

# Human dimensions of crocodile conservation in the southeast of Mexico

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*Abstract:* The human dimension of wildlife conservation emphasizes understanding human thought (public values or preferences) and actions toward wildlife. One approach to analyze people's perceptions about wildlife is Wildlife Value Orientations (WVOs), a conceptual framework to study human values and understand people's beliefs and actions towards wildlife. This study applied the WVOs approach to explore human values, beliefs, and attitudes towards crocodiles in Mexico. A 20-item, semi-structured questionnaire were applied to interview 59 persons in three rural villages in Campeche, Mexico (Hampolol, Miguel Colorado and Silvituc). Exploratory Factor Analysis (EFA) were applied to elucidate the latent variables. To determine whether the data set in this study was appropriate for a EFA we applied Bartlett's sphericity and Kaiser-Meyer-Olkin factorial adequacy tests. The results (Bartlett's test of sphericity  $\chi^2 = 242.23$ ,  $p < 0.001$ , a positive determinant value  $\det = 0.010$  and the Kaiser-Meyer-Olkin factorial adequacy test overall  $MSA = 0.75$ ) indicate that the data set of this study was appropriate for an EFA. Three latent variables or factors explained 52% of the variance, these were interpreted as 1) coexist/management factor; 2) harvest factor and 3) risk factor. All three factors were internally consistent, (Factor 1(Coexist/Management)  $\alpha = 0.77$ , Factor 2 (Threat/Danger)  $\alpha = 0.78$  and Factor 3 (Harvest)  $\alpha = 0.72$ ) which indicated that its items were measuring the intended latent variable. Results suggests that Silvituc participants have the highest risk perception (Factor 2) and are willing to harvest crocodiles under an utilitarian scope (Domination value) (Factor 3), whereas the residents of Hampolol are more involved in Factor 1 (Coexist/Management). With respect to Miguel Colorado participants, analysis suggests they have a similar risk perception as Hampolol but have lesser Mutual/Domination and Domination values. These results provide insights into rural communities' wildlife values, it also offers a theoretical contribution and illustrates how WVOs may be applied in rural Latin-American context.

*Keywords:* Wildlife-value-orientations, *Crocodylus moreletii*, Mexico

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