

Interactive comment on “Re-evaluating the 1940s CO₂ plateau” by Ana Bastos et al.

Ana Bastos et al.

ana.bastos@lsce.ipsl.fr

Received and published: 5 August 2016

We would like to thank the referee for the careful review and detailed comments, that help improving the quality of the manuscript.

We acknowledge that it is possible that fossil fuel emissions estimates have higher uncertainty during the WW2 period. An alternative estimate of E_{FF} for the 20th century may be found in Mohr et al. (2015). Their estimates for the 1940-1950 differ by about 0.1PgC/yr from the CDIAC ones, i.e. 7.5%, slightly more than the 5% uncertainty range defined by the CDIAC. Quilcaille et al. (2016, conference proceedings) calculate that uncertainty in datasets and the different methodologies to estimate E_{FF} from statistics of fossil fuel extracted may increase total E_{FF} uncertainty up to 11%. Even considering an uncertainty range as high as the one suggested by Quilcaille et al. (2016), the difference would be 0.15PgC/yr, which would not suffice to explain the CO₂ stabilisation in the 1940s. The authors, nevertheless, agree that it is worth including a note about

C1

the subject in the revised version of the manuscript.

The referee's proposed corrections will also be included in the revision.

References

- Mohr, S. H., et al. Projection of world fossil fuels by country. *Fuel* 141 (2015): 120-135.
- Quilcaille, Yann, et al. Uncertainty in projected climate change caused by methodological discrepancy in estimating CO₂ emissions from fossil fuel combustion. EGU General Assembly Conference Abstracts. Vol. 18. 2016.

Interactive comment on Biogeosciences Discuss., doi:10.5194/bg-2016-171, 2016.

C2