

# Review of: "Stakeholders' Perception of Socioecological Factors Influencing Forest Elephant Crop Depredation in Gabon, Central Africa"

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Potential competing interests: No potential competing interests to declare.

**Entitled:** Stakeholders' Perception of Socioecological Factors Influencing Forest Elephant Crop Depredation in Gabon, Central Africa, submitted by Herve Roland Memiaghe, Chris Enright, Christian Mickolo, Denis Galvan, Nelson Ting, Bart Johnson to *Qeios* for publication.

The current paper, entitled "**Stakeholders' Perception of Socioecological Factors Influencing Forest Elephant Crop Depredation in Gabon, Central Africa**," explains the mitigation of conflict by perceptions of 24 villagers (January-February 2020) and 22 conservation professionals (January to June 2020) at Lopé National Park in Gabon using semi-structured interviews and individual narratives.

This paper contains data that are a contribution to elephant crop depredation incidents. However, the paper needs extensive major revision to clearly explain the data. The logic in some places is not clear, and some of the results are not properly conveyed. Further, I am unable to understand the outcomes clearly and unable to see the novelty. I make clarifications, doubts, and queries in different places that the authors need to address. I have enlisted some of the corrections/amendments in the MS. The paper may then be suitable for consideration.

I make the following general suggestions and comments for the authors to incorporate.

- In many places, the expressions lack clarity, for example, "interview passages were assigned to the figure and, when appropriate, (Appendix S2)," "Common to both stakeholders' narratives was the perception that increased spatial and temporal overlap was the greatest contributor to increasing CDIs," in figures 2, 3, & 4: "the percentages also reasonably represent the relative number of stakeholders by type," etc.,
- The paper needs formatting based on the instructions to Qeios.
- The paper has lots of inconsistencies in several places which need to be corrected.

Address the following queries and incorporate corrections, amendments, and changes in different sections of the MS to bring a solid contribution.

- Forest elephant crop depredation incidents (CDIs) – change into **Crop Depredation Incidents**
- Our specific objectives were to - change to "objectives are ..."
- Materials and Methods- Not explicit and cannot be replicated by using the available information.

- Interview procedures: Unable to understand the logic behind selection of interviewees, particularly villagers. You interviewed a total of 24 villagers; on what basis did you select this sample size? What were the populations of the two villages?
- You mention “few elderly villagers communicated only in their native languages” Specify the language.
- You mention “The family members were interviewed prior to their elders to avoid influencing the family members’ narratives” – How many individuals did you select from a family? Did you include all the members of a family or a restricted number of family members? If there were restrictions, what were the selection criteria for family members?
- Unable to see any statistical analyses/tests for data reduction or testing the hypotheses.
- You mention “Twenty-four villagers (52%) and twenty-two conservation professionals (48%) were interviewed...” Did it include both males and females? If so, mention explicitly the sample sizes for different categories
- You mention “Twenty-four villagers..... making a total of 46 participants out of the 40-60 target participants – What is the logic behind this 40-60 target for participants?
- Majority of the matters expressed under “Identified themes and subthemes” and “Breakdown of each theme by stakeholder group” – need to be moved to the Materials and Methods section, especially to “Data Analysis.”
- Figure 2, 3 & 4: In the X axis, % symbol after the numbers can be removed as you already labeled the X axis as ‘Percentage of interviewees’. This will remove the clumsiness in X axis values
- Figure 2, 3 & 4: You mentioned “the percentages also reasonably represent the relative number of stakeholders by type” – What do you mean by this? It cannot be true as in Figure 2, in the category ‘Disruption of native fruit production,’ there is no representation from villagers
- In the Dynamics section, you have given “1) Increased human-elephant interactions, 2) Reduced capacity to protect crops, 3) Forest structural changes, 4) Reduced native fruit availability, and 5) Decreased elephant safety (Figure 3)” Why were the categories started with capitals in this section alone and not followed in other sections, viz., Drivers and Problem types?
- You mentioned that “Among the subproblems, interviewees identified three: more elephants in village areas (48%), disturbance of the elephant habitat (35%), and village food resources attracting elephants (28%)” – not clear and cumulative % exceeds 100!!!
- You mentioned “Ineffective crop protection was identified equally by the two stakeholder groups (54%).” In Figure 4, there is a slight variation between the bars, i.e., “Ineffective crop protection,” in these two stakeholder groups. What is this 54% - is it the average of these two stakeholders?
- You mentioned “Lack of a labor force was the least frequently identified problem type and was mentioned only by 9% of professionals”. – but in Figure 4, the professionals' bar exceeds 10%.
- The analysis for the Conceptual Framework in Figure 5 A & B and Figure 6 procedures of development of frameworks needs to be explained explicitly in the method section, and the outcome of the frameworks needs explicit expression in the results section.
- Conceptual Framework of Figure 6 lacking the 31-34% arrow. Please check and amend if it is missed. Otherwise, if you do not get that range of percentage, then mention in the caption itself.
- The analysis for the Conceptual Framework in Figure 5 A & B and Figure 6, the descriptions are not clear and unable

to get the clear take-home message from the figures.

- The discussion is wordy but unable to capture the clear conclusions.
- The conclusion sections make many claims which are not visible in the results and discussion sections.
- In the conclusion, you mentioned “An integrated suite of strategies focusing on human-elephant coexistence is highly needed and should aim at supporting the shared use of the larger landscape by both villagers and forest elephants” – based on your data, what are your recommendations and suggestions?
- You mentioned “Achieving the latter will more likely contribute to.....” what do you mean by latter here?

References: The Harvard System (Name and Year) of referencing is used to enlist the references.

There are several inconsistencies. I am unable to see professionalism in the reference section. Generally, in the reference section, second and subsequent lines should be indented at least 5 spaces, which is not followed.

In addition, the following are some other examples:

1. Journal citation with vol (Sr No) and without

(for example, Mammal Review, 26(2-3), vs L’homme la Forêt Trop, 477-485.

1. Beirne, C., Houslay, T. M., Morkel, P., Clark, C. J., Fay, M., Okouyi, J.,... Poulsen, J. R. (2021). African forest elephant – what is the meaning of ..... (“J.,... Poulsen”) here
2. Bernard, H. R. (2017). Research methods in anthropology: Qualitative and quantitative approaches. Rowman & Littlefield. – place of publication missing
3. Blake, S. (2002). The ecology of forest elephant distribution and its implications for conservation [University of Edinburgh].

Lahm, S. A. (1993). Ecology and economics of human/wildlife interaction in northeastern Gabon [New York University].–

What are these citations? Any thesis or proceedings or monograph or theme paper?

1. Emerson, K., Nabatchi, T., & Balogh, S. (2012). An integrative framework for collaborative governance. Journal of Public Administration Research and Theory, 22(1), 1-29. – Make it consistent in citing journal names – use sentence case, i.e., Journal of Public Administration Research and Theory – for journals – it needs to change in many places
2. Incomplete citations

(for example, Lewis, J. (2021). BaYaka elephant hunting in Congo: The importance of ritual and technique. Memiaghe, H. R. (2023). Investigating Forest Elephant Crop Depredation to Guide Landscape Management for Villager-Elephant Coexistence.

Lewis, J. (2021). BaYaka elephant hunting in Congo: The importance of ritual and technique

1. Journal without page no, for example

Terada, S., Mikolo Yobo, C., Moussavou, G.-M., & Matsuura, N. (2021). Human-Elephant Conflict Around Moukalaba-

Doudou National Park in Gabon: Socioeconomic Changes and Effects of Conservation Projects on Local Tolerance. *Tropical Conservation Science*, 25, 194008292110267.

Tyukavina, A., Hansen, M. C., Potapov, P., Parker, D., Okpa, C., Stehman, S. V.,... Turubanova, S. (2018). Congo Basin forest loss dominated by increasing smallholder clearing. *Science Advances*, 4(11), eaat2993.