

Interactive comment on “Carbon dioxide fluxes at an intensively cultivated temperate lowland peatland in the East Anglian Fens, UK” by R. Morrison et al.

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An interesting article in which the authors' propose to compare their data against other data from similar peatlands.

The authors make reference to a paper, of which I was a contributing author (Dawson et al, 2010) which focusses on rates of subsidence of different peat types in the Methwold Fen area of the west Norfolk Fens. I would, however, like to draw the authors' attention to a number of other papers published as a result of my PhD research on the subject of CO₂ efflux from the Methwold Fen area, as they might find the results useful for comparison purposes. These are as follows:

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1. Kechavarzi, C., Dawson, Q., Leeds-Harrison, P.B., Szatylowicz, J. and Gnatowski, T. (2007) Water table management in lowland UK peat soils and its potential impact on CO₂ emission. *Soil Use and Management* 23(4): 359-367 (4 September 2007).
2. Kechavarzi, C., Dawson, Q., Bartlett, M., Leeds-Harrison, P. (2010) The role of soil moisture, temperature and nutrient amendment on CO₂ efflux from agricultural peat soil microcosms. *Geoderma* 154 (3-4): 203-210 (15 January 2010).
3. Kechavarzi, C., Dawson, Q., and Leeds-Harrison, P.B. (2010) Physical properties of low-lying agricultural peat soils in England. *Geoderma* 154 (3-4): 196-202 (15 January 2010).

I would also like to bring the authors attention to my PhD thesis, which is published on-line by Cranfield University, as follows:

4. Dawson, Q. 2006. PhD Thesis. Low-lying agricultural peatland sustainability under managed water regimes. Cranfield University.

This PhD contains a wealth of material on CO₂ efflux from intensively farmed lowland peatlands (particularly the Methwold Fen area) and from peatlands under active water table management, for biodiversity outcomes.

The authors might also benefit from reviewing the reports that were submitted to the EU, as part of a European research initiative - Europeat:

5. Leeds-Harrison, P.B., Dawson, Q., Kechavarzi, C. and Burton, R.G.O. 2006. Factors influencing the re-wetting of peat soils in the field. EUROPEAT Project Report (Project number QLK5-CT-2002-01835): Deliverable WP4.4.
6. Dawson, Q., Leeds-Harrison, P.B. and Kechavarzi, C. 2006. The implications of raised groundwater levels in agricultural peat soils for soil quality and biodiversity. EUROPEAT Project Report (Project number QLK5-CT-2002-01835): Deliverable WP4.5.

I hope the above information is of some use in their work.