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MINISTRY OF AGRICULTURE, FISHERIES AND FOOD
FISHERIES LABORATORY, LOWESTOFT, SUFFOLK, ENGLAND

1978 RESEARCH VESSEL PROGRAMME

REPORT: RV CIROLANA: CRUISE 11/78

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

STAFF

S J Lockwood	P O Johnson
H R Stewardson	J Dann
Mrs W A Dawson	M Easey
J Williams (Brixham)	T Sellers (Part time)
I Everson (BAS)	N Pearson (Part time)
J Warren (BAS)	

DURATION

Left Falmouth 1200h 9 December
Arrived Grimsby 0830 h 19 December

LOCALITY

Western English Channel

AIMS

1. To carry out a acoustic survey of pelagic fish shoals.
2. To identify fish shoals by trawling.
3. To calibrate the towed body transducer.
4. To make in situ target strength measurements of pelagic fish.
5. To collect mackerel blood for biochemical analysis.

NARRATIVE

CIROLANA sailed from Falmouth dry dock at 1200 h 9 December and made two pelagic trawl hauls en route to Tor Bay where she anchored at 2200 h. CIROLANA lay at anchor until 0830 h 15 December; this was longer than planned due to storm force winds on 12-14 December. Most of the transducer calibration work was completed, and Capt Sellers and Mr Pearson disembarked via Brixham Pilot, during this period at anchor. On 15 December CIROLANA sailed to an area east of the Lizard where an extensive concentration of mackerel was found. Once the echo traces were positively identified as mackerel CIROLANA lay overnight while in situ target strength measurements were collected. During the morning of 16 December handlines were used in a vain attempt to catch mackerel for blood samples, and further target strength measurements were taken. In the afternoon CIROLANA sailed to St Austell Bay where she lay at anchor until 1600 h 17 December for completion of calibration work. She then left for Grimsby and docked at 0830 h 19 December.

RESULTS

1. No systematic acoustic survey was made but an extensive mackerel concentration east of the Lizard was identified by trawling, and by the presence of 26 commercial fishing vessels during the night 15-16 December.
2. Two trawl hauls were made off Start Point to enable Capt Sellers to watch pelagic trawling. A third haul was made off the Lizard where mackerel were caught. Due to a number of difficulties during hauling no further pelagic trawling was carried out.
3. Circle diagrams were drawn for the towed body and hull transducers, they were also tuned. The towed body transducer source level and receiver sensitivity were measured.
4. A total of 3 hours in situ target strength measurements were taken.
5. 100 ml of mackerel blood was collected for biochemical analysis.
6. Noise levels were measured in calm conditions at 0-10 kts with the towed body transducer and 0-12.5 kts with the new hull transducer.

Stephen J Lockwood
21 December 1978

SEEN IN DRAFT: Captain T H Finn - Master
E W Pearson - Fishing Skipper

INITIALLED: AJL

DISTRIBUTION:

Basic List	
S J Lockwood	P O Johnson
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