

Review Form 1.6

Journal Name:	Asian Research Journal of Mathematics
Manuscript Number:	Ms_ARJOM_88271
Title of the Manuscript:	Global dynamics of fractional-order model for malaria disease transmission
Type of the Article	Original Research Article

General guideline for Peer Review process:

This journal's peer review policy states that **NO** manuscript should be rejected only on the basis of '**lack of Novelty**', provided the manuscript is scientifically robust and technically sound. To know the complete guideline for Peer Review process, reviewers are requested to visit this link:

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PART 1: Review Comments

	Reviewer's comment	Author's comment (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
Compulsory REVISION comments	In this study, the authors formulate and analyze a fractional-order model using Atangana-Beleanu-Caputo in the sense that interplay between humans and mosquitoes. Although the paper is well presented and the results seem correct, there are some major points that must be taken into account before the acceptance of the manuscript for publication. 1- First of all, the authors must mention the reference of the original model (Model with integer derivatives). 2- In the section devoted to the model formulation, the authors state that the total human population is denoted by $N_h(t)$ and is sub-divided into two sub-groups according to the exposure to heterogeneous vector biting, and $N_{h1}(t)$ and $N_{h2}(t)$ to represent the total human population in high and low-risk areas respectively; But in Table 1 (Description of parameters used in the model system and their values), the parameters ph_1 and ph_j of the model (1) do not appears. This point must be clearly explained. 3- In the parameter estimation sub-section (3.3), the authors claim that the $\hat{Y}_i(t)$ represents an approximation of the reported Ebola cases while the work is on malaria. The authors must correct that and add the Matlab code in appendices which can permit to verify if the values they used are correct.	
Minor REVISION comments	Some works are related to the fractional dynamics of malaria. To update their bibliography, the authors can add the following reference in the introduction section related to the mathematical modeling of malaria with fractional operators: https://www.worldscientific.com/doi/abs/10.1142/S1793962321500136	
Optional/General comments	The above points must be improved by the authors before the publication of the manuscript.	

PART 2:

	Reviewer's comment	Author's comment (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
Are there ethical issues in this manuscript?	(If yes, Kindly please write down the ethical issues here in details)	

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