

MINISTRY OF AGRICULTURE, FISHERIES AND FOOD

FISHERIES LABORATORY, LOWESTOFT, SUFFOLK, ENGLAND

1976 RESEARCH VESSEL PROGRAMME

REPORT: RV CLIONE: CRUISE 15.

(Provisional: Not to be quoted without prior reference to the author)

STAFF	Part 1	D J Garrod	Part 2	D J Garrod
		D S Tungate		I Davies
		I Davies		B Thompson
		B Thompson		B Riches
		C Garrod		P Hudson
		S Milligan		R Ferro (DAFS)

DURATION

Part 1 26 October-5 November  
Part 2 6 November-9 November

LOCALITY

West central North Sea: North of Norfolk to 56°N.

AIMS

- Part 1.
1. Survey distribution and abundance of planktonic organisms.
  2. Continuous monitoring of subsurface environmental parameters.
  3. Fluorometric, nutrient analysis of samples at each survey station.
  4. Sampling young fish with 2 sq.m. frame trawl.
  5. Sampling with 2m ring net (neuston)
  6. Release of sea bed drifters at selected stations
  7. Collection of live plankton
  8. Collection of fish samples for metal analysis
- Part 2.
1. Sector scanner/sidescan survey of bottom topography in Tees Bay, Druridge Bay, Filey Bay.
  2. Collection of fish for stomach content analysis using mid water trawl.

NARRATIVE

RV CLIONE sailed from Lowestoft at 10.45 hrs 26 October and having calibrated the TTN en route northward commenced the plankton survey at 18.30 hrs that evening. Some minor technical problems with equipment were overcome during the first two days, mainly owing to heavy weather, but thereafter weather remained fair apart from 12 hours dodging overnight 29 October. Adjustment of the survey route to suit prospective weather conditions enabled the survey to continue without further interruption to completion on 5 November.

Staff were exchanged in Sunderland at 1800h 5 November. RV CLIONE sailed again at 0630h 6 November for Tees Bay. There the sector scanner and sidescan sonar equipment were run-up and a limited survey of the inshore area of Tees Bay completed before proceeding to carry out a similar survey in Druridge Bay on 7 November and in Filey Bay on the 8th, collecting live plankton en route south. All three surveys were completed without interruption and RV CLIONE proceeded south to DB1 overnight of 8 November, recovered the guard buoys on the morning of 9 November and docked at 10.00hrs.

## RESULTS

### Part 1.

Preliminary charts of the survey track, surface salinity, temperature and chlorophyll 'a' are attached. Though abundance is declining with the onset of winter phyto and zooplankton were sufficient to provide variations in abundance over the survey area. Some 0-group fish were located, mainly flatfish (? dabs, lemon sole, witch) and clupeoids (? sprats) but numbers were relatively low as expected. The neuston and frame net hauls were particularly sparse and no significant catches of species of commercial importance were taken. Since there was no indication of localised concentrations of young fish, or associated predators the collection of fish for stomach analysis and for metal analysis was deleted but otherwise all aims were completed.

### Part 2.

The underlying aim of this part of the cruise was to test the feasibility of acoustic survey to chart inshore bottom topography and sediments as a method for defining habitat areas for young fish and benthic organisms, and for locating possible sampling areas in apparently rough areas. The acoustic equipment functioned perfectly throughout the three surveys. Range is limited to some 200m with both types of equipment in the shallow areas of interest but within that limit the predominant features of the seabed were clear. It remains to be seen how far these can provide an adequate chart of the sediment type but the technical aims of the survey were achieved.

Overall it was an extremely pleasant and successful cruise.

D J Garrod  
12 November 1976

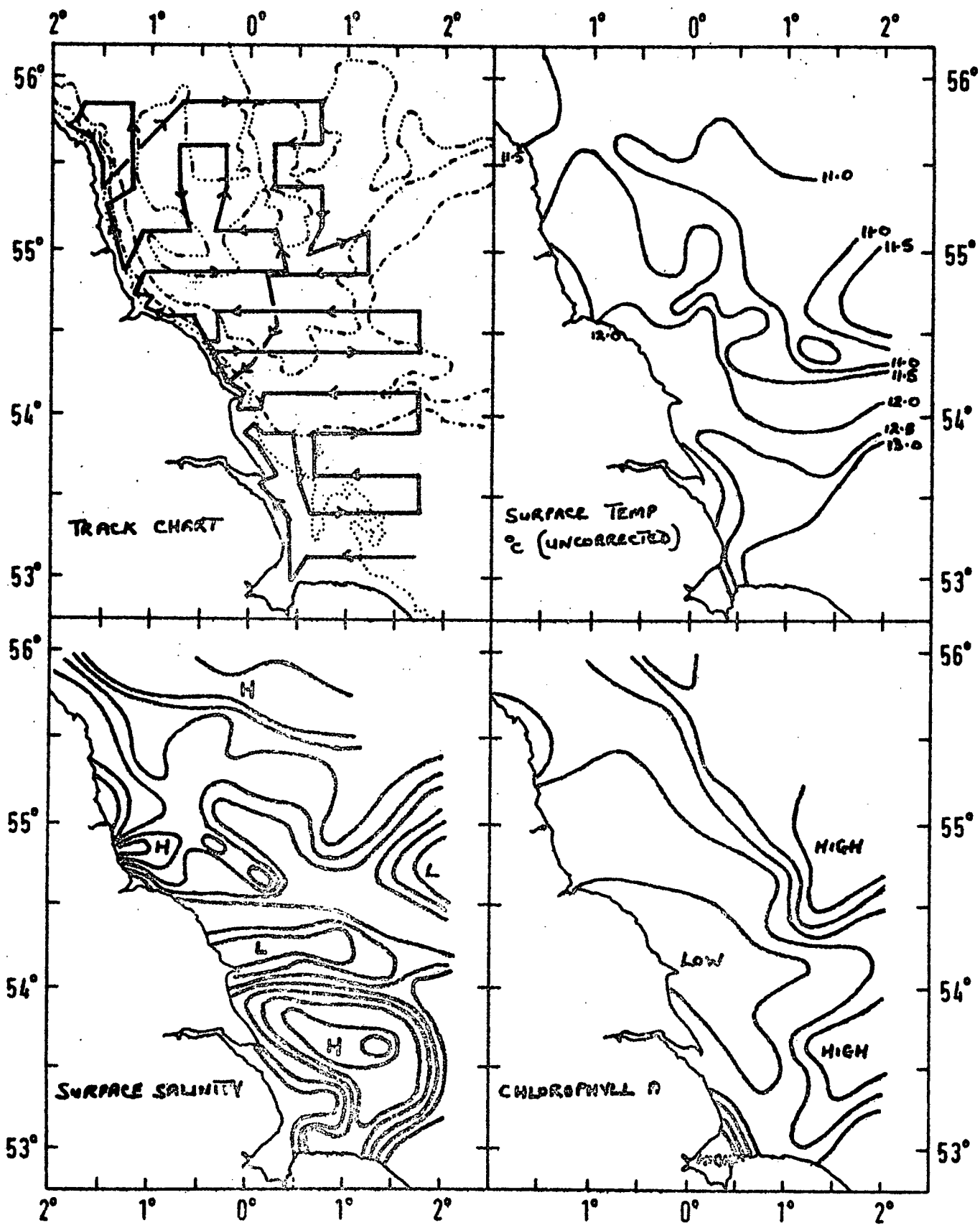
SEEN IN DRAFT: J R French - Master  
G F Lee - Skipper

INITIALLED: AJL

DISTRIBUTION:

Basic list

D J Garrod	B Riches
D S Tungate	P Hudson
I Davies	R Ferro (DAFS)
B Thompson	
C Garrod	
S Milligan	



CLIONE 15/76