

## **ANATOMY OF A CONSERVATION SUCCESS STORY: LESSONS LEARNED FROM A HALF CENTURY OF COMMUNITY COLLABORATION, ECONOMIC INCENTIVE AND RESOURCE MANAGEMENT TACTICS AT TORTUGUERO, COSTA RICA\***

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Founded in 1959 by the late Dr. Archie Carr and a group of his supporters, the Caribbean Conservation Corporation (CCC) is the world's oldest sea turtle research and protection organization. CCC is most renowned for its long-term conservation project at Tortuguero, Costa Rica, site of the longest continuous turtle monitoring and recovery effort. Over the last 50 years, CCC has developed, tested and refined numerous management and conservation strategies incorporating changing socio-economic, legal and cultural factors. Many of the lessons we have learned are relevant to sea turtle conservation around the world. In this paper, we will discuss the most effective management strategies used to help achieve a remarkable conservation success story at Tortuguero. In the 1950s, green turtles nesting at Tortuguero were heavily exploited and on a trajectory to extinction. Since 1970, however, green turtle nesting at Tortuguero has shown a documented increase of over 400%, making this colony the largest in the Western Hemisphere and the second largest globally. By building close relationships with the Government of Costa Rica and the community of Tortuguero, CCC has helped build a strong ethic of sea turtle conservation. With few exceptions, government and community leaders have embraced sea turtle conservation as an important component of the local culture and an equally important source of economic stability. We have helped develop complex economic mechanisms at Tortuguero to ensure local residents can participate in and benefit from turtle tourism. These mechanisms include a structured process overseen by local authorities to train, permit and regulate local guides who conduct organized turtle tours, as well as an associated tour system that helps minimize negative impacts from tourism on nesting turtles. Meanwhile, legal strategies have been employed to safeguard Tortuguero's nesting habitat and the turtles themselves from exploitation, including establishment of Tortuguero National Park to protect the nesting beach; a regional turtle conservation agreement among neighboring countries; a complete ban on turtle and egg harvesting at Tortuguero; and a development regulatory plan to control coastal construction and limit human encroachment along Tortuguero's coastal strand. CCC is an engaged member of the local community, as opposed to being an outside entity working in the area for a short period of time. Indeed, much of Tortuguero has grown up around CCC's presence and the turtle conservation program. As such, CCC is a vested stakeholder in helping to resolve social issues and preserve local culture. To build social connections, we involve local individuals, especially students, in the turtle monitoring and conservation program. CCC also is one of the most stable local employers in Tortuguero, thus providing an important direct source of income for many in the community. The lessons learned by CCC over the last half century at Tortuguero, including successes and ongoing challenges, offer insight for other groups conducting sea turtle research and conservation programs. While all situations include subtle differences, the legal, economic, social and cultural management strategies employed by CCC at Tortuguero offer important lessons for any long-term sea turtle project.