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Dries Bonte  
Editor-in-Chief  
Oikos Journal

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### Comments to the editor

Dear Prof. Bonte,

We submitted our manuscript, entitled: "On multiple infections by parasites with complex life cycles." for consideration for publication as a Research paper Oikos in October 2023. Our manuscript proposes a theoretical advance in the understanding of a parasitological phenomenon. We received the comments from one reviewer at the end of February 2024.

Our model shows the importance of considering multiple infections a norm rather than an exception. For a parasite with a complex life cycle, we show that including its free-living state in the environment, often ignored in theory, allows for the straightforward modelling of multiple infections. Furthermore, we show that the multitrophic parasites stabilise in the predator-prey food chain they go through during their development. This involves a delicate balance between the manipulation of the hosts and the tradeoff with reproduction. This novel result helps us understand the dynamics of parasites with complex lifecycles and their multi-host interactions in-depth. The reviewer has observed the value of our manuscript to the field and has helped us immensely with the comments on improving the readability of our manuscript.

The reviewer's comments were primarily focused on improving accessibility to a non-theoretical audience, and we have benefitted immensely from it. We hope that these modifications make the manuscript acceptable for publication in Oikos.

With kind regards on behalf of the authors,

Phuong L. Nguyen

Potential referees for the theory aspect if necessary:

- Geoff Parker