

R1/10

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FRV "Goldseeker"  
Cruises 12/84 and 13/84

12 and 13GR84

REPORT

LD

28 November - 7 December and 12 - 21 December 1984

## OBJECTIVES

To carry out echosounder and fishing surveys of the Inner Moray Firth on Cruise 12/84 and the Firth of Forth on Cruise 13/84.

## NARRATIVE

Scientific staff joined 'Goldseeker' at Buckie on 28 November but sailing was delayed until 30 November because of crew shortage. In the time available on Cruise 12, 'Goldseeker' surveyed the Inverness and outer Beaully Firths, the Cromarty Firth west to Alnes Pt., the Inner Moray Firth southwest of a line from Burghead to Balintore, and the inshore area from Burghead east to Buckie. 'Goldseeker' returned to Buckie on 7 December and scientific staff returned to Aberdeen.

After the intertrip break scientific staff rejoined 'Goldseeker' in Buckie on 12 December and 'Goldseeker' sailed for the Firth of Forth. However strong southeasterly winds forced 'Goldseeker' to seek shelter in Aberdeen and continuing poor weather prevented sailing until 18 December. 'Goldseeker' arrived in the Forth early in the morning of 19 December. In the time available 'Goldseeker' carried out a general survey from the Fairway Buoy west to Crombie Pier. 'Goldseeker' docked in Leith late on 20 December and scientific staff returned to Aberdeen on 21 December.

## RESULTS

On Cruise 12/84 dense echotraces were found over a large area from Burghead to Nairn and north west to the Guillam Bank. These traces were largely in the form of a dense carpet up to 15m deep along the bottom. There were also large plume traces in midwater. Smaller areas of dense traces were found between the Sutors of Cromarty, off Chanonry Light, off Munloch Bay and at the entrance to the Beaully Firth. During the cruise a total of 17 hauls were made to sample these traces. Catches varied from nil to 12 baskets. The hauls made off Burghead contained mostly sprat with the proportion of herring by weight varying from 6 to 56%. The sprats were largely in the 11-13cm range with a small proportion of smaller 0-group sprat. All these figures refer to the dense trace along the bottom as attempts to sample the plume traces were unsuccessful. In the more inshore areas catches were dominated by small herring. A detailed breakdown of the catches in the Moray Firth is given in Table 1.

On Cruise 13/84 echotraces were seen in the area from the Bridges west to Rosyth and from off Burntisland west to Inchcolm. The traces that were found were nowhere as dense or extensive as those seen in the Moray Firth. Four trawl hauls were carried out but only very few fish were caught, probably because of very strong tidal currents. The catches that were made were dominated by small herring with the sprats that were taken being mostly small 0-group. A detailed breakdown is given in Table 2.

David W McKay

28 January 1985

Seen in Draft:           A Mair

Table 1

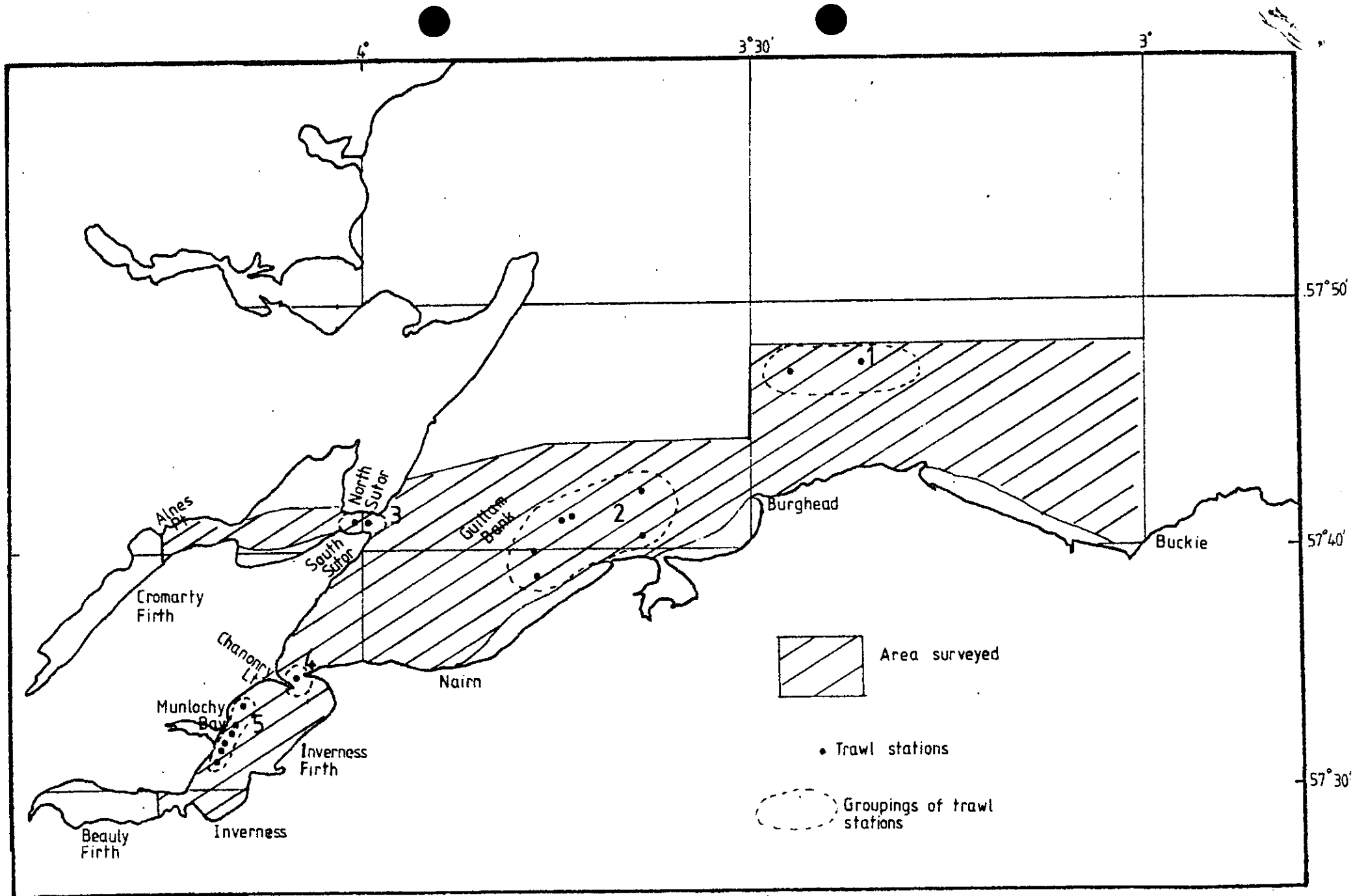
Breakdown of catches in Moray Firth (all data given for tows of 1 hour)

Area	Haul Number	Shooting Position	Catch in number		Catch in weight (kg)		% Sprat by weight	% Herring by weight
			Sprat	Herring	Sprat	Herring		
1	16	57°47'N 03°25'W	3568	1840	41.92	35.45	54.18	45.82
1	17	57°47'N 03°19'W	6529	817	79.76	14.52	84.60	15.40
	Mean		5049	1329	60.84	24.99	70.88	29.12
2	1	57°42'N 03°36'W	6526	5739	86.70	80.78	51.77	48.23
2	4	57°42'N 03°44'W	52558	2772	598.21	42.09	93.43	6.57
2	6	57°38'N 03°50'W	7258	5446	95.40	88.30	51.93	48.70
2	9	57°40'N 03°46'W	4336	3042	46.34	33.75	57.86	42.14
2	14	57°42'N 03°38'W	8943	5364	64.91	84.97	43.31	56.69
2	15	57°42'N 03°40'W	-	-	-	-	-	-
	Mean		13270	3727	148.49	54.98	72.99	27.01
3	3	57°41'N 04°00'W	154	175	0.41	0.89	31.54	68.46
3	10	57°41'N 03°59'W	477	3186	5.07	14.44	25.99	74.01
	Mean		316	1681	2.74	7.67	26.32	73.68
4	Mean	57°35'N 04°05'W	93	1884	1.05	16.92	5.84	94.16
5	2	57°32'N 04°11'W	5550	4503	68.39	81.52	45.62	54.38
5	5	57°34'N 04°09'W	86	2956	0.77	12.78	5.68	94.32
5	7	57°32'N 04°11'W	1068	2553	12.52	16.76	42.76	57.24
5	8	57°33'N 04°09'W	108	135	1.34	0.66	67.00	33.00
5	12	57°32'N 04°12'W	294	663	3.53	6.55	35.02	64.98
5	13	57°32'N 04°11'W	84	90	1.00	1.62	38.17	61.83
	Mean		1198	1817	14.59	19.98	42.20	57.80

Table 2

Breakdown of catches in Firth of Forth (all data given as for 1 hour tow)

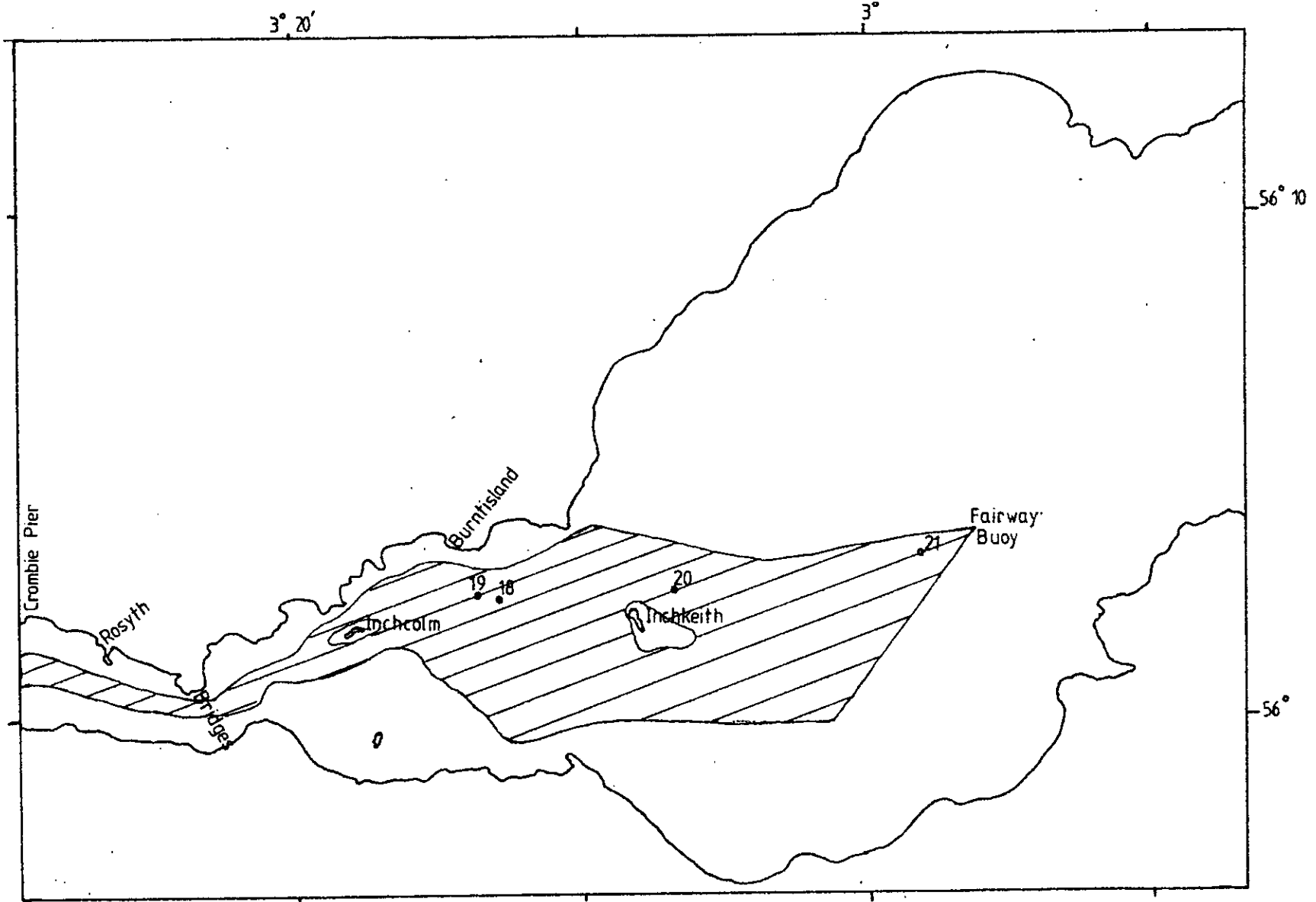
Haul Number	Shooting Position	Catch in numbers		Catch in weight (kg)		% by weight	
		Sprat	Herring	Sprat	Herring	Sprat	Herring
18	56°02'N 03°14'W	237	591	2.63	10.51	21.02	79.98
19	56°02'N 03°15'W	86	102	0.07	0.62	11.14	89.86
20	56°03'N 03°06'N	384	30	0.32	0.66	32.65	67.35
21	56°04'N 02°56'W	244	312	0.82	2.97	21.64	78.36



FRV GOLDSEEKER

30/11 - 7/12/84

12GR84



FRV GOLDSEEKER 19-20/12/84 13GR84