

Current status of the population of the American crocodile (*Crocodylus acutus*) in the Sumidero Canyon National Park (SCNP), Chiapas, Mexico

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Abstract: Monitoring is a relevant activity to know the status of certain populations. The objective of this study was to know the current status of the population of the American crocodile (*Crocodylus acutus*) in the Sumidero Canyon National Park (SCNP), Chiapas, Mexico; which had more than five years without being monitored. Two transects for day trips and night counts were established on a monthly basis during 2017 (seven months) and 2018 (six months). The abundance and population structure were determined, the nesting areas and spatial distribution of the American crocodile in the SCNP were identified. 31 active nests were located during the incubation season, (2017 = 14 and 2018 = 17). In the Puente-Cave transect, 266 individuals were observed and the encounter rate of 1.97 crocodiles / km (without hatchlings) was recorded with an estimated population (N) of 70 crocodiles and in 2018, 361 individuals were observed, encounter rate of 3.22 crocodiles / km (without hatchlings) and an estimated population (N) of 80 crocodiles. In the Cueva – Cacao Usumacinta transect, 192 individuals were observed in 2018, the registered encounter rate was 0.26 crocodiles / km (without hatchlings) and an estimated population (N) of 30 crocodiles. For both transects, the best represented class was II, III and IV (juvenile, sub adult and adult stages). In 2017, 86 individuals were captured (between 20.5 to 246 cm of total length), 7 were females and 80 hatchlings without determining sex. In 2018, 188 (between 26.5 to 243.5 cm of total length) were captured, 2 were female, 1 male and the rest were hatchlings. It is suggested to continue monitoring in both transects, to carry out the evaluation of habitat and nesting areas. Foster protection and surveillance in the reproductive period, promote intersectoral participation, conduct environmental education activities and disseminate on the conservation of river crocodiles.

Keywords: American crocodile, SCNP, Encounter rates, Nests

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