

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

2018 RESEARCH VESSEL PROGRAMME

PROGRAMME: RV CEFAS ENDEAVOUR: C END 04/18

STAFF:

Jim Ellis
Ben Hatton
other staff yet to be decided

Sophy Phillips
Louise Cox

DURATION: 11 February – 12 March 2018.

LOCATION: Celtic Seas and Channel (ICES area VIIe, VIIf, VIIg, VIIh, VIIj)

AIMS:

1. To carry out a beam trawl survey of the demersal fisheries resources in the Celtic Sea to assess stock identity and to provide additional information to improve stock assessments using a Jackson 19 otter trawl standardised for monitoring purposes. The main aims are to examine:

- a) Distribution, size composition and abundance of all fish species caught.
- b) Age – length distribution of selected species.
- c) Distribution of fish in relation to their environment.
- d) Distribution of macrobenthos and anthropogenic debris.
- e) Surface and bottom temperature and salinity data using CTD.
- f) Length weight & maturity information using individual fish measurements consistent with requirements of the EU Data Regulation.

2. To collect multibeam data and fisheries acoustic data at three operating frequencies (38, 120 & 200 kHz) and continuously throughout the cruise if this does not result in interference between the two systems. This data will be to determine habitats and the scale at which these vary. All data to be stored as raw files, but also maintained individually in Olex to aid the subsequent beam trawl survey using the same stations.

SECONDARY AIMS:

1. Test and develop Plankton Image Analysis system, in conjunction with a flowcytometer to maximise information content of samples taken.

2. Collect some 2m beam trawl samples to assess consistency with the epibenthic component observed in the otter trawl if this is found to capture significant numbers of epibenthic organisms.
3. All dead shad (Allis and Twaite) and all dead lampreys are to be frozen and returned to the lab marking samples with the cruise, station and date.
4. Tag rays not needed for DCF maturity work (undulate, cuckoo, common skate and blonde ray)

OPPORTUNISTIC AIMS:

1. To tag and release specimens of various commercially exploited skates (Rajidae) and other select elasmobranches.
2. Collect specimens of selected species for ID purposes as well as length-weight measurements where still required.

PLAN:

Provisionally RV CEFAS Endeavour will sail from Lowestoft early on the 11th of February and sail around to Lyme Bay. The survey will be equipped with a Jackson 19 trawl and Morgere doors in a standard survey setup including a trawl eye for recording bottom contact and catches. The survey will operate 24h and aim to sample a minimum of 138 randomly chosen stations and to collect acoustics data on route. Some additional work will be carried out on stations to inform on additional data collections with a view to future ecosystem integration of data from this and other cefas surveys.

GEAR:

List distributed separately and marked to relevant individuals for action.

Sven Kupschus

30/10/17

DISTRIBUTION:

Basic list +

J. Ellis

B. Hatton

S. Phillips

L. Cox

Other staff to be added when identified

S. Kupschus (PI)

L. Whimpenny (PM)

I. Holmes (SM)

