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Field Report including the cruise of chartered vessel "Heathery Brae", 26 June to 7 July

REPORT

18 June to 15 July 1989

Personnel

J Main	SSO
G Sangster	HSO
R Kynoch	ASO Part-time onboard "Heathery Brae"
W Mojsiewicz	SO Part-time
J Robertson	HSO Part-time
W Gray	PTO Part-time
R Scott	Craftsman Part-time
F Cruickshank	PTO Part-time
I Leaver	ASO Part-time

Objectives

1. To catch fish escaping from codends of 80 mm square ends and 90 and 100 mm diamond mesh and hold them in underwater cages and assess the survival rates. Fish measurements will be collected from all 3 codends for calculation of selectivity parameters.
2. Control fish will be caught by handlines and held in separate cages. An additional 10 tagged control fish will be added to each of the 12 cages.
3. Flatfish will be kept and transported to Fireacre Field Station for Dr Costello.

Narrative

The mobile laboratory and scientific equipment were transported to Gairloch on Thursday 15 June. The scientific staff and the "Stella" arrived on Sunday 18 June.

The "Stella" was off loaded by crane on Monday morning, launched and prepared for sea.

The nettriggers prepared the underwater cages on the pier during the week. As the cages were made available the "Stella" was used to transport them, 2 at a time, to Longa Island where they were deployed in 17 metres of water off the east side of Longa Island.

Thirty handline caught haddock were kept in 3 cages as controls with an additional 10 tagged handline caught haddock placed in all 12 cages.

The "Heathery Brae" arrived early on Monday 26 June. Engine repairs were required from 27-30 June. On 1 July the trawl gear was loaded aboard before sailing to the west side of Longa Island where fishing proved poor on the fine grounds used in past years. A decision was made to tow over boulder areas where good marks were observed on the echo sounder. Fishing continued in this area providing the correct species and size range.

Hauls were made with each of the 3 codends until all the cages held the required numbers of fish. Fifteen additional hauls were made, 5 with each of the 3 codends for selectivity studies.

An additional cage was deployed and fish from all the codends were put in for analysis by Dr Raynard in order to try to identify the causes of fish mortality after escape from codends.

The opportunity was taken before the vessel returned to the east coast to observe the modified cod separating panel fitted in the entrance to the codend of ~~BT15B~~. The separator is now as required but some further alterations will be required to the extension just ahead of the separator.

The "Heathery Brae" landed all the trawl gear and scientific equipment before sailing on Sunday 9 July for Buckie.

The scientific staff returned to Aberdeen on 15 July. Additional visits were made to the cages on 18, 21, 25 and 28 July to check and feed the fish.

Results

The data for the selectivity of the 3 codends will be processed in the laboratory.

The survival experiment results to 28 July are given below:-

Deaths in the Cages

Days	Control Line			Square Mesh			Diamond Mesh			Diamond Mesh		
	Cages			80 mm			90 mm			100 mm		
	1	2	3	1	2	3	1	2	3	1	2	3
12	0	0	0	3	1	4	12	4	6	2	5	1
18	0	0	0	3	1	4	12	4	6	2	5	1
28	0	0	0	3	1	4	12	4	6	2	5	1
Survival %	100	100	100	90	97	86	60	86	80	93	83	97

Deaths were in the size range of 19 to 24 cms (one year old); all appeared to have suffered damage close to the tail. During the first 2 weeks it was evident that some fish were deteriorating with the loss of the caudal fin in some cases.

The selectivity data may contain insufficient numbers of fish to obtain selection parameters.

Dabs were collected for Dr Costello and transported to the Marine Research Unit at Firemore, Loch Ewe.

J Main

7 September 1989