

R1/12

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

FRV *Scotia*

Cruise 1198S

REPORT

16 June - 7 July 1998

Personnel:

A Robb	HSO (in charge)
I Gibb	SO
C Davis	SO
M Mathewson	SO
G R Legouais	Visitor (UEA)

Out-turn per Project

22 days MF01t

Objectives

1. To carry out a mackerel egg survey (ICES Triennial Survey), on the Western shelf and shelf edge.
2. To collect mackerel and horse mackerel samples for atresia and maturity assessment.

Narrative

Scotia sailed from Aberdeen at 1400 hours on 16 June and spent a short period in the Bay whilst adjustments were made to the ship's compass. The ship then made passage to the first plankton station at 59 15°N 05 15°W. Sampling commenced on the morning of 17 June and despite unseasonal weather conditions, work progressed southwards with minimum interruption. Samples were taken along transects at 1°N intervals with stations every 30' E/W. The GOV trawl was used to collect mackerel and horse mackerel ovary samples for atresia and maturity determination. Less than ideal weather conditions continued to have an effect and eventually resulted in a reorganisation of the overall strategy. After discussion with the other research vessels involved in the survey, *Scotia* agreed to sample and trawl the areas which had not been covered by the Irish and Norwegian participants. To assist with this, the RV *Corystes* agreed to cover some of *Scotia's* more southern transects. On 27 June the ship docked in L'Orient for the half landing and sailed the following morning to recommence the survey. Sampling continued northwards, filling in the transects which had been missed out during the first half of the trip. On the evening of 5 July sampling was completed and the ship headed for Aberdeen, docking at 0500 hours on 7 July.

Results

A total of 147 plankton sampling stations were carried out with the Gulf III between 59 30°N and 48 30°N, Figure 1. Information on the distribution and abundance of mackerel and horse mackerel eggs was obtained. All eggs were identified and staged at sea. The provisional results (numbers per tow) are shown in Figure 2. Mackerel eggs were distributed throughout the survey area. In the North, Stage 1 eggs were found to the west of the shelf break. In the South, stage 1 eggs occurred mainly on the shelf. Horse mackerel eggs were concentrated to the south and west of Ireland. Stage 1 eggs were found around Porcupine bank and on the shelf. The data is currently being analysed in the Laboratory and estimates of the annual egg production will be published elsewhere.

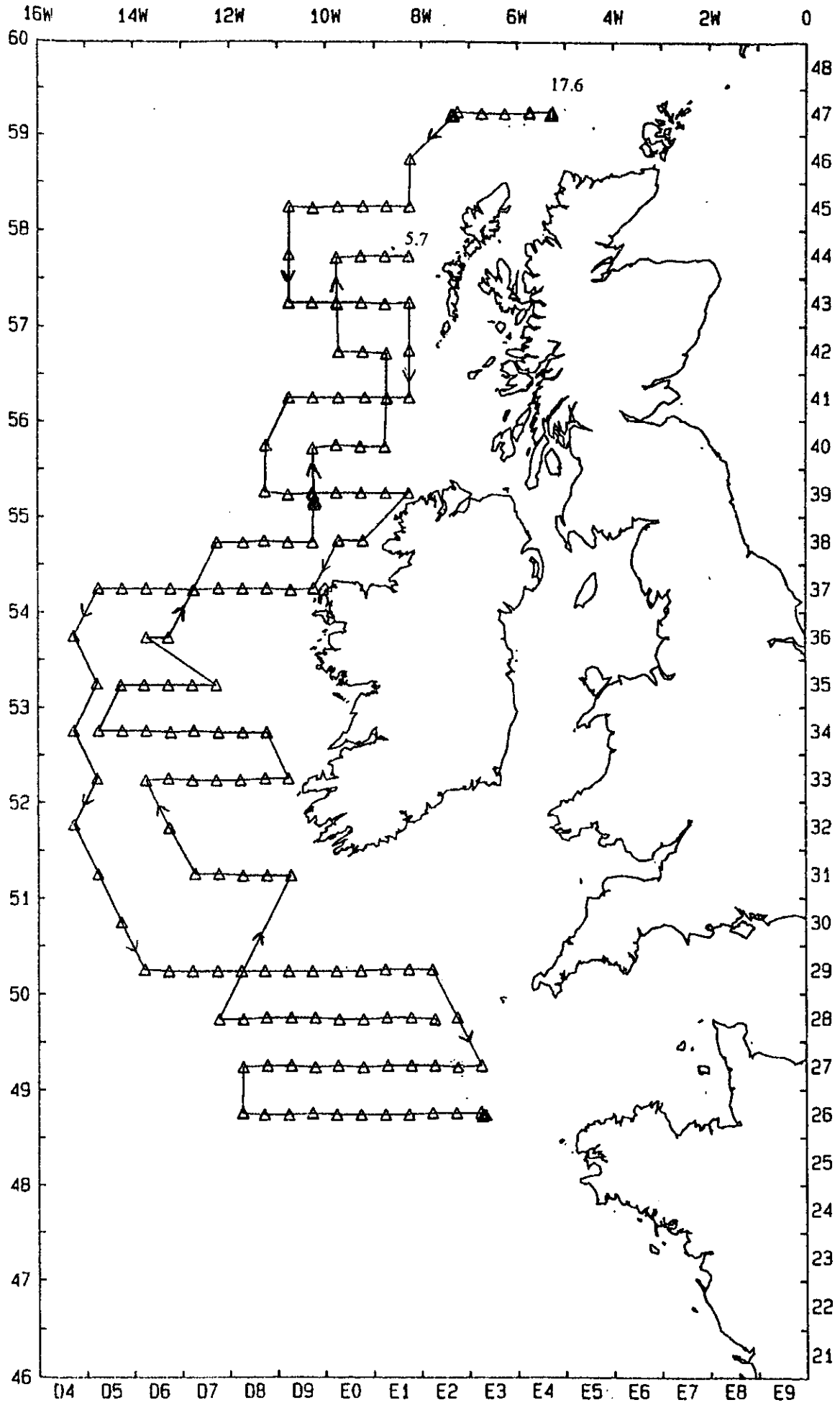
A total of seven Trawl hauls were carried out with the GOV. Mackerel and Horse mackerel ovaries were collected for atresia and maturity assessment. Information on length, age and weight was also recorded.

A P Robb
7 August 1998

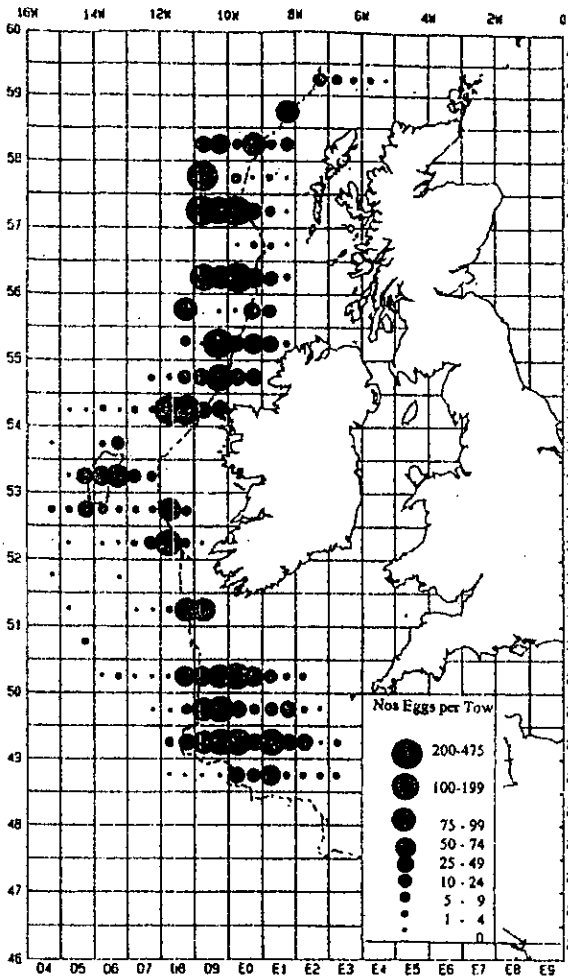
Seen in draft: P Ramsay, Master

Figure 1

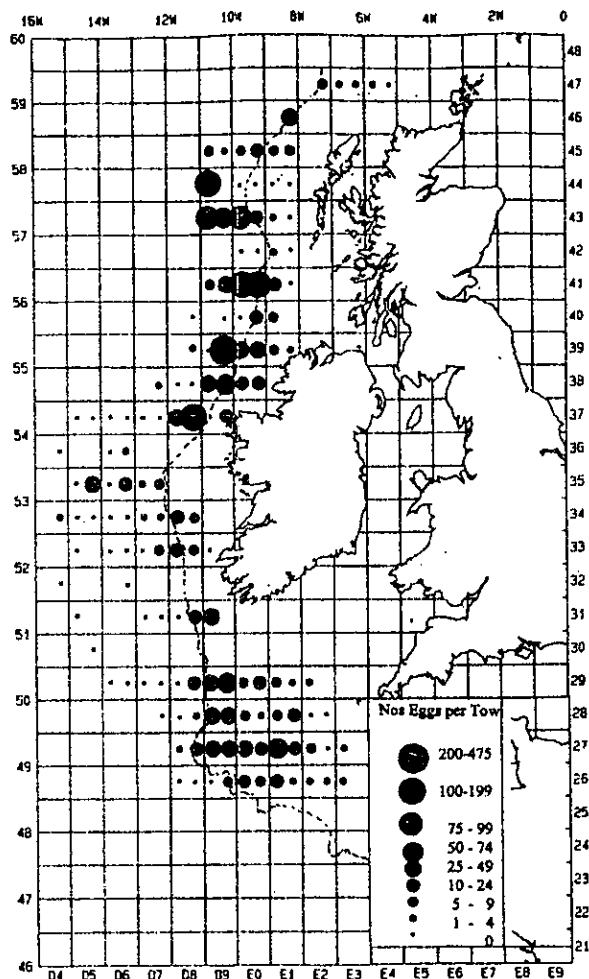
Scotia Mackerel Egg Survey June 1998



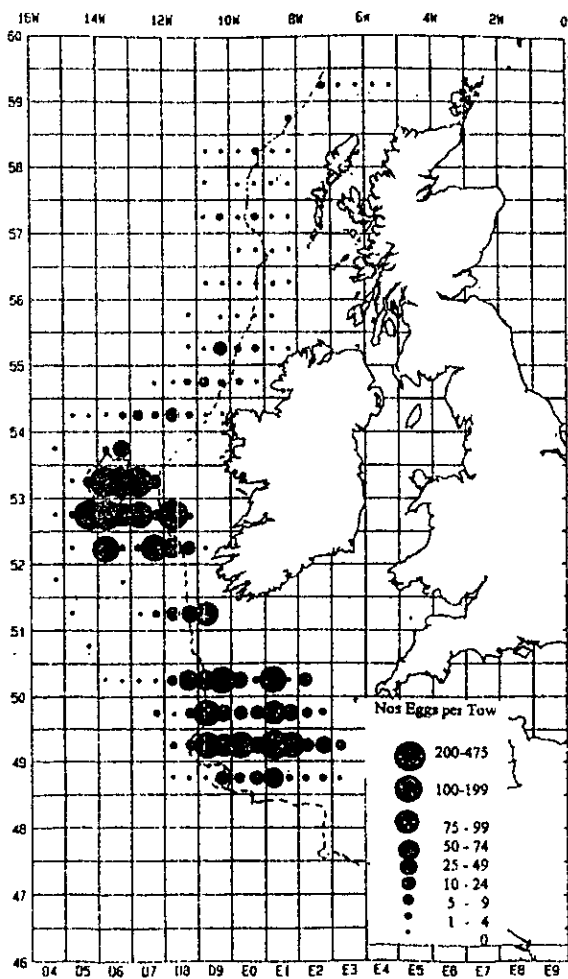
Mackerel-All Stages-Nos Eggs Per Tow



Mackerel-Stage 1-Nos Eggs Per Tow



Horse Mackerel-All Stages-Nos Eggs Per Tow



Horse Mackerel-Stage 1-Nos Eggs Per Tow

