SoilTrends-project

Comparison of Lucas and national soil monitoring

Objectives:

1. To determine temporal trends (2009-2018) of C, pH, K and P in Finnish agricultural soils
2. To explore the temporal variability in the measurements

National

Sampling in 1974, 1987, 1998, **2009** and **2018** (2028)

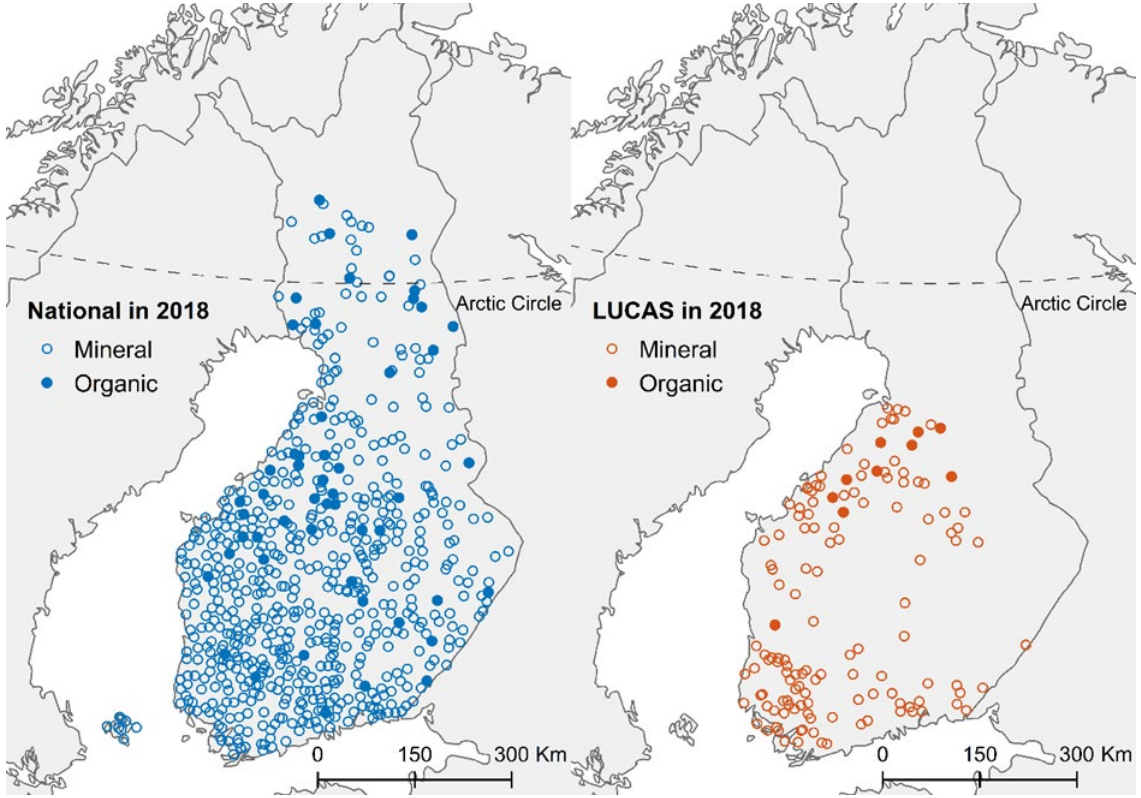
Number of sampling plots 620

Size of the sampling plot 10m*10m

>10 subsamples

Samples taken with soil corer

Sampling depth 15 cm



Lucas

Sampling in **2009**, 2015 and **2018** (2022)

Number of sampling plots 134 (cropland)

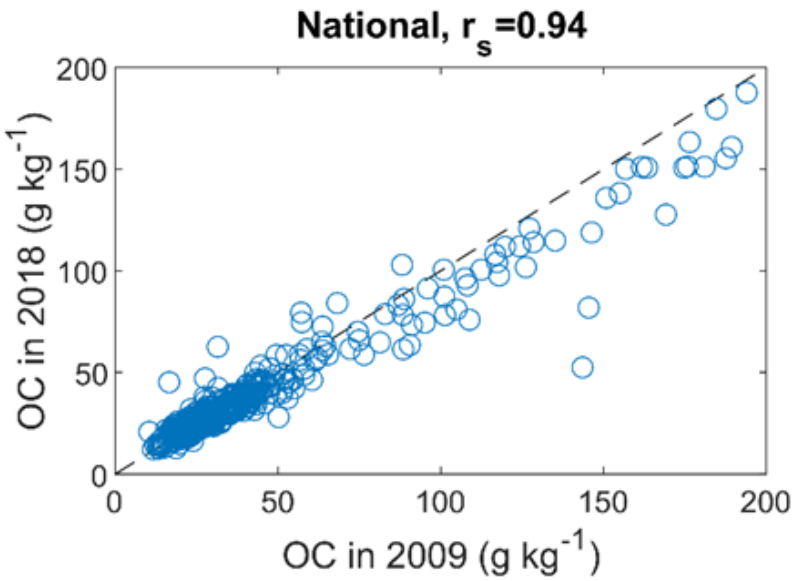
Diameter of sampling plot 4 m

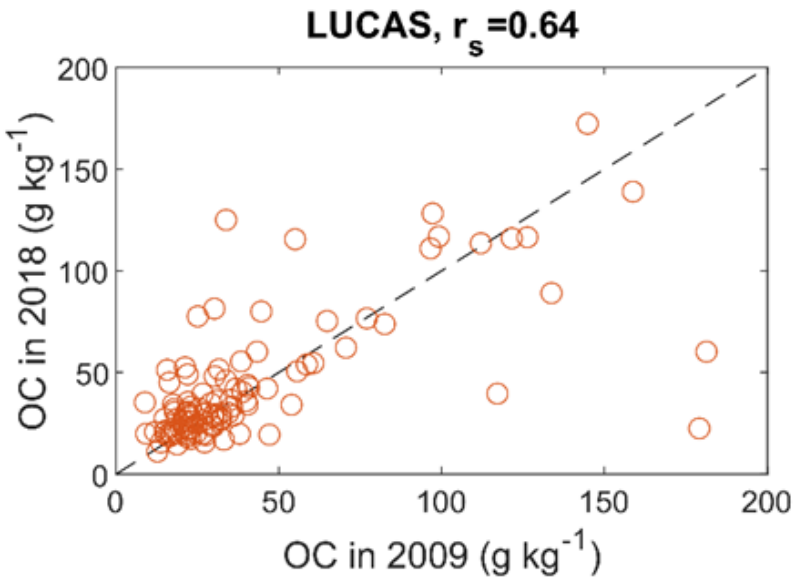
5 subsamples

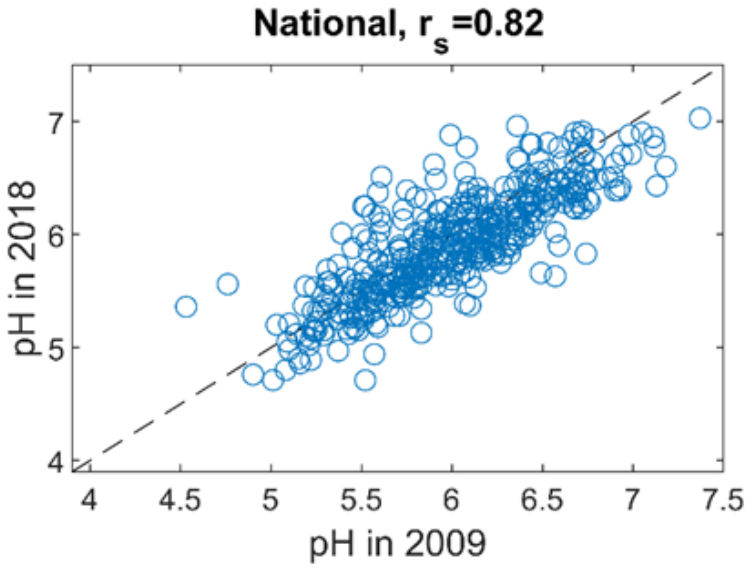
Samples taken with spade

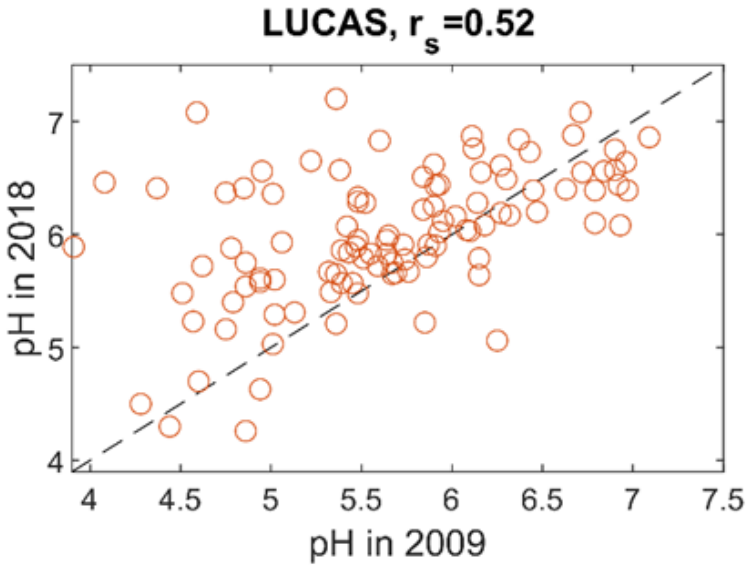
Sampling depth 20 cm

Mineral soils



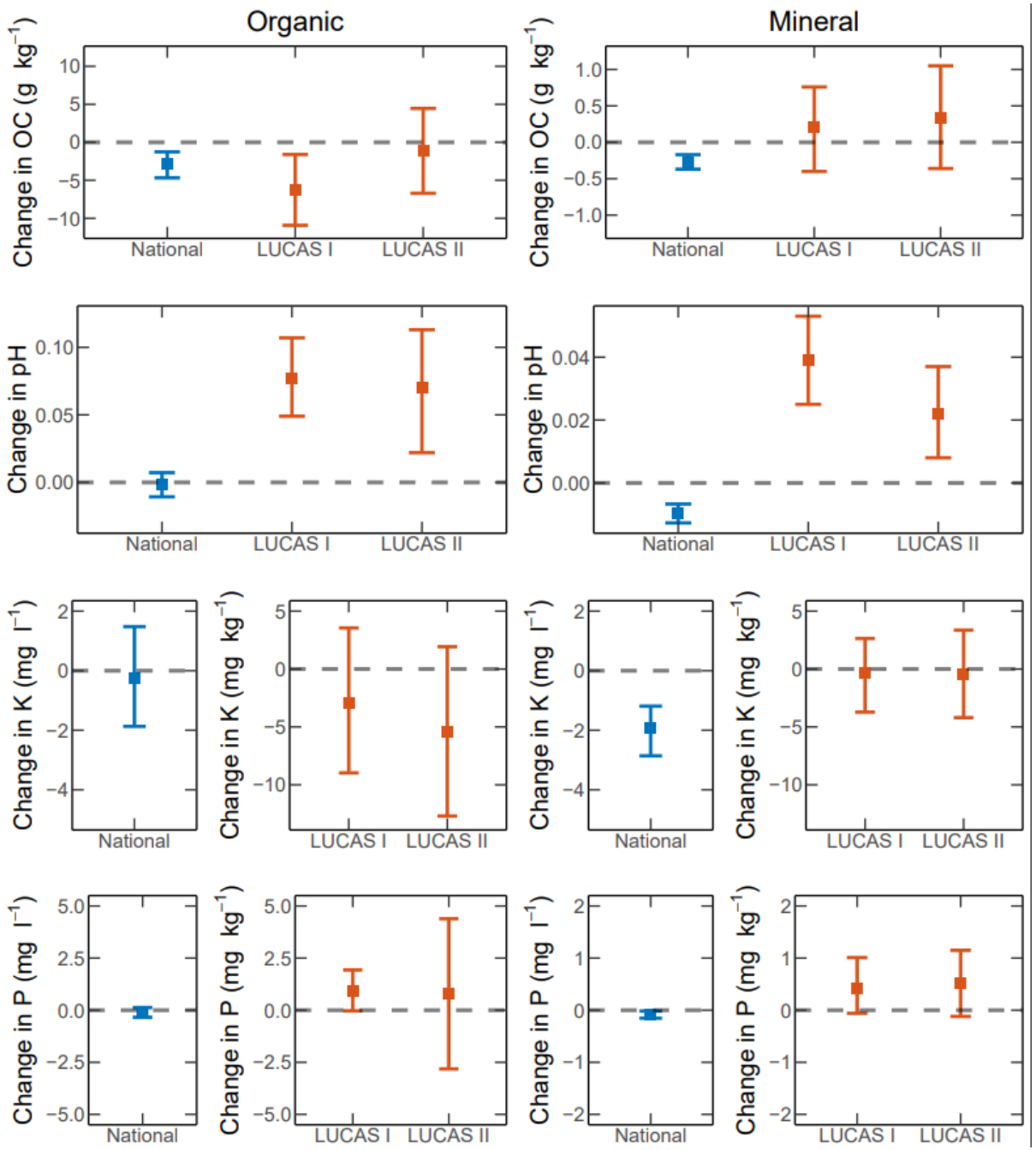






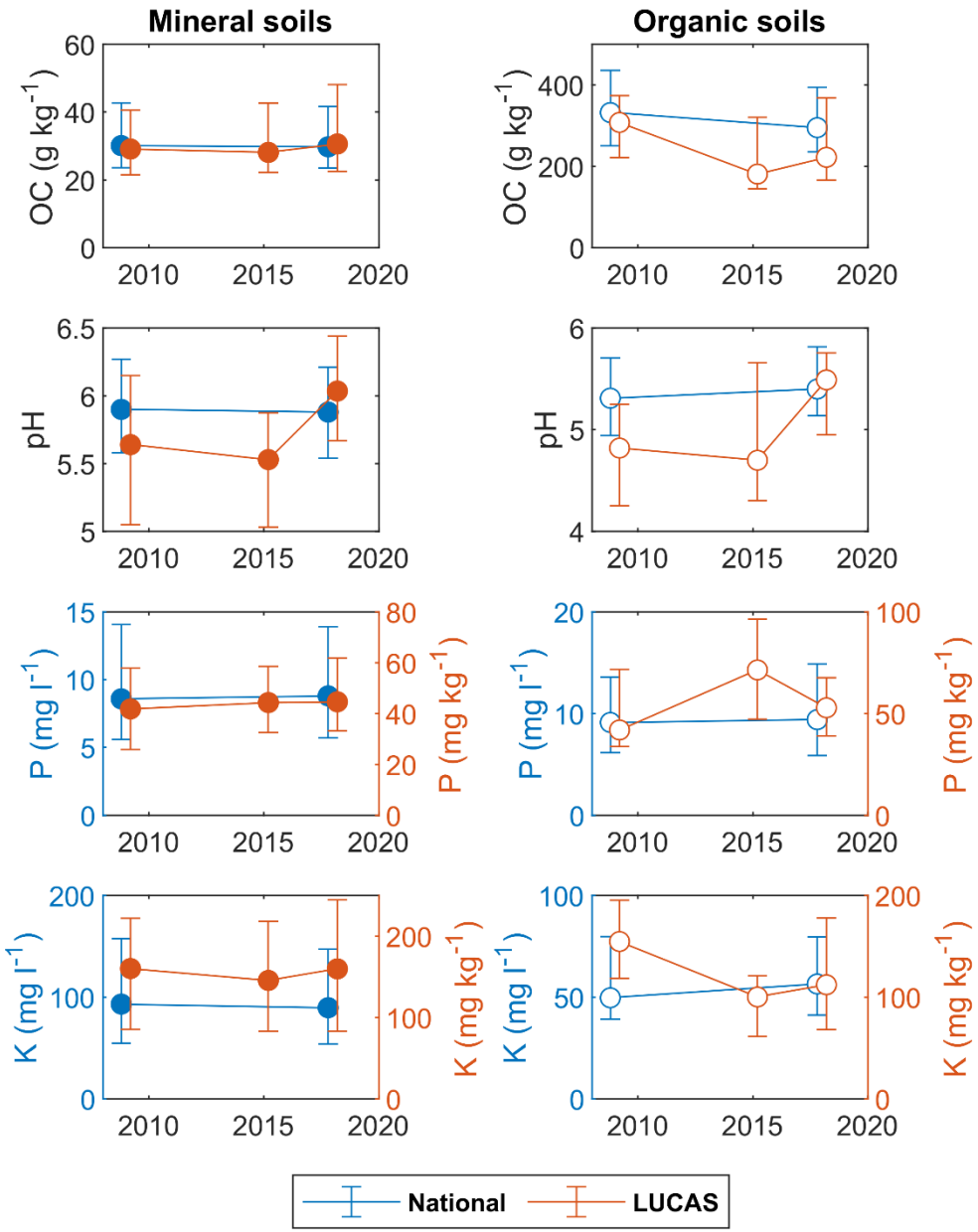
Why there is more scatter in Lucas than in national data?

- Location accuracy
- Sampling protocol
- Analysis
- Intra annual variation



Lucas has more scatter in the data +
Lower number of sampling plots

->Wider confidence intervals


Mineral soils
Organic soils
OC (g kg-1)
pH
P (mg l-1)
P (mg kg-1)
K (mg l-1)
K (mg kg-1)
2010
2015
2020
National
LUCAS