

KNOWLEDGE OF BEACHGOERS TO THE PRESENCE OF AND THREATS TO SEA TURTLES IN THE GULF OF MEXICO; RESULTS OF A SURVEY OF VISITORS TO GALVESTON ISLAND, TEXAS

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Knowledge of Galveston Island residents and visitors regarding the 5 species of sea turtles most commonly found in the Gulf of Mexico is relatively unknown. Our objective was to quantify, through surveys, the public's knowledge of sea turtles on Texas beaches. Specifically, we were interested in: 1) awareness of threats to sea turtles in various life history stages and habitats; 2) understanding of their own role in mitigating threats to sea turtles; and 3) willingness to support programs whose foci include: protection and conservation of sea turtle habitats, outreach and education, and legislation designed to facilitate the conservation of sea turtles in the Gulf of Mexico. A random survey of visitors to public beaches on Galveston Island was conducted during Summer and Fall of 2012 (n = 112). Participants were asked to provide responses to 14 questions. In terms of general demographics, knowledge and interest, results from several survey questions are given below. Responses reveal that 15% of those surveyed were from out of the state, 81% were from areas other than Galveston Island (many from the Greater Houston area) and 4% were residents of Galveston Island. Less than 1% did not have a high school diploma or equivalent, 22% had a high school diploma, 77% had a college degree or are in the process of obtaining one. Of the 112 people surveyed, 51 (46%) were not aware that sea turtles nest on Texas beaches. That percentage varied significantly with level of education. In addition, we quantified the percentage of people surveyed who would support efforts to conserve sea turtles and their habitats; 72% responded in the affirmative. Interestingly, there was no significant difference based on education level in this category. Identifying the demographics of visitors is vital as we refine materials used in outreach efforts. Knowing where participants elect to stay while visiting Galveston Island (hotel or vacation rental home), or if they were day visitors allowed us to determine how and where to reach the largest number of people. By providing location-specific outreach materials (beach signs, hotel door hangers, rental house table tents) to specific lodging destinations we can maximize our outreach "footprint." More importantly, the survey results clarified what visitors and residents are unaware of, thus providing a foundation of topics and concepts for future education and outreach.

CONNECTING INTERNATIONAL CONSERVATION PRIORITIES WITH HUMAN WELFARE IN LOW-INCOME REGIONS: HAWKSBILL TURTLES IN EL SALVADOR

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Hawksbill sea turtles (*Eretmochelys imbricata*) are critically endangered globally and hawksbills in the eastern Pacific Ocean are considered among the most endangered sea turtle populations in the world. Less

than 500 mature female hawksbills remain in the entire eastern Pacific, with nearly 45% of these individuals nesting in El Salvador. Cooperation among countries located within the geographical range of hawksbills in the eastern Pacific is essential for maximizing coordinated conservation actions and to minimize threats. However, management strategies often emerge from international agendas that may conflict with local priorities, particularly in resource-dependent areas of low-income regions. Priorities of the international conservation community often center on the biological aspects and needs of hawksbills, whereas local priorities of coastal residents tend to focus on the socio-economic development and needs of human communities. To evaluate the implications of these differences between international and local priorities and strategies for hawksbill conservation and community development in low-income regions, we reviewed important socio-political developments during the last 130 years in El Salvador and drew from the historical record to describe how sea turtle conservation, particularly hawksbill conservation, emerged along the Salvadoran coast. We then analyzed 34 interviews with local egg collectors to help us understand how they prioritized hawksbills and their perspectives towards hawksbill conservation. Our results demonstrated that among egg collectors and other local residents, the primary value of hawksbills was the economic value attached to egg sales; nests not purchased for protection by conservation initiatives were sold to local markets for consumption. In addition, most respondents desired more involvement in decision-making regarding hawksbill conservation, which they considered to be biased towards elite interests. We concluded that strategies divorced from local realities can discourage stakeholder participation, escalate latent conflict, and hamper the sustainability of conservation outcomes. Recognition of local realities could improve future efforts that connect international conservation priorities with community development to optimize long-term hawksbill recovery efforts in low-income regions of the eastern Pacific. We thank the respondents, Boone & Crockett Club, Texas A&M University, National Fish and Wildlife Foundation, U.S. Fish and Wildlife Service, International Sea Turtle Society, Western Pacific Regional Fishery Management Council, and U.S. National Marine Fisheries Service for invaluable support provided.

CAMINHO MARINHO EXPEDITION: CONNECTING RESEARCH AND COMMUNITY IN A WAY WHICH CONSERVES THE SEA TURTLES WITH AN ECOSYSTEM-BASED APPROACH

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The South of Santa Catarina (Laguna, Imbituba and Garopaba) is characterized by the presence of juvenile green turtles, accompanied by biological diversity, artisanal fishing communities, as well as increasing port services and tourism. The Caminho Marinho Project is an initiative that aims to connect Research and Environmental Education to conserve sea turtles and study the services provided by the oceans. The Caminho Marinho Expedition is the tangible realization of this initiative. One week long, the Expedition connects research in the ecology of marine vertebrates (in-water sea turtle monitoring), with benthical ecology (of fauna and flora), in a socio-economic context. The sample points were indicated by community knowledge about green turtle presence. Points include Farol beach, Galheta beach, Ipoã island and Itapirubá point, located in Laguna and characterized by community fisheries and tourism. Vila beach, Santana de dentro Island, and Santana de fora Island, in Imbituba, are sites close to port activity. And Ibiraguera beach, in Imbituba and a garopaba beaches, have many little artisanal fisheries communities and a growing tourism industry. Two different methods are used to capture the green turtles. For analysis of population structure, only first captures are used. Curved carapace length (CCL) is measured using a flexible tape to the nearest 0.1 cm. Seawater temperature (ST) is measured in situ with thermometer, on all sampling days. The effort units and their Catch per unit efforts (CPUE) are compared with the different ocean services, biodiversity, use of fisheries communities, tourism or port, ST values and effort per day



NOAA Technical Memorandum NMFS-SEFSC-645

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Baltimore, Maryland USA

5 to 8 February, 2013
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Compiled by:

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U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
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Southeast Fisheries Science Center
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Miami, Florida 33149

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May 2013

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For bibliographic purposes, this document should be cited as follows:

Tucker, T., Belskis, L., Panagopoulou, A., Rees, A., Frick, M., Williams, K., LeRoux, R., and Stewart, K. compilers. 2013. Proceedings of the Thirty-Third Annual Symposium on Sea Turtle Biology and Conservation. NOAA Technical Memorandum NOAA NMFS-SEFSC-645: 263 p.

Technical Editor:
Lisa Belskis

Copies of this report can be obtained from:

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