

R1/3

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FRV *Clupea*

Cruise 0204C

REPORT

27 January - 9 February 2004

Ports

Loading: 23 January, Fraserburgh

Unloading: 9 February, Fraserburgh

Personnel

J Donald (In charge)

R Campbell

Fishing Gear: Scallop Dredges

Objectives

1. To carry out a survey of scallop stocks around Shetland.
2. To collect information on by-catches of other commercial fish and shellfish species.
3. To collect biological data on component tissue weights of scallops.

Out-turn Costs Per Project: 14 days MF01TA

Narrative

Scientific staff joined FRV *Clupea* at 0900 on 27 January, but the forecast and subsequent arrival of North westerly gales prevented *Clupea* from sailing until 0930 on the morning of 30 January. *Clupea* arrived at Sumburgh Head at approximately 0100 on 31 January and fishing commenced at 0800 the same day. Fishing continued on the east side of Shetland working northerly until the afternoon of 2 February when a side of fishing gear comprising three scallop dredges, towing bar, chain bridle and 50 m of heavy warp was lost over rough ground. Attempts were made to recover the lost gear using bottom creepers, but this proved unsuccessful. *Clupea* docked for the night at Symbister, Whalsay at 1900. Sailing was again delayed until 1330 on 3 February due to computer failure and with it the loss of accurate navigational software. Due to the rapid deterioration of weather conditions, and the forecast of violent storm force southerly winds, *Clupea* made for Lerwick on the evening of 3 February. During the passage south, *Clupea* received a call for urgent assistance from the FV *Arcturus* who had lost engine power and was drifting dangerously close to breaking rock immediately to the south of Symbister harbour. A line was successfully passed to *Arcturus* and in very poor weather conditions, *Clupea* began towing *Arcturus* towards the shelter of Dury Voe, on the east side of the mainland. In attendance were Lerwick Lifeboat and the Shetland Coastguard helicopter. On having restored power, *Arcturus* was cut loose and *Clupea* remained on stand-by until *Arcturus* was safely inside Symbister harbour. *Clupea* continued south, docking at Lerwick at 2230. Strong winds prevented *Clupea* from sailing

until 1330 on 4 February when she made for stations at Yell Sound. Fishing continued in Yell Sound until the afternoon of 6 February when the forecast of storm force north westerly winds forced *Clupea* to sail for Fraserburgh. *Clupea* docked at Fraserburgh harbour on the afternoon of 7 February. Scientific staff disembarked the afternoon of 7 February and all scientific equipment and samples returned to Aberdeen on 9 February.

Results

During the survey 50 scallop dredge hauls were completed and a total of 2447 scallops were caught, all of which were aged and measured to the $\frac{1}{2}$ cm below. The position of each haul is shown on the map in Figure 1. Catch rates varied from a minimum of 0 /hr/m, to a maximum of 115 /hr/m dredge width. The aggregate catch rates for each area, expressed in numbers per hour per metre dredge width at age are shown in Figure 2. The individual graph headings in Figure 2 show the overall catch for each area. The length frequencies in numbers caught per $\frac{1}{2}$ cm length category are shown in Figure 3. The numbers of each by-catch species caught are given in Figure 3.

J A Morrison
15 March 2004

Seen in draft: A Simpson, OIC *Clupea*

Figure 1.

Shetland Scallop Survey 2004

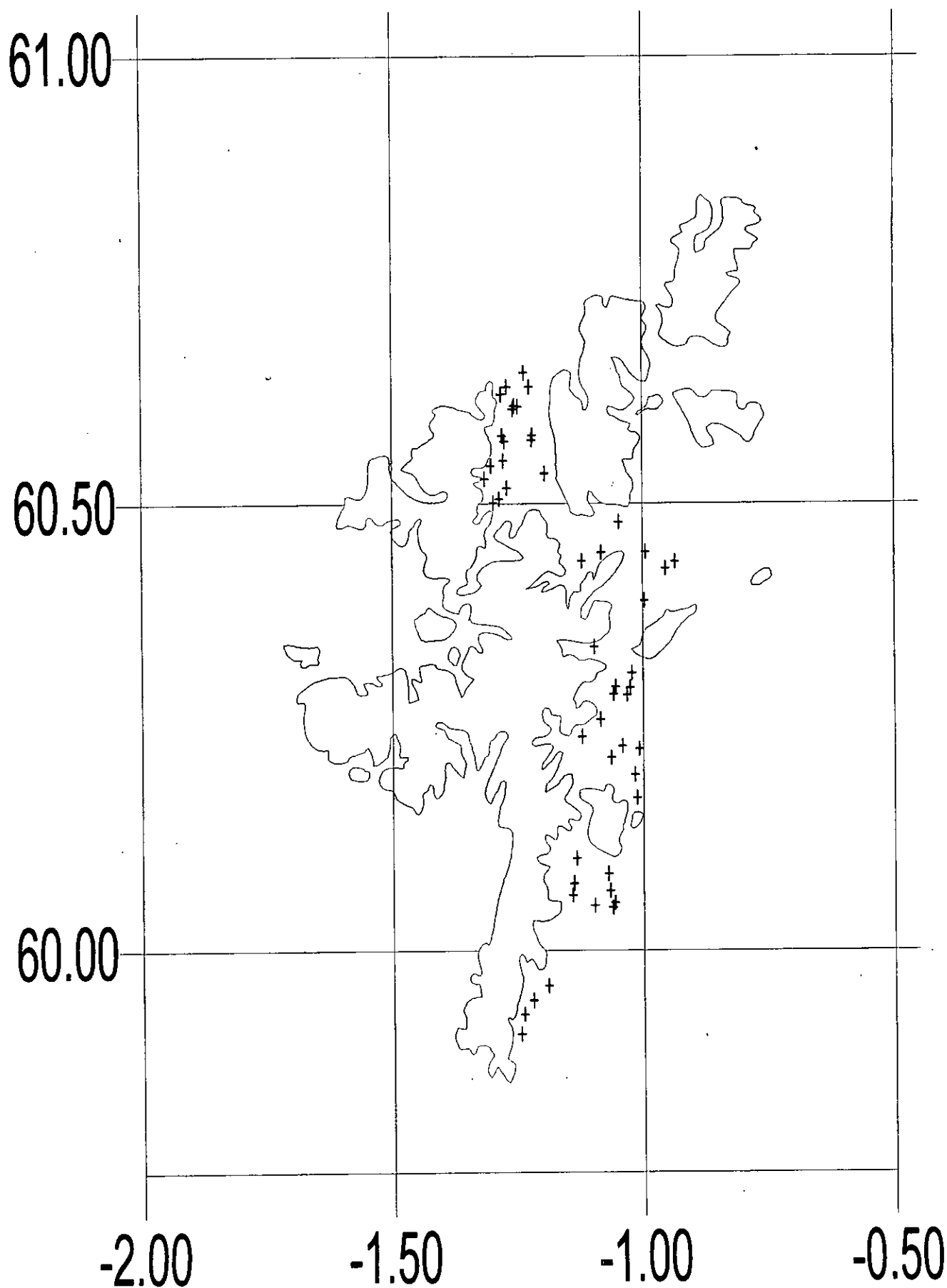
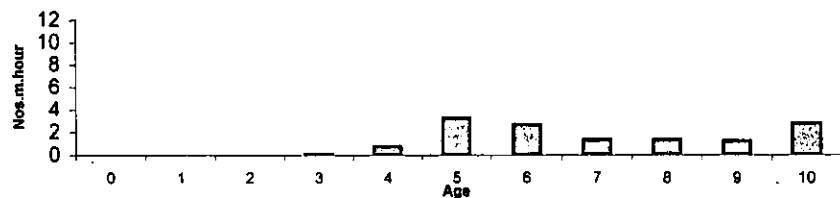


Figure 2.

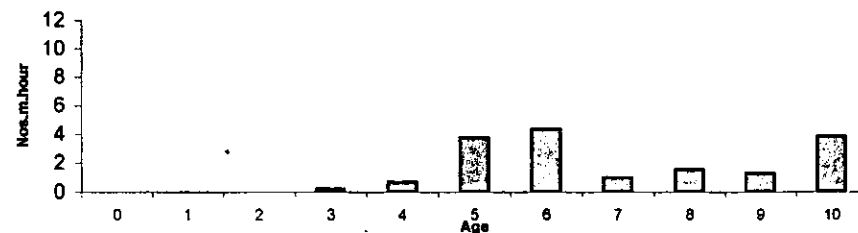
Shetland Scallop Survey 2004

Catch rate by Age by Area

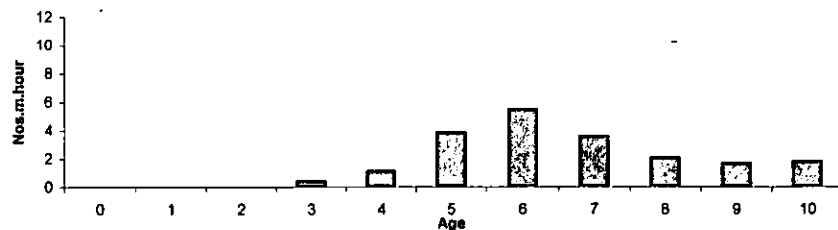
Mousa - Sumburgh (cr 13.4)



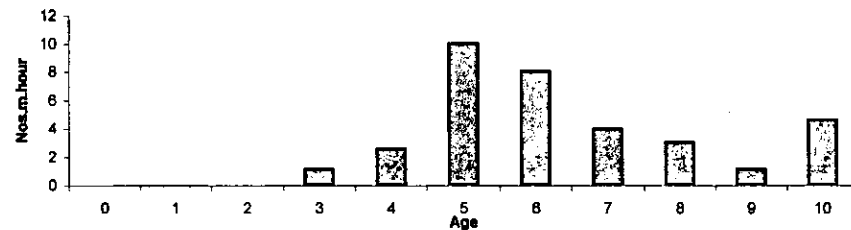
Bressay - Mousa (cr 16.5)



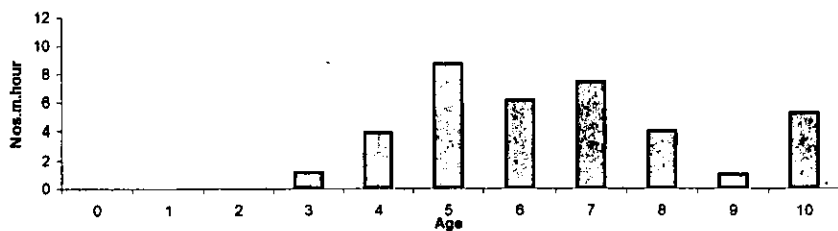
Whalsay - Bressay (cr 19.6)



Whalsay (cr 34.7)



South Yell (cr 37.2)



Yell Sound (cr 19.4)

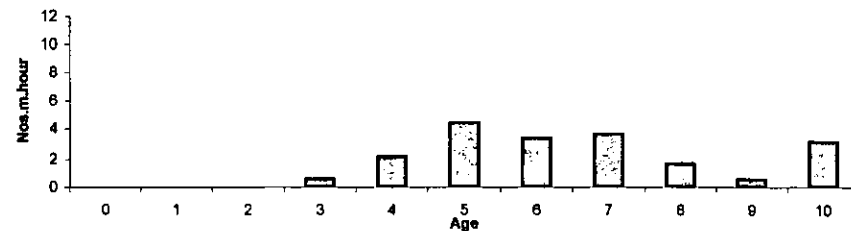


Figure 3.

Shetland Scallop Survey 2004

Catch rate by Length by Area

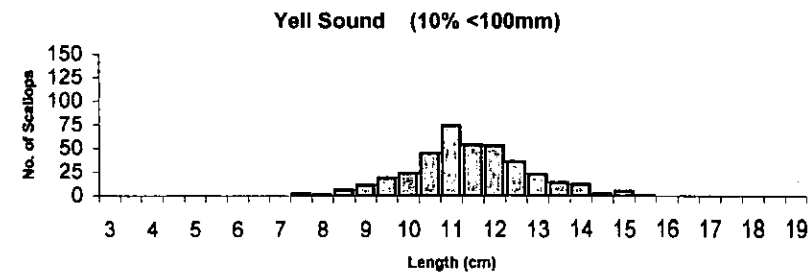
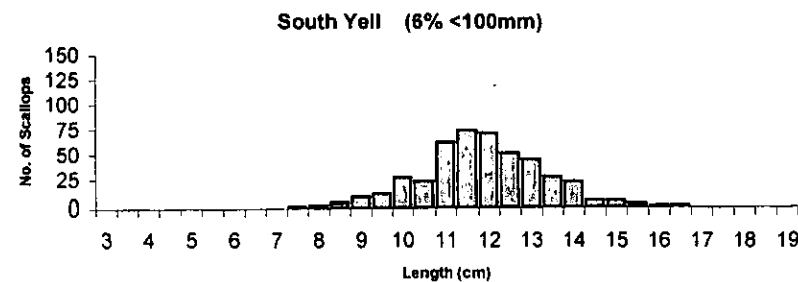
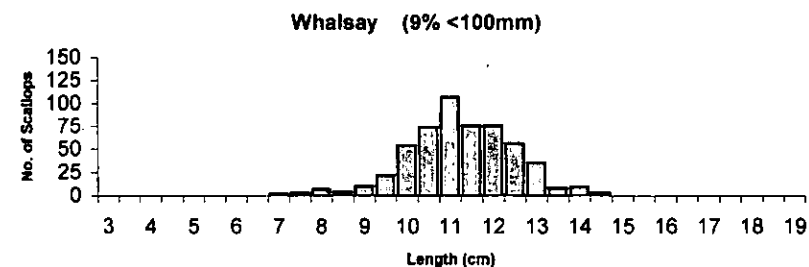
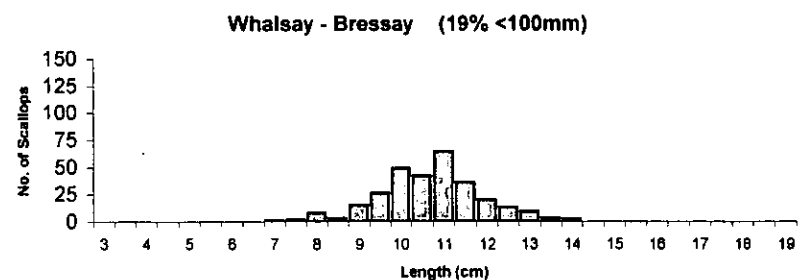
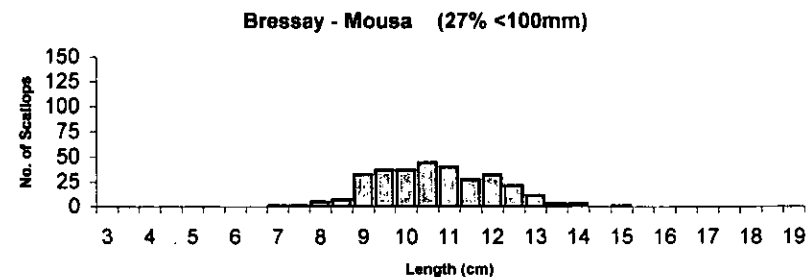
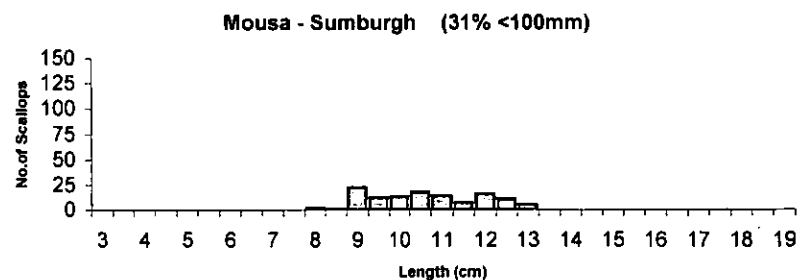


Table 1. Aggregate by-catch.

Species	Numbers caught
Aequipecten opercularis	76
Buccinum undatum	17
Cancer paguras (M)	53
Cancer paguras (F)	29
Glyptocephalus cynoglossus	2
Lepidorhombus whiffiagonis	3
Limanda limanda	2
Lithodes maja (F)	1
Lophius piscatorius	42
Microstomus kitt	1
Neptunea antiqua	108
Pleuronectes platessa	3
Raja clavata (F)	5
Raja naevus (M)	1
Raja naevus (F)	10
Zeus faber	1