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Charter Fishing Vessel *Fram*

Cruise 1206H

REPORT

Spatial Distribution of Sea-Lice 2006 fieldwork (FC1195) Phase I

10-14 July 2006

Location

Loch Shieldaig, Ross-shire

Personnel

J Beaton (OIC)
D Lichtman

Vessels and Transport

MV Fram
Transit van
Box van (equipment delivery only)

Objectives

The aim is to collect data to verify a loch circulation model for the tracking of sea-lice in Loch Shieldaig. A total of nine moored instruments will be deployed at locations in Loch Shieldaig, Lower and Upper Loch Torridon.

- Deploy an Aanderaa remotely monitored environmental data buoy
- Deploy an Aanderaa RDCP600 recording doppler current profiler in a trawl-resistant bottom mount
- Deploy two Sontek Argonaut acoustic current meters
- Deploy four Aandreaa water level recorders
- Service and download Davis Monitor II weather station
- Take SAIV CTD profiles along Loch Shieldaig
- Set up data buoy radio receiver station at the Shieldaig field station
- Perform GPS drifter survey

Narrative

Staff and equipment travelled to Shieldaig on Monday 10 July. On arriving at Shieldaig we went to the field station. Plans for the coming week were discussed with the field station staff and the data buoy receiver and logging computer was set up. The weather station was checked and the computer set up to log the weather station as well.

On the morning of 11 July we met with Kenny Livingstone, the skipper of the *Fram*, to plan the buoy deployments. The sites of the RDCP and data buoy were sounded and positions logged. Three of the water level recorders (WLR) were then deployed in Loch Shieldaig and Upper Loch Torridon. The data buoy, bottom mount and ballast weights arrived in Shieldaig by box van around lunch time. The data buoy, trawl resistant bottom mount (TRBM) and mooring equipment were all off loaded.

The trawl resistant mount and mooring equipment was loaded on to the *Fram*. Ballast weight was attached to the data buoy before it was rolled down the slipway into the loch. The *Fram's* tender boat was then used to tow the buoy out to deeper water. The *Fram* then towed the data buoy out to a sheltered deep water area near the deployment position so that the mast section of the data buoy could be assembled. The data buoy was left at this position until the mooring anchor could be deployed. The mooring anchor was then deployed on position with a surface marker. The data buoy was then towed on to position and replaced the surface marker. The Navigation light and data logger were tested before heading back to shore. Back at the field station the reception from the data buoy was seen to be working.

On 12 July the radio receiver station antenna was relocated to a more secure position and the cabling re-run for the antenna, weather station and logging computer. The computer display was updated and checked. The Sontek current meters were set up and tested and the RDCP settings were checked. Arrangements were made with Kenny Livingstone for the next day.

The 13 July started with the deployment of the two Sontek current meters, one in Loch Shieldaig and the other in Upper Loch Torridon. The RDCP was checked, then connected to the TRBM and deployed. The TRBM was lowered to the sea bed and the line retrieved. The last WLR was then deployed at the mouth of Loch Torridon.

After the mooring work was completed the Fram returned to the location of the data buoy. The four GPS drifters were deployed as two pairs in this area. A line of four CTD profiles were then taken from the data buoy along the axis of Loch Shieldaig. Wind measurements were taken at each CTD profile and at the deployment and recovery of the drifters. Three plankton pumps were collected from a fish cage experiment before returning to shore to save time for the field station staff.

The morning of 14 July was spent fixing the pallet for the data buoy and checking the computer setup. Whale samples were picked up from SAC in Inverness before arriving back at FRS late in the afternoon.

J Beaton
23 August 2006