

IMER 4/79

RVS 10/79

VESSEL RRS John Murray

CRUISE PERIOD 16-17 July 1979

PERSONNEL	N R Collins	HSO	Senior Scientist
	R M Warwick	PSO	
	C L George	SO	
	Miss T D Budd	ASO	
	N C Halliday	ASO	
	Mrs C E Mitchell	ASO	

ITINERARY A sketch chart of the cruise track and a list of plankton stations are attached to this report.

Sunday 15 July		Travelled to Barry. Installed equipment Sailed.
	2100	
Monday 16 July	0030	Commenced westward leg of monitoring track at plankton station 13.
	1835	Anchored in Carmarthen Bay for benthic sampling.
	2125	Weighed anchor and continued track.
Tuesday 17 July	1100	Completed westward leg and started Avonmouth leg.
	2030	On site at Avonmouth for low water.
	2338	Survey completed.
Wednesday 18 July	0100	Secured in Barry.
	0830	Packed and loaded equipment
	1115	Left for Plymouth

OBJECTIVES (i) To continue a series of cruises to monitor the performance of the Bristol Channel region to update the validation of the ecosystem model GEMBASE.

(ii) To monitor the performance of the major benthic macrofauna species comprising the Venus community in Carmarthen Bay.

PROCEDURE AND METHODS

(i) Continuous sampling was carried out along the track shown, water being supplied by submersible Flygt pump.

Surface temperature, salinity, nitrate-nitrogen and turbidity were recorded continuously as usual. Chlorophyll and nutrient samples were taken every half hour and frozen for subsequent analysis. Plankton samples were collected at the 25 standard stations.

In addition the output from the following instruments was recorded continuously by a magnetic tape data logger.

Braystoke temperature/salinity bridge.
Partech turbidity meter
Chelsea Chlorophyll and turbidity sensor.

- (ii) Samples were collected with the Knudsen Sampler, Day grab and Naturalists dredge.

EQUIPMENT**PERFORMANCE**

Flygt pump number 6 failed soon after the start and had to be replaced, resulting in the loss of about 1½ hours. No other serious problems.

RESULTS

Weather conditions were very good.

The first objective was completed satisfactorily.

The second objective failed because the ship was subsequently found to have been anchored, in Carmarthen Bay, not on the benthic station (given on page 2 of the cruise programme) but on the plankton station 1½ miles away. It is hoped to repeat the sampling during the John Murray cruise 7-16 August.

Detailed results await laboratory analysis.

Prepared by: N R Collins

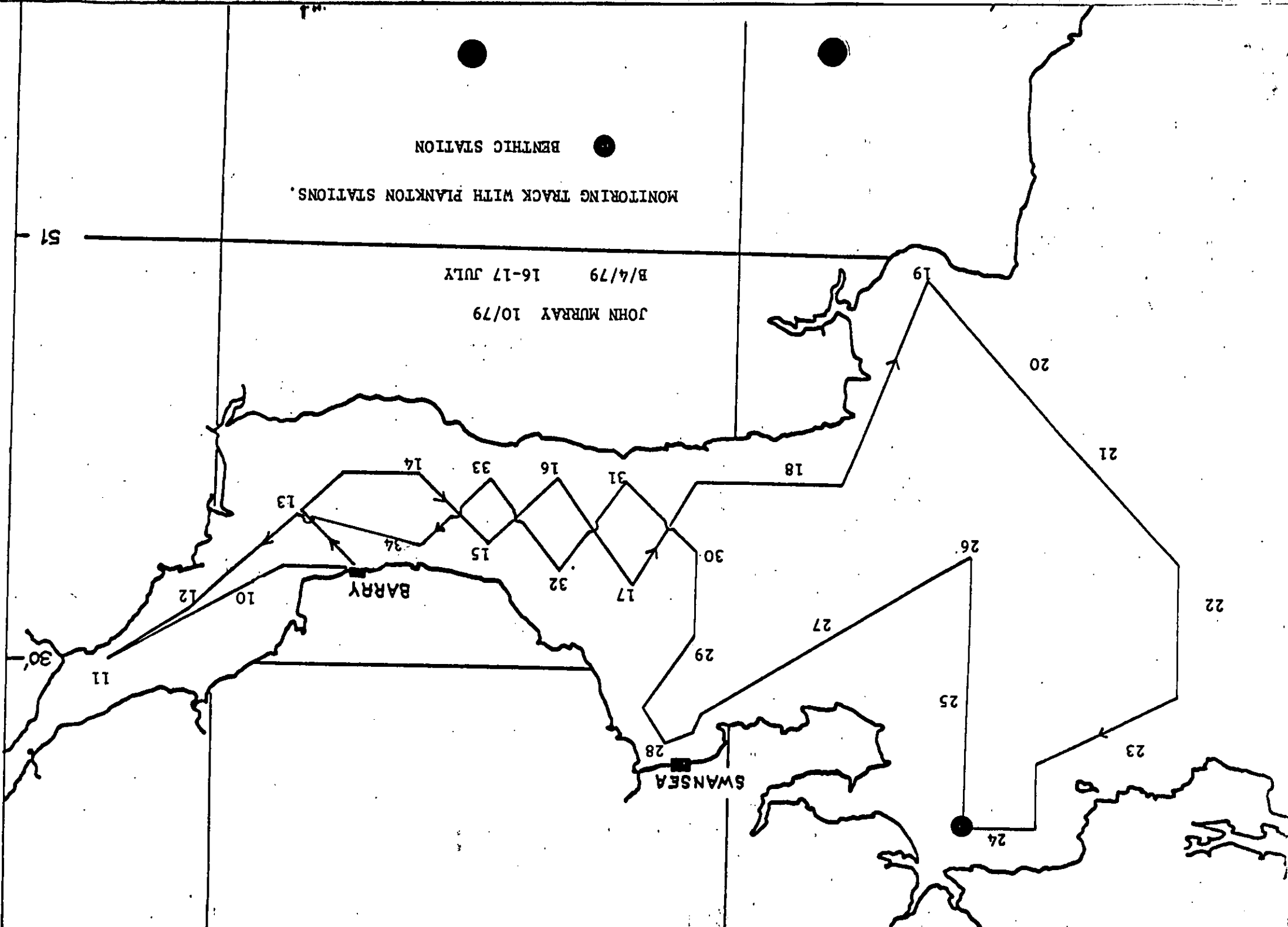
Approved by:

Date: 27 July 1979

BENTHIC STATION

MONITORING TRACK WITH PLANKTON STATIONS.

JOHN MURRAY 10/79
B/4/79 16-17 JULY



APPROXIMATE MID-TOW POSITIONS
OF PLANKTON HAULS

St.No.	Lat. N.	Long.W.	Red	Green	Purple
P 10	51°24.0'	03°06.0'	C 16.0		C 53.0
P 11	51°30.0'	02°47.0'	D 07.9		-
P 12	51°26.7'	02°59.0'	C 22.0		-
P 13	51°20.0'	03°08.0'	C 14.5		B 71.5
P 14	51°16.0'	03°21.0'	C 03.0		B 57.0
P 15	51°21.0'	03°32.0'	B 18.4		B 71.0
P 16	51°16.0'	03°40.0'		C 42.0	A 68.0
P 17	51°24.4'	03°48.0'		D 34.4	B 55.5
P 18	51°16.0'	04°05.6'		D 44.0	J 62.0
P 19	51°01.0'	04°22.0'		E 35.6	H 50.0
P 20	51°07.0'	04°31.0'		F 30.0	H 65.0
P 21	51°14.5'	04°42.5'		F 44.0	I 50.0
P 22	51°24.0'	04°52.0'		G 37.0	I 66.5
P 23	51°34.0'	04°42.0'		F 46.0	J 68.5
P 24	51°41.0'	04°31.0'		F 38.0	A 61.5
P 25	51°31.0'	04°28.0'		F 33.4	J 76.0
P 26	51°21.0'	04°28.0'		F 30.7	J 51.4
P 27	51°28.2'	04°10.0'		E 35.2	A 62.0
P 28	51°35.0'	03°53.0'		D 43.0	B 69.6
P 29	51°28.0'	03°56.0'		D 42.1	B 51.5
P 30	51°21.0'	03°56.0'		D 39.0	A 62.0
P 31	51°16.0'	03°48.0'		C 47.8	A 57.0
P 32	51°23.0'	03°40.0'		C 46.0	B 64.0
P 33	51°16.0'	03°32.0'	B 17.6	C 36.8	A 78.0
P 34	51°21.0'	03°23.5'	C 01.0	C 35.3	C 51.0