#### Supplementary material for

#### Updating the Australian digital soil texture mapping (Part 2\*): spatial modelling of merged field and lab measurements

Brendan Malone<sup>A,C</sup> and Ross Searle<sup>B</sup>

<sup>A</sup>CSIRO Agriculture and Food, Clunies Ross Street, Black Mountain, ACT 2601, Australia.

<sup>B</sup>CSIRO Agriculture and Food, 306 Carmody Road, St Lucia, Qld 4067, Australia.

<sup>c</sup>Corresponding author. Email: brendan.malone@csiro.au

Figure S1. External validation plots of observed vs. predicted clay % for SLGA V2, SLGA V1 and WSG V2. for each studied depth.

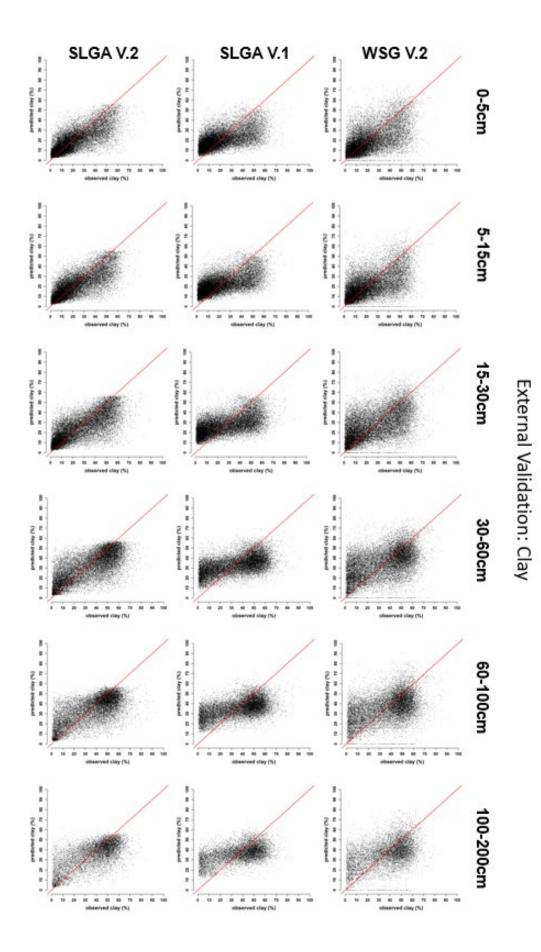


Figure S2. External validation plots of observed vs. predicted sand % for SLGA V2, SLGA V1 and WSG V2. for each studied depth.

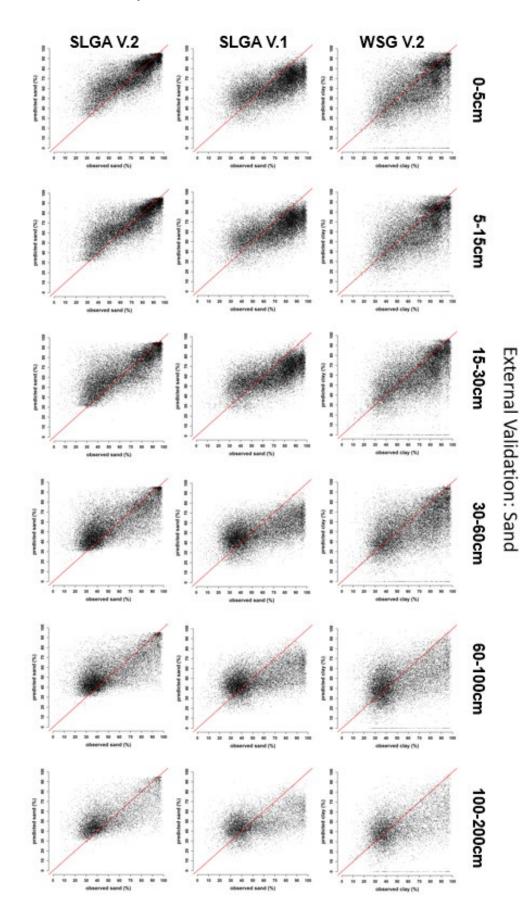


Figure S3. External validation plots of observed vs. predicted silt % for SLGA V2, SLGA V1 and WSG V2. for each studied depth.

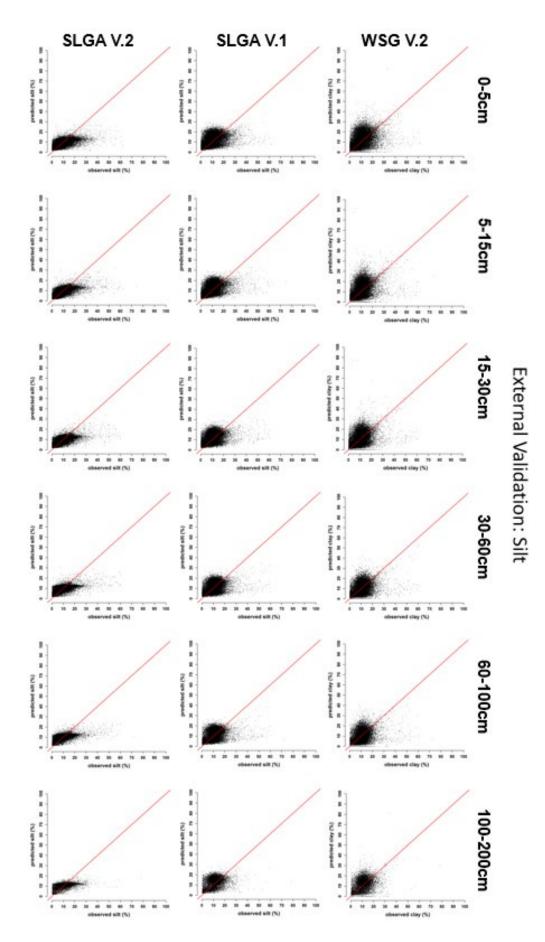
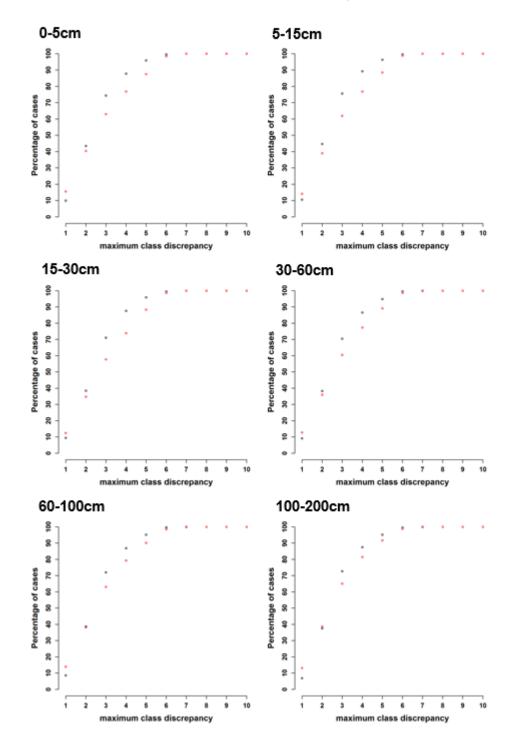
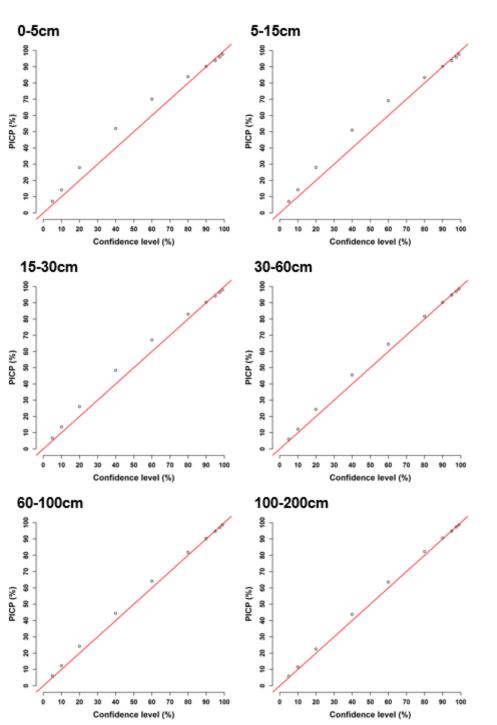


Figure S4. Summary of soil texture class allocation discrepancies between predicted and observed external validation data for each studied depth interval. The increasing value on the x-axis corresponds to increased grouping sizes of near neighbour soil texture classes. The y-axis corresponds to the percentage of cases where the predicted allocation was matched with the observed allocation based on the class grouping size. The black dots are the data outputs for v2.SLGA while the red ones are for v1.SLGA



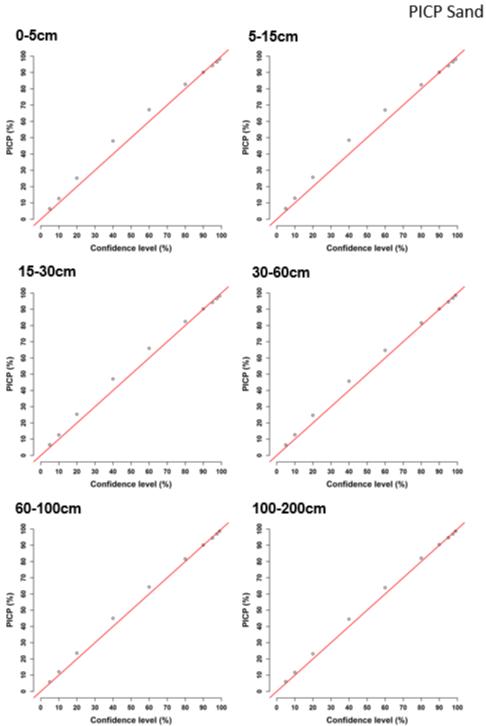
#### Soil texture class comparisons



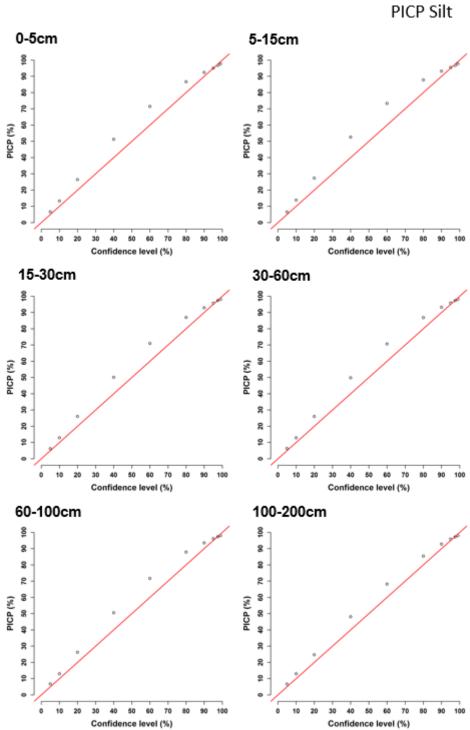


PICP Clay

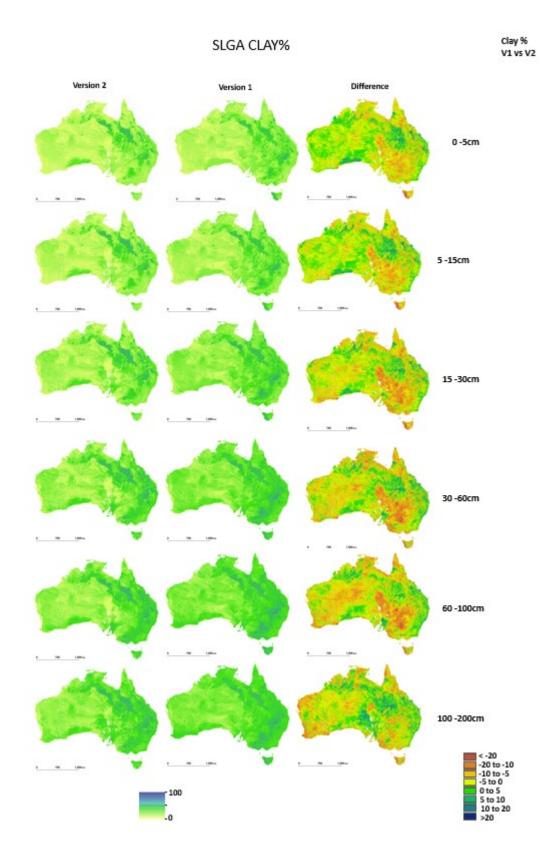




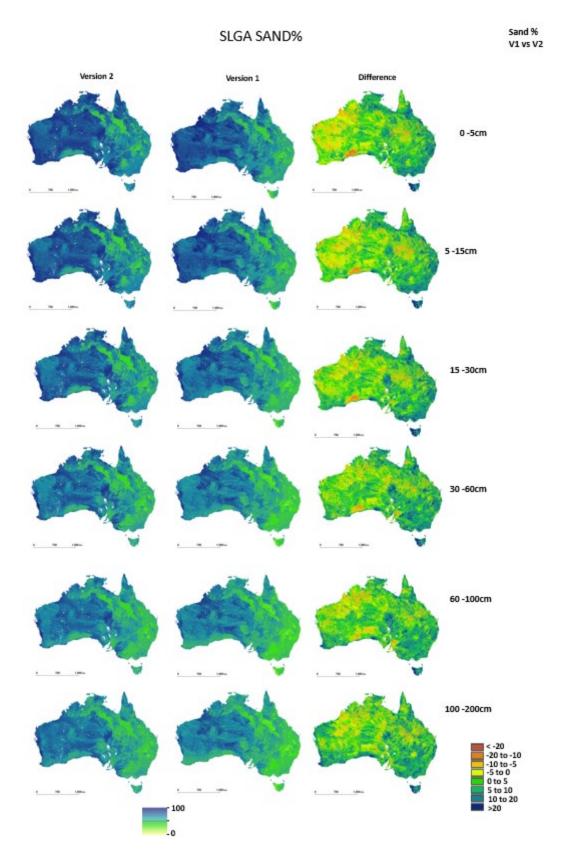




# Figure S8. Digital soil maps of clay % for both SLGA V2 and SLGA V1 and calculated difference (V2-V1) for each studied depth interval



#### Figure S9. Digital soil maps of sand % for both SLGA V2 and SLGA V1 and calculated difference for each studied depth interval



# Figure S10. Digital soil maps of silt % for both SLGA V2 and SLGA V1 and calculated difference for each studied depth interval

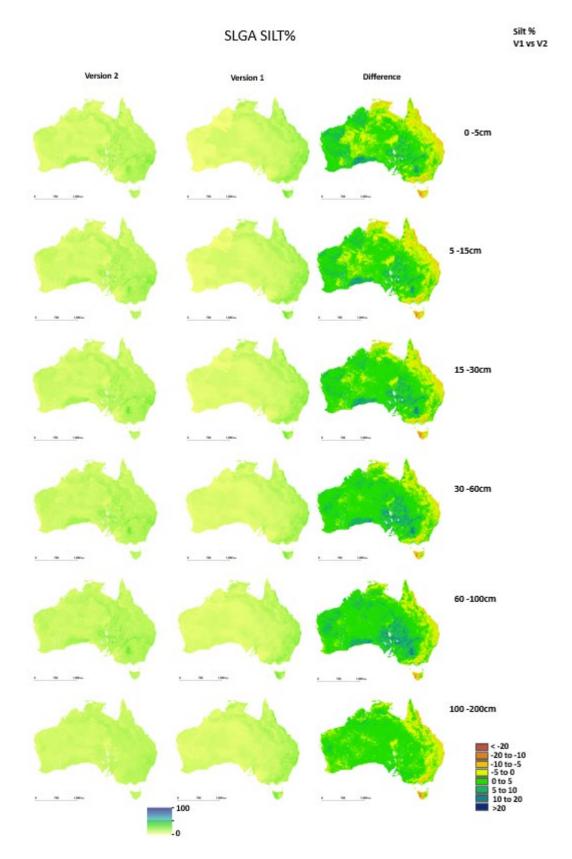
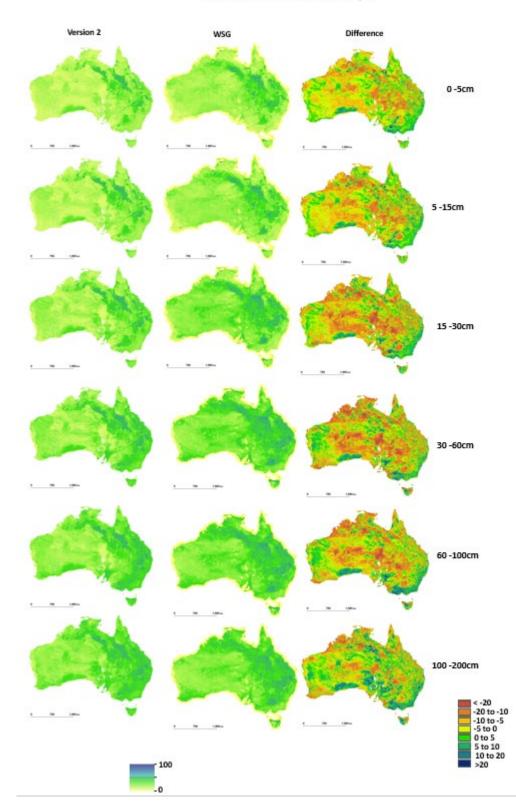
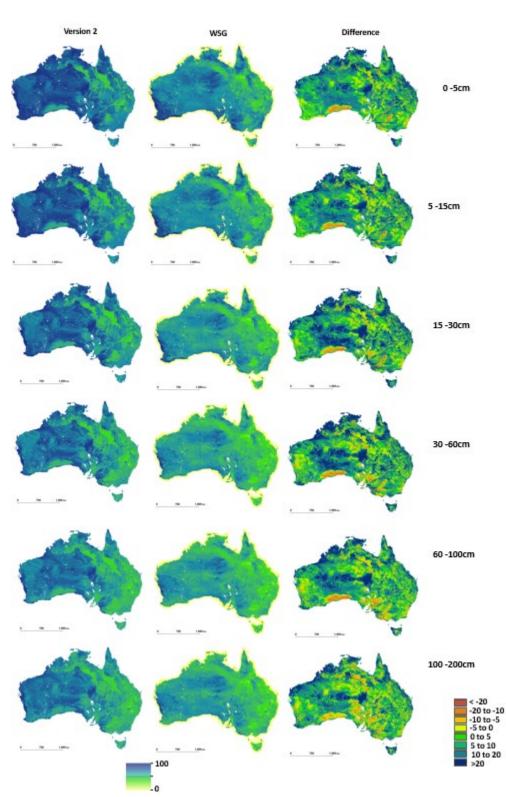


Figure S11. Digital soil maps of clay % for both SLGA V2 and WSG V2 and calculated difference for each studied depth interval



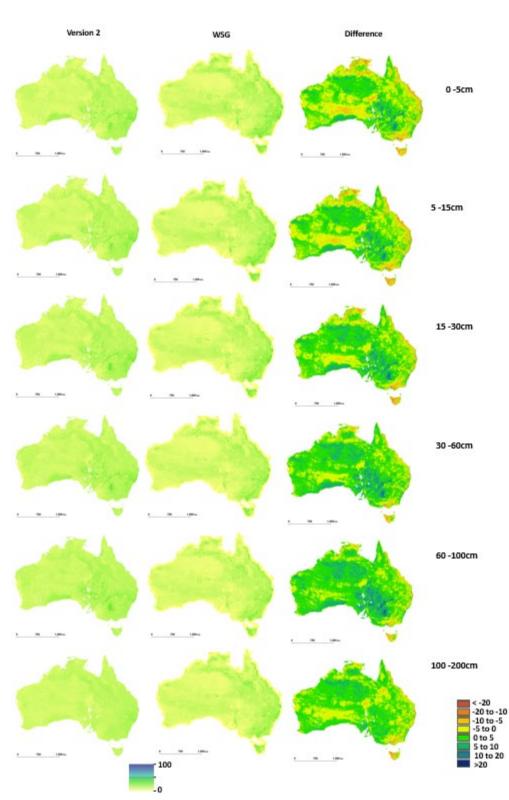
SLGA V2 vs WSG V2: Clay%

Figure S12. Digital soil maps of sand % for both SLGA V2 and WSG V2 and calculated difference for each studied depth interval



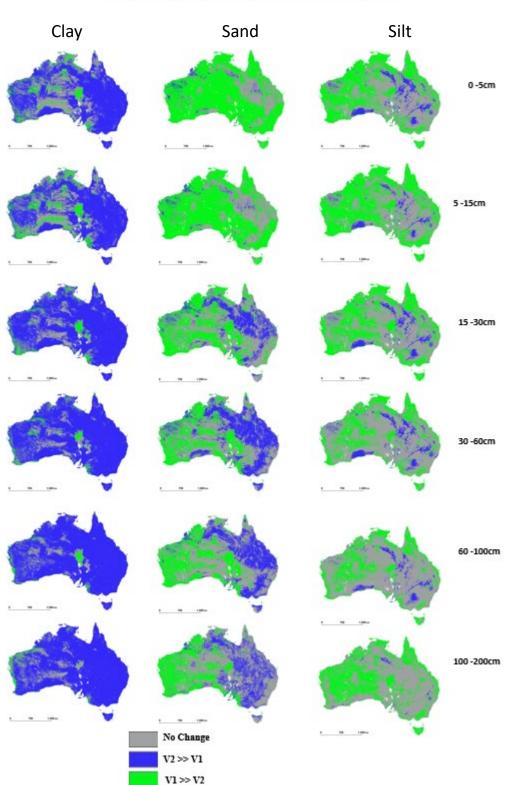
SLGA V2 vs WSG V2: SAND%

## Figure S13. Digital soil maps of silt % for both SLGA V2 and WSG V2 and calculated difference for each studied depth interval



SLGA V2 vs WSG V2: SILT%

Figure S14. Difference in prediction interval widths between v2.SLGA and v1.SLGA products for all studied depth intervals.



V1.SLGA vs. V2.SLGA [uncertainty comparison]