

R1/6

Not to be cited without prior reference to the Marine Laboratory, Aberdeen

FRV *Clupea*

Cruise 0499C

REPORT

11-23 March 1999

Loading: 10 March, Fraserburgh

Unloading: 23 March, Fraserburgh

Personnel

S Davis	B1 (In charge)
J Donald	A4

Fishing Gear

Scallop dredges

Objectives

1. To carry out a survey of scallop stocks in Shetland waters and Moray Firth.
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.

Out-time costs per project: 13 days - M01T

Narrative

The scientific staff joined FRV *Clupea* at 0830 hours on 11 March but did not sail from Fraserburgh until 0900 hours, 12 March due to bad weather. The vessel arrived on station at 0000 hours and sampling began west of Scalloway at 0800 hours on 13 March. The vessel continued to circumnavigate the Shetland Isles in a clockwise direction until the completion of the Shetland survey at 1000 hours on 21 March. The vessel then sailed to Sinclair Bay ready to continue sampling in the Moray Firth. On 22 March two further tows were made in the Moray Firth before ceasing operations due to bad weather. FRV *Clupea* docked at Fraserburgh at 1630 hours on 22 March. Scientific staff disembarked at 1030 hours on 23 March and returned to Aberdeen with all scientific equipment and samples.

Results

During the trip 82 dredge hauls were made and a total of 4,990 scallops were caught. The position of each haul is shown on the map in Figure 1. Catch rates varied from a minimum of 1/hr/m to a maximum of 68/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 seven different sites and is shown on Figure 1. Ring measurements for growth study were taken from nine other sites and is also shown on Figure 1.

S Davis
1 April 1999

Seen in draft: A Simpson, OIC

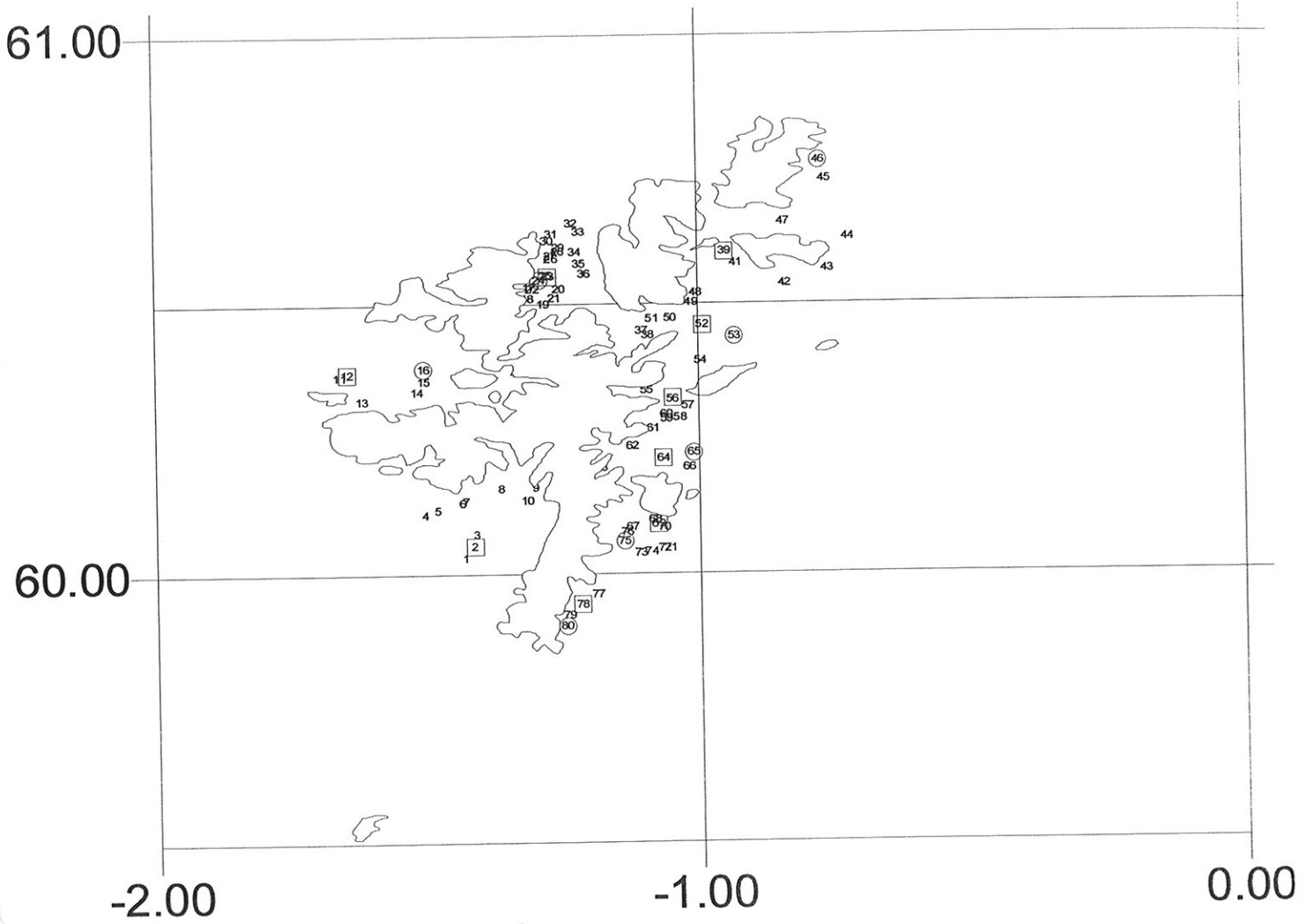
Table 1

Total number of each by-catch species

Species	Numbers
<i>Aspitigla cuculus</i>	1
<i>Buccinum undatum</i>	135
<i>Cancer pagurus</i> M	68
<i>Cancer pagurus</i> F	62
<i>Chlamys opercularis</i>	383
<i>Hippoglossoides platessoides</i>	1
<i>Limanda limanda</i>	2
<i>Lithodes maja</i> M	6
<i>Lithodes maja</i> F	3
<i>Lopius piscatorius</i>	98
<i>Microstomus kitt</i>	3
<i>Neptunea antiqua</i>	542
<i>Pleuronectes platessa</i>	8
<i>Raja batis</i> F	1
<i>Raja clavata</i> M	4
<i>Raja clavata</i> F	3
<i>Raja montague</i> F	1
<i>Raja naevus</i> M	7
<i>Raja naevus</i> F	37
<i>Scophthalmus maximus</i>	1

Figure 1.

Shetland Scallop Survey 1999



□ Growth Ring Measurements

○ Meat Weight Sample

Figure 3.

Shetland Scallop Survey 1999

Numbers at size in area

