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## NOTES FROM THE GULF OF KUTCH

(S. Bhaskar undertook a 6 week survey in June July '78 of sea turtles in the Gulf of Kutch on Behalf of Madras Snake Park Surveys. His account follows).

The Gulf of Kutch, because of its proximity to the Pakistan border and to smu aling havens in the middle-east, is a sensitive area. (see map) Sea turtles, oblivious to border disputes and to man's shadier activities, cruise the shallow waters of the Guld as they have done for ages -- reproducing their kind, living off the abundant flora and fauna of the coral reefs, and filling their niche in the ecosystem of the sea, which man has only recently (as time scales so) begun to upset.

The big dead Green turtle (Chelonia mydas) which lay washed ashore among tangled mangrove roots in the Rozi swamp off Jamnagar was a reminder of our disturbing impact on sea resources. Fully four feet in length, the sea turtle had a deep gash on its neck, inflicted, in all probability, by the propeller of one of the many fishing or naval craft that ply in the Gulf waters. Of greater statistical significance is the drowning of sea turtles in trawl nets. A dead Olive Ridley (Lepidochelys olivacea) lacking superficial wounds that fetched up on the coast near Okha Madhi could have succumbed in this way.

The Olive midleys and the Green turtle are the only species of sea turtles which are common, and nest, in the Gulf of Kutch. The Leatherback (<u>Dermochelys coriacea</u>) is rumoured to be sighted occasionally but evidence as to its occurence was unobtainable.

The continued survival of these two species in the Gulf of Kutch is threatened by commercial interests, which fall into two categories: 1. The systematic collection, primarily by fishermen of the Wagri community, of the few sea turtle nests that escape predation by jackals and wild boar. The eggs are apparently sold in Okha, Mityapur and Dwarka at 25 paise each.

2. The large scale mining of beach send (on which sea turtles nest) by cement companies. Sand mining has, in many instances, exposed theunderlying water-logged silt, making it impossible for turtles to nest. Isl nds such as Deda, Murada, Lindada and Chinchad, which had five feet high send dunes a decade ago, have today been reduced to sea level.

Of two inhabited and about thirteen uninhabited islands and islets in the Gulf of Rutch, significant nesting by sea turtles occurs only on Phaidar island which is uninhabited and, predictably, is the least easily accessible (to fishermen) of those islands possessing sandy heaches. Visited only occasionally by sailboat fishermen from the mainland, the two mile long sands beach on Phaidar offers a largely undisturbed masting site for Ridleys and Greens. On each of the successive nights I spent on the island, three Ridleys came ashore with intent to nest. Three clutches were actually laid, all on 16 June.

None of the Green turtle nesting pits on the island (at least 20 were discernible) were fresh; but fishermen who had laid nets across a tidal creek at the night high tide on the 16th captured three adult Greens, all females. All these were released unharmed, as turtle meat is rarely consumed in the area. Occasionally a turtle thus caught may have its flippers

hacked off to be converted into rough shoes. These flipperhide shoes are worn by fishermen as protection against sharp coral and coral rubble. Buch of the latter is invisible, buried under knee-deep silt.

Greens and Midleys also nest on the 41 mile long sandy coast between Okha and Okha Madhi. It is very likely that they nest even further south, possibly along the entire western and southern coasts of Saurashtra. Turtles are visible from the 30ft high sand dunes on the coast near Gorinja, south of Dwarka. From any vantage point here, I could intermittently see 2 to 5 turtles at around high tide as they broke the surface for air. The date was 22nd June, 10 days after the onset of '78's early south-west monsoon.

The wanton exploitation of mangroves, which are vital for the reclamation and stabilization of coastal lands, continues. Mangrove stems, used for firewood, are illegally chopped down by fishermen and sand miners. This contributes to the stunted appearance of the mangroves: rarely do they attain the beight of a man. Herds of domestic casels are driven into the mangrove swamps to feed on the foliage - and even, onto nearby islinds like Karumbhar at low tide; (their two month stay on the island ends when the round water, fresh following the rains, becomes brackish).

Hacked-off mangrove steps are also laid, carpet fashion, on water-logged beaches, They serve as protection against the miring down of lorries engaged in transporting mined sand to the barges that are deliberately stranded immediately offshore by the receding tide.

On 15 June, I found the carcass of an adult male dugong as it lay decomposing on the beach on Bhaidar island. A large portion of its chist was missing, as also its tail fluke, flippers and dental array. Thank attack seemed indicated. To our knowledge, the 1 st authenticated reports of dugong in the Gulf of Rutch date back to 1959. In that year, a dead specimen was found off the Kalyan lighthouse on 17 July and a live one captured on 30 July in the same area (Mani, 1960). The dugong on Bhaidar appeared to have died early June.

For the snorkeller and scuba diver, October-February would be the bestperiod to visit the Gulf of Autch islands, when the murky silt-laden monsoon seas are calm and clear.

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