Response list to the Editor's comments

Ref: doi:10.5194/bg-2016-372
Title: **Interaction of CO_2 concentrations and water stress in semi-arid plants causes diverging response in instantaneous water use efficiency and carbon isotope composition**
Authors: Na Zhao, Ping Meng, Yabing He, Xinxiao Yu*

Dear Editor,
Thanks for your patiently help and constructive comments that provide scientific guidance for our writing and future research. We have been carefully considering your suggestions and revising the manuscript in the revised manuscript (marked in red color) accordingly. In addition to the following issues, we have corrected other mistakes with grammar and expression in the revised manuscript (marked in red color). The following below in blue are our point-to-point responses for your questions and comments. We are appreciated for your kind help on writing.
We are looking forward to your further comments and a possible publication in the BG special issue (Ecosystem processes and functioning across current and future dryness gradients in arid and semi-arid lands).
Kind regards,
Xinxiao Yu

Comments to the Author:
Line 21 "gas-exchange measurement" to "gas-exchange measurements"
Response: We appreciate your helpful comments and apologize for any inconvenience that we bring you for my carelessness in writing. Based on your helpful suggestions, we have changed "gas-exchange measurement" to "gas-exchange measurements" on Line 21, Page 1 of the revised manuscript.
Line 48 "0.02‰–0.03‰ $year^{-1}$" to "0.02–0.03‰ $year^{-1}$"
Response: Thanks for your helpful comments and we have changed "0.02‰–0.03‰ $year^{-1}$" to "0.02–0.03‰ $year^{-1}$" on Line 48, Page 2 of the revised manuscript.
Line 67 "ribulose-1, 5-bisphosphate, and internal diffusion" to "ribulose-1, 5-bisphosphate and internal diffusion"
Response: According your helpful suggestions, we have changed "ribulose-1, 5-bisphosphate, and internal diffusion" to "ribulose-1, 5-bisphosphate and internal diffusion" on Line 68, Page 2 of the revised manuscript.
Line 87 "the" to "an"
Response: Thanks for your helpful comments and we have changed "the" to "an" on Line 89, Page 3 of the revised manuscript.
Lines 95 "…, is unknown" to "…, is largely unknown"
Response: According your helpful comments, we have changed "…, is unknown" to "…, is largely unknown" on Line 97, Page 3 of revised manuscript.
Line 100 remove "," before "determined…"
Response: We appreciate your helpful comments. We have removed the "," on Lines 102-103, Page 3 of revised manuscript.
Line 108 "a part of Chinese…" to "a part of the Chinese…"

Response: We appreciate your helpful comments and we have changed "a part of Chinese…" to "a part of the Chinese…" on Line 110, Page 3 of revised manuscript.

Line 120 "is designed to both control and" to "was designed to control and"

Response: We have changed "is designed to both control and" to "was designed to control and" on Line 122, Page 3 of the revised manuscript.

Lines 121 and 122 remove "ppm"

Response: Thank you for pointing the mistake and we have removed redundant "ppm" on Line 123, Page 3 and Line 124, Page 4 of revised manuscript.

Line 128 "could be set" to "was set"

Response: Thanks for your helpful comments and we have changed "could be set" to "was set" on Line 130, Page 4 of the revised manuscript:

Line 130 "being watering or stop watering" to "being or stop watering"

Response: Thanks for your helpful suggestion and we have changed "being watering or stop watering" to "being or stop watering" on Line 132, Page 4 of the revised manuscript.

Lines 150 "50 mg of ground leaves" to "50 mg of grounded leaves"

Response: According your helpful comments, we have changed "50 mg of ground leaves" to "50 mg of grounded leaves" on Line 153, Page 4 of revised manuscript.

On page 4 no indentation is needed at the beginning of the paragraph

Response: Thanks for your suggestion and we have canceled the indentation at the beginning of the paragraph on Lines 152-160, Page 4 of revised manuscript.

Line 194 "first" to "firstly"

Response: We agree with your suggestion and have changed "first" to "firstly" on Page 5, Line 198 in the revised manuscript.

Line 195 "From sub-stomatic cavities CO_2 then…" to "From sub-stomatic cavities, CO_2 then…"

Response: According your helpful comments, we have changed "From sub-stomatic cavities CO_2 then…" to "From sub-stomatic cavities, CO_2 then…" on Page 5, Line 200 in the revised manuscript.

Line 209 "could be neglected" to "is negligible"

Response: Based on your suggestion, we have changed "could be neglected" to "is negligible" on Line 214, Page 6 of revised manuscript.

Line 218 "That" to "This"

Response: We accept your helpful suggestion and changed "That" to "This" on Line 223, Page 6 of revised manuscript.

Lines 219-220 "…, could" to "…, which can be used to"

Response: Thanks for your helpful advices. We rewrote this sentence as "…, which can be used to" on Line 225, Page 6 of revised manuscript.

Line 224 "is presented by" to "relates"

Response: Based on your suggestion, we have changed "is presented by" to "relates" on Line 229, Page 6 of revised manuscript.

Line 226 "…we obtain" to "…gives us"

Response: According your advice, we have changed "…we obtain" to "…gives us" on Line 231, Page 6 of revised manuscript.

Line 229 "terms of respiratory and photorespiratory could be" to "terms of respiration and photorespiration can be"

Response: Thanks for your helpful suggestion and we have revised this part as "terms of respiration and photorespiration can be" on Line 234, Page 7 of revised manuscript.

Line 239 "and/or" to "and"

Response: Based on your suggestion, we have changed "and/or" to "and" on Line 244, Page 7 of revised manuscript.

Line 242 "of P_n" to "in P_n"

Response: According your advice, we have changed "of P_n" to "in P_n" on Line 247, Page 7 of revised manuscript.

Line 261 no need for two digits after the decimal "from 90.70 to 564.65%"

Response: Based on your suggestion, we have corrected this part as "from 90.7 to 564.7%" on Line 266, Page 7 of revised manuscript.

Lines 265 "at any SWC" to "at all SWC"

Response: I am very sorry for my careless in writing grammar and have changed "at any SWC" to "at all SWC" on Line 270, Page 7 of revised manuscript.

Line 279 "with increasing SWC especially when" to "with increasing SWC, especially when"

Response: Thanks for your helpful advices. We added "," before "especially when" on Lines 284-285, Page 8 of revised manuscript.

Line 280 "(increased by 21.30-42.04%)" to "(increasing by 21.3-42.0%)"

Response: Thanks for your helpful advices. We have changed "(increased by 21.30-42.04%)" to "(increasing by 21.3-42.0%)" on Line 285, Page 8 of revised manuscript.

Line 284 "Total ^{13}C fractionation, with increased SWC, in *P. orientalis* increased" to "Total ^{13}C fractionation in *P. orientalis*, with increased SWC, increased"

Response: We accept your helpful suggestion and changed this part as "Total ^{13}C fractionation in *P. orientalis*, with increased SWC, increased" on Lines 289-290, Page 8 of revised manuscript.

Line 286 "values of…" to "values desired from"

Response: We accept your helpful suggestion and changed "values of…" to "values desired from" on Line 292, Page 8 of revised manuscript.

Line 289 "which reached" to "reaching"

Response: Based on your suggestion, we have changed "which reached" to "reaching" on Line 295, Page 8 of revised manuscript.

Line 295 "under the same treatments." to "under the same treatment conditions."

Response: According your advice, we changed "under the same treatments." to "under the same treatment conditions." on Line 301, Page 8 of revised manuscript.

Line 320 "with increased SWC" to "with increases in SWC"

Response: Thanks for your helpful advices. We have changed "with increased SWC" to "with increases in SWC" on Line 326, Page 9 of revised manuscript.

Lines 323 "used directly" to "directly used"

Response: We accept your helpful suggestion and have changed "used directly" to "directly used" on Line 329, Page 9 of revised manuscript.

Line 330 "nonstomatal limitation" to "nonstomatal limitations"

Response: Thanks for your helpful advices and we changed "nonstomatal limitation" to "nonstomatal limitations" on Line 337, Page 9 of revised manuscript.

Line 336 remove "," following "that"

Response: We accept your helpful advice and removed "," on Line 343, Page 9 of revised

manuscript.

Line 348 “its physiological…” to “its different physiological…”

Response: We accept your helpful suggestion and changed “its physiological…” to “its different physiological…” on Line 355, Page 9 of revised manuscript.

Lines 359-360 “cultivated days” to “cultivation days”

Response: We accept your helpful suggestion and changed “cultivated days” to “cultivation days” on Line 367, Page 10 of revised manuscript.

Line 361 “variations” to “variation”

Response: We accept your helpful suggestion on Line 368, Page 10 of revised manuscript.

Line 249 “higher than for C_{600}” to “higher than that for C_{600}”

Response: We accept your helpful suggestion on Line 249, Page 7 of revised manuscript.

Lines 371 “9.08-44.42%” to “9.1-44.4%”

Response: We accept your helpful suggestion and revised this part on Line 378, Page 10 of revised manuscript.

Line 391 “might” to “may”

Response: We accept your helpful suggestion and changed “might” to “may” on Line 400, Page 11 of revised manuscript.

We changed “75.30-98.9%” to “75.3-98.9%” on Line 405, Page 11 of revised manuscript.