

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

2008 RESEARCH VESSEL PROGRAMME

PROGRAMME: RV CEFAS ENDEAVOUR: CRUISE 5/10.

STAFF:

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DURATION: 3 - 14 March 2010

LOCATION: Irish Sea

AIMS:

1. To conduct a plankton survey using a 76cm Gulf VII plankton sampler to determine the distribution and abundance of cod (*Gadus morhua*), haddock (*Melanogrammus aeglefinus*) and plaice (*Pleuronectes platessa*) eggs.
2. To remove fish eggs from fresh plankton samples at sea. To measure, stage and preserve these eggs individually, in ethanol prior to species identification using a DNA technique on return to the laboratory.
3. To sample adult plaice, cod and haddock for the estimation of fecundity and atresia using a semi-pelagic trawl.
4. To sample adult haddocks and carry out incubation experiments on board.
5. To collect surface nutrient and salinity samples at selected plankton stations (every two stations).
6. To collect surface chlorophyll samples at selected plankton stations (every two stations).
7. To collect supplementary sub-surface environmental data using an ESM-2 self-logging package mounted on the Gulf VII plankton samplers.
8. To collect fine mesh (80 micron) PUP net samples for subsequent zooplankton analysis on every Gulf VII deployment.
9. To continuously log sub-surface (3m) salinity, temperature, fluorometry and other environmental data using the 'Ferrybox'.
10. To use multi-beam acoustics to provide information on the distribution of pelagic fish and plankton patches
11. To attempt recovery of data-logger and valeport lost during previous cruise 02/10.

PLAN:

RV Cefas Endeavour will sail from Belfast on the morning tide of 3rd March 2010 and proceed to the Irish Sea to complete a grid of plankton stations as the third of a series of five ichthyoplankton surveys to estimate the spawning stock biomass (SSB) of Irish Sea cod, haddock and plaice. The plankton grid (figure 1) will comprise approximately 100 stations in the Irish Sea between 53°N and 55°N. Trawling will take place to collect biological information from adult fish from selected spawning areas, and allow incubation experiments when the opportunity arises. Attempts will be made to recover the sampler lost during Cend 02/10. RV Cefas Endeavour will dock in Swansea on 14 March. Cefas staff will return to Lowestoft the same day. Ethanol and formalin preserved samples as well as nutrient and chlorophyll samples will be offloaded and returned to the Cefas Lowestoft laboratory.

GEAR:

List distributed separately and marked to relevant individuals for attention.

Sophie Pitois
Scientist In Charge
15 February 2010

INITIALLED:**DISTRIBUTION:**

Basic List +

M. Armstrong

S. Beggs (AFBINI, Belfast)

Pieter-Jan Schon (AFBINI, Belfast)

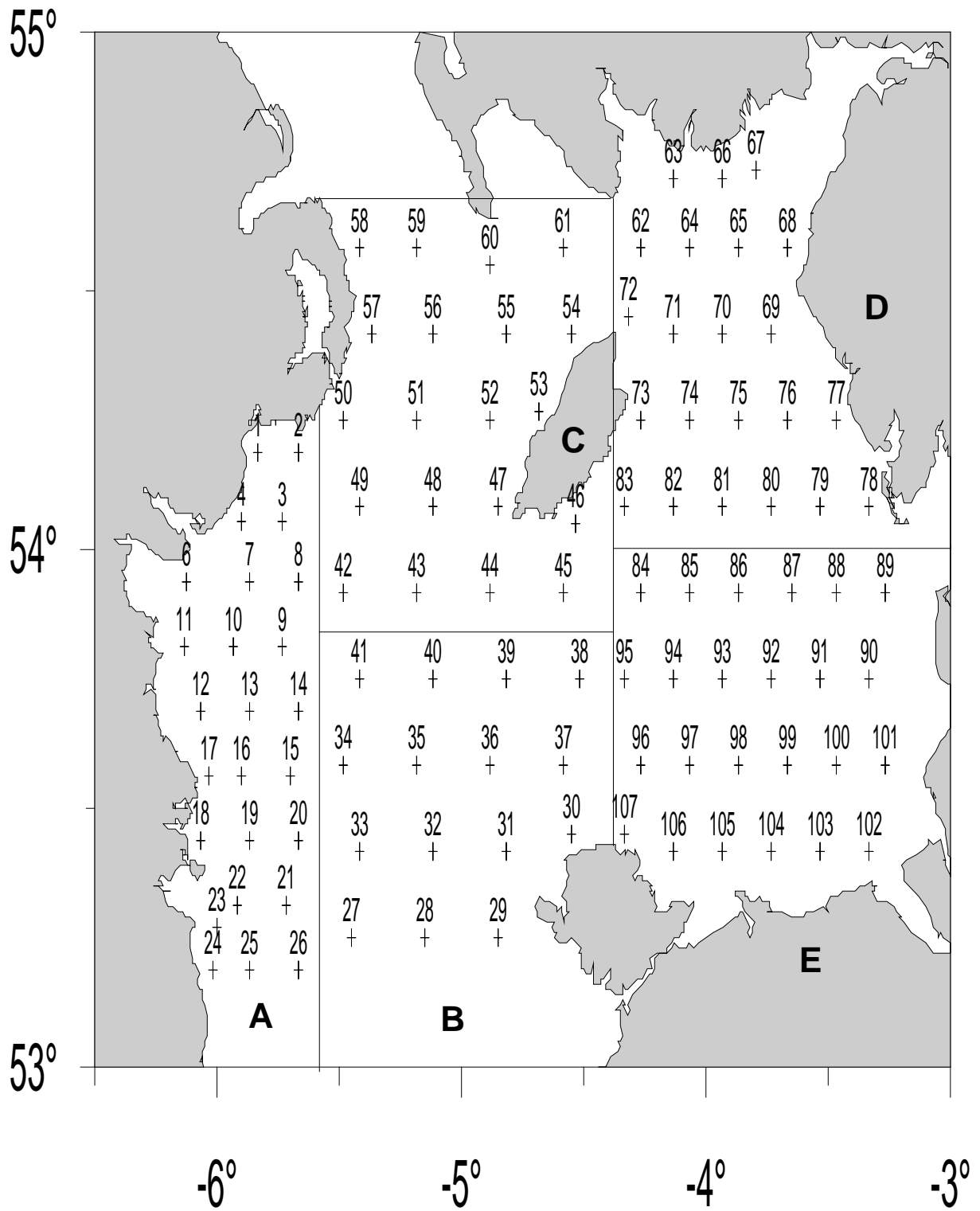
FCO (for Republic of Ireland)

Sea Fisheries Committees:

Cumbria

North Western and North Wales

South Wales



Proposed ISEPs plankton sampling grid 2010. (106 stations).