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OBSERVATIONS ON TURTLES AT SEA AND IN THE LAKSHADWEEP

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ABSTRACT

A few occurrences of sea turtles (*C. mydas* and Sp. ?) from the waters along the continental shelf edge and the high seas of the West Coast of India are recorded. The nesting of *D. coriacea* on Pitti Island, Lakshadweep is also reported here.

Sighting of turtles in the high seas outside the continental shelf edge is not a common phenomenon. In coastal waters occasionally they are sighted during the nesting season or in the feeding grounds. Often they are taken as incidental catch in fishing operations. Sea turtles do undertake long migrations and any information on their occurrence and behaviour in the open seas or coastal water may add considerably to our knowledge on their life history and habits.

A. *West Coast :* During the sixties and early seventies I had the opportunity to spend long spells in the Sea participating in the fishery oceanographic cruises on board R.V. *VARUNA* of the erstwhile Indo-Norwegian Project, Cochin. These cruises covered the Gulf of Mannar, Wedge Bank, Eastern Arabian Sea and the Lakshadweep Sea. Spare time was spent on whale watching and sea bird studies. Going through my notes, I find that on a few occasions the occurrence of sea turtles, mainly the green turtle *Chelonia mydas* was noted chiefly outside or along the edge of the Continental Shelf. Since the time of occurrence and location may be of interest in future studies I take this opportunity to record these here.

1. Date : 26-10-1965. Position Eli Kalpeni Mt. 11° 13' N and 74°05' E. Time 1045 hrs. One specimen of *C. mydas* floating passively ; good growth of barnacles on carapace ; vessel slowed down to investigate but the turtle turned and moved away ; no other organisms seen in association.
2. Date : 26-10-1965. Position 11°16' N and 74°03'E. Time 1130 hrs. One large *C. mydas* seen swimming at surface below which one small shark along with 2 sucker fishes and one pilot fish were seen. Vessel followed for a few minutes.
3. Date : 29-11-1965. Position 11° 16' N and 74°50' E. Time 1115 hrs at shelf edge above 250 m depth off Calicut—one *C. mydas.*
4. Date : 29-11-1965. At 1230 hrs 11°15' N and 74°54' E, depth 180m among floating cuttle bones sighted one turtle swimming at surface. Species not identified ; probably *C. mydas*(?)
5. Data : 15-3-1969 Position 8°07' N and 76°51'E over 140 m depth ; time 0815 hrs ; one turtle floating passively ; vessel slowed to investigate, but turtle sounded and moved away. Sp ?

These are disjunct observations. However, the sighting of the turtles off the West Coast in the months of October and November, that too, two within an hour of each other should be of interest (Fig. 1)

B. *East Coast :* Shri A. Bastian Fernando of Mandapam Regional Centre has passed on the following information to me which should be of equal interest. This pertains to sighting of a number of sea turtles observed from the ship M.V. *VISHWA KANTI* during its passage from Colombo to Visakhapatnam. An extract of the letter from the Deputy Director General of Observatories (Forecasting) Poona—5 dated 25-2-1971 reads as follows :

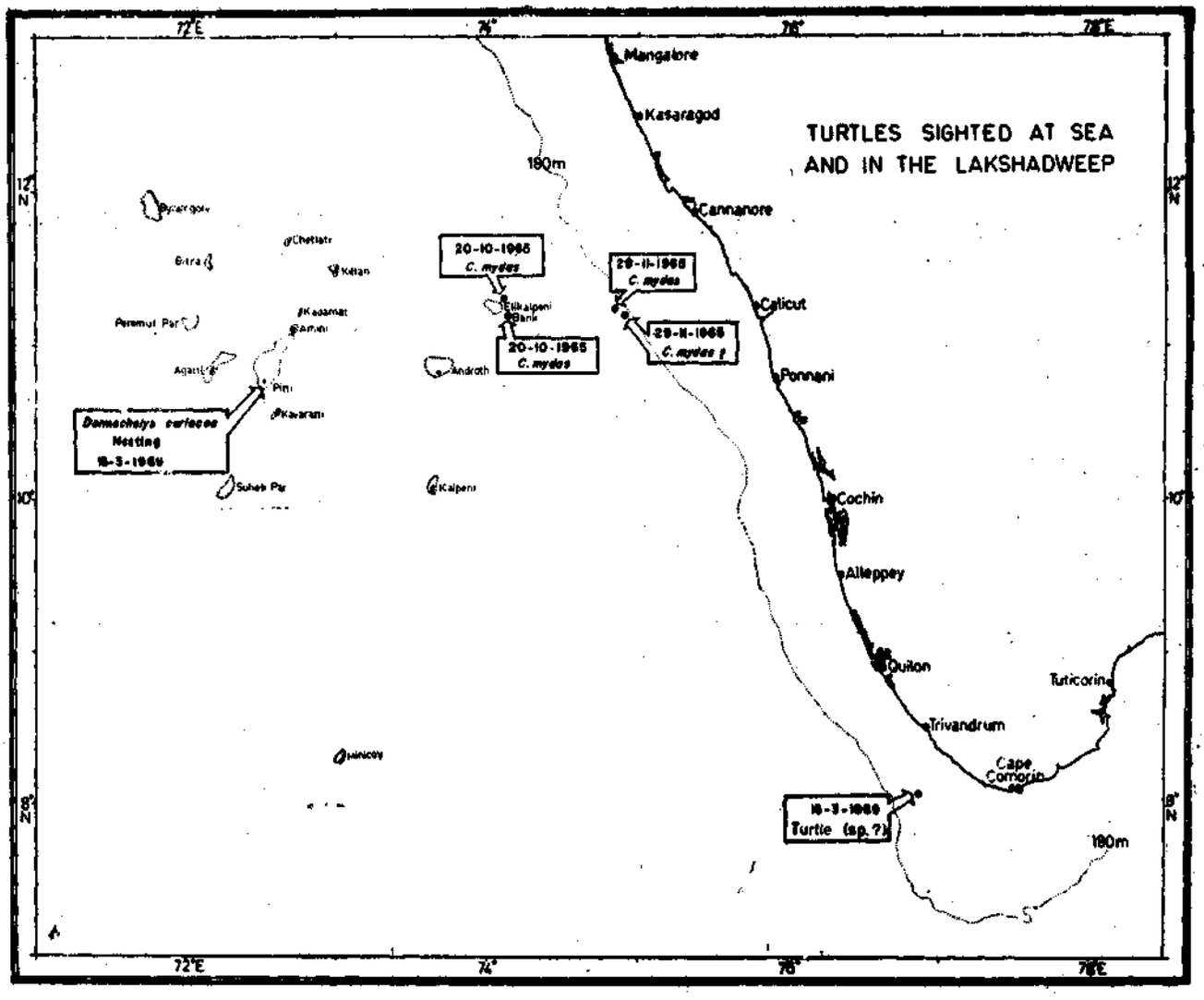

Fig. 1. Turtles sighted at sea and in the Lakshadweep

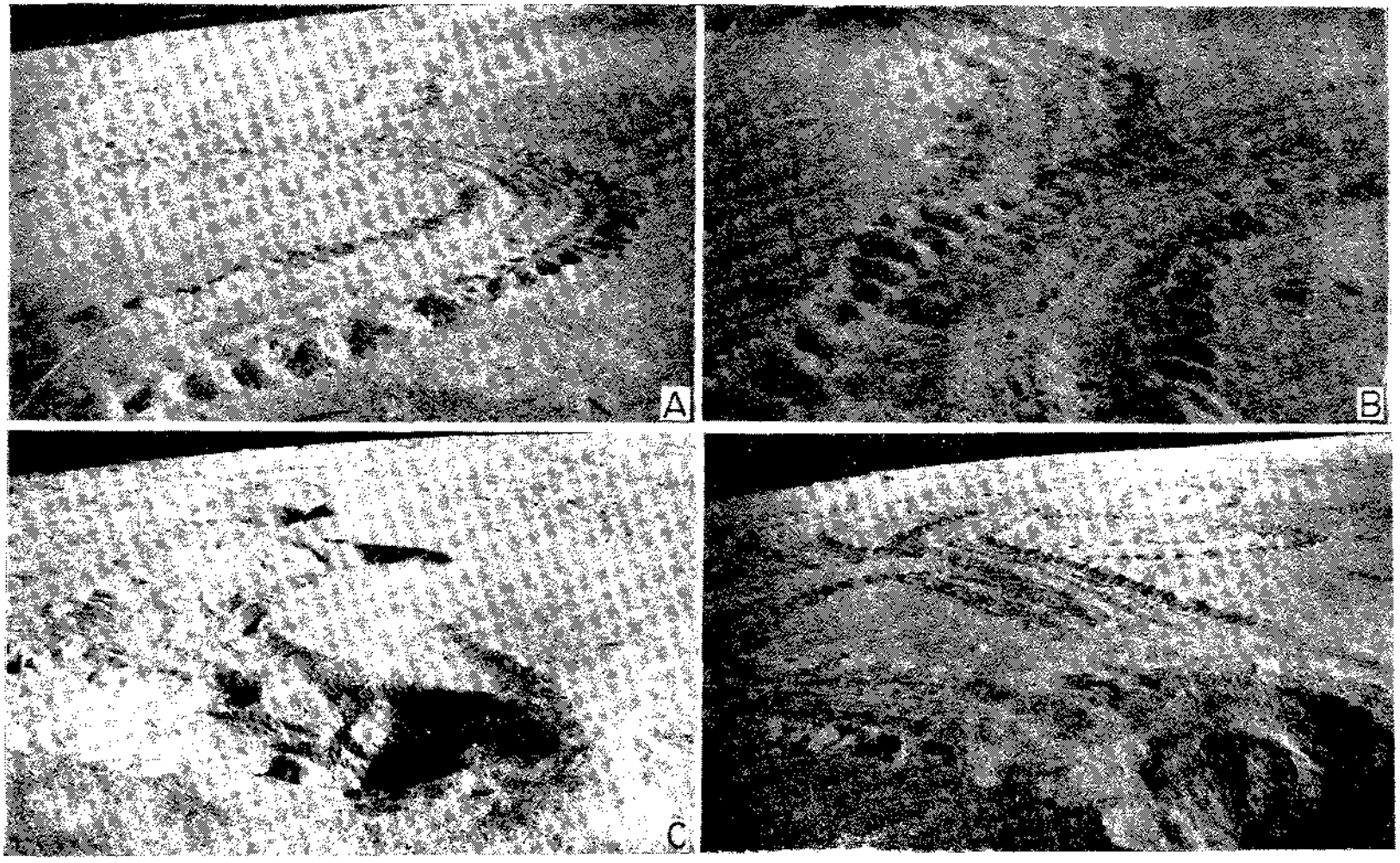

PLATE I A-B. Crawl tracks of *Dermochelys coriacea* (?) on Pitti Island, Lakshadweep ; C. view of three pits and D. close up of one of the nests. Note the circular nature of the crawl track.

'The following is the text of the report on an abnormal number of turtles sighted by the ship M. V. *VISWA KANTI*. An abnormal number of turtles were seen floating on the surface of the sea at a distance of 100 to 200 yards from each other on 8th February 1971 between 04.00 hrs GMT and 07.00 hrs. GMT. They occasionally clustered in two's and three's and appeared muddy yellow in colour. The length of each animal was about 1½ to 2 feet and breadth was ½ feet. The turtles were very lethargic and made no effort to move away from the ship when the ship was plying in the vicinity of them. They all appeared to move in a southerly direction. Weather condition and other particulars are given below :

Passage	:	Colombo to Visakhapatnam
Position	:	at 04Z
True course	:	010
Ship speed	:	11 knots
Wind	:	Light N to NE
Sea	:	Calm to ripple
Sky	:	Faintly cloudy
Visibility	:	Good
Barometric pressure	:	1014.7 mbs
Dry bulb	:	28°C
Wet bulb	:	23.3°C
Sea temp.	:	28°C

The details do not permit fixing of exact location of the sighting. However, the time of the year and the numbers seen are of great interest. They could as well be the olive riddley on their way back from the nesting beaches.

C. *On Pitti Island, Lakshadweep :* Between 1963 and 1972 I was able to visit Pitti Island a small outcrop of hardly 3.5 ha in the Lakshadweep on four occasions, mainly for studying sea bird populations and their breeding. On one such visits on 5 February 1967, I came across the crawl tracks of a very large turtle(s) which was very conspicuous on this tiny Island. The circular and criscrossing pattern of the tracks (Fig. 1 and Plate I, A-D) were very characteristic. In my field notes I had indicated it as that of the leathery turtle, *Dermochelys coriacea.*

Three pits were noticed, but none had eggs. It is not unlikely that the islanders from Kavarati who frequent the island could have collected the eggs. It was not clear whether the crawl mark was made by a single or more than one nesting female. Information on nesting grounds of *D. coriacea* have been very few as compared to *C. mydas* and *Lepidochelys olivacea.* Pritchard (1982) mentions that 'Leatherback tracks were easily distinguishble from those of *Chelonia agassizi* and *Lepidochelys olivacea* by the much greater width and characteristic sinusoidal form of the track and frequent evidence of the animal having turned in one or more complete circles over the nest site.' The pattern seen on Pitti island, Lakshadweep is very much as that of *D. coriacea.* In the Lakshadweep they are hunted for their oil for use in boat maintenance. Frazier (1980) mentions that the species occur as vagrant in the Indian territory. Pritchard (1982) has given the lower range of the world population of leatherback turtle as 108,000. According to Carr (1972) the leatherback is the least endangered of species of the marine turtles since commercial products from it are virtually non-existant. However, opinion differs (Bustard, 1972).

Conclusion

As mentioned earlier, the systematic observation on turtles at Sea could add a fund of information on their behaviour and life habits. The National Marine Living Resources Data Centre at the Central Marine Fisheries Research Institute, P. B. No. 1912, Cochin 682 018 will be greatly interested to receive any information on sighting of turtles in the Sea from fishing vessels and the merchant vessels and Coast Guard ships plying in the Arabian Sea and the Bay of Bengal. It is our intention to disseminate this information through the 'Sea Turtle News' in the Marine Fisheries Information Service — Technical and Extension Series published monthly by the Central Marine Fisheries Research Institute.

REFERENCES

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