

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

2008 RESEARCH VESSEL PROGRAMME

PROGRAMME: RV CEFAS ENDEAVOUR: CRUISE 2/10.

STAFF:

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AFBINI

DURATION: 18 - 31 January 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 collect surface nutrient and salinity samples at selected plankton stations.
5. To collect surface chlorophyll samples every five sampling stations.
6. To collect supplementary sub-surface environmental data using an ESM-2 self-logging package mounted on the Gulf VII plankton samplers.
7. To collect fine mesh (80 micron) PUP net samples for subsequent zooplankton analysis on every Gulf VII deployment.
8. To continuously log sub-surface (3m) salinity, temperature, fluorometry and other environmental data using the 'Ferrybox'.

PLAN:

RV Cefas Endeavour will sail from Lowestoft on the morning tide of 18 January and proceed to the Irish Sea to complete a grid of plankton stations as the first of a series of five ichthyoplankton surveys to estimate the spawning stock biomass (SSB) of Irish Sea cod, haddock and plaice. Environmental parameters will be measured *en route* to the Irish Sea, both

continually from near surface waters and at selected stations over the whole depth profile. 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 when the opportunity arises. RV Cefas Endeavour will dock in Belfast on 31 January to enable gear to be offloaded for the following RV Corystes cruise. Cefas staff will return to Lowestoft the same day. Ethanol and formalin preserved samples will be offloaded and returned to the Cefas Lowestoft laboratory.

GEAR:

List distributed separately and marked to relevant individuals for attention.

Stephen Milligan
Scientist In Charge
11 December 2009

INITIALLED:

DISTRIBUTION:

Basic List +

M. Armstrong

S. Beggs (AFBINI, Belfast)

Pieter-Jan Schon (AFBINI, Belfast)

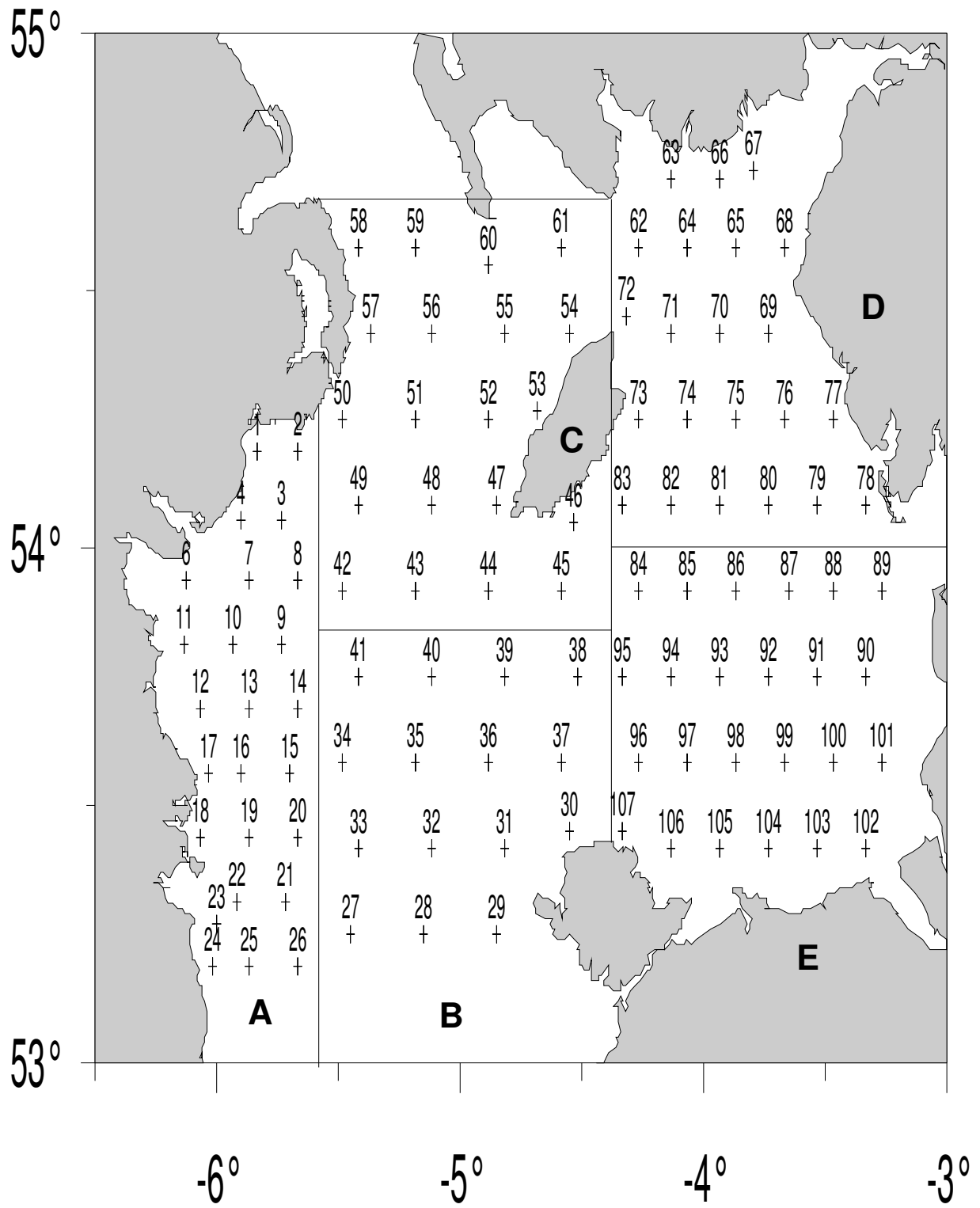
FCO (for Republic of Ireland)

Sea Fisheries Committees:

Cumbria

North Western and North Wales

South Wales



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