

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

**2003 RESEARCH VESSEL PROGRAMME**

**PROGRAMME: RV CEFAS ENDEAVOUR: CRUISE 6**

**STAFF:**

**Part A**

T W Boon (SIC)  
G Course (2 SIC)  
M Etherton  
N Bunn  
A Tidd  
K Sullivan  
R Enever  
J van der Kooji

**Part B**

T W Boon (SIC)  
G Course (2 SIC)  
M Etherton  
N Bunn  
A Tidd  
K Sullivan  
R Mainprize  
J van der Kooji  
K Warr

R Callaway (University of Wales)  
A Woolmer (University of Wales)

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**DURATION:** Part A: 6 August – 21 August  
Part B: 22 August – 6 September

**LOCATION:** North Sea

**AIMS:**

1. To carry out a groundfish survey of the North Sea as part of the ICES co-ordinated IBTS, using a standard GOV trawl in order to obtain information on:
  - a) Distribution, size composition and abundance of all fish species caught.
  - b) Age – length distribution of selected species.
  - c) Distribution of fish in relation to their environment.
  - d) Distribution of macrobenthos and anthropogenic debris.
  - e) Surface and bottom temperature and salinity data using CTD.
  - f) Length weight & maturity information using individual fish measurements, in support of the EU Data Regulation.
2. To collect acoustic data at two operating frequencies (38 kHz and 120 kHz) continuously throughout the cruise. Data recorded from the 38 kHz transducer will be combined with GOV trawl data and an estimate of total abundance made for roundfish species. This work will form part of a three year project (CATEFA) aimed at examining the relationships between trawl catches and acoustic data.
3. To collect material for fish identification courses.

4. To preserve material from diseased fish (S Feist, CEFAS Weymouth)
5. To collect fish white muscle and queen scallop tissue for stable isotope analysis, as part of an ongoing study on the effects of fishing in the North Sea (S Jennings, CEFAS Lowestoft).
6. To obtain ageing material and biological information from horse mackerel (*Trachurus trachurus*) from the southern North Sea (G Eltink, RIVO for the horse mackerel assessment working group)
7. To collect 2 metre beam trawl and van veen grab samples from selected GOV trawl station positions as part of the EU funded project 'Managing fisheries to conserve groundfish and benthic invertebrate species diversity'. The data collected along with other data sets will be used to develop and test an environmental model to incorporate into the EU CFP fisheries regulation calculations. (R Callaway, A Woolmer, University of Wales, Swansea)

**PLAN:**

Provisionally RV CEFAS Endeavour will sail from Lowestoft on the afternoon tide (high water 1509h UTC approx) on 6 August. Staff changes will take place off the Tyne and a mid trip break will take place a few days later, probably in Lerwick.

**GEAR:**

List distributed separately and marked to relevant individuals for action (aims 1 & 7). J van der Kooij to arrange gear requirements in relation to aim 2 and S Jennings for aim 5.

T W Boon  
21 July 2003

**DISTRIBUTION:**

Basic list +  
T W Boon  
G Course  
M Etherton  
N Bunn  
A Tidd  
K Sullivan

R Enever  
R Mainprize  
J van der Kooij  
K Warr  
R Callaway  
A Woolmer