

Significance of stingrays (Chondrichthyes: Myliobatiformes) as prey of crocodylians (Reptilia: Crocodylia) in non-marine environments

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Stingrays (Myliobatiformes) co-occur with many crocodylians (alligators, caimans and crocodiles) in non-marine environments of tropical and subtropical regions. However, predation by crocodylians on stingrays is rare. Here, we report two predation attempts (one unsuccessful, one unknown) on *Potamotrygon motoro*, by a southern spectacled caiman, *Caiman yacare*, in Iberá Lake, Argentina. Based on these and other observations, we discuss the hypothesis that crocodylian predation is more common on sharks and shark-like batoids than on depressed batoids, due to the fusiform body shape of the former two and the flattened shape of the latter. Within the literature, all recorded predation events on sharks were successful; one out of two observed predation attempts on shark-like batoids resulted in consumption. No successful predation attempts on depressed batoids were recorded, although only one outcome was known out of the seven events observed. The prey/predator size ratio of one of our observed events (0.263) was similar to both the mean of all predatory events (0.312 ± 0.060) and only successful ones (0.298 ± 0.104), indicating that size was less important than prey shape in determining the outcome of the interaction. We reviewed the scientific literature on diet of South American crocodylians to quantify the prevalence of stingrays as prey. No stingray remains were found in any of the 7 species studied, based on 1339 samples. The low success rate of crocodylians preying on depressed batoids, the lack of stingray remains in diet studies of South American crocodylians, and the lack of rake-like marks consistent with caiman bites on living Neotropical freshwater stingrays indicate that predation by crocodylians on stingrays is very low. This should be taken as a working hypothesis in future assessments of predation on obligate freshwater elasmobranchs.

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