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A LARGE-SCALE WASHING-ASHORE OF MARINE FAUNA AT KOVALAM, SOUTHWEST COAST OF INDIA

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ABSTRACT

An incidence of washing ashore of marine fauna comprising the jelly-fish, *Netrostoma coerulescens* Maas, some benthic fishes and crabs at Kovalam on the Southwest Coast of India on 6th September, 1972 is reported.

An incidence of washing ashore of large numbers of jelly-fish, *Netrostoma coerulescens* Maas (Famili: Cephidae) along with fishes and crabs was observed at Kovalam, southwest coast of India on 6th September 1972. This was found in a wide area, extending from Poonthura in the north to Mulloor in the south, about 19 km in length along the sea shore. Although the jelly-fish, *Netrostoma coerulescens* Maas is known to swarm along this area during October and November (Nair 1951) there is no report on its washing ashore in such a large number, 20 to 30 specimens in a square metre (fig 1), in this area.

The fishes observed and their total length ranges were: *Platycephalus indicus* (320 to 360 mm), *Cynoglossus semifaciatus* (170 to 185 mm), *Lycondontis punctatus* (286 to 295 mm), *Trachinotus blochi* (153 to 175 mm), *Abudefduf septemfasciatus* (102 to 128 mm), *Rhina ancylostoma* (210 to 236 mm), *Gymnothorax favagineus* (335 to 385 mm) and *Amplotistius imbricatus* (176 to 200 mm in disc width). Crabs belonging to the genera *Portunus* and *Gelasimus* were also observed. Among these, majority were the ray, *A. imbricatus* and the flat-head, *P. indicus*.



FIG. 1. Photograph of a section of the coast showing the fauna washed ashore

Stomachs of all the fishes in the sample were empty except that of *A. imbricatus* which had some crustacean appendages. The atmospheric temperature varied from 29.2° C to 30.0° C. The sea surface temperature and salinity varied from 25.0° C to 25.9° C and 35.36‰ to 35.56‰, respectively. The minimum and maximum sea-surface temperature and salinity for the month were 24.7° C to 25.9° C and 35.36‰, and 35.56‰, respectively. It was the hottest day during the month and on the next day there were light showers.

Although there were good landings of shoaling fishes like sardine, white-baits, mackerel, horse-mackerels and ribbonfishes on 2-9-72 and 14-9-72, in this area (VRC OF CMFRI, Vizhinjam records), it is significant to note that none of them were seen among the affected ones on 6-9-72, the day when the swarming of the medusae was observed. According to Lucas and Hendersen (1936) shoaling fishes like herring tend most to avoid large numbers of 'small jelly-fish' and particularly 'small white jelly-fish.' The absence of pelagic forms especially shoaling species like sardines, white-baits, mackerel, horse-mackerels

and ribbonfishes among the affected groups supports the observations of Lucas and Hendersen (*loc.cit*), Panikkar (1949), Bhimachar and George (1950), Prasad (1954), Prabhu *et al* (1965) and Nagabhushanam (1967) that pelagic forms avoid such areas.

The swarming of medusae is not generally coincided with such large-scale washing-ashore (as seen in the photograph), although, the medusae washing ashore is more or less a common sight during the period of their abundance in the inshore waters. Therefore, it is possible that a factor, physico-chemical, if not biological, would have caused the standing ashore of the fauna and that is perhaps the reason, owing to the wind, such large numbers of medusae along with some fishes and crabs were washed ashore.

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