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11. CAPTIVE REARING OF MARINE TURTLES

(With two plates)

Introduction and Summary:—The Madras Snake Park Trust began sea turtle studies in 1972 on the Coromandel coast near Madras where one species, the Pacific (Olive) Ridleys (*Lepidochelys olivacea*) nests in fair numbers. In 1973 Madras Snake Park Trust started India's first hatchery and transferred 11 nests of 1272 eggs from the beach where human, dog and jackal predation is over 90% (Valliappan & Whitaker 1974). During the December-March nesting seasons over the next 4 years, Madras Snake Park Trust collected 197 nests of 21,760 eggs which resulted in 13,059 hatchlings which were released into the sea (Whitaker 1977). Also about 50 nesting females were tagged with numbered monel metal inscribed SEND TAG TO MADRAS SNAKE PARK 600022-INDIA. In April 1977, 15 *L. olivacea* hatchlings were retained for rearing at the Madras Crocodile Bank Trust premises near the sea. During 1977, 2 subadult female green turtles were collected, one from Lakshadweep and one from the Coromandel coast; both were accidentally caught by fishermen in nets. A hatchling Ridley was collected in Lakshadweep in November 1977. In late 1977 a hatchling hawksbill turtle was collected in the Indian Ocean by the Indian Navy and given to the Trust.

The following notes discuss housing, feeding, management and treatment of sea turtles of 3 genera in captivity at a site a few metres adjacent to their natural habitat.

1. *Ridley*—Eggs were collected from a natural nest laid on 12-2-77 and incubated in a simulated nest inside a wire mesh enclosed, partially shaded beach hatchery. Temperatures and approximate humidity were checked re-

gularly (Bhaskar 1978) 46 days later the eggs hatched and 15 of the 80 hatchlings were retained for rearing. Later, in November 1977, the hatchling Ridley from Lakshadweep was included in the rearing trial. Plastic wash basins (50 cm diameter × 18 cm deep) were used initially with 5 turtles per basin. Water was kept at a depth of 6 cm and care was taken that the basin remained at least 3/4 shaded throughout the day. An experienced Madras Crocodile Bank Trust employee, Miss Mangai was put in charge and their optimum growth rates and relative good health are largely due to her personal efforts. The 5 cm hatchlings began feeding on the 3rd and 4th day on small bits of chopped clams (*Donax* sp). Later, chopped fish (mixed) and small ghost crabs and mole crabs were offered and usually eagerly taken. Though several types of sea grasses, algae, and various vegetable greens were offered the turtles rarely took more than a few sample bites. As the turtles were fed daily the sea water had to be changed daily after feeding. Water is brought to the basins by hand from the sea about 100 metres away. 4 of the hatchlings died within 3 months and 6 were released. The remaining 3 are being reared at this time.

Coloration: The coloration of the juveniles has gone through several changes starting at almost black with a few small white patches on the plastron and edges of flippers. The turtles are now considerably lighter (greenish-grey). The Lakshadweep specimen is still very dark with prominent white patches over each eye. From about the 6th month of growth, the carapace develops sharp edges on

