

RESEARCH VESSEL PROGRAMME

**RV CEFAS ENDEAVOUR
Survey: C END 15 - 2021**

STAFF:

Name	Role	Cabin	Shift
Stephen Shaw	SIC	SIC	N\A
Georgina Eastley	2IC	B1	N\A
Sarah Walmsley	Deck master	B2	N\A
Gary Burt	Sampler	C1	N\A
Maria Wild	Sampler	C5	N\A
Daniel Clarke	Sampler	C2	N\A
TBC	Sampler	Tbc	N\A
Mariusz Huk	Water sampling	D2	Nights

**DURATION: 11th to the 30th September 2021
(20 days at sea, dates subject to change)**

LOCATION: Irish Sea (VIIa) & Bristol Channel (VIIfg)

AIMS:

Primary aims:

1. To carry out a 4m beam-trawl survey of groundfish (Figure 1) to i) obtain fisheries independent data on the distribution and abundance of commercial flatfish species, and ii) derive age compositions of sole *Solea solea*, plaice *Pleuronectes platessa*, cod *Gadus morhua* and whiting *Merlangius merlangius* for use in stock assessments.
2. To collect biological data including maturity and weight at age of sole, plaice, lemon sole *Microstomus kitt* and other commercially important finfish species as part of CEFAS' requirements under the EU Data Collection Framework.
3. To determine the distribution and relative abundance of juvenile and adult sole and plaice.
4. To collect surface & bottom temperature/salinity data using CTD and Niskin Bottle.
5. To quantify epibenthos using the 4m beam trawl by-catch.
6. Collect length/weight & maturity information using individual fish measurements, in support of the EU Data Collection Framework.

Secondary aims:

7. To collect surface sea-water samples for processing on return to Lowestoft for the analysis of tritium and caesium (AE001) (Cefas).
8. Collection of water samples using the Niskin at night to support PHD student (M Huk – Cefas, Lowestoft)
9. To collect fish samples in support of Cefas and non-Cefas projects and training courses.
10. Retain any dead specimens of diadromous fish for the DiadES Interreg project (T Basic - Cefas, Lowestoft).
11. Collect up to five samples of Queen scallops *Aequipecten opercularis* for biological sampling (A Lawler – Cefas, Lowestoft).
12. Collect individual specimens of broadtail squid *Illex coindetii* and Northern squid *Loligo forbesii*, these are to be frozen separately and will be used by a PHD student (V Laptikhovsky – Cefas, Lowestoft).
13. Collect plankton sample at the Gabbard smart buoy site. (S Pitois – Cefas, Lowestoft).
14. Collect chlorophyll samples to test for nutrients from the surface water for the ASMIAC project. (N Greenwood – Cefas, Lowestoft).
15. Collect 10 to 12 samples of plastic marine litter for a Seedcorn project (F Dal-Molin – Cefas, Lowestoft).

Opportunistic aim:

16. Collect sediment core and water samples at a site with ~100 metres of water in the Bristol Channel outer sector at the end of the trip (F Dal-Molin – Cefas, Lowestoft).

PLAN:

RV Cefas Endeavour will sail from Lowestoft on 11 September and will head directly to the first priority sampling 'grid' in the inner Bristol Channel (BCI). Upon completion of the BCI survey grid, RV Cefas Endeavour will then head north fishing stations en-route to the other priority sampling grids in the Irish Sea south and north sectors (ISS/ISN). Once completed, the remaining survey grids of Irish Sea West (ISW), St. Georges Channel (SGC) and Bristol Channel outer (BCO) will be fished.

At the first and last fishing stations of each working day, a CTD profile and associated surface and bottom salinity samples will be collected. At the end of the survey, RV Cefas Endeavour will dock in Lowestoft on the 30 September and unloading of equipment will be carried out the next day.

EQUIPMENT:

Gear list distributed separately.

Stephen Shaw
Scientist in Charge
27/07/21

DISTRIBUTION:

BODC

AWSM

Cefas survey staff

Fisheries SICs/2ICs

G Burt (for CDP)

I Holmes (PI)

D Pettengell (PM)

P Falconer (PL)

P Connolly (Marine Institute, Galway)

P J Schon (AFBINI)

FCO (for Republic of Ireland)

Marine Management Organisation (MMO) – Conservation, Licencing and Derogations.

Welsh Government (WG)

Natural Resources Wales

Devon & Severn IFCA

Cornwall IFCA

North-Western IFCA

