

## *Interactive comment on* "Vegetation in karst terrain of southwestern China allocates more biomass to roots" by J. Ni et al.

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We would like to thank all referees for their positive and valuable comments. A point by point response to all comments from the reviewers is as follows. We use "Q" (Question) to represent "Comments from Referees", "A" (Answer) to represent "Author's response", and "C" (Change) to represent "Author's changes in manuscript".

Response to Referee #1

Q1: In section 2.1 the main soil type, following the FAO Soil Taxonomy classification, of the study area should be added.

A1: On page 1214 line 19, we have already provided that the soil type in the study area was "black limestone soil", which is a common name following the Second Soil Survey

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of China. In FAO and China's soil taxonomy classifications it is called "Rendzina".

C1: We propose to add the following new text starting on page 1214, line 19, after "The black limestone soil": (Rendzina, in FAO and China's soil taxonomy classifications).

Q2: In section 2.2 about root biomass measurements, the reviewer confused by the number of vegetation types, the locality of each vegetation type, and of soil pits for root sampling, if there are replicates of vegetation type and sampling location.

A2: On page 1215, line 10-15, we have clearly described that there were five vegetation types, each in two different soil-rich and rock-dominated habitats. This meant that there were 10 localities of vegetation type, corresponding to 10 plots for vegetation survey and for soil pit sampling. On page 1216, line 9-13, we said we set up a "S" route in each plot and 10 soil pits were excavated along the "S" route. This meant there were no replicate of locality for vegetation type, but there were 10 replicates of locality for root sampling.

C2: To make this clearer, we propose to add the following new text starting on page 1215, line 13 after "Vegetation was intensively investigated in 10 plots": (no replicates for vegetation types). On page 1216, line 12 after "the "S" route.": This means that there are five vegetation types in two different habitats (10 vegetation plots), and 10 soil pits in each vegetation plot (100 soil pits in total).

Q3: To add letters in figures to represent statistical significances.

A3 and C3: We propose to add the same letters (denote no significant differences) and different letters (significant differences) in Figure 3 and 4 (not for Figure 2). In addition, we noticed that all columns in Figure 3 and 4 are too thin due to the circumstance that almost roots are distributed in the soil layer above 20cm. We will try to enlarge the columns by removing the present of soil depth below 40 cm.

Interactive comment on Solid Earth Discuss., 7, 1209, 2015.