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CRUISE REPORT

FRV Mara

18 September - 20 October 1976

Objectives

1. To carry out a midwater trawling and beach-seining survey for 0- and 1-group herring in the Minch.
2. To tag mackerel.
3. To carry out further environmental investigations of Raasay Sound DSA.

Narrative

Week 1

"Mara" sailed from Buckie just before midday on 18 September and made passage via the Pentland Firth to the North Minch. During the week trawling was carried out at stations between Honda Island and Raasay Sound along the mainland coast and also to the North and East of Skye before tying up at Ullapool for the weekend on 24 September. Some mackerel tagging was carried out but only briefly because of heavy predation by gannets on fish released.

Week 2

"Mara" sailed from Ullapool at 0700 on 27 September and continued the trawling survey for the rest of the week, working stations between Applecross Bay and Loch Nevis before tying up at Stornoway at 1800 on 29 September for the long weekend.

Week 3

The crew and scientists rejoined the "Mara" at 2030 on 5 October in Stornoway. Gale force winds the following day prevented sailing until 0700 on the 7th. The remaining two days were spent handling for mackerel to tag between Stornoway and Scalpay, along the North coast of Skye and between Melvaig and Torridon before tying up at Kyle on 8 October for the weekend.

Week 4

On 11 October Mr Conway and Mr Moore joined the "Mara" for the day and environmental investigations of Raasay Sound DSA were carried out. Mr Walsh and Mr Edelsten rejoined the ship in Kyle the same evening and the trawling survey was continued for the rest of the week at stations between the Island of Eigg and Oban before the Mara tied up at Oban at 1400 on 15 October. Some loss of trawling time was incurred on the 12th and 14th owing to bad weather but on the 12th it was possible to catch and tag mackerel at anchor. Three beach-seine hauls were made near Dunstaffnage on 15 October. Mr Walsh left the Mara on the evening of 15 October.

Week 5

Dr Bailey joined the Mara on 17 October. The Mara sailed from Oban at 0700 the next day and worked south of Mull and in Loch Linnhe before entering the Caledonian Canal at 1600 on 19 October. The scientific staff returned to the Laboratory from Corpach the following day.

Mid-water Trawl and Beach-seining Survey

A total of 41 hauls were made with the Gourock midwater trawl. A list of hauls with the number of sprats and 0-group herring caught in each is appended with comparative data from the 1975 survey.

In addition three beach-seine hauls were made from a beach near Dunstaffnage.

0-gp herring were taken in very small numbers in only two trawl hauls and one beach-seine haul. The catches were therefore much lower than in last years survey. The size ranged from 7 - 15 cm.

Sprats were taken in 15 trawl hauls and one beach-seine haul. Their distribution was widespread but the biggest catches were taken inside the lochs of the North Minch from Loch Broom to Loch Torridon. The overall level of abundance appeared to be similar to that on the 1975 survey. In the North Minch however, catches were higher than in 1975 while in the South Minch they were lower. The sprats caught ranged from 3 - 13.5 cm in length, the great majority being less than 10 cm. Otolith samples were taken from most hauls.

Echo Sounder Survey

The ship's echo sounder was run and annotated at regular intervals throughout the survey. In general clupeids were caught where midwater traces were observed but, as last year, catches were very small despite the intensity of some marks.

Mackerel Tagging

A total of 208 mackerel were tagged during the cruise, 99 with bridled spaghetti tags and 109 with internals. The main tagging areas were from Rudh Re to Loch Torridon and in Armadale Bay off S Skye. No mackerel at all were taken on 7 October although handlining was carried out throughout the daylight hours in an area from Stornoway to Scalpay and in Loch Snizort and Dunvegan where large catches had been taken by the commercial fleet earlier in the week.

Raasay Sound Investigations

A second benthic survey of the Howard-Doris Phase I site (Loch Kishorn) was successfully undertaken. In addition water samples were taken for plankton and chemical analyses from the Phase II site presently occupied by the partially constructed platform.

R S Bailey
M Walsh
D C Moore
3 December 1976

Seen in draft - W T Mair

MIDWATER TRAWL

Date	Station No	Area	No of Herring		No of Sprat		
			1975	1976	1975	1976	
1	19 Sept	52	Eddrachilles Bay	-	0	-	0
2	19 "	54	NW of Handa	-	0	-	0
3	19 "	50	NW of Rhu Coigach	0	0	0	607
4	19 "	51	Enard Bay	0	0	0	0
5	20 "	49	Outer Loch Broom	19	0	1	3094
6	20 "	47	Greenstone Point	0	0	0	555
7	20 "	45	Loch Ewe	1	0	4512	2212
8	21 "	46	Rubh Re	0	0	0	0
9	21 "	44	NW of Longa Isle	0	0	0	0
10	21 "	43	Loch Gairloch	0	0	0	2830
11	22 "	42	Upper Loch Torridon	1	0	626	2490
12	22 "	41	Loch Torridon	0	0	0	11637
	22 "	40	E of S Rona	-	0	-	0
14	22 "	31	Raasay Sound	0	0	86	0
15	23 "	30	NE of Staffin Is	0	0	9	10
16	23 "	29	Loch Snizort	0	0	243	0
17	23 "	28	N of Vaternish Point	0	0	87	0
18	24 "	48	Little Loch Broom	288	0	179	0
19	27 "	39	Applecross Bay	0	0	0	0
20	27 "	36	S of Crowlin	43	0	407	0
21	28 "	34	Loch Hourn	1	0	2	0
22	28 "	33	Sleat Sound	44	8	2740	0
23	28 "	32	Loch Nevis	27	0	0	110
24	29 "	37	Loch Carron	-	0	-	0
25	12 Oct	22	Loch Slapin	-	0	-	4289
26	12 "	23	Loch Skavaig	-	0	-	0
27	13 "	21	E of Eigg	0	0	0	94
28	13 "	20	Loch Ceann Traigh	-	0	-	0
29	13 "	19	Ardnamurchan Point	81	0	539	6
30	13 "	16	Ardmore	0	0	0	0
31	14 "	15	N of Caliach Point	0	0	0	0
32	14 "	11	Loch Scridain	312	0	1278	0
33	14 "	12	Loch Na Keal	4	0	4046	0
34	15 "	4	Lochnell	0	0	0	137
35	18 "	8	Loch Bvy	0	0	0	0
36	18 "	10	Ardnalanish Bay	0	0	0	0
37	18 "	9	Garvellachs 7mls West	0	0	0	0
38	18 "	7	Loch Feochan	-	0	-	0
39	19 "	3	NW of Lismore Island	206	0	295	0
40	19 "	2	Loch Linnhe	2029	25	1872	31
41	19 "	1	Loch Aber	40	0	25	0