

IMER 3/79

R.V.S. 6/79

VESSEL R.R.S. JOHN MURRAY

CRUISE PERIOD 17 May - 21 May 1979

PERSONNEL	M.B. Jordan	H.S.O.	Senior Scientist
	A.R.D. Stebbing	P.S.O.	
	J.J. Cleary	S.S.O.	
	A.W.G. John	H.S.O.	
	F.J. Staff	S.O.	
	H.W.G. Langworthy	A.S.O.	
	N.C. Halliday	A.S.O.	

ITINERARY A sketch chart and list of plankton stations are attached to this report.

Thursday	17 May	Travelled to Barry and installed equipment. Vessel sailed at 2100 hrs. Commenced upstream leg of cruise track.
Friday	18 May	Continued cruise along the North Somerset and Devon coast.
Saturday	19 May	Continued sampling in Carmarthen and Swansea Bays. p.m. completed 17 grab and water sampling stations across Scarweather Sands and Kenfig Patches for bioassay experiments and chemical analysis of sediments.
Sunday	20 May	Completed sampling programme at 0100. Continued filtering large volume bioassay water samples overnight. Vessel alongside berth 1200. Packed equipment and returned to Plymouth.

OBJECTIVES To continue a series of cruises to monitor the performance of the area to update the validation of the ecosystem model GEMBASE. To collect water and sediment samples from the Scarweather Sands and Kenfig Patches to study the heavy metal distribution using bioassay and analytical chemistry techniques.

PROCEDURE AND METHODS Continuous sampling was carried out along the track shown, water being supplied by a submersible Flygt pump.

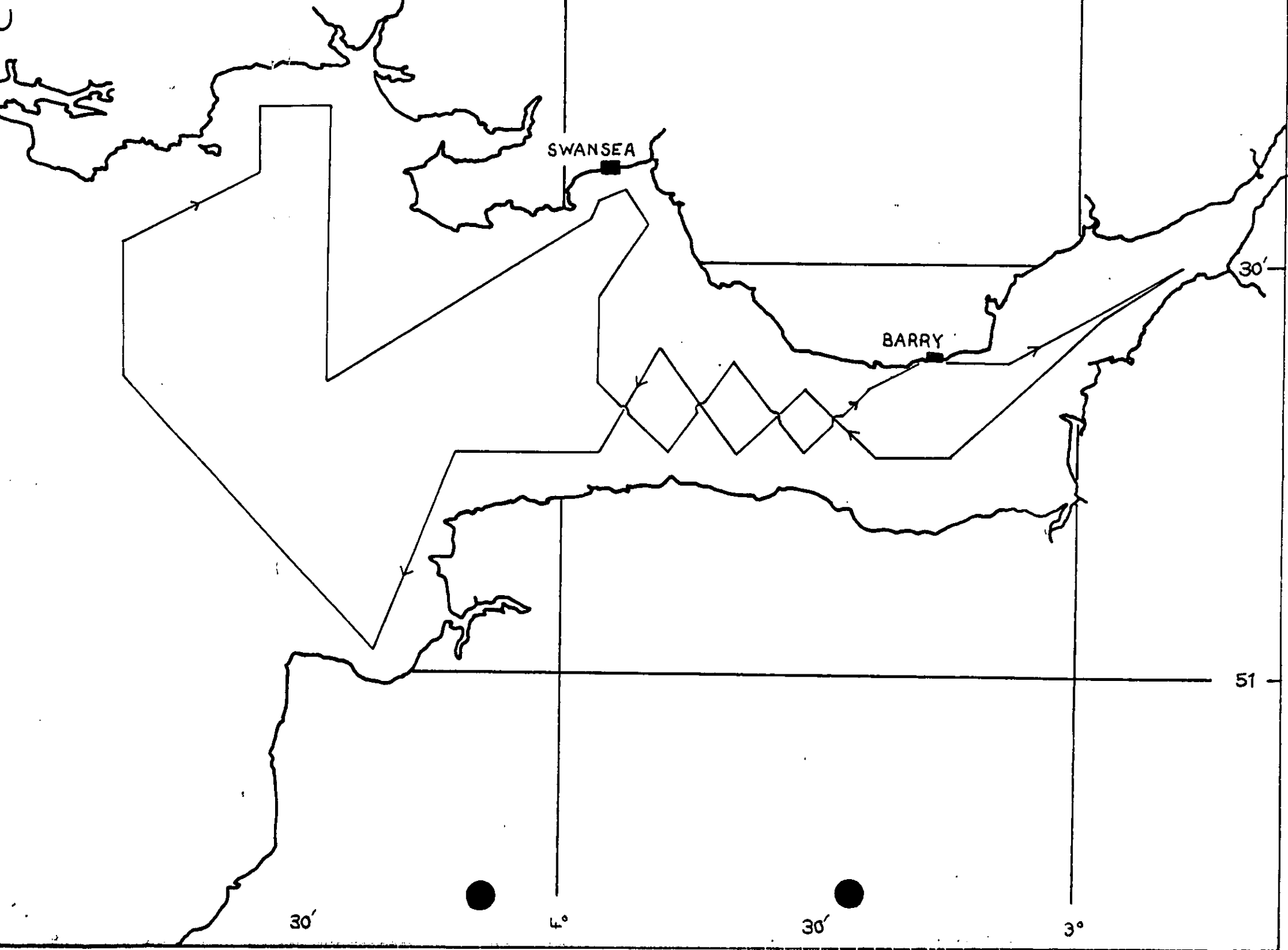
Surface temperature, salinity, nitrate-nitrogen and turbidity were recorded continuously. Frequent water samples were taken for salinity calibration. Samples were also taken every hour, filtered and frozen for subsequent analysis to calibrate the continuous auto-analysis for nitrate. Samples were taken every half-hour for chlorophyll analysis. Thirty five plankton samples were collected using undulating tows wherever the water depth was great enough. A Day Grab was used for sediment sampling.

EQUIPMENT PERFORMANCE No problems were encountered with the equipment provided by IMER or R.V.S.

RESULTS

Weather conditions were good. All cruise objectives were completed satisfactorily. Detailed results await laboratory analysis.

Prepared by: M B Jordan
Approved by: B L Bayne
Date: 22 May 1979



Cruise No. IMER 3/79 (RVS 6/79)

Station List for Sediment and Bioassay Water Samples

<u>NO.</u>	<u>Long.</u>	<u>Lat.</u>
1		51° 34.15'N
2		33.63'
3		33.11'
4		32.63'
5		32.11'
6		31.05'
7	3°50'W	30.61'
8		30.05'
9		29.55'
10		29.02'
10a		28.4'
11		28.02'
12		27.52'
13		27.05'
14		26.06'
15		25.00'
16		24.00'

CIRCULATION LIST - BRISTOL CHANNEL

CRUISE PROGRAMMES AND REPORTS

Internal

Glover
Bayne

Robinson
Wade

Notice Board/M B Jordan
Fay Radford

File
Cruise members

External

NERC

Foxton
Director, STS

BRISTOL UNIVERSITY

Dineley
Eglinton

IOS

Mrs Edwards (MIAS)
Cartwright (Bidston)
Loughton (Wormley)
Tucker (Taunton)

UNIVERSITY COLLEGE CARDIFF

Bellamy
Hammond

IGS

Moore

UWIST CARDIFF

Davies

MBA

Denton

UNIVERSITY COLLEGE SWANSEA

Dept. of Zoology Knight-Jones
Nelson-Smith

SMBA

Currie

Dept. of Oceanography Banner

MAFF

Lee
Cushing
Wood

IMPERIAL COLLEGE OF SCIENCE & TECHNOLOGY

Webb

UNIVERSITY OF LIVERPOOL

Abdullah

DAFS

Parrish

WATER AUTHORITIES

Welsh National
Severn-Trent
Wessex
South West

RVS

Skinner (2)

DOE

Graham, London

WRC

Eden, Stevenage

Welsh Office

Naylor Firth (4)

ICI

Carter