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22. OBSERVATIONS ON STRANDED GREEN TURTLES, *CHELONIA MYDAS*, IN THE GULF OF KUTCH

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Although the green turtle, *Chelonia mydas* (Linn.), has been reported from the Gulf of Kutch by Bhaskar (1978), little has been recorded about the biology of this population. This note reports a few observations on stranded individuals from this area in the hope that this may stimulate further, more detailed study.
On 5 January 1987 a female (JGF 5135) was found dead on the east side of Bet Dwaraka Island, south of Hamman Point (approx. 69° 8' 48" E, 25° 27' 48" N), virtually disappeared, but there were some sheds of muscle still clinging to the inside of the shell. No epizoa were seen. There was no sign of the cause of death.
As both carcasses were near the mouth of the Gulf, and strong tidal currents run there, it is not possible to determine whether or not these animals had died inside or outside the Gulf. However, *C. mydas* are commonly seen further inside the Gulf, where there appear to be both nesting and feeding populations (Bhaskar 1978; T. Mundkur, pers. comm.). In this respect, it may be relevant that a group ('flotilla') of at least 20 turtles was seen at Okha, at the southern mouth of the Gulf, on 11 March 1987; they were apparently surfacing and moving together (T. Mundkur, pers. comm.).

Little can be said about specimen JGF 5138a. Its shell measurements are each a few cm below the respective means for females nesting at nearby Hawksbay, Pakistan, but the values are well within the ranges for this population (Kabiraji and Firdous 1984:18).
Specimen JGF 5135 was clearly a female that had recently ovulated. Nesting (evidently by *Chelonia*) occurs on Bet Dwaraka, Samini, and nearby mainland beaches (Mundkur in litt., 26 Nov. 1988), as well as on Bhader Island (Bhaskar 1978; T. Mundkur, pers. comm.), about 15 km east, further inside the Gulf. The oceanic beach at Mithapur, some 20 km west and then southwest of where the carcass was found, is also an area of significant nesting (S. Trivedi, pers. comm.). Unfortunately, next to nothing is documented about these nesting areas, but the peak in egg laying is said to be around the end of the year at Mithapur (S. Trivedi, pers. comm.). *Chelonia mydas* is also reported to nest all along the northern coast of the Gulf of Kutch, notably from September to November (Himmat-sinhji in litt., 9 Jan. 1987).

A major nesting population of *Chelonia mydas* has been reported to nest all along the northern coast of the Gulf of Kutch, notably from September to November (Himmat-sinhji in litt., 9 Jan. 1987).
Total contents of the stomach weighed 5 kg. A subsample revealed 4 dominant species of algae; in order of importance they were: *Caulerpa scapelliformis*, *Gelidium laerosa*, *Ulva laticuca*, and *Lawencia pedicularoides*. Nine other algae occurred as incidental components: *Champia indica*, *Cylindrophora glomerata*, *Dicypopteria australis*, *Dicystota dichotoma*, *Haldymenia venusta*, *Hypnea musciformis*, *Myriogloea* sp., *Soleiria robusta* and *Spatoglossum varabile*. *Caulerpa scapelliformis* constituted 60 to 70% of the total by volume (identifications by Dr M S Murthy). (G. Balazs [in litt., 5 Dec. 1988] points out that *Gelidium laerosa* may be confused - by turtles as well as by people - with *Pterocladia capillacea*.) Epizoa on the carapace were diverse: green and red-brown filamentous algae; calcareous red algae; cocoons of *Ozobranchus* sp. (leech); and at least three species of barnacle - *Chelonia testudinaria*, *Platylepas hexastylus*.

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23. MORPHOMETRY OF THE INDIAN FLAP-SHELL TURTLE (*LISSEMYS PUNCTATA ANDERSONI*)

and the maximum recorded length was 350 mm. The highest recorded weight in this Park was 5.2 kg in summer. This particular specimen was a female and had no signs of developed eggs when examined by probing the inguinal area.

The flap-shell turtle has two pairs of external glands as given by Smith (1933). One pair opens on the lower side of both hypo-hyoid callus of the plastron which is exactly above the cutaneous femoral valve. The other pair opens on either side of the anterior part of the carapace, just above the midline of the forelimb cavity (humeral). The presence of the latter was not mentioned by Auffenberg (1981) while describing the glands of this species. These glands secrete an odorous yellow fluid which, presumably has a defence function, averting the attack of predators at least for a short duration.

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24. NEW LOCALITY RECORD FOR THE INDIAN PINKRINGED TERRAPIN

In July 1988, during my visit to the Palatia Hamman, on the outskirts of Suratcity (21°12'N, 72°52'E) on the bank of the river Tapi and where the river meets the Gulf of Cambay and forms an estuary, I saw a freshwater turtle basking on the dry mudflats, about 3 m away from the river. I captured the turtle and it was identified as an Indian Pinkringed terrapin, *Kachuga tentoria*.

Measurements & Weight: Carapace length 96.0 mm, carapace width 81.0 mm, plastron length 71.9 mm, body height 43.3 mm and weight 85.0 g.
Description: Carapace olive brown with a light pink ring around pleuro marginal junction. Carapace elevated