

Population ecology and social appreciation of crocodilians (*Crocodylus acutus* and *Caiman crocodilus*) in the eastern portion of the Puerto Arista Estuarine System, Chiapas, Mexico

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Abstract: Crocodiles and alligators are key species for the structure and function of the ecosystems where they inhabit, being an object of interest to humans for being linked to them in various ways. The objective was to know the population ecology and community appreciation of crocodilians (*C. acutus* and *C. crocodilus*) in the eastern portion of the Puerto Arista Estuarine System (SEPA), Chiapas, Mexico. Five transects were established for monthly tours (February-September 2017). Habitat was characterized, abundance, population structure was determined and the nesting areas and spatial distribution of crocodilians were identified, finally the community appreciation of these species in areas adjacent to the study area was described. The mangrove was the main type of vegetation, 11 cavities and 8 nests were located in three transects. 320 individuals were counted, 173 of *C. acutus* and 136 of *C. crocodilus*. Encounter rates for crocodiles ranged from 0.15 individuals / km (La Laguna) to 3.12 individuals / km (Estero Prieto) and for alligators from 0.12 individual / km (Vuelta Rica) to 6.26 individuals / km (Estero Prieto). 165 interviews were applied to fishermen, housewives and older adults (≥ 60 years); who have extensive knowledge of species biology, common names and morphology. 46% of those interviewed know about attacks of crocodilians on domestic fauna or people. The human-crocodilian interactions were described with myths and differential perceptions between localities on the danger, use and management of species. 73.94% responded that they would participate in projects with crocodilians. It is suggested to continue with quantitative population studies of crocodilians to recover populations in the SEPA. Encourage the protection and surveillance of wild populations, delimit risk areas, carry out environmental education activities and integrate community participation in conservation, management and exploitation of crocodilians under current regulations.

Keywords: Crocodilians, SEPA, Abundance, Community appreciation

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