

Timing of nest predation events during incubation of the Broad-snouted Caiman (*Caiman latirostris*)

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Abstract: In the wild, nest predation is the primary cause of nest failure in Broad-snouted Caiman (*Caiman latirostris*). We analyzed the temporal occurrence -daily and monthly activity patterns- of nest predators during egg incubation of *C. latirostris*. From December to March 2018-2019 and 2019-2020 we recorded activity patterns of nest predators and nesting caiman females using camera-traps in 33 nests. Our sampling effort resulted in 4,531 camera-trap-nights and 3,164 independent records, 1,403 of these were from *C. latirostris* and 589 of animals representing risks to the nests. Most of these records corresponded to four species: 49% to the Black-and-white Tegu (active between 6:46 and 19:20 h); 14.4% to the Capybara (not preying eggs, but destroying nests when settling, active between 09:58 - 19:21 h); 12.3% to the Crab-eating Fox (active between 06:00 - 11:14 h) and 7.2% to the Southern Long-nosed Armadillo (active between 09:58 - 19:21 h). The Black-and-white Tegu was the most frequent predator, explaining by the lower activity overlap with Broad-snouted Caiman. Rarely, females defended nests and this occurred when Capybara and Black-and-white Tegu approached. Considering monthly activity, Tegu and Capybara predated and destroyed nests mainly in January, while Armadillo frequented nests mainly in February. Since caiman females attend nests mostly at the beginning and end stages of the nesting season, visitors commonly appear when nest attendance is reduced. Finally, Foxes predated nests in February and early March, when embryos are in advanced development stages. Results suggest that predators or nest destroyers would be opportunistic in visiting nests at specific times of caiman nesting season.

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