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AgreenSkills Fellowship Testimony

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Marine Lacoste

AgreenSkills Fellowship Testimony

UR SOLS, INRA, 45075 Orléans, France



2006-2009: Engineering school of Agronomy (Bordeaux Sciences Agro, France)

2009-2012: PhD thesis (UMR SAS, France)

➤ *High resolution modelling of soil evolution at the landscape scale (erosion, carbon)*



Zion National Park (USA)

2013: Post-doctoral position (US INFOSOL, France)

➤ *Digital Soil Mapping (GlobalSoilMap program)*



University of Sydney

2014 -2018: Soil researcher – permanent position (UR SOLS, INRA, France)

➤ *Soil structure quantification and modelling*



ETH Zürich / STEP group – Dani Or

➤ October 2016-June 2017

Soil structure

“Macroscopic organization of soil aggregates and pores” (Dexter, 1988)

Which tools to monitor soil structure dynamics?

Field practices

Compaction

Mic

Organic

Fragmentation

Ag

Aggregation

Climate

Cracking

Macro-organisms

Cracking

Aggregation

Perforation

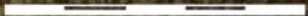


Let's listen to the soil !

Passive acoustic emission to monitor soil structure dynamics



00:00:00



5 cm

00:00:00



5 cm



- ❑ Exploration of an innovative method to monitor soil structure dynamics
 - *Lacoste, M., Ruiz, S., Or., D. Listening to earthworms burrowing and roots growing - acoustic signatures of soil biological activity. Scientific Report (minor revisions)*

- ❑ Rich professional experience in a foreign laboratory

- ❑ Helpful people and easy/light administrative requirements



5th AgreenSkills Annual meeting - 11-14 June 2018 - Edinburgh