

Organic matter cycling along geochemical, geomorphic and disturbance gradients in vegetation and soils of African tropical forests and cropland - Project TropSOC DATABASE_v1.0

2.1.10. Forest – Vegetation – Root biomass aggregated to annual values

When using these data, please cite the original publication:

Doetterl S., Asifiwe R.K., Baert G., Bamba F., Bauters M., Boeckx P., Bukombe B., Cadisch G., Cizungu L.N., Cooper M., Hoyt A., Kabaseke C., Kalbitz K., Kidinda L., Maier A., Mainka M., Mayrock J., Muhindo D., Mujinya B.B., Mukotanyi, S.M., Nabahunu L., Reichenbach M., Rewald B., Six J., Stegmann A., Summerauer L., Unseld R., Vanlauwe B., Van Oost K., Verheyen K. Vogel C., Wilken F., Fiener P. Organic matter cycling along geochemical, geomorphic and disturbance gradients in forests and cropland of the African Tropics - Project TropSOC Database Version 1.0. *Earth System Science Data* XXX, DOI XXX, 2021.

Introduction

The dataset comprises a unique plot identifier, followed by 18 variables that provide data regarding the root biomass aggregated for annual values at the plot level for TropSOC's forest plots. Missing values are indicated by -9999.

Data structure

No.	Variable	Explanation	Unit
1	plotID	unique identifier of each plot and point where data were collected	-
2	layer	soil layer where the sample was collected with 0 = "O horizon"; 1 = 0 – 10 cm; 2 = 10 – 20 cm; 3 = 20 – 30 cm; 4 = 30 - 50 cm	-
3	o_hor	depths of O horizon	cm
4	min_fr_liv	minimum living fine roots (< 2 mm)	mg cm ⁻³
5	max_fr_liv	maximum living fine roots (< 2 mm)	mg cm ⁻³
6	mean_fr_liv	mean living fine roots (< 2 mm)	mg cm ⁻³
7	sd_fr_liv	standard deviation of mean living fine roots (< 2 mm)	mg cm ⁻³
8	min_fr_dead	minimum dead fine roots (< 2 mm)	mg cm ⁻³
9	max_fr_dead	maximum dead fine roots (< 2 mm)	mg cm ⁻³
10	mean_fr_dead	mean dead fine roots (< 2 mm)	mg cm ⁻³
11	sd_fr_dead	standard deviation of mean dead fine roots (< 2 mm)	mg cm ⁻³
12	min_cr_liv	minimum living coarse roots (> 2 mm)	mg cm ⁻³
13	max_cr_liv	maximum living coarse roots (> 2 mm)	mg cm ⁻³
14	mean_cr_liv	mean living coarse roots (> 2 mm)	mg cm ⁻³
15	sd_cr_liv	standard deviation of mean living coarse roots (> 2 mm)	mg cm ⁻³
16	min_cr_dead	minimum dead coarse roots (> 2 mm)	mg cm ⁻³
17	max_cr_dead	maximum dead coarse roots (> 2 mm)	mg cm ⁻³
18	mean_cr_dead	mean dead coarse roots (> 2 mm)	mg cm ⁻³
19	sd_cr_dead	standard deviation of mean dead coarse roots (> 2 mm)	mg cm ⁻³
20	no	total number of observations considered in the calculations	-

Methods

This data set comprises an annual aggregation at the plot level of root biomass data (218_root_biomass.csv) described in detail in 218_root_biomass.pdf.

Acknowledgment

TropSOC was funded via the Emmy-Noether-Program of the German Research Foundation (project ID 387472333).