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Interactive comment on "Soil microbial communities following bush removal in a Namibian savanna" *by* J. S. Buyer et al.

Anonymous Referee #2

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General Comment: Buyer et al. present the results of a field study of soil microbial community structure in a Namibian savannah that has been managed for shrub encroachment via physical removal of shrubs. The broad suite of analyses employed by the authors captures a clear picture of the effects. Microbial communities are influenced by several factors, including soil chemistry (pH) and plant cover, as would be expected from the literature on this subject. Most significant however, is the finding that these communities demonstrate recovery from shrub removal; the communities return to the state of those in control plots, where shrubs were not removed. The use of PLFA analyses to capture shifts in the biomass of specific microbial gropus was particularly appopriate for this study. This research is a valuable contribution to the journal (SOIL) and to the body of literature exploring the responses of microbial communities to land

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use change, particularly in critically important savannah ecosystems.

Specific Comments: I found this paper to be very clearly written and meticulously prepared (i.e., high presentation quality). All the facets of the data appear to have been clearly explored. The authors acknowledge and explore the largest flaw in their work, namely the lack of replication of field plots, such that each time point in the chronosequence is represented by only one plot, which was then sampled three times (pseudoreplication). This presents challenges in discerning whether differences among the chronosquenece plots are due to time since shrub removal or due to inherent differences between the plots. However, the changes observed are supported by comparison to adjacent, control plots.

Technical Corrections: None

Interactive comment on SOIL Discuss., 2, 1393, 2015.

SOIL

2, C690–C691, 2016

Interactive Comment