R17/6

Not to be cited without reference to the FRS Marine Laboratory, Aberdeen

FRV *Alba na Mara*

Cruise 0908A

PROGRAMME

DATES

5-19 September 2008

Loading – Fraserburgh
Unloading – Fraserburgh

Personnel

B O'Neill	6-17 September
J Hunter	5-19 September
M Burns	5-19 September
Environmental Impact	5-19 September

Shore Based

M Breen	6-17 September
K Summerbell	6-17 September
M Campbell	6-17 September
J Mair	6-17 September
M Harding	8-17 September
R Neilson (University of Aberdeen)	8-9 September
M Alexander (University of Liverpool)	10-13 September

Gear

Divers TUV (net drum and towing wire)
Day grab
Quad of Nitrox
BT158 and modified Morgere doors
Laser camera profiler
Diving equipment and divers hand held camera
High resolution load cell and accelerometer
LISST 100X
Scanmar

Objectives

1. To measure the immediate physical, ecological and environmental impact of a trawl gear on coarse sediment.

2. To measure the immediate physical, ecological and environmental impact of a roller clump on coarse sediment.

Alba na Mara will leave Fraserburgh and head to Campbelltown. The divers will travel by road and meet up with *Alba na Mara* on 7 September. Trials will begin with the trawl gear on 8 September in waters to the south west of Arran. These operations will include:

i. Taking core samples in an area, towing the fishing gear through that area and subsequently taking core samples outside the tow path and inside the impacted area.

ii. Measuring the physical impact to the seabed outside the tow path and inside the impacted area using the laser-camera profiler.

iii. Towing the fishing gear while divers film and measure the large scale dimensions of the plume from the TUV, the particle size of suspended sediment using the LISST 100X and take water samples in the plume behind the trawl doors.

The sediment plume samples will be filtered, sub-sampled and stored on board *Alba na Mara*. Analysis of the suspended solids, particle size and nutrient will take place on return to the Laboratory. The core samples will be sectioned, sieved over a 0.5mm mesh and stored in formaldehyde on *Alba na Mara*. Subsequently the infaunal community will be quantified by functional type.

High resolution engineering data will be collected during the cruise using the load cells and accelerometers. The day grab will be used to collect sediment samples at each location.

Depending on progress, the impact of the roller clump will also be investigated. To facilitate dive planning, the filling of cylinders and equipment checks, *Alba na Mara* will be required to tie up at Campbelltown most evening. The trials will finish on 16 September and *Alba na Mara* will return to Fraserburgh for off loading on 19 September.

J A Morrison
25 August 2008