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R & Z WHITAKER

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LES Hatching a Success

WILDLIFE conservation experts in Tamil Nadu are patting themselves on the back, and with reason. Painstaking efforts to save the sea turtle from extinction by hatching turtle eggs under protected conditions have been capped with success. According to S.A. Subramani, state forest and fisheries secretary, in the eight hatcheries the Forest Department has set up along the Tamil Nadu coast over the last couple of years they have been able to collect over one lakh turtle eggs each year, and baby turtles have been successfully hatched from 70 to 80 per cent of these.

This encouraging news was delivered during a three-day workshop on sea turtle conservation in Madras last fortnight. Organised by the Central Marine Fisheries Research Institute (CMFRI) in tandem with the Union Government's Department of Environment and the Madras Crocodile Bank, the workshop brought together some of the best Indian and foreign brains involved with sea turtle biology and conservation and recommended definite directions for future research and conservation efforts. An important result of the workshop was the decision to set up a sea turtle data base at the Madras Snake Park. The CMFRI is also to set up its own computerised data centre at Cochin.

These steps have not come too soon. Observes Jack Frazier of the Smithsonian Institution in Washington, and authority on turtle biology: "We know very little yet about turtles, but experience tells us that the survival rate of baby turtles is very low, almost negligible." He adds that it has been possible to identify seven distinct species of turtles the world over, and all of them face

the threat of extinction in various degrees.

Five of these species are found in Indian seas and have been classified as threatened under the Indian Wildlife Protection Act, 1972. "It is in this context," says Frazier, "that I think India and in particular Tamil Nadu have taken giant steps in turtle conservation in the last two years. Tamil Nadu is the only state which has long standing turtle hatchery programmes."

The state's achievement is indeed impressive, for few baby turtles otherwise manage to survive, as they are victims of very heavy predation by dogs, jackals, hyenas and wild boar on the coasts. According to Satish Bhaskar of the World Wildlife Fund: "Apart from predators, turtles are also threatened by the inroads civilisation is making into our beaches. Good turtle nesting beaches are being wiped out by builders and contractors in Gujarat and other states." Add to this the flourishing illegal trade in turtle eggs, meat and blood—the last is considered by many to be an aphrodisiac.

It was under such ominous portents that the sea turtle hatchery concept was pioneered in India by the Madras Snake Park and its director Romulus Whitaker in 1973. A few small hatcheries were then set up on the coast immediately south of Madras. Volunteers would dig up the eggs at night from the beach and re-bury them inside the hatcheries, which were well protected.

The eggs would hatch in 40 to 45 days and the baby turtles would slowly dig their way out to the surface of the sand, and would be released into the sea after nightfall—again to reduce the risks from predators. Almost 20,000 eggs were successfully hat-

Tamil Nadu's turtle hatchery (left), and baby turtles: winning the race

ched by the snake park between 1973 and 1977, when the project was ended. But the turtle hatchery programme continued, however, for the CMFRI then took over and set up a hatchery on the coast by the Madras-Mahabalipuram road after the Government put turtles on the endangered list.

Almost all the eggs hatched on the Madras coast have been of the olive Ridley type, which are relatively more common than the rare green turtles, hawksbills, leather-necks and loggerheads, which together make up the five Indian species. The green turtle lays its eggs mostly in Gujarat, the hawksbill along the Tirunelveli coast—but more commonly in the Andaman and Nicobar islands. The leather-back is found in the Andamans. Frazier knows of no loggerhead nesting sites in India, but the species is found in Indian waters. Early this century, the hawksbill used to nest on the Kerala coast, but it does not any more.

The CMFRI, unlike the snake park which had volunteers to collect eggs, buys turtle eggs from fishermen and others for about 10 paise an egg, and hatching between 30,000 and 40,000 eggs a year. In 1982-83, the Tamil Nadu Forest Department set up six hatcheries, and another two in 1983-84. The forest department has its own labourers to bring in eggs, who are paid Rs 10 per day.

Turtles are believed to attain maturity and breed only after they are 10 years old. The Tamil Nadu hatchery programmes have only been in existence that long, so it may be a while before concrete evidence of successful breeding by turtles hatched by the snake park or CMFRI is available. Meanwhile fingers are kept crossed that the baby turtles will win their race to survive.

—S.H. VENKATRAMANI