

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

2010 RESEARCH VESSEL PROGRAMME

PROGRAMME: RV CEFAS ENDEAVOUR: CRUISE 7/10.

STAFF:

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L. Healy – Irish Observer
Exeter University x 2

DURATION: 31 March – 10 April 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 collect surface nutrient and salinity samples at selected plankton stations.
4. To collect surface chlorophyll samples every five sampling stations.
5. To collect supplementary sub-surface environmental data using an ESM-2 self-logging package mounted on the Gulf VII plankton samplers.
6. To collect fine mesh (80 micron) PUP net samples for subsequent zooplankton analysis on every Gulf VII deployment.
7. To continuously log sub-surface (3m) salinity, temperature, fluorometry and other environmental data using the 'Ferrybox'.
8. To use multi-frequency acoustics to provide information on the distribution of pelagic fish and plankton patches.
9. To recover, service and replace the Scarweather waverider buoy in Swansea Bay.
10. Calibration of the plankton sampler flow-metering system will be conducted if time allows.

PLAN:

RV Cefas Endeavour will sail from Swansea on the morning tide of 31 March. The Scarweather wave-rider buoy will be serviced, if the weather conditions are favourable, before proceeding to the Irish Sea to complete a grid of plankton stations as the forth 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) consists of 106 stations in the Irish Sea between 53°N and 55°N. Environmental parameters and multi frequency acoustic data, as detailed above, will be measured and recorded throughout the survey. RV Cefas Endeavour will dock in Swansea on 10 April to enable gear to be offloaded for the following RV Corystes cruise which departs from Belfast on the 12 April. Cefas staff will return to Lowestoft the following 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
19 March 2010

INITIALLED:**DISTRIBUTION:**

Basic List +

M. Armstrong

S. Beggs (AFBINI, Belfast)

Pieter-Jan Schon (AFBINI, Belfast)

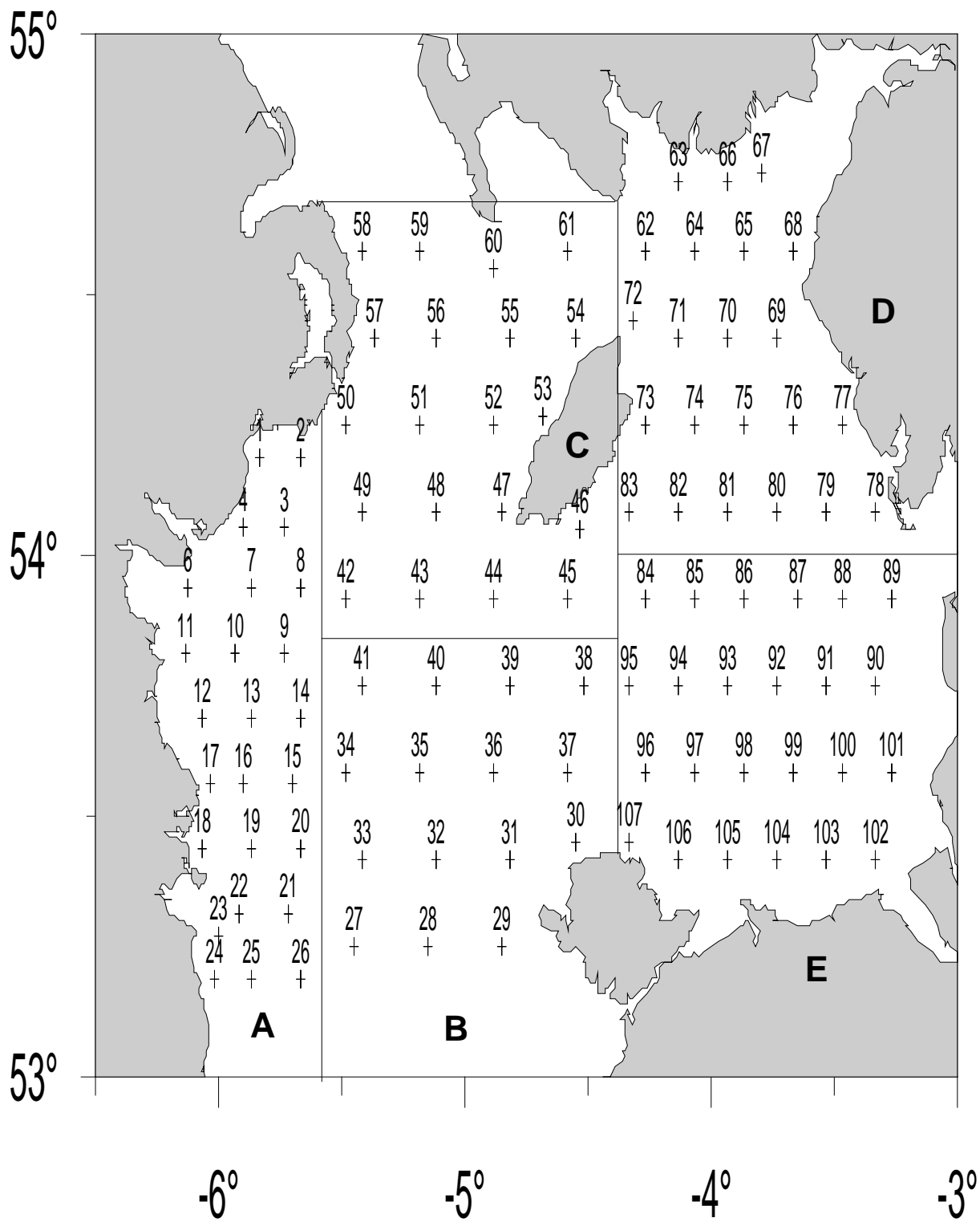
FCO (for Republic of Ireland)

Sea Fisheries Committees:

Cumbria

North Western and North Wales

South Wales



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