

Some biological aspects of the *Caiman crocodilus chiapasius* in La Encrucijada Biosphere Reserve, Mexico

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Abstract: The information about the Spectacled caiman (*Caiman crocodilus chiapasius*) within the Mexican territory is still scarce. Thus, in the present study we have decided to evaluate three important ecological and biological aspects of this species in La Encrucijada Biosphere Reserve, in the Mexican state of Chiapas: 1- its relative abundance through the night visual detection method in 28 km of El Hueyate estuary, from 2015 to 2022, 2- its diet, through the stomach wash of sexually mature specimens (snout-vent length > 89cm), using a modified method of Taylor et al. (1978), analysing through habitat use (II-Jacop index, D = values from -1 to 1) with existing information on other sizes, and 3- its nuchal scutellation patterns, through the analysis of photographic records of captured specimens during the 2014-2022 period. Relative abundances ranged from 1.53 to 2.17 ind/km, with the highest abundance in 2022. Regarding the stomach contents, we found nine categories in processed caimans (parasites, leaves, roots and stems, reptiles, fishes, spiders and insects, crustaceans, stones/sand and plastic residues), hatchlings and juveniles did not habitat selection ($D < 0.2$), sub-adults presented moderate selection to crustaceans and fish ($D = 0.3 - 0.4$), and adults presented strong selection to fish ($D = 0.6$). Then, we determined 15 nuchal scutellation patterns from 72 individuals. Three patterns coincide with previous reports in scientific literature and the other 12 patterns were atypical. Pattern 2-4-2-2-0 was the most frequent.

Keywords: Abundance, Diet, Scutellation pattern, Spectacled caiman

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