

# Current status of the American crocodile (*Crocodylus acutus*) population and their anthropogenic interaction in Izabal, Guatemala

Valerie Andrea Corado-García\*<sup>1</sup> and Javier Arturo Benítez-Moreno<sup>2,3</sup>

<sup>1</sup>Grupo de Cocodrileros de Guatemala (GCG)  
([valeriegarci@gmail.com](mailto:valeriegarci@gmail.com))

<sup>2</sup>Departamento de Sistemática y Ecología Acuática, El Colegio de la Frontera Sur, Av. Centenario km 5.5, Chetumal Q. Roo 77014, México  
([j.benitez96@hotmail.com](mailto:j.benitez96@hotmail.com))

<sup>3</sup>Cocodrilos de México, Matamoros y Bravo 89, Catemaco Ver 95870, México  
([cocodrilosdemexico@gmail.com](mailto:cocodrilosdemexico@gmail.com))

**Abstract:** The American crocodile (*Crocodylus acutus*) is classified as Vulnerable in the Red List of the International Union for Conservation of Nature (IUCN) and in Guatemala is listed in Category II of the Threatened Species from the Consejo Nacional de Areas Protegidas (CONAP). This project was carried out from March to November 2021 in three rivers of Izabal (Sarstoon River, Rio Dulce and Rio Polochic at Refugio de Vida Silvestre Bocas del Polochic) aiming to provide the first population status and anthropogenic interaction data of *C. acutus* in Guatemala. Results showed a general encounter rate (ER) of 0.18 croc/km in 671 km covered, in which Bocas del Polochic provide the highest ER with 0.37 croc/km, followed by Sarstoon River (0.04 croc/km) and Rio Dulce (0 croc/km). Most of the crocodiles were spotted mainly in grassland, water lettuce and lilies, which is quality indicator of a well conserved area; additionally, specific threats were identified as environmental and socioeconomic aspects for each site influencing the crocodile's survival. Information on the social component has been obtained through surveys, which show a gap in the knowledge about biology and importance of the species, despite the constant interaction in past years; during participatory workshops, fishermen showed a collective concern for the accidents, between crocodiles and humans, that may occur while fishing, some of them showed a rejection toward the crocodiles and others recognized the importance of the species in the river; also, hunting and incidental death in gill nets was mentioned. Currently, the sampling sites showed a high anthropogenic pressure due to its economic activities which impact in a critical way the survival of the species. This project not only achieved a first diagnosis on *Crocodylus acutus* population status, but also promote the civilian population and decision makers inclusion and concern about the conservation of this endangered species.

**Keywords:** Endangered species, conservation, American crocodile, crocodile-human interaction.

**Type of presentation:** Oral

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