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

### 2005 RESEARCH VESSEL PROGRAMME

#### PROGRAMME: RV ENDEAVOUR: CRUISE 14/05

STAFF: Michaela Schratzberger (SIC 1-5/10) Karema Warr (2IC) Jim Ellis (SIC 29/9-30/9) Emma Lane Nigel Lyman Craig Mills David Pearce Mike Shaw

DURATION: 29 September – 04 October 2005

LOCALITY: North Sea (ICES IVb)

#### AIMS:

The aim of this work is to describe the effects of fishing and environment on production and food web structure during a seasonal production cycle. This is the fourth 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 29/9/05. She will work in ICES area IVb (UK waters only) throughout the cruise and will dock at Lowestoft on 4/10/05 pm or 5/10/05 am.

Michaela Schratzberge Scientist in Charge 26/9/05

#### INITIALLED:

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

DISTRIBUTION: Basic List + Michaela Schratzberger (SIC) Karema Warr (2IC) Jim Ellis Emma Lane Nigel Lyman Craig Mills David Pearce Mike Shaw SIGS Fishing skipper: Endeavour Eastern SFC North Eastern SFC