

R1/3

Not to be cited without prior reference to the Marine Laboratory, Aberdeen

RV *GO Sars* (Institute of Marine Research, Bergen, Norway)

REPORT

12-25 May

Loading and Unloading

Aberdeen

Personnel

S A Iversen	(IMR), (in charge)
O A Misund	(IMR)
B Axelsen	(IMR)
J de Lange	(IMR)
T Mork	(IMR)
K Kristiansen	(IMR)
M Ostrowski	(IMR)
T K Rorvik	(IMR)
J Dunn	HSO (SOAFD)
R B Mitchell	SSO (SOAFD)
H Madden	ASO (contract)
M Bailey	PhD student

Objectives

1. To determine the distribution, development and physiological states of the larval and post larval stages of blue whiting and mackerel.
2. To collect measurements of copepod egg production.
3. The IMR staff will be carrying out an acoustic and trawling survey to determine distribution of migratory mackerel.

Narrative

GO Sars sailed from Aberdeen on the afternoon of 12 May, and made passage to the 1,000 metre depth contour north west of the Butt of Lewis. On the morning of the 13th a zig zag survey pattern was commenced across the 1,000 metre contour moving south, in an attempt to find schooling mackerel.

Plankton sampling using the DUAL MIK and OCEAN samplers commenced on Saturday 14th on a line of stations to the west of Barra Head. Two stations were completed in worsening weather conditions before problems with the powerpack forced abandonment of the rest of the stations in that line.

Vessel proceeded south in heavy weather on Sunday 15th to west side of Ireland and carried out several trawls while repair work continued on SOAFD equipment. Plankton sampling restarted at previously abandoned line off Barra Head on Monday morning (16th) and continued uninterrupted over the next three days, 12 full stations and 28 IMR CTD casts being completed on three transects up the west coast of Scotland.

Twelve full stations in two transects were worked between Faroe and Shetland over the period 18-21st with 31 IMR CTD casts being completed.

The vessel then proceeded due north of Shetland and commenced a transect heading east towards the Norwegian coast at 62° North.

Six full stations were completed on this transect and four more on a parallel transect 20 miles to the south and moving in a westerly direction over Tampen bank.

A copepod egg production experiment was carried out at the end of this transect.

The vessel then steamed south east on 22 May and started a transect at 2° east running west to the north of Orkney, seven full stations and 13 IMR, CTDs were completed before the vessel broke off to make passage to Aberdeen where it docked at noon on 25 May.

Results

At every station fish larvae were sorted from the cod-ends of the DUAL MIKT nets and the OCEAN sampler and preserved in alcohol and the remainder of the catch in formalin.

Preliminary examination indicated that there were large numbers of blue whiting larvae west of the Hebrides and right up to Faroe.

Other species of gadoid larvae were only seen in any numbers in the area east of Shetland towards Norway and down towards the Moray Firth.

The area between Shetland and the Butt of Lewis yielded very few larvae of any species.

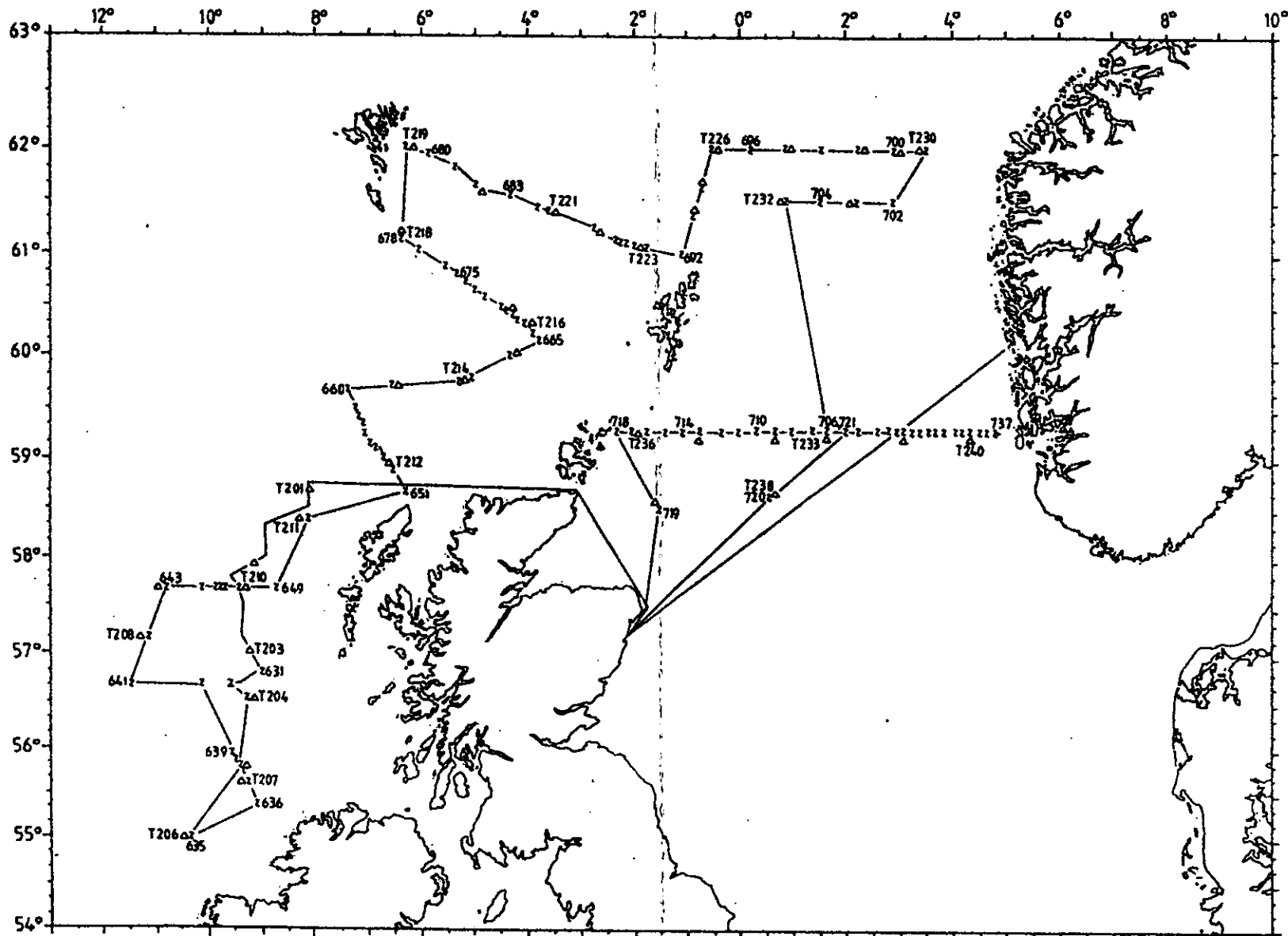
There appeared to be a complete absence of mackerel larvae in any of the areas sampled.

Analysis of the hydrographic casts and plankton samples is continuing.

Thirty nine pelagic trawls were carried out by IMR staff and an acoustic survey was operated continuously during the cruise.

John Dunn

2 August 1994

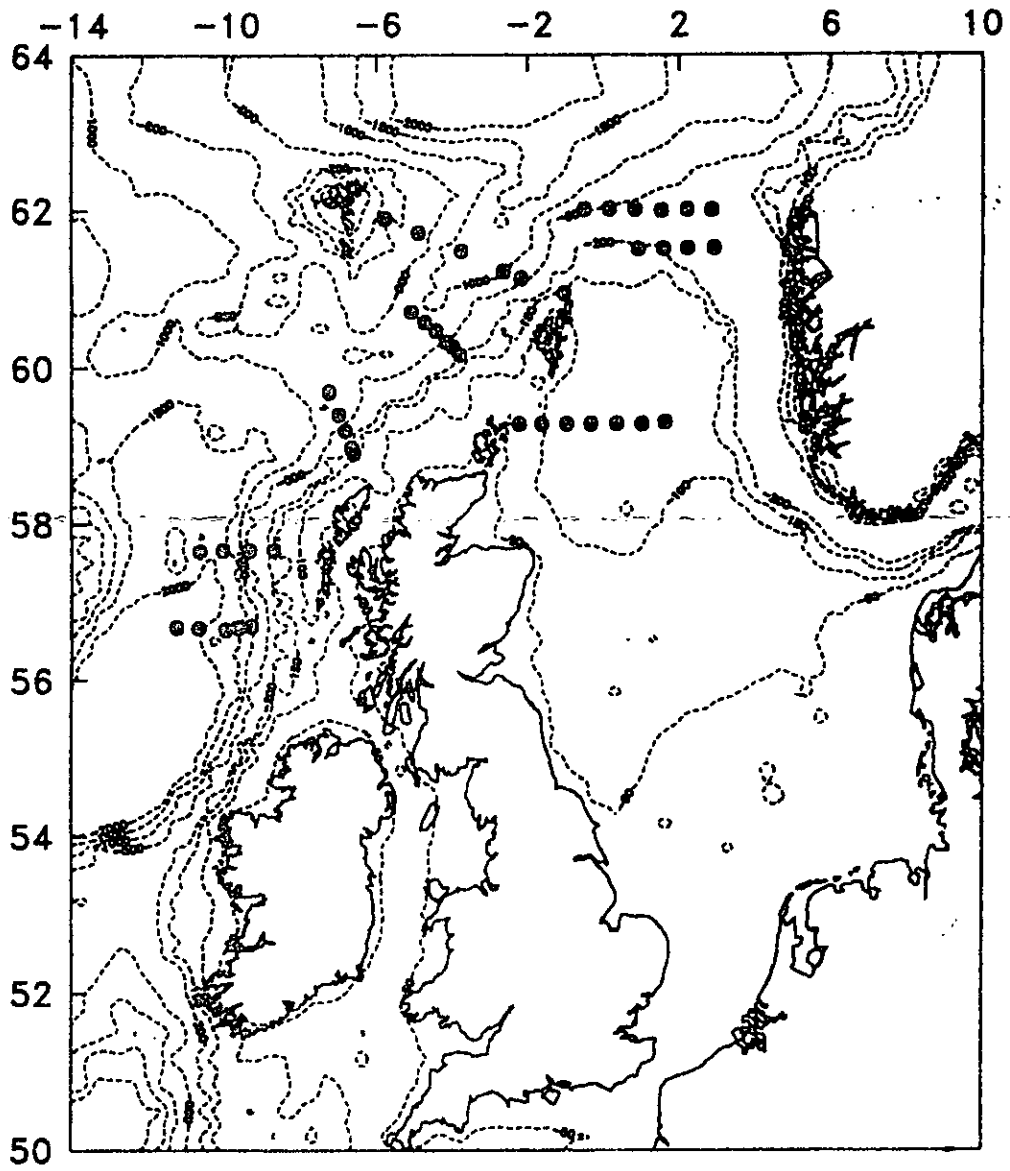


10 - 28 May 1994

z CTD St.no. 631 - 737
 Δ TRAWL St.no. 201 - 240

"G.O.Sars"

G.O.Sars 14/5/94-24/5/94 Dual MIK stations



G.O.Sars 14/5/94-24/5/94 IMR CTD stations

