

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

1994 RESEARCH VESSEL PROGRAMME

PROGRAMME: RV CIROLANA: CRUISE 8/94

STAFF: J Thain (SIC)
M Waldock
D Sheahan
D Limpenny
J Jones
M Kirby
M Salmons
P Neall
B Lyons (Swansea University)
M Crane (Royal Holloway)

DURATION: 8-29 July 1994

LOCATION: North Sea, German Bight, Irish Sea and Channel

AIMS:

1. To collect samples of demersal fish for chemical analysis from the North Sea, English Channel and Irish Sea in support of UK National Monitoring Plan (NMP) and Environmental Quality Objective Programmes.
2. Complete benthic/sediment sampling for the DOE/MAFF Dogger Bank study.
3. To deploy liquid-liquid extraction techniques on water samples from offshore and estuarine locations for organic chemical analysis and biological effects studies.
4. To collect samples along established pollution gradients in the German Bight for use in the development and evaluation of whole sediment bioassay techniques.
5. To further investigate the use of biochemical techniques in dab in support of NMP.
6. To collect fish samples for genetic toxicological analysis (e.g. DNA adducts) at NMP sites.

PLAN:

CIROLANA will sail on 8 July to Helgoland and will commence water, sediment and fish sampling in respect of Aims 3-6 along a transect from the inner German Bight to the Dogger Bank. At the Dogger Bank sampling of benthos and sediments will take place (Aim 2). CIROLANA will then sail towards the Tyne and commence fishing (Aims 1, 5 and 6) at NMP stations 245, 285, 295, 345, 375, 385, 395, 475, 485 and 495 (see attached list). At the

entrance to the Rivers Tyne, Tees and Wear samples will be taken from the ship and upper estuarine sites using the ship's Searider for liquid-liquid extraction processing (Aim 3). On route to the Irish Sea further trawling will be undertaken at NMP stations and water sampling under Aim 3 at Poole Harbour and Plymouth Sound. After completion of sampling in the Irish Sea, CIROLANA will return to Lowestoft north about taking water samples (under Aim 3) on route at NMP stations 79, 86, 2 and 8. CIROLANA will dock at Lowestoft on 29 July.

GEAR:

1. Compressed gas cylinders size J or K, ex-British Oxygen 6 x OFN.
2. Two 3 m steel beam trawls plus liners.
One Granton trawl plus liner plus spare net.
3. One hundred salinity bottles.
4. NIOZ grab.
5. Remaining gear from Burnham.

John Thain
17 May 1994

INITIALLED: JEP

DISTRIBUTION:

Basic list +
J Portmann
R Law
A Franklin
P Matthiessen
M Waldock
D Sheahan
D Limpenny
J Jones
M Kirby
M Salmons
P Neall
B Lyons
M Crane

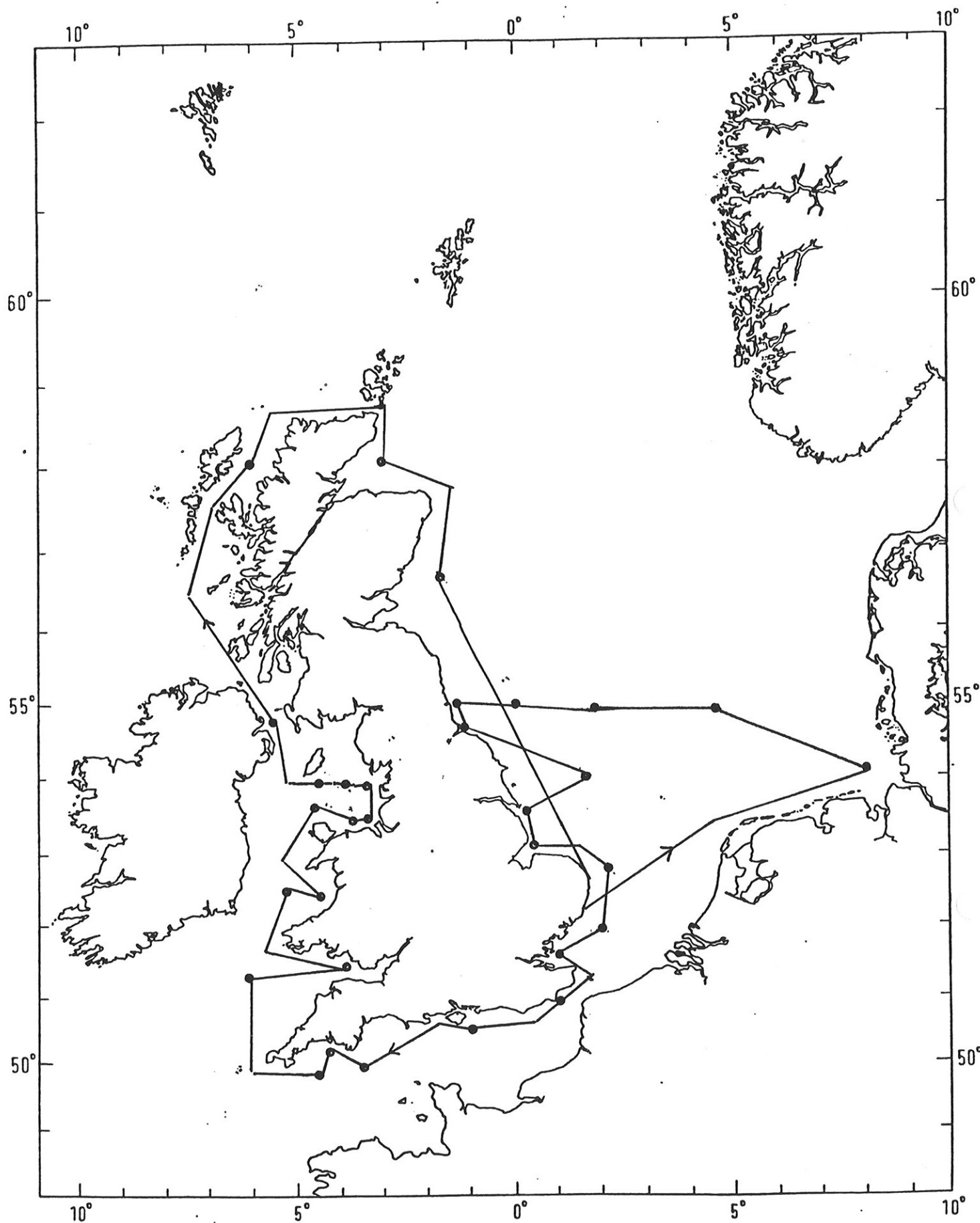
CIROLANA 8/94 8 - 29 July

Fish requirements for National Monitoring Programme

Species required

Dab (20 - 30 cm) or Flounder (15 - 35 cm) + Whiting from all Channel and West coast sites

NMP stn	Location	Latitude		Longitude	
245	off Tyne	55	00.50	1	08.00 W
285	off Tyne/Tees	54	50.00	1	20.00 E
295	off Tees	54	44.00	0	53.00 W
345	off Humber/Wash	54	00.00	2	00.00 E
375	Humber	53	32.00	0	20.00 E
385	Wash	53	03.50	0	28.50 E
465	Thames (Warp)	51	30.80	0	58.00 E
475	Thames (Gabbard)	52	00.00	2	20.00 E
485	South Varne	50	56.00	1	16.80 E
495	Selsey Bill	50	40.70	0	49.60 W
535	Central Channel	50	05.00	3	00.00 W
575	Off Tamar	50	17.70	4	09.73 W
585	Plymouth Sound (MBA station E1)	50	02.00	4	22.00 W
595	Western Approaches	48	30.00	8	00.00 W
605	Celtic Deep	51	15.00	6	00.00 W
655	Cardigan Bay	52	21.50	4	10.50 W
665	off Cardigan Bay	52	30.00	5	00.00 W
705	Burbo Bight	53	28.29	3	15.58 W
715	Liverpool Bay	53	30.00	3	41.50 W
775	Irish Sea	53	37.50	4	30.00 W
785	off Lune/Wyre	53	57.70	3	02.50 W
795	off Morecambe Bay	53	58.00	3	20.00 W
805	SE Isle of Man	54	00.00	3	50.00 W



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CIROLANA 8/94 Proposed cruise track