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Biogeosciences Discussions

Interactive comment on "A positive correlation between plant diversity and productivity is indirectly caused by environmental factors driving spatial pattern of vegetation composition in semiarid sandy grassland" *by* X. A. Zuo et al.

Anonymous Referee #3

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General comments: The authors deal with plant diversity-productivity relationship which has received considerable attention among ecologists. Although the result of the field investigation itself involves little new findings, they carefully analyzed direct and indirect drivers controlling diversity-productivity relationship using SEM and several multivariate analyses, which worth the publication. However, the following question should be clarified and justified: The vegetation of this region has long been managed (or degraded) by human activities such as agriculture and livestock grazing. The authors should clarify how they excluded or controlled the effects of such agricultural/grazing

activities in selecting sites and carrying out surveys. This potentially interesting paper is also seriously spoiled by poor English with lengthy description. English editing by natives should be essential.

Specific comments: Page11800, line2-3. Is the quadrat size (1*1m) large enough to estimate productivity of shrub-dominated stands with high spatial heterogeneity (e.g. C. microphylla and A. halodendron)? Page11804, line18-20. Is the result of the differences in soil water contents among three dune types (not significant) consistent with previous studies? Table A3. Typha orientalis shows negative relationship with NMDS2, is it true?

Interactive comment on Biogeosciences Discuss., 8, 11795, 2011.