

## **SEA TURTLES IN THE EL PALMAR RESERVE, YUCATAN (MEXICO)**

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During the years 1992-1994 a series of surveys were conducted in order to collect information on the reproductive ecology and biology of sea turtles in their natural habitat. The El Palmar Reserve is located on the northwest coast of the Yucatan Peninsula, Mexico, and is characterized by mangrove thickets, lagoons, and coastal dunes encompassing 40 km of coastline. The study was conducted in cooperation with Tethys Research Institute (Milan, Italy), Biocenosis (Merida, Yucatan), and Europe Conservation, and with the help of many eco-volunteers.

A total of 98 days were spent in the field and data were collected focusing on deposition (species identification, counting of nesting turtles, individual health conditions, nests measurement, habitat preferences, behavior, track patterns), and hatching (nest temperature, hatchling counts, predators). Moreover, eggs were relocated to a protected nursery and the hatchlings were later released at sea. This study documented the presence of the only species *Eretmochelys imbricata* (hawksbill turtle) in the area. A total of 23 individuals were directly observed while laying eggs. The number of adult turtles and the density of nesting sites observed seemed to be low compared to other areas in the Yucatan Peninsula; possibly reflecting negative human impacts such as direct disturbance or killing, egg collection, and egg predation by dogs associate with the human presence.

Carapace measures in curve-line were obtained for 20 nesting females (CCL: mean=94.2, SD=3.91, SE=0.88, range 88-100; CCW: mean=84.4, SD=3.94, SE=0.89, range 76-90). During nocturnal patrols, 121 adults turtle trails were studied and information on run type and nesting was collected. A mean of 168 eggs were found in the nests examined (SD=32.1, SE=6.17, range 113-225, N=27). Up to 20 eggs per nest were measured and weighted, totaling 506 eggs. Following the birth, living hatchlings were also handled to record their dimension (N=215) and weight (N=146). All measurements

did not seem to differ from data in the literature. In addition, an opportunistic collection of local dune flora was made and related to the nesting site.

This study provided a general picture on sea turtle in the pristine El Palmar Reserve, and set the basis for future research in the area, where impact of human activities on these endangered reptiles remains difficult to evaluate.