

DRAFT

DEPARTMENT FOR ENVIRONMENT, FOOD AND RURAL AFFAIRS.

2002 RESEARCH VESSEL PROGRAMME

PROGRAMME: RV *CIROLANA*: CRUISE 4/02

STAFF:

D Limpenny (SIC Part A)
K Cooper (SIC Part B)
B Meadows
S Boyd
R Kilbride
A Hewer
P Whomersley
H Bates (Off on 1st Aug)
R Irish
N Lyman (Off on 1st Aug)
A Nichols (joins on 1st Aug)

DURATION:

26th July - 4th August 2002

LOCALITY:

North Sea & E. Channel

AIMS:

1. To sample NMMP 345, using the multicorer, for meiofauna and PSA.
2. To conduct sampling at a relinquished marine aggregate extraction site at Coal Pit/Sole Pit (Area 408) using trawl, underwater TV and acoustic techniques for time series studies to establish the time required for recovery of the sea bed fauna.
3. To conduct surveys at a recently relinquished aggregate extraction site off Harwich (Area 222) using grab, underwater TV, trawls and acoustic techniques for time-series studies to establish the time required for recovery of the sea bed fauna.

4. To conduct surveys at the Hastings Shingle Bank (Areas X & Y) using grab, underwater TV, trawls and acoustic techniques for time-series studies to establish the time required for recovery of the sea bed fauna.
5. To conduct a habitat mapping survey at an historic anchor dredge site off Shoreham. The survey will employ various tools including grabs, underwater TV and acoustic techniques with a view to assessing the utility of this approach for the assessment of aggregate extraction activities.
6. To carry out a broadscale habitat mapping survey between the Varne (off Dungeness) and Hastings using various acoustic techniques.

PLAN:

RV *Cirolana* will leave Lowestoft on 26th July 2002 and sail to NMMP 345 to collect a number of multicore samples (aim 1). The ship will then move to Coal Pit/Sole Pit (Area 408) where a number of different surveys will be carried out (aim 2). *Cirolana* will then sail to an area off Harwich (Area 222) to undertake a variety of surveys (aim 3). On completion of the work at Area 222, *Cirolana* will sail to the Varne (Off Dungeness).

Between the Varne and Hastings a broadscale habitat mapping survey will be carried out using a variety of acoustic tools (aim 6). Whilst at Hastings, survey work detailed in aim 4 will be completed. At a convenient time around the 1st August 2002, H Bates and N Lyman will depart and A Nichols will join the ship. *Cirolana* will then sail to an area off Shoreham (Area E/D) where further sampling will be carried out (aim 5). *Cirolana* will then return to continue the broadscale mapping work between Hastings and the Varne (aim 6). Following this *Cirolana* will return to Lowestoft to dock on the 4th August 2002.

GEAR:

- 3 x 2m Jennings type Beam Trawls fitted with cod end liner and supplied with spare nets. Enough wire to deploy in up to 100m of water.
- 3 x 2m Burnham type wooden Beam trawls with cod end liners, 2 x spare nets, and 2 x spare beams.
- Two large blue plastic containers for deck storage of sample buckets (supplied from Burnham).
- Two small Hamon grabs, both with double sets of weights. Usual grab fitted with video camera with data overlay. All grab weights.
- Shipek grab with buckets/handle/frame.
- Drop camera frame with digital and 35mm stills camera capability (with manual firing option) and video camera with data overlay option (NB 25 x 35mm, 36 exposure stills films and 10 x 1hr SVHS video films).
- Hired digital video camera and interface to SEAHAWK lights.

- 100m of umbilical for camera system (to be purchased by BM)
- Bathymetric survey capability including ELAC sounder (with paper), heave comp, digitiser etc
- Datasonics sidescan system with post-processing software.
- 2 post processing PC's Nos. 1754 & 1755.
- EG+G sidescan system as backup.
- 50 & 200 Khz QTC with Impact and logging PC's.
- RoxAnn
- Sextant set up on bridge, plotting room, dry lab and chemi lab. Keyboards on bridge, and splitter to plotting room, chemi lab and dry lab.
- Continuous flow water supply in chemi lab, and autologging of data to network
- 10 x 10l containers of 30% buffered formaldehyde solution with large white chemical container.
- Rest of gear to come from Burnham (Multicorer, Day grab, benthos processing tables etc).

K M Cooper
D S Limpenny
 1.6.02

INITIALLED:

DISTRIBUTION:

Basic list +
 M Waldock
 L A Murray
 D Morris
 S Malcolm
 C Vivian
 H Rees
 D Limpenny
 K Cooper
 B Meadows
 S Boyd
 R Kilbride
 A Hewer
 P Whomersley
 H Bates
 N Lyman
 A Nichols
 J Rees
 A Reeve
 M Schratzberger
 P Leonard (DEFRA)
 R Emmerson (DEFRA)
 G Boyes (DEFRA)
 A Murray (Crown Estates Commission)
 R Orpin (ODPM)

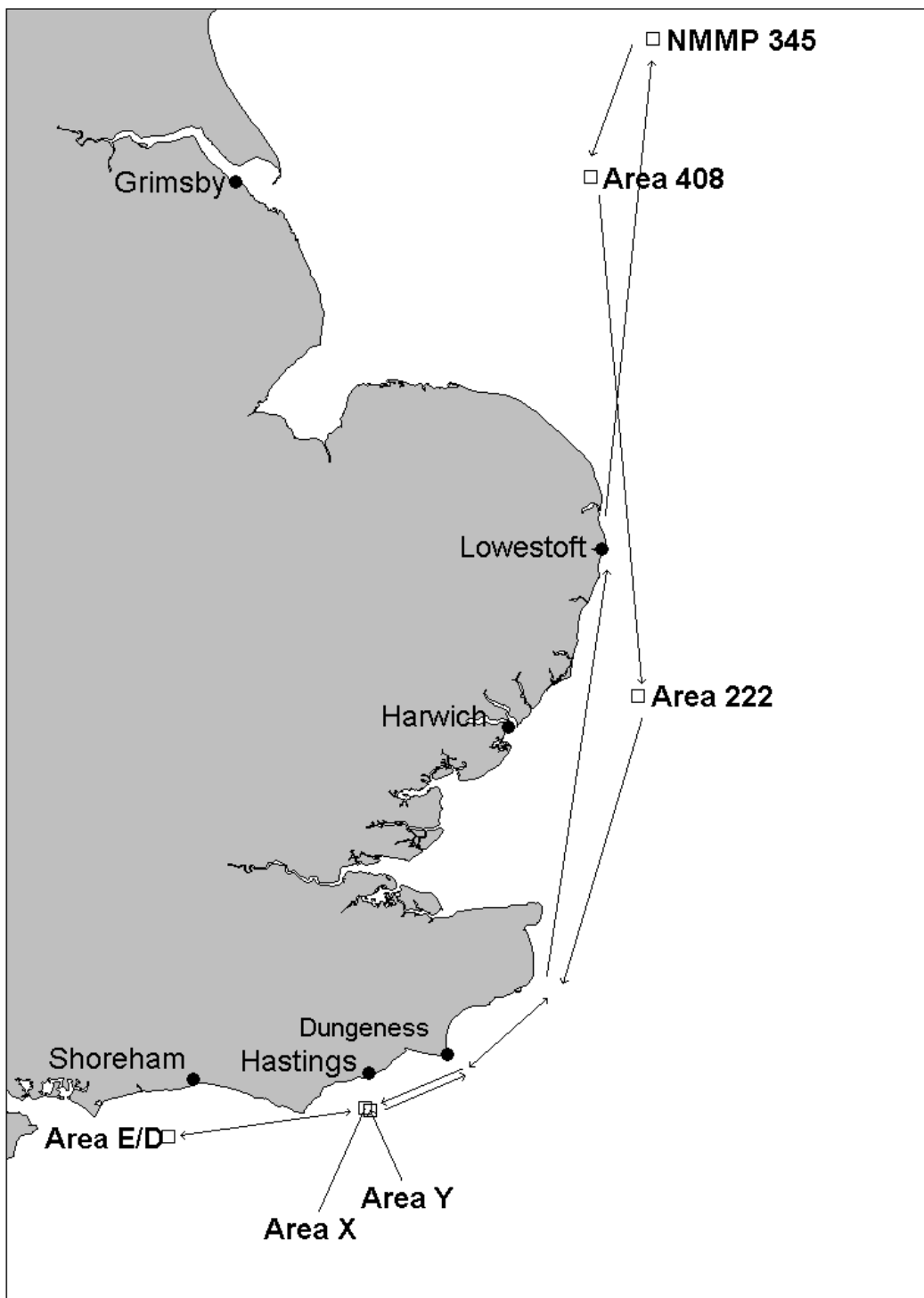


Figure 1 Proposed route of *RV Cirolana* during the research programme Cir 4/02.