Preliminary report: Discovering the ancestral origin of *Crocodylus* in South America: an expedition to the amazing and complex Orinoco Delta

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Abstract: In 1801, Alexander von Humboldt carried out an expedition to the Orinoco Delta, identifying the presence of *Crocodylus intermedius*. Two centuries later, Medem (1983) mentions that the Orinoco Delta is an area of "exchange" or hybrid zone between *Crocodylus intermedius* and *Crocodylus acutus*. However, no formal expeditions have been made to the Orinoco Delta to confirm the presence of both, or either, species in this amazing and complex environmental system. Evolutionarily, this area is of great relevance because it may be the zone of primary divergence of the most ancestral species of *Crocodylus* in South America and a potential hybrid zone between the two species present in Venezuela. The phylogenetic origin of both species is still unknown, as well as the reason for their distributional divergence: *C. intermedius* is restricted to freshwater habitats of the Orinoco River, while *C. acutus* is a coastal and estuarine species of the Atlantic Ocean and Caribbean. Our principal aim was to explore the Orinoco Delta to discover *C. intermedius* and *C. acutus* and, ultimately, test their evolutionary origins and possible ancestral hybridization or incomplete lineage sorting using molecular, morphometric, and ecological tools. During this work, we will also seek to understand the ethnozoographic relationship that local people (Waraos) have with these crocodylian species. Generally the interaction between wild populations of crocodiles and local communities can set the stage for conservation interventions and help actions for these species in their different distribution areas. This project was funding by National Geographic and the first stage is already finished.

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