Short Note

Non-nesting emergence by Green Turtles *Chelonia mydas* at the Cunene River mouth, South West Africa/Namibia.

by

P.W. Tarr
Directorate of Nature Conservation
Private Bag 5018
Swakopmund
9000

The green turtle is the only marine turtle known to emerge from water for reasons other than nesting (Garnett *et al.* 1985). These authors report that behaviour of this type has been observed along the northern Australian coast and in the Pacific, while detailed observations of non-nesting emergence have been made on the north western Hawaiian Islands, the Galapagos Islands and the Wellesley Islands.

Two unsexed green turtles (Carapace length one metre along the curve) were found basking on the beach at the Cunene river mouth (17°15'S; 11°45' E) at noon on the 13/7/1984. No signs of nesting were evident and both turtles were absent when the site was revisited the following day. Both turtles were found lying below the high water mark and tracks suggesting active emergence were absent. Visits to this remote area are infrequent and although green turtles are often observed in the river mouth and the surrounding surf area (pers. obs.), records of emergence have not previously been published. Unpublished reports of turtles nesting on the South West African coast have been received from Sandwich Harbour, approximately 830 km south of the Cunene river mouth (W.D. Haacke pers. comm.).

Garnett *et al.* (1985) report that most non-nesting emergence observations have been made during the

PLATE I: Adult green turtle basking below the high water mark at the Cunene mouth.

day, while nocturnal non-nesting emergence has been reported from Hawaii. The above authors point out that, although non-nesting emergence may be an active or a passive event, it is usually considered to be voluntary. Various authors quoted by Garnett *et al.* (1985) propose possible reasons for non-nesting emergence by green turtles. These reasons include the need to synthesize Vitamin D, acceleration of digestion, egg maturation, avoidance of courting males by females, avoidance of predation by sharks in deep water, absence of suitable deep water resting sites, and internesting energy conservation.

Since the turtles at the Cunene river mouth were observed basking during daylight, and because of the relatively cool ocean current along the South West African coastline, the first three reasons are possible explanations for their behaviour. Emergence to avoid predators is also possible since sharks are regularly sighted by fishermen in South West African waters, and areas close to the Cunene river mouth are known to support large specimens (M.J. Penrith pers.comm.). Garnett *et al.* (1985) regard the optimisation of energy use to be the most likely explanation for non-nesting emergence by green turtles on Rocky Island in the Gulf of Carpentaria. They suggest that during the internesting period a female turtle tends towards inactivity, thereby saving up to 40% of her energy reserves. They argue that the conservation of energy reserves, which may take years to accumulate, would be essential for a nesting turtle.

Early travellers to the Cunene river mouth report that turtles have often been seen in this area and egg laying was observed on one occasion during 1958 (C.J. Fourie pers. comm.).

ACKNOWLEDGEMENTS

Dr. W.R. Branch of the Port Elizabeth museum and Mr. W.D. Haacke of the Transvaal Museum are thanked for providing literature and information used in this short note. I am grateful to Dr. G.R. Hughes of the Natal Parks board for commenting on the original draft of this publication.

REFERENCES

GARNETT S.T., CROWLEY G.M. and GOUDBURG G.N. 1985: Observations of non-nesting emergence by green turtles in the Gulf of Carpentaria. *Copeia.* (1) 262-264.