

## Sea Turtle Research and Conservation, El Salvador

Of the 7 species of sea turtle that swim the oceans of the world, 6 are classified as endangered on the IUCN Red List of Threatened Species (the Flatback of Papua New Guinea and Australia is listed as “Vulnerable” due to lack of information about its status). The Hawksbill, Leatherback and Kemp’s Ridley are listed as critically endangered and on the verge of extinction. The Olive Ridley, Green (Black) and Loggerhead are listed as endangered. It is believed that populations of all species of sea turtle are declining worldwide, owed to a variety of factors, including but not limited to hunting (eggs and meat), fishing (industrial and local) and loss of habitat (overdevelopment of beaches for tourism).

So why is this important? Would it really be that big of a problem if sea turtles went extinct? Who or what would really be affected?

There are many answers to these questions, many of which depend on who is being asked. Some say that there is an intrinsic value of all living things in the world, so they must be protected just for being what they are. Others say that since sea turtles are near the top of their food chain, if turtles went extinct there would be nothing to keep the populations of animals and plants that they fed on in check. This could lead to population explosions of prey species and have negative effects on other species and the environment.

We, as FUNZEL, believe the answers above to be true. But we also believe that it is essential to protect sea turtles because many poor beach communities count on the income generated from the sale of their eggs. The balance must be found between human needs and maintaining healthy sea turtle populations in El Salvador.

During the course of a year, 4 out of the 7 species of sea turtle nest on Salvadoran beaches. The most common by far is the Olive Ridley, followed by the Pacific Green (Black). The other 2 species are much rarer and are listed as critically endangered: the Hawksbill and Leatherback.

As of now in El Salvador, there is nationally incomplete, dispersed and vague information regarding sea turtles. Virtually nothing is known of the Hawksbill, Leatherback, and Pacific Green, even though these species are frequently reported stranded on beaches and are brought to the FUNZEL Wildlife Rescue and Rehabilitation Center for treatment.

There is an ever-increasing public concept that sea turtles in El Salvador are endangered, yet turtle eggs are sold openly on the streets and in markets. Very few people are aware that Hawksbills, Leatherbacks, and Pacific Greens nest, along with the much more common Olive Ridley, on their beaches and occur offshore and estuarine waters. The Ministry of the Environment (MARN) is the official entity responsible for coordinating the hatcheries that do exist. In most beaches where sea turtle programs are developed, MARN has established that for every nest harvested, one dozen eggs must be donated to the local hatchery. Unfortunately, in most beaches where hatcheries operate, the lack of

police presence has resulted in a very small number of tortugueros that actually. In beaches that lack hatcheries, no eggs are protected and incubated. It is estimated that 99% of all eggs are harvested for local consumption, no matter the species. This sends a mixed message to the Salvadoran public of exactly how endangered sea turtles actually are, and there is an urgent need to deal with conservation strategies separately by species and by regions within El Salvador.

FUNZEL has received a \$25,000 grant from the National Fish and Wildlife Foundation, with \$37,000 matching funds, to conduct an investigation of over 100 beaches along all 300 kilometers of Salvadoran coastline to gather baseline data on nesting habits and foraging grounds of the Hawksbill, Leatherback and Pacific Green turtles. Included in this data will be species per beach, nesting densities per beach, site of offshore turtle observations, conservation measures, main human threats within each site, and opportunities to establish sound conservation efforts per site.

In an effort to determine which beaches are most important to nesting turtles and to collect standardized information nationwide, we are conducting a yearlong investigation of over 100 beaches across El Salvador. The project's objectives are a) to establish a sea turtle conservation network, through which information on any turtle event will be gathered and used to prioritize the beaches and sites that need urgent attention considering biophysical, socioeconomic and administrative criteria; b) To raise the awareness and increase the participation of the Salvador public in the conservation of sea turtles.

To collect information on sea turtle events, El Salvador has been divided into four zones, each of which has an operating local field technician that is responsible for visiting each beach and its principal community in his zone. This person must identify at least one local informant in each community that will collect information on all sea turtle events, including swimming, nesting, copulating, captured and stranded turtles, which take place during a fifteen day period. Each local informant is given a questionnaire during the first visit, which lists the information that must be collected. At the end of the fifteen day period, the local informant will be visited and interviewed by the field technician, who will collect the questionnaire that has been filled out and replace it with a blank copy. This fifteen day cycle began in September 2007 and will continue until December 2008.

Upon completion of the project, a peer reviewed article will be published, as well as a technical report to be provided to donors and other key stakeholders in El Salvador. A less technical manuscript will be prepared and printed for law making officials.

To complement data collection activities, Seguros e Inversiones, SA (SISA) has supported a sea turtle egg hatchery that has been established as an emergency measure to protect as many eggs as possible. In an effort to draw tortugueros to the hatchery, eggs are purchased by the dozen at \$0.50 to \$1.00 above the going market-price (which generally oscillate between \$1.50 and \$12.00 per dozen depending upon the season). Special emphasis is placed on the purchase of Leatherback eggs to ensure that as many hatchlings as possible of this critically endangered species are released.