



**Cruise Report:** CO 1910  
**Vessel:** RV *Corystes*  
**Date:** 11<sup>th</sup> – 15<sup>th</sup> May 2010  
**Area:** Irish Sea (north); ICES VIIa  
**Survey Type:** Juvenile Gadoid Survey

**Personnel:**

S Beggs	AFBI	11 – 15 May
I McCausland	AFBI	11 – 15 May
J Peel	AFBI	11 – 15 May
E O’Callaghan	AFBI	11 – 15 May
T Bastian	Uni of Cork	11 – 15 May
D Haberlin	Uni of Cork	11 – 15 May

**Objectives:**

- i. To investigate the distribution and processes which determine the success of gadoid development through to settlement.
- ii. To obtain abundance indices for early-stage juveniles of the 2010 year-class of gadoids in the western Irish Sea for use in stock assessments.
- iii. To obtain samples for otolith primary increment analysis.
- iv. To collect zooplankton, fish larvae and environmental data using the Gulf VII.

<u>Circulation</u>	<input checked="" type="checkbox"/>	<u>Comments</u>
DCEO & CEO	<input checked="" type="checkbox"/>	<div style="border-top: 1px solid black; margin: 0 auto; width: 80%;"><b>Signed Head of Branch</b></div>
Ship Managers	<input checked="" type="checkbox"/>	
Fisheries Division	<input checked="" type="checkbox"/>	
ANIFPO	<input checked="" type="checkbox"/>	
NIFPO	<input checked="" type="checkbox"/>	
	<input checked="" type="checkbox"/>	

**Methods:**

During the hours of daylight a GulfVII High Speed Plankton sampler fitted with a 40cm nose cone and 280µm mesh was deployed at a series of fixed sampling stations. The sampler was towed at between 3 - 4 knots, passing steadily through the water column in a 'V' shape, i.e. forming a double oblique tow, the lowest point being ~3 m above the sea bed. Fish larvae, ctenophores and jellyfish were removed from the fresh plankton samples at sea and recorded. Fish larvae were preserved in ethanol while the remaining plankton sample was bottled and preserved in a 4% formaldehyde solution. During the hours of darkness the MIK net was towed at 3 - 4 knots in a "V" shape i.e. forming a double oblique tow, the lowest point being ~5 m above the sea bed. Total catch was identified and enumerated while juvenile fish were identified, measured and preserved in ethanol. A seabird 19plus CTD environmental sensor was employed to recorded vertical profiles of temperature and salinity at each Gulf VII station.

**Cruise Narrative:**

The vessel left Belfast on Tuesday afternoon and headed directly to the western Irish Sea to begin Gulf VII sampling. Upon deployment of the Gulf VII sampler the electronic flowmeters were found to be faulty and therefore mechanical flowmeters were used for the remainder of the survey. During the hours of darkness the MIK net was deployed. In favourable conditions the vessel made good progress and all stations were completed by the morning of the 15th May.

**Work Completed:**

This survey saw the successful completion of all 35 Gulf VII and 30 MIK net stations (Figures 1-2). In total 939 fish larvae were removed and identified from the Gulf VII samples while 231 fish larvae were removed and identified from the MIK net samples of which 24 whiting, 6 cod and 1 haddock juvenile were identified. In addition ctenophores, jellyfish and crustaceans were identified to species, and numbers and weights recorded. Vertical depth profiles were collected at each Gulf VII station and zooplankton samples preserved for future analysis.

Low numbers of the gadoid species (cod, haddock and whiting) were caught during this survey (Table 1). This low occurrence is thought not to be representative of the population but due to the earlier (2 weeks) scheduling of this survey compared to previous years. With an earlier survey the fish larvae had not grown to a suitable size for capture in the MIK net leading to poor catchability. It is hoped the survey in June will provide a better indication of the abundance and recruitment of these species.

**Acknowledgements:**

The Master and Crew of *RV Corystes* are thanked for their assistance and cooperation in ensuring the successful completion of the survey. The scientific staff are commended for their thorough and efficient work throughout the survey and general good humour and teamwork.

Signed:

Scientist in charge (SIC)

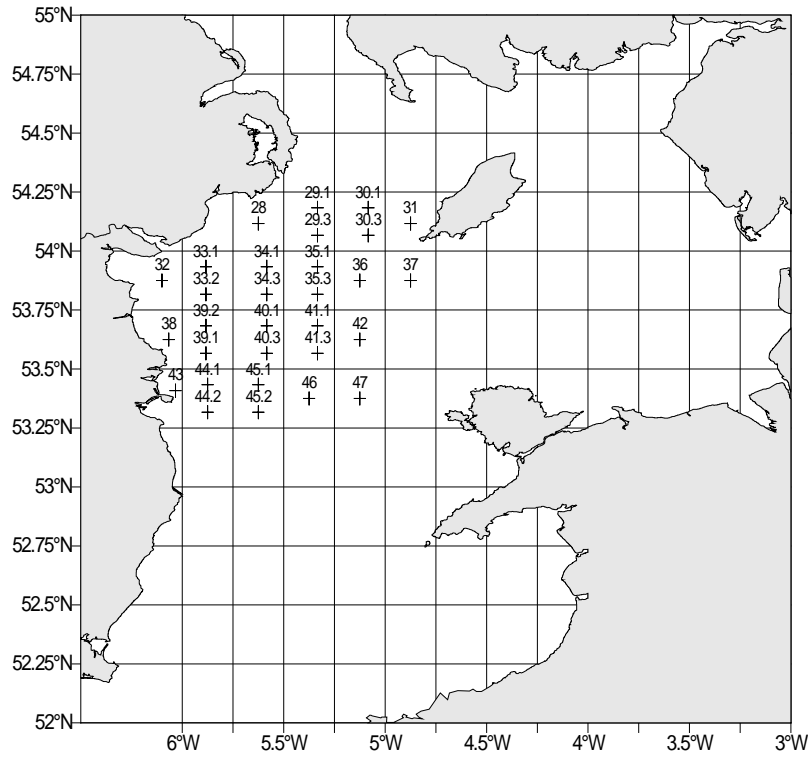


Figure 1. MIK net sampling stations CO1910

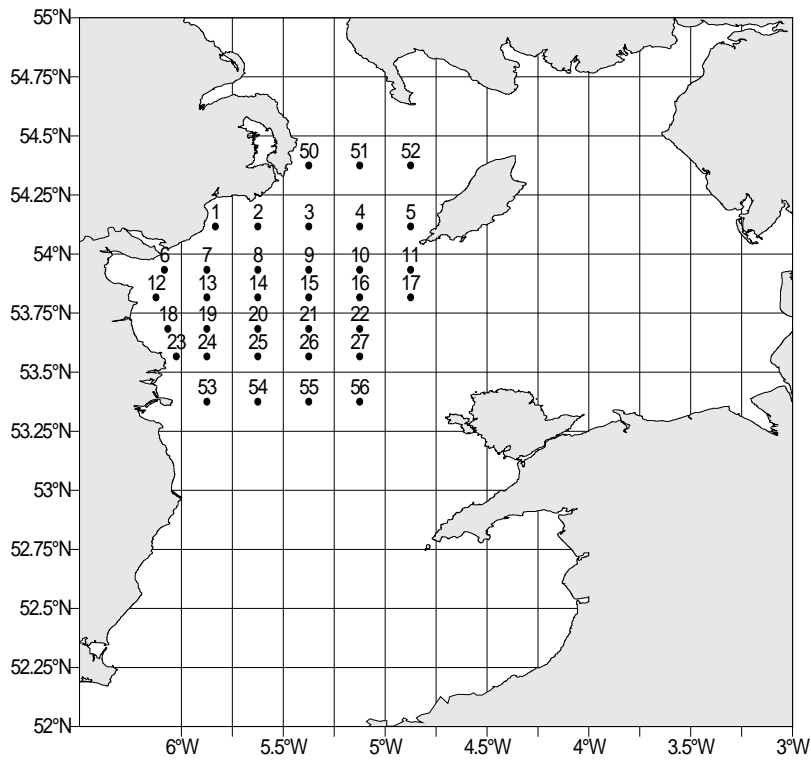


Figure 2. GULFVII sampling stations CO1910

Table 1. Details of gadoid catches at MIK net stations.

Date	Time G.M.T.	Haul	Station	Gear	Cod	Had	Whg
11/05/2010	20:24	3	30.1	MIK			1
11/05/2010	21:45	4	31	MIK			
11/05/2010	22:46	5	30.3	MIK			
11/05/2010	23:52	6	29.3	MIK			
12/05/2010	00:55	7	29.1	MIK			
12/05/2010	02:10	8	28	MIK			
12/05/2010	03:45	9	33.1	MIK			
12/05/2010	19:56	24	37	MIK			
12/05/2010	21:13	25	36	MIK			1
12/05/2010	22:19	26	35.3	MIK			
12/05/2010	23:15	27	35.1	MIK			
13/05/2010	00:15	28	34.1	MIK			
13/05/2010	01:08	29	34.3	MIK			
13/05/2010	02:25	30	33.2	MIK			4
13/05/2010	03:21	31	39.2	MIK	1		
13/05/2010	04:19	32	38	MIK			
13/05/2010	19:54	46	41.3	MIK			
13/05/2010	20:57	47	42	MIK		1	
13/05/2010	22:17	48	41.1	MIK			1
13/05/2010	23:42	49	40.1	MIK			2
14/05/2010	00:50	50	40.3	MIK			
14/05/2010	02:16	51	39.1	MIK			2
14/05/2010	03:10	52	44.1	MIK			
14/05/2010	04:16	53	45.1	MIK			
14/05/2010	19:47	59	47	MIK	2		5
14/05/2010	21:05	60	46	MIK	2		5
14/05/2010	22:28	61	45.2	MIK			2
14/05/2010	23.:38	62	44.2	MIK			1
15/05/2010	00:52	63	43	MIK			
15/05/2010	04:48	64	32	MIK	1		