

TROPHIC BEHAVIOR DIVERSIFICATION OF GREEN TURTLES FROM MEXICAN PACIFIC IN RELATION TO CLIMATE CHANGE

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The knowledge of diet and foraging ecology can identify important food resources and guide decisions regarding the management of endangered populations. Changes in trophic behavior of green turtles (*Chelonia mydas*) in relation to the benthic community structure in their feeding grounds may affect net nutritional gain and in turn, reproductive output and demography. It has been reported that the seagrass *Zostera marina* is one of main dietary items of *C. mydas* in northwest Mexico; however, this once-abundant seagrass has decreased substantially due to environmental changes. Elevated sea temperatures produced by global warming or El Niño Southern Oscillations (ENSO) are responsible for major reductions of seagrass populations around the world. In these conditions, it is possible that climax seagrass species (*Z. marina*) could be partially or completely replaced by opportunistic species like *Ruppia maritima*, thereby producing a radical change in the trophic structure of the community. In this study, we conducted an extensive evaluation of seagrass populations found 29 sites along Baja California Peninsula, Sinaloa and Sonora based on literature surveys and in situ sampling efforts for more than 20 years. We found noticeable amounts of *R. maritima* growing close to *Z. marina* meadows in areas and in densities unknown for the region. Moreover, during 2008-2009 we obtained several samples of stomach contents from dead, bycaught turtles and oesophagic contents for live juvenile green turtles from three coastal lagoon of Pacific of Baja California Peninsula. According to esophageal and stomach samples, the *R. maritima* constituted between 0.40 and 24.33% of the diet of green turtles, while *Z. marina* values were between 3.33 and 44.21%. To our knowledge, this is the first documentation of *R. maritima* featuring more prominently than *Z. marina* in the diet of green turtles in northwest Mexico. It is also the first study linking the Bottom-Up effect by ENSO and climate change in trophic relationships on shallow areas, as well as the ability of green turtle to modify their feeding behavior at foraging areas in northwest Mexico. We thank International Sea Turtle Society, U.S. Fish and Wildlife Service, U.S. National Marine Fisheries Service, Ecoteach, Defenders of Wildlife, Sea Turtle Conservancy, Defenders of Wildlife, Lotek, Sirtrack, Telonics and CLS America and the International Sea Turtle Symposium for their generous donations for attend to 33rd Annual Symposium on Sea Turtle Biology and Conservation.

USE OF NON-OCEAN HABITAT BY SEA TURTLES AS FORAGING OR RESTING GROUNDS

Todd A. Rimkus, Samantha Grimmer, and Melany Su

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Sea turtles use a variety of foraging and resting grounds near nesting sites. Several nesting beaches in Belize are in close proximity to the Northern and Southern Lagoons. These nesting beaches have typical foraging and resting grounds in front of the beaches, but rivers also provide access to the lagoons. The use of the Southern Lagoon as a sea turtle habitat has been reported by residents of Gales Point Belize, but only by word of mouth. In July and August of 2011, three female hawksbill sea turtles were satellite tagged



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Compiled by:

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