Department of Agriculture for Northern Ireland
Agriculture and Environmental Science Division

Cruise Report: LF2496, Juvenile gadoid investigations
Vessel: RV *Lough Foyle*
Dates & area: 9-13 June 1996 in the Irish Sea; ICES div. VIIa

Personnel:			
	Mark Dickey-Collas	DANI	SIC/HSO
	Michael McAliskey	DANI	SO
	John Peel	DANI	ASO
	Chris Burns	DANI	ASO
	Gloria McLaughlin	DANI	SB2
	Peter Coulahan	QUB	RA

Objectives:

1. To investigate the summer transport of pelagic juvenile gadoids from the coast to the stratified waters of the western Irish Sea.
2. To assess fish growth rates in May and June.
3. To collect juvenile fish for histological examination of growth and condition.
4. To investigate the abundance of euphausiids and other macro zooplankton in the Irish Sea.
5. To collect samples for *Sagitta elegans* study.

Cruise narrative

Sunday 9 June 1996

All scientific crew were onboard by 09:00 and the ship sailed at 10:00. A full safety and man overboard drill was carried out before sailing. Due to high winds the ship was unable to begin the study and it sheltered off The Skerries for the rest of the day.

Monday 10 June 1996

At 04:00 the winds dropped, and the ship could resume the study. 5 Gulf III samples and 3 MIK net samples were taken (Figure 1).

Tuesday 11 June 1996

The MIK net was deployed until 04:00, and then 3 GULF III hauls were made. Poor weather then prevented further work until 16:50. 7 more samples were taken.

Wednesday 12 June 1996
In much improved weather, the ship worked all day. 21 samples were taken (Figure 1).

Thursday 13 June 1996
The remaining stations were completed by dawn and the ship docked in Belfast at 08:30.

Methods
Juvenile fish were sampled in darkness with the MIK net, plankton samples with the Gulf III were taken during the daylight hours. Plankton samples were sorted and the fish and *Nephrops* larvae removed and fixed in either 4% buffered formaldehyde. Fish were measured to the nearest 0.1mm. Large Crustacea were also removed from the sample and weighed to the nearest 0.1g. The remaining plankton sample was fixed in 4% buffered formaldehyde and stored.

Results
All MIK net and Gulf III stations were sampled. In total 77.5 million litres of seawater were sampled for plankton.

Compared to the end of May the fish larvae had spread across the region. Whiting, sprat, dab, witch, cod, haddock, dragonets and rocklings made up the bulk of the catch. Thermal stratification was much stronger than in the end of May. The distribution of fish varied depending on species, some appeared to center on the stratified region, whilst others avoided the frontal regions. These data will be combined with those collected in late May and a following cruise in late June, to determine the growth, mortality and transport of juvenile fish in the western Irish Sea.

Nephrops larvae and euphausiids were typically found in the deeper waters, whilst the ctenophores dominated all the catches.

Acknowledgments
The captain, officers and crew of the RV *Lough Foyle* must be thanked for their hard work and assistance. The scientific team showed dedication and great team work, and

must be commended for successfully completing the cruise in most unpleasant and unseasonal weather.

Signed

SIC: Mark Callos Date: 29/7/96

Master: Date:

Section Head: S. J. Henry Date: 1.8.96

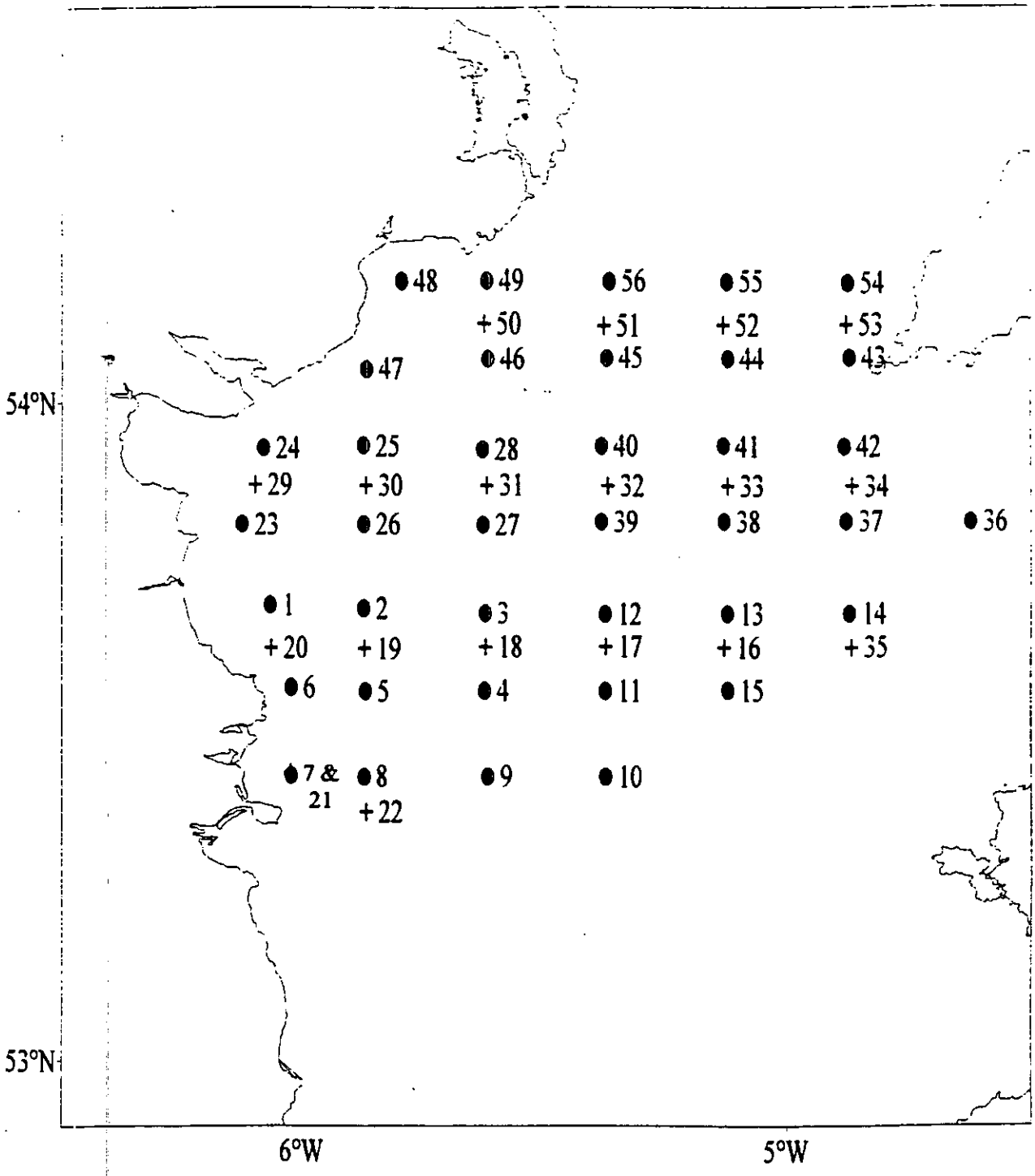

Figure 1 Hauls taken during LF2496
9-13 June 1996

+ MIK net
● Gulf III