

Interactive comment on “Soil nitrogen response to shrub encroachment in a degrading semiarid grassland” by Thomas Turpin-Jelfs et al.

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We extend our sincere gratitude to both you and Anonymous Referee #2 for taking the time to review our manuscript, "Soil nitrogen response to shrub encroachment in a degrading semiarid grassland". The comments you both provided were constructive, and enormously beneficial to improving the overall quality and accessibility of the paper. Below we address the comments you made (indicated by a hyphen) in the order in which they were raised.

- In the introduction, I strongly suggest the authors to make a correction on page 2/line21. There they say that nitrogen is the nutrient that mostly limits primary productivity in dryland systems, which might be the case for temperate areas, but it is not

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for tropical areas.

We apologise for any confusion caused. We are explicitly referring to semiarid and arid ecosystems (drylands) – not temperate or tropical areas. The statement that nitrogen is the most significant limiting nutrient of primary productivity in dryland ecosystems is supported by the literature (e.g., Craine et al., 2007, Robertson and Groffman, 2007). For clarity, we will revise the sentence to, "Nitrogen (N), in particular, is considered the most significant limiting nutrient of primary production and decomposition processes in arid and semiarid ecosystems . . .".

- Please correct on page 3 line 16 - asymbiotic instead of asymbioitic.

Thank you for spotting this spelling mistake. It will be corrected in the manuscript.

- The quality/resolution of the graphs in the figures can be improved.

We agree. We will increase the point size in each figure to improve their legibility.

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