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FRV *Clupea*

Cruise 0400C

## REPORT

2-13 March 2000

**Loading:** 28 February, Fraserburgh

**Unloading:** 13 March, Fraserburgh

### Personnel

S Davis (In Charge)

J Donald

**Fishing Gear:** Scallop Dredges

### Objectives

1. To carry out a survey of scallop stocks in Shetland waters.
2. To collect biological data on scallop growth rates and component tissue weights.
3. To sample by-catch species and make morphometric measurements on whelks.
4. To collect biological samples and water samples for ASP testing.

**Out-time costs per project:** 12 days - M01T

### Narrative

The scientific staff joined FRV *Clupea* at 0930 hours on 2 March but did not sail from Fraserburgh until 1000 hours on 5 March due to bad weather. The vessel reached Deer Sound in Orkney at 1800 hours and remained at anchor until 0000 hours on 7 March, again due to adverse weather. The vessel steamed up to Sumburgh and was on station to start at 0700 hours. Sampling began North East of Sumburgh and continued up the East side of Shetland, with several breaks due to the weather, until the evening of 11 March.

FRV *Clupea* set sail from Yell Sound at 2100 hours and docked in Fraserburgh at 1430 hours on 12 March. Scientific staff disembarked late afternoon on 12 March and all scientific equipment and samples returned to Aberdeen on 13 March.

### Results

During the trip 41 dredge hauls were made and a total of 2,855 scallops were caught. The position of each haul is shown on the map in Figure 1. Catch rates varied from a minimum of 3/hr/m to a maximum of 108/hr/m. The aggregate catch rates for each area, expressed in

numbers per hour per metre 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 half centimetre length category are shown in Figure 3. The numbers of each by-catch species caught is given in Table 1. Meat weight samples were taken from four different sites and is shown on Figure 1. Ring measurements for growth study were taken from four other sites and is also shown on Figure 1.

S Davis  
22 March 2000

Seen in draft: A Simpson, OIC

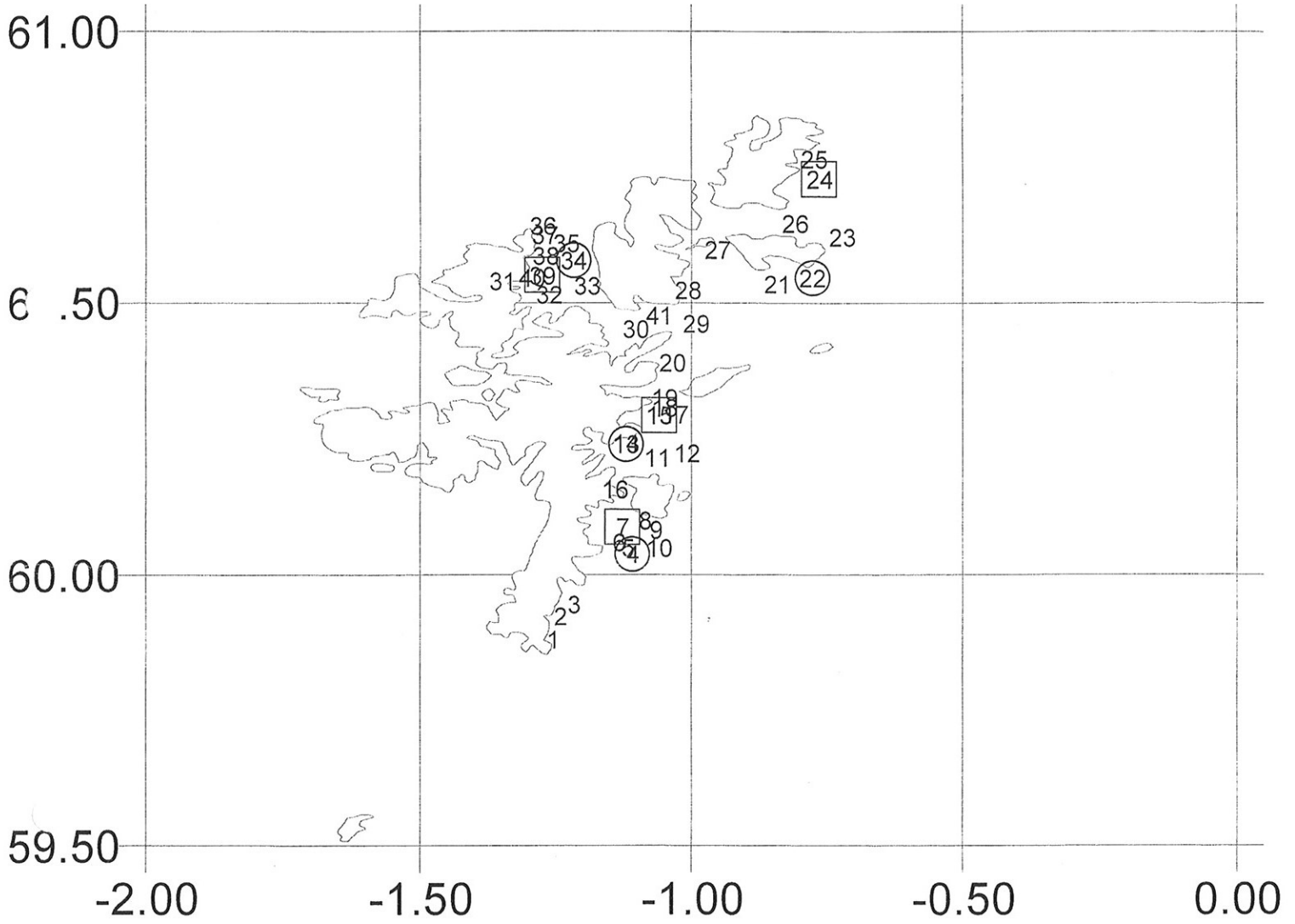
**Table 1**

Total number of each by-catch species

<b>Species</b>	<b>Numbers</b>
<i>Aequipecten opercularis</i>	340
<i>Buccinum undatum</i>	104
<i>Cancer pagurus</i> M	50
<i>Cancer pagurus</i> F	55
<i>Lithodes maja</i> M	4
<i>Lithodes maja</i> F	5
<i>Lophius piscatorius</i>	92
<i>Microstomus kitt</i>	4
<i>Neptunea antiqua</i>	289
<i>Pleuronectes platessa</i>	1
<i>Raja clavata</i> M	1
<i>Raja clavata</i> F	1
<i>Raja naevus</i> M	11
<i>Raja naevus</i> F	14
<i>Zeugopterus punctatus</i>	3

Figure 1.

Shetland Scallop Survey 2000



Meat Weight Samples



Growth Ring Measurements

Figure 2.

# Shetland Scallop Survey 2000

## Catch Rate by Age in area

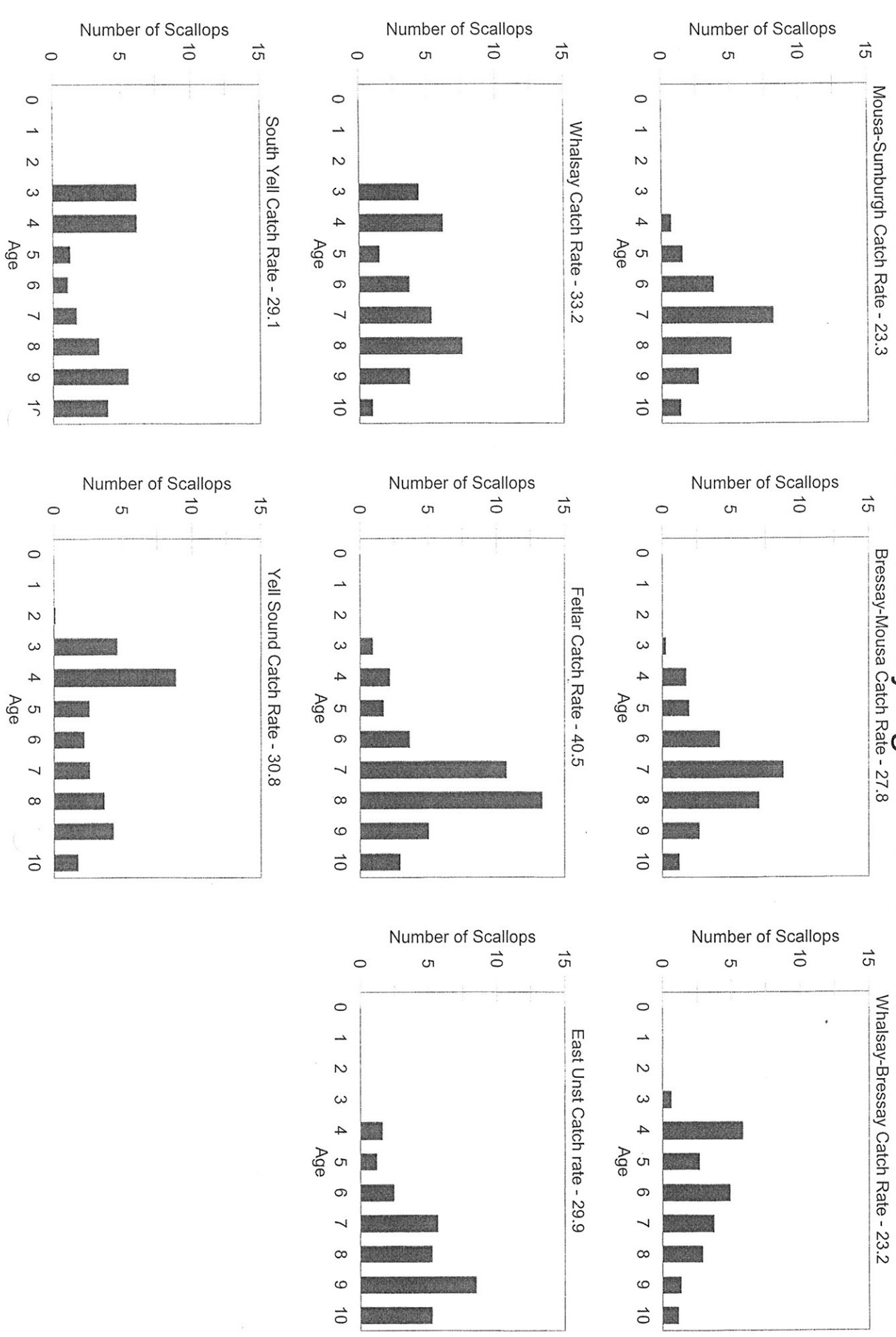


Figure 3.

# Shetland Scallop Survey 2000

## Number at Size in area

