

R1/3

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Charter Vessel *Ardent* LK 472

H18

## REPORT

13-23 August

### Personnel

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### Objective

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

### Narrative

Scientific personnel joined MV *Ardent* at Lerwick at 1150 on 13 August. On completion of loading stores and gear, *Ardent* sailed at 1300 and proceeded to Clumlie Ba'as to commence sampling. Sampling continued through 13-23 August except on 19 August when the vessel put into Lerwick for a mid-cruise break. The cruise finished at Scalloway at 2100 on 23 August.

### Results

Each of the 16 grounds shown on the accompanying chart was sampled on three occasions. Catches ranged from 0-6500 kg/30 mins fishing and consisted predominantly of *Ammodytidae* (Table 1). The greatest catches of *A. marinus* were made on the SE Mainland grounds at Mousa and Braeside where catches were predominantly of the recruiting 0-group and 1-group; elsewhere 0-group were few and catches consisted mainly of age groups 1-5 (Table 2). This pattern of distribution by age group was similar to that reported in August 1989 at Shetland.

Weight-length relationships were obtained for *Gymnammodytes semisquamatus*, *Hyperoplus lanceolatus* and *Hyperoplus immaculatus*. The presence of large numbers of the latter species was unusual in that this species has seldomly been recorded at Shetland.

Attempts to identify "sandeel" marks on the vessel's colour and black and white echo-sounders proved inconclusive - catches of sandeel (= >1000 kg) being made when no "marks" were observed whilst large "marks" resulted in few sandeels in the codend.

Few seabirds were observed during the survey. Small concentrations of gannets, fulmars, shags and skuas were obvious only in the Mousa-Braeside area.

J A Gauld  
21 November 1990

Table 1

Numbers ('000s) of Ammodytidae on fishing grounds at Shetland, August 1990.

(Data derived from three hauls per fishing ground, each haul adjusted to 30 mins duration, hauls then summed and divided to give catch per standard 30 mins fishing period per ground)

Fishing ground	<i>Ammodytes marinus</i>	<i>Gymnammodytes semisquamatus</i>	<i>Hyperoplus lanceolatus</i>	<i>Hyperoplus immaculatus</i>
South Sand	2090	2282	20	-
Braeside	673155	88029	-	-
Mousa Sound	1136969	85655	2399	-
Clumlie Ba'as	2791	2563	16	-
Boddam/Voe	631	2128	89	4
Grutnes	29	14	1	-
East Fair Isle	11528	309	1766	59
West Fair Isle	88	432	1271	323
Trink	26008	32494	865	-
North Foula	1095	135	42	-
Ham o'Foula	60970	25956	392	-
South Foula	95062	7353	349	-
Sands Voe	73996	2598	36	-
Fethaland	182	736	297	-
Brekkin	327	109	347	-
Balta	0	56	8	-

***A. marinus* - percent composition by age group on fishin grounds at Shetland.**

[illegible]