

Indexed 29/11 APR.

126

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

1985 RESEARCH VESSEL PROGRAMME

REPORT: RV CIROLANA CRUISE 9

PART B

DURATION: 11-20 November 1985

LOCATION: Irish Sea and English Channel

STAFF:

- S Lockwood
- D Woodhead
- M Parker
- D Bucke
- S Gerrell
- D Eaton
- S Feist
- R Williams
- K Williams
- B Waterman (FR Germany)

AIMS:

1. To continue with Aim 1 of CIROLANA 9A/85 through the Irish Sea and English Channel.
2. To sample demersal fish for the incidence of disease and parasites in areas of the east and west Irish Sea.

NARRATIVE: Staff travelled to Whitehaven by car 10 November. Due to poor weather, embarkation and change of staff with those from Part A was postponed to 2100 hours 11 November. CIROLANA then steamed to a position off Dundrum Bay, N Ireland, where four daylight trawl hauls were made 12 November. Two water stations were worked in the evening on passage to north Cardigan Bay where a further four trawl hauls were made 13 November. At dusk CIROLANA made way to Liverpool Bay where another water station was worked before a further four trawl hauls were made. Once more at dusk CIROLANA steamed off to another site, off St Bees Head where four more trawl stations were made before Dr Lockwood disembarked by pilot boat at Workington, 2300 hours 15 November. The return journey to Lowestoft then began, working six more water stations on route.

CIROLANA docked at Lowestoft 1630h on 20 November.

AIM 1

Four stations were worked in the Irish Sea, three were completed, one had to be abandoned due to faulty equipment. Salinity and suspended load were collected and large volume water samples were preconcentrated for Pu, Am, Cm, Np, Tc and Cs determination, one station also including speciation studies on Pu, Am and Cm.

Between leaving the Irish Sea and Lowestoft seven stations were completed including a blank station. All stations were for salinity, suspended load, Pu, Am, Cm, Np, Tc and Cs and in addition four of these stations included separation and preconcentration of the oxidation species of Pu, Am and Cm. One station was lost due to adverse weather conditions.

AIM 2

The mean catch rates (kg/hr) for each area are summarised below.

	Total (all spp)	Gadoids	Flat Fish	Plaice	Whiting
Dundrum Bay	282	27.2	4.1	15.2	57.2
Cardigan Bay	526	74.2	8.6	17.0	219.4
Liverpool Bay	791	82.8	49.3	120.5	141.9
Sellafield	642	111.9	23.4	37.8	229.5

Four tows were achieved in each area, but one tow in Liverpool Bay was deemed invalid due to gear damages. Whiting were consistently the commonest gadoid caught in each area (by weight) and provided sufficient numbers for sampling purposes at most stations. Plaice were less common in the catch than dabs (except in Dundrum Bay). Good catches of Raja clavata were taken on Cardigan and Liverpool Bays (147.5 and 119.3 kg/hr respectively). A total of 416 otoliths from 8 species (including 94 of whiting and 110 of plaice) were taken for research and market sampling purposes. Fifteen Lophius piscatorius were returned whole to the lab for Mr Elson.

Whiting and plaice were examined for the prevalence of external diseases and parasites. The scientific staff were instructed in disease recognition and a photographic record of examples of diseases was made.

Livers, spleens and diseased tissues were sampled and stored in 10% formal saline for subsequent histological examination. In addition random examination for external diseases in dab and other species from the catch were made. Samples of dab livers and spleens were fixed in 10% formal-saline for histological examination.

External diseases in whiting and plaice were low; eg: the prevalence of lymphosist. in plaice was 2.3% Dundrum Bay, 0.4% Cardigan Bay, 0.5% Point of Air and 3.3% St Bees head. The prevalence of gill parasites in whiting from those areas was more variable: 6.7%, 14.8%, 37.6% and 18.3: respectively.

Samples of fish for heavy metal analysis were taken and frozen for AEP2. The samples consisted of 25 individuals of cod, whiting, plaice and dab from stations within the Cardigan Bay, Liverpool Bay and St Bees head areas. Dover sole were taken from the Liverpool Bay area only, and 10 spurdog were collected when available.

S J Lockwood
20 November 1985

SEEN IN DRAFT: H W H

INITIALED: M J Willcock
E P

DISTRIBUTION: Basic List+ D Eaton
S Lockwood S Feist
D Woodhead R Williams
M Parker K Williams
D Bucke B Waterman (FR Germany)
S Boggis

CIROLANA 98/85 TRAWLING STATIONS

