. Live/ Dead maerl.	Good	
15:04:57	CIFCA_FalBay_03_T1_20220713_15_04_57_0270	50.140012	-5.061117	14.3	0.5	Maerl sediment, shell. Live/ Dead maerl.	Good	
15:05:16	Site 03_T1_EOL	50.139960	-5.061093	14.4	0.5			





## Site 4 Tow 1

Project Code	20220512_CIFCA_DDV_Fal	SOL Time (hh:mm:ss)	12:41:34	SOL depth (m)	11.1	Video file name(s)	CIFCA_FalBay_04_T1_20220512_VID_12_41_34	
Date	12/05/2022	EOL Time (hh:mm:ss)	12:53:44	EOL depth (m)	11.5	Hypack track file (vessel position)	Hypack_DDV_Fal_Maerl_20220512	
Vessel	Tiger Lily VI	Length of video	00:12:10	Number of stills pre QC	22	Com port A file (USBL position)	ComPortA_Site04_T1_20220512_1241	
Site ID	Falmouth Bay	GPS recorded from	Easytrak Alpha USBL GPS antenna	Number of stills post QC	22	Winch operator	CT	
Tow ID	Site 4 Tow 1	Time recorded from	Hemisphere V500 GNSS	Avg vessel speed (kts)	0.6	Camera operator	SS	
Description of tow (direction/ current/ tides/ overall habitat)							Data recorder	AJ
Maerl sediment with dead maerl								
Still Time	File name (.JPG)	Lat	Long	Depth (m)	Speed (kts)	Comments / description	Quality	Reason
12:41:34	Site 04_T1_SOL	50.136322	-5.069938	11.1				
12:42:13	CIFCA_FalBay_04_T1_20220512_12_42_13_0089	50.136395	-5.069822	11.2	0.5	Maerl sediment, shell fragments. Dead maerl	Good	
12:42:52	CIFCA_FalBay_04_T1_20220512_12_42_52_0090	50.136488	-5.069695	11.1	0.5	Maerl sediment, shell fragments. Dead maerl	Good	
12:43:26	CIFCA_FalBay_04_T1_20220512_12_43_26_0091	50.136555	-5.069595	11.1	0.5	Maerl sediment, shell fragments. Dead maerl	Good	
12:43:51	CIFCA_FalBay_04_T1_20220512_12_43_51_0092	50.136612	-5.069532	11.1	0.5	Maerl sediment, shell fragments. Dead maerl	Good	
12:44:25	CIFCA_FalBay_04_T1_20220512_12_44_25_0093	50.136662	-5.069453	11.1	0.5	Maerl sediment, shell fragments. Dead maerl	Good	
12:44:57	CIFCA_FalBay_04_T1_20220512_12_44_57_0094	50.136713	-5.069343	11.2	0.6	Maerl sediment, shell fragments. Dead maerl	Good	
12:45:30	CIFCA_FalBay_04_T1_20220512_12_45_30_0095	50.136770	-5.069252	11.2	0.6	Maerl sediment, shell fragments. Dead maerl	Good	
12:46:07	CIFCA_FalBay_04_T1_20220512_12_46_07_0096	50.136842	-5.069150	11.2	0.5	Maerl sediment, shell fragments. Dead maerl	Good	
12:46:35	CIFCA_FalBay_04_T1_20220512_12_46_35_0097	50.136893	-5.069050	11.2	0.6	Maerl sediment, shell fragments. Dead maerl	Good	
12:47:12	CIFCA_FalBay_04_T1_20220512_12_47_12_0098	50.136958	-5.068900	11.3	0.5	Maerl sediment, shell fragments. Dead maerl	Good	
12:47:43	CIFCA_FalBay_04_T1_20220512_12_47_43_0099	50.137020	-5.068800	11.3	0.5	Maerl sediment, shell fragments. Dead maerl	Good	
12:48:17	CIFCA_FalBay_04_T1_20220512_12_48_17_0100	50.137085	-5.068717	11.3	0.6	Maerl sediment, shell fragments. Dead maerl	Good	
12:48:47	CIFCA_FalBay_04_T1_20220512_12_48_47_0101	50.137158	-5.068623	11.3	0.8	Maerl sediment, shell fragments. Dead maerl	Good	
12:49:12	CIFCA_FalBay_04_T1_20220512_12_49_12_0102	50.137197	-5.068515	11.3	0.6	Maerl sediment, shell fragments. Dead maerl	Good	
12:49:44	CIFCA_FalBay_04_T1_20220512_12_49_44_0103	50.137235	-5.068425	11.3	0.6	Maerl sediment, shell fragments. Dead maerl	Good	
12:50:11	CIFCA_FalBay_04_T1_20220512_12_50_11_0104	50.137298	-5.068298	11.4	0.6	Maerl sediment, shell fragments. Dead maerl	Good	
12:50:44	CIFCA_FalBay_04_T1_20220512_12_50_44_0105	50.137365	-5.068165	11.4	0.6	Maerl sediment, shell fragments. Dead maerl	Acceptable	Out of focus
12:51:23	CIFCA_FalBay_04_T1_20220512_12_51_23_0106	50.137433	-5.068068	11.4	0.6	Maerl sediment, shell fragments. Live/ Dead maerl	Good	
12:52:00	CIFCA_FalBay_04_T1_20220512_12_52_00_0107	50.137520	-5.067952	11.4	0.6	Maerl sediment, shell fragments. Dead maerl	Good	
12:52:29	CIFCA_FalBay_04_T1_20220512_12_52_29_0108	50.137590	-5.067892	11.4	0.6	Maerl sediment, shell fragments. Live/ Dead maerl	Good	
12:52:52	CIFCA_FalBay_04_T1_20220512_12_52_52_0109	50.137637	-5.067820	11.4	0.6	Maerl sediment, shell fragments. Dead maerl	Good	
12:53:24	CIFCA_FalBay_04_T1_20220512_12_53_24_0110	50.137705	-5.067745	11.4	0.6	Maerl sediment, shell fragments. Dead maerl	Good	
12:53:44	Site 04_T1_EOL	50.137720	-5.067675	11.5				



## Site 5 Tow 1

Time	File name (.JPG)	Lat	Long	Depth (m)	Speed (kts)	Comments / description	Quality	Reason
11:36:48	Site 05_T1_SOL	50.135373	-5.060892	15.7				
11:37:26	CIFCA_FalBay_05_T1_20220512_11_37_26_0068	50.135413	-5.060838	15.8	0.6	Maerl sediment, shell fragments. Live/ Dead maerl	Good	
11:38:06	CIFCA_FalBay_05_T1_20220512_11_38_06_0069	50.135443	-5.060715	15.8	0.6	Maerl sediment, shell fragments. Live/ Dead maerl	Good	
11:38:39	CIFCA_FalBay_05_T1_20220512_11_38_39_0070	50.135485	-5.060598	15.8	0.6	Maerl sediment, shell fragments. Live/ Dead maerl	Good	
11:39:21	CIFCA_FalBay_05_T1_20220512_11_39_21_0071	50.135522	-5.060455	15.8	0.6	Maerl sediment, shell fragments. Live/ Dead maerl	Good	
11:39:58	CIFCA_FalBay_05_T1_20220512_11_39_58_0072	50.135565	-5.060288	15.8	0.6	Maerl sediment, shell fragments. Live/ Dead maerl	Good	
11:40:26	CIFCA_FalBay_05_T1_20220512_11_40_26_0073	50.135592	-5.060170	15.8	0.6	Maerl sediment, shell fragments. Live/ Dead maerl	Good	
11:40:51	CIFCA_FalBay_05_T1_20220512_11_40_51_0074	50.135630	-5.060087	15.8	0.6	Maerl sediment, shell fragments. Live/ Dead maerl	Acceptable	Silt cloud
11:41:19	CIFCA_FalBay_05_T1_20220512_11_41_19_0075	50.135642	-5.059975	15.8	0.6	Maerl sediment, shell fragments. Live/ Dead maerl	Good	
11:41:51	CIFCA_FalBay_05_T1_20220512_11_41_51_0076	50.135665	-5.059890	15.9	0.6	Maerl sediment, shell fragments. Live/ Dead maerl	Good	
11:42:27	CIFCA_FalBay_05_T1_20220512_11_42_27_0077	50.135717	-5.059703	15.9	0.6	Maerl sediment, shell fragments. Live/ Dead maerl	Good	
11:43:01	CIFCA_FalBay_05_T1_20220512_11_43_01_0078	50.135750	-5.059558	16.0	0.6	Maerl sediment, shell fragments. Live/ Dead maerl	Good	
11:43:36	CIFCA_FalBay_05_T1_20220512_11_43_46_0079	50.135813	-5.059437	15.9	0.5	Maerl sediment, shell fragments. Live/ Dead maerl	Good	
11:44:14	CIFCA_FalBay_05_T1_20220512_11_44_14_0080	50.135862	-5.059280	15.9	0.5	Maerl sediment, shell fragments. Live/ Dead maerl	Good	
11:44:59	CIFCA_FalBay_05_T1_20220512_11_44_59_0081	50.135935	-5.059162	16.0	0.5	Maerl sediment, shell fragments. Live/ Dead maerl	Good	
11:45:40	CIFCA_FalBay_05_T1_20220512_11_45_40_0082	50.135995	-5.059050	15.9	0.6	Maerl sediment, shell fragments. Live/ Dead maerl	Good	
11:46:13	CIFCA_FalBay_05_T1_20220512_11_46_13_0083	50.136040	-5.058980	15.9	0.6	Maerl sediment, shell fragments. Live/ Dead maerl	Good	
11:46:46	CIFCA_FalBay_05_T1_20220512_11_46_46_0084	50.136090	-5.058903	15.9	0.6	Maerl sediment, shell fragments. Live/ Dead maerl	Good	
11:47:22	CIFCA_FalBay_05_T1_20220512_11_47_22_0085	50.136148	-5.058802	15.9	0.6	Maerl sediment, shell fragments. Live/ Dead maerl	Good	
11:47:56	CIFCA_FalBay_05_T1_20220512_11_47_56_0086	50.136215	-5.058675	15.9	0.6	Maerl sediment, shell fragments. Live/ Dead maerl	Good	
11:48:29	CIFCA_FalBay_05_T1_20220512_11_48_29_0087	50.136275	-5.058553	16.0	0.5	Maerl sediment, shell fragments. Live/ Dead maerl	Good	
11:49:05	CIFCA_FalBay_05_T1_20220512_11_49_05_0088	50.136345	-5.058430	15.9	0.5	Maerl sediment, shell fragments. Live/ Dead maerl	Good	
11:49:21	Site 05_T1_EOL	50.136372	-5.058363	15.9				



## Site 6 Tow 1

Project Code	20220512_CIFCA_DDV_Fal	SOL Time (hh:mm:ss)	11:09:23	SOL depth (m)	18.6	Video file name(s)	CIFCA_FalBay_06_T1_20220512_VID_11_09_23	
Date	12/05/2022	EOL Time (hh:mm:ss)	11:22:45	EOL depth (m)	18.3	Hypack track file (vessel position)	Hypack_DDV_Fal_Maerl_20220512	
Vessel	Tiger Lily VI	Length of video	00:13:22	Number of stills pre QC	22	Com port A file (USBL position)	ComPortA_Site06_T1_20220512_1109	
Site ID	Falmouth Bay	GPS recorded from	Easytrak Alpha USBL GPS antenna	Number of stills post QC	22	Winch operator	CT	
Tow ID	Site 6 Tow 1	Time recorded from	Hemisphere V500 GNSS	Avg vessel speed (kts)	0.5	Camera operator	SS	
Description of tow (direction/ current/ tides/ overall habitat)						Data recorder	AJ	
Mixed sediment with live and dead maerl. Time and position on video updating at two second intervals								
Still Time	File name (.JPG)	Lat	Long	Depth (m)	Speed (kts)	Comments / description	Quality	Reason
11:09:23	Site 06_T1_SOL	50.131347	-5.046452	18.6				
11:09:34	CIFCA_FalBay_06_T1_20220512_11_09_34_0046	50.131348	-5.046437	18.5	0.5	Mixed sediment. Dead maerl	Good	
11:10:23	CIFCA_FalBay_06_T1_20220512_11_10_23_0047	50.131437	-5.046230	18.7	0.5	Mixed sediment. Dead maerl. Brittlestars	Good	
11:11:08	CIFCA_FalBay_06_T1_20220512_11_11_08_0048	50.131518	-5.046077	18.6	0.5	Mixed sediment. Dead maerl. Brittlestars	Good	
11:11:47	CIFCA_FalBay_06_T1_20220512_11_11_47_0049	50.131578	-5.045970	18.6	0.5	Mixed sediment. Live/ Dead maerl. Brittlestars	Good	
11:12:25	CIFCA_FalBay_06_T1_20220512_11_12_25_0050	50.131643	-5.045848	18.6	0.6	Mixed sediment. Live/ Dead maerl	Good	
11:12:54	CIFCA_FalBay_06_T1_20220512_11_12_54_0051	50.131722	-5.045797	18.6	0.5	Mixed sediment. Dead maerl	Good	
11:13:31	CIFCA_FalBay_06_T1_20220512_11_13_31_0052	50.131748	-5.045655	18.7	0.5	Mixed sediment. Live/ Dead maerl	Good	
11:14:08	CIFCA_FalBay_06_T1_20220512_11_14_08_0053	50.131787	-5.045527	18.6	0.5	Mixed sediment. Live/ Dead maerl. Spiny starfish	Good	
11:14:41	CIFCA_FalBay_06_T1_20220512_11_14_41_0054	50.131850	-5.045395	18.6	0.4	Mixed sediment. Live/ Dead maerl	Good	
11:15:30	CIFCA_FalBay_06_T1_20220512_11_15_30_0055	50.131923	-5.045300	18.6	0.4	Mixed sediment. Live/ Dead maerl	Good	
11:16:12	CIFCA_FalBay_06_T1_20220512_11_16_12_0056	50.131978	-5.045207	18.7	0.4	Mixed sediment. Dead maerl	Good	
11:16:54	CIFCA_FalBay_06_T1_20220512_11_16_54_0057	50.132032	-5.045087	18.7	0.5	Mixed sediment. Live/ Dead maerl	Good	
11:17:36	CIFCA_FalBay_06_T1_20220512_11_17_36_0058	50.132103	-5.044997	18.5	0.5	Mixed sediment. Live/ Dead maerl	Good	
11:18:07	CIFCA_FalBay_06_T1_20220512_11_18_07_0059	50.132163	-5.044918	18.6	0.6	Mixed sediment. Live/ Dead maerl	Good	
11:18:45	CIFCA_FalBay_06_T1_20220512_11_18_45_0060	50.132245	-5.044812	18.5	0.6	Mixed sediment. Live/ Dead maerl	Good	
11:19:21	CIFCA_FalBay_06_T1_20220512_11_19_21_0061	50.132297	-5.044702	18.5	0.6	Mixed sediment. Live/ Dead maerl	Good	
11:19:54	CIFCA_FalBay_06_T1_20220512_11_19_54_0062	50.132335	-5.044598	18.5	0.5	Mixed sediment. Sparse Dead maerl. Scallop	Good	
11:20:28	CIFCA_FalBay_06_T1_20220512_11_20_28_0063	50.132383	-5.044507	18.3	0.5	Mixed sediment. Sparse Dead maerl	Good	
11:21:06	CIFCA_FalBay_06_T1_20220512_11_21_06_0064	50.132438	-5.044387	18.4	0.5	Mixed sediment. Sparse Dead maerl	Good	
11:21:47	CIFCA_FalBay_06_T1_20220512_11_21_47_0065	50.132502	-5.044255	18.4	0.5	Mixed sediment. Live/ Dead maerl	Good	
11:22:18	CIFCA_FalBay_06_T1_20220512_11_22_18_0066	50.132562	-5.044145	18.4	0.5	Mixed sediment. Live/ Dead maerl	Good	
11:22:28	CIFCA_FalBay_06_T1_20220512_11_22_28_0067	50.132577	-5.044117	18.3	0.5	Mixed sediment. Live/ Dead maerl	Good	
11:22:45	Site 06_T1_EOL	50.132593	-5.044078	18.3				





## Site 7 Tow 1

Project Code	20220713_CIFCA_DDV_Fal	SOL Time (hh:mm:ss)	09:03:34	SOL depth (m)	18.9	Video file name(s)	CIFCA_FalBay_07_T1_20220713_VID_09_03_34	
Date	13/07/2022	EOL Time (hh:mm:ss)	09:17:02	EOL depth (m)	21.4	Hypack track file	Hypack_DDV_Fal_Maerl_20220713_0000_0752	
Vessel	Tiger Lily VI	Length of video	00:13:28	Number of stills pre QC	22	Com port A file	ComPortA_Site07_T1_20220713_0903	
Site ID	Falmouth Bay	GPS recorded from	Easytrak Alpha USBL GPS antenna	Number of stills post QC	22	Winch operator	CT	
Tow ID	Site 07 Tow 1	Time recorded from	Hemisphere V500 GNSS	Avg vessel speed (kts)	0.6	Camera operator	SS	
Description of tow (direction/ current/ tides/ overall habitat)	Maerl sediment with live and dead maerl							
Still Time	File name (.JPG)	Lat	Long	Depth (m)	Speed (kts)	Comments / description	Quality	Reason
09:03:34	Site 07_T1_SOL	50.129555	-5.026502					
09:04:11	CIFCA_FalBay_07_T1_20220713_09_04_11_0049	50.129483	-5.026575	18.9	0.6	Maerl sediment, shell. Live/ Dead maerl	Good	
09:04:50	CIFCA_FalBay_07_T1_20220713_09_04_50_0050	50.129387	-5.026658	18.9	0.6	Maerl sediment, shell. Live/ Dead maerl	Good	
09:05:24	CIFCA_FalBay_07_T1_20220713_09_05_24_0051	50.129298	-5.026710	19.6	0.6	Maerl sediment, shell. Live/ Dead maerl	Good	
09:05:58	CIFCA_FalBay_07_T1_20220713_09_05_58_0052	50.129192	-5.026762	19.8	0.6	Maerl sediment, shell. Live/ Dead maerl	Good	
09:06:36	CIFCA_FalBay_07_T1_20220713_09_06_36_0053	50.129113	-5.026820	19.9	0.6	Maerl sediment, shell. Live/ Dead maerl	Good	
09:07:05	CIFCA_FalBay_07_T1_20220713_09_07_05_0054	50.129047	-5.026852	19.9	0.5	Maerl sediment, shell. Live/ Dead maerl	Good	
09:07:38	CIFCA_FalBay_07_T1_20220713_09_07_38_0055	50.128950	-5.026878	20.1	0.5	Maerl sediment, shell. Live/ Dead maerl	Acceptable	Silt cloud
09:08:11	CIFCA_FalBay_07_T1_20220713_09_08_11_0056	50.128872	-5.026905	20.1	0.5	Maerl sediment, shell. Live/ Dead maerl	Acceptable	
09:08:45	CIFCA_FalBay_07_T1_20220713_09_08_45_0057	50.128792	-5.026945	20.1	0.5	Maerl sediment, shell. Live/ Dead maerl. Seasquirts	Good	
09:09:13	CIFCA_FalBay_07_T1_20220713_09_09_13_0058	50.128720	-5.026967	20.1	0.5	Maerl sediment, shell. Live/ Dead maerl	Good	
09:09:48	CIFCA_FalBay_07_T1_20220713_09_09_48_0059	50.128633	-5.026993	20.3	0.5	Maerl sediment, shell. Live/ Dead maerl	Acceptable	Off the seabed
09:10:32	CIFCA_FalBay_07_T1_20220713_09_10_32_0060	50.128535	-5.027023	20.3	0.6	Maerl sediment, shell. Live/ Dead maerl	Good	
09:11:09	CIFCA_FalBay_07_T1_20220713_09_11_09_0061	50.128455	-5.027065	20.4	0.6	Maerl sediment, shell. Live/ Dead maerl	Good	
09:11:48	CIFCA_FalBay_07_T1_20220713_09_11_48_0062	50.128347	-5.027103	20.8	0.6	Maerl sediment, shell. Live/ Dead maerl	Good	
09:12:30	CIFCA_FalBay_07_T1_20220713_09_12_30_0063	50.128250	-5.027180	20.8	0.5	Maerl sediment, shell. Live/ Dead maerl	Good	
09:13:13	CIFCA_FalBay_07_T1_20220713_09_13_13_0064	50.128152	-5.027230	20.9	0.6	Maerl sediment, shell. Live/ Dead maerl	Good	
09:13:48	CIFCA_FalBay_07_T1_20220713_09_13_48_0065	50.128055	-5.027272	21.2	0.7	Maerl sediment, shell. Dead maerl	Good	
09:14:25	CIFCA_FalBay_07_T1_20220713_09_14_25_0066	50.127953	-5.027333	21.2	0.7	Maerl sediment, shell. Live/ Dead maerl. Spiny starfish	Good	
09:14:56	CIFCA_FalBay_07_T1_20220713_09_14_56_0067	50.127863	-5.027388	21.3	0.7	Maerl sediment, shell. Dead maerl	Good	
09:15:30	CIFCA_FalBay_07_T1_20220713_09_15_30_0068	50.127770	-5.027472	21.4	0.7	Maerl sediment, shell. Live/ Dead maerl	Good	
09:16:01	CIFCA_FalBay_07_T1_20220713_09_16_01_0069	50.127708	-5.027552	21.5	0.6	Maerl sediment, shell. Live/ Dead maerl	Acceptable	Silt cloud
09:16:37	CIFCA_FalBay_07_T1_20220713_09_16_37_0070	50.127633	-5.027683	21.4	0.6	Maerl sediment, shell. Live/ Dead maerl	Good	
09:17:02	Site 07_T1_EOL	50.127603	-5.027755					



## Site 8 Tow 1

Project Code	20220512_CIFCA_DDV_Fal	SOL Time (hh:mm:ss)	09:43:42	SOL depth (m)	23.6	Video file name(s)	CIFCA_FalBay_08_T1_20220512_VID_09_43_42	
Date	12/05/2022	EOL Time (hh:mm:ss)	10:09:31	EOL depth (m)	24.5	Hypack track file (vessel position)	Hypack_DDV_Fal_Maerl_20220512	
Vessel	Tiger Lily VI	Length of video	00:25:49	Number of stills pre QC	22	Com port A file (USBL position)	ComPortA_Site08_T1_20220512_0941	
Site ID	Falmouth Bay	GPS recorded from	Easytrak Alpha USBL GPS antenna	Number of stills post QC	22	Winch operator	CT	
Tow ID	Site 8 Tow 1	Time recorded from	Hemisphere V500 GNSS	Avg vessel speed (kts)	0.2	Camera operator	AJ	
Description of tow (direction/ current/ tides/ overall habitat)						Data recorder	SS	
Mixed sediment with dead maerl. Time and position on video updating at two second intervals.								
Still Time	File name (.JPG)	Lat	Long	Depth (m)	Speed (kts)	Comments / description	Quality	Reason
09:43:42	Site 08_T1_SOL	50.123898	-5.027403	23.6				
09:44:04	CIFCA_FalBay_08_T1_20220512_09_44_04_0001	50.123913	-5.027382	23.7	0.2	Mixed sediment. Dead maerl. Spiny starfish.	Good	
09:44:21	CIFCA_FalBay_08_T1_20220512_09_44_21_0002	50.123907	-5.027367	23.7	0.3	Mixed sediment. Live/ Dead maerl	Good	
09:45:11	CIFCA_FalBay_08_T1_20220512_09_45_11_0003	50.123960	-5.027308	23.7	0.2	Mixed sediment. Dead maerl	Good	
09:46:42	CIFCA_FalBay_08_T1_20220512_09_46_42_0004	50.124028	-5.027203	23.7	0.2	Mixed sediment. Dead maerl	Good	
09:48:18	CIFCA_FalBay_08_T1_20220512_09_48_18_0005	50.124092	-5.027083	23.7	0.2	Mixed sediment. Dead maerl	Good	
09:49:47	CIFCA_FalBay_08_T1_20220512_09_49_47_0006	50.124158	-5.026962	23.9	0.2	Mixed sediment. Dead maerl	Good	
09:50:29	CIFCA_FalBay_08_T1_20220512_09_50_29_0007	50.124177	-5.026915	23.9	0.2	Mixed sediment. Dead maerl	Good	
09:51:25	CIFCA_FalBay_08_T1_20220512_09_51_25_0008	50.124222	-5.026810	23.9	0.2	Mixed sediment. Dead maerl	Good	
09:52:57	CIFCA_FalBay_08_T1_20220512_09_52_57_0009	50.124290	-5.026682	24.0	0.3	Mixed sediment. Dead maerl	Good	
09:54:33	CIFCA_FalBay_08_T1_20220512_09_54_33_0010	50.124352	-5.026530	23.9	0.3	Mixed sediment. Dead maerl	Good	
09:55:53	CIFCA_FalBay_08_T1_20220512_09_55_53_0011	50.124423	-5.026380	24.1	0.3	Mixed sediment. Dead maerl	Good	
09:57:07	CIFCA_FalBay_08_T1_20220512_09_57_07_0012	50.124498	-5.026312	24.3	0.3	Mixed sediment. Dead maerl	Good	
09:58:13	CIFCA_FalBay_08_T1_20220512_09_58_13_0013	50.124540	-5.026190	24.2	0.3	Mixed sediment. Dead maerl	Good	
09:59:44	CIFCA_FalBay_08_T1_20220512_09_59_44_0014	50.124613	-5.026008	24.4	0.2	Mixed sediment. Dead maerl	Good	
10:00:56	CIFCA_FalBay_08_T1_20220512_10_00_56_0015	50.124673	-5.025878	24.4	0.2	Mixed sediment. Dead maerl	Good	
10:02:13	CIFCA_FalBay_08_T1_20220512_10_02_13_0016	50.124727	-5.025725	24.4	0.2	Mixed sediment. Dead maerl	Good	
10:03:29	CIFCA_FalBay_08_T1_20220512_10_03_29_0017	50.124767	-5.025590	24.4	0.2	Mixed sediment. Dead maerl	Good	
10:04:41	CIFCA_FalBay_08_T1_20220512_10_04_41_0018	50.124802	-5.025458	24.4	0.2	Mixed sediment. Dead maerl	Good	
10:05:50	CIFCA_FalBay_08_T1_20220512_10_05_50_0019	50.124852	-5.025320	24.5	0.2	Mixed sediment. Dead maerl. Spiny starfish.	Good	
10:07:07	CIFCA_FalBay_08_T1_20220512_10_07_07_0020	50.124885	-5.025155	24.5	0.2	Mixed sediment. Dead maerl	Good	
10:08:12	CIFCA_FalBay_08_T1_20220512_10_08_12_0021	50.124903	-5.025038	24.5	0.2	Mixed sediment. Dead maerl	Good	
10:09:19	CIFCA_FalBay_08_T1_20220512_10_09_19_0022	50.124925	-5.024903	24.4	0.2	Mixed sediment. Dead maerl	Good	
10:09:31	Site 08_T1_EOL	50.124933	-5.024887	24.5				



## Site 9 Tow 1

Project Code	20220713_CIFCA_DDV_Fal	SOL Time (hh:mm:ss)	09:26:57	SOL depth (m)	19	Video file name(s)	CIFCA_FalBay_09_T1_20220713_VID_09_26_58	
Date	13/07/2022	EOL Time (hh:mm:ss)	09:40:27	EOL depth (m)	21.1	Hypack track file	Hypack_DDV_Fal_Maerl_20220713_0000_0752	
Vessel	Tiger Lily VI	Length of video	00:13:30	Number of stills pre QC	23	Com port A file	ComPortA_Site09_T1_20220713_0926	
Site ID	Falmouth Bay	GPS recorded from	Easytrak Alpha USBL GPS antenna	Number of stills post QC	23	Winch operator	CT	
Tow ID	Site 09 Tow 1	Time recorded from	Hemisphere V500 GNSS	Avg vessel speed (kts)	0.7	Camera operator	SS	
Description of tow (direction/ current/ tides/ overall habitat)	Mixed sediment with live and dead maerl							
Still Time	File name (.JPG)	Lat	Long	Depth (m)	Speed (kts)	Comments / description	Quality	Reason
09:26:58	Site 09_T1_SOL	50.127657	-5.018522					
09:27:24	CIFCA_FalBay_09_T1_20220713_09_27_24_0071	50.127590	-5.018615	19.0	0.8	Mixed sediment. Live/ Dead maerl	Good	
09:28:03	CIFCA_FalBay_09_T1_20220713_09_28_03_0072	50.127522	-5.018815	19.1	0.8	Mixed sediment. Live/ Dead maerl	Good	
09:28:33	CIFCA_FalBay_09_T1_20220713_09_28_33_0073	50.127430	-5.018952	19.3	0.8	Mixed sediment. Live/ Dead maerl	Good	
09:29:07	CIFCA_FalBay_09_T1_20220713_09_29_07_0074	50.127327	-5.019065	19.6	0.8	Mixed sediment. Live/ Dead maerl	Good	
09:29:30	CIFCA_FalBay_09_T1_20220713_09_29_30_0075	50.127253	-5.019147	19.7	0.8	Mixed sediment. Live/ Dead maerl	Good	
09:30:18	CIFCA_FalBay_09_T1_20220713_09_30_18_0076	50.127112	-5.019325	19.7	0.8	Mixed sediment. Live/ Dead maerl	Good	
09:30:47	N/A					Image didn't take		
09:31:15	CIFCA_FalBay_09_T1_20220713_09_31_15_0077	50.126925	-5.019538	19.7	0.8	Mixed sediment. Live/ Dead maerl	Acceptable	Out of focus
09:31:49	CIFCA_FalBay_09_T1_20220713_09_31_49_0078	50.126812	-5.019725	19.9	0.8	Mixed sediment. Live/ Dead maerl	Good	
09:32:16	CIFCA_FalBay_09_T1_20220713_09_32_16_0079	50.126738	-5.019822	20.0	0.9	Mixed sediment. Live/ Dead maerl	Good	
09:32:42	CIFCA_FalBay_09_T1_20220713_09_32_42_0080	50.126660	-5.019903	20.0	0.9	Mixed sediment. Live/ Dead maerl	Acceptable	Camera off seabed
09:33:12	CIFCA_FalBay_09_T1_20220713_09_33_12_0081	50.126560	-5.020018	20.4	0.8	Mixed sediment. Live/ Dead maerl	Good	
09:33:42	CIFCA_FalBay_09_T1_20220713_09_33_42_0082	50.126473	-5.020137	20.4	0.5	Mixed sediment. Live/ Dead maerl	Good	
09:34:13	CIFCA_FalBay_09_T1_20220713_09_34_13_0083	50.126410	-5.020275	20.4	0.3	Mixed sediment. Live/ Dead maerl	Good	
09:35:02	CIFCA_FalBay_09_T1_20220713_09_35_02_0084	50.126348	-5.020407	20.6	0.5	Mixed sediment. Dead maerl	Good	
09:35:40	CIFCA_FalBay_09_T1_20220713_09_35_40_0085	50.126288	-5.020533	20.7	0.6	Mixed sediment. Dead maerl	Good	
09:36:11	CIFCA_FalBay_09_T1_20220713_09_36_11_0086	50.126262	-5.020647	20.7	0.6	Mixed sediment. Live/ Dead maerl	Good	
09:36:41	CIFCA_FalBay_09_T1_20220713_09_36_41_0087	50.126225	-5.020767	20.6	0.6	Mixed sediment. Live/ Dead maerl	Good	
09:37:13	CIFCA_FalBay_09_T1_20220713_09_37_13_0088	50.126187	-5.020877	20.8	0.6	Mixed sediment. Live/ Dead maerl	Good	
09:37:45	CIFCA_FalBay_09_T1_20220713_09_37_45_0089	50.126155	-5.021002	20.9	0.6	Mixed sediment. Dead maerl	Good	
09:38:17	CIFCA_FalBay_09_T1_20220713_09_38_17_0090	50.126117	-5.021143	21.0	0.6	Mixed sediment. Dead maerl	Good	
09:38:43	CIFCA_FalBay_09_T1_20220713_09_38_43_0091	50.126102	-5.021240	21.0	0.6	Mixed sediment. Dead maerl	Good	
09:39:16	CIFCA_FalBay_09_T1_20220713_09_39_21_0092	50.126062	-5.021357	21.1	0.6	Mixed sediment. Dead maerl	Good	
09:39:58	CIFCA_FalBay_09_T1_20220713_09_39_58_0093	50.126028	-5.021540	21.1	0.6	Mixed sediment. Dead maerl	Poor	Camera off seabed and silt cloud
09:40:27	Site 09_T1_EOL	50.126013	-5.021687					





## Site 10 Tow 1

Project Code	20220713_CIFCA_DDV_Fal	SOL Time (hh:mm:ss)	10:24:27	SOL depth (m)	21.6	Video file name(s)	CIFCA_FalBay_10_T1_20220713_VID_10_24_28	
Date	13/07/2022	EOL Time (hh:mm:ss)	10:38:05	EOL depth (m)	22.4	Hypack track file	Hypack_DDV_Fal_Maerl_20220713_0000_0752	
Vessel	Tiger Lily VI	Length of video	00:13:38	Number of stills pre QC	22	Com port A file	ComPortA_Site10_T1_20220713_1024	
Site ID	Falmouth Bay	GPS recorded from	Easytrak Alpha USBL GPS antenna	Number of stills post QC	22	Winch operator	CT	
Tow ID	Site 10 Tow 1	Time recorded from	Hemisphere V500 GNSS	Avg vessel speed (kts)	0.6	Camera operator	SS	
Description of tow (direction/ current/ tides/ overall habitat)	Mixed sediment with dead maerl							
Still Time	File name (.JPG)	Lat	Long	Depth (m)	Speed (kts)	Comments / description	Quality	Reason
10:24:28	Site 10_T1_SOL	50.125465	-5.033545					
10:24:58	CIFCA_FalBay_10_T1_20220713_10_24_58_0116	50.125385	-5.033532	21.6	0.6	Mixed sediment. Dead maerl	Good	
10:25:36	CIFCA_FalBay_10_T1_20220713_10_25_36_0117	50.125257	-5.033537	21.6	0.6	Mixed sediment. Dead maerl	Good	
10:26:06	CIFCA_FalBay_10_T1_20220713_10_26_06_0118	50.125182	-5.033558	21.6	0.6	Mixed sediment. Dead maerl	Acceptable	Out of focus
10:26:40	CIFCA_FalBay_10_T1_20220713_10_26_40_0119	50.125095	-5.033583	21.6	0.6	Mixed sediment. Dead maerl	Good	
10:27:20	CIFCA_FalBay_10_T1_20220713_10_27_20_0120	50.124977	-5.033598	21.6	0.6	Mixed sediment. Dead maerl	Good	
10:27:56	CIFCA_FalBay_10_T1_20220713_10_27_56_0121	50.124902	-5.033595	21.9	0.5	Mixed sediment. Dead maerl. Anchor	Acceptable	Camera off seabed
10:28:28	CIFCA_FalBay_10_T1_20220713_10_28_28_0122	50.124815	-5.033598	21.9	0.5	Mixed sediment. Dead maerl	Acceptable	Camera off seabed
10:29:05	CIFCA_FalBay_10_T1_20220713_10_29_05_0123	50.124712	-5.033585	22.1	0.5	Mixed sediment. Dead maerl	Good	
10:29:41	CIFCA_FalBay_10_T1_20220713_10_29_41_0124	50.124623	-5.033588	22.3	0.6	Mixed sediment. Dead maerl	Good	
10:30:18	CIFCA_FalBay_10_T1_20220713_10_30_18_0125	50.124512	-5.033590	22.4	0.6	Mixed sediment. Dead maerl	Good	
10:30:54	CIFCA_FalBay_10_T1_20220713_10_30_54_0126	50.124430	-5.033602	22.4	0.6	Mixed sediment. Dead maerl. Spiny starfish	Good	
10:31:28	CIFCA_FalBay_10_T1_20220713_10_31_28_0127	50.124332	-5.033603	22.4	0.6	Mixed sediment. Dead maerl. Spiny starfish	Acceptable	Out of focus
10:32:07	CIFCA_FalBay_10_T1_20220713_10_32_07_0128	50.124240	-5.033638	22.5	0.5	Mixed sediment. Dead maerl	Good	
10:32:42	CIFCA_FalBay_10_T1_20220713_10_32_42_0129	50.124145	-5.033663	22.6	0.6	Mixed sediment. Dead maerl	Good	
10:33:14	CIFCA_FalBay_10_T1_20220713_10_33_14_0130	50.124073	-5.033677	22.7	0.5	Mixed sediment. Live/ Dead maerl	Good	
10:34:00	CIFCA_FalBay_10_T1_20220713_10_34_00_0131	50.123967	-5.033697	22.7	0.5	Mixed sediment. Dead maerl	Good	
10:34:36	CIFCA_FalBay_10_T1_20220713_10_34_36_0132	50.123880	-5.033707	22.7	0.5	Fine sediment. Sparse dead maerl. Hermit crab	Good	
10:35:12	CIFCA_FalBay_10_T1_20220713_10_35_12_0133	50.123787	-5.033713	22.7	0.6	Mixed sediment. Dead maerl	Good	
10:35:44	CIFCA_FalBay_10_T1_20220713_10_35_44_0134	50.123713	-5.033738	22.5	0.5	Mixed sediment. Dead maerl	Good	
10:36:24	CIFCA_FalBay_10_T1_20220713_10_36_24_0135	50.123613	-5.033758	22.6	0.6	Mixed sediment. Live/ Dead maerl	Good	
10:37:00	CIFCA_FalBay_10_T1_20220713_10_37_00_0136	50.123515	-5.033778	22.4	0.5	Mixed sediment. Dead maerl	Good	
10:37:38	CIFCA_FalBay_10_T1_20220713_10_37_38_0137	50.123438	-5.033790	22.4	0.4	Mixed sediment. Dead maerl	Good	
10:38:05	Site 10_T1_EOL	50.123377	-5.033805					



## Site 11 Tow 1

Project Code	20220512_CIFCA_DDV_Fal	SOL Time (hh:mm:ss)	10:27:53	SOL depth (m)	21.6	Video file name(s)	CIFCA_FalBay_11_T1_20220512_VID_10_27_51	
Date	12/05/2022	EOL Time (hh:mm:ss)	10:58:26	EOL depth (m)	21.7	Hypack track file (vessel position)	Hypack_DDV_Fal_Maerl_20220512	
Vessel	Tiger Lily VI	Length of video	00:30:33	Number of stills pre QC	23	Com port A file (USBL position)	ComPortA_Site11_T1_20220512_1027	
Site ID	Falmouth Bay	GPS recorded from	Easytrak Alpha USBL GPS antenna	Number of stills post QC	22	Winch operator	CT	
Tow ID	Site 11 Tow 1	Time recorded from	Hemisphere V500 GNSS	Avg vessel speed (kts)	0.2	Camera operator	SS	
Description of tow (direction/ current/ tides/ overall habitat)							Data recorder	AJ
Mixed sediment with dead maerl and patches of fine sediment with sparse dead maerl. Time and position on video updating at two second intervals. A net, tyre, cable and anchor visible on seabed								
Still Time	File name (.JPG)	Lat	Long	Depth (m)	Speed (kts)	Comments / description	Quality	Reason
10:27:53	Site 11_T1_SOL	50.125495	-5.044450	21.6				
10:28:04	CIFCA_FalBay_11_T1_20220512_10_28_04_0023	50.125502	-5.044447	21.3	0.2	Fine sediment, scattered pebbles. Sparse dead maerl	Good	
10:28:47	CIFCA_FalBay_11_T1_20220512_10_28_47_0024	50.125475	-5.044378	20.6	0.2	Fine sediment, scattered pebbles. Sparse dead maerl	Good	
10:30:04	CIFCA_FalBay_11_T1_20220512_10_30_04_0025	50.125513	-5.044290	21.7	0.2	Mixed sediment. Dead maerl	Good	
10:31:29	CIFCA_FalBay_11_T1_20220512_10_31_29_0026	50.125540	-5.044132	21.7	0.2	Mixed sediment. Dead maerl	Good	
10:33:03	CIFCA_FalBay_11_T1_20220512_10_33_03_0027	50.125590	-5.043977	21.4	0.2	Mixed sediment. Dead maerl	Good	
10:34:22	CIFCA_FalBay_11_T1_20220512_10_34_22_0028	50.125632	-5.043865	21.8	0.2	Mixed sediment. Dead maerl	Good	
10:35:41	CIFCA_FalBay_11_T1_20220512_10_35_41_0029	50.125645	-5.043743	21.5	0.2	Mixed sediment. Dead maerl	Good	
10:36:59	CIFCA_FalBay_11_T1_20220512_10_36_59_0030	50.125678	-5.043592	21.8	0.2	Mixed sediment. Dead maerl	Good	
10:38:18	CIFCA_FalBay_11_T1_20220512_10_38_18_0031	50.125707	-5.043465	21.8	0.2	Mixed sediment. Live/ Dead maerl	Good	
10:39:43	CIFCA_FalBay_11_T1_20220512_10_39_43_0032	50.125733	-5.043340	22.0	0.2	Mixed sediment. Dead maerl. Spiny starfish	Good	
10:41:22	CIFCA_FalBay_11_T1_20220512_10_41_22_0033	50.125755	-5.043212	22.1	0.2	Mixed sediment. Dead maerl	Good	
10:43:06	CIFCA_FalBay_11_T1_20220512_10_43_06_0034	50.125788	-5.043088	22.4	0.2	Fine sediment, shell fragments. Sparse dead maerl	Good	
10:44:58	CIFCA_FalBay_11_T1_20220512_10_44_58_0035	50.125842	-5.042903	21.3	0.2	Fine sediment, shell fragments. Sparse dead maerl	Good	
10:45:55	CIFCA_FalBay_11_T1_20220512_10_45_55_0036	50.125848	-5.042838	22.1	0.2	Mixed sediment. Dead maerl. Edible crab in tyre (extra taken in-between 10m fix)	Acceptable	On the fly
10:46:52	CIFCA_FalBay_11_T1_20220512_10_46_52_0037	50.125878	-5.042775	21.3	0.2	Mixed sediment. Dead maerl	Good	
10:47:29	CIFCA_FalBay_11_T1_20220512_10_47_29_0038			21.6	0.2	Anchor (extra taken in-between 10m fix)	Poor	On the fly
10:48:45	CIFCA_FalBay_11_T1_20220512_10_48_45_0039	50.125912	-5.042657	21.9	0.2	Mixed sediment. Dead maerl. Seasquirts	Good	
10:50:39	CIFCA_FalBay_11_T1_20220512_10_50_39_0040	50.125975	-5.042533	21.9	0.2	Mixed sediment. Dead maerl	Good	
10:52:46	CIFCA_FalBay_11_T1_20220512_10_52_46_0041	50.126037	-5.042400	21.7	0.2	Mixed sediment. Dead maerl. Seasquirts	Good	
10:54:28	CIFCA_FalBay_11_T1_20220512_10_54_28_0042	50.126083	-5.042295	20.9	0.2	Mixed sediment. Dead maerl. Brittlestars	Good	
10:55:48	CIFCA_FalBay_11_T1_20220512_10_55_48_0043	50.126105	-5.042203	21.7	0.2	Mixed sediment. Dead maerl. Brittlestars	Good	
10:57:02	CIFCA_FalBay_11_T1_20220512_10_57_02_0044	50.126138	-5.042060	21.7	0.2	Mixed sediment. Dead maerl. Brittlestars	Good	
10:58:10	CIFCA_FalBay_11_T1_20220512_10_58_10_0045	50.126213	-5.041927	21.7	0.2	Mixed sediment. Dead maerl	Good	
10:58:26	Site 11_T1_EOL	50.126230	-5.041897	21.7				



## Site 12 Tow 1

Project Code	20220713_CIFCA_DDV_Fal	SOL Time (hh:mm:ss)	10:00:08	SOL depth (m)	19.5	Video file name(s)	CIFCA_FalBay_12_T1_20220713_VID_10_00_09	
Date	13/07/2022	EOL Time (hh:mm:ss)	10:13:53	EOL depth (m)	20.9	Hypack track file	Hypack_DDV_Fal_Maerl_20220713_0000_0752	
Vessel	Tiger Lily VI	Length of video	00:13:45	Number of stills pre QC	22	Com port A file	ComPortA_Site12_T1_20220713_1000	
Site ID	Falmouth Bay	GPS recorded from	Easytrak Alpha USBL GPS antenna	Number of stills post QC	22	Winch operator	CT	
Tow ID	Site 12 Tow 1	Time recorded from	Hemisphere V500 GNSS	Avg vessel speed (kts)	0.7	Camera operator	SS	
Description of tow (direction/ current/ tides/ overall habitat)	Mixed sediment with dead maerl							
Still Time	File name (.JPG)	Lat	Long	Depth (m)	Speed (kts)	Comments / description	Quality	Reason
10:00:09	Site 12_T1_SOL	50.127288	-5.035712	19.5	0.9			
10:00:53	CIFCA_FalBay_12_T1_20220713_10_00_53_0094	50.127098	-5.035853	19.8	0.7	Mixed sediment. Dead maerl	Good	
10:01:59	CIFCA_FalBay_12_T1_20220713_10_01_59_0095	50.126905	-5.036033	19.9	0.9	Mixed sediment. Dead maerl	Good	
10:02:24	CIFCA_FalBay_12_T1_20220713_10_02_24_0096	50.126827	-5.036093	19.9	1.0	Mixed sediment. Dead maerl	Good	
10:02:47	CIFCA_FalBay_12_T1_20220713_10_02_47_0097	50.126747	-5.036168	20.0	0.7	Mixed sediment. Dead maerl	Good	
10:03:38	CIFCA_FalBay_12_T1_20220713_10_03_38_0098	50.126630	-5.036288	20.0	0.5	Mixed sediment. Live/ Dead maerl	Good	
10:04:14	CIFCA_FalBay_12_T1_20220713_10_04_14_0099	50.126570	-5.036392	19.9	0.6	Mixed sediment. Dead maerl	Good	
10:04:45	CIFCA_FalBay_12_T1_20220713_10_04_45_0100	50.126545	-5.036485	19.9	0.7	Mixed sediment. Live/ Dead maerl	Good	
10:05:09	CIFCA_FalBay_12_T1_20220713_10_05_09_0101	50.126502	-5.036547	19.7	0.7	Mixed sediment. Dead maerl	Good	
10:05:32	CIFCA_FalBay_12_T1_20220713_10_05_32_0102	50.126447	-5.036667	19.4	0.6	Mixed sediment. Sparse dead maerl	Good	
10:06:06	CIFCA_FalBay_12_T1_20220713_10_06_06_0103	50.126410	-5.036802	19.2	0.7	Mixed sediment.	Good	
10:06:37	CIFCA_FalBay_12_T1_20220713_10_06_37_0104	50.126348	-5.036938	19.2	0.8	Mixed sediment.	Acceptable	Silt cloud
10:07:11	N/A			19.4	0.8	Image didn't take		
10:07:42	CIFCA_FalBay_12_T1_20220713_10_07_42_0105	50.126203	-5.037167	20.6	0.8	Mixed sediment.	Good	
10:08:12	CIFCA_FalBay_12_T1_20220713_10_08_12_0106	50.126117	-5.037303	20.6	0.8	Mixed sediment. Dead maerl. Spiny starfish	Acceptable	Camera off seabed
10:08:44	CIFCA_FalBay_12_T1_20220713_10_08_44_0107	50.126035	-5.037397	21.0	0.8	Mixed sediment. Dead maerl	Good	
10:09:19	CIFCA_FalBay_12_T1_20220713_10_09_19_0108	50.125958	-5.037500	21.0	0.7	Mixed sediment. Dead maerl	Good	
10:09:56	CIFCA_FalBay_12_T1_20220713_10_09_56_0109	50.125867	-5.037648	21.0	0.7	Mixed sediment. Live/ Dead maerl	Good	
10:10:34	CIFCA_FalBay_12_T1_20220713_10_10_34_0110	50.125783	-5.037760	20.9	0.6	Mixed sediment. Live/ Dead maerl	Good	
10:11:07	CIFCA_FalBay_12_T1_20220713_10_11_07_0111	50.125710	-5.037860	20.9	0.7	Mixed sediment. Live/ Dead maerl	Good	
10:11:46	CIFCA_FalBay_12_T1_20220713_10_11_46_0112	50.125622	-5.037995	20.9	0.7	Mixed sediment. Live/ Dead maerl. Brittlestars	Good	
10:12:15	CIFCA_FalBay_12_T1_20220713_10_12_15_0113	50.125553	-5.038073	20.9	0.7	Mixed sediment. Live/ Dead maerl	Good	
10:12:47	CIFCA_FalBay_12_T1_20220713_10_12_47_0114	50.125470	-5.038170	20.8	0.8	Maerl sediment. Dead maerl.	Good	
10:13:20	CIFCA_FalBay_12_T1_20220713_10_13_20_0115	50.125377	-5.038275	20.8	0.7	Maerl sediment. Live/ Dead maerl.	Good	
10:13:53	Site 12_T1_EOL	50.125282	-5.038373	20.9	0.8			





## Site 13 Tow 1

Project Code	20220713_CIFCA_DDV_Fal	SOL Time (hh:mm:ss)	10:52:36	SOL depth (m)	18.2	Video file name(s)	CIFCA_FalBay_13_T1_20220713_VID_10_52_37	
Date	13/07/2022	EOL Time (hh:mm:ss)	11:11:02	EOL depth (m)	20.8	Hypack track file	Hypack_DDV_Fal_Maerl_20220713_0000_0752	
Vessel	Tiger Lily VI	Length of video	00:18:26	Number of stills pre QC	22	Com port A file	ComPortA_Site13_T1_20220713_1052	
Site ID	Falmouth Bay	GPS recorded from	Easytrak Alpha USBL GPS antenna	Number of stills post QC	22	Winch operator	CT	
Tow ID	Site 13 Tow 1	Time recorded from	Hemisphere V500 GNSS	Avg vessel speed (kts)	0.5	Camera operator	SS	
Description of tow (direction/ current/ tides/ overall habitat)	Mixed sediment with dead maerl							
Still Time	File name (.JPG)	Lat	Long	Depth (m)	Speed (kts)	Comments / description	Quality	Reason
10:52:37	Site 13_T1_SOL	50.119910	-5.034562	18.2	0.5			
10:53:25	CIFCA_FalBay_13_T1_20220713_10_53_25_0138	50.119827	-5.034487	18.6	0.5	Mixed sediment. Dead maerl	Good	
10:54:06	CIFCA_FalBay_13_T1_20220713_10_54_06_0139	50.119733	-5.034475	18.6	0.3	Mixed sediment. Dead maerl	Good	
10:55:12	CIFCA_FalBay_13_T1_20220713_10_55_12_0140	50.119647	-5.034407	19.9	0.6	Maerl sediment, shell. Dead maerl	Good	
10:55:54	CIFCA_FalBay_13_T1_20220713_10_55_54_0141	50.119543	-5.034373	18.8	0.6	Maerl sediment, shell. Dead maerl. Spiny starfish	Good	
10:56:39	CIFCA_FalBay_13_T1_20220713_10_56_39_0142	50.119422	-5.034357	20.5	0.7	Mixed sediment. Dead maerl	Good	
10:57:15	CIFCA_FalBay_13_T1_20220713_10_57_15_0143	50.119318	-5.034327	20.8	0.6	Mixed sediment. Dead maerl	Good	
10:57:52	CIFCA_FalBay_13_T1_20220713_10_57_52_0144	50.119188	-5.034270	21.3	0.9	Mixed sediment. Dead maerl	Good	
10:58:18	CIFCA_FalBay_13_T1_20220713_10_58_18_0145	50.119102	-5.034255	21.4	0.7	Mixed sediment. Dead maerl	Good	
10:58:51	CIFCA_FalBay_13_T1_20220713_10_58_51_0146	50.118995	-5.034250	21.4	0.3	Mixed sediment. Dead maerl	Good	
10:59:50	CIFCA_FalBay_13_T1_20220713_10_59_50_0147	50.118920	-5.034180	20.2	0.3	Mixed sediment. Dead maerl	Acceptable	Camera off seabed
11:00:45	CIFCA_FalBay_13_T1_20220713_11_00_45_0148	50.118853	-5.034102	19.2	0.2	Mixed sediment. Dead maerl	Good	
11:02:15	CIFCA_FalBay_13_T1_20220713_11_02_15_0149	50.118780	-5.034080	21.4	0.6	Mixed sediment. Dead maerl	Good	
11:02:50	CIFCA_FalBay_13_T1_20220713_11_02_50_0150	50.118717	-5.033993	21.5	0.4	Mixed sediment. Dead maerl	Good	
11:03:48	CIFCA_FalBay_13_T1_20220713_11_03_48_0151	50.118615	-5.033927	21.4	0.6	Mixed sediment. Dead maerl	Good	
11:04:31	CIFCA_FalBay_13_T1_20220713_11_04_31_0152	50.118513	-5.033872	20.9	0.4	Mixed sediment. Dead maerl	Good	
11:05:17	CIFCA_FalBay_13_T1_20220713_11_05_17_0153	50.118430	-5.033795	19.8	0.3	Mixed sediment. Dead maerl	Acceptable	Silt cloud
11:06:27	CIFCA_FalBay_13_T1_20220713_11_06_27_0154	50.118367	-5.033715	21.3	0.5	Mixed sediment. Dead maerl	Good	
11:07:04	CIFCA_FalBay_13_T1_20220713_11_07_04_0155	50.118298	-5.033662	21.2	0.5	Maerl sediment, shell. Dead maerl. Spiny starfish	Good	
11:07:52	CIFCA_FalBay_13_T1_20220713_11_07_52_0156	50.118200	-5.033583	20.8	0.5	Mixed sediment. Dead maerl	Good	
11:08:47	CIFCA_FalBay_13_T1_20220713_11_08_47_0157	50.118133	-5.033510	19.4	0.4	Mixed sediment. Dead maerl	Good	
11:09:58	CIFCA_FalBay_13_T1_20220713_11_09_58_0158	50.118053	-5.033480	21.0	0.5	Mixed sediment. Dead maerl	Good	
11:10:44	CIFCA_FalBay_13_T1_20220713_11_10_44_0159	50.117990	-5.033397	20.9	0.5	Mixed sediment. Dead maerl	Good	
11:11:02	Site 13_T1_EOL	50.117952	-5.033393	20.8	0.5			



## Site 14 Tow 1

Project Code	20220713_CIFCA_DDV_Fal	SOL Time (hh:mm:ss)	11:17:16	SOL depth (m)	19.8	Video file name(s)	CIFCA_FalBay_14_T1_20220713_VID_11_17_17	
Date	13/07/2022	EOL Time (hh:mm:ss)	11:34:00	EOL depth (m)	19.8	Hypack track file	Hypack_DDV_Fal_Maerl_20220713_0000_0752	
Vessel	Tiger Lily VI	Length of video	00:16:44	Number of stills pre QC	24	Com port A file	ComPortA_Site14_T1_20220713_1117	
Site ID	Falmouth Bay	GPS recorded from	Easytrak Alpha USBL GPS antenna	Number of stills post QC	24	Winch operator	CT	
Tow ID	Site 14 Tow 1	Time recorded from	Hemisphere V500 GNSS	Avg vessel speed (kts)	0.6	Camera operator	SS	
Description of tow (direction/ current/ tides/ overall habitat)	Mixed sediment with dead maerl			Data recorder	AJ			
Still Time	File name (.JPG)	Lat	Long	Depth (m)	Speed (kts)	Comments / description	Quality	Reason
11:17:17	Site 14_T1_SOL	50.115083	-5.035028	19.8	1.1			
11:17:43	N/A			19.6	0.6	Image didn't take		
11:18	Camera lost comms							
11:18	Camera comms back							
11:18:40	N/A			19.6	0.6	Image didn't take		
11:19:14	CIFCA_FalBay_14_T1_20220713_11_19_14_0160	50.114937	-5.035823	20.1	0.6	Mixed sediment. Live/ Dead maerl	Acceptable	Silt cloud
11:20:12	CIFCA_FalBay_14_T1_20220713_11_20_12_0161	50.114858	-5.036038	19.6	0.6	Mixed sediment. Live/ Dead maerl	Acceptable	Camera off seabed
11:20:59	N/A			19.5	0.6	Image didn't take		
11:21:26	CIFCA_FalBay_14_T1_20220713_11_21_26_0162	50.114728	-5.036378	19.5	0.6	Mixed sediment. Live/ Dead maerl	Good	
11:21:50	CIFCA_FalBay_14_T1_20220713_11_21_50_0163	50.114663	-5.036493	19.5	0.8	Mixed sediment. Live/ Dead maerl	Good	
11:22:30	CIFCA_FalBay_14_T1_20220713_11_22_30_0164	50.114610	-5.036678	19.4	0.8	Mixed sediment. Live/ Dead maerl	Good	
11:23:04	CIFCA_FalBay_14_T1_20220713_11_23_08_0165	50.114533	-5.036798	19.4	0.7	Mixed sediment. Live/ Dead maerl	Good	
11:23:36	CIFCA_FalBay_14_T1_20220713_11_23_36_0166	50.114457	-5.036920	19.4	0.7	Mixed sediment. Live/ Dead maerl	Good	
11:24:06	CIFCA_FalBay_14_T1_20220713_11_24_06_0167	50.114367	-5.037018	19.4	0.6	Mixed sediment. Live/ Dead maerl	Good	
11:24:42	CIFCA_FalBay_14_T1_20220713_11_24_42_0168	50.114297	-5.037153	19.6	0.5	Mixed sediment. Live/ Dead maerl	Good	
11:25:18	CIFCA_FalBay_14_T1_20220713_11_25_18_0169	50.114270	-5.037260	19.5	0.7	Mixed sediment. Live/ Dead maerl	Good	
11:25:50	CIFCA_FalBay_14_T1_20220713_11_25_50_0170	50.114215	-5.037368	19.6	0.7	Mixed sediment. Red algae	Good	
11:26:18	CIFCA_FalBay_14_T1_20220713_11_26_18_0171	50.114165	-5.037498	19.7	0.7	Mixed sediment. Dead maerl	Good	
11:26:55	CIFCA_FalBay_14_T1_20220713_11_26_55_0172	50.114087	-5.037645	19.8	0.7	Mixed sediment. Red algae	Good	
11:27:23	CIFCA_FalBay_14_T1_20220713_11_27_23_0173	50.114023	-5.037753	19.6	0.7	Mixed sediment. Live/ Dead maerl	Good	
11:27:58	CIFCA_FalBay_14_T1_20220713_11_27_58_0174	50.113915	-5.037885	19.7	0.6	Mixed sediment. Live/ Dead maerl	Good	
11:28:31	CIFCA_FalBay_14_T1_20220713_11_28_31_0175	50.113817	-5.037958	19.7	0.6	Mixed sediment. Dead maerl	Acceptable	Silt cloud
11:29:07	CIFCA_FalBay_14_T1_20220713_11_29_07_0176	50.113765	-5.038047	19.6	0.6	Mixed sediment. Live/ Dead maerl	Good	
11:29:45	CIFCA_FalBay_14_T1_20220713_11_29_45_0177	50.113720	-5.038153	19.6	0.6	Mixed sediment. Dead maerl	Good	
11:30:22	CIFCA_FalBay_14_T1_20220713_11_30_22_0178	50.113672	-5.038323	19.8	0.6	Mixed sediment. Dead maerl. Spiny starfish	Good	
11:31:01	CIFCA_FalBay_14_T1_20220713_11_31_01_0179	50.113592	-5.038468	19.9	0.6	Mixed sediment. Live/ Dead maerl	Good	
11:31:43	CIFCA_FalBay_14_T1_20220713_11_31_43_0180	50.113475	-5.038578	19.9	0.5	Mixed sediment. Live/ Dead maerl	Good	
11:32:19	CIFCA_FalBay_14_T1_20220713_11_32_21_0181	50.113393	-5.038652	19.8	0.5	Mixed sediment. Live/ Dead maerl. Nudibranch	Good	
11:32:58	CIFCA_FalBay_14_T1_20220713_11_32_58_0182	50.113313	-5.038752	19.8	0.5	Mixed sediment. Live/ Dead maerl	Acceptable	Silt cloud
11:33:35	CIFCA_FalBay_14_T1_20220713_11_33_38_0183	50.113248	-5.038825	19.8	0.6	Mixed sediment. Live/ Dead maerl. Red algae	Good	
11:34:00	Site 14_T1_EOL	50.113198	-5.038915	19.8	0.6			




## Site 15 Tow 1

Project Code	20220512_CIFCA_DDV_Fal	SOL Time (hh:mm:ss)	13:41:56	SOL depth (m)	21.2	Video file name(s)	CIFCA_FalBay_15_T1_20220512_VID_13_41_55	
Date	12/05/2022	EOL Time (hh:mm:ss)	13:52:08	EOL depth (m)	21.5	Hypack track file (vessel position)	Hypack_DDV_Fal_Maerl_20220512	
Vessel	Tiger Lily VI	Length of video	00:10:12	Number of stills pre QC	21	Com port A file (USBL position)	ComPortA_Site15_T1_20220512_1341	
Site ID	Falmouth Bay	GPS recorded from	Easytrak Alpha USBL GPS antenna	Number of stills post QC	21	Winch operator	CT	
Tow ID	Site 15 Tow 1	Time recorded from	Hemisphere V500 GNSS	Avg vessel speed (kts)	0.8	Camera operator	SS	
Description of tow (direction/ current/ tides/ overall habitat)						Data recorder	AJ	
Mixed sediment with dead maerl. Struggling to keep vessel speed down with wind speed.								
Still Time	File name (.JPG)	Lat	Long	Depth (m)	Speed (kts)	Comments / description	Quality	Reason
13:41:56	Site 15_T1_SOL	50.121070	-5.066000	21.2				
13:42:21	CIFCA_FalBay_15_T1_20220512_13_42_21_0132	50.121145	-5.065892	21.4	0.8	Mixed sediment. Dead maerl	Good	
13:42:54	CIFCA_FalBay_15_T1_20220512_13_42_54_0133	50.121195	-5.065752	21.2	0.8	Mixed sediment. Dead maerl	Good	
13:43:18	CIFCA_FalBay_15_T1_20220512_13_43_18_0134	50.121260	-5.065632	21.2	0.8	Mixed sediment. Dead maerl	Good	
13:43:46	CIFCA_FalBay_15_T1_20220512_13_43_46_0135	50.121328	-5.065492	21.4	0.9	Mixed sediment. Dead maerl. Sea squirts	Good	
13:44:12	CIFCA_FalBay_15_T1_20220512_13_44_12_0136	50.121362	-5.065390	21.3	0.8	Mixed sediment. Dead maerl	Good	
13:44:36	CIFCA_FalBay_15_T1_20220512_13_44_36_0137	50.121417	-5.065278	21.5	0.9	Mixed sediment. Dead maerl	Good	
13:45:06	CIFCA_FalBay_15_T1_20220512_13_45_06_0138	50.121507	-5.065130	21.4	0.9	Mixed sediment. Dead maerl	Good	
13:45:37	CIFCA_FalBay_15_T1_20220512_13_45_37_0139	50.121565	-5.064963	21.3	0.9	Mixed sediment. Dead maerl	Good	
13:46:12	CIFCA_FalBay_15_T1_20220512_13_46_12_0140	50.121625	-5.064837	21.5	0.8	Mixed sediment. Live/ Dead maerl	Good	
13:46:36	CIFCA_FalBay_15_T1_20220512_13_46_36_0141	50.121707	-5.064760	21.4	0.8	Mixed sediment. Dead maerl	Good	
13:47:01	CIFCA_FalBay_15_T1_20220512_13_47_01_0142	50.121763	-5.064613	21.3	0.9	Mixed sediment. Dead maerl	Good	
13:47:47	CIFCA_FalBay_15_T1_20220512_13_47_47_0143	50.121860	-5.064472	21.2	0.7	Mixed sediment. Dead maerl	Good	
13:48:15	CIFCA_FalBay_15_T1_20220512_13_48_15_0144	50.121933	-5.064328	21.3	0.7	Mixed sediment. Live/ Dead maerl	Good	
13:48:40	CIFCA_FalBay_15_T1_20220512_13_48_40_0145	50.122003	-5.064185	21.3	0.7	Mixed sediment. Live/ Dead maerl	Good	
13:49:03	CIFCA_FalBay_15_T1_20220512_13_49_03_0146	50.122068	-5.064108	21.4	0.8	Mixed sediment. Dead maerl	Good	
13:49:31	CIFCA_FalBay_15_T1_20220512_13_49_31_0147	50.122123	-5.064028	22.1	0.7	Mixed sediment. Dead maerl	Good	
13:49:53	CIFCA_FalBay_15_T1_20220512_13_49_53_0148	50.122183	-5.063898	22.0	0.7	Mixed sediment. Dead maerl	Good	
13:50:23	CIFCA_FalBay_15_T1_20220512_13_50_23_0149	50.122232	-5.063808	21.4	0.7	Mixed sediment. Live/ Dead maerl	Good	
13:50:51	CIFCA_FalBay_15_T1_20220512_13_50_51_0150	50.122285	-5.063668	21.5	0.8	Mixed sediment. Dead maerl	Good	
13:51:18	CIFCA_FalBay_15_T1_20220512_13_51_18_0151	50.122323	-5.063535	21.4	0.8	Mixed sediment. Dead maerl	Good	
13:51:47	CIFCA_FalBay_15_T1_20220512_13_51_47_0152	50.122382	-5.063413	21.4	0.9	Mixed sediment. Dead maerl	Good	
13:52:08	Site 15_T1_EOL	50.122408	-5.063283	21.5				






## Site 16 Tow 1

<b>Project Code</b>	20220601_CIFCA_DDV_Fal	<b>SOL Time (hh:mm:ss)</b>	10:10:35	<b>SOL depth (m)</b>	17.8	<b>Video file name(s)</b>	CIFCA_FalBay_16_T1_20220601_VID_10_10_56	
<b>Date</b>	01/06/2022	<b>EOL Time (hh:mm:ss)</b>	10:51:20	<b>EOL depth (m)</b>	17.7	<b>Hypack track file (vessel position)</b>	Hypack_DDV_Fal_Maerl_20220601_0000_0800.RAW	
<b>Vessel</b>	Tiger Lily VI	<b>Length of video</b>	00:40:45	<b>Number of stills pre QC</b>	22	<b>Com port A file (USBL position)</b>	ComPortA_Site16_T1_20220601_1010.txt	
<b>Site ID</b>	Falmouth Bay	<b>GPS recorded from</b>	Easytrak Alpha USBL GPS antenna	<b>Number of stills post QC</b>	22	<b>Winch operator</b>	CT	
<b>Tow ID</b>	Site 16 Tow 1	<b>Time recorded from</b>	Hemisphere V500 GNSS	<b>Avg vessel speed (kts)</b>	0.2	<b>Camera operator</b>	SS	
<b>Description of tow (direction/ current/ tides/ overall habitat)</b>							<b>Data recorder</b>	

SW drift. Mixed sediment with live and dead maerl

Still Time	File name (.JPG)	Lat	Long	Depth (m)	Speed (kts)	Comments / description	Quality	Reason
10:10:35	Site 16_T1_SOL	50.112315	-5.061132					
10:11:37	CIFCA_FalBay_16_T1_20220601_10_11_25_0024	50.112272	-5.061130	17.8	0.2	Mixed sediment. Live/ Dead maerl	Good	
10:13:38	CIFCA_FalBay_16_T1_20220601_10_13_36_0025	50.112242	-5.061150	18.0	0.2	Mixed sediment. Live/ Dead maerl	Good	
10:15:34	CIFCA_FalBay_16_T1_20220601_10_15_32_0026	50.112130	-5.061225	17.5	0.2	Mixed sediment. Live/ Dead maerl	Good	
10:17:41	CIFCA_FalBay_16_T1_20220601_10_17_39_0027	50.112078	-5.061210	18.8	0.2	Mixed sediment. Live/ Dead maerl	Good	
10:20:02	CIFCA_FalBay_16_T1_20220601_10_20_01_0028	50.112013	-5.061185	17.9	0.2	Mixed sediment. Sparse Live/ Dead maerl. Goby	Good	
10:22:30	CIFCA_FalBay_16_T1_20220601_10_22_29_0029	50.111957	-5.061185	18.7	0.15	Mixed sediment. Sparse Dead maerl	Good	
10:25:15	CIFCA_FalBay_16_T1_20220601_10_25_14_0030	50.111868	-5.061138	17.5	0.2	Mixed sediment. Sparse Live/ Dead maerl.	Good	
10:26:50	CIFCA_FalBay_16_T1_20220601_10_26_49_0031	50.111782	-5.061265	18.8	0.3	Mixed sediment. Sparse Dead maerl	Good	
10:28:08	CIFCA_FalBay_16_T1_20220601_10_28_08_0032	50.111673	-5.061332	17.9	0.2	Mixed sediment. Sparse Dead maerl. Scallop	Good	
10:30:19	CIFCA_FalBay_16_T1_20220601_10_30_18_0033	50.111630	-5.061297	18.4	0.2	Mixed sediment. Sparse Dead maerl	Good	
10:32:16	CIFCA_FalBay_16_T1_20220601_10_32_14_0034	50.111603	-5.061328	18.9	0.2	Mixed sediment. Sparse Dead maerl	Good	
10:33:52	CIFCA_FalBay_16_T1_20220601_10_33_51_0035	50.111545	-5.061368	18.4	0.2	Mixed sediment.	Good	
10:35:30	CIFCA_FalBay_16_T1_20220601_10_35_26_0036	50.111432	-5.061465	17.8	0.3	Mixed sediment. Live/ Dead maerl.	Good	
10:36:37	CIFCA_FalBay_16_T1_20220601_10_36_35_0037	50.111360	-5.061530	17.5	0.3	Mixed sediment. Live/ Dead maerl	Good	
10:38:09	CIFCA_FalBay_16_T1_20220601_10_38_07_0038	50.111273	-5.061622	18.0	0.2	Mixed sediment. Live/ Dead maerl	Good	
10:39:32	CIFCA_FalBay_16_T1_20220601_10_39_31_0039	50.111202	-5.061692	17.4	0.2	Mixed sediment. Dead maerl	Good	
10:41:16	CIFCA_FalBay_16_T1_20220601_10_41_13_0040	50.111123	-5.061767	18.1	0.2	Mixed sediment. Live/ Dead maerl	Good	
10:43:01	CIFCA_FalBay_16_T1_20220601_10_42_58_0041	50.111030	-5.061855	17.9	0.2	Mixed sediment. Live/ Dead maerl	Good	
10:44:43	CIFCA_FalBay_16_T1_20220601_10_44_39_0042	50.110953	-5.061937	17.9	0.2	Mixed sediment. Dead maerl	Good	
10:46:25	CIFCA_FalBay_16_T1_20220601_10_46_23_0043	50.110883	-5.062020	17.9	0.2	Mixed sediment. Live/ Dead maerl	Good	
10:48:59	CIFCA_FalBay_16_T1_20220601_10_48_57_0044	50.110835	-5.062068	17.7	0.2	Mixed sediment. Live/ Dead maerl. Brittlestar	Good	
10:51:03	CIFCA_FalBay_16_T1_20220601_10_51_01_0045	50.110795	-5.062108	17.7	0.2	Mixed sediment. Live/ Dead maerl	Good	
10:51:20	Site 16_T1_EOL	50.110783	-5.062138					

## Site 17 Tow 1

<b>Project Code</b>	20220601_CIFCA_DDV_Fal	<b>SOL Time (hh:mm:ss)</b>	11:28:19	<b>SOL depth (m)</b>	22.4	<b>Video file name(s)</b>	CIFCA_FalBay_17_T1_20220601_VID_11_28_40	
<b>Date</b>	01/06/2022	<b>EOL Time (hh:mm:ss)</b>	11:49:06	<b>EOL depth (m)</b>	23.2	<b>Hypack track file (vessel position)</b>	Hypack_DDV_Fal_Maerl_20220601_0000_0800.RAW	
<b>Vessel</b>	Tiger Lily VI	<b>Length of video</b>	00:20:47	<b>Number of stills pre QC</b>	8	<b>Com port A file (USBL position)</b>	ComPortA_Site17_T1_20220601_1128.txt	
<b>Site ID</b>	Falmouth Bay	<b>GPS recorded from</b>	Easytrak Alpha USBL GPS antenna	<b>Number of stills post QC</b>	7	<b>Winch operator</b>	CT	
<b>Tow ID</b>	Site 17 Tow 1	<b>Time recorded from</b>	Hemisphere V500 GNSS	<b>Avg vessel speed (kts)</b>	0.25	<b>Camera operator</b>	SS	
<b>Description of tow (direction/ current/ tides/ overall habitat)</b>						<b>Data recorder</b>	SS	
Mixed sediment with dead maerl and patches of fine sediment with sparse dead maerl. Wind pushing west drift, use engines to keep SW drift. EOL early due wind direction went NW.								
Still Time	File name (.JPG)	Lat	Long	Depth (m)	Speed (kts)	Comments / description	Quality	Reason
11:28:19	Site 17_T1_SOL	50.106187	-5.043405					
11:28:54	CIFCA_FalBay_17_T1_20220601_11_28_52_0046	50.106178	-5.043462	22.4	0.2	Mixed sediment. Dead maerl	Good	
11:30:35	CIFCA_FalBay_17_T1_20220601_11_30_33_0047	50.106117	-5.043583	22.5	0.2	Mixed sediment. Dead maerl	Good	
11:32:45	CIFCA_FalBay_17_T1_20220601_11_32_43_0048	50.106093	-5.043617	22.7	0.3	Fine sediment, scattered shells. Sparse dead maerl. Spiny starfish	Good	
11:36:25	CIFCA_FalBay_17_T1_20220601_11_36_23_0049	50.106042	-5.043623	22.7	0.2	Mixed sediment. Dead maerl	Good	
11:39:51	N/A					Image didn't take		
11:43:05	CIFCA_FalBay_17_T1_20220601_11_43_01_0050			23.3	0.3	Mixed sediment. Dead maerl. USBL Lat/Lon error - no data for position	Good	
11:43:05	CIFCA_FalBay_17_T1_20220601_11_43_03_0051			23.3	0.3	N/A	Poor	Duplicate
11:46:06	CIFCA_FalBay_17_T1_20220601_11_46_04_0052	50.105862	-5.044077	23.2	0.2	Mixed sediment. Dead maerl	Good	
11:48:02	CIFCA_FalBay_17_T1_20220601_11_48_01_0053	50.105770	-5.044190	23.2	0.3	Mixed sediment. Dead maerl	Good	
11:49:06	Site 17_T1_EOL	50.105768	-5.044302					

## Site 17 Tow 2

Project Code	20220713_CIFCA_DDV_Fal	SOL Time (hh:mm:ss)	13:48:00	SOL depth (m)	24.2	Video file name(s)	CIFCA_FalBay_17_T2_20220713_VID_13_48_01	
Date	13/07/2022	EOL Time (hh:mm:ss)	14:06:04	EOL depth (m)	24.4	Hypack track file	Hypack_DDV_Fal_Maerl_20220713_0000_0752	
Vessel	Tiger Lily VI	Length of video	00:18:04	Number of stills pre QC	25	Com port A file	ComPortA_Site17_T2_20220713_1347	
Site ID	Falmouth Bay	GPS recorded from	Easytrak Alpha USBL GPS antenna	Number of stills post QC	25	Winch operator	CT	
Tow ID	Site 17 Tow 2	Time recorded from	Hemisphere V500 GNSS	Avg vessel speed (kts)	0.47	Camera operator	AJ	
Description of tow (direction/ current/ tides/ overall habitat)	Fine sediment/ Mixed sediment with dead maerl						Data recorder	SS
Still Time	File name (.JPG)	Lat	Long	Depth (m)	Speed (kts)	Comments / description	Quality	Reason
13:48:01	Site 17_T2_SOL	50.105200	-5.042610	24.2	0.4			
13:48:42	CIFCA_FalBay_17_T2_20220713_13_48_42_0223	50.105237	-5.042705	24.9	0.8	Fine sediment, shell fragments. Dead maerl	Acceptable	Camera off seabed
13:48:56	CIFCA_FalBay_17_T2_20220713_13_48_56_0224	50.105238	-5.042733	26.6	0.7	Fine sediment, shell fragments. Dead maerl	Good	
13:49:52	CIFCA_FalBay_17_T2_20220713_13_49_52_0225	50.105238	-5.042875	26.5	0.4	Mixed sediment. Dead maerl	Acceptable	Camera off seabed
13:50:00	CIFCA_FalBay_17_T2_20220713_13_50_00_0226	50.105240	-5.042900	26.7	0.2	Mixed sediment. Dead maerl	Good	
13:51:16	CIFCA_FalBay_17_T2_20220713_13_51_16_0227	50.105250	-5.043028	24.7	0.2	Mixed sediment, shell. Dead maerl	Good	
13:52:21	CIFCA_FalBay_17_T2_20220713_13_52_21_0228	50.105250	-5.043038	26.2	0.4	Fine sediment. Sparse dead maerl	Acceptable	Camera off seabed
13:53:12	CIFCA_FalBay_17_T2_20220713_13_53_12_0229	50.105253	-5.043095	25.8	0.5	Fine sediment. Sparse dead maerl	Good	
13:54:05	CIFCA_FalBay_17_T2_20220713_13_54_05_0230	50.105337	-5.043293	24.6	0.5	Fine sediment. Sparse dead maerl	Good	
13:55:02	CIFCA_FalBay_17_T2_20220713_13_55_02_0231	50.105350	-5.043422	25.9	0.4	Mixed sediment. Dead maerl	Good	
13:55:42	CIFCA_FalBay_17_T2_20220713_13_55_42_0232	50.105372	-5.043572	25.9	0.6	Mixed sediment. Live/ Dead maerl	Good	
13:56:22	CIFCA_FalBay_17_T2_20220713_13_56_22_0233	50.105390	-5.043737	26.0	0.6	Mixed sediment. Dead maerl	Good	
13:57:07	CIFCA_FalBay_17_T2_20220713_13_57_07_0234	50.105428	-5.043867	26.0	0.6	Mixed sediment. Dead maerl	Good	
13:57:41	CIFCA_FalBay_17_T2_20220713_13_57_41_0235	50.105463	-5.043988	25.9	0.4	Mixed sediment. Dead maerl. Spiny starfish	Good	
13:58:16	CIFCA_FalBay_17_T2_20220713_13_58_16_0236	50.105480	-5.044175	25.9	0.5	Mixed sediment. Dead maerl	Good	
13:58:46	CIFCA_FalBay_17_T2_20220713_13_58_46_0237	50.105508	-5.044265	26.0	0.8	Mixed sediment. Live/ Dead maerl	Good	
13:59:20	CIFCA_FalBay_17_T2_20220713_13_59_20_0238	50.105522	-5.044438	26.0	0.6	Mixed sediment. Dead maerl	Acceptable	Camera off seabed
13:59:54	CIFCA_FalBay_17_T2_20220713_13_59_54_0239	50.105538	-5.044552	26.0	0.4	Mixed sediment. Dead maerl	Good	
14:00:32	CIFCA_FalBay_17_T2_20220713_14_00_32_0240	50.105563	-5.044690	26.0	0.7	Mixed sediment. Dead maerl	Good	
14:01:05	CIFCA_FalBay_17_T2_20220713_14_01_05_0241	50.105585	-5.044803	26.0	0.6	Mixed sediment. Live/ Dead maerl	Good	
14:01:39	CIFCA_FalBay_17_T2_20220713_14_01_39_0242	50.105610	-5.044937	26.0	0.6	Mixed sediment. Dead maerl	Good	
14:02:14	CIFCA_FalBay_17_T2_20220713_14_02_14_0243	50.105645	-5.045055	24.8	0.4	Mixed sediment. Dead maerl	Good	
14:03:04	CIFCA_FalBay_17_T2_20220713_14_03_04_0244	50.105668	-5.045273	25.6	0.3	Mixed sediment. Dead maerl	Good	
14:03:42	CIFCA_FalBay_17_T2_20220713_14_03_42_0245	50.105698	-5.045362	26.0	0.3	Fine sediment, shell. Dead maerl	Good	
14:04:39	CIFCA_FalBay_17_T2_20220713_14_04_39_0246	50.105735	-5.045477	25.1	0.2	Mixed sediment. Dead maerl	Good	
14:05:43	CIFCA_FalBay_17_T2_20220713_14_05_43_0247	50.105743	-5.045613	25.1	0.4	Fine sediment	Good	
14:06:04	Site 17_T2_EOL	50.105750	-5.045645	24.4	0.3			





## Site 18 Tow 1

Still Time	File name (.JPG)	Lat	Long	Depth (m)	Speed (kts)	Comments / description	Quality	Reason
13:20:56	Site 18_T1_SOL	50.098980	-5.047795	23.9	0.7			
13:21:27	CIFCA_FalBay_18_T1_20220713_13_21_27_0200	50.098948	-5.047915	24.7	0.7	Mixed sediment. Dead maerl	Good	
13:22:03	CIFCA_FalBay_18_T1_20220713_13_22_03_0201	50.098915	-5.048083	24.0	0.7	Mixed sediment. Live/ Dead maerl	Good	
13:22:37	CIFCA_FalBay_18_T1_20220713_13_22_37_0202	50.098900	-5.048238	23.9	0.6	Mixed sediment. Live/ Dead maerl	Good	
13:23:11	CIFCA_FalBay_18_T1_20220713_13_23_11_0203	50.098865	-5.048412	23.9	0.4	Mixed sediment. Dead maerl	Good	
13:23:54	CIFCA_FalBay_18_T1_20220713_13_23_54_0204	50.098852	-5.048603	23.8	0.4	Mixed sediment. Dead maerl	Good	
13:24:34	CIFCA_FalBay_18_T1_20220713_13_24_34_0205	50.098810	-5.048755	23.8	0.5	Mixed sediment. Dead maerl	Good	
13:25:15	CIFCA_FalBay_18_T1_20220713_13_25_15_0206	50.098760	-5.048888	23.7	0.5	Mixed sediment. Dead maerl	Good	
13:25:58	CIFCA_FalBay_18_T1_20220713_13_25_58_0207	50.098757	-5.049028	23.7	0.5	Mixed sediment. Dead maerl	Good	
13:26:36	CIFCA_FalBay_18_T1_20220713_13_26_36_0208	50.098745	-5.049158	23.6	0.6	Mixed sediment. Dead maerl	Good	
13:27:13	CIFCA_FalBay_18_T1_20220713_13_27_13_0209	50.098733	-5.049318	23.5	0.7	Mixed sediment. Dead maerl	Good	
13:27:47	CIFCA_FalBay_18_T1_20220713_13_27_47_0210	50.098715	-5.049480	24.2	0.5	Mixed sediment. Dead maerl	Good	
13:28:09	CIFCA_FalBay_18_T1_20220713_13_28_09_0211	50.098720	-5.049555	23.6	0.4	Mixed sediment. Dead maerl	Good	
13:28:42	CIFCA_FalBay_18_T1_20220713_13_28_42_0212	50.098690	-5.049712	23.5	0.7	Mixed sediment. Dead maerl	Good	
13:29:05	CIFCA_FalBay_18_T1_20220713_13_29_05_0213	50.098692	-5.049810	24.3	0.9	Mixed sediment. Dead maerl	Good	
13:29:32	CIFCA_FalBay_18_T1_20220713_13_29_32_0214	50.098657	-5.049962	24.3	0.6	Mixed sediment. Dead maerl	Good	
13:29:54	CIFCA_FalBay_18_T1_20220713_13_29_54_0215	50.098637	-5.050067	24.4	0.6	Mixed sediment. Dead maerl	Acceptable	Silt cloud
13:30:24	CIFCA_FalBay_18_T1_20220713_13_30_24_0216	50.098625	-5.050217	24.4	0.8	Mixed sediment. Dead maerl	Good	
13:31:09	CIFCA_FalBay_18_T1_20220713_13_31_09_0217	50.098592	-5.050458	23.8	0.7	Mixed sediment. Dead maerl	Good	
13:31:35	CIFCA_FalBay_18_T1_20220713_13_31_35_0218	50.098585	-5.050597	23.8	0.6	Mixed sediment. Dead maerl	Good	
13:32:12	CIFCA_FalBay_18_T1_20220713_13_32_12_0219	50.098557	-5.050795	24.6	0.8	Mixed sediment. Dead maerl	Good	
13:32:44	CIFCA_FalBay_18_T1_20220713_13_32_44_0220	50.098547	-5.050912	24.0	0.6	Mixed sediment. Dead maerl. Spiny starfish	Good	
13:33:12	CIFCA_FalBay_18_T1_20220713_13_33_12_0221	50.098517	-5.051040	24.0	0.5	Mixed sediment. Dead maerl	Good	
13:34:06	CIFCA_FalBay_18_T1_20220713_13_34_06_0222	50.098482	-5.051250	24.8	0.5	Mixed sediment. Dead maerl	Good	
13:34:30	Site 18_T1_EOL	50.098458	-5.051335	24.0	0.3			

## Site 19 Tow 1

Project Code	20220713_CIFCA_DDV_Fal	SOL Time (hh:mm:ss)	12:43:43	SOL depth (m)	18.5	Video file name(s)	CIFCA_FalBay_19_T1_20220713_VID_12_43_41	
Date	13/07/2022	EOL Time (hh:mm:ss)	12:58:14	EOL depth (m)	17.6	Hypack track file	Hypack_DDV_Fal_Maerl_20220713_0000_0752	
Vessel	Tiger Lily VI	Length of video	00:14:31	Number of stills pre QC	16	Com port A file	ComPortA_Site19_T1_20220713_1243	
Site ID	Falmouth Bay	GPS recorded from	Navnet	Number of stills post QC	16	Winch operator	CT	
Tow ID	Site 19 Tow 1	Time recorded from	Hemisphere V500 GNSS	Avg vessel speed (kts)	0.5	Camera operator	AJ	
Description of tow (direction/ current/ tides/ overall habitat)							Data recorder	SS
Fine sediment with sparse dead maerl, transitioned to maerl sediment with live and dead maerl. Time and position not updating on video overlay - likely due to location of tow and no GPS.								
Still Time	File name (.JPG)	Lat	Long	Depth (m)	Speed (kts)	Comments / description	Quality	Reason
12:43:41	Site 19_T1_SOL	50.097114	-5.067173	18.5	0.2			
12:44:37	CIFCA_FalBay_19_T1_20220713_12_44_37_0184	50.097072	-5.067370	18.9	0.6	Fine sediment. Sparse dead maerl	Good	
12:45:31	CIFCA_FalBay_19_T1_20220713_12_45_31_0185	50.097002	-5.067569	19.0	0.7	Fine sediment. Sparse dead maerl	Good	
12:46:15	CIFCA_FalBay_19_T1_20220713_12_46_15_0186	50.096941	-5.067717	16.3	0.7	Fine sediment.	Good	
12:46:42	CIFCA_FalBay_19_T1_20220713_12_46_42_0187	50.096905	-5.067813	17.1	0.6	Fine sediment. Sparse dead maerl	Good	
12:47:19	CIFCA_FalBay_19_T1_20220713_12_47_19_0188	50.096878	-5.067906	16.2	0.7	Fine sediment. Sparse dead maerl	Good	
12:48:06	CIFCA_FalBay_19_T1_20220713_12_48_06_0189	50.096826	-5.068075	16.6	0.4	Fine sediment. Sparse dead maerl	Good	
12:48:42	CIFCA_FalBay_19_T1_20220713_12_48_42_0190	50.096778	-5.068204	17.9	0.4	Fine sediment. Sparse dead maerl	Good	
12:49:17	CIFCA_FalBay_19_T1_20220713_12_49_17_0191	50.096726	-5.068308	17.8	0.4	Fine sediment. Sparse dead maerl	Good	
12:49:48	CIFCA_FalBay_19_T1_20220713_12_49_48_0192	50.096688	-5.068385	16.9	0.4	Fine sediment. Sparse dead maerl	Good	
12:50:36	CIFCA_FalBay_19_T1_20220713_12_50_36_0193	50.096632	-5.068507	16.5	0.4	Fine sediment. Sparse dead maerl	Good	
12:51:24	CIFCA_FalBay_19_T1_20220713_12_51_24_0194	50.096584	-5.068631	16.5	0.5	Fine sediment. Sparse dead maerl	Good	
12:51:53	CIFCA_FalBay_19_T1_20220713_12_51_53_0195	50.096557	-5.068732	16.5	0.5	Fine sediment. Sparse dead maerl	Good	
12:52:35	N/A			17.5	0.5	Image didn't take - lost connection	Good	
12:53:12	CIFCA_FalBay_19_T1_20220713_12_53_12_0196	50.096493	-5.069031	17.5	0.8	Maerl sediment., shell. Live/ Dead maerl	Good	
12:53:52	CIFCA_FalBay_19_T1_20220713_12_53_52_0197	50.096434	-5.069206	17.3	0.5	Maerl sediment., shell. Live/ Dead maerl	Good	
12:54:21	CIFCA_FalBay_19_T1_20220713_12_54_21_0198	50.096404	-5.069303	17.3	0.5	Maerl sediment., shell. Live/ Dead maerl	Good	
12:54:58	CIFCA_FalBay_19_T1_20220713_12_54_58_0199	50.096379	-5.069416	16.7	0.5	Maerl sediment., shell. Live/ Dead maerl	Good	
12:58:14	Site 19_T1_EOL	50.096263	-5.069999	17.6	0.3	Time not updating on video,GPS issue EOL early		



## Site 20 Tow 1

Project Code	20220512_CIFCA_DDV_Fal	SOL Time (hh:mm:ss)	14:25:01	SOL depth (m)	15.7	Video file name(s)	CIFCA_FalBay_20_T1_20220512_VID_14_25_00	
Date	12/05/2022	EOL Time (hh:mm:ss)	14:37:07	EOL depth (m)	15.7	Hypack track file (vessel position)	Hypack_DDV_Fal_Maerl_20220512	
Vessel	Tiger Lily VI	Length of video	00:12:06	Number of stills pre QC	21	Com port A file (USBL position)	ComPortA_Site20_T1_20220512_1424	
Site ID	Falmouth Bay	GPS recorded from	Easytrak Alpha USBL GPS antenna	Number of stills post QC	21	Winch operator	CT	
Tow ID	Site 20 Tow 1	Time recorded from	Hemisphere V500 GNSS	Avg vessel speed (kts)	0.6	Camera operator	SS	
Description of tow (direction/ current/ tides/ overall habitat)						Data recorder	AJ	
Mixed sediment with dead maerl, transitioning to fine sediment. Echosounder giving incorrect depth data near end of tow								
Still Time	File name (.JPG)	Lat	Long	Depth (m)	Speed (kts)	Comments / description	Quality	Reason
14:25:01	Site 20_T1_SOL	50.091530	-5.083117	15.7				
14:25:23	CIFCA_FalBay_20_T1_20220512_14_25_23_0153	50.091543	-5.083048	15.7	0.5	Mixed sediment. Dead maerl	Good	
14:25:52	CIFCA_FalBay_20_T1_20220512_14_25_52_0154	50.091560	-5.082942	15.7	0.5	Mixed sediment. Live/ Dead maerl	Good	
14:26:29	CIFCA_FalBay_20_T1_20220512_14_26_29_0155	50.091605	-5.082787	15.7	0.5	Mixed sediment. Dead maerl	Good	
14:27:15	CIFCA_FalBay_20_T1_20220512_14_27_15_0156	50.091643	-5.082610	15.7	0.6	Mixed sediment. Live/ Dead maerl	Good	
14:27:46	CIFCA_FalBay_20_T1_20220512_14_27_46_0157	50.091673	-5.082505	15.7	0.5	Mixed sediment. Live/ Dead maerl	Good	
14:28:21	CIFCA_FalBay_20_T1_20220512_14_28_22_0158	50.091717	-5.082362	15.7	0.5	Mixed sediment. Live/ Dead maerl	Good	
14:28:52	CIFCA_FalBay_20_T1_20220512_14_28_52_0159	50.091752	-5.082247	15.7	0.5	Mixed sediment. Live/ Dead maerl	Good	
14:29:29	CIFCA_FalBay_20_T1_20220512_14_29_29_0160	50.091788	-5.082115	15.7	0.6	Mixed sediment. Dead maerl	Good	
14:30:00	CIFCA_FalBay_20_T1_20220512_14_30_00_0161	50.091830	-5.081990	15.8	0.6	Mixed sediment. Dead maerl	Good	
14:30:32	CIFCA_FalBay_20_T1_20220512_14_30_32_0162	50.091857	-5.081873	15.8	0.6	Mixed sediment. Live/ Dead maerl	Good	
14:31:03	CIFCA_FalBay_20_T1_20220512_14_31_03_0163	50.091898	-5.081783	15.7	0.6	Mixed sediment. Dead maerl	Good	
14:31:34	CIFCA_FalBay_20_T1_20220512_14_31_34_0164	50.091958	-5.081677	16.0	0.8	Mixed sediment. Dead maerl	Good	
14:32:01	CIFCA_FalBay_20_T1_20220512_14_32_01_0165	50.091980	-5.081548	16.0	0.6	Fine sediment. Sparse dead maerl	Good	
14:32:29	CIFCA_FalBay_20_T1_20220512_14_32_29_0166	50.092017	-5.081463	N/A	0.7	Fine sediment	Good	
14:33:00	CIFCA_FalBay_20_T1_20220512_14_33_00_0167	50.092058	-5.081337	N/A	0.6	Fine sediment. Sparse dead maerl	Good	
14:33:37	CIFCA_FalBay_20_T1_20220512_14_33_37_0168	50.092107	-5.081155	N/A	0.5	Fine sediment	Good	
14:34:13	CIFCA_FalBay_20_T1_20220512_14_34_13_0169	50.092127	-5.081028	16.5	0.6	Fine sediment. Algae (detached)	Good	
14:34:45	CIFCA_FalBay_20_T1_20220512_14_34_45_0170	50.092120	-5.080927	15.3	0.6	Fine sediment. Algae (detached)	Good	
14:35:18	CIFCA_FalBay_20_T1_20220512_14_35_18_0171	50.092128	-5.080797	N/A	0.6	Fine sediment	Good	
14:35:58	CIFCA_FalBay_20_T1_20220512_14_35_58_0172	50.092172	-5.080620	N/A	0.9	Fine sediment	Good	
14:36:28	CIFCA_FalBay_20_T1_20220512_14_36_28_0173	50.092157	-5.080495	N/A	0.8	Fine sediment . Algae (detached)	Good	
14:37:07	Site 20_T1_EOL	50.092150	-5.080272	15.7				



## Site 21 Tow 1

Project Code	20220512_CIFCA_DDV_Fal	SOL Time (hh:mm:ss)	14:59:27	SOL depth (m)	N/A	Video file name(s)	CIFCA_FalBay_21_T1_20220512_VID_14_59_26	
Date	12/05/2022	EOL Time (hh:mm:ss)	15:12:10	EOL depth (m)	N/A	Hypack track file (vessel position)	Hypack_DDV_Fal_Maerl_20220512	
Vessel	Tiger Lily VI	Length of video	00:12:43	Number of stills pre QC	22	Com port A file (USBL position)	ComPortA_Site21_T1_20220512_1459	
Site ID	Falmouth Bay	GPS recorded from	Easytrak Alpha USBL GPS antenna	Number of stills post QC	22	Winch operator	CT	
Tow ID	Site 21 Tow 1	Time recorded from	Hemisphere V500 GNSS	Avg vessel speed (kts)	0.7	Camera operator	SS	
Description of tow (direction/ current/ tides/ overall habitat)	Mixed sediment with no maerl. Echosounder turned off due to incorrect depth data - no depth data			Approx cable out (m)		Data recorder	AJ	
Still Time	File name (.JPG)	Lat	Long	Depth (m)	Speed (kts)	Comments / description	Quality	Reason
14:59:27	Site 21_T1_SOL	50.098368	-5.105335	N/A				
15:00:13	CIFCA_FalBay_21_T1_20220512_15_00_13_0174	50.098350	-5.105125	N/A	0.6	Mixed sediment	Good	
15:00:53	CIFCA_FalBay_21_T1_20220512_15_00_53_0175	50.098353	-5.104972	N/A	0.6	Mixed sediment	Good	
15:01:37	CIFCA_FalBay_21_T1_20220512_15_01_37_0176	50.098327	-5.104755	N/A	0.6	Mixed sediment	Good	
15:02:08	CIFCA_FalBay_21_T1_20220512_15_02_08_0177	50.098330	-5.104628	N/A	0.6	Sand, scattered pebbles/ shell fragments	Good	
15:02:42	CIFCA_FalBay_21_T1_20220512_15_02_42_0178	50.098322	-5.104485	N/A	0.6	Sand, scattered pebbles/ shell fragments	Good	
15:03:13	CIFCA_FalBay_21_T1_20220512_15_03_13_0179	50.098320	-5.104335	N/A	0.6	Sand, scattered pebbles/ shell fragments	Good	
15:03:46	CIFCA_FalBay_21_T1_20220512_15_03_46_0180	50.098275	-5.104198	N/A	0.6	Sand, scattered pebbles/ shell fragments	Good	
15:04:26	CIFCA_FalBay_21_T1_20220512_15_04_26_0181	50.098295	-5.103997	N/A	0.5	Sand, scattered pebbles/ shell fragments	Good	
15:05:00	CIFCA_FalBay_21_T1_20220512_15_05_00_0182	50.098298	-5.103847	N/A	0.7	Sand, scattered pebbles/ shell fragments	Good	
15:05:31	CIFCA_FalBay_21_T1_20220512_15_05_31_0183	50.098278	-5.103740	N/A	0.5	Sand, scattered pebbles/ shell fragments	Good	
15:06:08	CIFCA_FalBay_21_T1_20220512_15_06_08_0184	50.098275	-5.103620	N/A	0.7	Sand, scattered pebbles/ shell fragments	Good	
15:06:46	CIFCA_FalBay_21_T1_20220512_15_06_46_0185	50.098293	-5.103433	N/A	0.5	Sand, scattered pebbles/ shell fragments	Good	
15:07:13	CIFCA_FalBay_21_T1_20220512_15_07_13_0186	50.098300	-5.103320	N/A	0.7	Mixed sediment	Good	
15:07:44	CIFCA_FalBay_21_T1_20220512_15_07_44_0187	50.098295	-5.103183	N/A	0.7	Mixed sediment	Good	
15:08:16	CIFCA_FalBay_21_T1_20220512_15_08_16_0188	50.098313	-5.103023	N/A	0.8	Mixed sediment	Good	
15:08:44	CIFCA_FalBay_21_T1_20220512_15_08_44_0189	50.098323	-5.102923	N/A	0.6	Mixed sediment	Good	
15:09:08	CIFCA_FalBay_21_T1_20220512_15_09_08_0190	50.098325	-5.102810	N/A	0.8	Mixed sediment	Good	
15:09:37	CIFCA_FalBay_21_T1_20220512_15_09_37_0191	50.098310	-5.102667	N/A	0.8	Mixed sediment	Good	
15:10:05	CIFCA_FalBay_21_T1_20220512_15_10_05_0192	50.098312	-5.102525	N/A	0.7	Mixed sediment	Good	
15:10:32	CIFCA_FalBay_21_T1_20220512_15_10_32_0193	50.098312	-5.102390	N/A	0.7	Mixed sediment	Good	
15:11:05	CIFCA_FalBay_21_T1_20220512_15_11_05_0194	50.098333	-5.102232	N/A	0.7	Mixed sediment	Good	
15:11:49	CIFCA_FalBay_21_T1_20220512_15_11_49_0195	50.098348	-5.102012	N/A	0.7	Mixed sediment	Good	
15:12:10	Site 21_T1_EOL	50.098368	-5.101882	N/A				





## Site 22 Tow 1

Project Code	20220512_CIFCA_DDV_Fal	SOL Time (hh:mm:ss)	15:25:41	SOL depth (m)	N/A	Video file name(s)	CIFCA_FalBay_22_T1_20220512_VID_15_25_40	
Date	12/05/2022	EOL Time (hh:mm:ss)	15:32:09	EOL depth (m)	N/A	Hypack track file (vessel position)	Hypack_DDV_Fal_Maerl_20220512	
Vessel	Tiger Lily VI	Length of video	00:06:28	Number of stills pre QC	12	Com port A file (USBL position)	ComPortA_Site22_T1_20220512_1525	
Site ID	Falmouth Bay	GPS recorded from	Easytrak Alpha USBL GPS antenna	Number of stills post QC	11	Winch operator	CT	
Tow ID	Site 22 Tow 1	Time recorded from	Hemisphere V500 GNSS	Avg vessel speed (kts)	0.8	Camera operator	SS	
Description of tow (direction/ current/ tides/ overall habitat)						Data recorder	AJ	
Echosounder turned off due to incorrect depth data - no depth data. Camera tow finished early due to weed stuck on the frame								
Still Time	File name (.JPG)	Lat	Long	Depth (m)	Speed (kts)	Comments / description	Quality	Reason
15:25:41	Site 22_T1_SOL	50.098062	-5.116590	N/A				
15:26:09	CIFCA_FalBay_22_T1_20220512_15_26_09_0196	50.098085	-5.116435	N/A	0.8	Sand, shell fragments. Algae (detached).	Acceptable	Out of focus
15:26:43	CIFCA_FalBay_22_T1_20220512_15_26_43_0197	50.098088	-5.116243	N/A	0.7	Sand, shell fragments. Algae (detached). Live/ Dead maerl	Good	
15:27:12	CIFCA_FalBay_22_T1_20220512_15_27_11_0198	50.098098	-5.116078	N/A	0.7	Sand, shell fragments. Algae (detached). Live/ Dead maerl	Good	
15:27:35	CIFCA_FalBay_22_T1_20220512_15_27_35_0199	50.098102	-5.115965	N/A	0.8	Sand, shell fragments. Algae (detached). Live maerl	Good	
15:27:59	CIFCA_FalBay_22_T1_20220512_15_27_59_0200	50.098138	-5.115782	N/A	0.8	Sand, shell fragments. Algae (detached). Live/ Dead maerl	Good	
15:28:34	CIFCA_FalBay_22_T1_20220512_15_28_34_0201	50.098180	-5.115638	N/A	0.8	Sand, shell fragments. Algae (detached). Live/ Dead maerl	Good	
15:28:59	CIFCA_FalBay_22_T1_20220512_15_28_59_0202	50.098167	-5.115538	N/A	0.6	Sand, shell fragments. Algae (detached). Live/ Dead maerl	Good	
15:29:23	CIFCA_FalBay_22_T1_20220512_15_29_23_0203	50.098177	-5.115427	N/A	0.7	Sand, shell fragments. Algae (detached). Live/ Dead maerl	Good	
15:29:58	CIFCA_FalBay_22_T1_20220512_15_29_58_0204	50.098140	-5.115243	N/A	0.8		Poor	Seabed not visible
15:30:32	CIFCA_FalBay_22_T1_20220512_15_30_32_0205	50.098132	-5.115067	N/A	0.8	Sand, shell fragments. Algae (detached). Live/ Dead maerl	Good	
15:30:47	CIFCA_FalBay_22_T1_20220512_15_30_47_0206	50.098128	-5.114993	N/A	0.8	Sand, shell fragments. Algae (detached). Live/ Dead maerl	Good	
15:31:26	CIFCA_FalBay_22_T1_20220512_15_31_26_0207	50.098130	-5.114840	N/A	0.8	Sand, shell fragments. Algae (detached). Dead maerl	Good	
15:32:09	Site 22_T1_EOL	50.098120	-5.114545	N/A				



## Site 23 Tow 1

Project Code	20220601_CIFCA_DDV_Fal	SOL Time (hh:mm:ss)	09:17:40	SOL depth (m)	20	Video file name(s)	CIFCA_FalBay_23_T1_20220601_VID_09_18_02	
Date	01/06/2022	EOL Time (hh:mm:ss)	09:42:31	EOL depth (m)	20	Hypack track file (vessel position)	Hypack_DDV_Fal_Maerl_20220601_0000_0800.RAW	
Vessel	Tiger Lily VI	Length of video	00:24:51	Number of stills pre QC	21	Com port A file (USBL position)	ComPortA_Site23_T1_20220601_0917	
Site ID	Falmouth Bay	GPS recorded from	Easytrak Alpha USBL GPS antenna	Number of stills post QC	20	Winch operator	CT	
Tow ID	Site 23 Tow 1	Time recorded from	Hemisphere V500 GNSS	Avg vessel speed (kts)	0.27	Camera operator	SS	
Description of tow (direction/ current/ tides/ overall habitat)						Data recorder	SS	
Mixed sediment with live and dead maerl. SE drift. Using engine to knock ahead - actual drift speed 0.1-0.2.								
Still Time	File name (.JPG)	Lat	Long	Depth (m)	Speed (kts)	Comments / description	Quality	Reason
09:17:40	Site 23_T1_SOL	50.118765	-5.052080	20.0				
09:18:13	CIFCA_FalBay_23_T1_20220601_09_18_09_0003	50.118687	-5.052063	20.0	0.2	Mixed sediment. Dead maerl	Good	
09:19:29	CIFCA_FalBay_23_T1_20220601_09_19_28_0004	50.118608	-5.052017	20.0	0.2	Mixed sediment. Dead maerl	Good	
09:21:01	CIFCA_FalBay_23_T1_20220601_09_21_00_0005	50.118515	-5.051902	20.0	0.2	Mixed sediment. Dead maerl	Good	
09:22:25	CIFCA_FalBay_23_T1_20220601_09_22_24_0006	50.118438	-5.051827	20.3	0.2	Mixed sediment. Live/ Dead maerl	Good	
09:23:09	CIFCA_FalBay_23_T1_20220601_09_23_08_0007	50.118382	-5.051738	21.5	0.3	Mixed sediment. Live/ Dead maerl	Good	
09:23:42	CIFCA_FalBay_23_T1_20220601_09_23_42_0008	50.118292	-5.051680	21.8	0.3	Mixed sediment. Dead maerl	Good	
09:24:47	CIFCA_FalBay_23_T1_20220601_09_24_46_0009	50.118212	-5.051652	20.6	0.2	Mixed sediment. Dead maerl	Good	
09:27:16	CIFCA_FalBay_23_T1_20220601_09_27_15_0010	50.118142	-5.051500	20.3	0.1	Mixed sediment. Dead maerl	Good	
09:28:12	CIFCA_FalBay_23_T1_20220601_09_28_11_0011	50.118063	-5.051385	21.6	0.4	Mixed sediment. Dead maerl	Good	
09:28:47	CIFCA_FalBay_23_T1_20220601_09_28_46_0012	50.117992	-5.051293	21.6	0.5	Mixed sediment. Dead maerl	Good	
09:29:35	CIFCA_FalBay_23_T1_20220601_09_29_34_0013	50.117870	-5.051213	21.6	0.6	Mixed sediment. Live/ Dead maerl	Good	
09:30:08	CIFCA_FalBay_23_T1_20220601_09_30_08_0014	50.117783	-5.051155	21.4	0.3	Mixed sediment. Live/ Dead maerl. Spiny starfish	Good	
09:31:19	CIFCA_FalBay_23_T1_20220601_09_31_19_0015	50.117697	-5.051140	20.0	0.2	Mixed sediment. Live/ Dead maerl	Good	
09:33:13	CIFCA_FalBay_23_T1_20220601_09_33_13_0016	50.117610	-5.051038	21.5	0.5	Mixed sediment. Dead maerl	Good	
09:34:00	CIFCA_FalBay_23_T1_20220601_09_33_59_0017	50.117523	-5.050977	20.2	0.3	Fine sediment, scattered shells. Sparse dead maerl. Spiny starfish	Good	
09:35:22	CIFCA_FalBay_23_T1_20220601_09_35_21_0018	50.117430	-5.050922	20.2	0.2	Mixed sediment. Dead maerl	Good	
09:36:48	CIFCA_FalBay_23_T1_20220601_09_36_48_0019	50.117353	-5.050900	20.9	0.2	Mixed sediment.	Poor	Out of focus
09:38:15	CIFCA_FalBay_23_T1_20220601_09_38_14_0020	50.117278	-5.050873	21.0	0.2	Mixed sediment. Sparse dead maerl	Good	
09:39:39	CIFCA_FalBay_23_T1_20220601_09_39_38_0021	50.117173	-5.050855	20.2	0.3	Mixed sediment. Dead maerl. Sea squirts	Good	
09:40:48	CIFCA_FalBay_23_T1_20220601_09_40_46_0022	50.117075	-5.050865	20.4	0.2	Mixed sediment. Live/ Dead maerl	Good	
09:42:01	CIFCA_FalBay_23_T1_20220601_09_41_56_0023	50.117002	-5.050860	20.0	0.2	Mixed sediment. Dead maerl. Sponge	Good	
09:42:31	Site 23_T1_EOL	50.116975	-5.050855	20.0				



## Site 24 Tow 1

Still Time	File name (.JPG)	Lat	Long	Depth (m)	Speed (kts)	Comments / description	Quality	Reason
07:57:51	Site 24_T1_SOL	50.165830	-5.032050	4.4	0.6			
07:58:56	CIFCA_FalBay_24_T1_20220713_07_58_56_0001	50.165700	-5.032053	4.8	0.6	Maerl bed. Live/ Dead maerl. Algal turf	Acceptable	On the fly
07:59:42	CIFCA_FalBay_24_T1_20220713_07_59_42_0002	50.165603	-5.032055	4.8	0.7	Maerl bed. Live/ Dead maerl. Algal turf	Acceptable	On the fly
08:00:27	CIFCA_FalBay_24_T1_20220713_08_00_27_0003	50.165452	-5.032063	4.8	0.7	Maerl bed. Live/ Dead maerl. Algal turf	Acceptable	On the fly
08:01:02	CIFCA_FalBay_24_T1_20220713_08_01_02_0004	50.165385	-5.032050	4.8	0.7	Maerl bed. Live/ Dead maerl. Algal turf	Acceptable	On the fly
08:01:38	CIFCA_FalBay_24_T1_20220713_08_01_38_0005	50.165288	-5.032048	4.8	0.3	Maerl bed. Live/ Dead maerl. Algal turf	Acceptable	On the fly
08:02:43	CIFCA_FalBay_24_T1_20220713_08_02_43_0006	50.165090	-5.032072	4.8	0.3	Maerl bed. Live/ Dead maerl. Algal turf	Acceptable	On the fly
08:05:02	CIFCA_FalBay_24_T1_20220713_08_05_02_0007	50.164683	-5.032132	4.9	0.6	Maerl bed. Live/ Dead maerl. Algal turf	Acceptable	On the fly
08:05:45	CIFCA_FalBay_24_T1_20220713_08_05_45_0008	50.164575	-5.032193	4.9	0.5	Maerl bed. Live/ Dead maerl. Algal turf	Acceptable	On the fly
08:06:35	CIFCA_FalBay_24_T1_20220713_08_06_35_0009	50.164450	-5.032260	4.9	0.9	Maerl bed. Live/ Dead maerl. Algal turf. Snakelocks anemone	Acceptable	On the fly
08:07:34	CIFCA_FalBay_24_T1_20220713_08_07_34_0010	50.164238	-5.032322	4.9	0.7	Maerl bed. Live/ Dead maerl. Algal turf	Acceptable	On the fly
08:08:15	CIFCA_FalBay_24_T1_20220713_08_08_15_0011	50.164125	-5.032312	4.9	0.7	Maerl bed. Live/ Dead maerl. Algal turf	Acceptable	On the fly
08:08:44	CIFCA_FalBay_24_T1_20220713_08_08_44_0012	50.164033	-5.032330	4.9	0.7	Maerl bed. Live/ Dead maerl. Algal turf	Acceptable	On the fly
08:09:24	CIFCA_FalBay_24_T1_20220713_08_09_24_0013	50.163878	-5.032375	4.9	0.7	Maerl bed. Live/ Dead maerl. Algal turf	Acceptable	On the fly
08:09:58	CIFCA_FalBay_24_T1_20220713_08_09_58_0014	50.163765	-5.032408	5.1	0.8	Maerl bed. Live/ Dead maerl. Algal turf	Acceptable	On the fly
08:10:29	CIFCA_FalBay_24_T1_20220713_08_10_29_0015	50.163663	-5.032458	5.1	0.8	Maerl bed. Live/ Dead maerl. Algal turf	Acceptable	On the fly
08:11:02	CIFCA_FalBay_24_T1_20220713_08_11_02_0016	50.163560	-5.032492	5.1	0.8	Maerl bed. Live/ Dead maerl. Algal turf	Acceptable	On the fly
08:11:37	CIFCA_FalBay_24_T1_20220713_08_11_37_0017	50.163448	-5.032538	5.1	0.8	Maerl bed. Live/ Dead maerl. Algal turf	Acceptable	On the fly
08:12:03	CIFCA_FalBay_24_T1_20220713_08_12_03_0018	50.163350	-5.032580	5.2	0.9	Maerl bed. Live/ Dead maerl. Algal turf	Acceptable	On the fly
08:12:31	CIFCA_FalBay_24_T1_20220713_08_12_31_0019	50.163260	-5.032625	5.2	0.8	Maerl bed. Live/ Dead maerl. Algal turf	Acceptable	On the fly
08:13:00	CIFCA_FalBay_24_T1_20220713_08_13_00_0020	50.163163	-5.032670	5.2	0.8	Maerl bed. Live/ Dead maerl. Algal turf	Acceptable	On the fly
08:13:32	CIFCA_FalBay_24_T1_20220713_08_13_32_0021	50.163057	-5.032727	5.2	0.8	Maerl bed. Live/ Dead maerl. Algal turf	Acceptable	On the fly
08:14:11	CIFCA_FalBay_24_T1_20220713_08_14_11_0022	50.162935	-5.032793	5.2	0.8	Maerl bed. Live/ Dead maerl. Algal turf	Acceptable	On the fly
08:14:42	CIFCA_FalBay_24_T1_20220713_08_14_42_0023	50.162845	-5.032862	5.2	0.8	Maerl bed. Live/ Dead maerl. Algal turf	Acceptable	On the fly
08:15:10	CIFCA_FalBay_24_T1_20220713_08_15_10_0024	50.162747	-5.032925	5.2	0.8	Maerl bed. Live/ Dead maerl. Algal turf	Acceptable	On the fly
08:15:44	CIFCA_FalBay_24_T1_20220713_08_15_44_0025	50.162618	-5.032995	5.2	0.9	Maerl bed. Live/ Dead maerl. Algal turf	Acceptable	On the fly
08:16:17	CIFCA_FalBay_24_T1_20220713_08_16_17_0026	50.162495	-5.033068	5.1	0.8	Maerl bed. Live/ Dead maerl. Algal turf	Acceptable	On the fly
08:16:49	CIFCA_FalBay_24_T1_20220713_08_16_49_0027	50.162382	-5.033135	5.1	0.8	Maerl bed. Live/ Dead maerl. Algal turf	Acceptable	On the fly
08:17:22	CIFCA_FalBay_24_T1_20220713_08_17_22_0028	50.162260	-5.033203	5.1	0.8	Maerl bed. Live/ Dead maerl. Algal turf	Acceptable	On the fly
08:18:06	CIFCA_FalBay_24_T1_20220713_08_18_06_0029	50.162112	-5.033282	5.2	0.8	Maerl bed. Live/ Dead maerl. Algal turf	Acceptable	On the fly
08:18:44	CIFCA_FalBay_24_T1_20220713_08_18_44_0030	50.161975	-5.033342	5.3	0.7	Maerl bed. Live/ Dead maerl. Algal turf	Acceptable	On the fly
08:19:15	CIFCA_FalBay_24_T1_20220713_08_19_15_0031	50.161883	-5.033373	5.4	0.7	Maerl bed. Live/ Dead maerl. Siphons. Algal turf	Acceptable	On the fly
08:19:43	CIFCA_FalBay_24_T1_20220713_08_19_43_0032	50.161787	-5.033412	5.6	0.7	Fine/ Maerl sediment. Live/ Dead maerl. Siphons. Algal turf	Acceptable	On the fly
08:20:36	CIFCA_FalBay_24_T1_20220713_08_20_36_0033	50.161597	-5.033452	6.0	0.7	Fine/ Maerl sediment. Live/ Dead maerl. Siphons. Eyelash worm	Acceptable	On the fly
08:21:14	CIFCA_FalBay_24_T1_20220713_08_21_14_0034	50.161485	-5.033485	6.3	0.7	Fine/ Maerl sediment. Live/ Dead maerl. Algal turf	Acceptable	On the fly
08:22:04	CIFCA_FalBay_24_T1_20220713_08_22_04_0035	50.161338	-5.033508	7.1	0.6	Fine/ Maerl sediment. Live/ Dead maerl. Algal turf	Acceptable	On the fly
08:23:08	CIFCA_FalBay_24_T1_20220713_08_23_08_0036	50.161147	-5.033528	8.3	0.6	Fine/ Maerl sediment. Live/ Dead maerl. Algal turf	Acceptable	On the fly
08:24:22	CIFCA_FalBay_24_T1_20220713_08_24_22_0037	50.160970	-5.033553	10.6	0.6	Fine/ Maerl sediment. Live/ Dead maerl. Eyelash worm	Good	
08:25:19	CIFCA_FalBay_24_T1_20220713_08_25_19_0038	50.160838	-5.033555	11.5	0.6	Fine/ Maerl sediment. Live/ Dead maerl. Scallop	Good	

## CIFCA\_SAC\_FAH\_2022\_DDV\_Maerl\_FieldReport

08:26:06	CIFCA_FalBay_24_T1_20220713_08_26_06_0039	50.160713	-5.033557	12.9	0.5	Mixed sediment. Live/ Dead maerl. Siphons. Algal turf	Good	
08:27:07	CIFCA_FalBay_24_T1_20220713_08_27_07_0040	50.160557	-5.033552	14.9	0.6	Mixed sediment. Live/ Dead maerl. Eyelash worm	Good	
08:27:59	CIFCA_FalBay_24_T1_20220713_08_27_59_0041	50.160422	-5.033547	16.5	0.6	Mixed sediment. Live/ Dead maerl. Eyelash worm	Good	
08:28:45	CIFCA_FalBay_24_T1_20220713_08_28_45_0042	50.160297	-5.033548	18.4	0.6	Mixed sediment, shell fragments. Live/ Dead maerl	Good	
08:29:30	CIFCA_FalBay_24_T1_20220713_08_29_30_0043	50.160190	-5.033622	20.3	0.5	Mixed sediment, shell fragments. Live/ Dead maerl	Good	
08:30:33	CIFCA_FalBay_24_T1_20220713_08_30_33_0044	50.160090	-5.033737	22.9	0.4	Mixed sediment, shell fragments. Live/Dead maerl. Spiny starfish	Good	
08:31:31	CIFCA_FalBay_24_T1_20220713_08_31_31_0045	50.160005	-5.033865	24.9	0.5	Mixed sediment, shell fragments. Live/ Dead maerl	Good	
08:32:27	CIFCA_FalBay_24_T1_20220713_08_32_27_0046	50.159907	-5.034030	27.2	0.5	Mixed sediment, shell fragments. Live/ Dead maerl	Good	
08:33:26	CIFCA_FalBay_24_T1_20220713_08_33_26_0047	50.159810	-5.034157	29.4	0.5	Mixed sediment, shell fragments. Live/ Dead maerl	Good	
08:34:16	CIFCA_FalBay_24_T1_20220713_08_34_16_0048	50.159720	-5.034267	32.2	0.5	Mixed sediment, shell fragments. Live / Dead maerl	Acceptable	Out of focus
08:34:33	Site 24_T1_EOL	50.159705	-5.034315	27.4	0.5			



## Site 25 Tow 1

Project Code	20220512_CIFCA_DDV_Fal	SOL Time (hh:mm:ss)	13:15:06	SOL depth (m)	8.5	Video file name(s)	CIFCA_FalBay_25_T1_20220512_VID_13_15_06	
Date	12/05/2022	EOL Time (hh:mm:ss)	13:26:39	EOL depth (m)	10.5	Hypack track file (vessel position)	Hypack_DDV_Fal_Maerl_20220512	
Vessel	Tiger Lily VI	Length of video	00:11:33	Number of stills pre QC	21	Com port A file (USBL position)	ComPortA_Site25_T1_20220512_1315	
Site ID	Falmouth Bay	GPS recorded from	Easytrak Alpha USBL GPS antenna	Number of stills post QC	21	Winch operator	CT	
Tow ID	Site 25 Tow 1	Time recorded from	Hemisphere V500 GNSS	Avg vessel speed (kts)	0.6	Camera operator	SS	
Description of tow (direction/ current/ tides/ overall habitat)						Data recorder	AJ	
Fine sediment with live and dead maerl								
Still Time	File name (.JPG)	Lat	Long	Depth (m)	Speed (kts)	Comments / description	Quality	Reason
13:15:06	Site 25_T1_SOL	50.119238	-5.086532	8.5				
13:15:31	CIFCA_FalBay_25_T1_20220512_13_15_31_0111	50.119262	-5.086493	8.7	0.6	Fine sediment, scattered shell. Dead maerl	Good	
13:16:12	CIFCA_FalBay_25_T1_20220512_13_16_12_0112	50.119325	-5.086425	8.6	0.6	Fine sediment, seagrass. Dead maerl	Good	
13:16:48	CIFCA_FalBay_25_T1_20220512_13_16_48_0113	50.119405	-5.086303	8.7	0.6	Fine sediment, scattered shell. Dead maerl	Good	
13:17:33	CIFCA_FalBay_25_T1_20220512_13_17_33_0114	50.119518	-5.086193	8.8	0.6	Fine sediment, scattered shell. Dead maerl	Good	
13:18:02	CIFCA_FalBay_25_T1_20220512_13_18_02_0115	50.119577	-5.086127	8.9	0.5	Fine sediment, scattered shell. Dead maerl	Good	
13:18:30	CIFCA_FalBay_25_T1_20220512_13_18_30_0116	50.119630	-5.086083	8.9	0.5	Fine sediment, scattered shell. Dead maerl	Good	
13:19:01	CIFCA_FalBay_25_T1_20220512_13_19_01_0117	50.119695	-5.086013	9.0	0.6	Fine sediment, scattered shell. Dead maerl	Good	
13:19:35	CIFCA_FalBay_25_T1_20220512_13_19_35_0118	50.119807	-5.085895	9.1	0.6	Fine sediment, scattered shell. Dead maerl	Good	
13:19:57	CIFCA_FalBay_25_T1_20220512_13_19_57_0119	50.119845	-5.085852	9.2	0.6	Fine sediment, scattered shell. Dead maerl	Good	
13:20:31	CIFCA_FalBay_25_T1_20220512_13_20_31_0120	50.119900	-5.085748	9.3	0.7	Fine sediment, scattered shell. Dead maerl	Good	
13:21:04	CIFCA_FalBay_25_T1_20220512_13_21_04_0121	50.119998	-5.085653	9.6	0.6	Fine sediment, scattered shell. Dead maerl	Good	
13:21:28	CIFCA_FalBay_25_T1_20220512_13_21_28_0122	50.120065	-5.085570	10.1	0.6	Maerl sediment, shell fragments. Dead maerl	Good	
13:22:02	CIFCA_FalBay_25_T1_20220512_13_22_02_0123	50.120140	-5.085483	10.1	0.6	Maerl sediment, shell fragments. Live/ Dead maerl	Good	
13:22:37	CIFCA_FalBay_25_T1_20220512_13_22_37_0124	50.120217	-5.085400	10.2	0.6	Maerl sediment, shell fragments. Live/ Dead maerl	Good	
13:23:06	CIFCA_FalBay_25_T1_20220512_13_23_06_0125	50.120267	-5.085313	9.2	0.7	Maerl sediment, shell fragments. Live/ Dead maerl	Good	
13:23:40	CIFCA_FalBay_25_T1_20220512_13_23_40_0126	50.120327	-5.085218	10.9	0.7	Maerl sediment, shell fragments. Live/ Dead maerl	Good	
13:24:08	CIFCA_FalBay_25_T1_20220512_13_24_08_0127	50.120395	-5.085117	10.2	0.7	Maerl sediment, shell fragments. Live/ Dead maerl	Good	
13:24:37	CIFCA_FalBay_25_T1_20220512_13_24_37_0128	50.120470	-5.085032	10.3	0.8	Maerl sediment, shell fragments. Live/ Dead maerl	Good	
13:25:03	CIFCA_FalBay_25_T1_20220512_13_25_03_0129	50.120503	-5.084947	10.3	0.7	Maerl sediment, shell fragments. Live/ Dead maerl	Good	
13:25:37	CIFCA_FalBay_25_T1_20220512_13_25_37_0130	50.120605	-5.084835	10.4	0.7	Maerl sediment, shell fragments. Live/ Dead maerl	Good	
13:26:08	CIFCA_FalBay_25_T1_20220512_13_26_08_0131	50.120697	-5.084743	10.5	0.7	Maerl sediment, shell fragments. Live/ Dead maerl	Good	
13:26:39	Site 25_T1_EOL	50.120767	-5.084648	10.5				

