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**FRV CLUPEA**

Cruise 1392C

**REPORT**

4-26 August 1992

Personnel

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Objective

To determine the distribution and relative abundance of sandeel (*Ammodytes marinus*) on inshore fishing grounds at Shetland and to the west of Scotland.

Narrative

Scientific staff joined *Clupea* in Fraserburgh at 1030 on 4 August and sailed to Shetland to commence trawling operations the following day. Sampling continued until the afternoon of 14 August when due to a spell of bad weather and poor weather forecasts, *Clupea* made a passage south to Loch Eribol arriving there the following afternoon. Sampling of sandeel fishing grounds to the west of Scotland continued until 24 August. *Clupea* then headed for the Moray Firth to try to obtain sandeels for use as fish food in the Laboratory. The first haul on the morning of 25 August was foul and the only remaining net was badly torn so *Clupea* headed for Fraserburgh docking at 1400.

A total of three full days were lost due to bad weather with fishing activity curtailed on a further five occasions. Scientific staff left *Clupea* at 1030 on 26 August.

Results

Between 5 and 14 August, a total of 34 valid hauls were made on commercial sandeel fishing grounds around Shetland. All of the targetted grounds were sampled at least once and five grounds were sampled three times. A total of 16 valid trawl hauls were made on seven fishing grounds to the west of Scotland. Four of these grounds were sampled on three occasions.

Catch rates up to 19.7 tonnes and 1.7 tonnes per 30 minute haul were achieved at Shetland and on the west of Scotland grounds respectively. Table 1 gives the catch rate by time of day in kilogrammes raised to a standard 30 minute haul. The number at age of *Ammodytes marinus* caught per 30 minute haul are given in Table 2 and Table 3 shows the catch indices of 0-group *A. marinus* from 1984-1992. The location of fishing grounds are shown on the attached charts.

J R Hutcheon  
25 November 1992

TABLE 1

*A. marinus* - *Clupea* - August 1992

Kg caught per 30 minute haul during different time periods

Fishing ground	0700-1100	1100-1500	1500-1900
Voe	1,140	-	-
Grutnes	+	-	-
Ba,as	1,014	-	-
South Sands	5,274	1,595	812
Braeside	10,386	1,450	-
Mousa	19,702	11,250	11,074
Balta	-	24	-
Fethaland	+	+	0
Sands Voe	3,166	-	+
Brekkin	-	12	29
Ham of Foula	12,934	-	12,450
North Foula	100	-	38
South Foula	-	36	962
Trink	4,472	6,290	4,754
East Fair Isle	+	+	+
West Fair Isle	+	+	+
North Sound	24	-	196
Loch Eribol	0	+	+
Cellar Head	239	+	+
Shingle Edge	+	+	+
Clash	+	0	0
North Rona	-	-	1,680
Flannans	0	-	-

+ = &lt;10 kg

- = No sampling

TABLE 2

*A. marinus* - *Clupea* - August 1992

Number at age raised to 30 minute haul

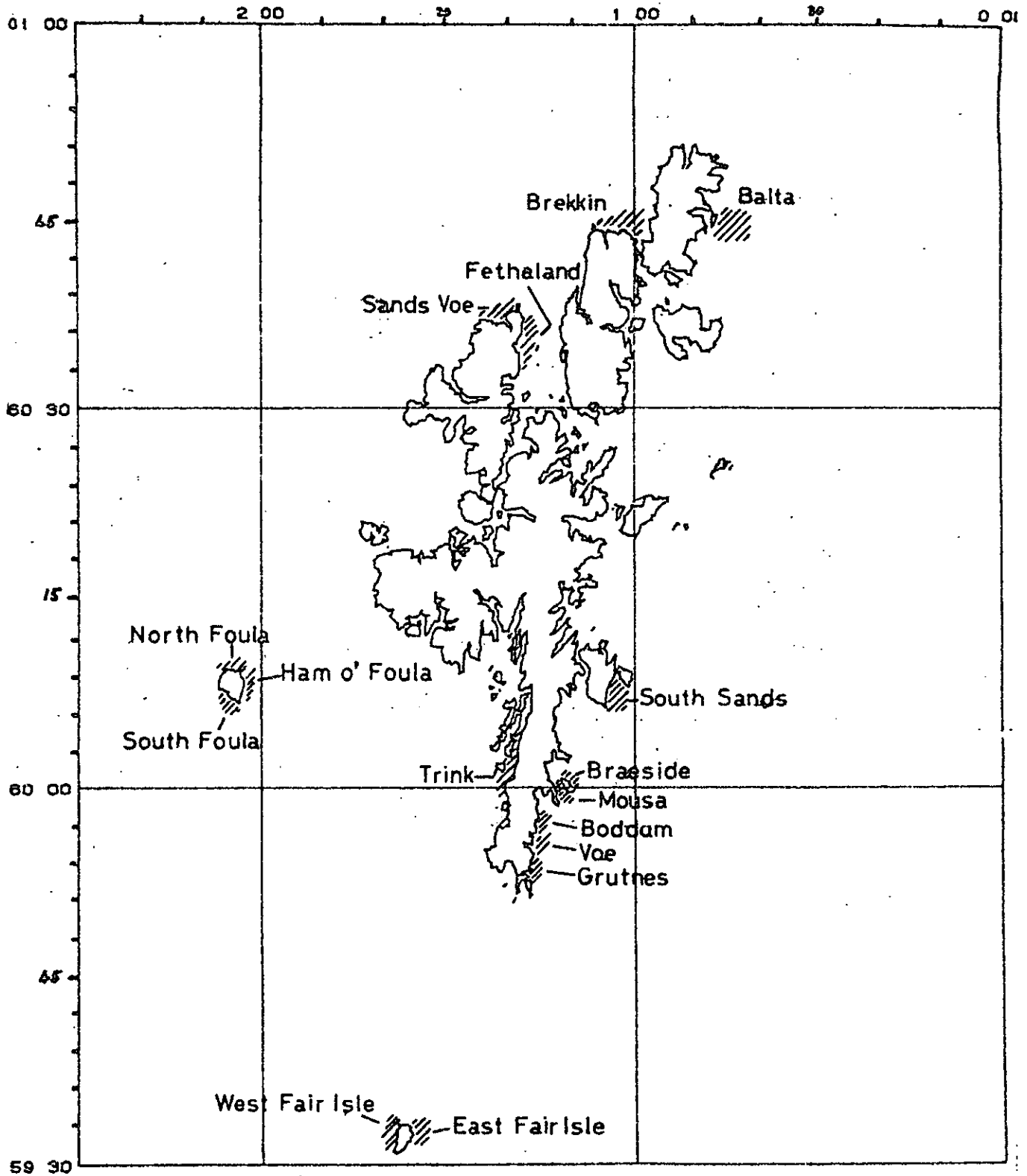
Fishing ground	0+	1+	2++	Total	No of hauls
Voe	13,794	159,475	1,683	174,952	1
Grutnes	0	945	0	945	1
Ba,as	90,129	108,245	749	199,123	1
South Sands	433,713	287,577	0	721,290	3
Braeside	461,093	654,237	3,670	1,119,000	2
Mousa	1,950,903	1,252,320	0	3,203,223	3
Balta	848	5,982	83	6,913	1
Fethaland	0	36	0	36	3
Sands Voe	0	294,278	13,928	308,206	2
Brekkin	266	8,293	324	8,883	2
Ham of Foula	158,894	3,259,275	0	3,418,169	2
North Foula	39,540	5,357	935	45,832	2
South Foula	32,733	106,752	7,790	147,275	2
Trink	6,887	1,311,407	0	1,318,294	3
East Fair Isle	1	255	8	234	3
West Fair Isle	12	919	167	1,098	3
North Sound	16,915	3,872	4,767	25,554	2
Loch Eribol	1,127	1	0	1,128	3
Cellar Head	6,297	9,706	2,708	18,711	3
Shingle Edge	32	1,009	483	1,524	3
Clash	0	3	1	4	3
North Rona	240	30,192	73,968	104,400	1
Flannans	0	0	0	0	1

TABLE 3

*Ammodytes marinus* catch indices in 0-group (000's), August surveys 1984-92. Number is per 30 minute trawl haul

Fishing ground	1984	1985	1986	1988	1989	1990	1991	1992
South Sands	105	109	91	11	617	1	571	434
Braeside	1,816	30	1,198	-	5,912	485	183	461
Moussa Sound	2,022	336	521	1,121	6,266	930	1,730	1,951
Clumlie Ba'as	94	-	637	-	112	1	163	90
Boddam/Voe	5	888	-	0	1	+	20	14
Grutnes	20	0	1	-	1	0	6	0
East Fair Isle	+	16	1	+	+	+	63	+
West Fair Isle	1	+	1	-	+	+	-	+
Trink	405	307	11	-	37	7	-	7
South Foula	398	59	4,941	-	-	7	-	33
Ham of Foula	50	52	2,737	-	+	2	-	159
North Foula	1	5	1	-	0	+	310	40
Sands Voe	14	71	764	-	1	9	251	0
Fethaland	626	+	5	+	+	+	186	0
Brekkin	0	+	+	8	0	+	118	+
Balta	0	0	0	0	0	0	8	1
Colsay	9,630	1,371	21	-	-	-	-	-
Index for all grounds combined	892	203	683	141	863	90	301	199

# Sandeel Grounds at Shetland



SANDEEL FISHING GROUNDS - VIa

