Geosci. Model Dev. Discuss., 5, C1422–C1423, 2013
www.geosci-model-dev-discuss.net/5/C1422/2013/
© Author(s) 2013. This work is distributed under
the Creative Commons Attribute 3.0 License.

**Geoscientific
Model Development
Discussions**

# *Interactive comment on* "Present state of global wetland extent and wetland methane modelling: methodology of a model intercomparison project (WETCHIMP)" *by* R. Wania et al.

**Anonymous Referee #1**

Received and published: 4 February 2013

This paper provides a description of the model experiments carried out within the WETCHIMP wetland and CH4 emission model intercomparison project, presents the relevant technical aspects of the participating models, and highlights some common characteristics and divergences between the models. The paper is well written and clear, and the short analysis of the common points and divergences between the participating models is clear and relevant.

Although it does not present major research results on its own, and is therefore not particularly exciting, it is a necessary reference paper that definitely has its place in GMD. I only have a few very minor comments.



1) Section 2, p. 4076-4077: Sentence 1 and 2 of the section both state that there are 6 different experiments, redundant 2) p. 4077: "However, since this increase was applied to the mean climate of 1901–1931, it represented a slightly smaller departure from the 1901–1931 equilibrium than from the climate of 1980–1999." I read this 3 times and still don't understand it. Please clarify. 3) p. 4078: Uniform changes in sensitivity tests. Your justification is OK, but in fact you could have taken any value, not only the CMIP3 global mean for 2100 SRES-A2. In particular, there are regions with future drying. 4) p. 4085, l.24: "the the extent" 5) p. 4089, equation 3 : Add K after 8 in the denominator. I suppose sigma is bounded to attain a maximum of 1 for very warm temperatures ? 6) p. 4099. Figure 8 is mentioned before Figures 6 and 7 7) Section 4 ("Results and discussion") bears a rather inappropriate name. It does not really report on results. "Discussion of inter-model differences" or something along this line would perhaps be more appropriate.

Interactive comment on Geosci. Model Dev. Discuss., 5, 4071, 2012.