



Inshore Fisheries and  
Conservation Authority

## Eddystone Reefs Drop Down Video 2017



Survey field report for the 2017 Eddystone Reefs  
Drop Down Video survey

Completed by: Cornwall Inshore Fisheries and Conservation Authority  
(Cornwall IFCA)

Authors: Annie Jenkin, Colin Trundle and Hilary Naylor.

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Cornwall IFCA  
Chi Gallos  
Hayle Marine Renewables Business Park  
North Quay  
Hayle  
Cornwall  
TR27 4DD  
Tel: 01736 336842  
Email:[enquiries@cornwall-ifca.gov.uk](mailto:enquiries@cornwall-ifca.gov.uk)

## Contents

<b>List of Figures.....</b>	<b>iii</b>
<b>List of Tables.....</b>	<b>iii</b>
<b>1 Project Background .....</b>	<b>1</b>
1.1 Aims and objectives .....	2
1.1.1 Aims .....	2
1.1.2 Objectives .....	2
<b>2 Methodology .....</b>	<b>2</b>
2.1 Survey Area.....	2
2.2 Vessel Specifications.....	3
2.3 Personnel .....	3
2.4 Personal Protective Equipment (PPE) .....	3
2.5 Drop Down Video (DDV) Survey .....	4
2.5.1 Equipment Specification.....	4
2.5.2 Methodology .....	5
2.5.3 Data handling.....	5
<b>3 Results.....</b>	<b>3</b>
3.1 Drop Down Video (DDV) .....	3
3.2 Site descriptions.....	5
3.3 Anthropogenic Impacts.....	20
<b>4 Discussion.....</b>	<b>20</b>
<b>5 Appendices .....</b>	<b>21</b>
Annex 1 – R/V Tiger Lily Deck Plan & Offsets .....	21
Annex 2 – Daily Log .....	23
Annex 3 – Video position data from the Eddystone Reef Project in 2016 .....	25
Annex 4 – Still image position data from the Eddystone Reef Project in 2016.....	26

## List of Figures

Figure 1: Location of the three survey boxes; Box 1: Treatment, Box 2: Near Control and Box 3: Far Control used in the Eddystone Reefs Project survey.....	1
Figure 2: The survey area in the Eddystone .....	2
Figure 3: Cornwall IFCA's dedicated survey vessel, R/V Tiger Lily VI. ....	3
Figure 4: SeaSpyder drop camera housed in a purpose built frame on the aft deck and in the deployment position onboard R/V Tiger Lily VI.....	4
Figure 5: The locations of the still images taken during the Eddystone Reefs Project 2017 within three survey areas; Box 1: Treatment, Box 2: Near Control and Box 3: Far Control. ....	4
Figure 6: The location of still images taken during a survey carried out by Cornwall IFCA within Box 1 of the Eddystone reef project 2017 .....	6
Figure 7: Station overview for Box 1 Tow 1 from the Cornwall IFCA Eddystone Reefs Project 2017 displaying still image locations overlaid on to side-scan sonar mosaic with descriptions of the habitat and fauna .....	7
Figure 8: Station overview for Box 1 Tow 2 from the Cornwall IFCA Eddystone Reefs Project 2017 displaying still image locations overlaid on to side-scan sonar mosaic with descriptions of the habitat and fauna .....	8
Figure 9: Station overview for Box 1 Tow 3 from the Cornwall IFCA Eddystone Reefs Project 2017 displaying still image locations overlaid on to side-scan sonar mosaic with descriptions of the habitat and fauna .....	9
Figure 10: Station overview for Box 1 Tow 4 from the Cornwall IFCA Eddystone Reefs Project 2017 displaying still image locations overlaid on to side-scan sonar mosaic with descriptions of the habitat and fauna .....	10
Figure 11: The location of still images taken during a survey carried out by Cornwall IFCA within Box 2 of the Eddystone reef project 2017 .....	11
Figure 12: Station overview for Box 2 Tow 1 and Tow 1A from the Cornwall IFCA Eddystone Reefs Project 2017 displaying still image locations overlaid on to side-scan sonar mosaic with descriptions of the habitat and fauna....	12
Figure 13: Station overview for Box 2 Tow 2 from the Cornwall IFCA Eddystone Reefs Project 2017 displaying still image locations overlaid on to side-scan sonar mosaic with descriptions of the habitat and fauna .....	13
Figure 14: Station overview for Box 2 Tow 3 from the Cornwall IFCA Eddystone Reefs Project 2017 displaying still image locations overlaid on to side-scan sonar mosaic with descriptions of the habitat and fauna .....	14
Figure 15: Station overview for Box 2 Tow 4 from the Cornwall IFCA Eddystone Reefs Project 2017 displaying still image locations overlaid on to side-scan sonar mosaic with descriptions of the habitat and fauna .....	15
Figure 16: The location of still images taken during a survey carried out by Cornwall IFCA within Box 3 of the Eddystone reef project 2017 .....	16
Figure 17: Station overview for Box 3 Tow 1 from the Cornwall IFCA Eddystone Reefs Project 2017 displaying still image locations overlaid on to side-scan sonar mosaic with descriptions of the habitat and fauna .....	17
Figure 18: Station overview for Box 3 Tow 2 from the Cornwall IFCA Eddystone Reefs Project 2017 displaying still image locations overlaid on to side-scan sonar mosaic with descriptions of the habitat and fauna .....	18
Figure 19: Station overview for Box 3 Tow 3 from the Cornwall IFCA Eddystone Reefs Project 2017 displaying still image locations overlaid on to side-scan sonar mosaic with descriptions of the habitat and fauna .....	19

## List of Tables

Table 1: The camera equipment specifications.....	4
Table 2: Daily log from survey carried on board R/V Tiger Lily on 4 <sup>th</sup> July 2017 .....	23
Table 3: Daily log from survey carried on board R/V Tiger Lily on 4 <sup>th</sup> July 2017 .....	24

## Glossary of terms and abbreviations

Anthropogenic Produced or caused by human activity

DDV Drop down video

IFCA Inshore Fisheries and Conservation Authority

SAC Special Area of Conservation

SSS Side-scan sonar

UTC Coordinated Universal Time

## 1 Project Background

Cornwall Inshore Fisheries and Conservation Authority (Cornwall IFCA), the Marine Conservation Society (MCS) and the University of Exeter Environment Sustainability Institute (ESI), are collaborating on a study in the Eddystone reefs, part of the Start Point to Plymouth Sound and Eddystone Special Area of Conservation (SAC). The project was funded by the Pigshed Trust between 2014 and 2016 and Princess Yachts International of Plymouth have committed to fund the project from 2017 to 2019.

The aim of this study is to collect data to enable a comparison of the epifaunal assemblages by statistical analysis within areas that are open and closed to bottom towed gear over time. The closure is a result of the European Marine Site management measures that were introduced in January 2014. The work carried out in 2017 was the fourth year of the study and replicated the previous year's data collection. The data was from one treatment area that is within an area closed to bottom towed gears (Box 1) and two control areas where towed gears are allowed (Boxes 2 and 3) (Figure 1). Box 2 is close to the treatment area and Box 3 is further away. All sites were selected due to their similarity; they all have similar bathymetry, reef to the western side and have all been/are subject to towed gears.

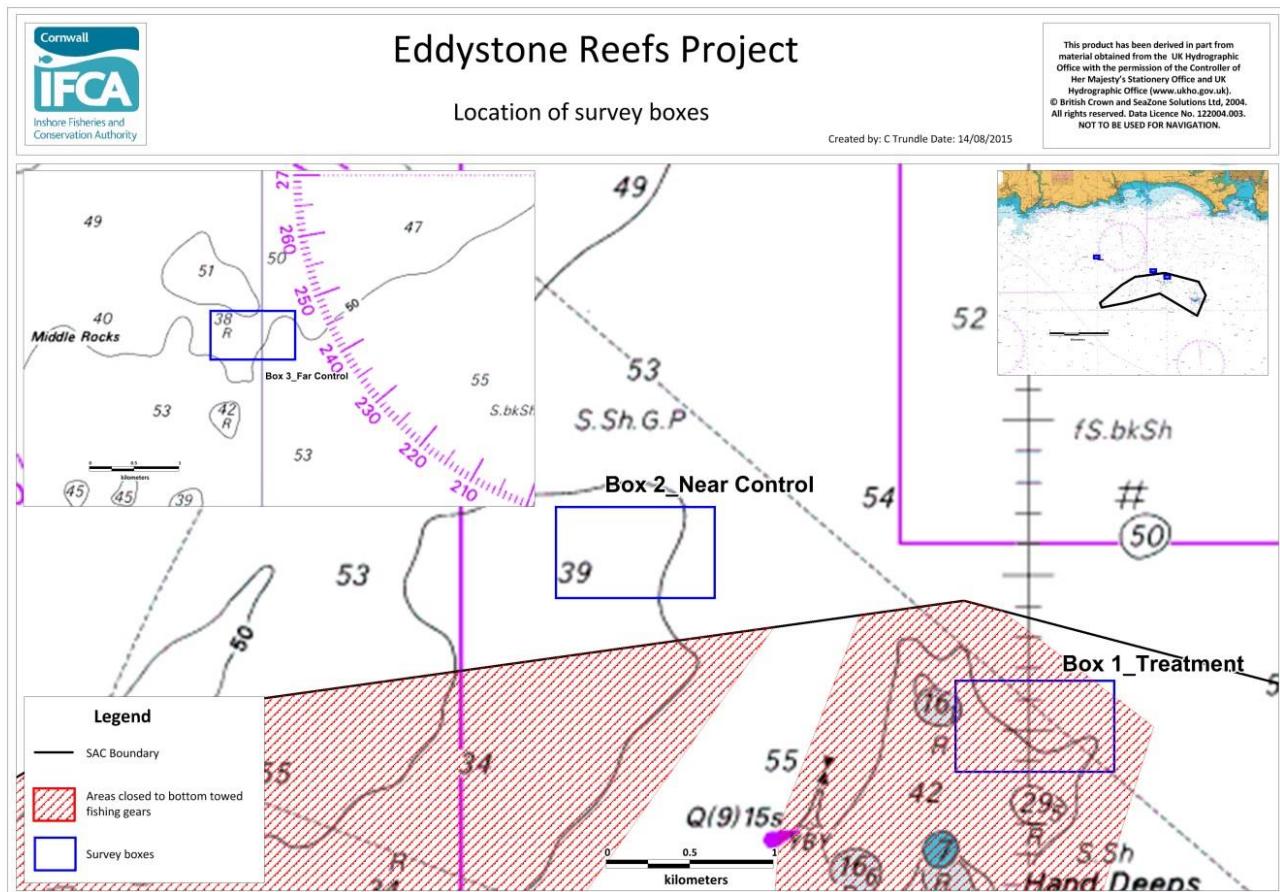


Figure 1: Location of the three survey boxes; Box 1: Treatment, Box 2: Near Control and Box 3: Far Control used in the Eddystone Reefs Project survey.

## 1.1 Aims and objectives

### 1.1.1 Aims

- Collect high quality video and still imagery from three survey boxes to enable a comparison of the epifaunal assemblage to be made following the ban of bottom towed fishing gear within one of the boxes.

### 1.1.2 Objectives

- Complete drop down video/stills survey using the mapping European seabed habitats (MESH), recommended operating guidelines for underwater video surveys.
- Repeat camera tows within the same boxes as carried out in 2014, 2015 and 2016.

## 2 Methodology

The survey was carried out in line with Mapping European Seabed Habitats (MESH) recommended operating guidelines for underwater video and photographic imaging techniques (Coggan *et al.*, 20017).

### 2.1 Survey Area

The location of the survey is shown in Figure 2.

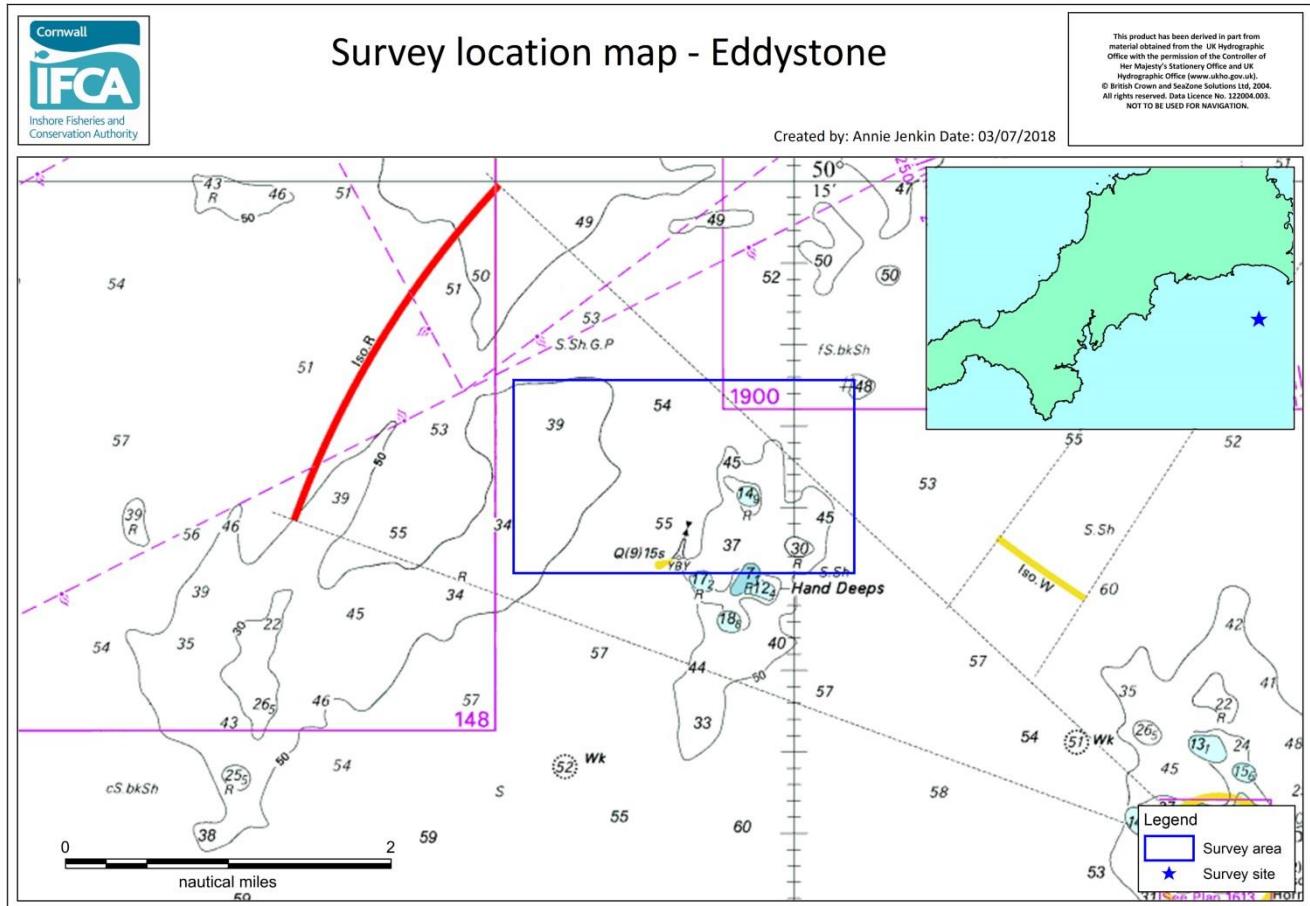


Figure 2: The survey area in the Eddystone

## 2.2 Vessel Specifications

The survey was undertaken from Cornwall IFCA's Research Vessel (R/V) Tiger Lily VI (Figure 3). This vessel has been refitted for survey work and includes a purpose built survey station within the wheelhouse (See Annex 1). R/V Tiger Lily VI has been fitted with an inverter and uninterruptable power supply (UPS) to provide stable 240 v power, NMEA outputs and a dedicated GPS with WAAS enabled. All position information was recorded in the Long/Lat WGS84 projection and taken from a single GPS (Furuno GP-32). 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.

Tiger Lily VI is an MCA coded Cat 2 vessel and is fitted with all necessary safety equipment including life rafts, first aid kits and fire suppression systems.



Figure 3: Cornwall IFCA's dedicated survey vessel, R/V Tiger Lily VI.

## 2.3 Personnel

The crew during the surveys consisted of the skipper and up to three scientific officers. The crew roles rotated during the surveys and roles included deploying and recovering the DDV unit, keeping a log and controlling the camera and video topside units.

## 2.4 Personal Protective Equipment (PPE)

Appropriate safety footwear and lifejackets with personal location beacons (PLBs) were worn at all times by members of the survey team whilst working on deck. Hard hats were worn during deployment and recovery of the DDV. There were no accidents or near misses reported.

## 2.5 Drop Down Video (DDV) Survey

### 2.5.1 Equipment Specification

The camera used for the DDV survey was an STR SeaSpyder drop camera system contained in a custom built frame, allowing high resolution stills of the seabed to be taken using a surface controlled digital SLR camera (Figure 4). Separate real time video, with user-programmable overlay, allows positional information, time, bearing and depth to be recorded on the video output. Details of the system are available online: <http://www.str-subsea.com/sales/str-SeaSpyder-drop-camera-system>.



Figure 4: SeaSpyder drop camera housed in a purpose built frame on the aft deck and in the deployment position onboard R/V Tiger Lily VI.

The camera equipment specifications are shown in Table 1.

Table 1: The camera equipment specifications

Equipment	Camera System
Manufacturer	SeaSpyder
Video	HD video 600 lines PAL
Stills	18 mega pixels
Trigger	Remote from deck
Height control	Video footage
Lighting	Four high density LED 20w lamps
Scale bar	4 Dual lasers for precise imagery scaling
Trigger	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> </ul>

## 2.5.2 Methodology

The DDV survey was planned from the results of previous year surveys. Drift tows were planned within each of the survey boxes using previous survey positions which were loaded in to the Olex navigation plotter onboard the vessel.

Prior to the deployment of the SeaSpyder for each transect, the video text overlay was checked and adjusted to display the survey name and transect number (e.g. "20170704 Cornwall IFCA DDV '\_Site\_Location'\_ 'Station\_no.' '\_Tow\_no.'") and the GPS, heading and depth info was checked to ensure that it was updating correctly. The SeaSpyder camera was deployed from the starboard side davit of R/V Tiger Lily VI (see Annex 1) and lowered to the seabed. The video was set to record once the camera was on the seabed. A waypoint (mark) was created in OLEX 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 and periodically landed on the seabed to allow a high quality still image to be taken. Still images were captured at a frequency of one every 60 seconds; images separation varied slightly to ensure that the stills taken were of good quality (e.g. taken when the frame was stable and the lens unobstructed) this sometimes led to a delay. Immediately upon having captured a stills image a waypoint (mark) was created in OLEX.

## 2.5.3 Data handling

OLEX navigation software was used to record the vessels track and waypoints/marks at the start and end of each transect and at the location of every stills image. These were transferred out of OLEX in .gz file format. The file was then extracted using 7-Zip (7-Zip V9.20) enabling it to be converted using OLEX to GPSU File Converter (OLEX to GPSU File Converter V1.05). The file could then be converted to a .txt file using Notepad. Once opened in Excel, the file had all irrelevant header data removed and appropriate field headers added. Once completed, the Excel file was transferred to the GI software and data points were created to show the position of each still image.

Stills images from the SeaSpyder camera were initially stored on the internal computer (sub-surface), then on completion of each transect, the still images were transferred to the SeaSpyder topside control unit using FileZilla and filed by transect 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.

### 3 Results

#### 3.1 Drop Down Video (DDV)

The survey was carried out over two days, the 4<sup>th</sup> July 2017 and the 25<sup>th</sup> August 2017. The daily log for survey operations is shown in Annex 2. High quality video data and stills were obtained across all transects within the three survey boxes. A summary of the video data collected during the DDV survey for the Eddystone is shown in Annex 3 and the position information for the stills images is shown in Annex 4.

During the survey day on the 4<sup>th</sup> July 2017 the camera flash stopped working at the end of the third tow. The problem could not be solved at sea so Tiger Lily returned to Mylor. During the survey day on the 25<sup>th</sup> August 2017 the camera froze during three of the tows and comms between the camera and the topside unit was lost during these episodes.

The location of the still images within the three survey boxes is shown in Figure 5.



# Eddystone Reefs Project 2017

## Cornwall IFCA Eddystone Reefs SSS and DDV

Site: Start Point to Plymouth Sound and Eddystone Special Area of Conservation  
Survey code: 2017\_CIFCA\_SAC\_EDD\_SSSandDDV

Created by: Annie Jenkin 04/07/2018

This product has been derived in part from material obtained from the UK Hydrographic Office with the permission of the Controller of Her Majesty's Stationery Office and UK Hydrographic Office ([www.ukho.gov.uk](http://www.ukho.gov.uk)).  
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All rights reserved. Data Licence No. 122004.003.  
NOT TO BE USED FOR NAVIGATION.

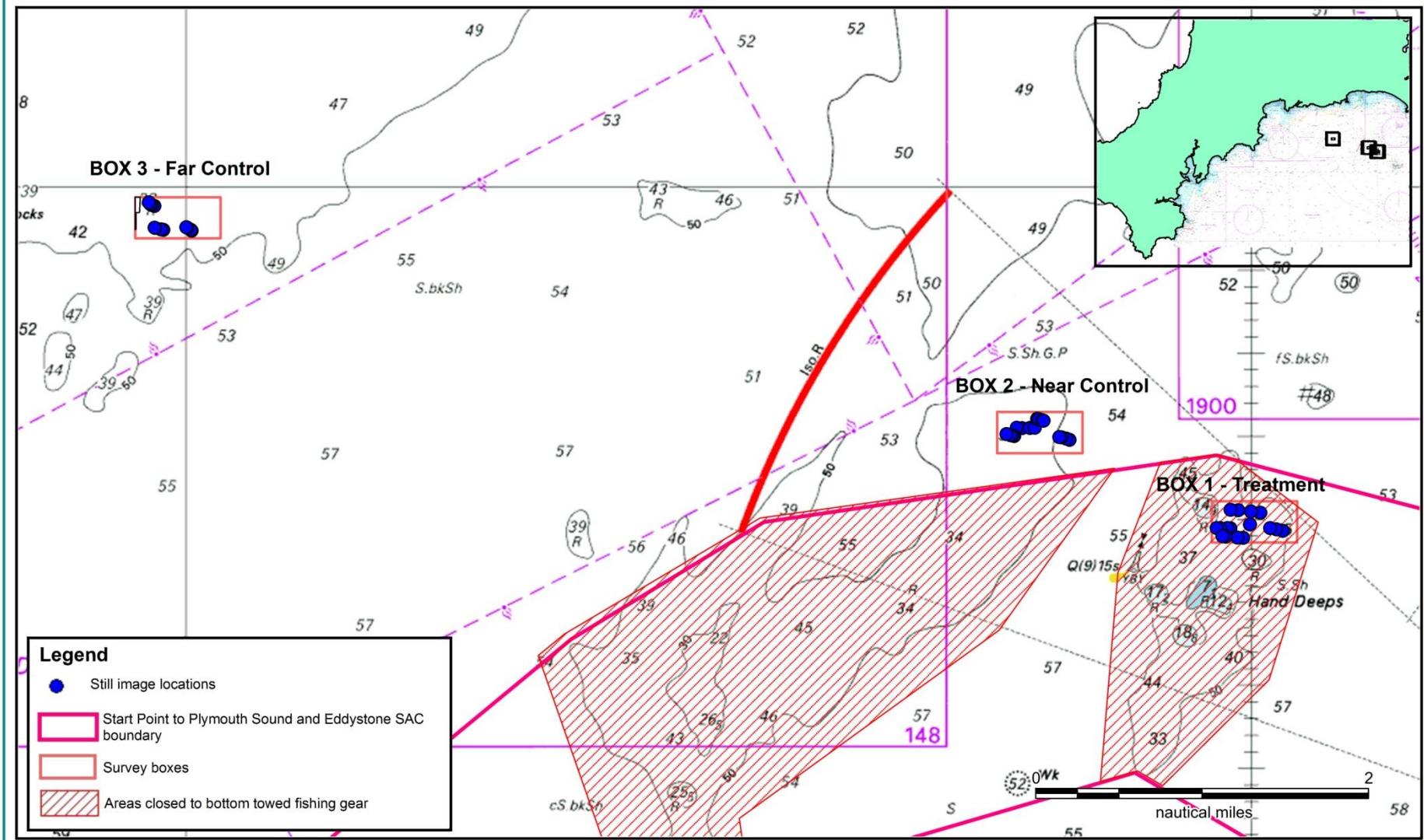


Figure 5: The locations of the still images taken during the Eddystone Reefs Project 2017 within three survey areas; Box 1: Treatment, Box 2: Near Control and Box 3: Far Control.

### 3.2 Site descriptions

All three survey areas were dominated by large areas of coarse sediment with pebbles and cobbles and smaller areas of bedrock/ reef. The Udden-Wentworth scales was used for sediment descriptions.

A number of conspicuous fauna were observed on the reef habitat including dead man's fingers (*Alcyonium digitatum*), pink sea fans (*Eunicella verrucosa*), spiny starfish (*Marthasterias glacialis*), cup corals (*Caryophyllia smithii*), common urchin (*Echinus esculentus*) and sponges including the yellow boring sponge (*Cliona celata*). Fauna which was recorded in the coarse sediment waves were king scallops (*Pecten maximus*), queen scallops (*Aequipecten opercularis*), polychaete tubes, hydroids, hermit crab (*Pagurus bernhardus*).

An overview of each tow including the SSS mosaic with the position of the still images overlain and four representative for each tow are shown below for each box. The position of each transect within Box 1 is shown in Figure 6, Box 2 in Figure 11 and Box 3 in Figure 16. An overview of each site including SSS, representative still images and habitat classification is shown in Figure 7 to Figure 10 for Box 1, Figure 12 to Figure 15 for Box 2 and Figure 17 to Figure 19 for Box 3.



## Location of still image positions within Box 1 Eddystone reef project 2017

Created by: Annie Jenkin Date: 18/04/2018

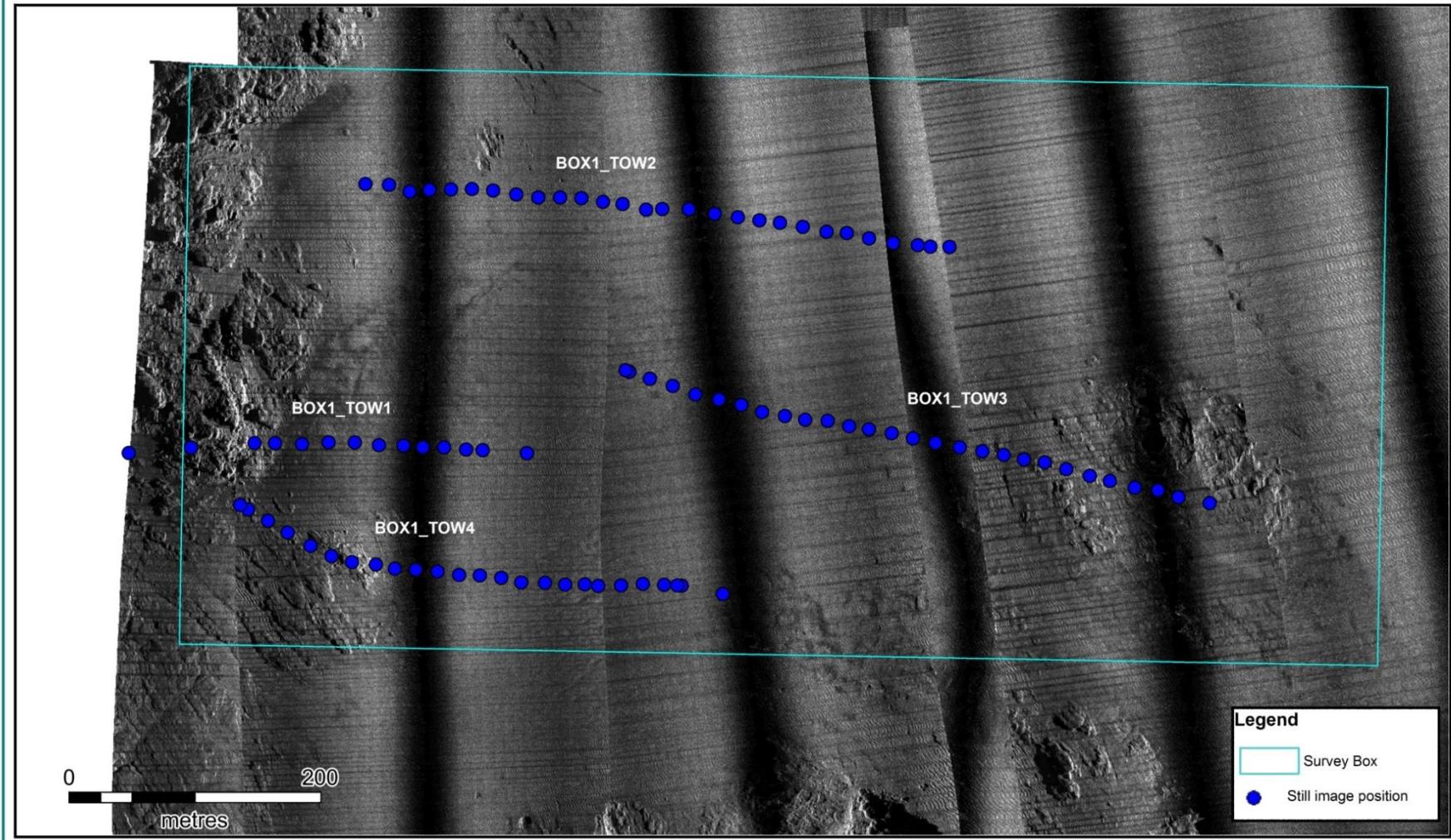


Figure 6: The location of still images taken during a survey carried out by Cornwall IFCA within Box 1 of the Eddystone reef project 2017



## Box 1 Tow 1

### Cornwall IFCA Eddystone Reefs SSS and DDV

Site: Start Point to Plymouth Sound and Eddystone Special Area of Conservation  
 Survey code: 2017\_CIFCA\_SAC\_EDD\_SSSandDDV

Created by: Annie Jenkins 18/04/2018

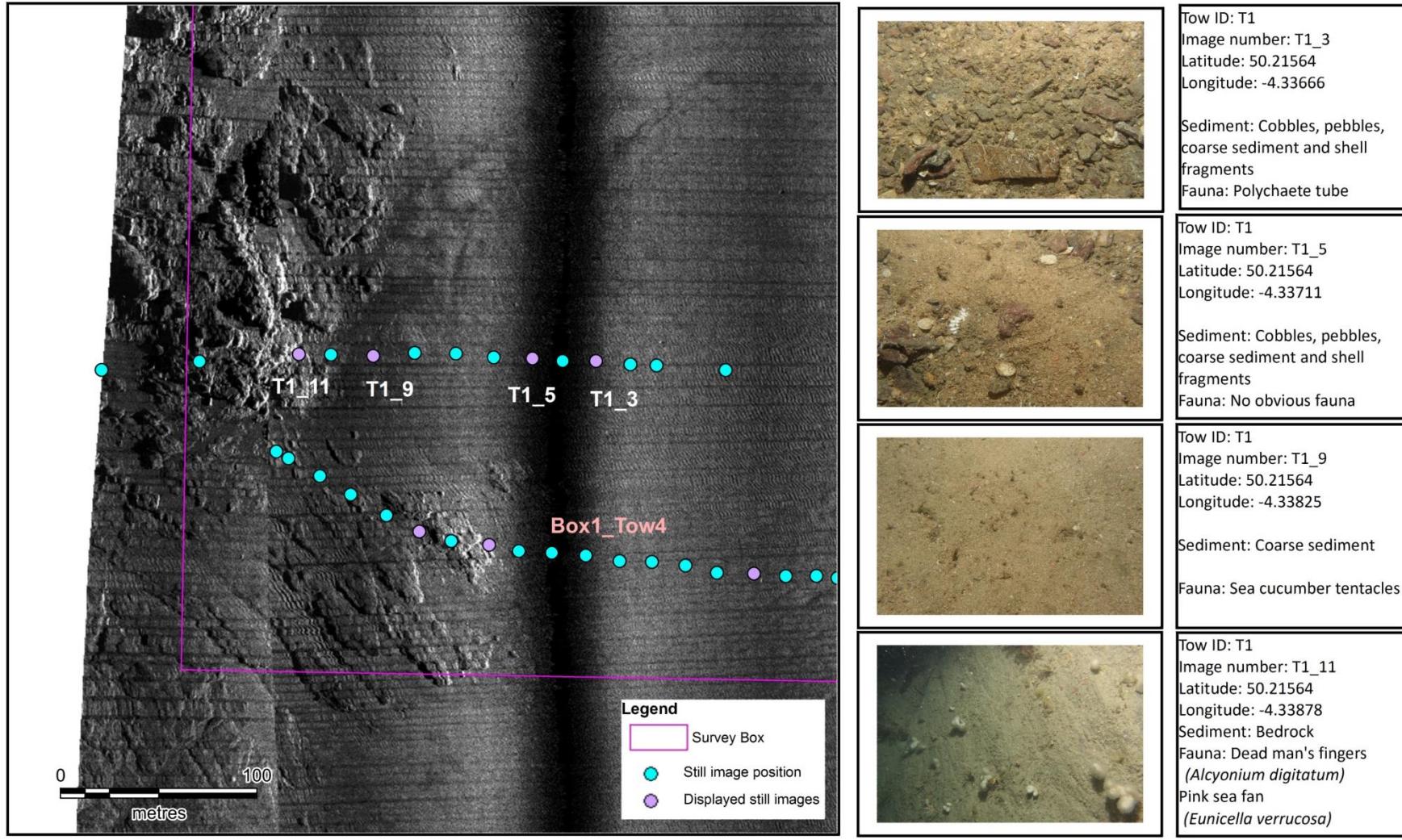


Figure 7: Station overview for Box 1 Tow 1 from the Cornwall IFCA Eddystone Reefs Project 2017 displaying still image locations overlaid on to side-scan sonar mosaic with descriptions of the habitat and fauna

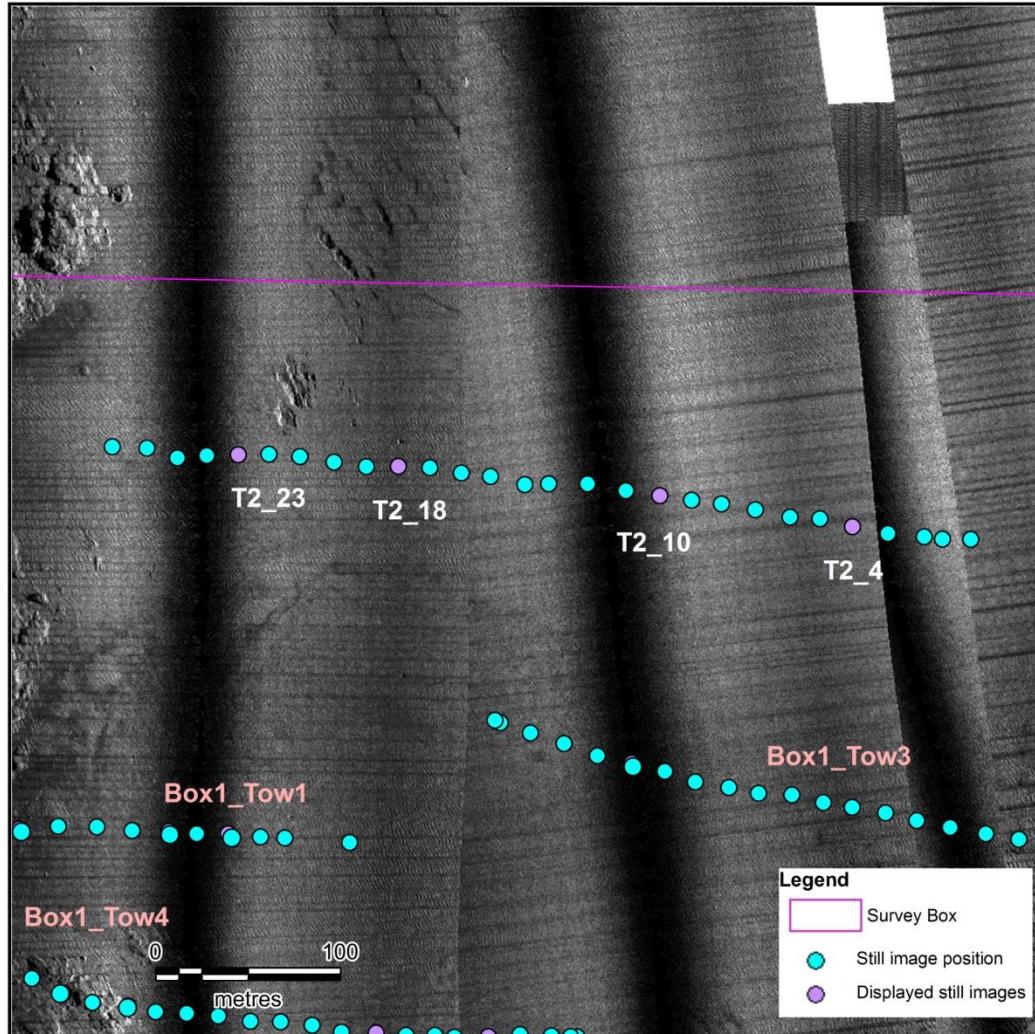


## Box 1 Tow 2

### Cornwall IFCA Eddystone Reefs SSS and DDV

Site: Start Point to Plymouth Sound and Eddystone Special Area of Conservation  
 Survey code: 2017\_CIFCA\_SAC\_EDD\_SSSandDDV

Created by: Annie Jenkins 18/04/2018



	<b>Tow ID:</b> T2 <b>Image number:</b> T2_4 <b>Latitude:</b> 50.21719 <b>Longitude:</b> -4.33197  <b>Sediment:</b> Coarse sediment with occasional shell fragments  <b>Fauna:</b> No obvious fauna
	<b>Tow ID:</b> T1 <b>Image number:</b> T2_10 <b>Latitude:</b> 50.21732 <b>Longitude:</b> -4.33344  <b>Sediment:</b> Coarse sediment  <b>Fauna:</b> No obvious fauna
	<b>Tow ID:</b> T1 <b>Image number:</b> T2_18 <b>Latitude:</b> 50.21744 <b>Longitude:</b> -4.33542  <b>Sediment:</b> Coarse sediment  <b>Fauna:</b> Spiny starfish ( <i>Marthasterias glacialis</i> )
	<b>Tow ID:</b> T1 <b>Image number:</b> T2_23 <b>Latitude:</b> 50.21748 <b>Longitude:</b> -4.33664  <b>Sediment:</b> Coarse sediment with occasional shell fragments  <b>Fauna:</b> Polychaete tubes

Figure 8: Station overview for Box 1 Tow 2 from the Cornwall IFCA Eddystone Reefs Project 2017 displaying still image locations overlaid on to side-scan sonar mosaic with descriptions of the habitat and fauna

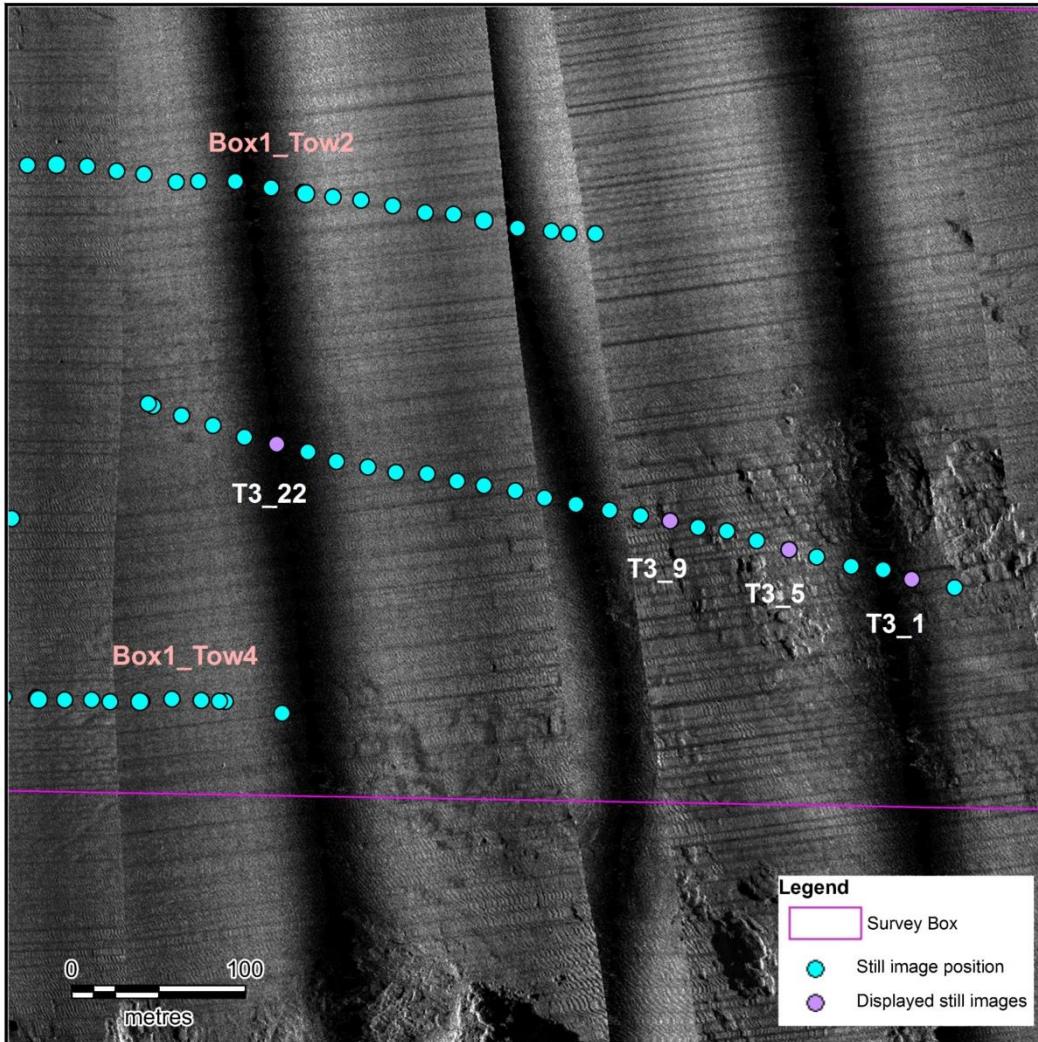


## Box 1 Tow 3

### Cornwall IFCA Eddystone Reefs SSS and DDV

Site: Start Point to Plymouth Sound and Eddystone Special Area of Conservation  
 Survey code: 2017\_CIFCA\_SAC\_EDD\_SSSandDDV

Created by: Annie Jenkins 18/04/2018



	<p>Tow ID: T3      Image number: T3_1      Latitude: 50.21537      Longitude: -4.32847      Sediment: Bedrock      Fauna: Pink sea fan (<i>Eunicella verrucosa</i>)      Cup coral (<i>Caryophyllia smithii</i>)</p>
	<p>Tow ID: T3      Image number: T3_5      Latitude: 50.21552      Longitude: -4.32946      Sediment: Bedrock      Fauna: Cup coral (<i>Caryophyllia smithii</i>), Hydroids, Porifera</p>
	<p>Tow ID: T3      Image number: T3_9      Latitude: 50.21565      Longitude: -4.33043      Sediment: Coarse sediment      Fauna: King scallop (<i>Pecten maximus</i>)</p>
	<p>Tow ID: T3      Image number: T3_22      Latitude: 50.21602      Longitude: -4.33361      Sediment: Coarse sediment with occasional shell fragments      Fauna: Polychaete tubes</p>

Figure 9: Station overview for Box 1 Tow 3 from the Cornwall IFCA Eddystone Reefs Project 2017 displaying still image locations overlaid on to side-scan sonar mosaic with descriptions of the habitat and fauna

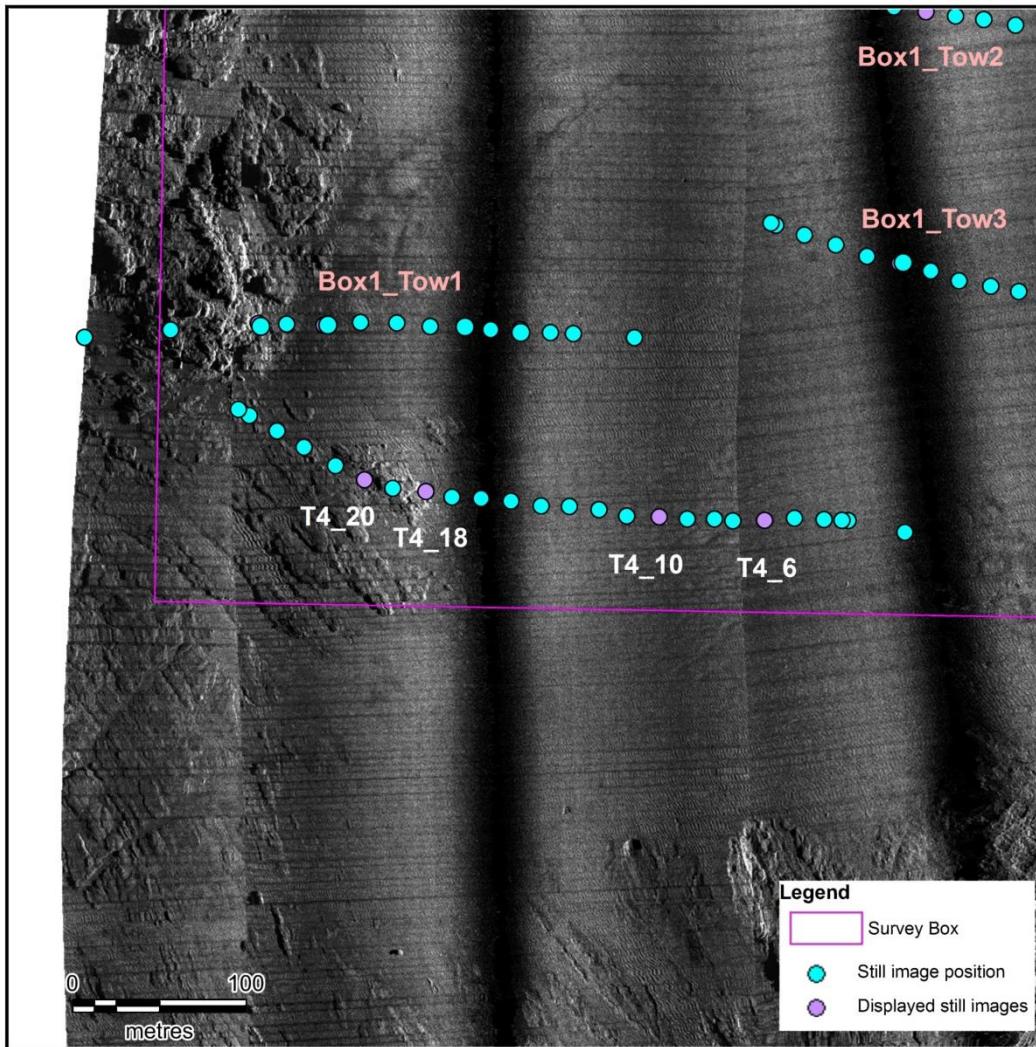


## Box 1 Tow 4

### Cornwall IFCA Eddystone Reefs SSS and DDV

Site: Start Point to Plymouth Sound and Eddystone Special Area of Conservation  
 Survey code: 2017\_CIFCA\_SAC\_EDD\_SSSandDDV

Created by: Annie Jenkins 18/04/2018



Tow ID: T4  
 Image number: T4\_6  
 Latitude: 50.21467  
 Longitude: -4.33466

Sediment: Coarse sediment and shell fragments

Fauna: Hydroids



Tow ID: T4  
 Image number: T4\_10  
 Latitude: 50.21468  
 Longitude: -4.33551

Sediment: Coarse sediment and shell fragments

Fauna: Hydroids



Tow ID: T4  
 Image number: T4\_18  
 Latitude: 50.21479  
 Longitude: -4.33740  
 Sediment: Bedrock  
 Fauna: Cup coral (*Caryophyllia smithii*), Porifera, hydroids, common urchin (*Echinus esculentus*)



Tow ID: T4  
 Image number: T4\_20  
 Latitude: 50.21485  
 Longitude: -4.33790  
 Sediment: Bedrock  
 Fauna: Pink sea fan (*Eunicella verrucosa*), Cup coral (*Caryophyllia smithii*), Yellow sponge (*Cliona celata*)

Figure 10: Station overview for Box 1 Tow 4 from the Cornwall IFCA Eddystone Reefs Project 2017 displaying still image locations overlaid on to side-scan sonar mosaic with descriptions of the habitat and fauna



## Location of still image positions within Box 2 Eddystone Reef Project 2017

Created by: Annie Jenkin Date: 19/04/2018

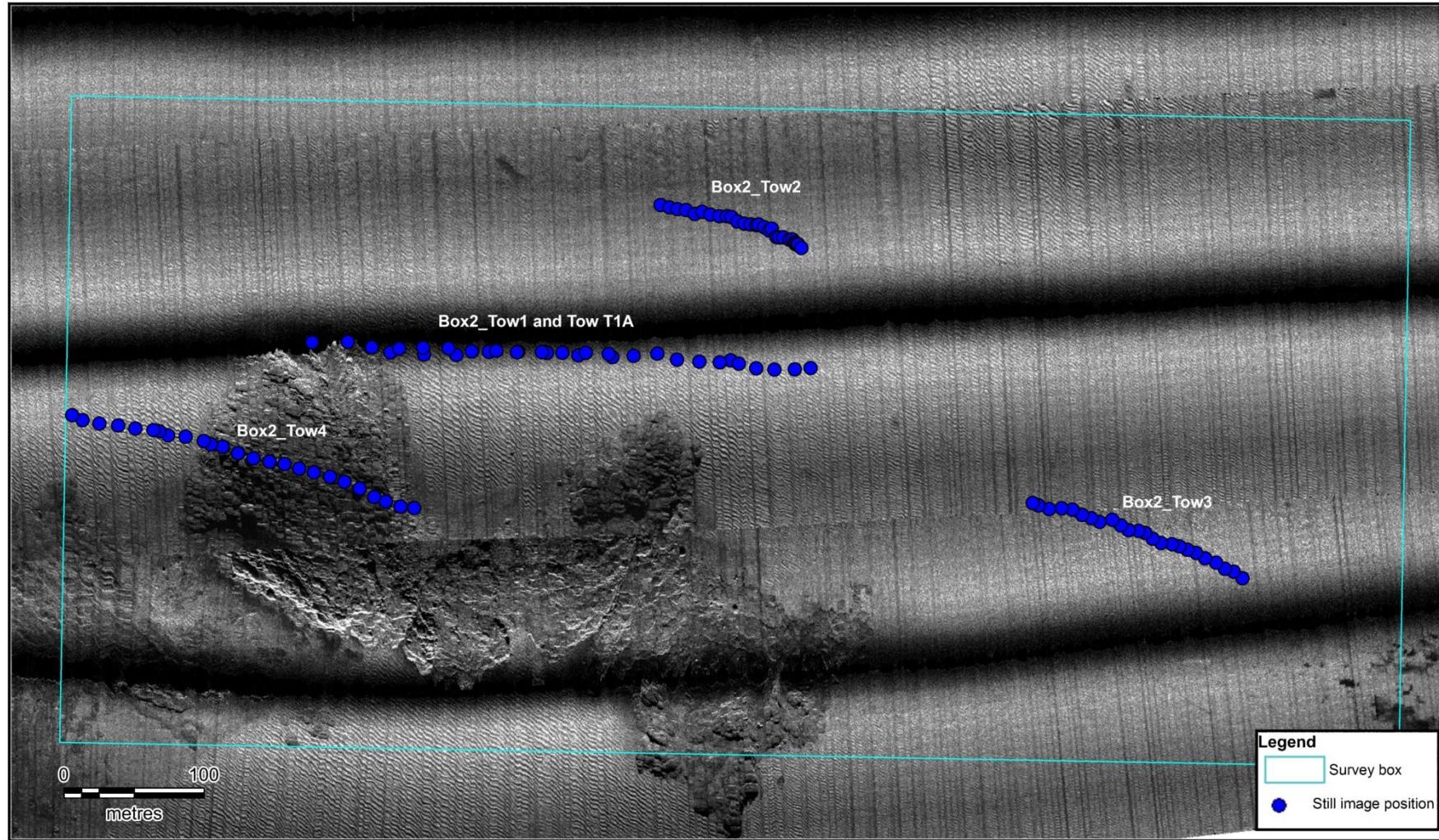


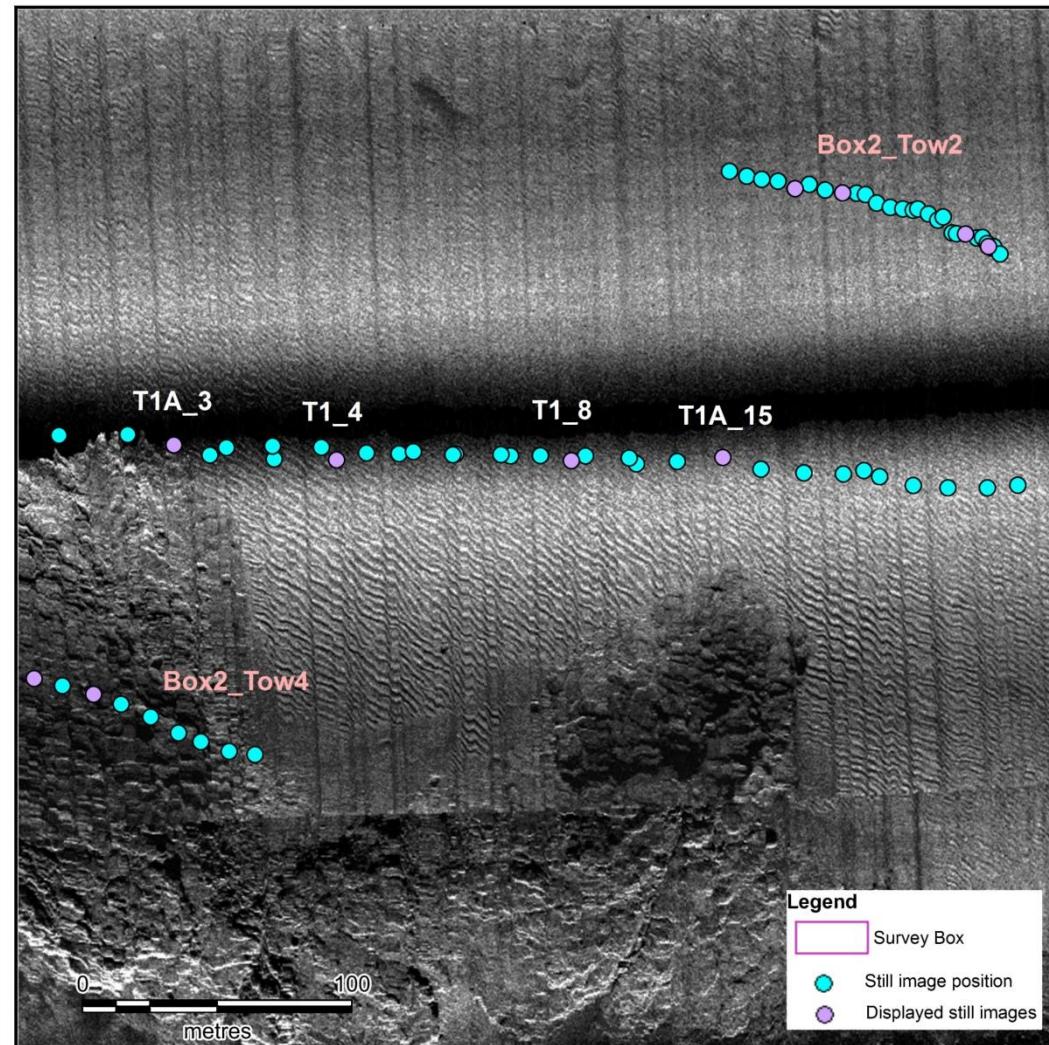
Figure 11: The location of still images taken during a survey carried out by Cornwall IFCA within Box 2 of the Eddystone reef project 2017



## Box 2 Tow 1 and Tow 1A Cornwall IFCA Eddystone Reefs SSS and DDV

Site: Start Point to Plymouth Sound and Eddystone Special Area of Conservation  
Survey code: 2017\_CIFCA\_SAC\_EDD\_SSSandDDV

Created by: Annie Jenkin 18/04/2018



 <p>Tow ID: T1 Image number: T1_4 Latitude: 50.22569 Longitude: -4.36925</p> <p>Sediment: Coarse sediment - pebbles Fauna: Feather star - possibly <i>Antedon bifida</i></p>
 <p>Tow ID: T1 Image number: T1_8 Latitude: 50.22571 Longitude: -4.36803</p> <p>Sediment: Coarse sediment - pebbles and occasional shell fragments Fauna: Polychaete tubes</p>
 <p>Tow ID: T1A Image number: T1A_3 Latitude: 50.22573 Longitude: -4.37009</p> <p>Sediment: Coarse sediment - pebbles Fauna: Queen scallop (<i>Aequipecten opercularis</i>)</p>
 <p>Tow ID: T1A Image number: T1A_15 Latitude: 50.22573 Longitude: -4.36725</p> <p>Sediment: Coarse sediment - pebbles Fauna: Queen scallop (<i>Aequipecten opercularis</i>)</p>

Figure 12: Station overview for Box 2 Tow 1 and Tow 1A from the Cornwall IFCA Eddystone Reefs Project 2017 displaying still image locations overlaid on to side-scan sonar mosaic with descriptions of the habitat and fauna

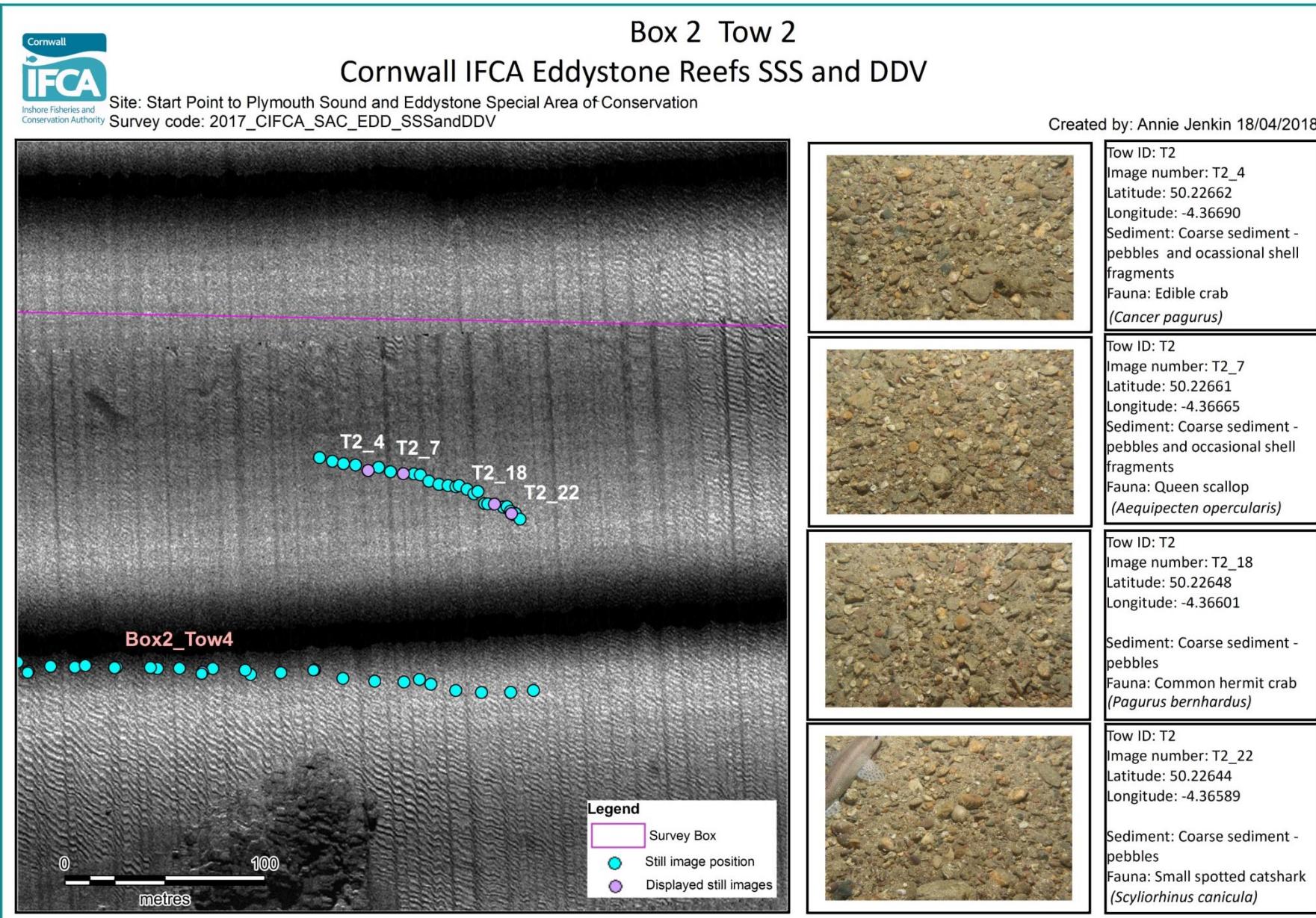


Figure 13: Station overview for Box 2 Tow 2 from the Cornwall IFCA Eddystone Reefs Project 2017 displaying still image locations overlaid on to side-scan sonar mosaic with descriptions of the habitat and fauna

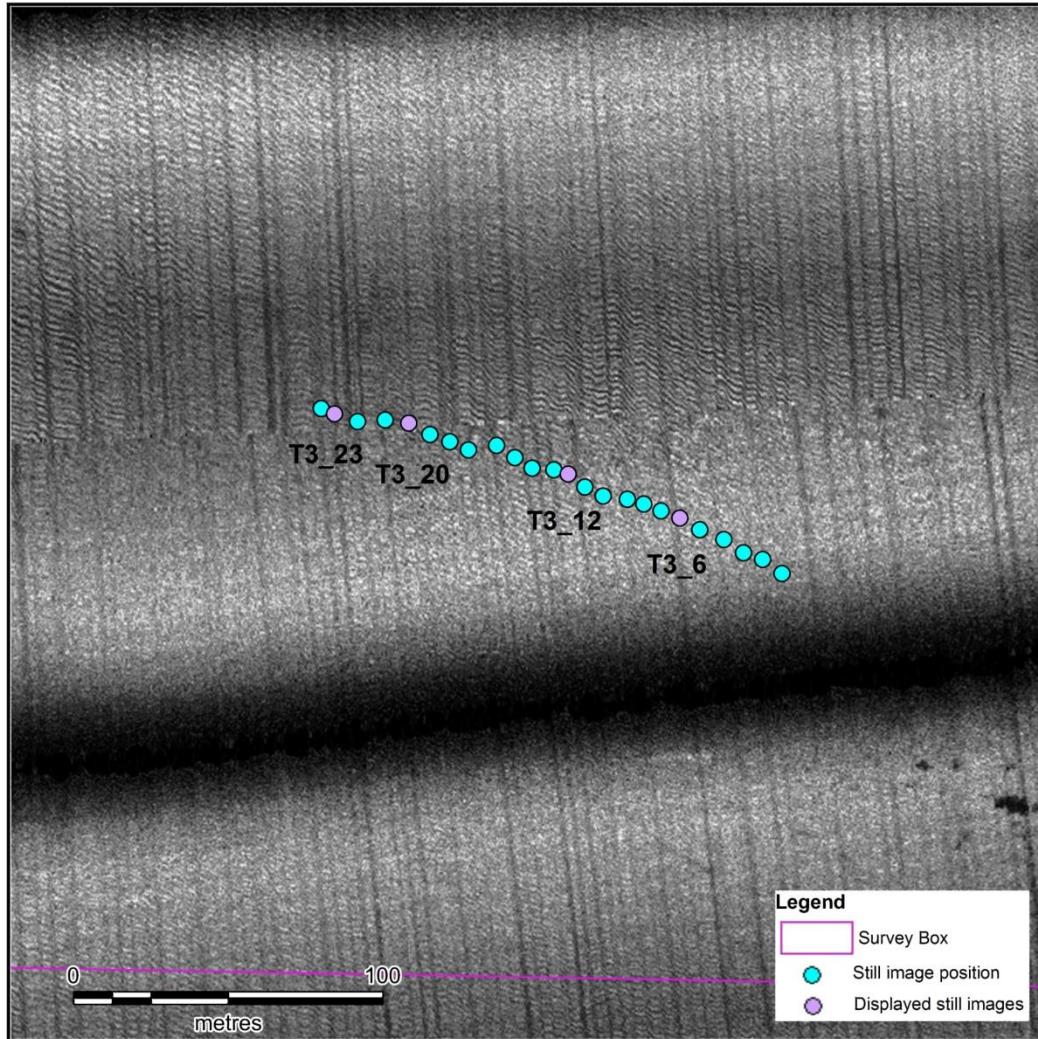


## Box 2 Tow 3

### Cornwall IFCA Eddystone Reefs SSS and DDV

Site: Start Point to Plymouth Sound and Eddystone Special Area of Conservation  
 Survey code: 2017\_CIFCA\_SAC\_EDD\_SSSandDDV

Created by: Annie Jenkin 18/04/2018



 <p>Tow ID: T3      Image number: T3_6      Latitude: 50.22451      Longitude: -4.36184      Sediment: Coarse sediment and pebbles      Fauna: Anemone</p>
 <p>Tow ID: T3      Image number: T3_12      Latitude: 50.22464      Longitude: -4.36235      Sediment: Coarse sediment and occasional pebbles      Fauna: Queen scallop (<i>Aequipecten opercularis</i>)</p>
 <p>Tow ID: T3      Image number: T3_20      Latitude: 50.22478      Longitude: -4.36308      Sediment: Coarse sediment - pebbles and scattered shell fragments      Fauna: Polychaete tubes</p>
 <p>Tow ID: T3      Image number: T3_23      Latitude: 50.22480      Longitude: -4.36342      Sediment: Coarse sediment - pebbles      Fauna: Queen scallop (<i>Aequipecten opercularis</i>)</p>

Figure 14: Station overview for Box 2 Tow 3 from the Cornwall IFCA Eddystone Reefs Project 2017 displaying still image locations overlaid on to side-scan sonar mosaic with descriptions of the habitat and fauna

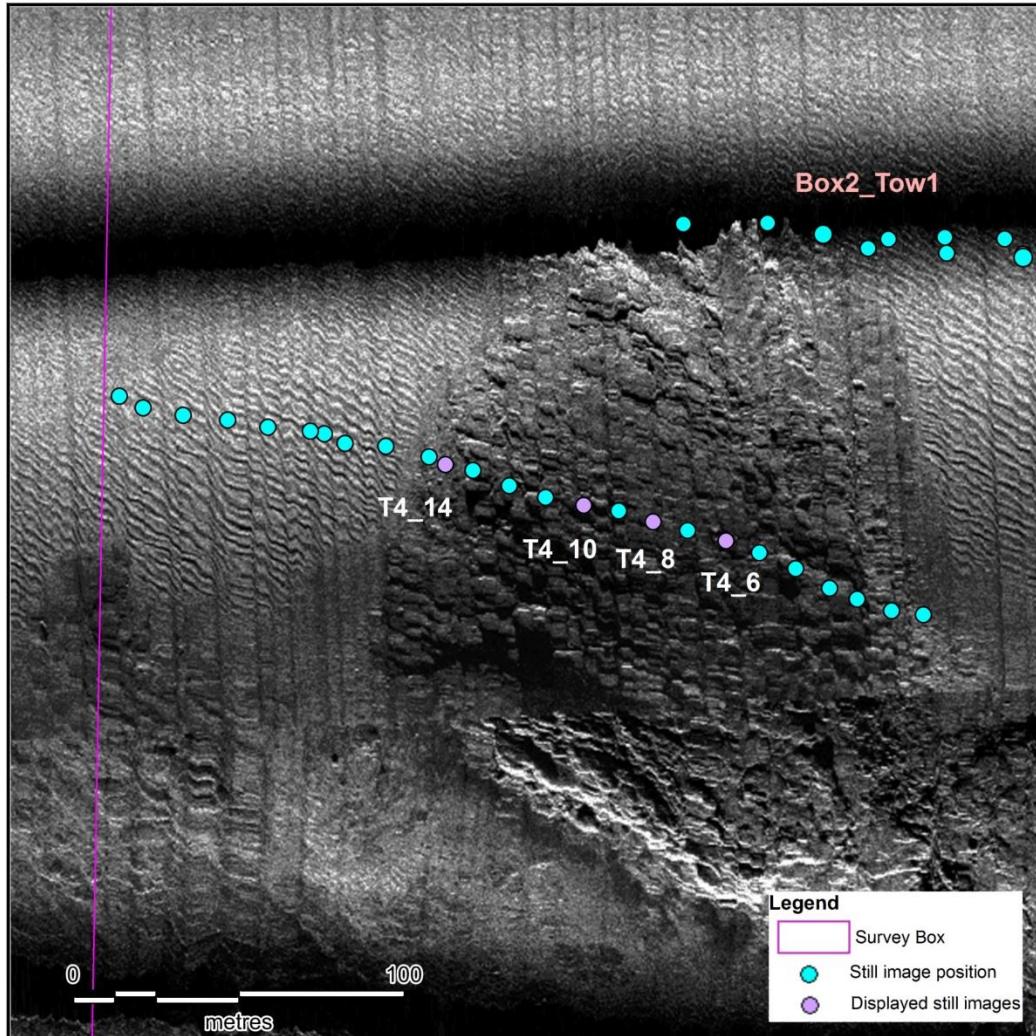


## Box 2 Tow 4

### Cornwall IFCA Eddystone Reefs SSS and DDV

Site: Start Point to Plymouth Sound and Eddystone Special Area of Conservation  
Survey code: 2017\_CIFCA\_SAC\_EDD\_SSSandDDV

Created by: Annie Jenkin 18/04/2018



	Tow ID: T4 Image number: T4_6 Latitude: 50.22490 Longitude: -4.37049 Sediment: Bedrock Fauna: Dead man's fingers ( <i>Alcyonium digitatum</i> ) Cup coral ( <i>Caryophyllia smithii</i> ), Porifera
	Tow ID: T4 Image number: T4_8 Latitude: 50.22495 Longitude: -4.37080 Sediment: Bedrock Fauna: Dead man's fingers ( <i>Alcyonium digitatum</i> ) Cup coral ( <i>Caryophyllia smithii</i> )
	Tow ID: T4 Image number: T4_10 Latitude: 50.22499 Longitude: -4.37109 Sediment: Bedrock Fauna: Dead man's fingers ( <i>Alcyonium digitatum</i> ) Cup coral ( <i>Caryophyllia smithii</i> ), Porifera, Sea cucumber
	Tow ID: T4 Image number: T4_14 Latitude: 50.22509 Longitude: -4.37168 Sediment: Bedrock Fauna: Dead man's fingers ( <i>Alcyonium digitatum</i> ) Cup coral ( <i>Caryophyllia smithii</i> ), Porifera

Figure 15: Station overview for Box 2 Tow 4 from the Cornwall IFCA Eddystone Reefs Project 2017 displaying still image locations overlaid on to side-scan sonar mosaic with descriptions of the habitat and fauna

## Location of still image positions within Box 3 Eddystone reef project 2017

Created by: Annie Jenkin Date: 18/04/2018

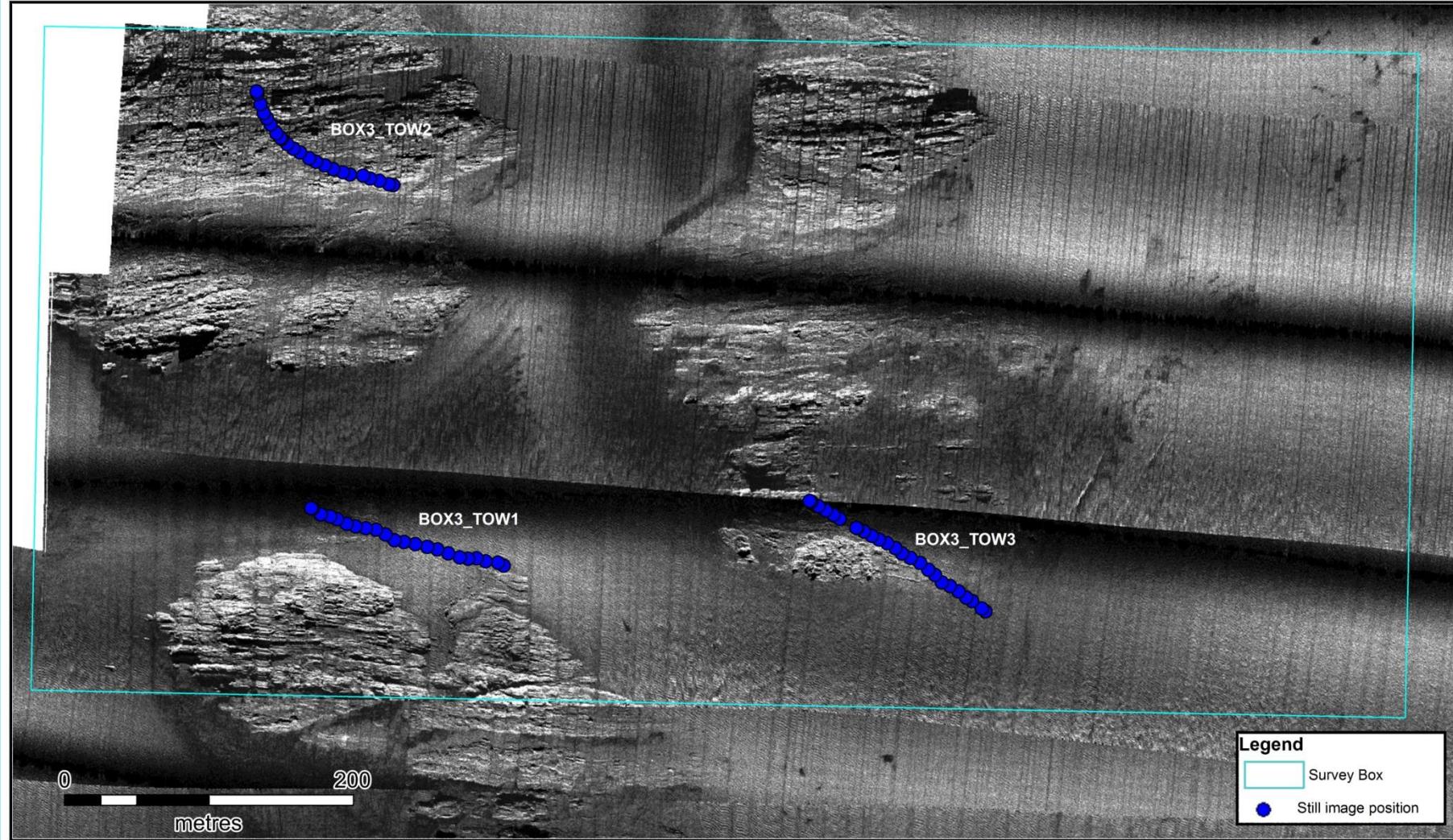


Figure 16: The location of still images taken during a survey carried out by Cornwall IFCA within Box 3 of the Eddystone reef project 2017

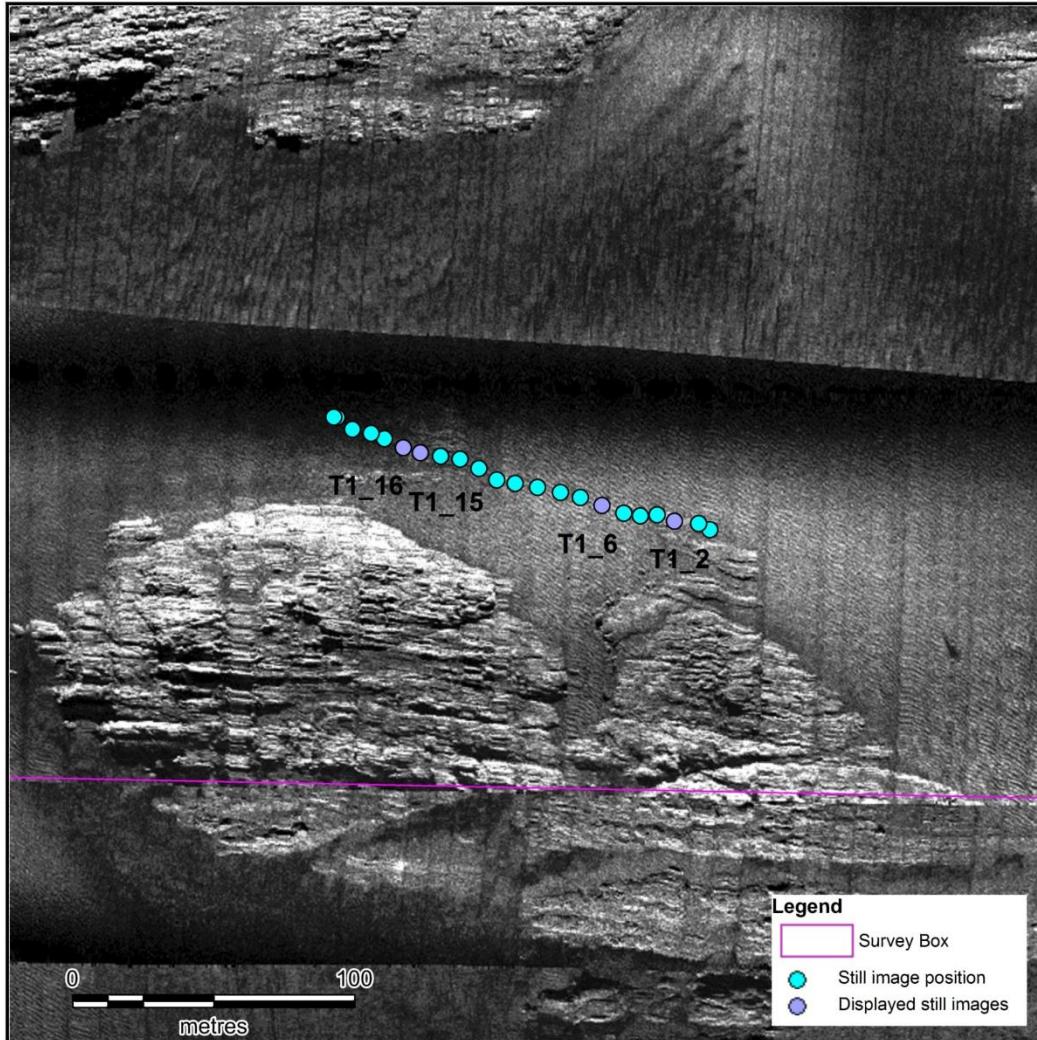


## Box 3 Tow 1

### Cornwall IFCA Eddystone Reefs SSS and DDV

Site: Start Point to Plymouth Sound and Eddystone Special Area of Conservation  
Survey code: 2017\_CIFCA\_SAC\_EDD\_SSSandDDV

Created by: Annie Jenkin 18/04/2018



Tow ID: T1  
Image number: T1\_2  
Latitude: 50.24561  
Longitude: -4.50362

Sediment: Coarse sediment  
Fauna: King scallop  
(*Pecten maximus*)  
Polychaete tubes



Tow ID: T1  
Image number: T1\_6  
Latitude: 50.24565  
Longitude: -4.50398

Sediment: Coarse and fine sediment  
Fauna: No obvious fauna



Tow ID: T1  
Image number: T1\_15  
Latitude: 50.24581  
Longitude: -4.50489  
Sediment: Bedrock  
Fauna: Pink sea fan  
(*Eunicella verrucosa*)  
Cup coral (*Caryophyllia smithii*),  
Hydroids



Tow ID: T1  
Image number: T1\_16  
Latitude: 50.24583  
Longitude: -4.50497  
Sediment: Bedrock  
Fauna: Pink sea fan  
(*Eunicella verrucosa*)  
Cup coral (*Caryophyllia smithii*),  
Hydroids

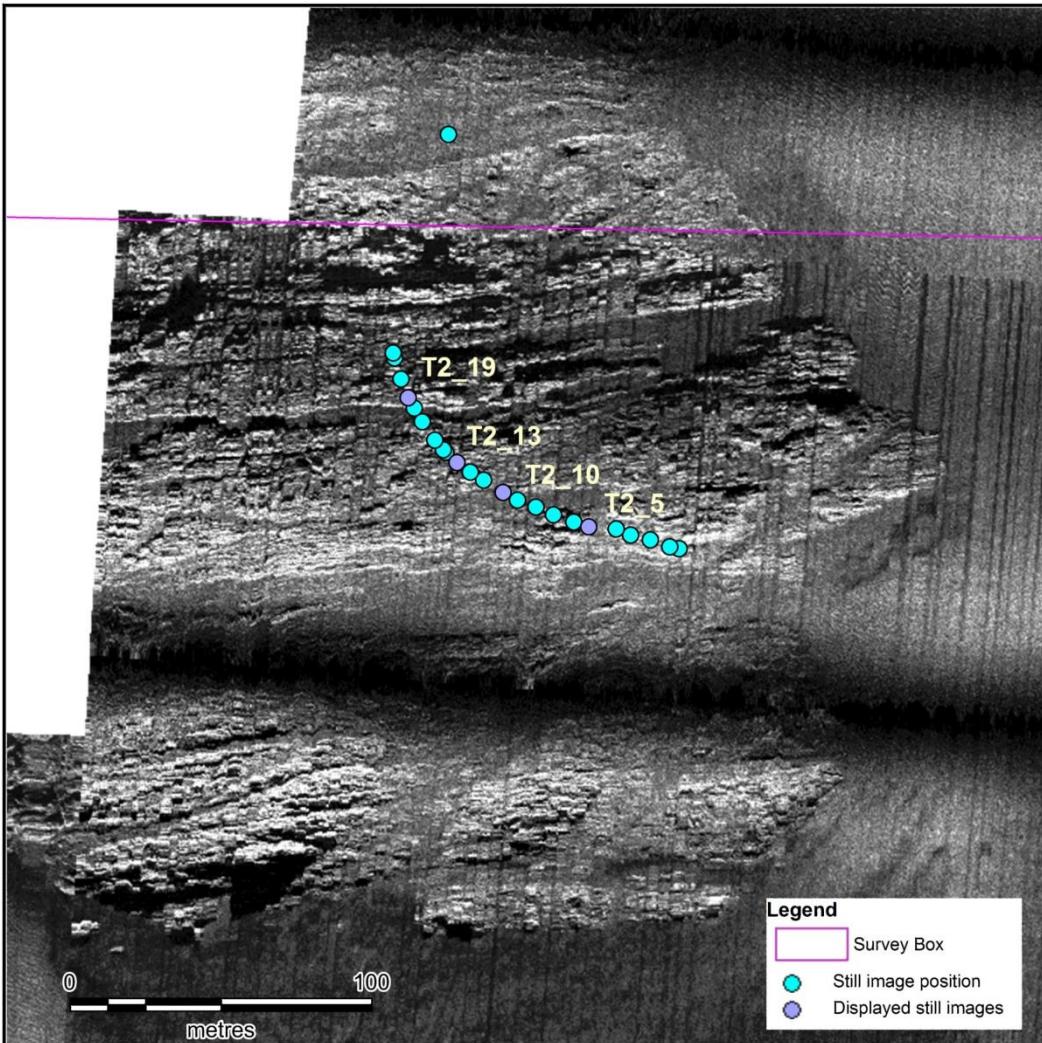
Figure 17: Station overview for Box 3 Tow 1 from the Cornwall IFCA Eddystone Reefs Project 2017 displaying still image locations overlaid on to side-scan sonar mosaic with descriptions of the habitat and fauna

## Box 3 Tow 2

### Cornwall IFCA Eddystone Reefs SSS and DDV

Site: Start Point to Plymouth Sound and Eddystone Special Area of Conservation  
 Survey code: 2017\_CIFCA\_SAC\_EDD\_SSSandDDV

Created by: Annie Jenkin 18/04/2018



Tow ID: T2  
 Image number: T2\_5  
 Latitude: 50.24800  
 Longitude: -4.50501  
 Sediment: Bedrock  
 Fauna: Pink sea fan (*Eunicella verrucosa*), Cup coral (*Caryophyllia smithii*), Sea cucumber



Tow ID: T2  
 Image number: T2\_10  
 Latitude: 50.24810  
 Longitude: -4.50541  
 Sediment: Bedrock  
 Fauna: Pink sea fan (*Eunicella verrucosa*), Cup coral (*Caryophyllia smithii*), Porifera



Tow ID: T2  
 Image number: T2\_13  
 Latitude: 50.24818  
 Longitude: -4.50563  
 Sediment: Bedrock  
 Fauna: Dead man's fingers (*Eunicella verrucosa*), Cup coral (*Caryophyllia smithii*), Porifera (inc. *Cliona celata*)



Tow ID: T2  
 Image number: T2\_19  
 Latitude: 50.24837  
 Longitude: -4.50586  
 Sediment: Bedrock  
 Fauna: Pink sea fan (*Eunicella verrucosa*), Dead man's fingers (*Alcyonium digitatum*)

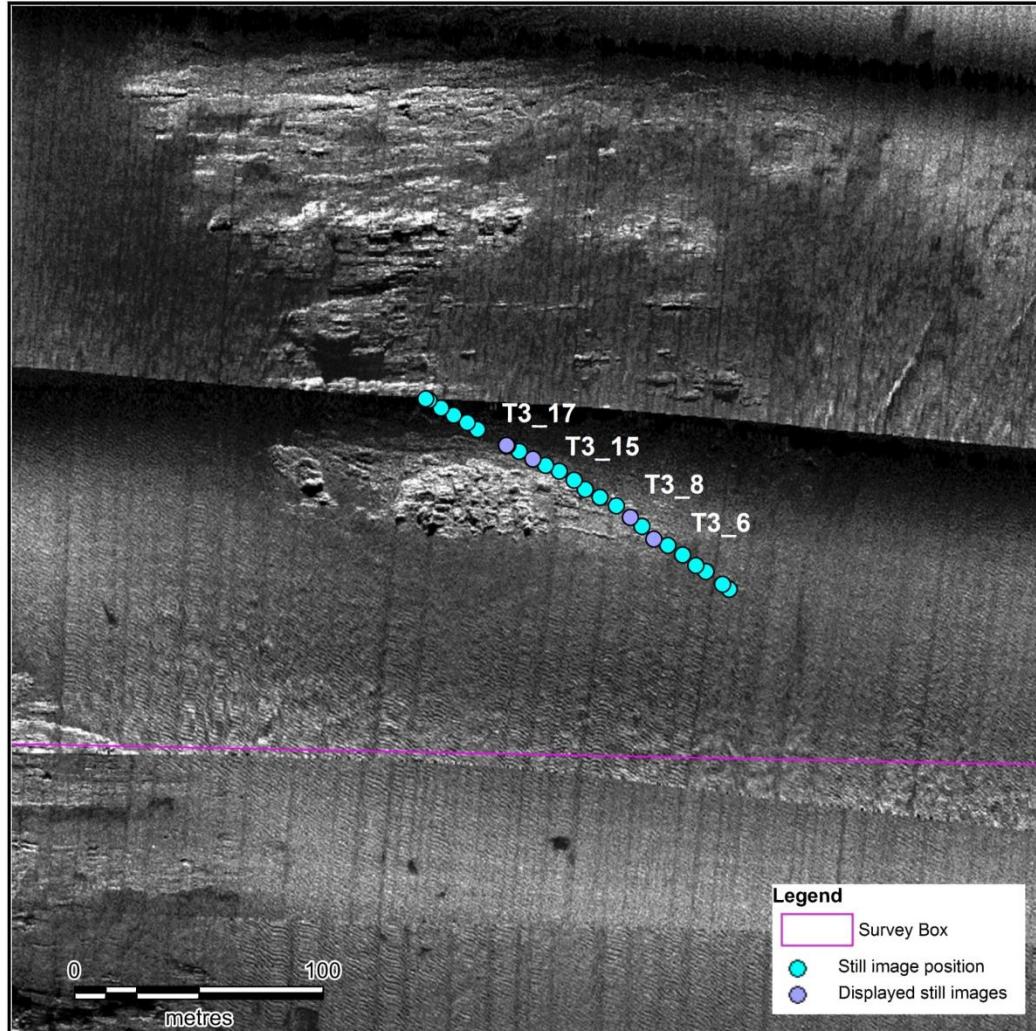
Figure 18: Station overview for Box 3 Tow 2 from the Cornwall IFCA Eddystone Reefs Project 2017 displaying still image locations overlaid on to side-scan sonar mosaic with descriptions of the habitat and fauna

## Box 3 Tow 3

### Cornwall IFCA Eddystone Reefs SSS and DDV

Site: Start Point to Plymouth Sound and Eddystone Special Area of Conservation  
Survey code: 2017\_CIFCA\_SAC\_EDD\_SSSandDDV

Created by: Annie Jenkin 18/04/2018



 <p>Tow ID: T3 Image number: T3_6 Latitude: 50.24554 Longitude: -4.4991</p> <p>Sediment: Coarse sediment and shell fragments</p> <p>Fauna: Polychaete tubes</p>
 <p>Tow ID: T3 Image number: T3_8 Latitude: 50.24561 Longitude: -4.49932</p> <p>Sediment: Fine sediment with shell fragments</p> <p>Fauna: No obvious fauna</p>
 <p>Tow ID: T3 Image number: T3_15 Latitude: 50.24582 Longitude: -4.49987</p> <p>Sediment: Bedrock</p> <p>Fauna: Dead man's fingers (<i>Eunicella verrucosa</i>), Cup coral (<i>Caryophyllia smithii</i>), Porifera, Hydroids</p>
 <p>Tow ID: T3 Image number: T3_17 Latitude: 50.24586 Longitude: -4.50002</p> <p>Sediment: Bedrock</p> <p>Fauna: Pink sea fan (<i>Eunicella verrucosa</i>), Cup coral (<i>Caryophyllia smithii</i>)</p>

Figure 19: Station overview for Box 3 Tow 3 from the Cornwall IFCA Eddystone Reefs Project 2017 displaying still image locations overlaid on to side-scan sonar mosaic with descriptions of the habitat and fauna

### 3.3 Anthropogenic Impacts

On the 25<sup>th</sup> August 2017, rope from fishing gear was recorded during Box 2\_T4 and the camera got caught on a string on pots at the end of Box 2\_T2.

## 4 Discussion

Cornwall IFCA has been collecting data as part of the Eddystone reefs project since 2014 and the data collected in 2017 will be added to the database of images for this survey area to enable a comparison of the seabed community composition to be done.

### Box 1

Three of the tows in Box 1 covered the transition from the sediment composed of fine to coarse sediment with the presence of shell fragments to areas of reef. The most northerly tow crossed over coarse sediment and no reef.

### Box 2

The sediment in Box 2 is composed of coarser material including cobbles, pebbles and shell fragments with less fine material present. Areas of rock and reef are present.

### Box 3

The sediment present in Box 3 is similar to that of Box 1. The sediment is composed of a mosaic of fine sediment to coarse sediment with the presence of shell fragments.

Preliminary results show that Boxes 1 and 3 are fairly similar with a mosaic of sediment, pebble, cobble, shell with rock and reef features present. Box 2 differs slightly from the other two boxes as the mosaic is composed of coarser sediment of medium/ coarse cobble and shell with less finer sediment present. Rock and reef features are still present within this box.

Future surveys will use the same methodology and will provide further insight as to the recovery of habitats and species within managed areas. The data will be used to allow the use of advanced statistical analysis to examine changes in seabed community composition between areas that are closed to bottom towed fishing gear and areas that are open over future years as the database increases.

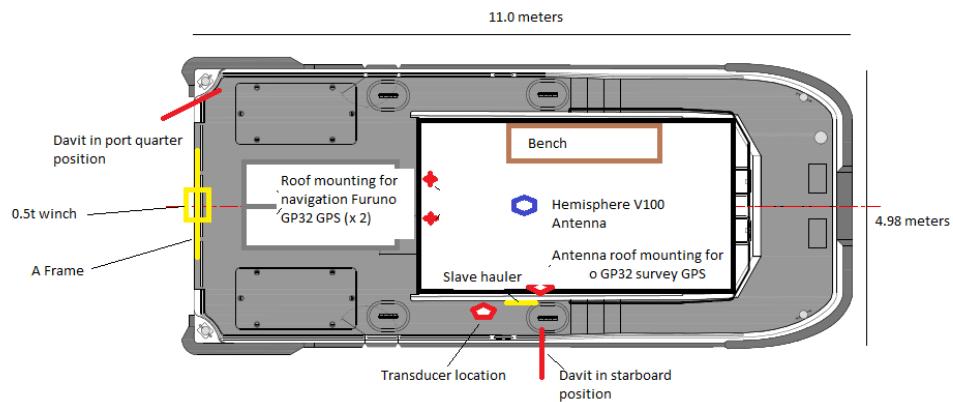
## 5 Appendices

### Annex 1 – R/V Tiger Lily Deck Plan & Offsets



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 V100 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

## Tiger Lily VI General Layout - Plan view



			Offset (m)		
NMEA Device	Make/Model	Offset Name	X (fwd)	Y (port)	Z (+/-)
Sounder	Furuno Navnet	Transducer	7.0	4.2	-0.5
GPS	Furuno GP32	GPS 1	4.8	3.48	+2.2
GNSS	Hemisphere V100	GNSS 1	5.0	2.5	+2.35

## Annex 2 – Daily Log

### 4<sup>th</sup> July 2017 – Eddystone DDV Survey

The daily log for the survey carried out on 4<sup>th</sup> July 2017 is shown in Table 2.

**Survey code:** 20170704\_CIFCA\_SAC\_EDD\_DDV

**Staff:** Colin Trundle (Principal Scientific Officer, Cornwall IFCA), Kimara Street (Scientific Officer, Cornwall IFCA), Annie Jenkin (Scientific Officer, Cornwall IFCA), Hilary Naylor (Scientific Officer, Cornwall IFCA), Dan McIntyre (skipper)

**Vessel:** Tiger Lily VI

All times are in UTC.

Table 2: Daily log from survey carried on board R/V Tiger Lily on 4<sup>th</sup> July 2017

Time	Activity
04:45	Crew onboard. Survey equipment checks carried out
05:15	Depart Mylor
06:50	Arrive at survey box 3. Checking drift direction
07:09	Camera in water for start of survey
07:14	Issues connecting to stills camera
07:20	Camera re-connected
07:22	Recover camera and move vessel position as drifted out of box
07:26	Vessel in position, camera re-deployed
07:30	Camera on sea bed
07:30	SOL BOX3_T1
07:50	EOL BOX3_T1
07:52	Camera recovered, moving to next location
07:59	Camera re-deployed
08:03	SOL BOX3_T2
08:22	EOL BOX3_T2
08:24	Camera recovered, moving to next location
08:37	Camera re-deployed
08:41	SOL BOX3_T3
09:04	EOL BOX3_T3
09:06	Camera recovered to deck
09:08	Reviewing stills. Flash did not work for last four stills
09:10	Re-starting system and carrying out camera checks
09:53	Re-deploying camera to check flash
10:30	Survey abandoned due to flash failure. Tech support from STR hasn't solved the issue
10:35	Steam for Whitsand Bay MCZ to record sightings data.
16:00	Arrive Mylor

The daily log for the survey carried out on 25<sup>th</sup> August 2017 is shown in Table 2.

**Survey code:** 20170704\_CIFCA\_SAC\_EDD\_DDV

**Staff:** Colin Trundle (Principal Scientific Officer, Cornwall IFCA), Annie Jenkin (Scientific Officer, Cornwall IFCA), Hilary Naylor (Scientific Officer, Cornwall IFCA), Dan McIntyre (skipper)

**Vessel:** Tiger Lily VI

All times are in UTC.

Table 3: Daily log from survey carried on board R/V Tiger Lily on 4<sup>th</sup> July 2017

Time	Activity
05:24	Arrive on Tiger Lily - emptying wrasse pots
05:40	Wrasse pots unloaded. Head to Eddystone
07:45	Arrive on site
08:05	SOL BOX2_T1
08:13	Camera frozen and struggling to re-connect
08:16	Camera re-connected
08:16	Mixed sediment
08:17	Camera frozen and struggling to re-connect
08:19	EOL BOX2_T1. Camera and video disconnected. Computer re-started.
08:22	No comms. Recovering camera
08:27	Camera recovered to side of Tiger Lily
08:35	Changed comms over. Re-starting line
08:43	On site. Camera re-deployed
08:48	SOL BOX2_T1A
09:10	EOL BOX2_T1A
09:11	Comms dropped out just as last still took
09:30	Comms issue fixed. Moving to next location
09:37	SOL BOX2_T2
10:03	EOL BOX2_T2
10:05	Recover camera to side of vessel
10:19	Restart software and take turns out of cable
10:27	SOL BOX2_T3
10:51	EOL BOX2_T3
11:12	SOL BOX2_T4
11:33	EOL BOX2_T4
12:32	SOL BOX1_T1
12:49	EOL BOX1_T1
13:03	SOL BOX1_T2
13:29	EOL BOX1_T2
13:46	SOL BOX1_T3
14:13	EOL BOX1_T3
14:30	SOL BOX1_T4
14:52	EOL BOX1_T4
14:53	Finish on site. Recovering camera
15:09	Camera recovered - head to Mylor
18:45	Arrive Mylor

## Annex 3 – Video position data from the Eddystone Reef Project in 2016

Cornwall IFCA			Video Positioning Summary								
Area		Eddystone Reef	Project name		20170704 and 20170825 Eddystone DDV Field Report						
Vessel		Tiger Lily	Sampling position		Starboard davit						
Sample type	Box	Image_ID	Date	Time SOL	Time EOL	SOL Latitude (decimal degrees)	SOL Longitude (decimal degrees)	EOL Latitude (decimal degrees)	EOL Longitude (decimal degrees)	Video length	Number of stills
Camera	1	CIFCA_ED_BOX1_T1_20170825	25/08/2017	12:32:53	12:49:09	50.21561	-4.33574	50.21556	-4.34018	00:16:16	11
Camera	1	CIFCA_ED_BOX1_T2_20170825	25/08/2017	13:03:43	13:29:21	50.21714	-4.33129	50.21752	-4.3376	00:25:38	27
Camera	1	CIFCA_ED_BOX1_T3_20170825	25/08/2017	13:46:41	14:13:07	50.21534	-4.32813	50.21622	-4.33466	00:26:26	26
Camera	1	CIFCA_ED_BOX1_T4_20170825	25/08/2017	14:30:12	14:53:19	50.21463	-4.33353	50.2152	-4.33893	00:23:07	24
Camera	2	CIFCA_ED_BOX2_T1_20170825	25/08/2017	08:05:36	08:16:45	50.22571	-4.36991	50.22569	-4.36652	00:11:09	9
Camera	2	CIFCA_ED_BOX2_T1A_20170825	25/08/2017	08:47:59	09:10:20	50.22576	-4.3707	50.22566	-4.36572	00:22:21	21
Camera	2	CIFCA_ED_BOX2_T2_20170825	25/08/2017	09:37:11	10:03:35	50.22668	-4.36725	50.22642	-4.36584	00:26:24	24
Camera	2	CIFCA_ED_BOX2_T3_20170825	25/08/2017	10:26:52	10:49:41	50.22436	-4.36138	50.22482	-4.36348	00:22:49	23
Camera	2	CIFCA_ED_BOX2_T4_20170825	25/08/2017	11:11:39	11:33:09	50.22471	-4.36965	50.22527	-4.37307	00:21:30	23
Camera	3	CIFCA_ED_BOX3_T1_20170704	04/07/2017	07:30:46	07:50:37	50.24916	-4.5057	50.24592	-4.50533	00:19:51	20
Camera	3	CIFCA_ED_BOX3_T2_20170704	04/07/2017	08:02:59	08:22:39	50.24795	-4.50459	50.24851	-4.50594	00:19:40	21
Camera	3	CIFCA_ED_BOX3_T3_20170704	04/07/2017	08:41:49	09:04:38	50.24537	-4.49876	50.24603	-4.50049	00:22:49	22

## Annex 4 – Still image position data from the Eddystone Reef Project in 2016

Cornwall IFCA							Camera Positioning Summary			
Area		Eddystone Reef	Project name		20170704 and 20170825 Eddystone DDV Field Report					
Vessel		Tiger Lily	Sampling position		Starboard davit					
Projection										
Sample type	Station number	Image_ID	Date	Time	Latitude (decimal degrees)	Longitude (decimal degrees)	Depth (m)	Substrate	Comments	
Camera	BOX3_T1	CIFCA_ED_BOX3_T1_20170704_07_31_05_0001.JPG	04/07/2017	07:31	50.24561	-4.50350				
Camera	BOX3_T1	CIFCA_ED_BOX3_T1_20170704_07_32_28_0002.JPG	04/07/2017	07:32	50.24561	-4.50362				
Camera	BOX3_T1	CIFCA_ED_BOX3_T1_20170704_07_33_21_0003.JPG	04/07/2017	07:33	50.24563	-4.50371				
Camera	BOX3_T1	CIFCA_ED_BOX3_T1_20170704_07_34_23_0004.JPG	04/07/2017	07:34	50.24563	-4.50379				
Camera	BOX3_T1	CIFCA_ED_BOX3_T1_20170704_07_35_23_0005.JPG	04/07/2017	07:35	50.24564	-4.50388				
Camera	BOX3_T1	CIFCA_ED_BOX3_T1_20170704_07_36_24_0006.JPG	04/07/2017	07:36	50.24566	-4.50399				
Camera	BOX3_T1	CIFCA_ED_BOX3_T1_20170704_07_37_24_0007.JPG	04/07/2017	07:37	50.24568	-4.50409				
Camera	BOX3_T1	CIFCA_ED_BOX3_T1_20170704_07_38_26_0008.JPG	04/07/2017	07:38	50.24570	-4.50419				
Camera	BOX3_T1	CIFCA_ED_BOX3_T1_20170704_07_39_26_0009.JPG	04/07/2017	07:39	50.24571	-4.50431				
Camera	BOX3_T1	CIFCA_ED_BOX3_T1_20170704_07_40_24_0010.JPG	04/07/2017	07:40	50.24572	-4.50442				
Camera	BOX3_T1	CIFCA_ED_BOX3_T1_20170704_07_41_23_0011.JPG	04/07/2017	07:41	50.24573	-4.50451				
Camera	BOX3_T1	CIFCA_ED_BOX3_T1_20170704_07_42_23_0012.JPG	04/07/2017	07:42	50.24577	-4.50460				
Camera	BOX3_T1	CIFCA_ED_BOX3_T1_20170704_07_43_23_0013.JPG	04/07/2017	07:43	50.24580	-4.50470				
Camera	BOX3_T1	CIFCA_ED_BOX3_T1_20170704_07_44_23_0014.JPG	04/07/2017	07:44	50.24581	-4.50479				
Camera	BOX3_T1	CIFCA_ED_BOX3_T1_20170704_07_45_25_0015.JPG	04/07/2017	07:45	50.24582	-4.50489				
Camera	BOX3_T1	CIFCA_ED_BOX3_T1_20170704_07_46_25_0016.JPG	04/07/2017	07:46	50.24583	-4.50498				
Camera	BOX3_T1	CIFCA_ED_BOX3_T1_20170704_07_47_24_0017.JPG	04/07/2017	07:47	50.24586	-4.50507				
Camera	BOX3_T1	CIFCA_ED_BOX3_T1_20170704_07_48_25_0018.JPG	04/07/2017	07:48	50.24587	-4.50514				
Camera	BOX3_T1	CIFCA_ED_BOX3_T1_20170704_07_49_23_0019.JPG	04/07/2017	07:49	50.24589	-4.50523				
Camera	BOX3_T1	CIFCA_ED_BOX3_T1_20170704_07_50_25_0020.JPG	04/07/2017	07:50	50.24592	-4.50531				
Camera	BOX3_T2	CIFCA_ED_BOX3_T2_20170704_08_03_15_0021.JPG	04/07/2017	08:03	50.24795	-4.50464				
Camera	BOX3_T2	CIFCA_ED_BOX3_T2_20170704_08_04_22_0022.JPG	04/07/2017	08:04	50.24797	-4.50473				

Cornwall IFCA							Camera Positioning Summary			
Area		Eddystone Reef	Project name		20170704 and 20170825 Eddystone DDV Field Report					
Vessel		Tiger Lily	Sampling position		Starboard davit					
Projection										
Sample type	Station number	Image_ID	Date	Time	Latitude (decimal degrees)	Longitude (decimal degrees)	Depth (m)	Substrate	Comments	
Camera	BOX3_T2	CIFCA_ED_BOX3_T2_20170704_08_05_23_0023.JPG	04/07/2017	08:05	50.24798	-4.50482				
Camera	BOX3_T2	CIFCA_ED_BOX3_T2_20170704_08_06_23_0024.JPG	04/07/2017	08:06	50.24800	-4.50489				
Camera	BOX3_T2	CIFCA_ED_BOX3_T2_20170704_08_07_35_0025.JPG	04/07/2017	08:07	50.24801	-4.50502				
Camera	BOX3_T2	CIFCA_ED_BOX3_T2_20170704_08_08_24_0026.JPG	04/07/2017	08:08	50.24802	-4.50509				
Camera	BOX3_T2	CIFCA_ED_BOX3_T2_20170704_08_09_25_0027.JPG	04/07/2017	08:09	50.24804	-4.50518				
Camera	BOX3_T2	CIFCA_ED_BOX3_T2_20170704_08_10_24_0028.JPG	04/07/2017	08:10	50.24806	-4.50526				
Camera	BOX3_T2	CIFCA_ED_BOX3_T2_20170704_08_11_22_0029.JPG	04/07/2017	08:11	50.24808	-4.50535				
Camera	BOX3_T2	CIFCA_ED_BOX3_T2_20170704_08_12_23_0030.JPG	04/07/2017	08:12	50.24810	-4.50542				
Camera	BOX3_T2	CIFCA_ED_BOX3_T2_20170704_08_13_27_0031.JPG	04/07/2017	08:13	50.24814	-4.50551				
Camera	BOX3_T2	CIFCA_ED_BOX3_T2_20170704_08_14_25_0032.JPG	04/07/2017	08:14	50.24816	-4.50557				
Camera	BOX3_T2	CIFCA_ED_BOX3_T2_20170704_08_15_23_0033.JPG	04/07/2017	08:15	50.24819	-4.50563				
Camera	BOX3_T2	CIFCA_ED_BOX3_T2_20170704_08_16_26_0034.JPG	04/07/2017	08:16	50.24822	-4.50569				
Camera	BOX3_T2	CIFCA_ED_BOX3_T2_20170704_08_16_37_0035.JPG	04/07/2017	08:16	50.24823	-4.50570				
Camera	BOX3_T2	CIFCA_ED_BOX3_T2_20170704_08_17_20_0036.JPG	04/07/2017	08:17	50.24825	-4.50574				
Camera	BOX3_T2	CIFCA_ED_BOX3_T2_20170704_08_18_46_0037.JPG	04/07/2017	08:18	50.24831	-4.50580				
Camera	BOX3_T2	CIFCA_ED_BOX3_T2_20170704_08_19_41_0038.JPG	04/07/2017	08:19	50.24835	-4.50584				
Camera	BOX3_T2	CIFCA_ED_BOX3_T2_20170704_08_20_25_0039.JPG	04/07/2017	08:20	50.24838	-4.50587				
Camera	BOX3_T2	CIFCA_ED_BOX3_T2_20170704_08_21_24_0040.JPG	04/07/2017	08:21	50.24843	-4.50590				
Camera	BOX3_T2	CIFCA_ED_BOX3_T2_20170704_08_22_23_0041.JPG	04/07/2017	08:22	50.24850	-4.50593				
Camera	BOX3_T3	CIFCA_ED_BOX3_T3_20170704_08_42_09_0042.JPG	04/07/2017	08:42	50.24538	-4.49880				
Camera	BOX3_T3	CIFCA_ED_BOX3_T3_20170704_08_43_29_0043.JPG	04/07/2017	08:43	50.24543	-4.49889				
Camera	BOX3_T3	CIFCA_ED_BOX3_T3_20170704_08_44_23_0044.JPG	04/07/2017	08:44	50.24545	-4.49895				
Camera	BOX3_T3	CIFCA_ED_BOX3_T3_20170704_08_45_25_0045.JPG	04/07/2017	08:45	50.24549	-4.49902				
Camera	BOX3_T3	CIFCA_ED_BOX3_T3_20170704_08_46_23_0046.JPG	04/07/2017	08:46	50.24552	-4.49911				

Cornwall IFCA							Camera Positioning Summary			
Area		Eddystone Reef	Project name		20170704 and 20170825 Eddystone DDV Field Report					
Vessel		Tiger Lily	Sampling position		Starboard davit					
Projection										
Sample type	Station number	Image_ID	Date	Time	Latitude (decimal degrees)	Longitude (decimal degrees)	Depth (m)	Substrate	Comments	
Camera	BOX3_T3	CIFCA_ED_BOX3_T3_20170704_08_47_22_0047.JPG	04/07/2017	08:47	50.24554	-4.49919				
Camera	BOX3_T3	CIFCA_ED_BOX3_T3_20170704_08_48_23_0048.JPG	04/07/2017	08:48	50.24559	-4.49926				
Camera	BOX3_T3	CIFCA_ED_BOX3_T3_20170704_08_49_21_0049.JPG	04/07/2017	08:49	50.24562	-4.49932				
Camera	BOX3_T3	CIFCA_ED_BOX3_T3_20170704_08_50_24_0050.JPG	04/07/2017	08:50	50.24566	-4.49940				
Camera	BOX3_T3	CIFCA_ED_BOX3_T3_20170704_08_51_24_0051.JPG	04/07/2017	08:51	50.24569	-4.49950				
Camera	BOX3_T3	CIFCA_ED_BOX3_T3_20170704_08_52_25_0052.JPG	04/07/2017	08:52	50.24572	-4.49958				
Camera	BOX3_T3	CIFCA_ED_BOX3_T3_20170704_08_53_24_0053.JPG	04/07/2017	08:53	50.24575	-4.49964				
Camera	BOX3_T3	CIFCA_ED_BOX3_T3_20170704_08_54_23_0054.JPG	04/07/2017	08:54	50.24578	-4.49973				
Camera	BOX3_T3	CIFCA_ED_BOX3_T3_20170704_08_55_29_0055.JPG	04/07/2017	08:55	50.24580	-4.49981				
Camera	BOX3_T3	CIFCA_ED_BOX3_T3_20170704_08_56_27_0056.JPG	04/07/2017	08:56	50.24582	-4.49988				
Camera	BOX3_T3	CIFCA_ED_BOX3_T3_20170704_08_58_25_0057.JPG	04/07/2017	08:57	50.24585	-4.49996				
Camera	BOX3_T3	CIFCA_ED_BOX3_T3_20170704_08_58_29_0058.JPG	04/07/2017	08:58	50.24587	-4.50003				
Camera	BOX3_T3	CIFCA_ED_BOX3_T3_20170704_09_00_27_0059.JPG	04/07/2017	09:00	50.24592	-4.50019				
Camera	BOX3_T3	CIFCA_ED_BOX3_T3_20170704_09_01_25_0060.JPG	04/07/2017	09:01	50.24595	-4.50025				
Camera	BOX3_T3	CIFCA_ED_BOX3_T3_20170704_09_02_29_0061.JPG	04/07/2017	09:02	50.24597	-4.50033				
Camera	BOX3_T3	CIFCA_ED_BOX3_T3_20170704_09_03_25_0062.JPG	04/07/2017	09:03	50.24600	-4.50040				
Camera	BOX3_T3	CIFCA_ED_BOX3_T3_20170704_09_04_25_0063.JPG	04/07/2017	09:04	50.24603	-4.50047				
Camera	BOX2_T1	CIFCA_EDD_BOX2_T120170825_08_05_53_0002.JPG	25/08/2017	08:05	50.22571	-4.36991				
Camera	BOX2_T1	CIFCA_EDD_BOX2_T120170825_08_06_46_0003.JPG	25/08/2017	08:06	50.22570	-4.36958				
Camera	BOX2_T1	CIFCA_EDD_BOX2_T120170825_08_07_46_0004.JPG	25/08/2017	08:07	50.22570	-4.36925				
Camera	BOX2_T1	CIFCA_EDD_BOX2_T120170825_08_08_46_0005.JPG	25/08/2017	08:08	50.22572	-4.36893				
Camera	BOX2_T1	CIFCA_EDD_BOX2_T120170825_08_09_47_0006.JPG	25/08/2017	08:09	50.22573	-4.36864				
Camera	BOX2_T1	CIFCA_EDD_BOX2_T120170825_08_10_46_0007.JPG	25/08/2017	08:10	50.22572	-4.36835				
Camera	BOX2_T1	CIFCA_EDD_BOX2_T120170825_08_11_46_0008.JPG	25/08/2017	08:11	50.22571	-4.36804				

Cornwall IFCA							Camera Positioning Summary			
Area		Eddystone Reef	Project name		20170704 and 20170825 Eddystone DDV Field Report					
Vessel		Tiger Lily	Sampling position		Starboard davit					
Projection										
Sample type	Station number	Image_ID	Date	Time	Latitude (decimal degrees)	Longitude (decimal degrees)	Depth (m)	Substrate	Comments	
Camera	BOX2_T1	CIFCA_EDD_BOX2_T120170825_08_12_48_0009.JPG	25/08/2017	08:12	50.22570	-4.36770				
Camera	BOX2_T1	CIFCA_EDD_BOX2_T120170825_08_16_47_0010.JPG	25/08/2017	08:16	50.22569	-4.36652				
Camera	BOX2_T1A	CIFCA_EDD_BOX2_T1A20170825_08_48_38_0001.JPG	25/08/2017	08:48	50.22576	-4.37070				
Camera	BOX2_T1A	CIFCA_EDD_BOX2_T1A20170825_08_49_18_0002.JPG	25/08/2017	08:49	50.22577	-4.37034	53			
Camera	BOX2_T1A	CIFCA_EDD_BOX2_T1A20170825_08_50_16_0003.JPG	25/08/2017	08:50	50.22574	-4.37010	53			
Camera	BOX2_T1A	CIFCA_EDD_BOX2_T1A20170825_08_51_15_0004.JPG	25/08/2017	08:51	50.22573	-4.36983	53			
Camera	BOX2_T1A	CIFCA_EDD_BOX2_T1A20170825_08_52_15_0005.JPG	25/08/2017	08:52	50.22574	-4.36959	53			
Camera	BOX2_T1A	CIFCA_EDD_BOX2_T1A20170825_08_53_16_0006.JPG	25/08/2017	08:53	50.22574	-4.36933	53			
Camera	BOX2_T1A	CIFCA_EDD_BOX2_T1A20170825_08_54_16_0007.JPG	25/08/2017	08:54	50.22572	-4.36910	53			
Camera	BOX2_T1A	CIFCA_EDD_BOX2_T1A20170825_08_55_16_0008.JPG	25/08/2017	08:55	50.22573	-4.36886	53			
Camera	BOX2_T1A	CIFCA_EDD_BOX2_T1A20170825_08_56_15_0009.JPG	25/08/2017	08:56	50.22572	-4.36865	53			
Camera	BOX2_T1A	CIFCA_EDD_BOX2_T1A20170825_08_57_16_0010.JPG	25/08/2017	08:57	50.22573	-4.36840	53			
Camera	BOX2_T1A	CIFCA_EDD_BOX2_T1A20170825_08_58_15_0011.JPG	25/08/2017	08:58	50.22573	-4.36820	53			
Camera	BOX2_T1A	CIFCA_EDD_BOX2_T1A20170825_08_59_17_0012.JPG	25/08/2017	08:59	50.22573	-4.36796	53			
Camera	BOX2_T1A	CIFCA_EDD_BOX2_T1A20170825_09_00_16_0013.JPG	25/08/2017	09:00	50.22572	-4.36774	53			
Camera	BOX2_T1A	CIFCA_EDD_BOX2_T1A20170825_09_01_17_0014.JPG	25/08/2017	09:01	50.22571	-4.36749	53			
Camera	BOX2_T1A	CIFCA_EDD_BOX2_T1A20170825_09_02_19_0015.JPG	25/08/2017	09:02	50.22573	-4.36725	53			
Camera	BOX2_T1A	CIFCA_EDD_BOX2_T1A20170825_09_03_16_0016.JPG	25/08/2017	09:03	50.22569	-4.36705	53			
Camera	BOX2_T1A	CIFCA_EDD_BOX2_T1A20170825_09_04_16_0017.JPG	25/08/2017	09:04	50.22568	-4.36683	54			
Camera	BOX2_T1A	CIFCA_EDD_BOX2_T1A20170825_09_05_17_0018.JPG	25/08/2017	09:05	50.22568	-4.36663	53			
Camera	BOX2_T1A	CIFCA_EDD_BOX2_T1A20170825_09_07_17_0019.JPG	25/08/2017	09:07	50.22565	-4.36626	54			
Camera	BOX2_T1A	CIFCA_EDD_BOX2_T1A20170825_09_08_16_0020.JPG	25/08/2017	09:08	50.22564	-4.36608	54			
Camera	BOX2_T1A	CIFCA_EDD_BOX2_T1A20170825_09_09_18_0021.JPG	25/08/2017	09:09	50.22565	-4.36588	54			

Cornwall IFCA							Camera Positioning Summary			
Area		Eddystone Reef	Project name		20170704 and 20170825 Eddystone DDV Field Report					
Vessel		Tiger Lily	Sampling position		Starboard davit					
Projection										
Sample type	Station number	Image_ID	Date	Time	Latitude (decimal degrees)	Longitude (decimal degrees)	Depth (m)	Substrate	Comments	
Camera	BOX2_T2	CIFCA_EDD_BOX2_T220170825_09_38_08_0001.JPG	25/08/2017	09:38	50.22667	-4.36716	52			
Camera	BOX2_T2	CIFCA_EDD_BOX2_T220170825_09_39_08_0002.JPG	25/08/2017	09:39	50.22666	-4.36708	53			
Camera	BOX2_T2	CIFCA_EDD_BOX2_T220170825_09_40_10_0003.JPG	25/08/2017	09:40	50.22665	-4.36699	53			
Camera	BOX2_T2	CIFCA_EDD_BOX2_T220170825_09_41_09_0004.JPG	25/08/2017	09:41	50.22663	-4.36690	53			
Camera	BOX2_T2	CIFCA_EDD_BOX2_T220170825_09_42_09_0005.JPG	25/08/2017	09:42	50.22664	-4.36683	53			
Camera	BOX2_T2	CIFCA_EDD_BOX2_T220170825_09_43_09_0006.JPG	25/08/2017	09:43	50.22663	-4.36675	52			
Camera	BOX2_T2	CIFCA_EDD_BOX2_T220170825_09_44_10_0007.JPG	25/08/2017	09:44	50.22662	-4.36666	52			
Camera	BOX2_T2	CIFCA_EDD_BOX2_T220170825_09_45_10_0008.JPG	25/08/2017	09:45	50.22662	-4.36658	53			
Camera	BOX2_T2	CIFCA_EDD_BOX2_T220170825_09_46_11_0009.JPG	25/08/2017	09:46	50.22661	-4.36654	53			
Camera	BOX2_T2	CIFCA_EDD_BOX2_T220170825_09_47_15_0010.JPG	25/08/2017	09:47	50.22659	-4.36648	53			
Camera	BOX2_T2	CIFCA_EDD_BOX2_T220170825_09_48_11_0011.JPG	25/08/2017	09:48	50.22657	-4.36641	53			
Camera	BOX2_T2	CIFCA_EDD_BOX2_T220170825_09_49_09_0012.JPG	25/08/2017	09:49	50.22657	-4.36634	53			
Camera	BOX2_T2	CIFCA_EDD_BOX2_T220170825_09_50_10_0013.JPG	25/08/2017	09:50	50.22656	-4.36629	53			
Camera	BOX2_T2	CIFCA_EDD_BOX2_T220170825_09_51_10_0014.JPG	25/08/2017	09:51	50.22657	-4.36627	52			
Camera	BOX2_T2	CIFCA_EDD_BOX2_T220170825_09_52_11_0015.JPG	25/08/2017	09:52	50.22655	-4.36621	53			
Camera	BOX2_T2	CIFCA_EDD_BOX2_T220170825_09_53_11_0016.JPG	25/08/2017	09:53	50.22653	-4.36616	53			
Camera	BOX2_T2	CIFCA_EDD_BOX2_T220170825_09_56_09_0017.JPG	25/08/2017	09:56	50.22649	-4.36606	52			
Camera	BOX2_T2	CIFCA_EDD_BOX2_T220170825_09_57_13_0018.JPG	25/08/2017	09:57	50.22649	-4.36602	53			
Camera	BOX2_T2	CIFCA_EDD_BOX2_T220170825_09_58_12_0019.JPG	25/08/2017	09:58	50.22648	-4.36596	52			
Camera	BOX2_T2	CIFCA_EDD_BOX2_T220170825_09_59_14_0020.JPG	25/08/2017	09:59	50.22648	-4.36593	53			
Camera	BOX2_T2	CIFCA_EDD_BOX2_T220170825_10_00_12_0021.JPG	25/08/2017	10:00	50.22646	-4.36590	53			
Camera	BOX2_T2	CIFCA_EDD_BOX2_T220170825_10_00_38_0022.JPG	25/08/2017	10:00	50.22645	-4.36590	53			
Camera	BOX2_T2	CIFCA_EDD_BOX2_T220170825_10_01_12_0023.JPG	25/08/2017	10:01	50.22644	-4.36588	52			
Camera	BOX2_T2	CIFCA_EDD_BOX2_T220170825_10_02_31_0024.JPG	25/08/2017	10:02	50.22645	-4.36587	52			

Cornwall IFCA							Camera Positioning Summary					
Area		Eddystone Reef	Project name		20170704 and 20170825 Eddystone DDV Field Report							
Vessel		Tiger Lily	Sampling position		Starboard davit							
Projection												
Sample type	Station number	Image_ID		Date	Time	Latitude (decimal degrees)	Longitude (decimal degrees)	Depth (m)	Substrate	Comments		
Camera	BOX2_T3	CIFCA_EDD_BOX2_T320170825_10_27_30_0001.JPG		25/08/2017	10:27							
Camera	BOX2_T3	CIFCA_EDD_BOX2_T320170825_10_28_00_0002.JPG		25/08/2017	10:28	50.22440	-4.36147	56				
Camera	BOX2_T3	CIFCA_EDD_BOX2_T320170825_10_28_58_0003.JPG		25/08/2017	10:28	50.22442	-4.36156	56				
Camera	BOX2_T3	CIFCA_EDD_BOX2_T320170825_10_30_03_0004.JPG		25/08/2017	10:30			56				
Camera	BOX2_T3	CIFCA_EDD_BOX2_T320170825_10_31_03_0005.JPG		25/08/2017	10:31	50.22449	-4.36176	55				
Camera	BOX2_T3	CIFCA_EDD_BOX2_T320170825_10_32_01_0006.JPG		25/08/2017	10:32	50.22452	-4.36185	56				
Camera	BOX2_T3	CIFCA_EDD_BOX2_T320170825_10_33_01_0007.JPG		25/08/2017	10:33	50.22454	-4.36193	55				
Camera	BOX2_T3	CIFCA_EDD_BOX2_T320170825_10_34_01_0008.JPG		25/08/2017	10:34	50.22456	-4.36201	55				
Camera	BOX2_T3	CIFCA_EDD_BOX2_T320170825_10_35_01_0009.JPG		25/08/2017	10:35	50.22457	-4.36209	55				
Camera	BOX2_T3	CIFCA_EDD_BOX2_T320170825_10_36_00_0010.JPG		25/08/2017	10:36	50.22458	-4.36220	55				
Camera	BOX2_T3	CIFCA_EDD_BOX2_T320170825_10_37_00_0011.JPG		25/08/2017	10:37	50.22460	-4.36228	55				
Camera	BOX2_T3	CIFCA_EDD_BOX2_T320170825_10_38_00_0012.JPG		25/08/2017	10:38	50.22464	-4.36236	54				
Camera	BOX2_T3	CIFCA_EDD_BOX2_T320170825_10_39_00_0013.JPG		25/08/2017	10:39	50.22465	-4.36242	55				
Camera	BOX2_T3	CIFCA_EDD_BOX2_T320170825_10_40_01_0014.JPG		25/08/2017	10:40	50.22466	-4.36252	55				
Camera	BOX2_T3	CIFCA_EDD_BOX2_T320170825_10_41_03_0015.JPG		25/08/2017	10:41	50.22469	-4.36260	54				
Camera	BOX2_T3	CIFCA_EDD_BOX2_T320170825_10_42_01_0016.JPG		25/08/2017	10:42	50.22472	-4.36269	54				
Camera	BOX2_T3	CIFCA_EDD_BOX2_T320170825_10_43_01_0017.JPG		25/08/2017	10:43	50.22471	-4.36281	55				
Camera	BOX2_T3	CIFCA_EDD_BOX2_T320170825_10_43_59_0018.JPG		25/08/2017	10:43	50.22473	-4.36290	54				
Camera	BOX2_T3	CIFCA_EDD_BOX2_T320170825_10_45_00_0019.JPG		25/08/2017	10:45	50.22475	-4.36299	54				
Camera	BOX2_T3	CIFCA_EDD_BOX2_T320170825_10_46_01_0020.JPG		25/08/2017	10:46	50.22478	-4.36309	54				
Camera	BOX2_T3	CIFCA_EDD_BOX2_T320170825_10_47_00_0021.JPG		25/08/2017	10:47	50.22479	-4.36319	54				
Camera	BOX2_T3	CIFCA_EDD_BOX2_T320170825_10_47_59_0022.JPG		25/08/2017	10:47	50.22478	-4.36332	54				
Camera	BOX2_T3	CIFCA_EDD_BOX2_T320170825_10_49_00_0023.JPG		25/08/2017	10:49	50.22480	-4.36342	54				
Camera	BOX2_T4	CIFCA_EDD_BOX2_T420170825_11_12_33_0024.JPG		25/08/2017	11:12	50.22472	-4.36978	Sounder not				

Cornwall IFCA							Camera Positioning Summary			
Area		Eddystone Reef	Project name		20170704 and 20170825 Eddystone DDV Field Report					
Vessel		Tiger Lily	Sampling position		Starboard davit					
Projection										
Sample type	Station number	Image_ID	Date	Time	Latitude (decimal degrees)	Longitude (decimal degrees)	Depth (m)	Substrate	Comments	
							working			
Camera	BOX2_T4	CIFCA_EDD_BOX2_T420170825_11_13_31_0025.JPG	25/08/2017	11:13	50.22475	-4.36993	Sounder not working			
Camera	BOX2_T4	CIFCA_EDD_BOX2_T420170825_11_14_30_0026.JPG	25/08/2017	11:14	50.22478	-4.37005				
Camera	BOX2_T4	CIFCA_EDD_BOX2_T420170825_11_15_32_0027.JPG	25/08/2017	11:15	50.22483	-4.37019				
Camera	BOX2_T4	CIFCA_EDD_BOX2_T420170825_11_16_34_0028.JPG	25/08/2017	11:16	50.22487	-4.37035				
Camera	BOX2_T4	CIFCA_EDD_BOX2_T420170825_11_17_28_0029.JPG	25/08/2017	11:17	50.22490	-4.37049				
Camera	BOX2_T4	CIFCA_EDD_BOX2_T420170825_11_18_33_0030.JPG	25/08/2017	11:18	50.22493	-4.37065				
Camera	BOX2_T4	CIFCA_EDD_BOX2_T420170825_11_19_31_0031.JPG	25/08/2017	11:19	50.22495	-4.37080				
Camera	BOX2_T4	CIFCA_EDD_BOX2_T420170825_11_20_30_0032.JPG	25/08/2017	11:20	50.22498	-4.37095				
Camera	BOX2_T4	CIFCA_EDD_BOX2_T420170825_11_21_31_0033.JPG	25/08/2017	11:21	50.22499	-4.37110				
Camera	BOX2_T4	CIFCA_EDD_BOX2_T420170825_11_22_31_0034.JPG	25/08/2017	11:22	50.22501	-4.37126				
Camera	BOX2_T4	CIFCA_EDD_BOX2_T420170825_11_23_31_0035.JPG	25/08/2017	11:23	50.22504	-4.37141				
Camera	BOX2_T4	CIFCA_EDD_BOX2_T420170825_11_24_34_0036.JPG	25/08/2017	11:24	50.22508	-4.37157				
Camera	BOX2_T4	CIFCA_EDD_BOX2_T420170825_11_25_06_0037.JPG	25/08/2017	11:25	50.22510	-4.37168				
Camera	BOX2_T4	CIFCA_EDD_BOX2_T420170825_11_25_40_0038.JPG	25/08/2017	11:25	50.22512	-4.37176				
Camera	BOX2_T4	CIFCA_EDD_BOX2_T420170825_11_26_34_0039.JPG	25/08/2017	11:26	50.22514	-4.37194				
Camera	BOX2_T4	CIFCA_EDD_BOX2_T420170825_11_27_39_0040.JPG	25/08/2017	11:27	50.22515	-4.37211				
Camera	BOX2_T4	CIFCA_EDD_BOX2_T420170825_11_28_03_0041.JPG	25/08/2017	11:28	50.22518	-4.37220				

Cornwall IFCA							Camera Positioning Summary			
Area		Eddystone Reef	Project name		20170704 and 20170825 Eddystone DDV Field Report					
Vessel		Tiger Lily	Sampling position		Starboard davit					
Projection										
Sample type	Station number	Image_ID	Date	Time	Latitude (decimal degrees)	Longitude (decimal degrees)	Depth (m)	Substrate	Comments	
Camera	BOX2_T4	CIFCA_EDD_BOX2_T420170825_11_28_31_0042.JPG	25/08/2017	11:28	50.22518	-4.37226	Sounder not working			
Camera	BOX2_T4	CIFCA_EDD_BOX2_T420170825_11_29_32_0043.JPG	25/08/2017	11:29	50.22519	-4.37244	Sounder not working			
Camera	BOX2_T4	CIFCA_EDD_BOX2_T420170825_11_30_30_0044.JPG	25/08/2017	11:30	50.22521	-4.37261	Sounder not working			
Camera	BOX2_T4	CIFCA_EDD_BOX2_T420170825_11_31_32_0045.JPG	25/08/2017	11:31	50.22522	-4.37280	Sounder not working			
Camera	BOX2_T4	CIFCA_EDD_BOX2_T420170825_11_32_32_0046.JPG	25/08/2017	11:32	50.22524	-4.37297	Sounder not working			
Camera	BOX1_T1	CIFCA_EDD_BOX1_T120170825_12_34_44_0001.JPG	25/08/2017	12:34						
Camera	BOX1_T1	CIFCA_EDD_BOX1_T120170825_12_35_18_0002.JPG	25/08/2017	12:35	50.21563	-4.33642	50.1			
Camera	BOX1_T1	CIFCA_EDD_BOX1_T120170825_12_36_25_0003.JPG	25/08/2017	12:36			50			
Camera	BOX1_T1	CIFCA_EDD_BOX1_T120170825_12_37_16_0004.JPG	25/08/2017	12:37	50.21564	-4.33690	50.1			
Camera	BOX1_T1	CIFCA_EDD_BOX1_T120170825_12_38_16_0005.JPG	25/08/2017	12:38	50.21565	-4.33712	49.6			
Camera	BOX1_T1	CIFCA_EDD_BOX1_T120170825_12_39_20_0006.JPG	25/08/2017	12:39	50.21565	-4.33739	49.4			
Camera	BOX1_T1	CIFCA_EDD_BOX1_T120170825_12_40_16_0007.JPG	25/08/2017	12:40	50.21567	-4.33766	48.8			
Camera	BOX1_T1	CIFCA_EDD_BOX1_T120170825_12_41_17_0008.JPG	25/08/2017	12:41	50.21566	-4.33796	49			
Camera	BOX1_T1	CIFCA_EDD_BOX1_T120170825_12_42_18_0009.JPG	25/08/2017	12:42	50.21565	-4.33825	48.3			
Camera	BOX1_T1	CIFCA_EDD_BOX1_T120170825_12_43_18_0010.JPG	25/08/2017	12:43	50.21565	-4.33855	42			
Camera	BOX1_T1	CIFCA_EDD_BOX1_T120170825_12_44_17_0011.JPG	25/08/2017	12:47	50.21565	-4.33878				
Camera	BOX1_T2	CIFCA_EDD_BOX1_T220170825_13_02_27_0013.JPG	25/08/2017	13:02						
Camera	BOX1_T2	CIFCA_EDD_BOX1_T220170825_13_04_15_0014.JPG	25/08/2017	13:04	50.21715	-4.33143	50.3			
Camera	BOX1_T2	CIFCA_EDD_BOX1_T220170825_13_05_16_0015.JPG	25/08/2017	13:05	50.21716	-4.33171	51.1			
Camera	BOX1_T2	CIFCA_EDD_BOX1_T220170825_13_06_17_0016.JPG	25/08/2017	13:06	50.21719	-4.33198	50.7			
Camera	BOX1_T2	CIFCA_EDD_BOX1_T220170825_13_07_21_0017.JPG	25/08/2017	13:07	50.21723	-4.33222	50.2			
Camera	BOX1_T2	CIFCA_EDD_BOX1_T220170825_13_08_14_0018.JPG	25/08/2017	13:08	50.21723	-4.33245	50.6			

Cornwall IFCA							Camera Positioning Summary			
Area		Eddystone Reef	Project name		20170704 and 20170825 Eddystone DDV Field Report					
Vessel		Tiger Lily	Sampling position		Starboard davit					
Projection										
Sample type	Station number	Image_ID	Date	Time	Latitude (decimal degrees)	Longitude (decimal degrees)	Depth (m)	Substrate	Comments	
Camera	BOX1_T2	CIFCA_EDD_BOX1_T220170825_13_09_15_0019.JPG	25/08/2017	13:09	50.21727	-4.33271	50.1			
Camera	BOX1_T2	CIFCA_EDD_BOX1_T220170825_13_10_16_0020.JPG	25/08/2017	13:10	50.21729	-4.33297	50.1			
Camera	BOX1_T2	CIFCA_EDD_BOX1_T220170825_13_11_16_0021.JPG	25/08/2017	13:11	50.21731	-4.33320	50.6			
Camera	BOX1_T2	CIFCA_EDD_BOX1_T220170825_13_12_16_0022.JPG	25/08/2017	13:12	50.21733	-4.33344	51.4			
Camera	BOX1_T2	CIFCA_EDD_BOX1_T220170825_13_13_18_0023.JPG	25/08/2017	13:13	50.21735	-4.33370	49.9			
Camera	BOX1_T2	CIFCA_EDD_BOX1_T220170825_13_14_16_0024.JPG	25/08/2017	13:14	50.21738	-4.33399	50.6			
Camera	BOX1_T2	CIFCA_EDD_BOX1_T220170825_13_15_20_0025.JPG	25/08/2017	13:15	50.21737	-4.33428				
Camera	BOX1_T2	CIFCA_EDD_BOX1_T220170825_13_16_20_0026.JPG	25/08/2017	13:16			50			
Camera	BOX1_T2	CIFCA_EDD_BOX1_T220170825_13_17_15_0027.JPG	25/08/2017	13:17	50.21741	-4.33473	50.2			
Camera	BOX1_T2	CIFCA_EDD_BOX1_T220170825_13_18_17_0028.JPG	25/08/2017	13:18	50.21742	-4.33495	50.8			
Camera	BOX1_T2	CIFCA_EDD_BOX1_T220170825_13_19_17_0029.JPG	25/08/2017	13:19	50.21744	-4.33519	50.1			
Camera	BOX1_T2	CIFCA_EDD_BOX1_T220170825_13_20_15_0030.JPG	25/08/2017	13:20	50.21744	-4.33543	50			
Camera	BOX1_T2	CIFCA_EDD_BOX1_T220170825_13_21_18_0031.JPG	25/08/2017	13:21	50.21744	-4.33567	49.9			
Camera	BOX1_T2	CIFCA_EDD_BOX1_T220170825_13_22_16_0032.JPG	25/08/2017	13:22	50.21746	-4.33592	49.9			
Camera	BOX1_T2	CIFCA_EDD_BOX1_T220170825_13_23_17_0033.JPG	25/08/2017	13:23	50.21749	-4.33617	50			
Camera	BOX1_T2	CIFCA_EDD_BOX1_T220170825_13_24_19_0034.JPG	25/08/2017	13:24	50.21749	-4.33641	49.7			
Camera	BOX1_T2	CIFCA_EDD_BOX1_T220170825_13_25_17_0035.JPG	25/08/2017	13:25	50.21749	-4.33664	49.4			
Camera	BOX1_T2	CIFCA_EDD_BOX1_T220170825_13_26_17_0036.JPG	25/08/2017	13:26	50.21748	-4.33688	49.5			
Camera	BOX1_T2	CIFCA_EDD_BOX1_T220170825_13_27_15_0037.JPG	25/08/2017	13:27	50.21747	-4.33710	49.9			
Camera	BOX1_T2	CIFCA_EDD_BOX1_T220170825_13_28_17_0038.JPG	25/08/2017	13:28	50.21751	-4.33733	49.6			
Camera	BOX1_T2	CIFCA_EDD_BOX1_T220170825_13_29_19_0039.JPG	25/08/2017	13:29	50.21752	-4.33760	49			
Camera	BOX1_T3	CIFCA_EDD_BOX1_T320170825_13_47_54_0040.JPG	25/08/2017	13:47	50.21538	-4.32848	50			
Camera	BOX1_T3	CIFCA_EDD_BOX1_T320170825_13_48_56_0041.JPG	25/08/2017	13:48	50.21543	-4.32871	48.9			
Camera	BOX1_T3	CIFCA_EDD_BOX1_T320170825_13_49_55_0042.JPG	25/08/2017	13:49	50.21544	-4.32896	49.4			

Cornwall IFCA							Camera Positioning Summary			
Area		Eddystone Reef	Project name		20170704 and 20170825 Eddystone DDV Field Report					
Vessel		Tiger Lily	Sampling position		Starboard davit					
Projection										
Sample type	Station number	Image_ID	Date	Time	Latitude (decimal degrees)	Longitude (decimal degrees)	Depth (m)	Substrate	Comments	
Camera	BOX1_T3	CIFCA_EDD_BOX1_T320170825_13_50_59_0043.JPG	25/08/2017	13:50	50.21549	-4.32924	48.9			
Camera	BOX1_T3	CIFCA_EDD_BOX1_T320170825_13_51_53_0044.JPG	25/08/2017	13:51	50.21552	-4.32947	49.2			
Camera	BOX1_T3	CIFCA_EDD_BOX1_T320170825_13_52_54_0045.JPG	25/08/2017	13:52	50.21557	-4.32973	49.4			
Camera	BOX1_T3	CIFCA_EDD_BOX1_T320170825_13_53_57_0046.JPG	25/08/2017	13:53	50.21561	-4.32997	49.6			
Camera	BOX1_T3	CIFCA_EDD_BOX1_T320170825_13_54_55_0047.JPG	25/08/2017	13:54	50.21563	-4.33021	49.9			
Camera	BOX1_T3	CIFCA_EDD_BOX1_T320170825_13_55_57_0048.JPG	25/08/2017	13:55	50.21566	-4.33043	50.7			
Camera	BOX1_T3	CIFCA_EDD_BOX1_T320170825_13_56_56_0049.JPG	25/08/2017	13:56	50.21568	-4.33067	50.2			
Camera	BOX1_T3	CIFCA_EDD_BOX1_T320170825_13_57_57_0050.JPG	25/08/2017	13:58	50.21571	-4.33092	49.9			
Camera	BOX1_T3	CIFCA_EDD_BOX1_T320170825_13_58_58_0051.JPG	25/08/2017	13:59	50.21574	-4.33119	49.6			
Camera	BOX1_T3	CIFCA_EDD_BOX1_T320170825_13_59_57_0052.JPG	25/08/2017	13:59	50.21577	-4.33145	51			
Camera	BOX1_T3	CIFCA_EDD_BOX1_T320170825_14_00_56_0053.JPG	25/08/2017	14:00	50.21580	-4.33168	50			
Camera	BOX1_T3	CIFCA_EDD_BOX1_T320170825_14_01_57_0054.JPG	25/08/2017	14:01	50.21583	-4.33194	50.1			
Camera	BOX1_T3	CIFCA_EDD_BOX1_T320170825_14_02_58_0055.JPG	25/08/2017	14:03	50.21585	-4.33216	49.8			
Camera	BOX1_T3	CIFCA_EDD_BOX1_T320170825_14_03_57_0056.JPG	25/08/2017	14:03	50.21588	-4.33240	49.5			
Camera	BOX1_T3	CIFCA_EDD_BOX1_T320170825_14_04_57_0057.JPG	25/08/2017	14:04	50.21589	-4.33265	49.5			
Camera	BOX1_T3	CIFCA_EDD_BOX1_T320170825_14_05_56_0058.JPG	25/08/2017	14:05	50.21591	-4.33288	49.7			
Camera	BOX1_T3	CIFCA_EDD_BOX1_T320170825_14_06_56_0059.JPG	25/08/2017	14:06	50.21594	-4.33313	49.5			
Camera	BOX1_T3	CIFCA_EDD_BOX1_T320170825_14_07_56_0060.JPG	25/08/2017	14:07	50.21598	-4.33336	49.7			
Camera	BOX1_T3	CIFCA_EDD_BOX1_T320170825_14_08_56_0061.JPG	25/08/2017	14:08	50.21602	-4.33362	49.5			
Camera	BOX1_T3	CIFCA_EDD_BOX1_T320170825_14_09_56_0062.JPG	25/08/2017	14:09	50.21605	-4.33388	49.6			
Camera	BOX1_T3	CIFCA_EDD_BOX1_T320170825_14_10_59_0063.JPG	25/08/2017	14:10	50.21611	-4.33413	49.5			
Camera	BOX1_T3	CIFCA_EDD_BOX1_T320170825_14_11_59_0064.JPG	25/08/2017	14:11	50.21616	-4.33439	50			
Camera	BOX1_T3	CIFCA_EDD_BOX1_T320170825_14_12_55_0065.JPG	25/08/2017	14:12	50.21621	-4.33462	49.5			
Camera	BOX1_T4	CIFCA_EDD_BOX1_T420170825_14_30_39_0001.JPG	25/08/2017	14:30	50.21463	-4.33353	49			

Cornwall IFCA							Camera Positioning Summary			
Area		Eddystone Reef	Project name		20170704 and 20170825 Eddystone DDV Field Report					
Vessel		Tiger Lily	Sampling position		Starboard davit					
Projection										
Sample type	Station number	Image_ID	Date	Time	Latitude (decimal degrees)	Longitude (decimal degrees)	Depth (m)	Substrate	Comments	
Camera	BOX1_T4	CIFCA_EDD_BOX1_T420170825_14_31_50_0002.JPG	25/08/2017	14:31			49.1			
Camera	BOX1_T4	CIFCA_EDD_BOX1_T420170825_14_32_18_0003.JPG	25/08/2017	14:32	50.21468	-4.33400	48.8			
Camera	BOX1_T4	CIFCA_EDD_BOX1_T420170825_14_32_51_0004.JPG	25/08/2017	14:32	50.21469	-4.33419	49.1			
Camera	BOX1_T4	CIFCA_EDD_BOX1_T420170825_14_33_51_0005.JPG	25/08/2017	14:33	50.21469	-4.33443	48.8			
Camera	BOX1_T4	CIFCA_EDD_BOX1_T420170825_14_34_51_0006.JPG	25/08/2017	14:34	50.21468	-4.33467	50.2			
Camera	BOX1_T4	CIFCA_EDD_BOX1_T420170825_14_35_54_0007.JPG	25/08/2017	14:35	50.21467	-4.33492	48.8			
Camera	BOX1_T4	CIFCA_EDD_BOX1_T420170825_14_36_52_0008.JPG	25/08/2017	14:36	50.21468	-4.33507	48.6			
Camera	BOX1_T4	CIFCA_EDD_BOX1_T420170825_14_37_53_0009.JPG	25/08/2017	14:37	50.21468	-4.33529	48.6			
Camera	BOX1_T4	CIFCA_EDD_BOX1_T420170825_14_38_51_0010.JPG	25/08/2017	14:38	50.21469	-4.33552	49			
Camera	BOX1_T4	CIFCA_EDD_BOX1_T420170825_14_39_55_0011.JPG	25/08/2017	14:39	50.21469	-4.33578	49.4			
Camera	BOX1_T4	CIFCA_EDD_BOX1_T420170825_14_40_51_0012.JPG	25/08/2017	14:40	50.21472	-4.33601	48.5			
Camera	BOX1_T4	CIFCA_EDD_BOX1_T420170825_14_41_54_0013.JPG	25/08/2017	14:41	50.21473	-4.33624	48.9			
Camera	BOX1_T4	CIFCA_EDD_BOX1_T420170825_14_42_51_0014.JPG	25/08/2017	14:42	50.21473	-4.33647	49.9			
Camera	BOX1_T4	CIFCA_EDD_BOX1_T420170825_14_43_52_0015.JPG	25/08/2017	14:44	50.21475	-4.33672	48			
Camera	BOX1_T4	CIFCA_EDD_BOX1_T420170825_14_44_53_0016.JPG	25/08/2017	14:44	50.21476	-4.33696	48.4			
Camera	BOX1_T4	CIFCA_EDD_BOX1_T420170825_14_45_51_0017.JPG	25/08/2017	14:46	50.21477	-4.33719	48.7			
Camera	BOX1_T4	CIFCA_EDD_BOX1_T420170825_14_46_41_0018.JPG	25/08/2017	14:46	50.21480	-4.33740	48.3			
Camera	BOX1_T4	CIFCA_EDD_BOX1_T420170825_14_47_50_0019.JPG	25/08/2017	14:47	50.21481	-4.33767	48.2			
Camera	BOX1_T4	CIFCA_EDD_BOX1_T420170825_14_48_51_0020.JPG	25/08/2017	14:48	50.21485	-4.33790	48.8			
Camera	BOX1_T4	CIFCA_EDD_BOX1_T420170825_14_49_53_0021.JPG	25/08/2017	14:49	50.21492	-4.33814	48.7			
Camera	BOX1_T4	CIFCA_EDD_BOX1_T420170825_14_50_52_0022.JPG	25/08/2017	14:50	50.21501	-4.33839	48.4			
Camera	BOX1_T4	CIFCA_EDD_BOX1_T420170825_14_51_50_0023.JPG	25/08/2017	14:51	50.21509	-4.33862	48			
Camera	BOX1_T4	CIFCA_EDD_BOX1_T420170825_14_52_52_0024.JPG	25/08/2017	14:52	50.21517	-4.33884				