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FRV *Clupea*

Cruise 1902C

REPORT

2-14 December 2002

Personnel

- A Weetman (In charge)
- C Shand
- J Kinnear
- J Drewery (2-8 December 2002)

Objectives

1. To obtain estimates of distribution and abundance of *Nephrops* in Torridon area as part of the Torridon project.
2. To collect sediment samples at each station.
3. To use trawl caught samples of *Nephrops* to examine biological features at different sites throughout the survey area.
4. To investigate the possibility of using underwater TV to estimate Edible crab population on suitable crab fishing grounds.
5. To use TV to survey the seabed at standard trawl positions as used in the Aqcess project.
6. The TV survey will also be used to collect data on other potential commercial species.

Estimated Days per Project: 13 days MF01T

Narrative

Clupea sailed at 0900 from Fraserburgh on 3 December, one day later than expected due to adverse weather conditions, beginning work on the first station at 0800 on 4 December, after a rough journey. Working in the lee of the land to provide the vessel with some shelter eight TV stations were completed in the Sound of Raasay, anchoring at Staffin Bay that night. With calmer conditions the next day, 10 stations in the more exposed area to the north of Rona were completed, anchoring at Longa. By midday on 6 December, the five remaining stations of the Inner Sound were finished. All further work was carried out on either harder ground (crab sites) or inside lochs, restricting tow length and increasing the chance of contact with creels. With this in mind, the TV equipment was transferred from the sledge to the drop frame, which was used for all further TV work on the trip. In the afternoon, three stations were surveyed on potential crab ground, where the recordings were longer and over varied terrain, finally anchoring off Longa. Outer Loch Torridon was intensively surveyed due to lack of creels, as in previous years this has not been possible, logging 10 stations, followed by another three as *Clupea* steamed to the head of Upper Loch Torridon for the night. On 8 December *Clupea* headed for Loch Kishorn where previously demersal studies had been carried out by the Inshore Fisheries Group. Using the dropframe, the seabed was surveyed and then towed upon, for comparison with data collected in October 2002 using

disembark and return to Aberdeen for a meeting. Three sites were chosen in Loch Alsh for the morning of 9 December, but two were unworkable due to creels. Four stations were successfully surveyed in Loch Duich, and at midday the vessel headed for Loch Hourn, where four more sites were surveyed before it became too dark to work. The last two sites in Loch Hourn were covered on the morning of 10 December, before heading North, with a site in the Sound of Sleat recorded *en route*. A site earmarked as suitable crab ground was looked at off the NE of the Crowlin Islands, followed by a station in Applecross Bay. *Clupea* proceeded to Loch Torridon, where a further two *Nephrops* stations were surveyed in the Upper Loch (to boost the previous visit's coverage) and a site with harder ground off Shildaig Island, finally *Clupea* anchored there for the night. 11 December began with a crab ground station, and then a steam west towards Staffin. There then followed three fishing trawls, one in the mixed fishing area, and working east, two in the trawl fishing only area involved in the Torridon *Nephrops* project. The creel only fishing area was as expected too heavily covered with gear to allow for a trawl, and permission from BUTEC for entry in to the control/no fishing area was unavailable due to on-going exercises. All trawls were located over previously TV surveyed sites. A crab fishery area off Red Point was looked at, and then the vessel proceeded to Gairloch to collect mechanical parts required for the engine. On 12 December, after leaving Gairloch, crab areas off Longa, Peterburn, Loch Ewe and the Summer Isles were surveyed, followed by one *Nephrops* ground in the heavily creeled area of Badentarbat Bay, and two in Enard Bay. TV survey work finished in the late afternoon, and the vessel then headed for Fraserburgh, hampered by very strong SE winds. Unloading was carried out on Monday 16 December.

Results

Station locations are shown on the chart.

Sediment samples were collected at all suitable sites.

Final analysis of the videotapes will be carried out within the laboratory.

Adrian Weetman
13 January 2003

Seen in draft: A Simpson, OIC *Clupea*

Clupea West Coast TV Survey December 2002

