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FRV *Clupea*

Cruise 0408C

Report

6 March - 8 March 2008

Loading: Aberdeen
Unloading: Fraserburgh

Personnel

J Dunn	SIC
P Stainer	
N Serpetti	(University of Aberdeen Oceanlab & FRS
A Hernandez Otero	(University of Aberdeen Oceanlab)

Project: MF0758 – 3 days

Sampling gear: Hydrographic CTD; Minimuc corer, grab, Roxann

Fishing gear: None

Area: East coast (Porthlethen – Crawton)

Objectives

1. To collect sediment core samples at given locations and conduct measurements of permeability and porosity on cores aboard the vessel.

2. To collect grab samples, sieve and preserve saved material.

3. To carry our hydrographic measurements with a CTD and collect water samples.

4. To survey inshore areas using the Roxann hydroacoustic system.

Narrative

Staff joined the ship at 0730 in Aberdeen, and after a slight delay to allow the ship to take on fresh water *Clupea* cleared the harbour by 0930.

The non toxic system was switched on and the thermosalinograph and fluorometer were switched on.

Due to severe damage to the Mini Muc corer on the previous trip we could only deploy a grab, water sampler and Seabird CTD at a series of stations from the station list. Cores for the permeability meter were taken from the grab samples were possible. A considerable amount of time was spent trying to get the permeability meter working, but it became obvious that the violent movement of the ship was causing the water in the manometer to rise and fall so much that it was impossible to make accurate measurements.

With the weather and sea state picking up, it was decided to conduct a Roxann survey up the coastal strip between the area previously surveyed by *Scotia* in December 2006 and the coast. The master decided that because of the number of creel floats in the area to conduct the survey going east to west and vice versa rather than north south as we had originally planned. This was completed by 1700 when it was decided that the *Clupea* should berth in Aberdeen for the night.
The cores which had been collected during the day were successfully dealt alongside and the falling head worked extremely well and a good set of data was obtained.

The following morning *Clupea* left Aberdeen at 0705 and made for station seven in a moderate swell and freshening wind, this and a further six stations were completed before at station 15 in the face of a large and rising swell, coupled with a very strong wind and the tide against the swell. *Clupea* was forced to abandon the survey.

The forecast was very poor and the prognosis of getting any more work done before the end of the cruise was poor, so after consultation with the laboratory it was decided that that *Clupea* should head for Fraserburgh, where she docked just before midnight.

The scientific crew worked on the collected cores using the permeability meter and falling head system, the following day before packing up and cleaning the ship.

This will almost certainly be the last scientific voyage of the *Clupea*, and as I was present on some of the first scientific cruises of the ship, I should like to record my thanks to all the officers and crew over the years who have helped to make all the work that the ship has done for the laboratory a success.

Results

1) Sediment cores were successfully obtained from thirteen stations and measurements of the permeability and porosity were carried out on the cores.

2) A similar number of grab samples were obtained, sieved and preserved.

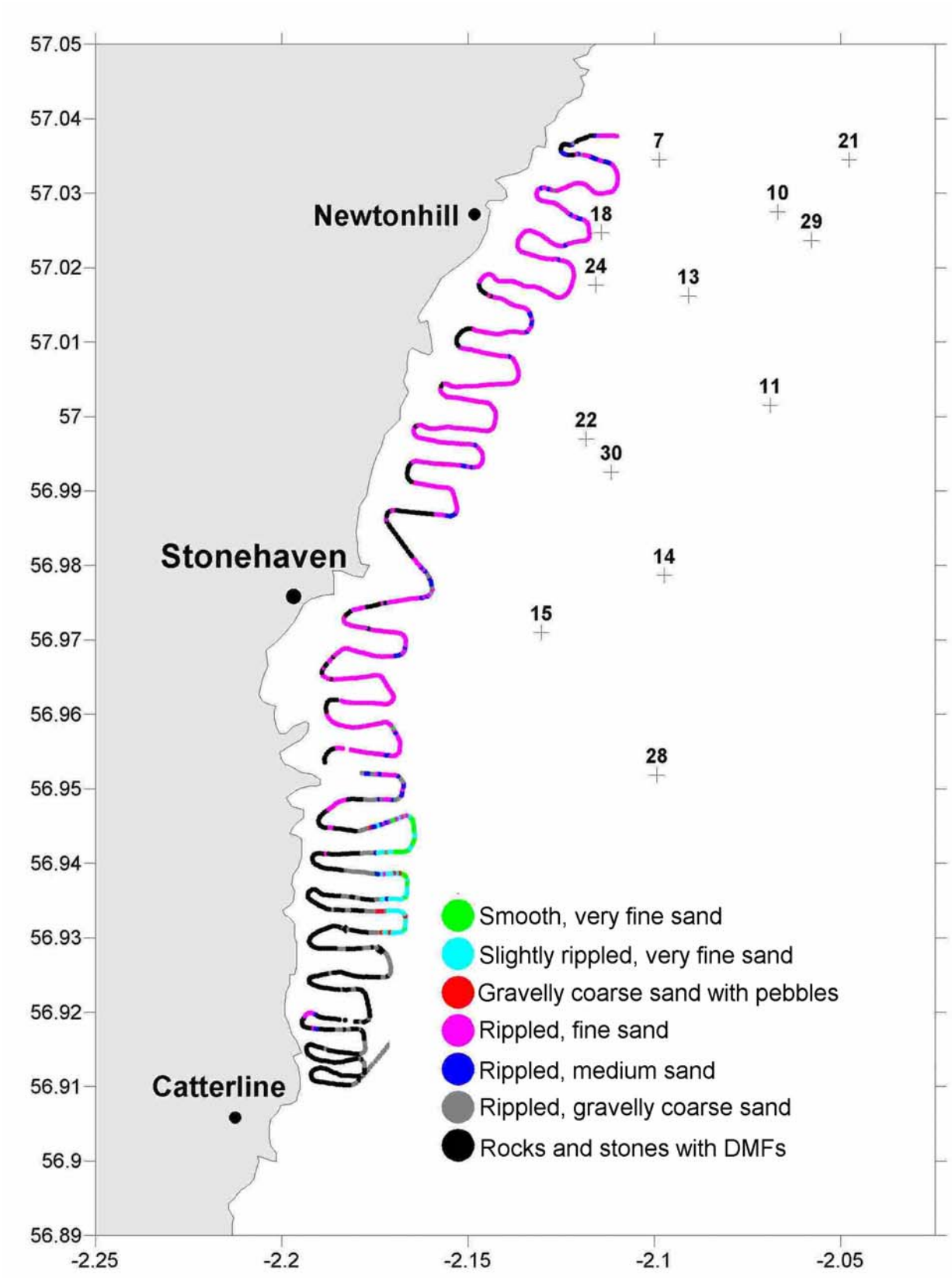
3) Hydrographic measurements were carried out using a Seabird 911 CTD, and water samples were collected.

4) A Roxann survey was carried out in the inshore area between Stonehaven and Portlethen.

John Dunn
25 November 2008

List of sampling locations

Station	Latitude			Longitude		
1	56	55.968	N	2	8.618	W
2	56	55.920	N	2	7.723	W
3	56	57.078	N	2	7.578	W
4	56	57.486	N	2	8.202	W
5	56	56.934	N	2	6.747	W
6	56	56.495	N	2	6.351	W
7	57	2.234	N	2	5.846	W
8	56	58.736	N	2	8.813	W
9	56	56.698	N	2	10.124	W
10	57	1.692	N	2	3.984	W
11	57	0.030	N	2	4.128	W
12	56	56.418	N	2	5.389	W
13	57	1.122	N	2	5.437	W
14	56	58.716	N	2	5.859	W
15	56	58.218	N	2	7.814	W
16	56	55.256	N	2	10.562	W
17	56	59.436	N	2	9.057	W
18	57	1.506	N	2	6.838	W
19	56	54.510	N	2	8.303	W
20	56	55.578	N	2	5.017	W
21	57	2.131	N	2	2.777	W
22	56	59.634	N	2	6.926	W
23	56	57.501	N	2	7.941	W
24	57	1.056	N	2	6.908	W
25	56	58.836	N	2	9.759	W
26	56	57.024	N	2	10.052	W
27	56	55.140	N	2	8.162	W
28	56	57.018	N	2	5.900	W
29	57	1.542	N	2	3.448	W
30	56	59.616	N	2	6.703	W
31	56	57.336	N	2	7.830	W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57
56.99
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56.97
56.96
56.95
56.94
56.93
56.92
56.91
56.9
56.89
-2.25
-2.2
-2.15
-2.1
-2.05
Newtonhill
Stonehaven
Catterline
7
21
10
18
29
24
13
11
22
30
14
15
28
Smooth, very fine sand
Slightly rippled, very fine sand
Gravelly coarse sand with pebbles
Rippled, fine sand
Rippled, medium sand
Rippled, gravelly coarse sand
Rocks and stones with DMFs