

Agri-Food and Biosciences Institute Agriculture, Food and Environmental Science Division Fisheries and Aquatic Ecosystems Branch

Cruise Report: CO 0307 **Vessel:** RV *Corystes* **Date:** 20th – 24th January 2007 **Area:** North Channel ICES div. VIIa **Survey Type:** Grab Sampling, Drop Camera, Video Sledge

Personnel:

M Service (SIC)	PSO	AFBI	21 – 24 Jan
B Stewart	SSO	AFBI	21 – 24 Jan
R Gilmore	SO	AFBI	21 – 24 Jan
V B Skyrme		JNCC	20 – 24 Jan
J Strong	PDRA	QUB	21 – 24 Jan

Objectives:

i. To Ground Truth previously collected Multi Beam backscatter data from the North Channel and test optimal allocation procedures by Grab Sampling & Video Survey.



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Methods:

- Stations on attached list were sampled
- All grab stations were successfully sampled using the Day Grab and samples retained for faunal analysis and sub sampled for PSA and CHN.
- The heavy swell made the drop camera ineffective so the camera sledge was used. Visibility was generally poor however a number of usable tows were made.

Cruise Narrative:

Saturday 20/01/07

After discussion with the Master it was decided to delay sailing until 10:00h the following morning due to the poor weather forecast.

Sunday 21/01/07

The vessel sailed at 10:00h and arrived on station at 13:30h. Work commenced with the Day Grab and carried through until 20:30h.

Monday 22/01/07

The weather had moderated slightly overnight and the decision was made to attempt to deploy the drop camera. The first deployment failed due to a short circuit in the system. After changing cables a second attempt was made allow the bottom was observed it became evident that the swell was "bouncing" the frame off the seabed destroying the already poor visibility. The decision was made to switch to the towed sledge as this has more stability and would tow ahead of sediment plumes. While cables were being switched further grabs were collected. During the remainder of the morning and afternoon a number of camera tows were made but visibility was generally poor and probably related to tide state. In the evening the remainder of the grabs were collected and operations ceased at 21:00h.

Tuesday 23/01/07

Work for the day commenced at 0800 hrs with further video tows. The success of these was variable due largely to the visibility and tides, although most major features could be noted. The at 21:00 the vessel made passage to Belfast berthing at around 01:00h

Wednesday 24/01/07

Scientists disembarked AM and most equipment was off loaded

Results:

Samples will be submitted for PSA and faunal samples retained for future use. Video will be analyzed for habitat mapping. In future this site will have to be revisited in moderate weather probably best at Neap tides.

Operational Aspects of the Ship:

During the cruise the A-frame, main trawl winches, both hydrographic winches were used. The winch for deploying the carriers down the instrument tube was not operational and this is not the first time this has occurred. Scientific equipment performed well although there are some issues with the USBL system. The camera sledge is not the best tool for this seabed but performed well. Bench seat in the top laboratory broke.

The hotel and catering service was of the usual high standard and there was a good working relationship between the scientists and the ship's crew. Prior to the ship departing Belfast a comprehensive and detailed safety briefing was delivered to the scientific crew.

Acknowledgements

I am indebted the deck crew of the RV Corystes for their co-operation and assistance during the mooring recovery and deployment operation. The ship's master, officers, engineers and catering staff are also thanked for their co-operation during this cruise.

Scientist in Charge

Master (seen in draft)

Date 30/01 2007

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ID	Ground-truthing	Longitude	Latitude
1	50m video drop	5 4.479' W	54 24.101' N
2	50m video drop	5 2.047' W	54 26.212' N
3	50m video drop	5 7.894' W	54 28.625' N
4	100m video drop	5 1.060' W	54 26.313' N
5	100m video drop	5 0.779' W	54 23.666' N
6	100m video drop	5 3.937' W	54 23.648' N
7	200m video drop	5 2.079' W	54 22.921' N
8	200m video drop	5 3.768' W	54 26.359' N
9	200m video drop	5 2.134' W	54 25.725' N
10	200m video drop	5 2.397' W	54 24.542' N
11	200m video drop	5 2.999' W	54 25.452' N
12	200m video drop	5 5.381' W	54 26.140' N
	Day grab sampling - 2 replicates		
13	per site	5 2.002' W	54 25.765' N
	Day grab sampling - 2 replicates		
14	per site	5 4.618' W	54 23.576' N
	Day grab sampling - 2 replicates		
15	per site	5 5.541' W	54 28.344' N
	Day grab sampling - 2 replicates		
16	per site	5 0.782' W	54 23.227' N
	Day grab sampling - 2 replicates		
17	per site	5 1.083' W	54 26.329' N
	Day grab sampling - 2 replicates		
18	per site	5 4.732' W	54 26.984' N
10	Day grab sampling - 2 replicates		- 1 ⁰⁰⁰
19	per site	5 3.481' W	54 <u>@</u> 25.951' N
20	Day grab sampling - 2 replicates		
20	per site	5⊛ 5.741° W	54 <u>88</u> 26.862' N
21	Day grab sampling - 2 replicates	5 × 1 0291 W	5 4
21	Day and compline 2 replicates	5⊛1.028 W	54 <u>88</u> 27.054 N
22	Day grab sampling - 2 replicates	5 ¹⁰ 1 560' W	51 ⁰⁰⁰ 26 602' N
	Day arch compling 2 raplicates	5∰ 1.500 W	J4 <u>₩</u> 20.092 N
22	Day grab sampling - 2 replicates	5 ¹⁰⁰ 5 005' W	51 ⁸⁸ 25 226' N
23	Day grab compling 2 raplicates	5 <u>₩</u> 5.095 W	34 <u>∞</u> 23.330 N
24	Day grad sampling - 2 replicates	5 ³ 2 754' W	54 [™] 22 831' N
24	Day grab sampling - 2 replicates	J 2.754 W	J4 22.031 IN
25	per site	5 [∞] 2 278' W	54 [∰] 22 302' N
23	Day grab sampling - 2 replicates	<u></u> 2.270 W	<u>5-<u>1</u>,</u>
26	ner site	58 0 221' W	54 [©] 24 475' N
20	Day grab sampling - 2 replicates	J 0.221 W	J-1
27	ner site	5 4 725' W	54 [©] 22 142' N
27	Day grab sampling - 2 replicates	5 1.725 W	51
28	per site	58 6 268' W	54 [®] 25 032' N
	Day grab sampling - 2 replicates	0.200 W	20.002 11
29	per site	5 4 312' W	54 [®] 27 381' N
	Day grab sampling - 2 replicates	······································	
30	per site	5 5.382' W	54 26.158' N