Inter-American Convention for the Protection and Conservation of Sea Turtles
9th Conference of the Parties (COP9)
June 12-14th, 2019 – Santo Domingo, Dominican Republic

CIT-COP9-2019-Doc.3

Green Turtle (*Chelonia mydas*) index nesting beaches status in the Southeastern Pacific

Every five years, the Scientific Committee of the Inter-American Convention for the Protection and Conservation of Sea Turtles (IAC) updates the technical document on IAC Index Nesting Beach Data Analysis. In 2018, the IAC Scientific Committee presented the update with data from 2009-2018 (CIT-CC15-2018-Tec.14) at its 15th meeting in Honduras. A predominantly decreasing trend at the index beach of Quinta Playa in the Galapagos Islands, Ecuador and a similar but less-dramatic decline in green turtle nesting in northwest Costa Rica was detected. As a response, the working group members from the United States, Peru, Chile, and Ecuador are developing a technical document to establish potential causes of the decline and provide recommendations.

The following document is an executive summary to notify the Conference of the Parties on the situation and request their support in implementing conservation actions to protect the Southeast Pacific green turtles. Meanwhile the working group is determining if in Galapagos a) the declining trend is due to changes in monitoring effort, b) the declines are only due to natural annual nesting abundance variations, as observed for this species in previous years, and/or c) the declines are due to anthropogenic impacts in the southeastern Pacific Ocean

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Executive Summary

In 2018, the Scientific Committee of the Inter-American Convention for the Protection and Conservation of Sea Turtles (IAC) developed the technical document CIT-CC15-2018-Tec.14 "IAC Index Nesting Beach Data Analysis (2009-2018)". This is an update to an earlier nesting beach report that provided data from 2009-2013 (CIT-CC11-2014-Tec.7). Whereas green turtle nesting in Pacific Mexico is robust and increasing, we found a predominantly decreasing trend at the index beach of Quinta Playa in the Galapagos Islands, Ecuador, and similar but less-dramatic declines in green turtle nesting in northwest Costa Rica. The reason(s) for the disparity in nesting trends between Pacific Mexico and the southeastern Pacific (Costa Rica, Ecuador) are unclear. However, in response to the apparent declining trends in the southeastern Pacific Ocean, the IAC Scientific Committee (via a Working Group of representatives from Chile, Ecuador, Peru, and United States) developed an IAC Technical Document (In Preparation) that summarizes nesting trends at three regions in the eastern Pacific (Mexico, Costa Rica, Galapagos) and elaborates on 10 potential reasons for the observed declining trends in the southeastern Pacific.

The completion of this document was not possible prior to the IAC Conference of Parties, and for the Galapagos green turtle nesting beaches we are currently determining if a) the declining trend is due to changes in monitoring effort, b) the declines are only due to natural annual nesting abundance variations, as observed for this species in previous years, and/or c) the declines are due to anthropogenic impacts in the southeastern Pacific Ocean. Also, as part of this analysis, the IAC Scientific Committee is considering literature and datasets relating to bycatch rates in continental coastal waters of Ecuador and Peru, illegal green turtle consumption rates in Peru, and potential climate change effects on foraging habitat quality. Although the reasons for the declining trend is unclear, the IAC Scientific Committee believes it is appropriate to give greater attention to green turtle conservation in the southeastern Pacific Ocean.

We, therefore, recommend the following:

1. Characterize historic monitoring effort (e.g. start date/finish date/survey hours) for all nesting seasons and all beaches in the Galapagos. It is also important to clarify the number of monitoring staff and length of nesting beach monitored.

2. Maintain robust monitoring efforts at the primary index beaches in the Galapagos and Costa Rica over the course of the entire green turtle nesting season.
3. Maximize nest success and hatching production in the Galapagos. Strategies to achieve this may include predator abatement and nest protection.
4. Conduct national and local efforts to develop programs that quantify sea turtle bycatch and mortality in artisanal fisheries of the eastern Pacific.
5. Implement mitigation measures to reduce sea turtle bycatch mortality in artisanal fisheries of the eastern Pacific.
6. Develop and implement local regulations and enforcement to reduce sea turtle consumption by humans near the main foraging areas in the eastern Pacific.
7. Develop research on green turtle genetics in foraging areas to establish their nesting beaches