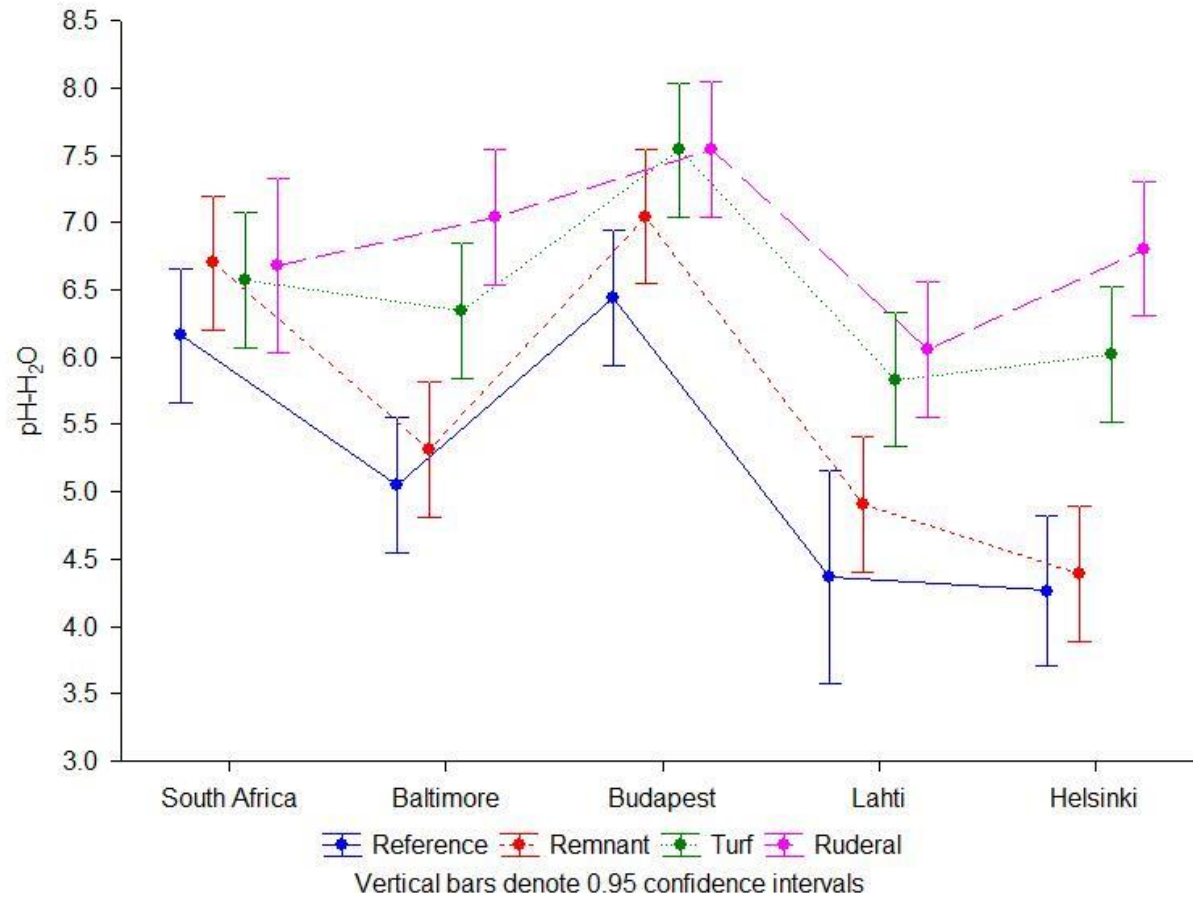


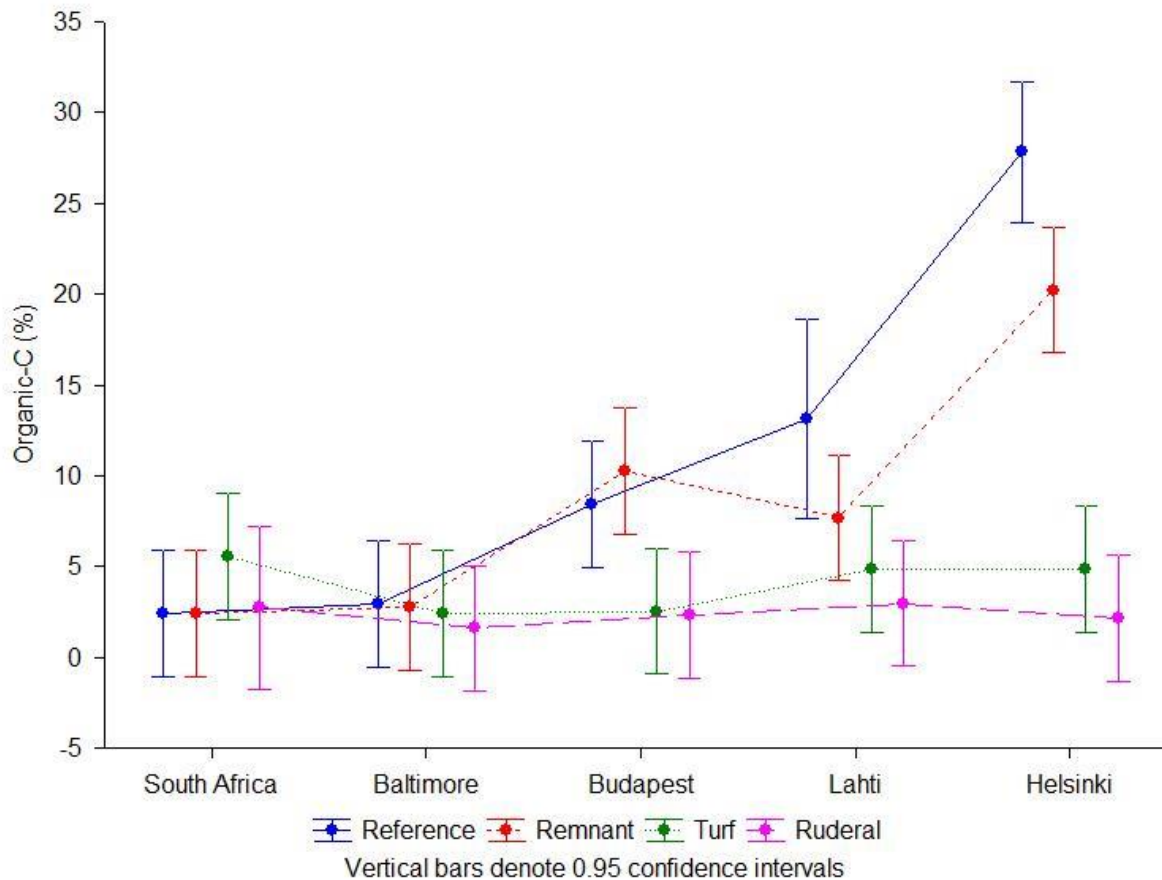
Results of Soil analyses

Soil Datasheet

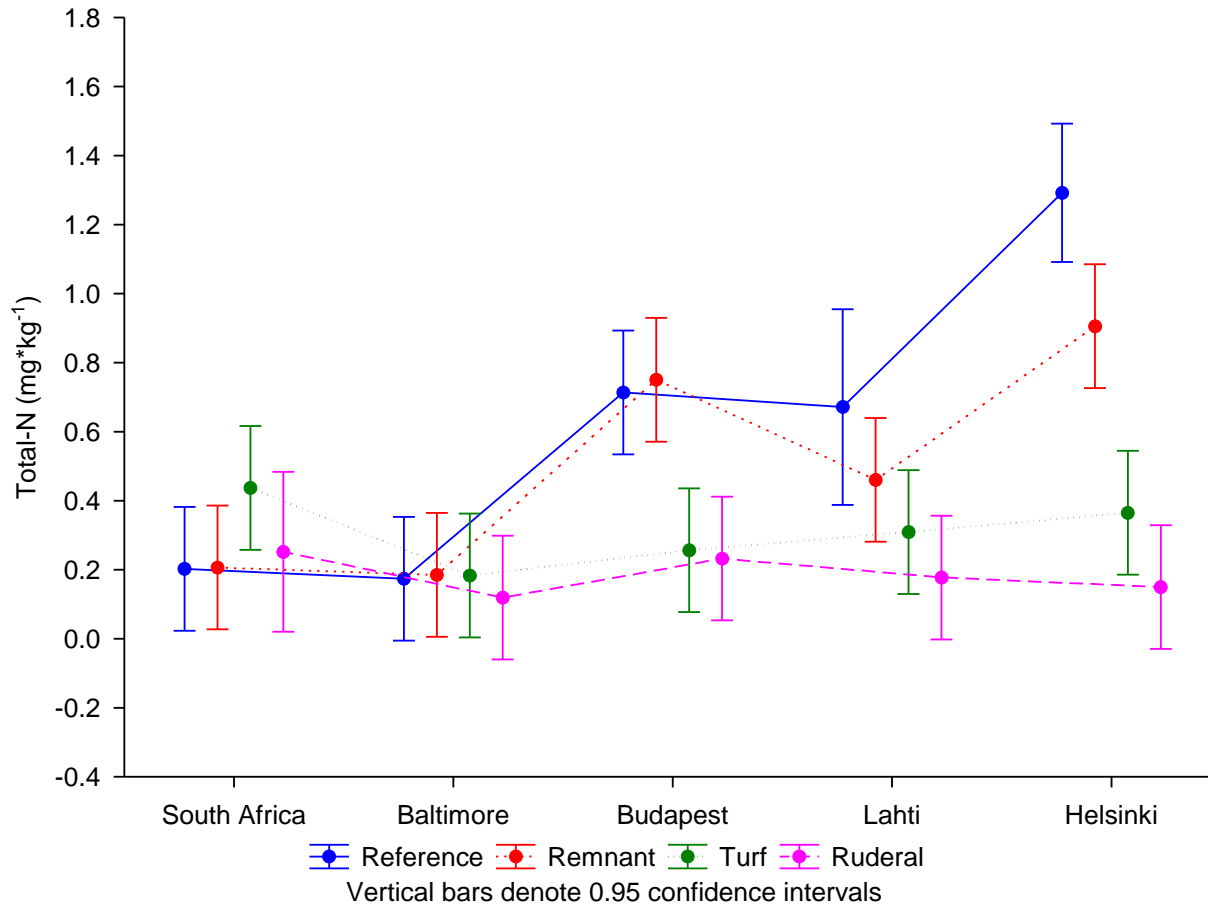
- See Gluseen_sols.xls
- 95 samples: 5 (cities) x 4 (habitat types) x 5 (replications) = 100 – 5 missing samples
- pH-H₂O
- organic C, humus content
- CaCO₃
- Available Nutrients:
 - Potassium (Al- K₂O)
 - Phosphorus (AL - P₂O₅)
 - Ammonium (NH₄-N)
 - Nitrate (NO₃-N)
 - Total Nitrogen (total-N)
- K(A), saturation percentage



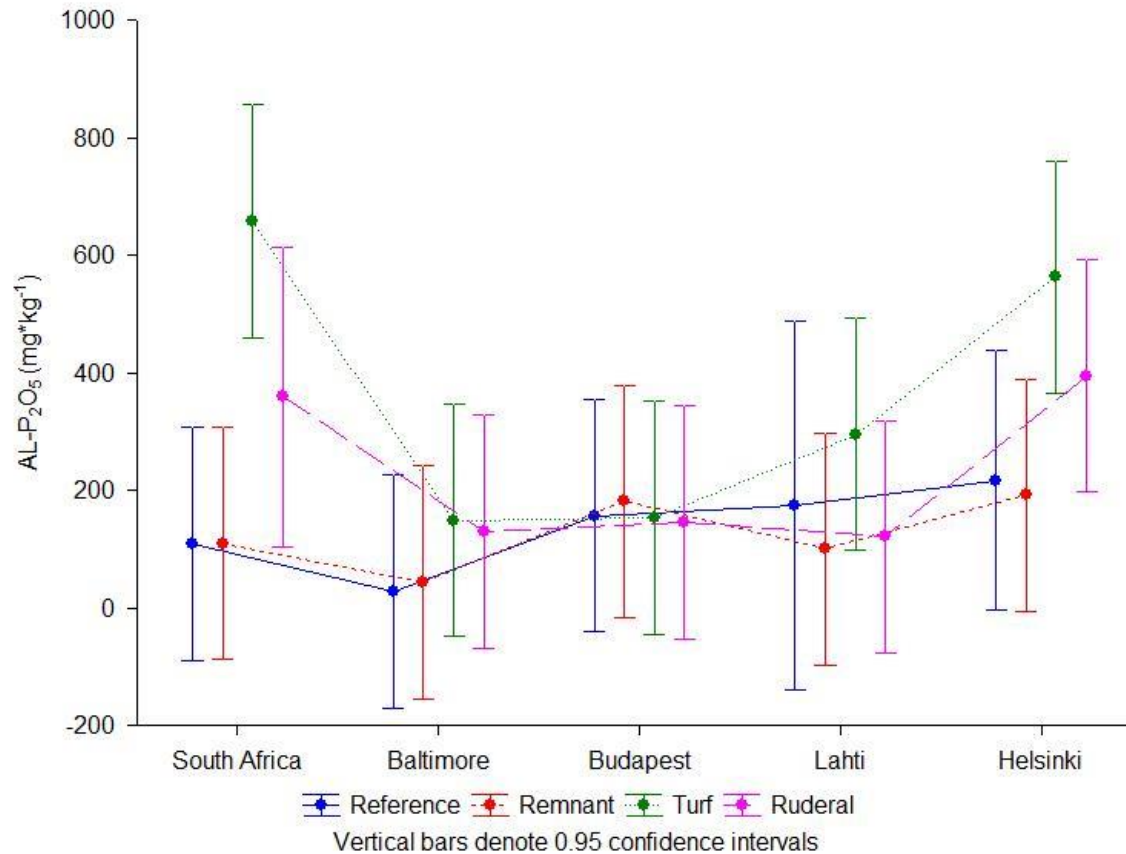
- The soil pH was measured in 1:2.5 soil:water ;ISO 10390:2005; (MSZ-08-0206/2:1978)
- Hypothesis to test: In acidic soils pH increased with urbanisation? (due to carbonate use in house buildings)
- If pH<6 in reference soil then pH: Ruderal>Turf>Remnant>Reference



- ISO 14235:1998.
 - At lower OM content: The soil organic matter content was measured by oxidation with $K_2Cr_2O_7$ according to the method of Tyurin (1931).
 - At higher OM content: Organic matter content was determined by the modified Walkley-Black method (Walkley and Black, 1934), digesting the soil organic matter with 5% $K_2Cr_2O_7$ and cc. H_2SO_4 and analysing the colour of the suspension, which was related to the organic matter content of the samples, colorimetrically (MSZ-08-0452:1980).
- Hypothesis to test: When OM content is high in reference soils than it decreases with urban use



- ISO 11261:1995. Soil Quality. Determination of total nitrogen. Modified Kjeldahl method
- Hypothesis corresponds to organic matter content



- Ammonium lactate phosphorus. Phosphorus extractable with ammonium lactate. ISO 22036:2008. Soil quality -- Determination of trace elements in extracts of soil by inductively coupled plasma - atomic emission spectrometry (ICP - AES)
- Phosphorus might increase with use, especially on turfs due to fertilization

Heterogeneity in soil texture

Cities	Codes	heavy clay	clay	clay loam	loam	sandy loam	sand	peat	Total Sum
Baltimore	Reference	3	2						5
	Remnant	1	1	2		1			5
	Ruderal				3	2			5
	Turf		1	3	1				5
Baltimore Sum		4	4	5	4	3			20
Budapest	Reference	5							5
	Remnant	4						1	5
	Ruderal		2	1	2				5
	Turf	1	1	2		1			5
Budapest Sum		10	3	3	2	1		1	20
Helsinki	Reference							5	5
	Remnant							5	5
	Ruderal			1	2	1	1		5
	Turf	2	3						5
Helsinki Sum		2	3	1	2	1	1	10	20
Lahti	Reference	1						1	2
	Remnant	4						1	5
	Ruderal	1			2	2			5
	Turf	2	1	1	1				5
Lahti Sum		8	1	1	3	2		2	17
South Africa	Reference			3	2				5
	Remnant		1	4					5
	Ruderal			1	2				3
	Turf	1	1	3					5
South Africa Sum		1	2	11	4				18
Total Sum		25	13	21	15	7	1	13	95

Cities	Replications	clay	clay loam	heavy clay	loam	peat	sand	sandy loam	(üres)	Sum
Baltimore	1		2	1	1					4
	2	1	1		1			1		4
	3		1	1	1			1		4
	4	2		1				1		4
	5	1	1	1	1					4
Budapest	1		1	2	1					4
	2	1		3						4
	3	1		2				1		4
	4	1		1	1	1				4
	5		2	2						4
Helsinki	1		1	1		2				4
	2			1	1	2				4
	3	1			1	2				4
	4	1				2	1			4
	5	1				2		1		4
Lahti	1			3						3
	2			3	1					4
	3		1		1	2				4
	4	1		1				1		3
	5			1	1			1		3
South Africa	1		3		1					4
	2	2	2							4
	3		2		2					4
	4		3							3
	5		1	1	1					3