



Supplement of

Topographic and vegetation controls of the spatial distribution of snow depth in agro-forested environments by UAV lidar

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Supplement

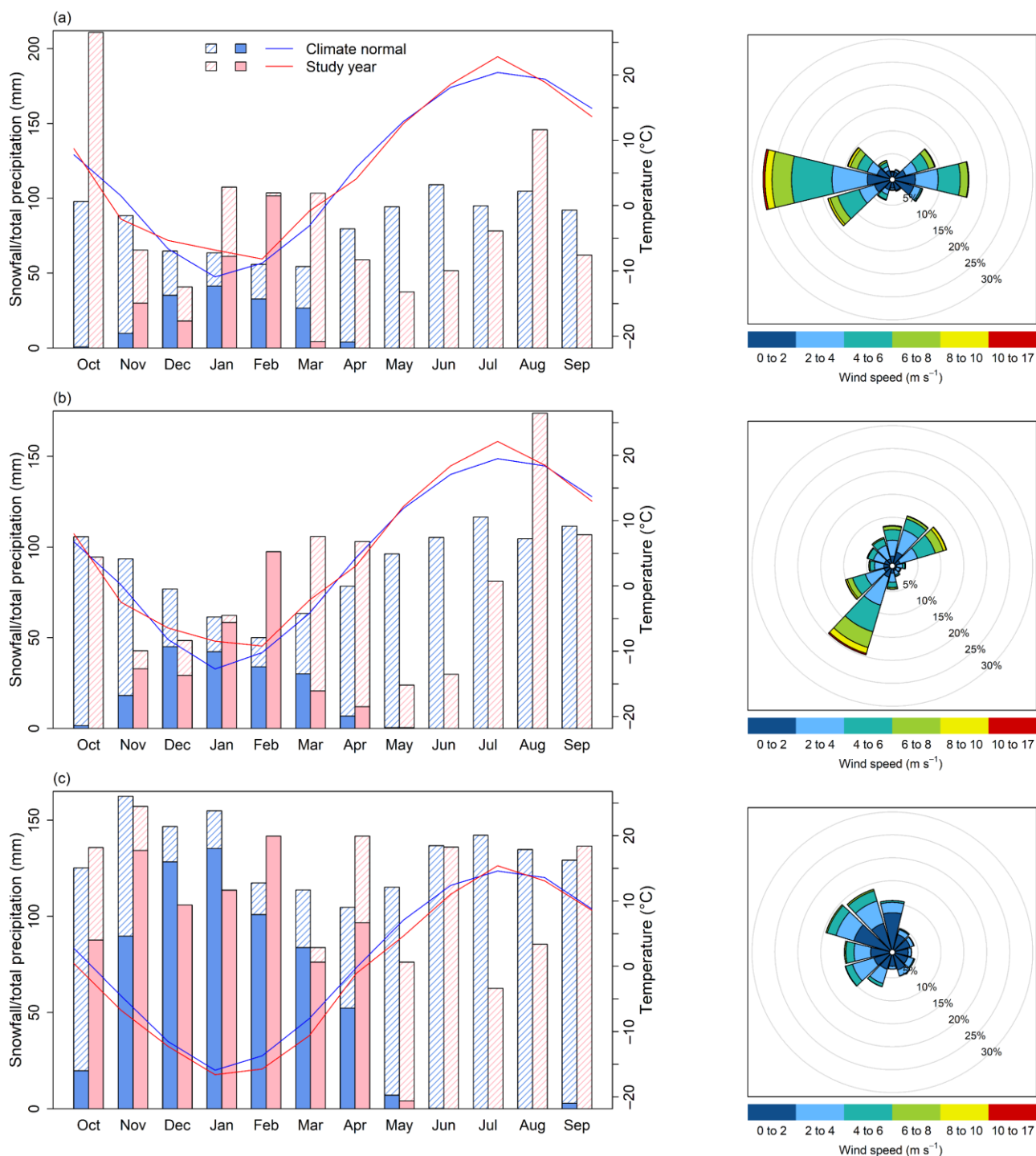
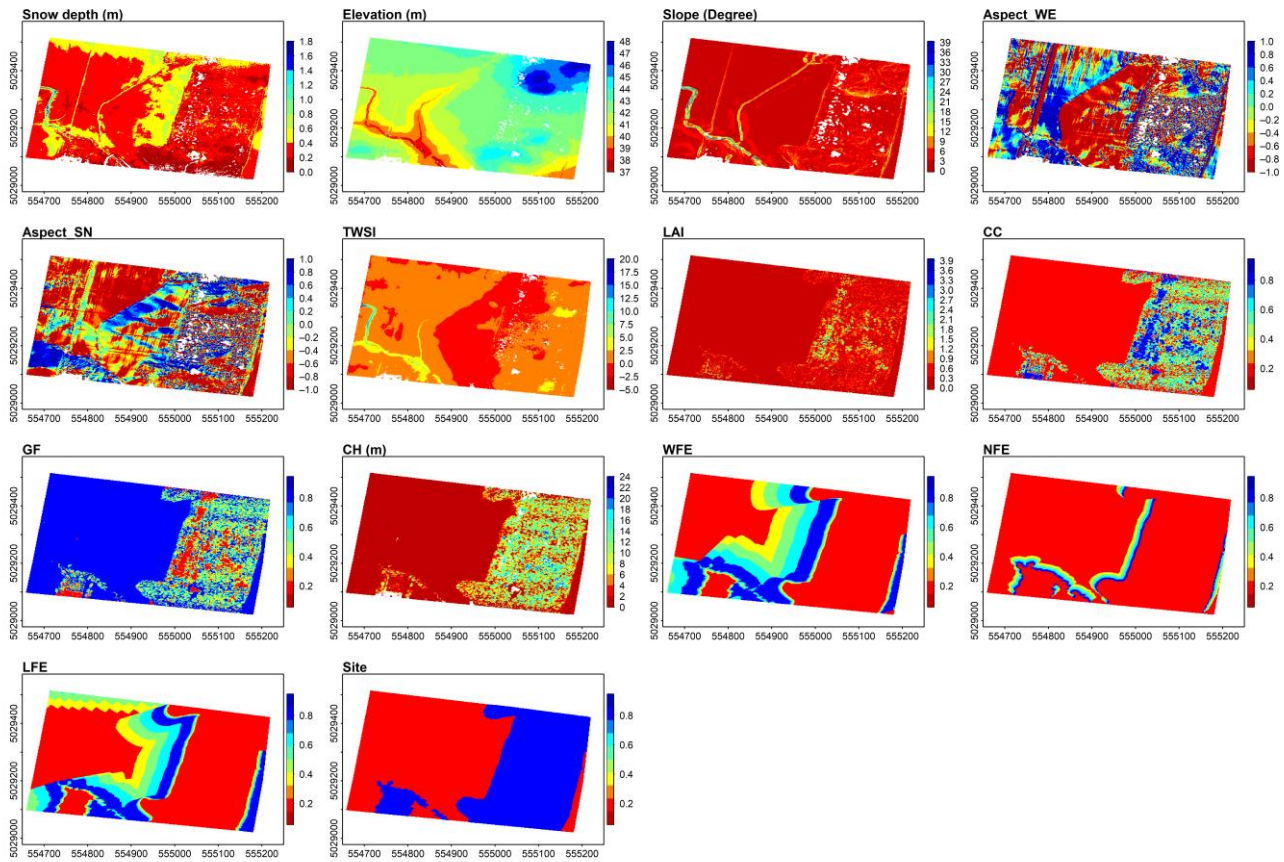


Figure S1. Long-term snowfall/total precipitation, average temperature, and wind rose plots at (a) Sainte-Marthe, (b) Saint-Maurice and (c) Montmorency. Stripped bars indicate total precipitation and solid color bars indicate snowfall. Long-term snowfall, total precipitation and

- 5 average temperatures were derived from climate normal (averages for 1981–2010) for the same ECCC stations used in Table 1. Then they were plotted with snowfall/total precipitation and average temperature values of the study hydrological years (Oct–Sept) to place them in a climatological context. The long-term wind rose plots were derived from the nearest available wind stations to the sites for 2010–2020 (Station climate ID 7016470, 7018561, and 7042395 for Sainte-Marthe, Saint-Maurice, and Montmorency)



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Figure S2. Sainte-Marthe snow depth and predictor variables maps. The elevation is presented as ellipsoidal height.

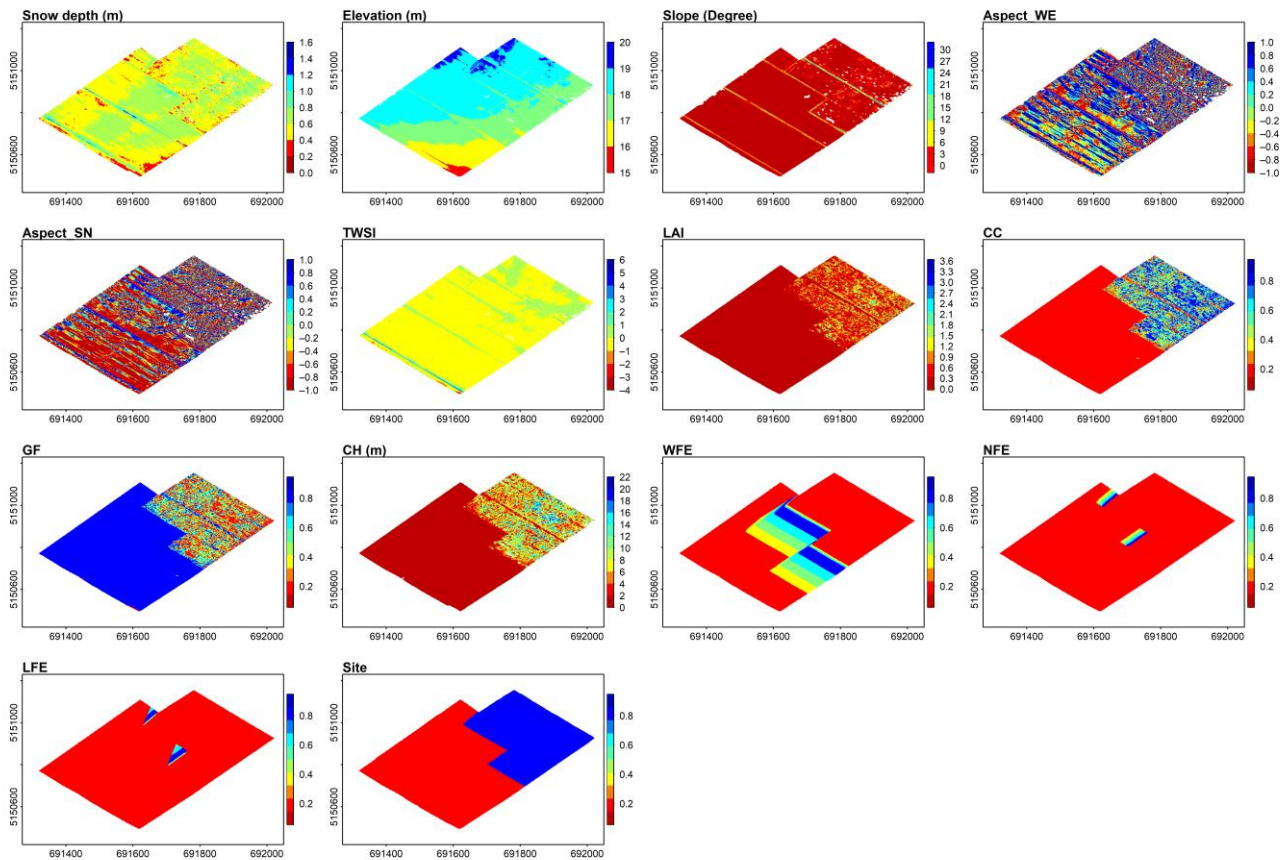
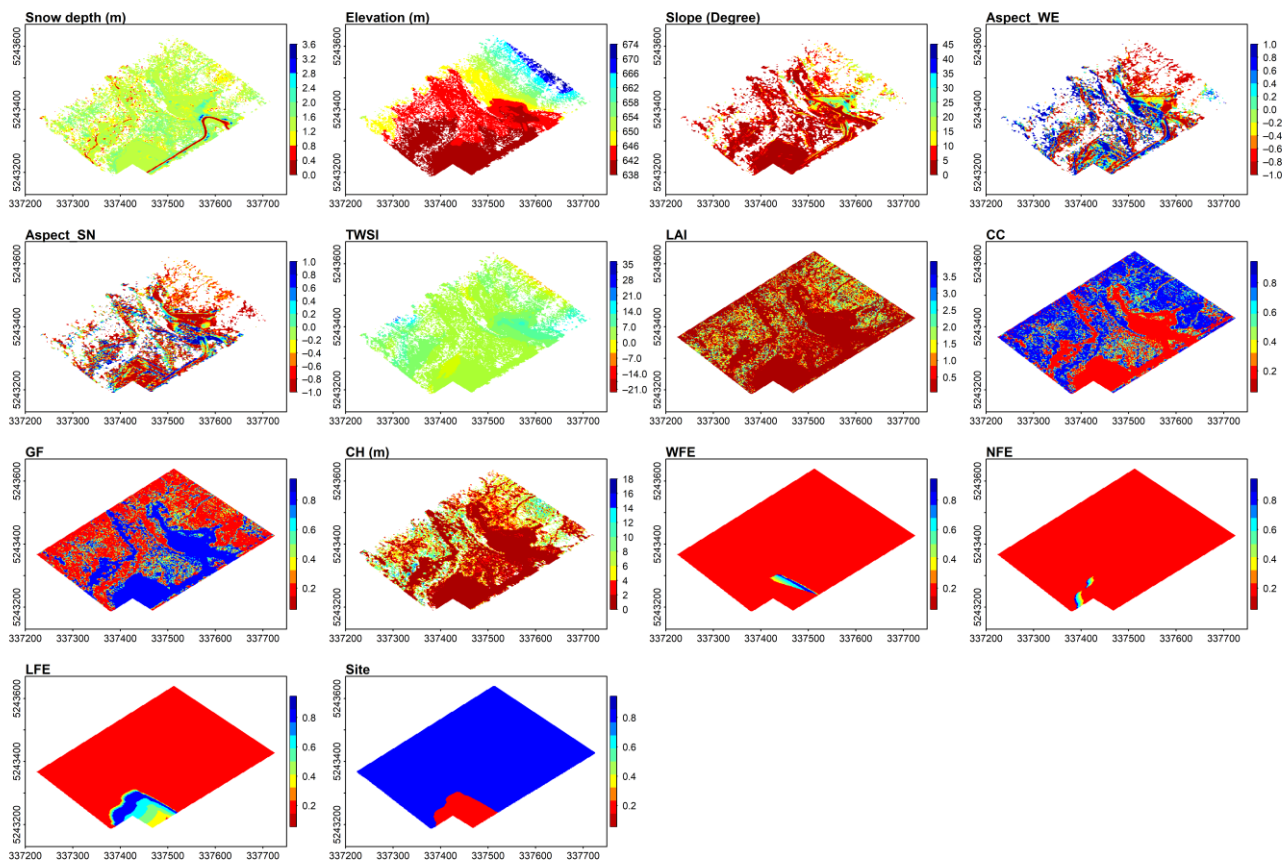


Figure S3. Saint-Maurice snow depth and predictor variables maps. The elevation is presented as ellipsoidal height.



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Figure S4. Montmorency snow depth and predictor variables maps. The elevation is presented as ellipsoidal height.

Table S1. RF model R^2 for different vegetation descriptors

	Sainte-Marthe			Saint-Maurice			Montmorency		
	Field+Forest	Forest	Field	Field+Forest	Forest	Field	Field+Forest	Forest	Field
LAI	0.659	0.291	0.778	0.459	0.168	0.602	0.303	0.290	0.560
CC	0.659	0.292	0.778	0.459	0.167	0.602	0.304	0.294	0.562
CH	0.672	0.287	0.799	0.498	0.155	0.664	0.369	0.365	0.589
GF	0.659	0.290	0.777	0.459	0.166	0.602	0.304	0.292	0.563

Note: sensitivity of different vegetation descriptors was tested by keeping the other variables in RF models unchanged.

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