

Many thanks for the interesting comment. In our ACPD manuscript we did not cite your paper as it addresses different regions and the focus is not on Europe. However, the revised version of our manuscript will include the following paragraph:

“It is interesting to note that the results reported by Nassar et al. (2011) support a strong European sink in 2006, which they derived from global inversions of TES (Tropospheric Emission Spectrometer) satellite measurements. The TES CO₂ retrieval conceptually differs from SCIAMACHY or GOSAT XCO₂ retrievals because the instrument measures thermal infrared radiation and averaging kernels for CO₂ peak in the mid-troposphere. In the study, solely soundings above oceans between 40°S – 40°N were used. Remapping their results yields for the European TRANSCOM region 1.33 ± 0.20 GtC/a (Nassar et al., 2014) which agrees well with our result for 2006 (1.33 ± 0.33 GtC/a).”

References

- Nassar, R., Jones, D. B. A., Kulawik, S. S., Worden, J. R., Bowman, K. W., Andres, R. J., Suntharalingam, P., Chen, J. M., Brenninkmeijer, C. A. M., Schuck, T. J., Conway, T. J., and Worthy, D. E.: Inverse modeling of CO₂ sources and sinks using satellite observations of CO₂ from TES and surface flask measurements, *Atmospheric Chemistry and Physics*, 11, 6029–6047, doi:10.5194/acp-11-6029-2011, URL <http://www.atmos-chem-phys.net/11/6029/2011/>, 2011.
- Nassar, R., Jones, D. B. A., and Kulawik, S. S.: Interactive comment on “Satellite-inferred European carbon sink larger than expected” by M. Reuter et al., *Atmospheric Chemistry and Physics Discussions*, 14, C8037–C8038, URL www.atmos-chem-phys-discuss.net/14/C8037/2014/, 2014.