

Salinity in the Central Wheatbelt: Some Geomorphic and Climatic Influences.

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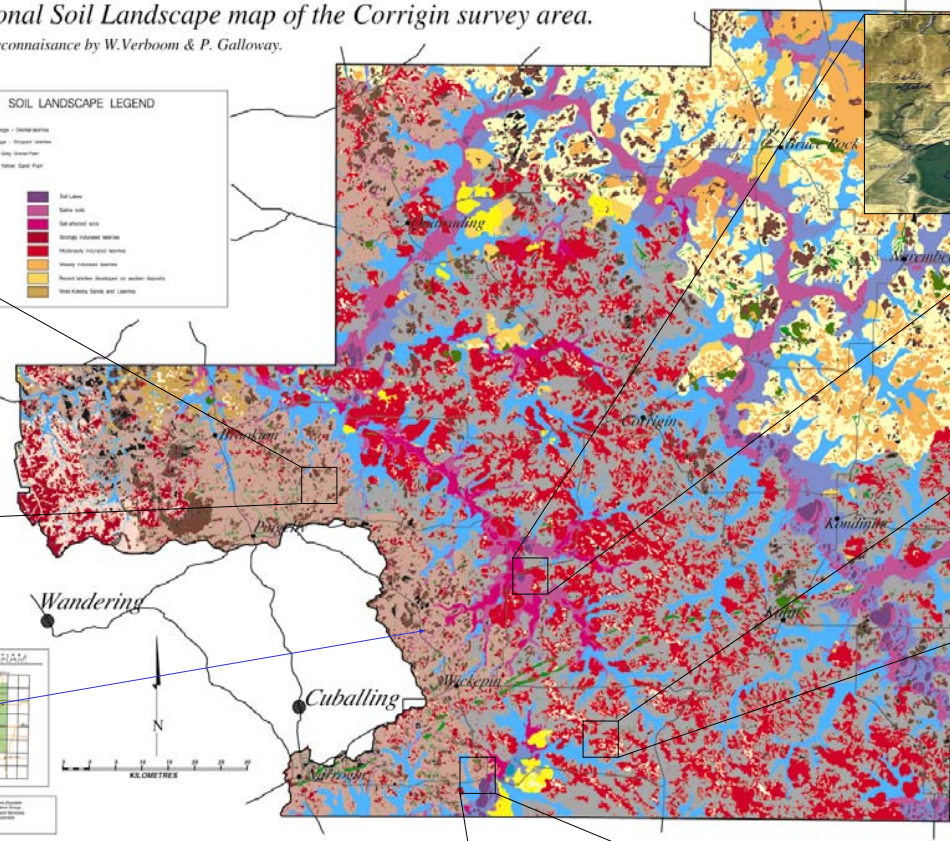
We use a novel approach to regional soil-landscape mapping that emphasizes data capture and minimises interpretation. The method involves extracting unambiguous features, including dolerite dykes, bedrock highs, lateritised surfaces, pale sands, grades of salinity, alluvial flats and aeolian deposits, from aerial photography. Similar procedures are used with complementary geophysical datasets, so such evidence layers can be combined to reveal patterns and improve mapping and knowledge. A regional overview emerges when the detailed spatial information is integrated with field experience and knowledge of processes. The resulting map reveals geomorphic controls on salinity, and areas affected by rises in saline waters during wetter times.

Provisional Soil Landscape map of the Corrigin survey area.
Based on a reconnaissance by W.Verboom & P. Galloway.



Aerial photo of Western area.

Shallow regolith with bedrock highs.



Aerial photo of valley, salinity and associated deposits

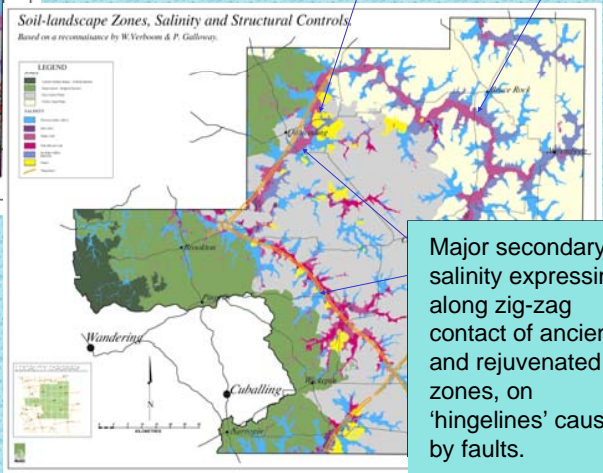
Sand plumes and extraordinarily smooth interflues with developed ferricretes, occur south-east of major valleys, where salinity is rising presently. This suggests that such rises have occurred during the Quaternary.

Pale sands display regional orientation, perhaps along shear zones of major faults



Salinity confined to major valleys in Ancient drainage zone

Narrow ribbons of salinity along 'V' shaped drainage in rejuvenated Zone. The heads of these often contain acid sulphate soils.



Major secondary salinity expressing along zig-zag contact of ancient and rejuvenated zones, on 'hingelines' caused by faults.

Radiometric image of Lake Toolibin and surrounds. Dark plume to South-east of lake is aeolian sand, pale signature to north is calcareous clayey aeolian deposit

