

In the article entitled “Parasites make hosts more profitable but less available to predators” the authors assess in a design combining experimental measurements and natural observations different facets of phenotype alterations caused by the Daphnia iridescent virus 1 on its *Daphnia magna* host, along with potential indirect effects on predation. The authors in particular manage to identify effects in terms of mortality, appearance, mobility, and profitability. They also strongly suggest that those effects could contribute to make those Daphnia preferred prey although this effect might be balanced in natural system by infected Daphnia abundances that decrease over the course of infection.

I personally found the present study very valuable as it contributes to increase our knowledge about indirect effects of parasitism notably at the food chain/ food web level. The combination of experimental and descriptive measure is of interest to distinguish some effects and the range of measures taken on Daphnia is quite complete. However, I think that three main aspects of the current manuscript should be addressed prior to further consideration for publication, namely control of confounding effects between size and infection status on predation rate, co-variation of phenotypic traits that are considered separately and quality of expression plus synthesis.

Major comments:

One of the issues I have with the conclusion that are made upon predation rate (handling time) is that in the experimental design both infection status and size of the Daphnia are varying. Since infected Daphnia are also bigger compared to healthy one (L374) to me it is not straightforward to conclude that infected preys are preferred. In particular the iridescence virus is not castrating Daphnia which is known to usually cause gigantism due to resources reallocation. Without either a clear mechanism to explain how parasitism can cause Daphnia bigger size or an experimental design testing the effect of infection status on predation while controlling for host size I think that conclusions drawn on indirect effect of parasitism on predation through size modulation should be nuanced. Alternatively, is there any evidence that bigger Daphnia are more often parasitized (ie independent effect of size on parasitism and on predation)?

Secondly, in the manuscript the authors present two ways of analyzing their data, one being a Multiple Factor Analysis and the other being separated analyses for each trait considered. Since some phenotypic traits are co-varying as shown in the MFA, it is likely that the test power is biased by the number of tests done on the same individuals, also a significant effect on one trait could be misleading if this trait is covarying with another one already associated with parasitism. In this regard, the MFA might be more indicated than the individual tests ran on each trait although less informative in appearance.

Finally, I strongly encourage the authors to review the language throughout their manuscript. In the minor comments I pointed at some mistakes or language misuse but this is not exhaustive. Also, I think the overall clarity of the manuscript could be really improved by synthesizing more the information and structuring better between the main text content and the supplementary content (eg., about the two types of predators used, or the MFA and single test approach).

Minor comments

L96 Write Daphnia full name, not just D when put at the beginning of a sentence.

L108 Precise effect of the parasite on the host.

L133 Before the beginning (not start) of the experiment.

L133 Rephrase or just remove the sentence starting with “in the main body of the article”. It might not be necessary to precise in the method section what content is in the MS and in the supplementary, it can be done while presenting the results.

L. 137 In this study, not this article.

L137-143 Please renumber the different measure in appearance order.

L165 and along the MS Please write numbers under ten in letters.

L185 five minutes (then provide abbreviation)

L 209 Would you say that a concentration has been measured?

L 257 why a different brand of water has been used?

L 295 replace by “with a quasi-poisson error term and a logarithmic link function”

L 342 Exposed individuals were *not*

L 403 different from

L 404, precise infection effect.

L 424 No changes *of*

L 441 the meaning of this sentence is not clear, please rephrase.

L 554 loan is not correct, prefer for lending material and providing help.

L 555 Repeat for providing

L 758 How much of the total variation is capture by each axe?