

Interactive comment on “What do we know about how the terrestrial multicellular soil fauna reacts to microplastic?” by Frederick Büks et al.

Anonymous Referee #3

Received and published: 14 May 2020

Dear authors,

Investigations of the ecological effects of microplastics on organisms and ecosystems have long been limited to the limnic and marine realm, and many scientists (me included, I have to confess) underrated their importance for soils. This is changing now, and the number of actual papers on the subject is rapidly increasing. In my opinion, we are still in an early phase of this research, nevertheless, in your search you identified many published contributions on the subject. It thus seems to be a good point for a first review, and your contribution is both important, relevant, and timely. It is well placed in this journal and, once in adequate form, will find an interested readership.

I am sorry to say that I cannot support the publication of your paper in its present form. The main reason for this is that its presentation is not adequate for an international

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audience - please find details below. But I encourage you to thoroughly work it through and present a much-improved version.

(1) First and foremost, please have the manuscript edited by a professional (!) native (!) biologist (!). The English of your text is largely understandable, but rough. Apart from annoying typos, I found sentences the meaning of which I only understood when trying to translate them to German (my native language). So, your text will heavily benefit from thorough native editing.

(2) Then, the text lacks conciseness, it is overly long. For example, I suggest to omit all biological/ecological details you provide when introducing a taxon. This is per se interesting, but not to the point here (except when the reader needs background to understand microplastic effects). Then, figure 1 does not contribute to the understanding of your presentation, omit it. And I do not think it necessary to present taxa for which there is no information available, especially if the taxa are of minor or no importance in soil (e.g. line 183ff, 205, 220, 227, 450ff) or if the literature is not on edaphic species (435ff). As a reviewer, you are of course required to address blind spots of research (thus pointing out important taxa that are missing in literature), but you need to better balance completeness with a concise presentation.

(3) I miss a convincing argumentation why you focus on multicellular animals (but then, you provide many details about bacteria, fungi, algae, plant roots in 72ff . . . omit this). A good line of reasoning could be that you follow up on the Rillig and Bonkowski (2018) paper.

(4) Please provide details of your literature search (123ff). When did you search? Which time span did you cover? Which search strings? Please consider the literature on meta-analyses how to properly specify these technical aspects.

(5) The first section of the paper needs much improvement, but the final parts (4.1, 4.2, 4.3, table 8) bring up very important aspects, great!

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(6) line 636f: Please reconsider including your supervisor as a co-author. What "supervision" means is nowhere clearly defined, however, co-authorship is only justified for significant contributions to the manuscript. Honorary authorship violates the principle of scientific honesty.

Interactive comment on SOIL Discuss., <https://doi.org/10.5194/soil-2020-4>, 2020.