

The authors have integrated well my comments and concerns, so I do not have more comments regarding the science. However, I encourage the authors to broaden their literature review to better reflect the longstanding understanding of the controls on soil respiration. There appears to be a growing tendency to overlook foundational literature, leading to repeated discussion of concepts that were thoroughly addressed in earlier generations of research. I believe there would be value in reengaging more closely with seminal works, as many of the issues currently discussed have already been examined in depth by previous generations of researchers. Some examples (but not only this):

Lines 58-59. Some of the conclusions presented are already well established in the literature and have been reported long before the recent studies cited. Many researchers, including F. J. Cook, James Irvine, María Almagro, and Ivan Janssens, among others, have previously identified these processes.

.Lines 69-72. Actually, there are studies on this too

Lines 80-85: But see Almagro et al. 2025