

Towards a socio-ecosystem perspective on the role of *Crocodylus acutus* in coastal ecosystems

Ricardo Adrián Ojeda Adame^{*1}, Peter Gerritsen¹, Luis Ignacio Iñiguez Dávalos¹, Helios Hernández Hurtado² and Rosa María Chávez Dagostino²

¹Centro Universitario de la Costa Sur, Universidad de Guadalajara, Autlán de Navarro, Mexico
(ricardoadrian.ojeda@alumnos.udg.mx; petergerritsen@cucsur.udg.mx; liniguez@cucsur.udg.mx)

²Centro Universitario de la Costa, Universidad de Guadalajara, Puerto Vallarta, Mexico
(helios@cuc.udg.mx; rosac@cuc.udg.mx)

Abstract: The study of socio-ecosystems has become increasingly important in recent decades, because the scientific community has recognized that trans-disciplinary approaches are required to try to understand the growing complexity of socio-environmental problems, proposing integral solutions that are indispensable to mitigate the ecological and civilization crisis in which we live. This theoretical-methodological paradigm, however, is incipient in crocodylian studies, so this research proposes a first approach of a transdisciplinary perspective of a socio-ecosystem studies where the crocodile has a central role. Current research on crocodiles shows a trend in Mexico and Latin America to the biological sciences, while sociological research is scarce and poorly diverse, focuses on topics as local knowledge of biological theories, the benefits obtained by local people or the human-crocodile conflict. With the analyzed bibliography, we proceeded to build the theoretical framework of the socio-ecosystem, the biological component was based on the trophic role of the crocodile and in their autoecology, while for the social component, the research reviewed was not enough. Therefore, sociological bibliography was consulted, creating a social theoretical framework under an eclectic approach. However, the information about the benefits and conflicts generated by the coexistence of humans with crocodiles was used to unite the social dynamics with the ecological dynamics, these approaches allow to join both paradigms through their pragmatic relations, that is: the effects of the social in the ecological and vice versa. As a result of this, the socio-ecosystem was formed by the ecological component (the crocodile's ecology), that produces the material conditions that local actors can alter or reproduce, according to their management practices, relaying on the material conditions themselves and on the perception and knowledge of the ecological component of the actors, which are dependent on the nature socialization (the social component).

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