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MFV *Taits*

Cruise 0301H

REPORT

10-30 July 2001

Ports

Half-landing: Ullapool, 21 July

Personnel

D Reid	In charge
P J Copland	
C G Davis	
R Watret	
S Halewood	

Objectives

To carry out an acoustic survey for herring in ICES area VIa(N) as part of the ICES coordinated acoustic and mid-water trawling survey in the north western North Sea and North of Scotland. Project code MF01t.

Out-turn days per project

MF01t - 21 days

Narrative

Loading of the vessel and installation of container and equipment was successfully carried out on the 5th July. The vessel left Fraserburgh at 1400 hours on the 10th July and proceeded to Loch Eriboll for a calibration carried out overnight. Survey work began at Cape Wrath on the morning of the 11th July. The survey continued in initially poor weather until 21st July when the vessel steamed to Ullapool for half landing and crew change. A second calibration was carried out in Loch Broom on the 21st. The survey continued thereafter in good weather, until the 28th July when the weather deteriorated with gale force winds. The vessel was, however, able to continue the survey to completion on the 29th July. A final calibration was carried out at Scapa Flow on the evening of the 29th , although this was somewhat compromised by high winds and tide. The vessel then steamed to Fraserburgh for offloading on the 30th July. No time was lost due to weather or mechanical breakdown. One net was seriously damaged on a wreck.

Results

The full survey area was covered, mostly at a transect spacing of 7.5 nautical miles. Closer spacing (3.75 nm) was used in the area of Barra Head, and wider spacing (15 nm) in some areas identified as having historically low herring abundances. The survey was extended into the area between 3 and 4° W as in 1999, as time was available. For a complete cruise track see Figure 1. Fifty-three trawl hauls were carried out with 34 of these containing significant numbers of herring, see Figure 1. Otoliths were taken for 3,201 herring across the survey area; these fish were also scored for weight, sex, maturity, gonad weight and feeding state and gut weight if feeding. One thousand one hundred twenty-nine Elementary Distance Sampling Units (EDSU) were covered at 2.5 nautical miles per EDSU, resulting in approximately 2,800 nautical miles of survey track covered. The echo integral assigned for each of these EDSU is presented in Figure 2. Detailed analysis of results will be carried out after otolith reading has been completed. The initial impression is that there were good numbers of herring present in the area, and the usual areas of concentration were well occupied (Barra Head, W. of Lewis, and the shelf break NW of the Butt of Lewis. In addition, herring were identified in layers and scattered small marks throughout much of the area, which has been unusual for this area prior to 2000, but corresponds to observations in the N. Sea surveys in 1999 and 2000.

Dr D Reid
3 August 2000

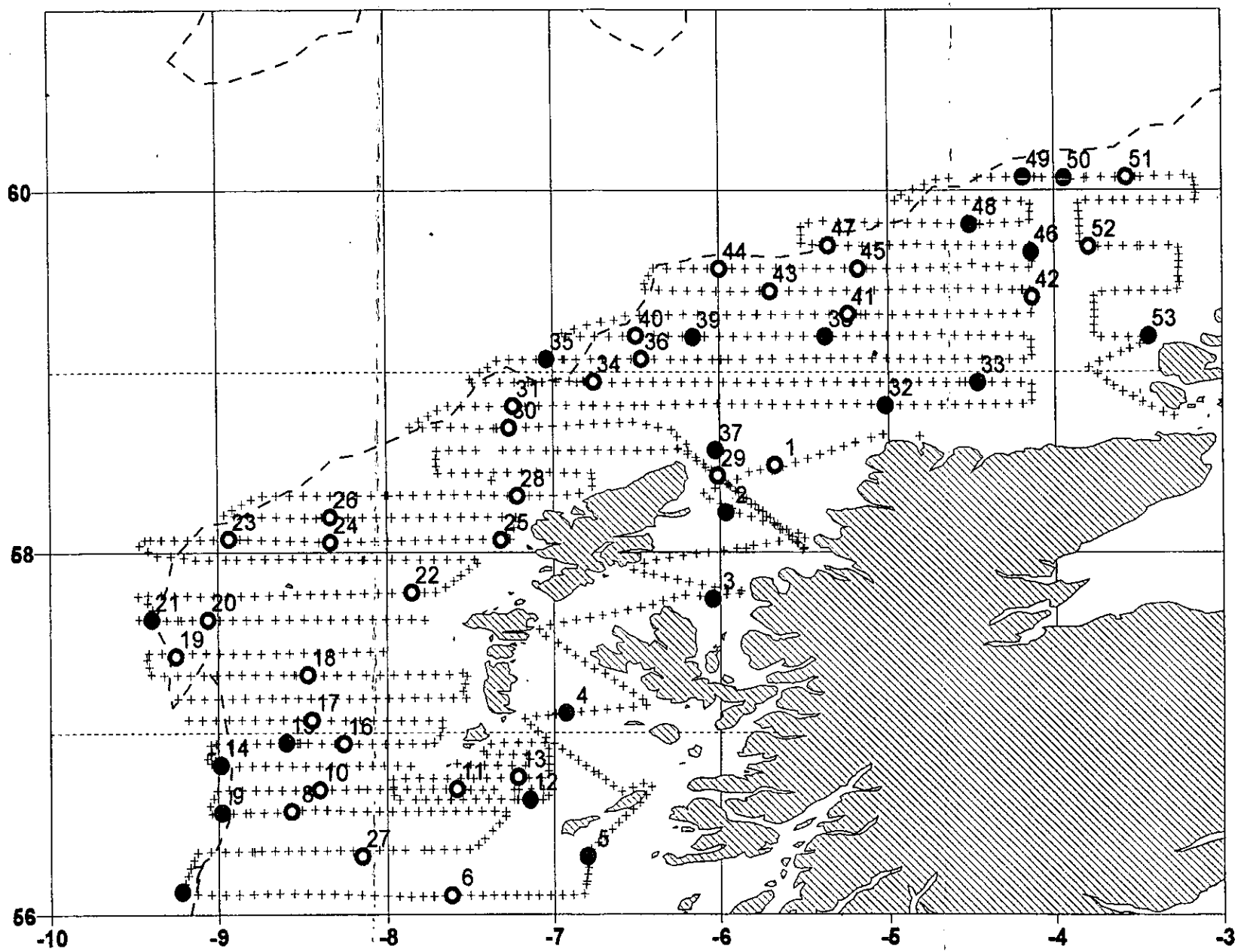

Figure 1. Cruise Track and Trawl Stations. Hauls with significant numbers of herring are marked as open circles.

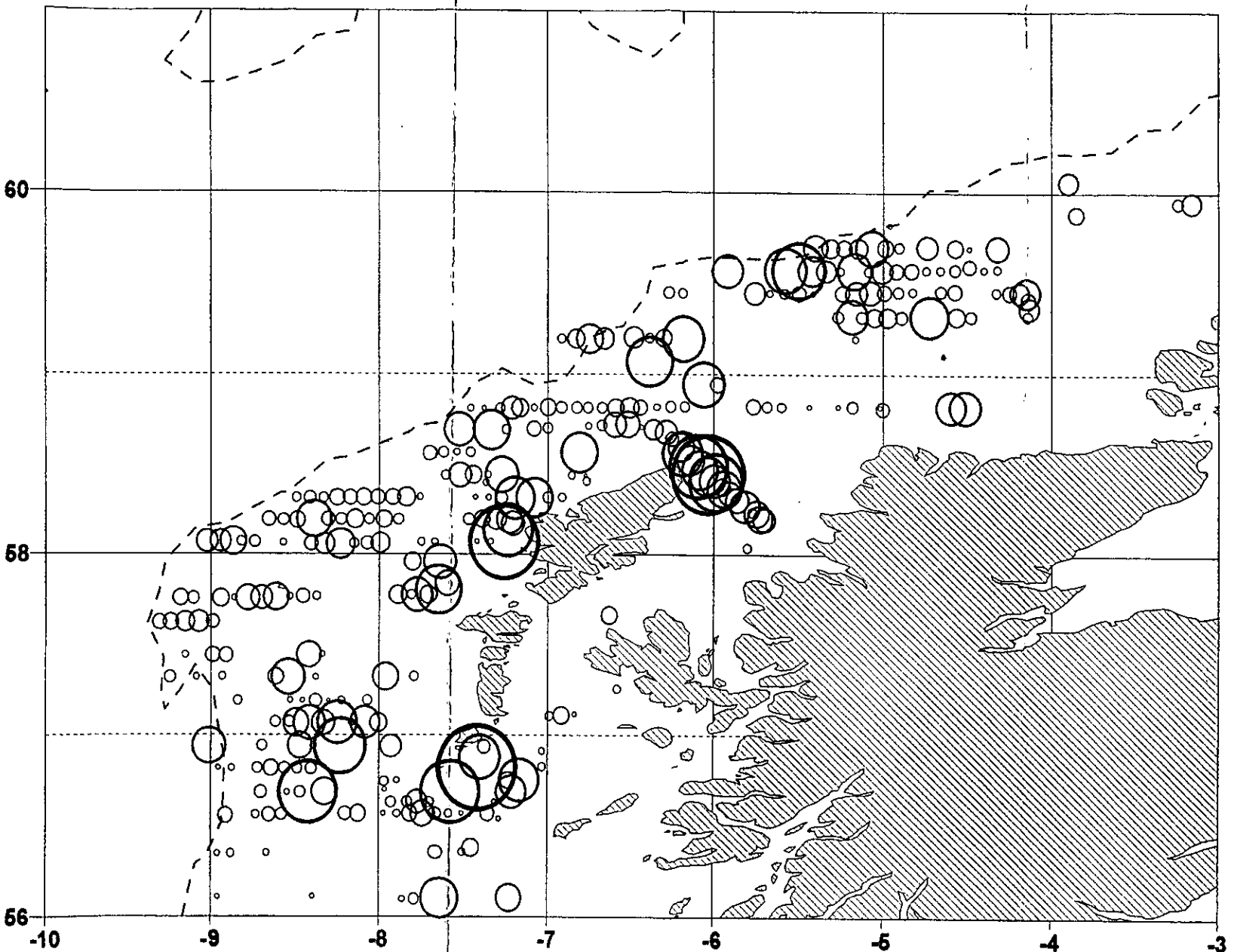

Figure 2. Herring integrals expressed as the square root of the maximum value.