

Local community perceptions on sea turtle egg consumption in Redang Island, Malaysia

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Sea turtles are globally recognized as endangered species due to their significant decline in the last decade. With growing international pressure to conserve turtles, most decisions to address the decline are taken without a comprehensive understanding of the situation on the ground. Conservation measures fail when opinions and perspectives at the grassroots level are not taken into consideration. Conservation efforts often only include research on the biological aspects, with little or no focus on the social-ecological perspective. For effective planning and management of sea turtle conservation, it is critical to understand the role of humans. In Malaysia, humans are direct consumers of turtle eggs, they depend on turtles for tourism and human activities are a primary cause of habitat loss. In areas where sea turtles and local communities coexist, interactions emerge due to the space shared on land and sea. Therefore, it is important to include local communities in conservation studies, based on local ecological knowledge, perceptions and attitudes towards sea turtle conservation and its impact on their livelihoods.

Our on-going study focuses on understanding local community perceptions on sea turtle egg consumption in Redang Island. Redang is located in the South China Sea, off the east coast of Terengganu, Peninsular Malaysia, with a land area of 25 km². The island receives the highest green turtle (*Chelonia mydas* L.) nesting population in Peninsular Malaysia. The Redang Archipelago was designated as a Marine Park in 1994 and three turtle nesting beaches on the island were declared as sanctuaries in 2005. Redang serves as an interesting field site for community-based conservation studies as the local human population has a history of direct dependence on sea turtles for their livelihood. In the past, the islanders followed a tender system for sea turtle egg collection for both consumption as well as conservation purposes. However, they no longer follow this system of sharing the natural resources. Our study aims at achieving an understanding of the status of egg consumption in Redang, the factors that influence consumption behavior across the community, the perceptions and attitudes towards sea turtles and finally the impact of awareness and outreach programs on their consumption behavior. The sampling method in our research includes household surveys in the Redang Island village. The houses were surveyed at random based on the availability of the household representative. Open-ended interviews were conducted in 75 houses, which accounts for 32% of the houses present on Redang Island. Firstly, demographic data on each member of the family was collected *i.e.*, age, gender, place of origin, number of years in Redang, education level, employment status, past employment details and a general understanding of their annual income. Secondly, data on the status of egg consumption was collected *i.e.*, the frequency and volume of egg consumption by each family member. Finally, the respondents were asked about their perceptions on egg consumption and sea turtle conservation in Redang. The household surveys act as an effective method to study general consumption behavior across the community and helps gather baseline perception data from the individuals that represent the houses. The data will be analyzed using a mixed method approach involving both quantitative and qualitative methods.

Through this social-ecological approach we hope to influence policy-makers and conservation managers to integrate the perspectives of the local community in Redang to strengthen the current policies and laws related to turtle egg collection and consumption.

Keywords: sea turtles; turtle egg consumption; local communities; social-ecological systems