

R1/10

6GR85 MB

In Confidence - not to be quoted without prior reference to the Laboratory

FRV "Goldseeker"
Cruise 6/85

Report

17 April - 2 May 1985

Personnel

J Kinnear HSO
C Shand SO

Objectives

- 1 To conduct a thorough photographic survey of the artificial reef situated off Cove Harbour (Firth of Forth).
- 2 To sample the decapod crustacea on and off the reef using small mesh parlour creels.

Narrative

"Goldseeker" left Leith on 18 April and steamed to the reef location. An initial survey using the towed sledge and video camera located the reef very quickly, in a depth of 10-11 fathoms. Ten small mesh creels were then shot, 5 on the reef and 5 off the southern edge of the reef. "Goldseeker" then steamed for Dunbar Harbour. Severe northerly winds prevented any further work on the reef site until the 22nd. The NE swell had made underwater visibility very poor (<2ft) and the camera was unable to pick out the bottom.

Eight creels were recovered and 2 lost. An increase in northerly winds and swell made Dunbar Harbour unsafe. "Goldseeker" then steamed to Leith. Continued northerly winds made work on the south side of the Firth of Forth impossible therefore a study of the lobster grounds from Methil to Anstruther was carried out using Methil and Anstruther as bases. An improvement in the weather on the 29th enabled work to be restarted on the reef. On the 30th "Goldseeker" sailed from Cove (Firth of Forth) to Montrose after completing several camera runs on the reef site. The cruise ended at Aberdeen on 1 May.

Results

The camera sledge and camera coped well with the extremely rough ground encountered during the trip. Unfortunately the severe vibration frequently caused the Quartz-halogen lights to fail. A gas fitted type of light might prove more robust.

The bad weather severely curtailed operations on the reef. The few runs which were possible indicated that the dumped rock had been accurately positioned by the contractors. The rock was easily recognisable due to its very sharp edged appearance. Some growth was apparent on the sides of much of the rock probably Pomatoceros, Sp. Sea anemones and sea urchins (Echinus esculantis) were also present.

The bottom adjacent to the reef was composed of small pebbles with patches of smoother rock and areas of coarsely ground shell sand.

Creel catches:- Only very limited sampling was achieved due to the rough weather and the loss and damage to the gear. Indications were that juvenile (20-100mm carapace width) Cancer pagurus were much more common on the reef than on the surrounding natural bottom but many more hauls would be necessary before any firm conclusion could be reached. Commercial sized C. pagurus (>115mm carapace width) were absent from catches in both areas. No other types of decapod crustacea were caught.

Lobster grounds - Fife coast from Methil to Anstruther

Bottom cover changed considerably, varying from large boulders scattered over a relatively sandy bottom, becoming much more rocky towards Anstruther where the underlying bedrock was clearly visible. The bedrock was layered in such a fashion as to create many cracks and crevasses which would make suitable lobster cover. The ground from St Monance to Methil appeared to consist of loose boulders with much less ground cover.

A water sample for radio-caesium analysis was collected off Arbroath.

J Kinnear

28 May 1985

seen in draft: George B Calder