

MINISTRY OF AGRICULTURE, FISHERIES AND FOOD  
FISHERIES LABORATORY, LOWESTOFT, SUFFOLK, ENGLAND

1993 RESEARCH VESSEL PROGRAMME

REPORT: PRINCE MADOG

STAFF:

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Part b: D LIMPENNY (SIC)  
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DURATION:

Part a: 13-17 September

Part b: 20-24 September

(All times are in GMT)

AIMS:

1. To collect samples of sediment, benthos and fish from various NMP sites in the Irish Sea.
2. To conduct a routine monitoring survey of the sediments and benthos of the Liverpool Bay sewage sludge disposal site.
3. To collect sediment samples from a grid of stations within Liverpool Bay for evaluation of the McLaren sediment transport analysis technique.
4. To collect samples of Whiting and Plaice for trend contamination analysis from one site within Liverpool Bay.
5. To collect specimens of *Pectinaria* and *Abra* from the vicinity of dredged material disposal site Z, and Redwharf Bay.
6. To collect Anchor Dredge samples as part of the wide scale study of benthic communities associated with gravel substrates.

## NARRATIVE:

### Part a. (33/93):

Staff travelled to Menai Bridge on 12 September, but due to strong winds RV Prince Madog did not sail until 0700 hrs on 16 September. Specimens of the polychaete *Pectinaria* were collected for contaminant analysis later that day from a site in Redwharf Bay (Aim 5). Grab sampling at NMP 76 (Irish Sea) was unsuccessful due to the hard nature of the sea bed, and sediment sampling at the site was abandoned. A Beam Trawl sample from the site was collected. NMP 79 (SE Isle of Man) was successfully sampled for sediments and benthos. Prince Madog sailed to NMP 70 (Liverpool Bay) overnight. On arrival at NMP 70 at 0300 hrs it was discovered that a Boomer survey was being carried out in the vicinity of the site. The site was successfully sampled for sediments between passes of the survey vessel engaged in the Boomer survey, and sampling was completed by 0600 hrs. Prince Madog docked at Menai Bridge at 0830 hrs and staff travelled home the same day.

### Part b. (34/93):

Staff travelled to Menai Bridge on 19 September, and Prince Madog sailed at 0900 hrs the following morning. Work commenced on the routine survey of the Liverpool Bay sewage sludge disposal site (Aim 2) and the survey was completed by 1730 hrs the same day. A Beam Trawl for Dabs was then carried out at NMP 69 (Burbo Bight). Prince Madog steamed overnight to the Lune Deep. A previous survey had identified the siting of NMP 77 (Lune Deep) to be unsuitable with respect to its sediment type. A new position close to the original site was sampled at slack water on the morning of 20 September, and was found to have a more suitable sediment type. This site was successfully sampled for sediments and benthos and is suggested as the new position for NMP 77. Bad weather prevented further work being carried out, and Prince Madog steamed back to Menai Bridge, docking at 1745 hrs on 21 September.

Mrs Pendle and Miss McGregor returned to Burnham, and Prince Madog sailed at 0900 hrs the following morning after loading the Otter Trawl. Trawling for Dabs was carried out at NMP 69 (Burbo Bight). Further trawling was carried out at a routine site north of Rhyll to collect Plaice and Whiting for trend contamination analysis (Aim 4). This work was completed by 1900 hrs on 22 September. Prince Madog steamed overnight to NMP 78 (Off Morecambe Bay) where trawling for Dabs was carried out the following morning. NMP 77 (Lune Deep) was then sampled for Flounder at slack water. Further trawling was carried out at NMP 79 (SE Isle of Man) and a sample of Dabs was collected. On the morning of 24 September trawling was carried out at NMP 70 (Liverpool Bay) but quantities of Dab were not sufficient to make up a sample. Prince Madog returned to Menai Bridge, docking at 0900 hrs. Staff returned to Burnham the same day.

## RESULTS:

Sampling at some of the NMP sites was only required in order to complete sampling already begun at those sites earlier in the year. NMP 79 was successfully sampled for metals, PCBs, benthos and fish; NMP 69 was successfully sampled for fish; NMP 70 was successfully sampled for metals and PCBs, but insufficient numbers of Dabs or Flounder were present to

constitute a fish sample; NMP 76 was found to be unsuitable for sediment sampling, but a Beam Trawl sample was collected; NMP 77 was relocated and successfully sampled for metals, PCBs, benthos and fish; NMP 78 was successfully sampled for fish; NMP 79 was successfully sampled for metals, PCBs, benthos and fish.

14 sites on the Liverpool Bay sewage sludge disposal site grid were sampled for metals completing work carried out in the previous week by UCNW. The routine sewage sludge disposal site benthos station was also sampled. Samples of Plaice and Whiting were collected for trend contamination analysis from a routine site north of Rhyl. Specimens of *Pectinaria* were collected from Redwharf Bay.

Loss of time due to bad weather prevented the completion of Aims 3 and 6, and part of Aim 5. It is hoped that these aims will be completed during future AEP 2 cruises.

D LIMPENNY  
1 October 1993

INITIALLED: *DL*

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