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## CRUISE REPORT

F.R.S. "MARA"

16th May - 14th June 1961

The ship left Aberdeen on 16th May and was joined by the scientific staff on the evening of the following day. On 18th a visiting scientist came on board, and a programme of hydro-plankton sampling and grabbing in the Thurso area was begun. This work was completed early next day, and the ship proceeded to Scapa Flow in search of more sheltered conditions. Clam grounds in the Flow were sampled until the afternoon of Saturday 20th May, when the ship put in to Stromness. Dredging was resumed in Scapa Flow on Monday 22nd, and in the evening the ship entered Scrabster in readiness for the north coast survey. "Mara" was however held up in Scrabster by westerly gales until the evening of 25th May, when she was able to leave for Buckie, where the ship was required for a contractor's visit in connection with refit arrangements.

After another delay by bad weather, the cruise was resumed on 30th May, and the north coast survey was continued. Possible clam grounds between Holburn Head and Whiten Head were examined, and Loch Eriboll and Tongue Bay were sampled. When this was completed the ship docked at Stromness on Thursday 1st June. Next day the remaining grounds in Scapa Flow were sampled, and the east side of South Ronaldsay was worked, the ship entering Kirkwall in the evening. During the early part of the following week possible clam grounds were examined in the Kirkwall area - Deer Sound, Yinstay Bay, Inganess Bay, the south coast of Shapinsay, Wide Firth, and Isbister Bay being worked. The ship then steamed to North Sound and, based on Pierowall, worked round Sanday, Westray, and Rousay, returning to Kirkwall at the weekend. Strong winds of the previous few days moderated on Sunday 11th June and it was decided to make a passage to Scrabster so as to be within easy reach of the remaining grounds in Dunnet Bay and the west side of Hoy. These were worked on Monday and Tuesday, and the cruise finished at Aberdeen on Wednesday, 14th June.

The survey showed that there were few concentrations of clams in the North Coast-Orkney area. In general the grounds are rocky and uneven, and often strong tides make work difficult. Only in Scapa Flow were clams found in any quantity, and here most hauls produced either live clams or at least recently dead shells. The associated fauna consisted of horse mussels and queens - Chalymus opercularis (sometimes over 70 per haul). The best catch of clams in the Flow was in Swanbister Bay where 18 were taken in a 15 min. haul with the 4' dredge. It does not seem that the stocks here would support intensive fishing, but the results suggest that occasional commercial trips might be worth while.

Outside Scapa Flow clams were encountered only in the Wide Firth area near Kirkwall, but although quite large numbers of old shells were taken in places, live clams were limited to 1 or 2 specimens per haul.

Samples of shells were brought back to the laboratory for age determination and growth rate estimates, so that comparisons could be made with the commercial stocks of the Clyde area.

A. D. McINTYRE  
20th June, 1961