

In Confidence - Not to be quoted without reference to the Laboratory 2SR81

FRV "Scotia"

Cruise 2/81

REPORT

25 February - 17 March 1981

Objective

Routine demersal trawling survey of Rockall Bank and the grounds off the north and west coasts of Scotland.

Narrative

"Scotia" left Aberdeen at 2000 hrs on February 25 and proceeded towards the west coast grounds with the objective of starting work at Rockall. All of February 26 was spent on passage, with the weather deteriorating rapidly. On February 27 the wind was still at gale force and it became clear that it would be impracticable to continue towards Rockall so work began west of the Outer Hebrides, to gain some shelter from the land. After three hauls had been made at inshore stations, "Scotia" moved round the Butt of Lewis, with the intention of working in the North Minch. However, due to the sudden death of Mr Gray, the acting Chief Steward, on the morning of February 28, "Scotia" proceeded immediately to Stornoway. The ship left Stornoway at 1300 hrs on March 1, and moved to Rockall, where nine trawl hauls were made during the period March 2-3. Two hauls were then made west of the Hebrides before "Scotia" returned to Stornoway for the mid-cruise break, docking at 0830 am on March 5. Mr Carroll (Eire) joined the cruise on March 6 and "Scotia" proceeded south, resuming work in the South Minch. During the period March 6-9, when the South Minch, Firth of Clyde and north east Irish coast stations were completed, work was periodically interrupted by an intermittent defect in the automatic steering gear, until the source of the fault was traced by the ship's engineers. During the period March 10-15 the weather was excellent and work was only interrupted from time to time by the need to repair or replace the trawling gear. The remainder of the Irish coast stations were completed and "Scotia" worked her way north as far as Rona. March 14 was spent in the North Minch and March 15 on the north coast grounds. Early in the morning of March 16 it was learned that a member of the crew had suffered a bereavement so "Scotia" proceeded to Aberdeen at full speed, arriving at 1230 hrs the same day.

Results

A total of 48 trawl hauls were made during the survey, of which 40 were considered to be valid for herring and 39 valid for other species. Catches per 10 hours trawling by research vessel sampling area are given in the Table below for the main commercial species.

Area	Number of valid hauls	Catches per 10 hours fishing					
		Cod	Haddock	Whiting	Saithe	Herring	Mackerel
Rockall	8	12	3195	0	100	0	0
Solan	2	5	15230	325	0	1420	0
Butt of Lewis	4	20	8870	14930	8	1660	100
Inner Hebrides	4 (5)*	42	910	960	30	224560	10
South Minch	5	4	200	130	26	1000	16
Firth of Clyde	2	20	0	1910	5	240	0
South of lat 56°00'N	5	164	7730	21500	66	9980	1560
Outer Hebrides	9	26	1770	3830	690	1270	27

* 1 large catch of herring (350 baskets) - roundfish not worked up

a) Rockall Bank

Significant catches in this area were only made during the hours of darkness, at a number of stations close to the Rock. The principal species were large saithe (up to 12 baskets/hour) and mixed haddock (up to 9 baskets/hour). Haddock were less in evidence than in 1980. There was a marked scarcity of 2+ and 3+ fish in the catches but 1+ haddock made up about 45% of the catch (by number), suggesting that the 1980 year class was stronger than those of recent years. Only a very small percentage of the fish had begun to spawn by the time the area was visited (March 2-3) and, from the macroscopic examination of a large number of ovaries, it seemed unlikely that the majority of the females would reach spawning condition before the end of March.

b) Scottish continental shelf

Cod were taken in small numbers only, the highest catch rates being taken off the north western coast of Ireland.

Haddock were scarce in the Minch and Firth of Clyde. Highest catch rates were obtained in the Butt of Lewis/Solan Bank region, and off the north western coast of Ireland. Very few 1+ (1980 year class) haddock were caught but the 1979 year class appears to be moderately abundant.

Whiting distribution was similar to that of haddock, the highest catch rates being obtained north west of Ireland and in the Cape Wrath, Butt of Lewis area. The age composition was also similar, with few 1+ fish but reasonably high catch rates of 1979 year class whiting.

Saithe were caught mostly in small numbers, although a catch consisting of 26 baskets of medium saithe was taken 20 miles north west of the Flannans.

Herring were very widely distributed, and were present in all but two of the valid hauls made on the Scottish shelf. However, in general, catches were small (less than 1 basket/hour). Relatively high catch rates were obtained off the north western coast of Ireland (up to 15 baskets/hour) and in the Minch, where one particularly large catch, estimated to be at least 350 baskets, was made.

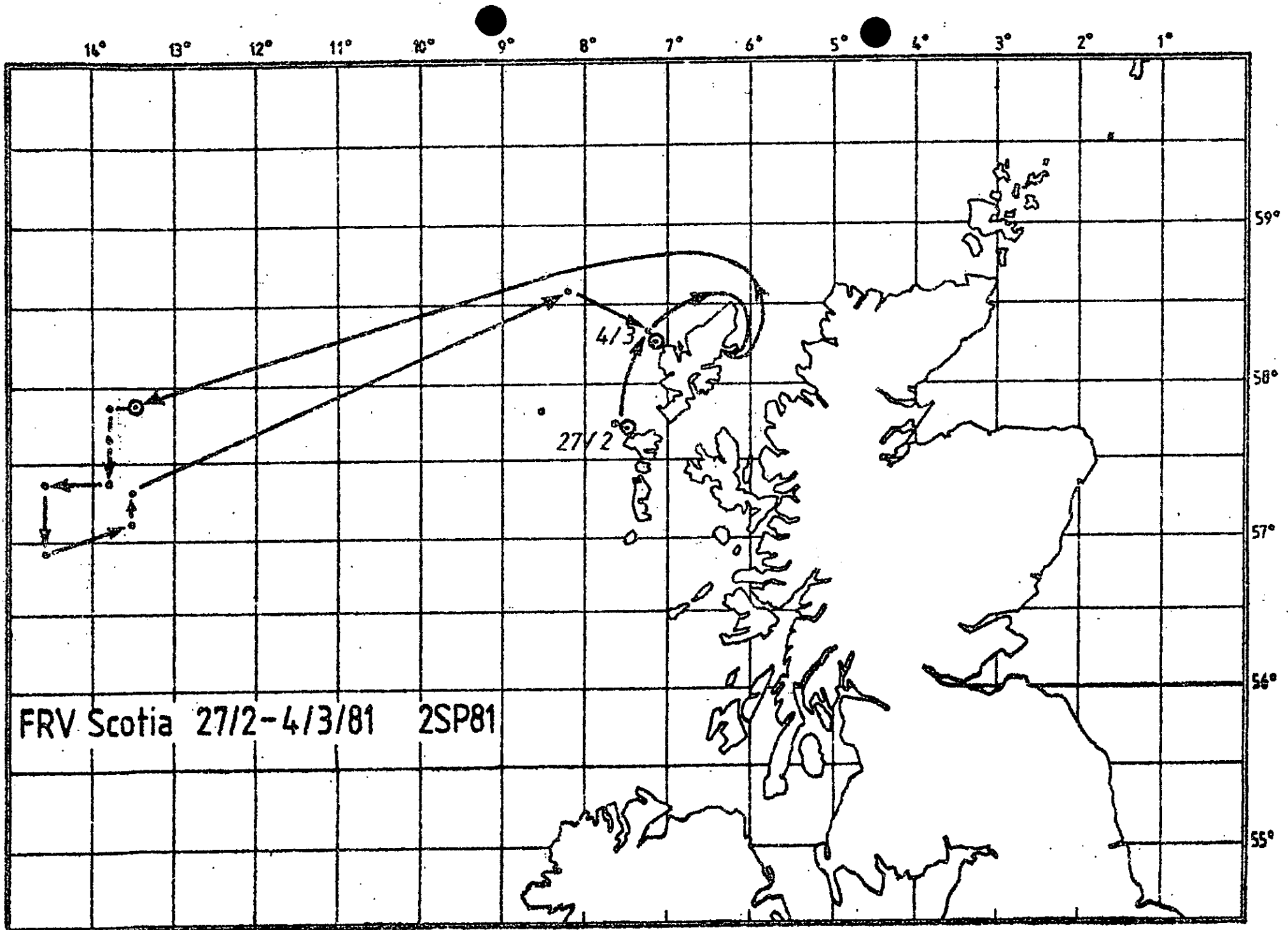
Mackerel were taken in small numbers over a wide area, the largest catches being taken off the north western coast of Ireland and north of the Butt of Lewis.

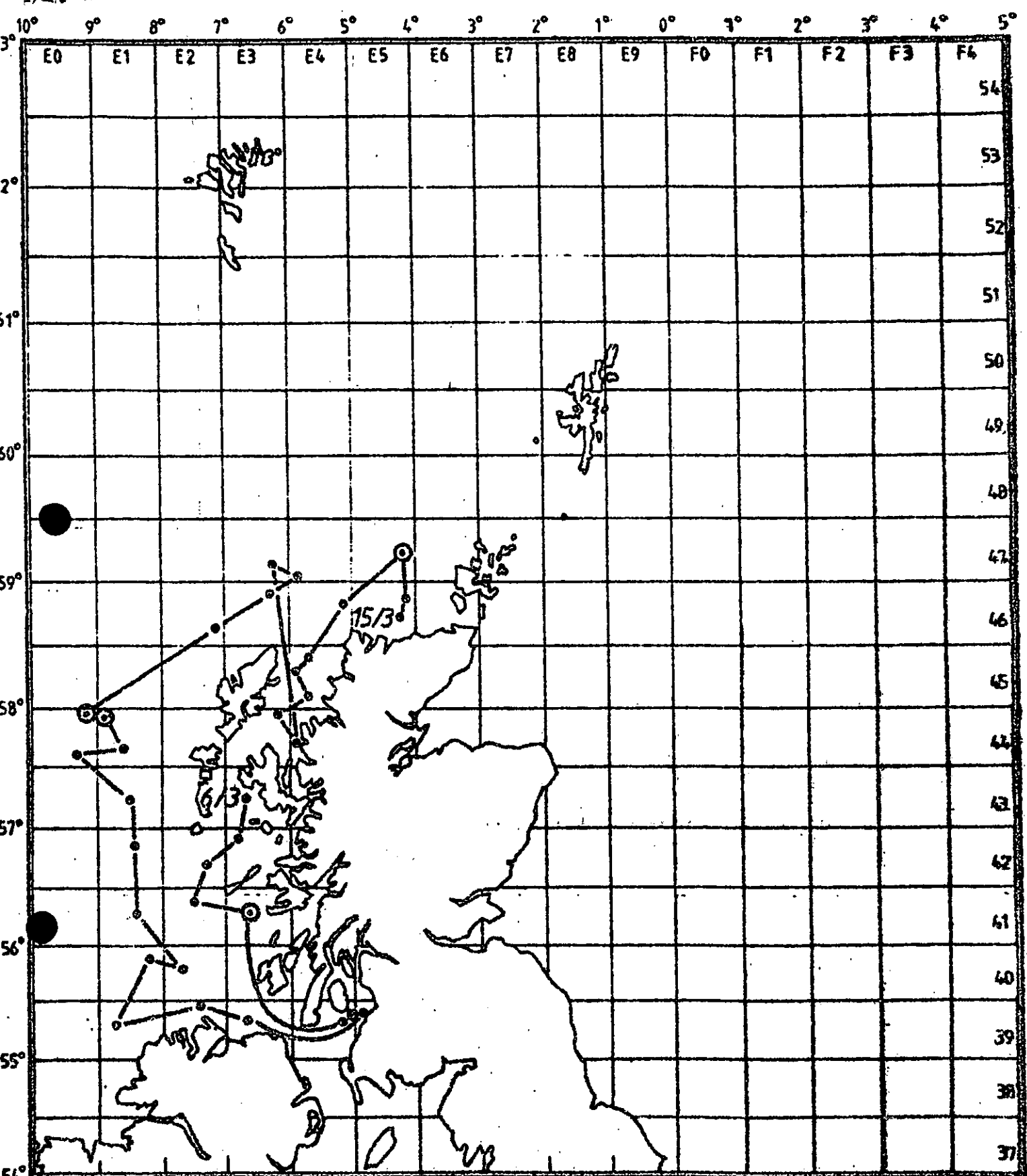
General comments

Various combinations of trawl type and groundgear were used during the cruise. The short wing GOV trawl was used both with 21" bobbins and 12" bobbins. The long wing (ie standard) GOV trawl was used with all three groundgears (21" bobbins, 12" bobbins, plain rubbers). The most satisfactory combination for the harder grounds appeared to be the long wing courlene GOV trawl, with 21" bobbins. The gear as used at Rockall (short wing trawl, 21" bobbins) gave rather puzzling results; the net was shot nine times and on five occasions no fish were caught, neither were there any conclusive indications (coral, starfish etc) that the gear had been on the bottom. However, three other hauls in the same area gave catches of 13½, 15 and 17 baskets.

See in draft J W Gillon
Commanding Officer

J R G Hislop
30 March 1981





FRV Scotia 6/3 - 15/3/81

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