

Accepted Manuscript

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PII: S2352-0094(16)30148-1
DOI: doi: [10.1016/j.geodrs.2016.12.005](https://doi.org/10.1016/j.geodrs.2016.12.005)
Reference: GEODRS 111
To appear in: *Geoderma Regional*
Received date: 3 June 2016
Revised date: 16 December 2016
Accepted date: 22 December 2016

Please cite this article as: Anne C. Richer-de-Forges, Nicolas P.A. Saby, Vera L. Mulder, Bertrand Laroche, Dominique Arrouays , Probability mapping of iron pan presence in sandy podzols in South-West France, using digital soil mapping. The address for the corresponding author was captured as affiliation for all authors. Please check if appropriate. *Geodrs*(2016), doi: [10.1016/j.geodrs.2016.12.005](https://doi.org/10.1016/j.geodrs.2016.12.005)

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Probability mapping of iron pan presence in sandy podzols in South-West France, using Digital Soil Mapping

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Highlights

Iron pan presence was successfully mapped using field observations and ancillary data

Ancillary data provided added value to the quality of maps

Possible uses of these probability maps are described

Abstract

This work evaluated two different digital soil mapping methods for mapping the presence of iron pans in South-West France. The presence of iron pans limit rooting depth, thereby affecting available water content for plants and increasing vulnerability of trees to storms. In some cases, it may also limit the water infiltration rate and cause anaerobic conditions limiting rooting depth, biological activity and plant growth. This work evaluates the potential of a road-side survey sampling and subsequent digital soil mapping techniques to map the probability of iron pan presence in a

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