# CENTRE FOR ENVIRONMENT, FISHERIES AND AQUACULTURE SCIENCE, LOWESTOFT LABORATORY, LOWESTOFT, SUFFOLK, NR33 OHT, UK

#### 2005 RESEARCH VESSEL PROGRAMME

PROGRAMME: RV ENDEAVOUR: CRUISE 4/05

STAFF:

Simon Jennings (SIC)

Tracy Dinmore (2IC)

Myrtle Boon Matt Eade Chris Firmin

Michaela Schratzberger

Mike Shaw

DURATION: 28 March- 2 April 2005

LOCALITY: North Sea (ICES IVb)

#### AIMS:

The aim of this work is to describe the effects of fishing and the environment on production and food web structure during a seasonal production cycle. This is the first of five related cruises that have been scheduled for this purpose. The data collected will be used to parameterise size-based food web models and to describe how seasonal patterns of energy flow affect indicators of fisheries impacts on trophic structure, biomass and production.

The study will focus on the Silver Pit region of the central North Sea and the following work will be conducted:

- (1) Analysis of spatial and temporal variation in carbon and nitrogen stable isotope ratios close to the base of marine food chains (filter feeding infauna and zooplankton).
- (2) Analysis of relationships between body size, energy content and trophic level (from nitrogen stable isotope analysis) in space and time for zooplankton, benthic invertebrate and fish communities.
- (3) Analysis of relationships between body size and production for zooplankton, benthic invertebrate and fish communities.

### PLAN:

RV ENDEAVOUR will sail from Lowestoft on 28 March 2005. She will work in ICES area IVb (UK waters only) throughout the cruise and will dock at Lowestoft on the 2 April 2005

Simon Jennings Scientist in Charge 21 February 2005

## INITIALLED:

(E.C.E. Potter, FB SAH)

DISTRIBUTION:

Basic List +

Simon Jennings (SIC)

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**SIGS** 

Fishing skipper: Endeavour Eastern SFC

North Eastern SFC