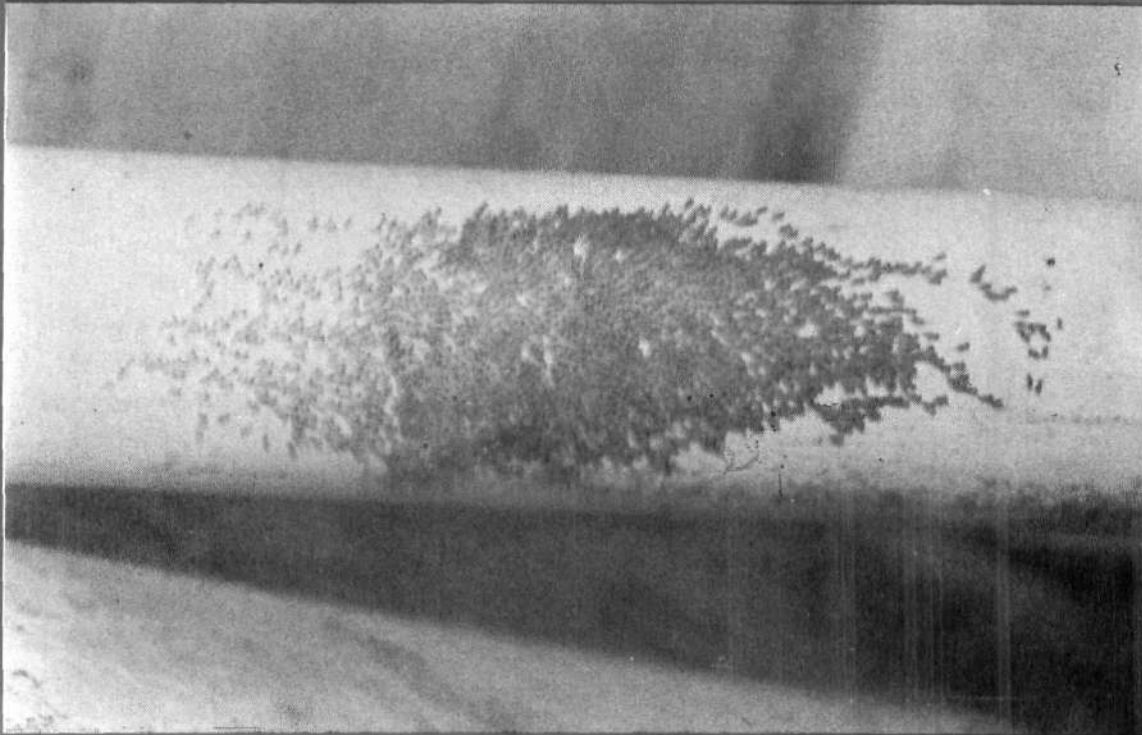




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INDIAN COUNCIL OF AGRICULTURAL RESEARCH

911 Oil sick in the inshore waters to the north of Cochin Port Channel

Oil spill in the sea may be accidental, operational or even deliberate but it causes a lot of concern to fisheries, beach ecology and tourism. In the last few decades, with the development of industries and mechanization of fishing crafts the use of hydrocarbons and other petroleum products has in-

creased considerably. The pollution occurs due to spills at oil ports and terminals, offshore drilling and production, during transport, deballast of oil tankers, discharge of oil refinery effluents and from other land based wastes.

In the early hours of 23rd April 1998 an oil slick was noticed in the inshore waters of Narakkal, (lat. 10° N & long. 76° 15'E) north of Cochin port. The oil

deposited was seen like tar and was very fresh and oily. Thick coating of oil was seen on granite stone walls erected against erosion and on the sandy beach (Figs.1-3). Water upto 10-15 m from shore appeared dark coloured and turbid. No mortality of marine biota was noticed from this area. However, for a week no fishing could be carried out. On the next day

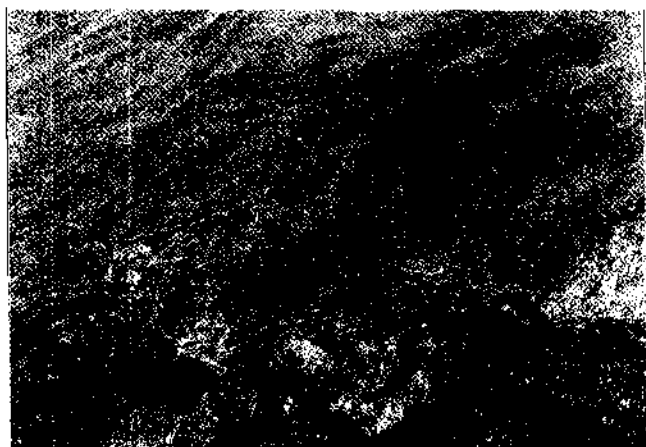


Fig.1. Oil sick in water and granite stone walls.



Fig.2: Oil deposited as tar balls on the beach.



Fig.3. Another view of oil deposit on the beach to show the magnitude of oil spill.

water and sediment samples were collected from Narakkal and from 2 km north of Narakkal and again from 5 km south of Narakkal to assess the extend of oil spill. The intensity of oil deposition in water was estimated as 310.2 mg/l (range 116.0-467.2) and 268.06 mg/l in the beach sediment (range 20.8-483.2).

The oil sample resembled that of Gulf crude oil and was not seen in Fort Cochin area south of the fairway channel, indicating possibilities that some oil tanker while returning from the Cochin port might have emptied or cleaned the ballast. Similar settling of weathered crude oil on the beaches along Mangalore during June last year as well as this year is reported (Krishnakumar, P.K., CMFRI, Mangalore, Per. Comm.) and traced the cause to be the discharge from oil tankers operating in the Arabian Sea. Although no mortality was reported, the oil slick might have caused extensive damage to the intertidal organisms including bivalve spat populations attached to the granite wall constructed to check sea erosion. Strict enforcement of preventive measures is recommended against these oil spillage. Incidentally, CMFRI is included as one of the 14 national institutions to assist the Coast Guard to monitor the oil spill in the Arabian sea and the Bay of Bengal regions.

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