

Detailed comments:

The headings of the subsections could be specified more (e.g. Effects of soil amendments on soil characteristics).

In some instances the writing would benefit from being more concise (e.g. l. 377, l. 402).

Abstract

l. 24-27: Very long sentence, please split up.

l. 29-31: This statement should be specified by including more detail.

Introduction

l. 39: The phrase “nature in general” does not add more information after mentioning “the environment, ecosystems”.

l. 67: What were the main findings of the mentioned studies?

l. 74: The wording “characteristics of *E. fetida*” is not completely clear. This sounds like morphological parameters of molecular markers were measured. Please define the term once or describe in more detail.

Results and Discussion

l. 183: Earlier it was stated that the pH is 8.1. Do all amendments change the pH in the exactly same way (to 7.8)?

l. 204: This statement applies only for unamended soil, please specify.

l. 214: Please give a reference for this statement.

l. 215: were

l. 228: In light of this, it would be interesting to analyze if and how the functional groups of microorganisms involved in nitrogen cycling were affected in abundance by the treatments applied in this study. Adding such an analysis would increase the impact of this study because it would more clearly link nutrient cycling, soil characteristics and the microbial community.

ll. 235: Reproduction was almost at zero without the addition of food, this should be stated more clearly.

l. 253: *Eisenia andrei*

l. 255: “Some studies even reported...”

ll. 261: If soil particles with attached TiO₂NP were ingested by earthworms interactions and accumulation would be possible. This point should receive at least some attention because numerous studies have dealt with accumulation and toxicity of NP and also effects of soil properties on these (e.g. Hou et al. 2013, Environmental Science: Processes & Impacts; Shoults-Wilson et al. 2011, Soil Science Society of America Journal).

l. 270: Day 15 R1 and R2 were also separated from the remaining data, not only day 90 R2 and R3.

ll. 287: Where can this data be found?

ll. 305: within 90 days

ll. 307: Please move the references within this sentence to make clear which part is stated in the regarding papers and which is an interpretation of the present data.

ll. 327: The mentioned eight categories do not become clear from Figure 4. These are described in Table S4 and therefore this Table seems more important for the main manuscript than Figure 4.

l. 362: Delete the extra gap here.

ll. 370: This is a repetition of what was discussed in section 3.1.

l. 395-399. Please split this sentence into two.

l. 462: bacteria

l. 468: Repetition of the word “reported”

ll. 482: In this passage it is hard to differentiate findings from other papers (add references) and explanations the authors offer for the results of the present study. Please clarify this.

ll. 490: This is an interesting hypothesis and seems worth investigating in future studies.

Conclusion

l. 502: The number of earthworms increased with food because reproduction took place.

