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FRV *Clupea*

Cruise 1697C

REPORT

22 September - 2 October 1997

Personnel

M R Robertson	HSO	22 September - 2 October (In charge)
E H Pinn	Res Asst	22 September - 2 October
I Garioch	Contract Worker	22 September - 26 September
C W Shand	HSO	26 September - 2 October

Gear: RoxAnn, Thermosalinograph, Fluorometer, TV Sledge and Drop Frame, Day Grab.

Objectives

1. To undertake an acoustic survey of the areas south and east of Barra Head and in the Passage of Tiree.
2. To carry out an intensive TV, still photography and grab survey from throughout the southern Sea of the Hebrides.
3. To record surface temperature, salinity and fluorometric data from throughout the survey area.

Out Turn Days: 11 days BKE1

Narrative

Clupea sailed from Fraserburgh at 1345 hours on Monday 22 September and made for the first transect positions in the south Minch. On arrival, at 1615 hours on 23 September, a towed body was deployed and data logging and sample collection commenced. On completion of the acoustic survey, *Clupea* steamed for Kerrera and dropped anchor for the night before tying up at Oban harbour on the morning of 26 September.

At 0700 hours on the 27 September, *Clupea* sailed for sampling positions around the island of Colonsay and commenced a TV, still photography and ground-truthing survey. Work continued until 2000 hours when the vessel moved to Jura and dropped anchor for the night.

The following morning, *Clupea* returned to the vicinity of Colonsay and continued the survey however, increasing SE gales forced the vessel to head for shelter in Loch Tarbert, Isle of Jura and remain there overnight.

The next day, southerly gales again prevented any work being attempted around Colonsay or further west so *Clupea* moved north through the Firth of Lorne, finally dropping anchor off Tobermory at 1500 hours.

On the morning of 30 September, *Clupea* sailed for the stations in the Passage of Tiree and commenced work. Surveying continued all day until 1600 hours when the TV cable was badly damaged against rocks. With no further sampling being possible and in the face of deteriorating local weather conditions and severe northerly gale warnings, *Clupea* headed for Ardrossan arriving there at 0600 hours on Wednesday 1 October.

Results

1. Approximately 400 miles of RoxAnn acoustic data were logged from throughout the sampling area (see Fig. 1). These data will be used in unsupervised cluster analysis to extend maps of potential biotope boundaries in the southern Minches.
2. A total of 14 stations were sampled by TV, Drop-frame photography and Day grab (see Fig. 1). The video tapes, photographs and sediment samples collected will be analysed later in the Laboratory.
3. Continuous surface temperature and salinity data were collected, along with 50 surface nutrient samples, from the survey area. These data and samples will also be analysed later in the Laboratory.

M R Robertson
20 October 1997

Seen in draft: A Simpson, OIC

Figure 1

- + Position of vessel, recorded every half hour, during Cruise 1697C
- ◆ Acoustic survey transect positions
- TV/Drop frame positions

