

Dear Dr. Gaucherel,

I happily adapted the manuscript in light of these additional two comments. Please find my response below.

Many thanks again for handling this manuscript.

Kind regards,
Michael Raatz

Dear author,

I would like you to answer to the points raised by the first reviewer, after which I will be in position to decide about your manuscript.

I thank you in advance. Best wishes.

Cédric Gaucherel.

Reviews

Reviewed by anonymous reviewer, 11 Jul 2023 13:03

I thank the author for this revised version of the manuscript. Most of the points raised in the reviews have been satisfyingly addressed and the manuscript reads well and makes an interesting and important scientific contribution to trophic ecology.

I'd like to thank the reviewer for these additional and constructive suggestions, which I happily implemented to strengthen the paper.

In my opinion, two points could still be improved:

1) I feel it is not very satisfying to assess only visually the convergence of dynamics in a theoretical study. Can't the author give a quantitative criterium as it is usually done for simulations (e.g. on slope of a linear regression on time series + on variation of abundance ranges along time for oscillations)?

Thanks for this suggestion, I implemented these two numerical convergence checks in the calculations and all dynamics were found to have converged to slopes of linear regression or moving variance below the threshold. The procedure is now described in lines 144-146.

2) I am only partly convinced by the response of the author to my point 3 of previous review (about the mathematical implementation of the HOI of interest). I agree that the provision of essential resource could change the conversion efficiency of the predator only when feeding upon the competitor since the focal species already contains the essential resource. It thus assumes that the essential resource participates to a better assimilation of food that doesn't contain this essential resource (e.g. recalcitrant parts). But I don't see by which mechanism bringing an essential resource compare to not bringing an essential resource can improve the feeding rate of the predator solely when feeding upon the competitor and not when feeding upon the focal species. To me, if I am not wrong, the underlying assumption the author is making with the formulation of the model is that the provision of the essential resource is changing the preference of the predator to the detriment of the competitor. As it is not so intuitive, I would explicitly state it in the manuscript.

Indeed, arguing with altered predator preference is a good suggestion which I have now added in lines 111-114.