Centre for Environment Fisheries & Aquaculture Science

Cefas

RESEARCH VESSEL PROGRAMME

RV CEFAS ENDEAVOUR
Survey: C END 11 - 2019

STAFF:

Name	Role	Cabin	Shift
Jo Smith	SIC	SIC	
Linford Mann	2IC	B1	
Mary Brown		B2	
Charlotte Jennings		C5	
Ian Holmes		C6	
James Pettigrew		D6	
Chris Popham		C7	
Manuel Nicolaus	SIC (CSEMP)	D2	(16th – approx. 20th)
Alex Callaway	2IC (CSEMP)	D3	(16th – approx. 20th)
John Bignell	CSEMP Deck Master	C1	(16th – approx. 20th)
Caroline Daumich	CSEMP FD	D5	(16th – approx. 20th)
Paul Nelson	CSEMP Fish data, water	C3	(16th – approx. 20th)
Marta Vannoni		C2	(16th – approx. 20th)
Freya Goodsir		D4	

DURATION: 16/7/2019 – 29/7/2019

LOCATION: Eastern Channel and southern North Sea (VIId, IVc)

AIMS: PRIMARY AIMS:

1. To undertake a beam trawl survey in the southern North Sea and eastern Channel as part of an ICES co-ordinated research programme.

2. To obtain fisheries independent data on the distribution and abundance of commercial flatfish species.

3. To collect biological data, including maturity and weight at age of commercial species, to satisfy the requirements of the EU data regulations.

4. To identify the epibenthos by catch taken in the 4-metre beam trawl and to quantify 12 species as agreed at the Beam Trawl Working Group.

5. To collect samples of demersal fish for chemical analysis from the North Sea in support of the Clean Seas Environmental Monitoring Programme (CSEMP)

6. To collect fish samples at CSEMP sites for fish disease and biochemical markers (e.g. EROD, AChE and bile metabolites analysis)

7. To sample representative CSEMP stations using day grab, for polycyclic aromatic hydrocarbons (PAHs), trace metal contaminants, organic contaminants (PCBs, PBDEs and HBCD), sediment particle size analysis (PSA) and marine litter.

8. To conduct marine litter surveys by collecting benthic litter information from the trawls and collecting sediment samples for litter analysis.

SECONDARY AIMS:

9. To collect full depth, conductivity, temperature and depth profiles at each trawl station alongside surface and near-bottom water samples using a Niskin with ESM2 logger.

10. To continuously log sub-surface (3m) salinity, temperature, fluorometry and other environmental data using the 'Ferrybox'.

11. To sample litter caught in the beam trawl on every station

12. Collection of one sample 500m from the West Gabbard Smart buoy for (Sophie Pitois, Cefas Lowestoft)

13. Collect one chlorophyll sample per day for SLA25 (Naomi Greenwood, Cefas Lowestoft)

OPPORTUNISTIC AIMS:

14. Carry out additional tows to tag and release sole (*Solea solea*) as part of an Ifremer and Agrocampus Ouest project (SMAC).

15. To tag and release specimens of various commercially exploited skates (*Rajidae*) and other selected elasmobranches.

16. Collect specimens of selected species for ID purposes as well as length-weight measurements where still required.

17. Collect specimens of diadromus species as part of the DiadES – Interreg project (Tea Basic, Cefas Lowestoft)

PLAN:

Myself, Ian, Linford, Charlotte, Manuel and Alex will meet the Cefas Endeavour in Lowestoft on the 14/15th (TBC) July to load gear, set up the EDC system in the fish room and complete CSEMP setup. All scientific crew will join the vessel at 08:00 on the 16th July. Endeavour will sail from Lowestoft on the morning tide of the 16th July.

A shakedown tow will be carried out before the start of the survey to ensure all systems are working correctly. This will be carried out on a survey station close to Southwold (Appendix I), followed by a day fishing in the same area. CSEMP sampling will begin in the evening, working through the night at sediment station CSEMP 466 (Appendix II).

The vessel will begin work the following morning fishing in the Folkstone area, proceeding to work in an westerly direction completing fishing stations, along the English coast. Night time

working will continue on the 18th July, collecting sediment station CSEMP 484, 484_3 and 484, fishing Rye Bay (CSEMP 486) and collecting sediment samples at 484_1. The night time work will be completed on the evening of 19th July fishing off Newhaven (CSEMP 494). A boat transfers of CSEMP staff will be carried out on the 20th in the Newhaven area (TBC).

Fishing will continue in an westerly direction and revert back to daylight hours only. Once the English sector is completed the vessel will follow the grid across the channel and begin work at the western end of France and survey eastwards. Following completion of the French sector the vessel will proceed to complete the North Sea stations, working in a northerly direction and if time allows stations off the Belgium coast will be fished. All stations will be fished using a warp ratio of 3.5:1 if practical. The comparison tows, as indicated on the map, will be picked up during the course of the survey, time permitting.

On completion of the survey the vessel will dock in Lowestoft on the evening tide on the 29th July.

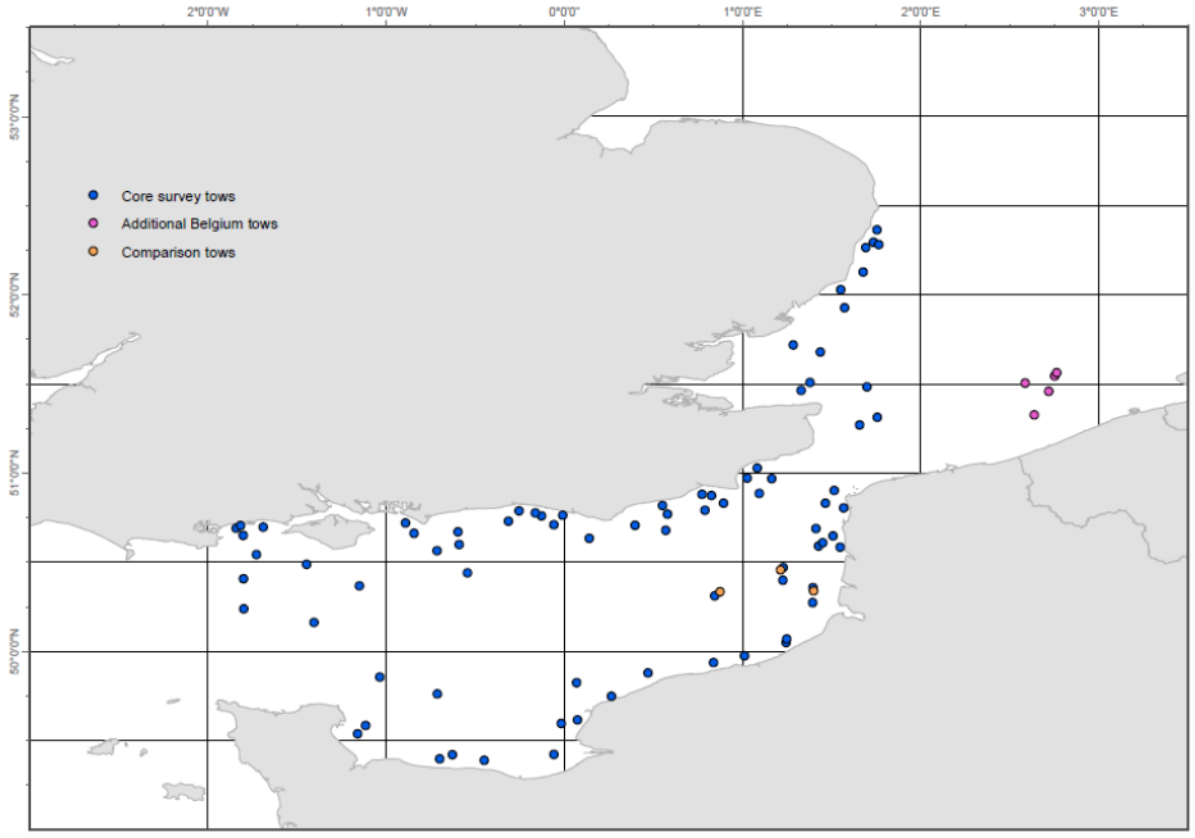
GEAR: Gear list provided

J smith
Scientist in Charge
29/4/2019

INITIALLED:I Holmes

DISTRIBUTION:
Survey participants
Cefas fisheries survey SICs/2ICs
Cefas Trim
J Maitland/B Salter (P&O Maritime Services)
Master/Fishing Skipper (Cefas Endeavour)
Marine Management Organisation (MMO)
Marine Management Organisation Licencing (MMO)
Marine Management Organisation Conservation (MMO)
FCO (for Belgium, Netherlands & France)
Els Torreele, Belgium
Sieto Verver, Netherlands
Joel Vigneau, France
Kent and Essex, Sussex, Southern and Eastern IFCAs

Appendix I Plot of stations in the 7d beam trawl survey



Appendix II CSEMP survey stations