

Interactive comment on “Rooting and plant density strongly determine greenhouse gas budget of water hyacinth (*Eichhornia crassipes*) mats” by Ernandes Sobreira Oliveira Junior et al.

Anonymous Referee #2

Received and published: 18 October 2016

The manuscript by Oliveira Jr et al., titled “Rooting and plant density strongly determine greenhouse gas budget of water hyacinth (*Eichhornia crassipes*) mats”, also shows relevant data on the contribution of the species to the N and P cyclization. However, these aspects are not adequately stressed and introduced in the Title and the Introduction section. The term “nutrient dynamics” is introduced for the first time in the introduction (line 15, pag. 2), without any specific reference in the experimental hypotheses. I believe that these aspects need for proper presentation, as well as the need to be put in relation with the metabolism of C.

Minor comments: Line 2, p. 4; I believe that the repetition “Reddy, Agami & Tucker,” is not necessary; Line 17, p. 4; I believe that the quote “Bastviken, 2009” is not ade-

C1

quate to introduce the chimney effect mechanism. Many other papers have specifically considered the methane release mechanisms by rooted macrophytes; see for example Hamilton et al., 2014 – Inland Waters (an interest reference also for the role of the water depth in driving the methane release – see lines 6-7, p. 11); Laanbroek, 2010 – Annals of Botany. Line 13, p. 5; “l x w x h” not clear; Line 15, p. 5; “. . .38.91”L; what does it mean “L”?

Interactive comment on Biogeosciences Discuss., doi:10.5194/bg-2016-297, 2016.

C2