CENTRE FOR ENVIRONMENT, FISHERIES AND AQUACULTURE SCIENCE
LOWESTOFT LABORATORY, SUFFOLK, NR33 0HT

2016 RESEARCH VESSEL PROGRAMME

PROGRAMME: *RV Cefas Endeavour*: **Survey** CEND0716**.**

STAFF:

Joanna Murray (Cefas SIC)	SiC
Briony Silburn (Cefas Data Manager)	B2

Day Shift (12:00-24:00)

Peter Mitchell (Cefas Shift Lead)	C1
Bill Meadows (MIST)	C5
Paul McIlwaine	C2
Chris Piri (NE)	C3
Vicky Rae (NIFCA)	C4
Trudy Russel (NE)	C6
Callum Scougal	D2

Night Shift (24:00-12:00)

Marc Whybrow (Shift Lead/2nd SIC)	B1
Stefan Bolam	D3
Louise Brown	D4
James Cook	C7
Mike Young (NE)	D5
Aoife Ne Neachtain (NE)	D6
Yolanda Arjona (JNCC)	C8

NB. Staff requiring inductions are highlighted in yellow

DURATION: 23rd April until 29th April 2016

LOCATION: ***Please provide a detailed map and state longitudes and latitudes***

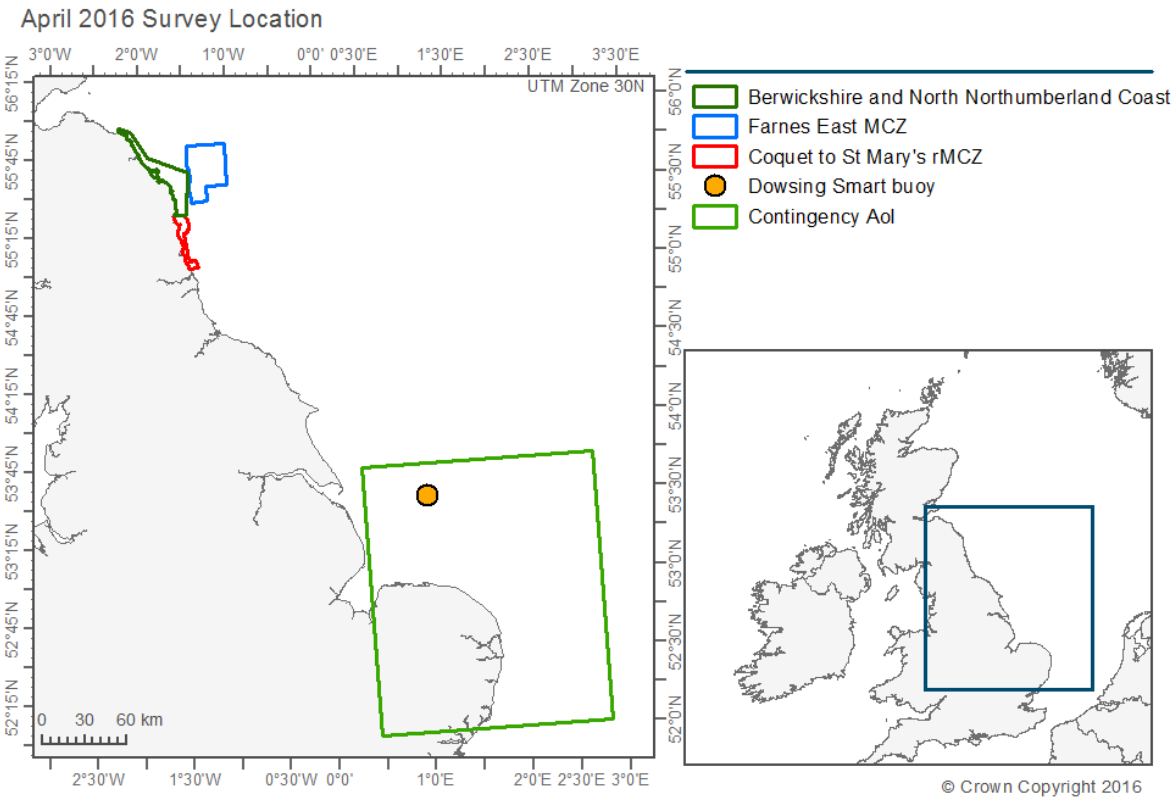

Figure 1. Location of survey locations; Dowsing smartbuoy location, Coquet to St Marys MCZ (red), Berwickshire and North Northumberland SAC (dark green) and Farnes East MCZ (blue) and area of interest for contingency work in the north Norfolk Sandbanks (light green).

Coquet to St Marys	**Farnes East**
EASTING 437775.7444	EASTING 447769.953566
NORTHING 575197.9494	NORTHING 643644.413205
LATITUDE 55:04:11N	LATITUDE 55:41:02N
LONGITUDE 1:25:24W	LONGITUDE 1:15:29W

AIMS:

There are two key survey objectives on this Natural England- Cefas survey:

To gather additional biological data using the camera sledge/drop video, Nioz corer, grab sampler and SPI to confirm (or otherwise) the presence of a 'mud habitats in deep water' within the north east extent of the Coquet to St Marys MCZ.

To gather additional biological data using the camera sledge/drop video, Nioz corer, grab sampler and SPI to confirm (or otherwise) the presence of a 'mud habitats in deep water' running out towards Farnes East MCZ.

Contingency work

A secondary objective of this survey, time and weather permitting, is to acquire acoustic data (sidescan sonar) ay the North Norfolk sandbanks (Haisborough

Hammond and Winterton SCI/cSAC, Inner Dowsing, Race Bank and North Ridge SCI/cSAC & North Norfolk Sandbanks) area of interest ahead of the June survey which is focussed on that area. Any data acquire in April will inform survey planning for June.

The specific objective includes:

to run approximately N-S SSS lines in selected trough zones to detect core areas of upstanding saballaria reef (and potential sandbank edge).

PLAN:

5 personnel require inductions; these have been scheduled for 15:00 on the 22nd April 2016 prior to sailing.

Equipment mobbing and sampling demonstrations for chlorophyll sampling will be completed on the 22nd April and all personnel will be on board for 20:00 on the 22nd. Depart from Lowestoft on the evening tide of the 22nd April 2016 (22:00) and transit north past the Dowsing SmartBuoy (53.53 N 1.06 E) where a chlorophyll sample will be collected on route.

Transit north to the Coquet to St Marys MCZ will take approximately 22 hours during which time staff will be getting onto their shift patterns and equipment will be set up ready for operations on arrival at the site.

Camera tows will be deployed ahead of the Nioz corer at all stations (where sediment permits) and a subset of grab samples will be taken at the Nioz corer stations to allow for a gear comparison and integration with existing data. In addition, the SPI camera may also be used at a subset of stations (as a lower priority).

If all survey objectives are completed at the 3 most northern sites (Coquet to St Marys, Berwickshire and North Northumberland Coast, Farnes East), we will transit south the the North Norfolk Sandbanks AoI to begin contingency operations to collect sidescan sonar data within trough areas of the banks which have been identified as areas containing saballaria reef.

A second chlorophyll sample will be collected on route back to Lowestoft where we will dock at 13:58 on the 29th April 2016.

GEAR:

Camera sledge, Drop camera, Day grab, Hamon grab, Nioz core, SPI camera system

Joanna Murray
Scientist In Charge
12/04/16

INITIALLED:

DISTRIBUTION: