

Supplement of

UAV LiDAR surveys and machine learning improves snow depth and water equivalent estimates in the boreal landscapes

Maiju Ylönen et al. 2025

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Table S1. The UAV flight parameters from the field campaigns.

Flight parameters		Equipment settings	
Speed	7 m/s	Wavelength	905 nm
Altitude	80 m	Laser pulse repetition rate	240 Hz
Distance between flight lines		Accuracy (50 m nadir)	3 cm
Ground overlap (%)	70 %	Return type	Up to 3 returns
Point density	463.4 points/m ² (Sodankylä) 244.18 points/m ² (Pallas)		

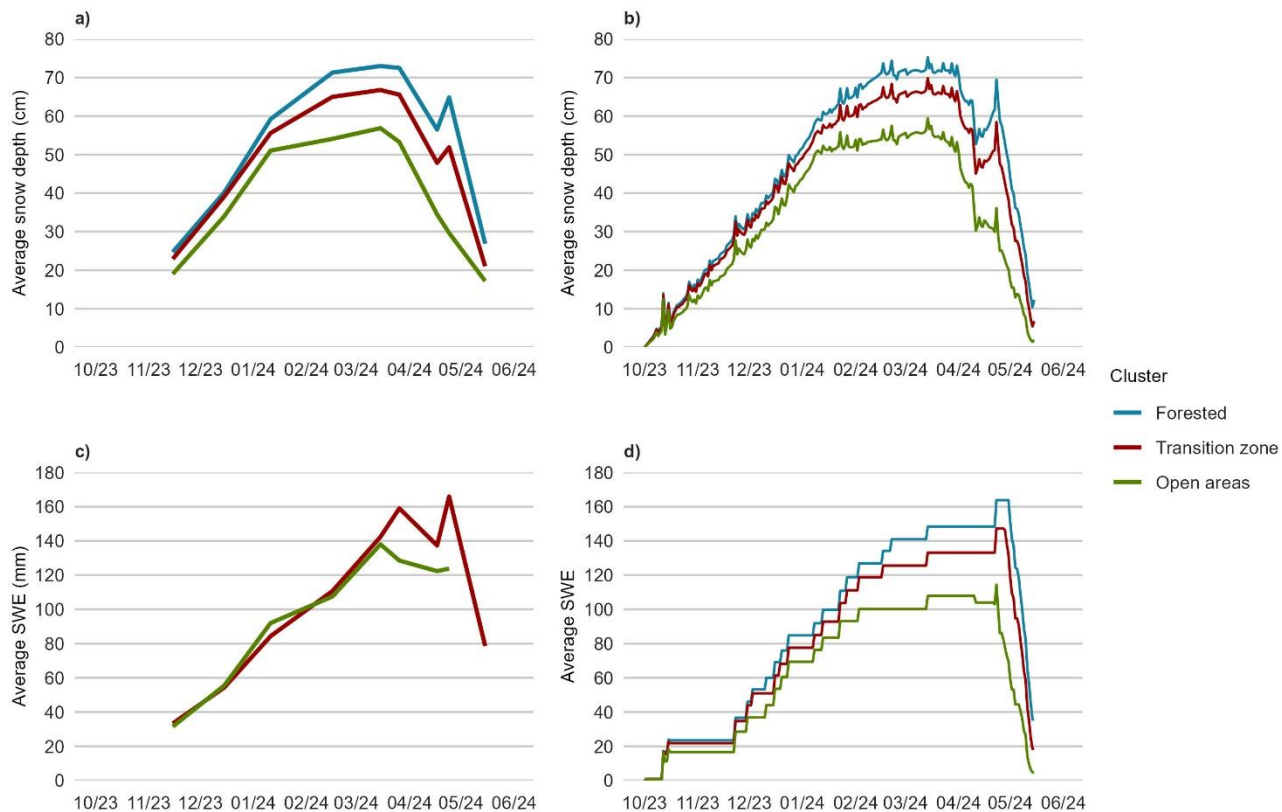


Figure S1. Sodankylä snow course measurements and model outputs for different clusters. Snow depth from snow course (a) and model (b) and SWE from snow course (c) and model (d).

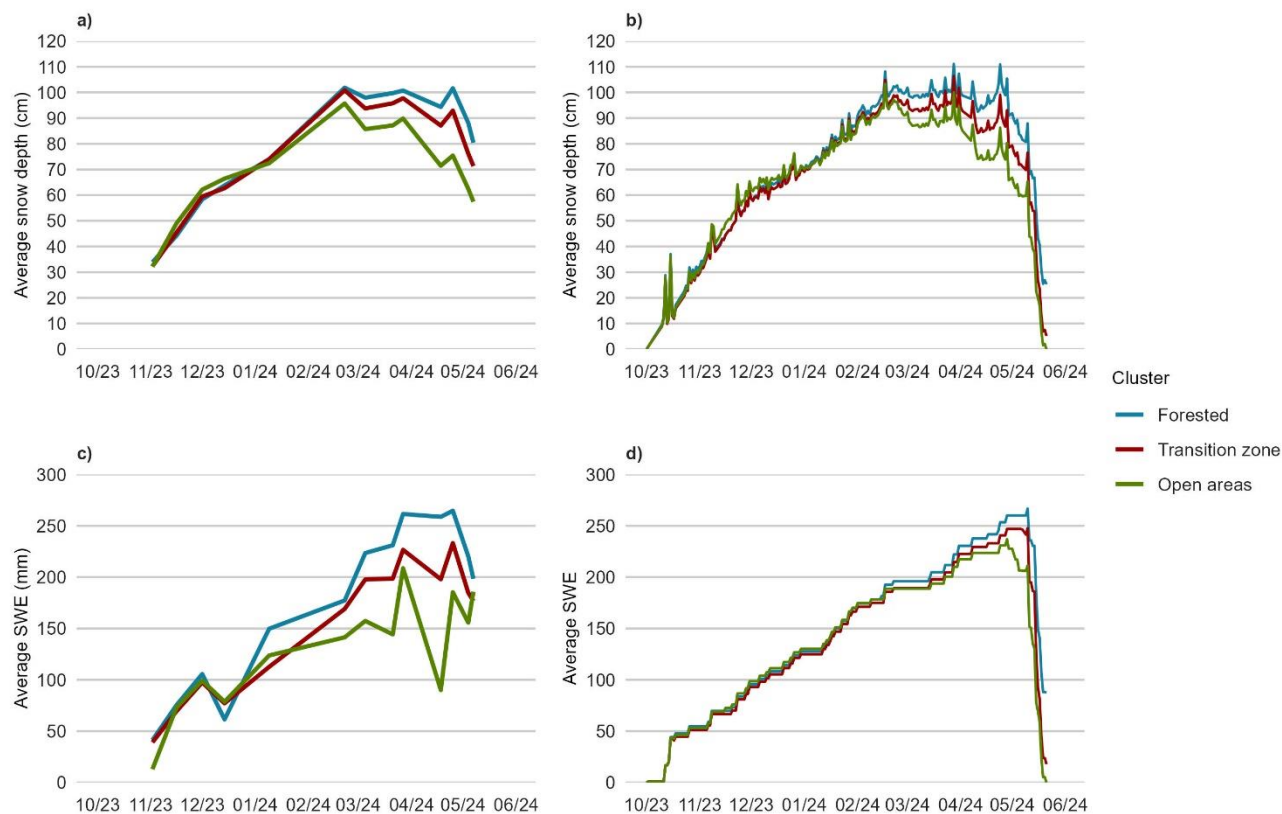


Figure S2. Pallas snow course measurements and model outputs for different clusters. Snow depth from snow course (a) and model (b) and SWE from snow course (c) and model (d).

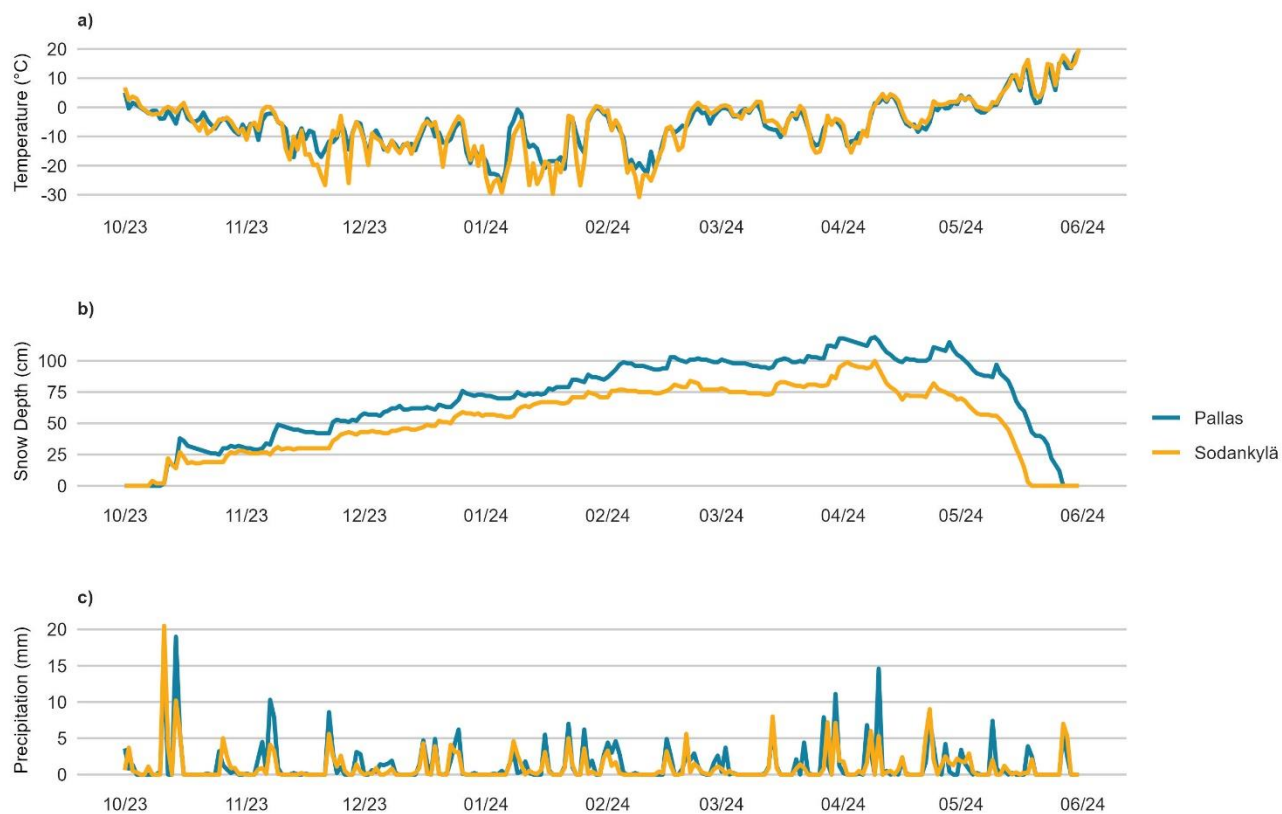


Figure S3. Daily weather data from both sites during the field season 2023-2024. Upmost average temperature (a), snow depth (b), and precipitation (c). Data: FMI.