Independent Review Report, Reviewer 1  
EVALUATION  
Please list your revision requests for the authors and provide your detailed comments, including highlighting limitations and strengths of the study and evaluating the validity of the results, and data interpretation. If you have additional comments based on Q2 and Q3 you can add them as well.  
1. Highlighting limitations and strengths of the study   
Authors used a novel mechanistic approach to infer size-based functional response to make explicit consideration of the movement of organisms in aquatic and terrestrial systems.   
However, the manuscript format is very casual and does not meet the basic requirements of this Journal. And the lack of some necessary elements of academic papers，and different elements are mixed up and confusing.  
The authors propose new models for some existing problems raised by the research in the field, but the authors do not substantially verify the effectiveness of the model.  
  
2. Evaluating the validity of the results  
The authors did not adopt a classical authoritative approach to verify the effectiveness of the model, for example, using statistical method degrees to validate the degree of compliance between predicted and actual values.  
3. Data interpretation.  
The authors did not describe the results.  
Detailed comments:  
Abstract:   
What is the aim of this work? What are the main results and conclusions of this work? I suggest that this information should be explicitly provided in the abstract section.  
  
Introduction:  
What are the specific scientific problems proposed to solve in this work?  
What is the relationship in the following parts? For example, line 33 (Introduction), line 65 (Physical features of the medium and size-related constraints), line 129 (A case study as an example of new mechanistic approaches).  
  
Line117-124. The “novelty” and the “strength” related to the “approach” proposed by the authors,   
The "novelty" and "strength" related to the "method" proposed by the author are the highlights of this work, and the author elaborated it is unpredictable, and it is necessary to elaborate in detail.  
  
A case study as an example of new mechanistic approaches  
What does this part do? What's the relationship with “Main framework”? Is the main framework affiliated with the author or the "case study"?  
The confusion arises follows:   
Are the equations (model) from 1 to 4 proposed by the authors or the "case study"?  
What is the foundation for proposing these models?  
  
Validation of the model  
How to verify the effectiveness of the model? Are there some specific statistical methods to test the agreement between predicted and actual observations?  
  
Discussion   
Discussions should be an important part of research papers. In terms of this work, it is necessary for the authors to discuss the ecological significance of the established model and its application value deeply.   
Animal size is affected by developmental stages as well as contaminants. How will these factors be taken into account in building the models? What are the use scope and limitations of this model? These issues are necessary to be fully discussed.  
However, this manuscript does not contain this part.  
Conclusions  
The conclusion part should be a concise summary of the experimental results, rather than to discuss.   
  
Check List  
a. Is the quality of the figures and tables satisfactory?  
Yes  
b. Does the reference list cover the relevant literature adequately and in an unbiased manner?  
Yes  
c. If the manuscript includes original data, are the methods sufficiently documented to allow replication studies?  
No  
d. Are the statistical methods valid and correctly applied? (e.g. sample size, choice of test)  
No  
QUALITY ASSESSMENT:  
Rigor  
1  
Quality of the writing  
1  
Overall quality of the content  
2  
Interest to a general audience  
2