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OCCURRENCE OF OIL SARDINE (*SARDINELLA LONGICEPS*) ALONG BABUBALI ISLAND IN GAHIRMATHA MARINE WILDLIFE SANCTUARY, ODISHA, INDIA

The Gahirmatha Marine Wildlife Sanctuary encompasses an area of 1435 km², of which 1408 km² are coastal waters while rest comprise mangrove forests, mudflats and sand spits. The coastal waters off Gahirmatha were declared a Wildlife Sanctuary in September 1997 for protecting the olive ridley sea turtle both in its nesting and near shore habitat. Gahirmatha is an only marine wildlife sanctuary in Odisha which is situated in north-eastern site of Odisha coast (200 44' N, 870 5' E to 200 32' N, 860 47' E). As a part of DGH-Satellite telemetry project beach profile work in Babubali Island was regularly monitored to ascertain the nesting suitability status of olive ridley turtle. On 15th December 2008; it was observed that unusual occurrence of oil sardine (*Sardinella longiceps*) in small channel which is drained out in Bay of Bengal. We observed hundred thousands of oil sardine enter in to the small channel just back side of nesting beach. However, during high tide time the tidal waves hit the island and small channel had been formed in some part of nesting beach temporarily. The total length of channel was about 25 m to 30 m and 4-5 m in width. It was estimated that more than 2000 kg of oil

sardine congregated in such a small stretch. The oil sardine had total length ranging from 110 mm to 160 mm.

The probable reason for the above phenomenon was attributed that there may be the sea water contamination that day or in Babubali Island (Gahirmatha) the fishes brought up by the up-welling process and pushed towards the channel by the high tidal waves. Observation was made three days continuously until the complete disappearance of fishes. On 18th December morning all fishes moved back to the sea again. The sardine, *Sardinella longiceps*, is a highly migratory, schooling species. This pelagic species is found in the photic zone at the depth of 20-200 m, along the continental shelf. This species feeds on phytoplankton and small crustaceans. Currently the *Sardinella longiceps* has been listed as Least Concern fish species by the IUCN Red List (Munroe and Priede, 2010). Oil Sardine is the principal food components of the neritic zone of West Coast of India (Talwar and Kacker, 1984). Earlier the similar phenomenon was reported (Rohit *et al.*, 2001) at Uchilla and Ullal beach near Someshwara 20 km south of Mangalore.

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