

Plant biomass data

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Introduction

In this data sheet all measured above- and belowground plant biomass variables of bryophytes, graminoids, woody plants and cushion plants are shown. The belowground plant biomass variables are split per soil plot depth increment.

Table 1. General information

project_name	ETH+ Arctic Greening
creation_date	2024-11-19
last_modification_date	2025-04-11
sampling_period	2022-07-09 – 2023-08-09
creator	Annina Maier
contact_1	annina.maier@usys.ethz.ch
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number_samples	25 (aggregated)
processing_status	ongoing
upload_status	ongoing

Table 2. Variable overview

variable	explanation	unit
plot_id	plot_id of a respective observation	-
bryophyte_m_ABM_mean, graminoid_m_ABM_mean, graminoid_m_0_5_mean, graminoid_m_5_10_mean graminoid_m_10_15_mean, woody_m_ABM_mean, woody_m_0_5_mean, woody_m_5_10_mean, woody_m_10_15_mean, cushion_m_ABM_mean, cushion_m_0_5_mean, cushion_m_5_10_mean, cushion_m_10_15_mean	Average dry mass of aboveground biomass (ABM), 0-5 cm root biomass, 5-10 cm root biomass or 10-15 cm root biomass of bryophytes, graminoids, woody plants, cushion plants within a 10 x 10 cm area.	g
bryophyte_m_ABM_sd, graminoid_m_ABM_sd, graminoid_m_0_5_sd,	Standard deviation of dry mass of aboveground biomass (ABM), 0-5 cm root biomass, 5-10 cm root biomass or 10-15 cm root biomass of	g

graminoid_m_5_10_sd graminoid_m_10_15_sd, woody_m_ABM_sd, woody_m_0_5_sd, woody_m_5_10_sd, woody_m_10_15_sd, cushion_m_ABM_sd, cushion_m_0_5_sd, cushion_m_5_10_sd, cushion_m_10_15_sd	bryophytes, graminoids, woody plants, cushion plants within a 10 x 10 cm area.	
bryophyte_m_ABM_SE, graminoid_m_ABM_SE, graminoid_m_0_5_SE, graminoid_m_5_10_SE graminoid_m_10_15_SE, woody_m_ABM_SE, woody_m_0_5_SE, woody_m_5_10_SE, woody_m_10_15_SE, cushion_m_ABM_SE, cushion_m_0_5_SE, cushion_m_5_10_SE, cushion_m_10_15_SE	Standard error of dry mass of aboveground biomass (ABM), 0-5 cm root biomass, 5-10 cm root biomass or 10-15 cm root biomass of bryophytes, graminoids, woody plants, cushion plants within a 10 x 10 cm area.	g

Methods

Sample processing

Aboveground biomass (ABM) samples were dried at 30 °C for 3 days, after which dry weights were noted. Belowground biomass (BBM) root samples were soaked in a water bath for 24 h at room temperature, after which coarse and fine roots were extracted using tweezers throughout a total time of 15 min. The collected roots were then dried at 30 °C for 3 days, after which dry weights were noted.

References

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