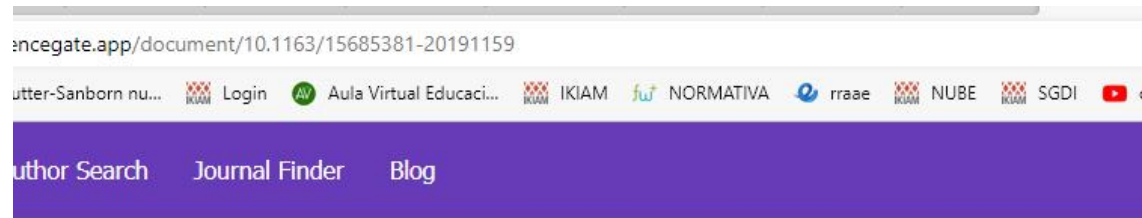


A review on crocodilian nesting habitats and their characterisation via remote sensing

[A review on crocodilian nesting habitats and their characterisation via remote sensing](#) | ScienceGate



A review on crocodilian nesting habitats and their characterisation via remote sensing

[Amphibia-Reptilia](#) ▫ [10.1163/15685381-20191159](#) ▫ 2019 ▫ Vol 40 (4) ▫ pp. 403-423 ▫ [Cited By ~ 1](#)

Author(s): Gabriela Banon ▫ Eduardo Arraut ▫ Francisco Villamarín ▫ Boris Marioni ▫ Gabriel Moulatlet ▫ ...

Keyword(s): [Remote Sensing](#) ▫ [Forest Canopy](#) ▫ [Open Water](#) ▫ [Site Distribution](#) ▫ [Nesting Site](#) ▫ [Nesting Sites](#) ▫ [Conservation Actions](#) ▫ [Key Variables](#) ▫ [Reproductive Females](#) ▫ [Remote Sensing Methods](#)

Abstract Crocodilians usually remain inside or near their nests during most vulnerable life stages (as eggs, neonates and reproductive females). Thus, protection of nesting sites is one of the most appropriate conservation actions for these species. Nesting sites are often found across areas with difficult access, making remote sensing a valuable tool used to derive environmental variables for characterisation of nesting habitats. In this study, we (i) review crocodilian nesting habitats worldwide to identify key variables for nesting site distribution: proximity to open-water, open-water stability, vegetation, light, precipitation, salinity, soil properties, temperature, topography, and flooding status, (ii) present a summary of the relative importance of these variables for each crocodilian species, (iii) identify knowledge gaps in the use of remote sensing methods currently used to map potential crocodilian nesting sites, and (iv) provide insight into how these remotely sensed variables can be derived to promote research on crocodilian ecology and conservation. We show that few studies have used remote sensing and that the range of images and methods used comprises a tiny fraction of what is available at little to no cost. Finally, we discuss how the combined use of remote sensing methods, satellite images and laser scanning technology can help overcome difficulties associated with field-based methods.