

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

1984 RESEARCH VESSEL PROGRAMME

REPORT: RV CLIONE: CRUISE 14

(Provisional: Not to be quoted without prior reference to the authors)

STAFF: Part a: R J Law (SIC)
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DURATION: Part a: Left Lowestoft 1130h 28 November
Arrived Barry 0337h 7 December

Part b: Left Barry 0735h 8 December
Arrived Lowestoft 0520h 18 December

(All times Greenwich Mean Time)

LOCALITY: Part a: Celtic Sea

Part b: Celtic Sea, St Georges Channel, Irish Sea,
North Channel

AIMS: Part a:

1. To carry out a baseline hydrocarbon survey in exploration areas in the Celtic Sea, and in the Bristol Channel.
2. To collect by trawling samples of commercial fish species (25 specimens of each species) from the Celtic Deep. This is part of the ICES Baseline Survey of Contaminant levels.

Part b:

1. To collect samples of seawater for trace metal analysis from the Celtic Sea, Irish Sea and Liverpool Bay. It is hoped to carry out analysis of mercury, copper, lead and cadmium on board ship; further analysis will be carried out at Burnham.
2. To collect samples of fish if time allows (as aim 2 for part (a) of this cruise) from Cardigan Bay.

NARRATIVE: Part a:

CLIONE left Lowestoft at 1130h and set out for the Celtic Sea. Worsening weather in the English Channel prevented passage around Lands End and CLIONE anchored in Brixham Roads at 2040h on 29 November. By early morning of 1 December the weather had moderated and CLIONE weighed anchor at 0049h, arriving in the sampling area on the morning of 2 December. 14 stations were worked between 0845h on 2 December and 0047h on 3 December, after which CLIONE steamed for Falmouth in order to put ashore a sick crew member. CLIONE anchored outside Falmouth docks at 1150h on 3 December, and sailed again at 1350h to return to the Celtic Sea. Sampling recommenced at 0625h on 4 December, 9 stations being worked on the 4th and a further 8 stations on the 5th to complete the planned grid in the Celtic Sea. A fault in the control gear of the main trawl winch and poor weather conditions prevented the fishing planned for this stage of the cruise, and CLIONE sailed to an area off the Welsh coast NW of St Davids, where 7 stations were worked between 0650h and 1335h on 6 December, after which CLIONE proceeded to Barry, docking at 0337h on 7 December.

Part b:

The weather had moderated sufficiently to leave Barry on the morning tide of Saturday December 8 at 0735h. CLIONE headed up the Bristol Channel to the first station for water collection off Cardiff. Seven water samples for metals analysis were taken at a depth of 4m from the Bristol Channel, Swansea Bay and S Wales coast; sample filtration was completed by 2045h. On 9 December in unseasonably calm and pleasant weather 3 trawls were taken from 0515h to 1415h in the Celtic Deep. Three water samples were taken as CLIONE steamed back to the Cardigan Bay area. Trawling commenced at 0630h on 10 December. Two trawls were taken in the south of Cardigan Bay and one in the north of the Bay. Five water stations were worked en route. CLIONE anchored off Anglesey overnight and water sampling commenced at 0745h on 11 December. Ten stations in the Liverpool Bay grid were completed by 1910h. CLIONE anchored in Liverpool Bay overnight and sampling continued at 0725h on 12 December. The Liverpool Bay sampling grid was completed by 1200h 12 December. Water sampling continued at a further four stations as CLIONE steamed NW to the Isle of Man, and then to anchorage off Whitehaven. The sampling track was resumed on 13 December at 0745h. Four more 4m water samples were taken en route to a series of deep water stations in the North Channel. Water was taken from five depths to 250m at the first site using two goflow water samplers. Two more deep water stations were worked in the North Channel on 14 December, despite the untimely demise of one of the goflow samplers, and a further four 4m stations were completed along the east coast of Ireland. Sampling along the Irish east coast was finished by Saturday 15 December at 1830h and CLIONE returned to Lowestoft docking at 0520 18 December.

RESULTS: Part a:

Aim 1. This was successfully completed, samples of water and surface sediment being taken from 38 stations in the Celtic Sea. No samples were obtained from the Bristol Channel itself.

Aim 2. No fishing could be carried out owing to the failure of the main trawl winch.

Part b:

Aim 1. The planned regime of water sampling was successfully completed; 66 samples of water were filtered and stored for analysis at Burnham. Analysis for dissolved reactive mercury was completed at sea and approximately a quarter of samples were analysed for dissolved lead, cadmium and copper. A further six samples (mainly from the Irish coast) were provided for an intercalibration exercise with Scientists from the Department of Fisheries in Eire.

Aim 2. The early arrival of CLIONE at Barry provided an extra day for fishing in the Celtic Deep. Samples of whiting, scad, spurdog, angler, megrim (25 of each) and cod (20) were preserved by freezing. The south Cardigan Bay area provided whiting, plaice, dab and Thornback Ray (25 of each). In addition to these species 25 sole were taken from the North of the Bay.

R J Law M J Waldock
7 December 1984 18 December 1984

SEEN IN DRAFT J French, Master
 P Newrick, SFM

INITIALLED: HWH

DISTRIBUTION:

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