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| Book Name: | [**Mathematics and Computer Science: Research Updates**](https://www.bookpi.org/bookstore/product/mathematics-and-computer-science-research-updates-vol-1/) |
| Manuscript Number: | **Ms\_BPR\_4897** |
| Title of the Manuscript:  | **The Dynamics of an Eco-Epidemiological Model of three species with Holling type-II and Type-IV functional responses** |
| Type of the Article | **Book Chapter** |

**Special note:**

**A research paper already published in a journal can be published as a Book Chapter in an expanded form with proper copyright approval.**

**Source Article:**

**This chapter is an extended version of the article published by the same author(s) in the following journal.**

**Journal of Physics: Conference Series, 1850 (2021) 012003.**

**Doi:10.1088/1742-6596/1850/1/012003**

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| PART 1: Comments |
|  | Reviewer’s comment**Artificial Intelligence (AI) generated or assisted review comments are strictly prohibited during peer review.** | Author’s Feedback *(Please correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)* |
| **Please write a few sentences regarding the importance of this manuscript for the scientific community. A minimum of 3-4 sentences may be required for this part.** |  |  |
| **Is the title of the article suitable?****(If not please suggest an alternative title)** | **The title is very suitable.**  |  |
| Is the abstract of the article comprehensive? Do you suggest the addition (or deletion) of some points in this section? Please write your suggestions here. | **The abstract should be refined to a more brief and impactful manner.** |  |
| **Is the manuscript scientifically, correct? Please write here.**  | **The manuscript provides a well-structured and shows a strong application of applied mathematics in ecological modeling by making use of theoretical proofs, Jacobian matrices. And lyapunov functions. This authenticate the scientific application.**  |  |
| **Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.****-** | **Their ability to make citations from reputable sources enhances the reliability of the research.**  |  |
| Is the language/English quality of the article suitable for scholarly communications? | There are few grammatical errors in the manuscript that needs to be corrected: - The statement: "Ecological systems like prey-predator, natural system, etc are dynamic, complex, and non-linear in nature" can be refined to :"Ecological systems, such as pre-predator interations and natural ecosystem, are dynamic, complex, and nonlinear in nature."- "Here the converted infected prey to susceptible will not be infected again which is the assumption we consider in the model."You could try: "In this model, we assume that once infected prey converts back to a susceptible state, it does not become infected again." |  |
| Optional/General comments | Give some biological assumptions, and mathematical derivation. This could help in giving a comprehensible explanation of the book. A short paragraph can be used to explain your reason(s) for chosen Type-II and Type-IV functional responses. Also, ensure that all the figures are well-interpreted with clear descriptions, and be consistent with the use of mathematical symbols and notations. |  |

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| **PART 2:**  |
|  | Reviewer’s comment | Author’s comment *(if agreed with the 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 detail)* |  |

**Reviewer details:**

**Ibe Anne Ojoma, Federal University of Technology, Nigeria**