

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

**2008 RESEARCH VESSEL PROGRAMME**

**PROGRAMME: RV CEFAS ENDEAVOUR: CRUISE 2/08.**

**STAFF:**

S. Milligan (SIC)  
M. Eade (2IC)  
C. Crisp  
A. Brown  
H. Drake  
J. Pettigrew  
M. Brown  
M. Lilley (Swansea University)  
2 x AFBINI staff

**DURATION:** 25 January - 7 February 2008

**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 each of the sampling stations.
5. To collect surface chlorophyll samples every five sampling stations.
6. To collect supplementary sub-surface environmental data using a self-logging package carried 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 and fluorometry data using the ships pumped seawater supply and onboard CTD.
9. To study the distribution and ecology of jellyfish throughout the Irish Sea. M. Lilley (Swansea University)

**PLAN:**

RV Cefas Endeavour will sail from Lowestoft on 25 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. Vertical ring net hauls for jellyfish will also be taken at selected stations *en route*. 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 7 February to enable gear to be offloaded for the following RV Corystes cruise. 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  
20 December 2008

**INITIALLED:**

**DISTRIBUTION:**

Basic List +

M. Armstrong

Pieter-Jan Schon (AFBINI, Belfast)

John Breslin (Marine Institute, Galway)

Clive Fox (SAMS, Dunstaffnage)

Graeme Hays (Swansea University)

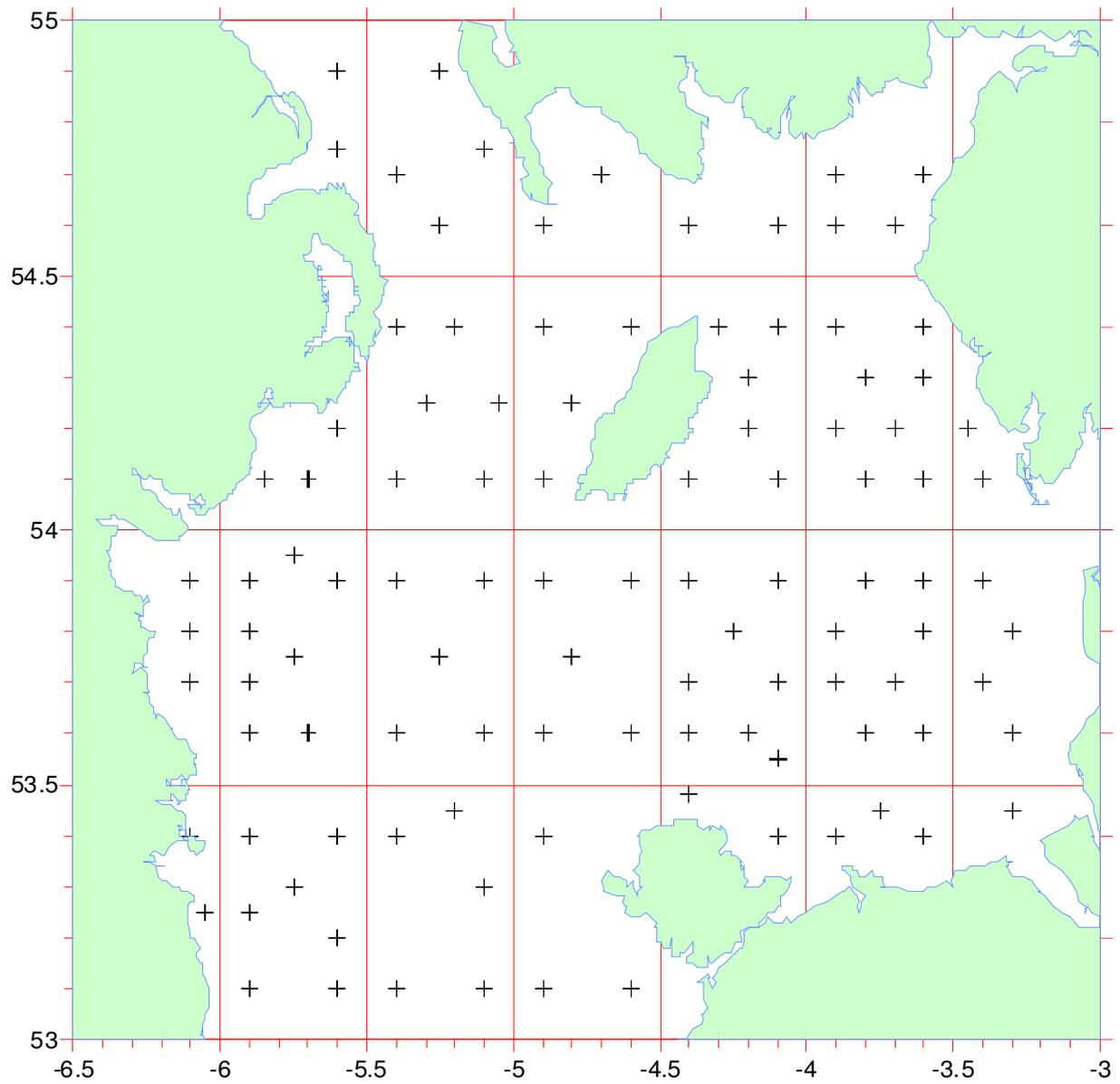
FCO (for Republic of Ireland)

Sea Fisheries Committees:

Cumbria

North Western and North Wales

South Wales



Proposed ISEPS plankton sampling grid  
112 stns