

Interactive comment on “The past, present, and future of soils and human health studies” by E. C. Brevik and T. J. Sauer

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P53 L25 – the sentence that begins with “These recognitions. . .” is awkward as written – consider rephrasing

The sentence has been rephrased.

P58 L12 – change remained to remains

Because we are still talking history at this point in the manuscript (defined by us in this paper as work done before 2000, whereas ~2000 to the present is “current” work), we feel that “remained” is the more appropriate wording.

P60 – first paragraph – this is really interesting and has substantial implications for
C9

modifying the way we typically consider nutrient budgets. There has been interesting working by Driscoll and others along these lines for example focused on N budgets/cycling in the Chesapeake Bay system that would be good to include here. Would also be nice to include a statement or two about how this highlights human-soil interactions and the idea of the Anthropocene and human induced global soil change – see the recent paper by Bacon et al in SSSAJ.

A couple of sentences have been added to this paragraph to incorporate the suggestion.

P60 L25 – I am biased by my location in an arid environment – but one the largest human health risk factors in the US Southwest and arid parts of California is dust exposure – but via increased risk of asthma as well as exposure microbial agents such as Valley Fever, a soil borne pathogen. Given that that >30% of the earth’s surface is arid to semiarid systems the role of dust deserves a bit more discussion.

The dust discussion has been slightly expanded and a few additional references have been brought in.

P62 L10 – it would be good to include a reference to work by J. Tabor and others focused on the soil ecology of the Valley Fever pathogen that thrives only in specific sets of soil properties –

A reference to the work of Tabor et al. has been added.

P62 L27 – I think the word likely can be deleted from this sentence – it is well accepted now in the latest IPCC report that changes in atm. CO₂ are definitively driving climate change.

“Likely” has been removed.

P64 – in the conclusion section – consider strengthening this with bullet points of key research foci that need to be addressed – eg setting this up so it could be used as a call to funding agencies highlighting in brief high impact statements why this area of

research should be funded and/or the need to include soil scientists on panels involved with human-environment-health interactions.

The conclusion has been revised to include a bullet point listing of key research areas.

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