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FRV "Scotia"

Cruise 13/88

13SR88

REPORT

1-21 December 1988

Personnel

P Hopkins SSO (in charge)
 J Gauld HSO
 P Copland SO
 D Beveridge ASO
 R D Steele (NCC) (9-21 December 1988)

Objectives

1. To carry out an echointegration survey off the north and west coasts of Scotland.
2. To collect biological data from catches of herring and mackerel.
3. To collect water samples for radio-caesium monitoring.
4. To record sea surface temperatures and salinities in the survey area.

Narrative

"Scotia" sailed from Greenock at 1500 hrs on 1 December. Attempts to calibrate the echosounder equipment the same evening at Irvine Bay and Lamash Bay failed due to excessive motion of the ship at anchor.

Echointegration commenced at 0700 hrs on 2 December but was curtailed by poor weather. "Scotia" sailed for Scridain Bay on 3 December where a successful calibration of the echosounder equipment was completed. Work was largely confined to the Minch by severe weather from 4-7 December. On 7 December, the towed transducer cable was destroyed by creel lines and was replaced. "Scotia" docked at Stornoway at 1000 hrs on 8 December, where R D Steele joined the ship.

"Scotia" left Stornoway at 1000 hrs on 9 December. Integration was continued to the west of the Hebrides as weather conditions permitted. An attempt to calibrate using the second cable at Loch Boisdale on 11 December was abandoned due to high winds, but a successful calibration was carried out at Village Bay, St Kilda, on 13 December. The second cable failed on 16 December and was replaced. The replacement cable was calibrated at Loch Eriboll on 19 December when severe weather had again interrupted the survey. Integration was resumed off the north coast at 1300 hrs on 19 December and continued until 1400 hrs on 20 December.

"Scotia" docked in Aberdeen at 0800 hrs on 21 December.

Results

The survey was severely curtailed by bad weather and coverage of the survey area was very poor. Of a total of 11 hauls, one was foul and two others had zero catch. Large echotraces, probably of herring, were seen south and west of Stanton Banks, north of St Kilda, north of the Butt of Lewis and west of North Rona, but adequate samples were obtained only from the St Kilda and Butt of Lewis areas. The herring caught near St Kilda were of model size 29-30 cm, those caught near the Butt were of model size 24 cm.

No echotracers were seen which were thought to be of mackerel, but a haul 8 miles north of St Kilda yielded approximately 150 baskets of mackerel from 25-34 cm with modal size 28 cm. A total of 313 herring otoliths, and 38 mackerel otoliths, were taken. 164 herring were weighed to establish a weight-length relationship.

Water samples for radio-caesium monitoring were taken at:

Cape Wrath	58°40'N	05°00'W
Fair Isle	59°30'N	02°00'W
Aberdeen	57°10'N	01°55'W

Surface temperature and salinities were logged throughout the cruise.

The cruise track is shown on the attached chart.

P J Hopkins

12 January 1989

Seen in draft: T G McInnes

Scotia 13/88 1-21 December 1988 Cruise track

