

MINISTRY OF AGRICULTURE, FISHERIES AND FOOD
FISHERIES LABORATORY, LOWESTOFT, SUFFOLK NR33 0HT

1990 RESEARCH VESSEL PROGRAMME

REPORT: SEEKER 2/90 JONUS PROGRAMME

STAFF: S J Malcolm
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DURATION: 29 October-3 November 1990

LOCATION: Wash.

AIMS:

To collect sediment and water samples as part of the JONUS programme to identify and quantify the fate of river borne nutrients entering the Wash estuaries.

NARRATIVE:

SEEKER was loaded with gear on the afternoon of the 29 October. The forward accommodation was fitted out with equipment for the sediment process work which involved installing benching and securing a gas chromatograph, an array of oxygen meters complete with data logger and the temperature controlled tank for core incubation. The gear was powered either by portable generator or shore power when docked.

On the 30 October SEEKER departed Boston at 0515h and proceeded to Freiston Low arriving at 0635h. The vessel was grounded and the All Terrain Vehicles (ATV's) deployed to sample site WSP10 nearby. Samples collected were for denitrification assay, sediment flux measurement and interstitial water. Sediment process work commenced and the SEEKER returned to Boston.

The weather on 31 October was judged too windy for SEEKER to visit any site in the Wash. There were gale 8 warnings given later in the morning. One ATV was unloaded from SEEKER and taken on its trailer to sites on the western shore of the Wash to see if deployment from land were possible. This proved impossible due to unsuitable terrain and backing up our previous view of the modus operandi. The party returned to Boston.

On the 1 November SEEKER left Boston Docks bound for Inner Westmark Knock arriving at 0715h. The ATVs were deployed onto the emerging sand bank at 0910h and samples for denitrification assay, for sediment flux measurement and interstitial water were collected at site WSP5. This was completed by 1115h and the ATVs deployed to site WSP6 to collect interstitial water samples. This proved to be a lengthy operation and resulted in one of the ATVs being stuck in the mud. Strenuous efforts were made to retrieve the vehicle but with a rapidly rising tide the ATV had to be abandoned. The second ATV and personnel were retrieved on board at 1400h. The crew of the Eastern Sea Fisheries boat PROTECTOR II attempted to mark the position with a Dahn buoy from their inflatable craft but could not locate the now submerged vehicle. SEEKER went to the Wisbech Channel and collected some water samples before going alongside CIROLANA to exchange gear and transfer John Read to shore. SEEKER returned to Boston at 1845h.

SEEKER departed Boston at 0500h on the 2 November for Inner Westmark Knock grounding as close as possible to the Dahn buoy position at 0810h. As soon as practicable gear and personnel were deployed to recover the abandoned ATV.

This was achieved in good time and sediment samples were taken at WSP6 for denitrification assay, sediment flux measurement and interstitial water. SEEKER returned to Boston in choppy force 5 conditions, spray causing the failure of the portable generator. Water sampling was conducted in the Witham on behalf of the NRA/Unicomarine/UEA and SEEKER arrived in Boston at 1800h.

The final day of work on SEEKER was 3 November departing from Boston at 0800h. Water samples were collected at sites in the Witham and Boston Roads before meeting CIROLANA to transfer gear, a battery for the searider and samples. SEEKER then went aground on Butterwick Low to work site WSP11 collecting samples for sediment process study before finally visiting CIROLANA to transfer Stephen Malcolm and gear and to transfer Kins Leonard and Renaud Fichez to shore. SEEKER returned to Boston where all gear was unloaded to transit vans.

RESULTS:

Results will be reported elsewhere. It is, however worth recording that apparent rates of denitrification (awaiting detailed calculation) were much higher in the muddy sand sediments than in the sandy mud sediments in contrast to the results of the previous cruise when the reverse was true.

COMMENT:

The seatruck SEEKER performed well and is a good platform for this type of work. I am grateful for the friendly assistance provided by V Kymaston and G Savage and to Capt Franklin of the Port of Boston Authority for the use of the SEEKER.

S J Malcolm
28 November 1990

INITIALLED:

SJM
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DISTRIBUTION:

Basic List +
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