

In Confidence - Not to be quoted with prior reference to the Laboratory

R1/12

FRV 'Scotia'

4SR83

Cruise 1/83

Report

23 February - 14 March

Objective

Demersal trawling survey of grounds off the North and West of Scotland.

Narrative

'Scotia' sailed from Govan at 1130 hours on 24 February and after checking the radar system and making compass adjustments the ship anchored off Greenock to allow the ship's staff time to prepare the trawl gear etc. Work commenced on 25 February in the Clyde and continued westwards along the Irish Coast with only the occasional interruption due to the weather. The outer most stations off the Hebrides were completed before the ship docked in Stornoway for the mid-trip break on Friday 4 March. Whilst in port repairs were carried out to the wave gates and to the sweep fairlead rollers. Work recommenced on 5 March in the South Minch area. The remainder of the stations to the west of the Hebrides and in the Minch were completed before the ship called briefly at Ullapool on 11 March to uplift an additional GOV trawl before steaming North to the Solan area where the remaining survey stations were completed. An additional six stations were worked in the Noup, Fair Isle and Start Point areas before the ship returned to Aberdeen at 1130 hours on 14 March.

Results

The whole survey was successfully completed with a total of 50 trawls being made during the cruise. Catch rates varied between stations and ranged from one basket to 165 baskets per hour. Catches per 10 hours fishing by research vessel sampling area are given in the table below.

Catch rates were good throughout the survey area. The highest catches were obtained in the Butt of Lewis and Outer Hebrides areas where catches of up to 165 baskets and 100 baskets per hour respectively were taken.

Cod were taken in the largest numbers off the North West coast of Ireland where in statistical rectangle 39E1 a catch of 50 baskets per hour was obtained.

Haddock were scarce in the Minch and in the Clyde. The highest numbers were obtained in the Butt of Lewis area. With the exception of the Minch and Shetland areas very few 1+ (1982 year class) were caught. In general the catches were dominated by the 1979 year class. Whiting were distributed throughout the West Coast survey area. The age composition was similar to that of haddock with few 1+ fish, but reasonably high catch rates of the 1979 year class. The highest catches were obtained at the extra stations in the Shetland area. Saithe were only caught in small numbers.

Norway pout were most abundant in the Clyde, South of 56°, Outer Hebrides and Butt of Lewis areas.

Hake provided an interesting feature of the survey with large numbers of the 1982 year class being taken in the South Minch and Inner Hebrides areas.

Herring showed a similar distribution to previous years with appreciable numbers of adult herring being taken to the NW of Ireland and the NW of the Hebrides. These were mainly autumn spawning fish. Juvenile herring ( $\leq 20$  cm) were caught in appreciable numbers, only in the Clyde and in the North Minch areas. In the latter area they formed a major component of the catch.

Mackerel were taken in small numbers over a wide area, the largest catch being taken south of Stanton Bank.

Weight/Length: Samples of Saithe were deep frozen and returned to the laboratory. The weight data on 30 Cod, 400 Haddock, 350 Whiting and 10 Saithe were measured at sea using the computerised weighing system. Observations were also made on a number of non-commercial species.

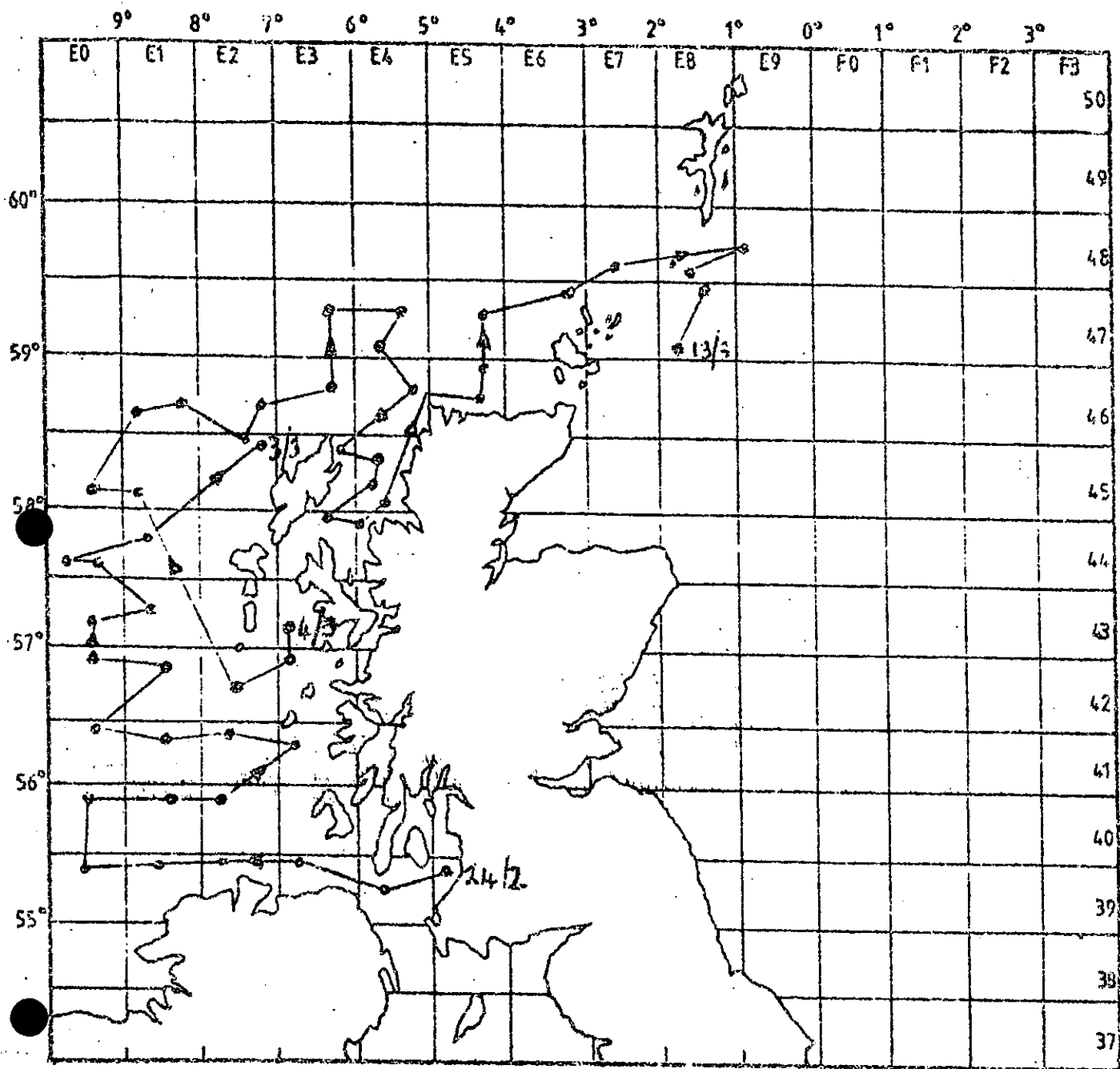
Maturity Data/Pyloric caeca: Data was collected on maturity at age for Cod, Haddock, Whiting and N. pout throughout the survey area. Pyloric caeca were collected from herring on an area basis.

J W Gillon  
Seen in draft.

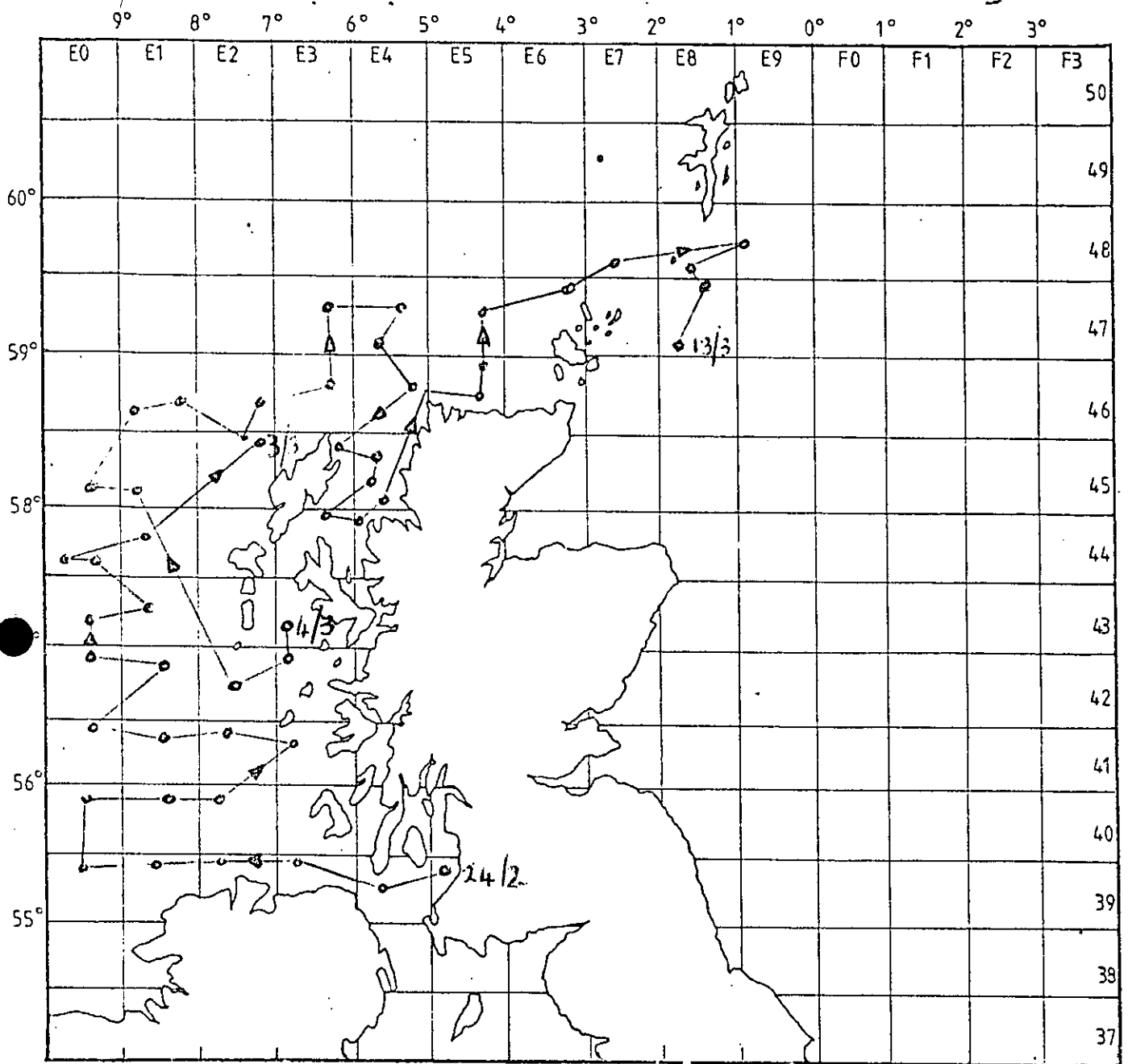
A. P. Robb  
29 March 1983

Numbers Per 10 Hours Fishing

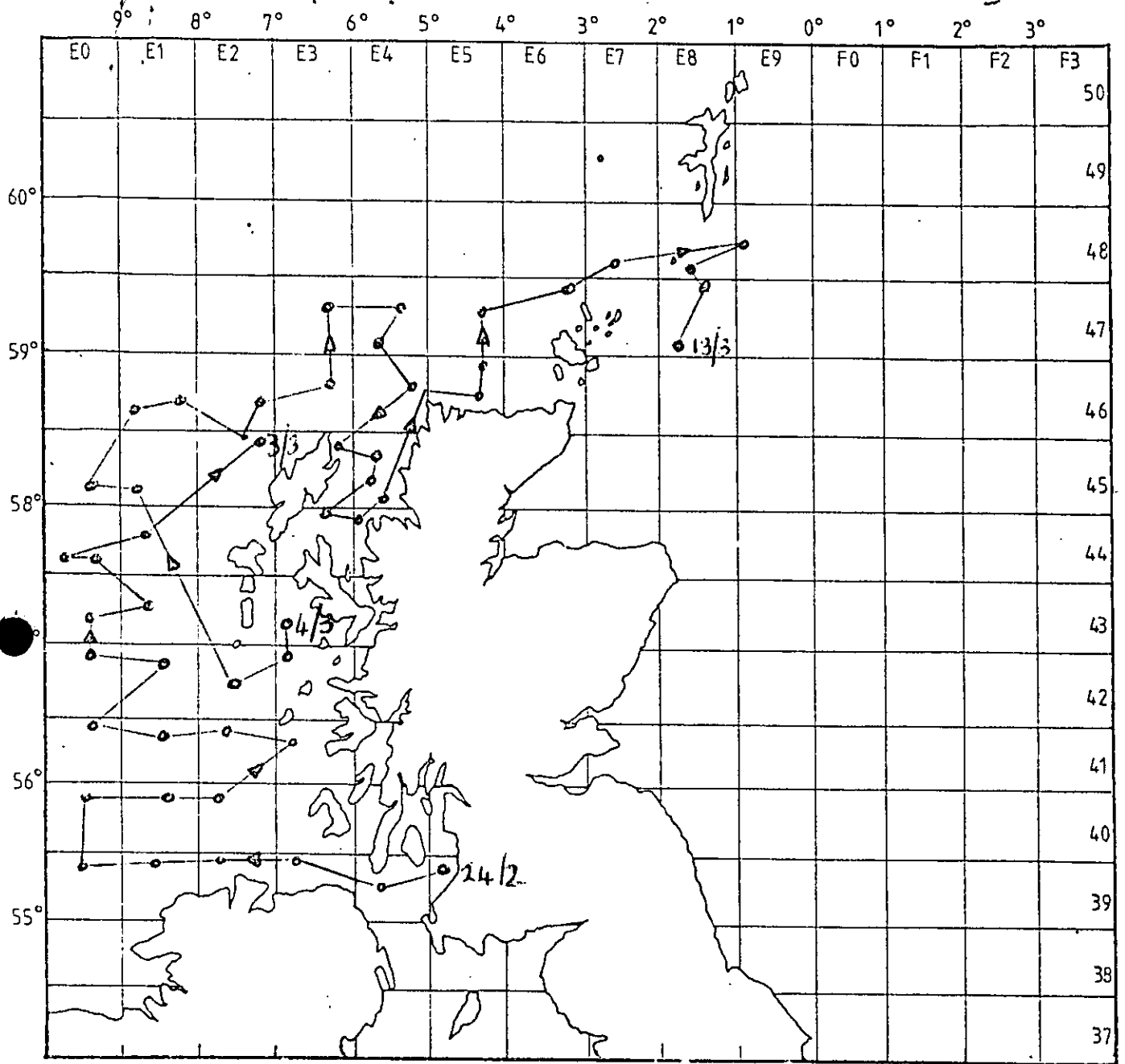
| Area           | No<br>Hauls | No<br>Baskets | Cod | Haddock | Whiting | Saithe | Herring | Mackerel | N. Pout | Hake |
|----------------|-------------|---------------|-----|---------|---------|--------|---------|----------|---------|------|
| Clyde          | 2           | 105           | 220 | 170     | 5610    | 265    | 20465   | 260      | 46375   | 65   |
| South 56°      | 6           | 220           | 493 | 4080    | 5870    | 40     | 8037    | 795      | 27125   | 402  |
| South Minch    | 5           | 70            | 122 | 614     | 1814    | 40     | 260     | 6        | 5544    | 1604 |
| Outer Hebrides | 14          | 284           | 206 | 7602    | 3550    | 44     | 599     | 89       | 31476   | 18   |
| Butt of Lewis  | 5           | 552           | 140 | 31794   | 5528    | 140    | 3836    | 244      | 205398  | 24   |
| Inner Hebrides | 6           | 37            | 28  | 117     | 6287    | 1830   | 1830    | 5        | 9068    | 882  |
| Solan          | 3           | 67            | 7   | 6640    | 1040    | -      | 100     | -        | 1960    | 3    |
| West Orkney    | 1           | 40            | 20  | 1630    | 80      | -      | 210     | -        | -       | -    |
| Shetland       | 4           | 175           | 42  | 9945    | 11717   | -      | 7       | -        | 3825    | -    |
| Buchan         | 1           | 175           | -   | 4590    | 22420   | -      | 140     | -        | 510     | -    |



FRV SCOTIA 24/2 - 13/3 1/83



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