



Supplement of

InSAR-measured permafrost degradation of palsa peatlands in northern Sweden

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S1. Higher resolutions InSAR images of study sites with palsa cells overlaid.

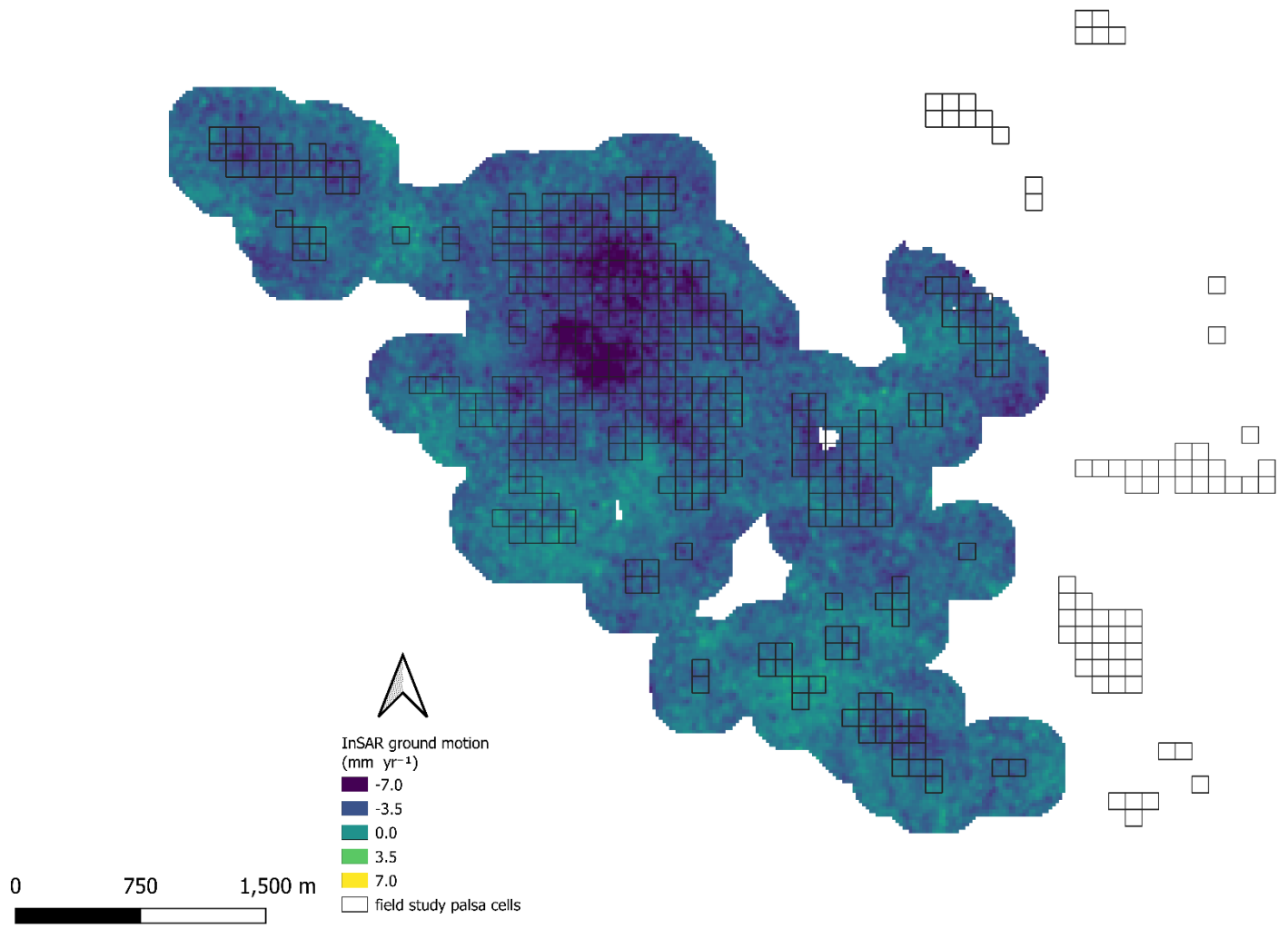


Figure. S1: InSAR derived surface motion in Árbuvuopmi. Palsa 100*100m cells overlaid on buffered area from Backe, 2014.

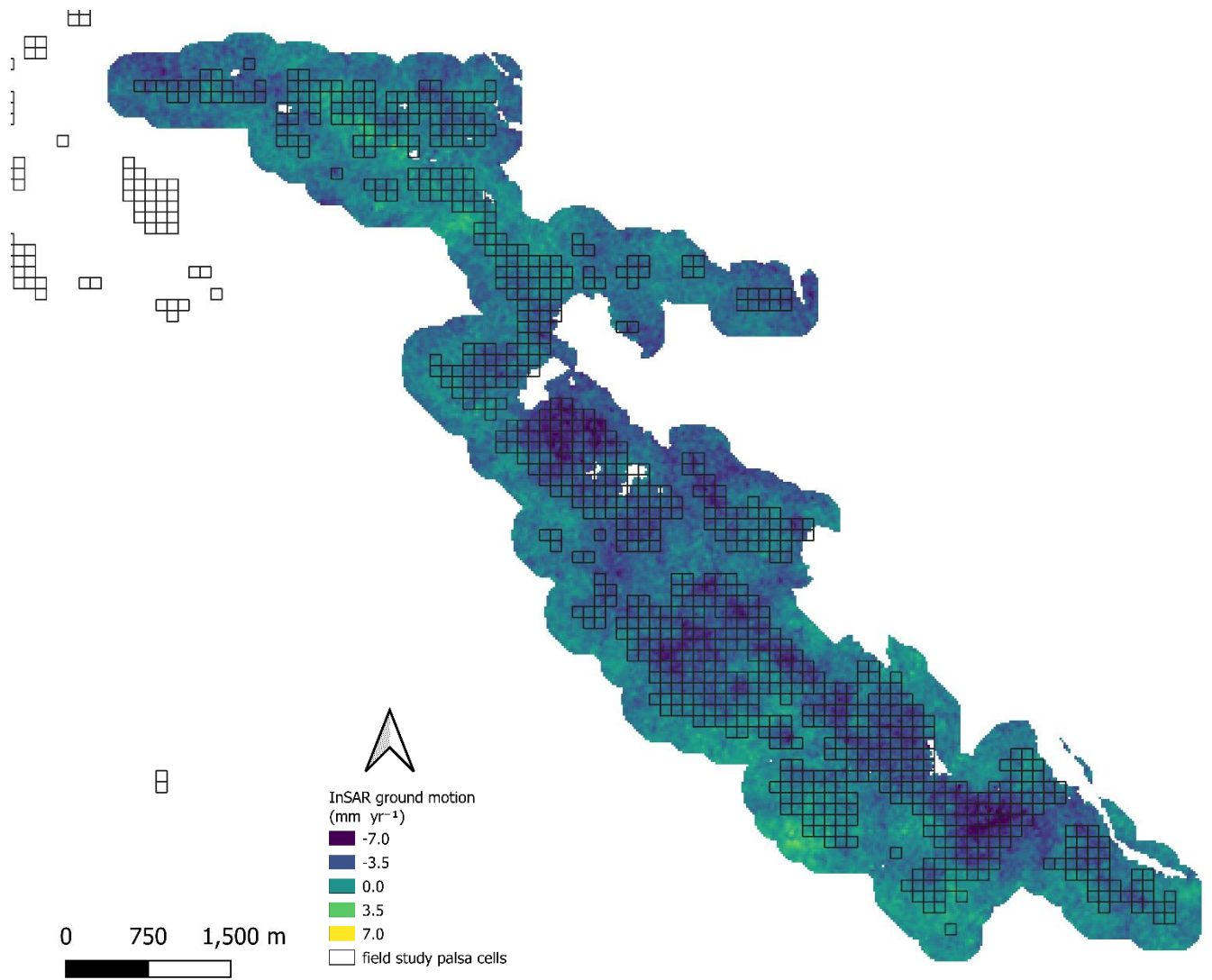


Figure. S2: InSAR derived surface motion in Vissátvuopmi complex. Palsa 100*100m cells overlaid on buffered area from Backe, 2014.

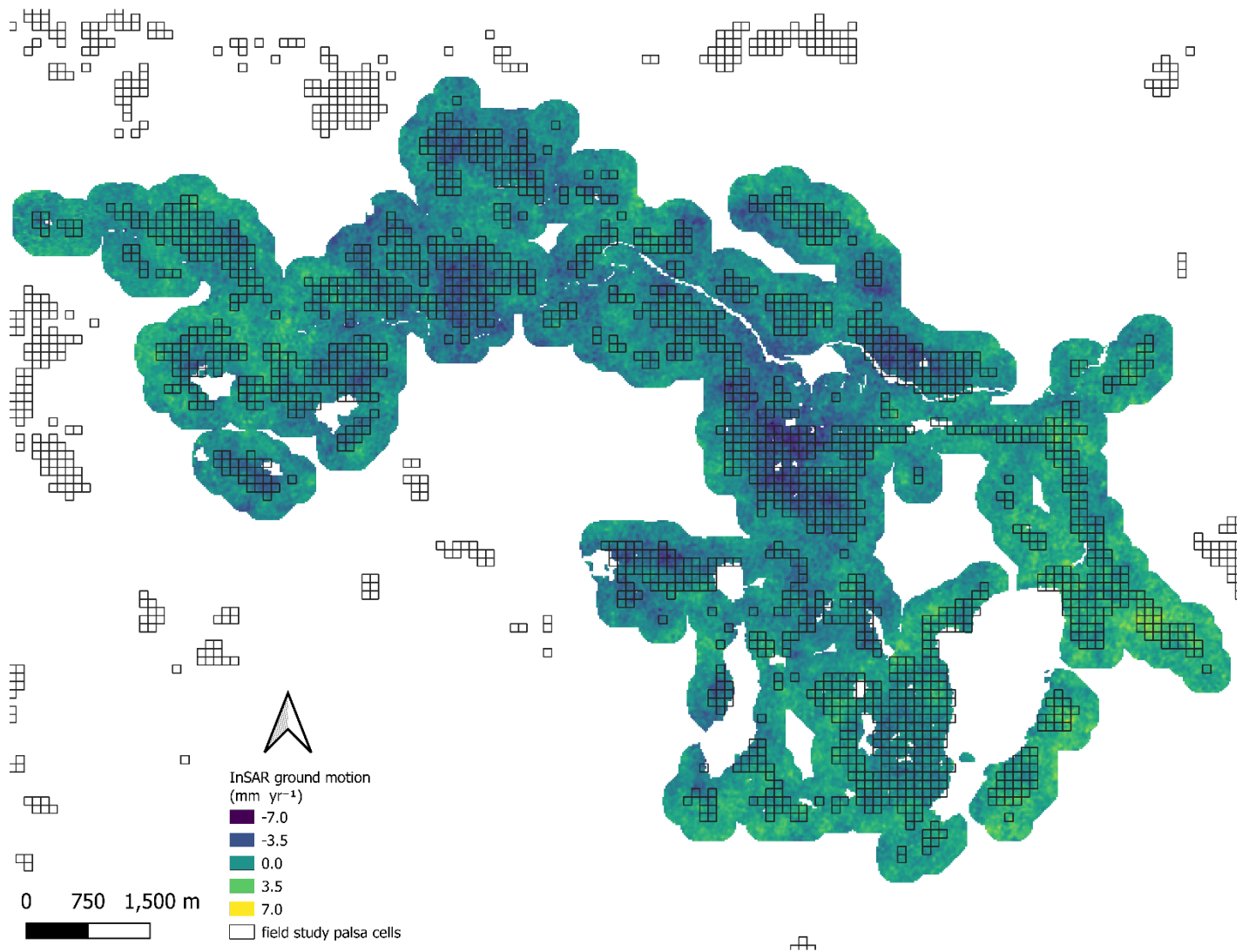


Figure. S3: InSAR derived surface motion in Tavvavuoma complex. Palsa 100*100m cells overlaid on buffered area from Backe, 2014.

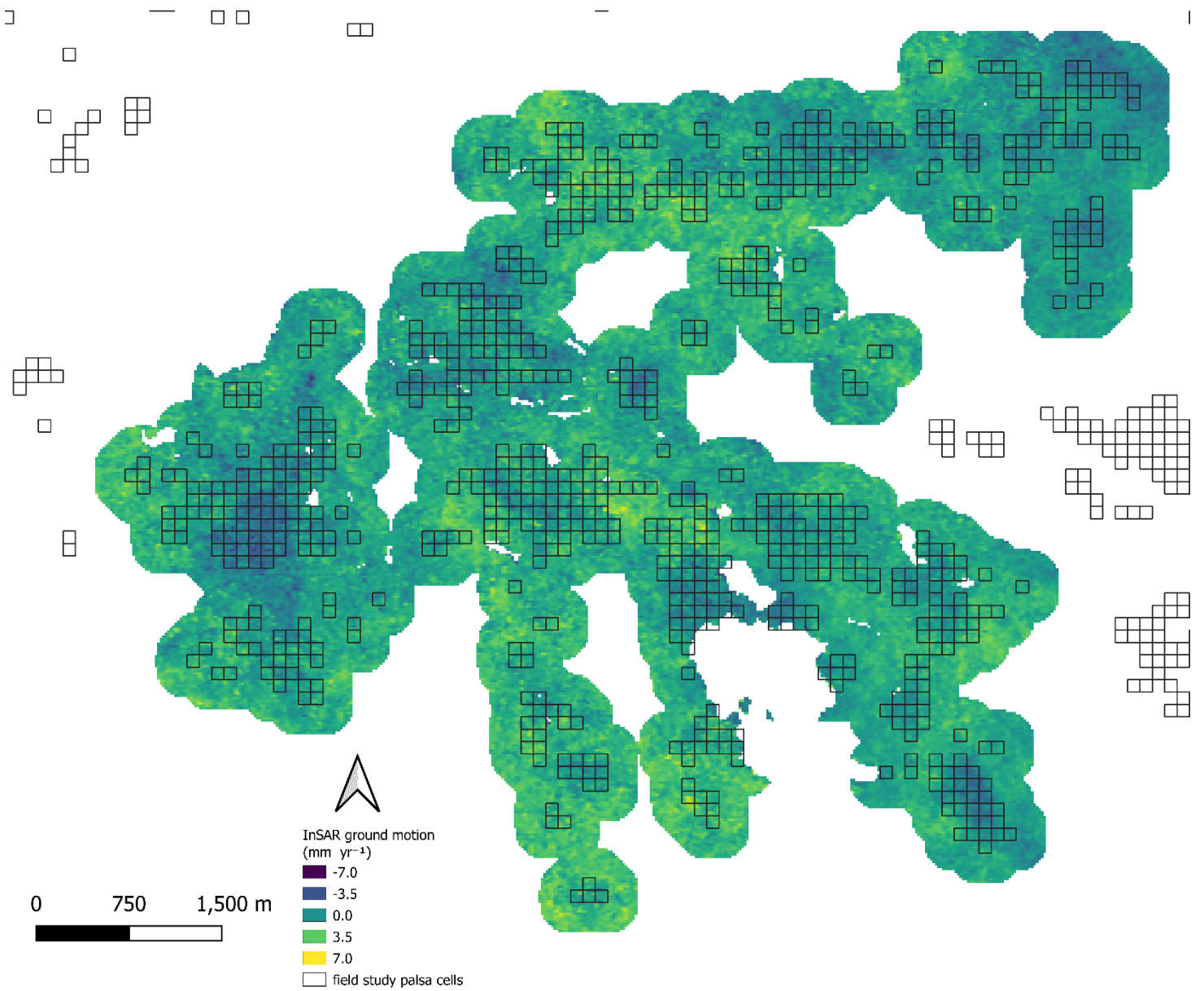


Figure. S4: InSAR derived surface motion in Western Tavvavuoma complex. Palsa 100*100m cells overlaid on buffered area from Backe, 2014.

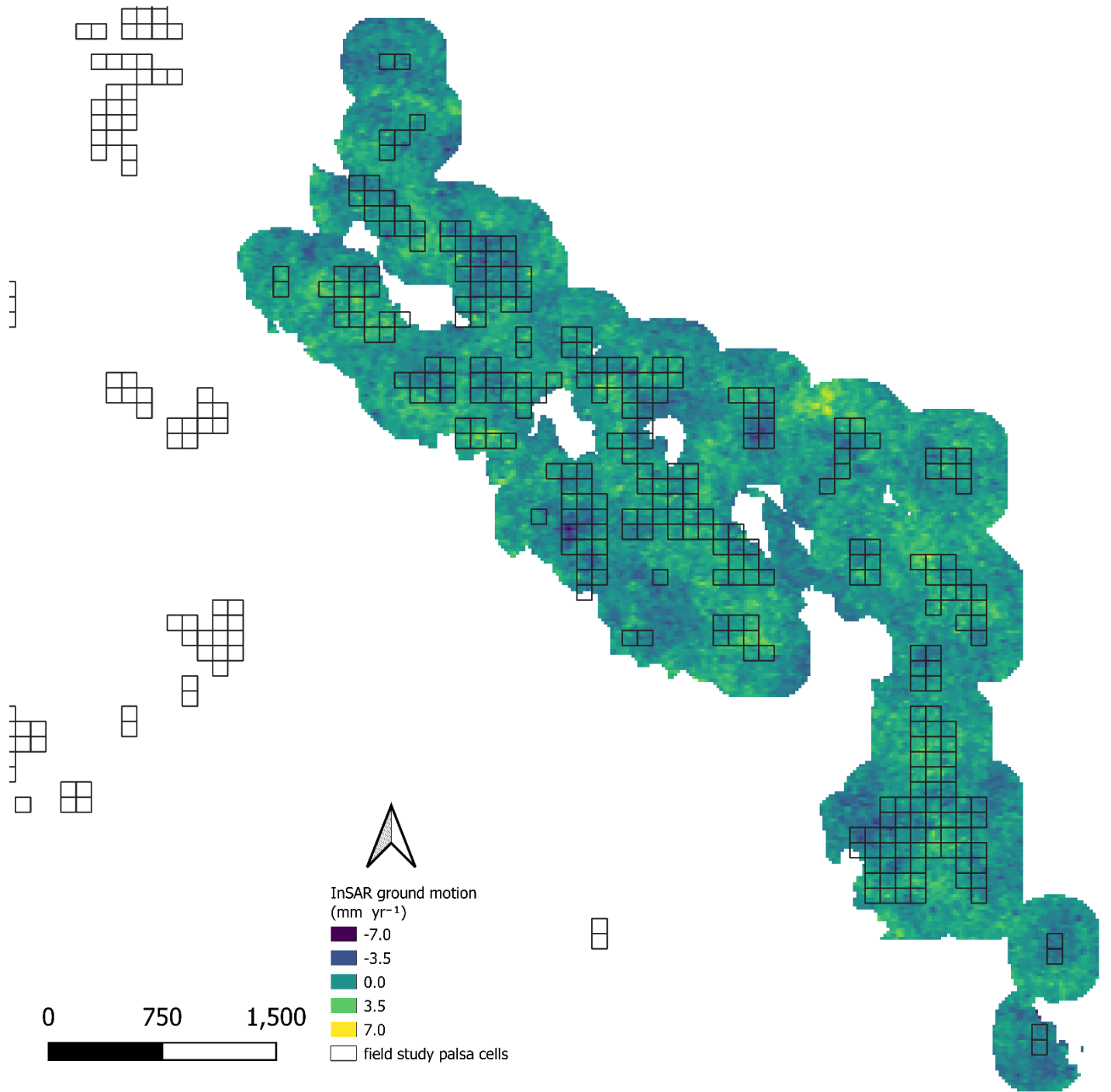


Figure. S5: InSAR derived surface motion in Gipmevuopmi complex. Palsa 100*100m cells overlaid on buffered area from Backe, 2014.

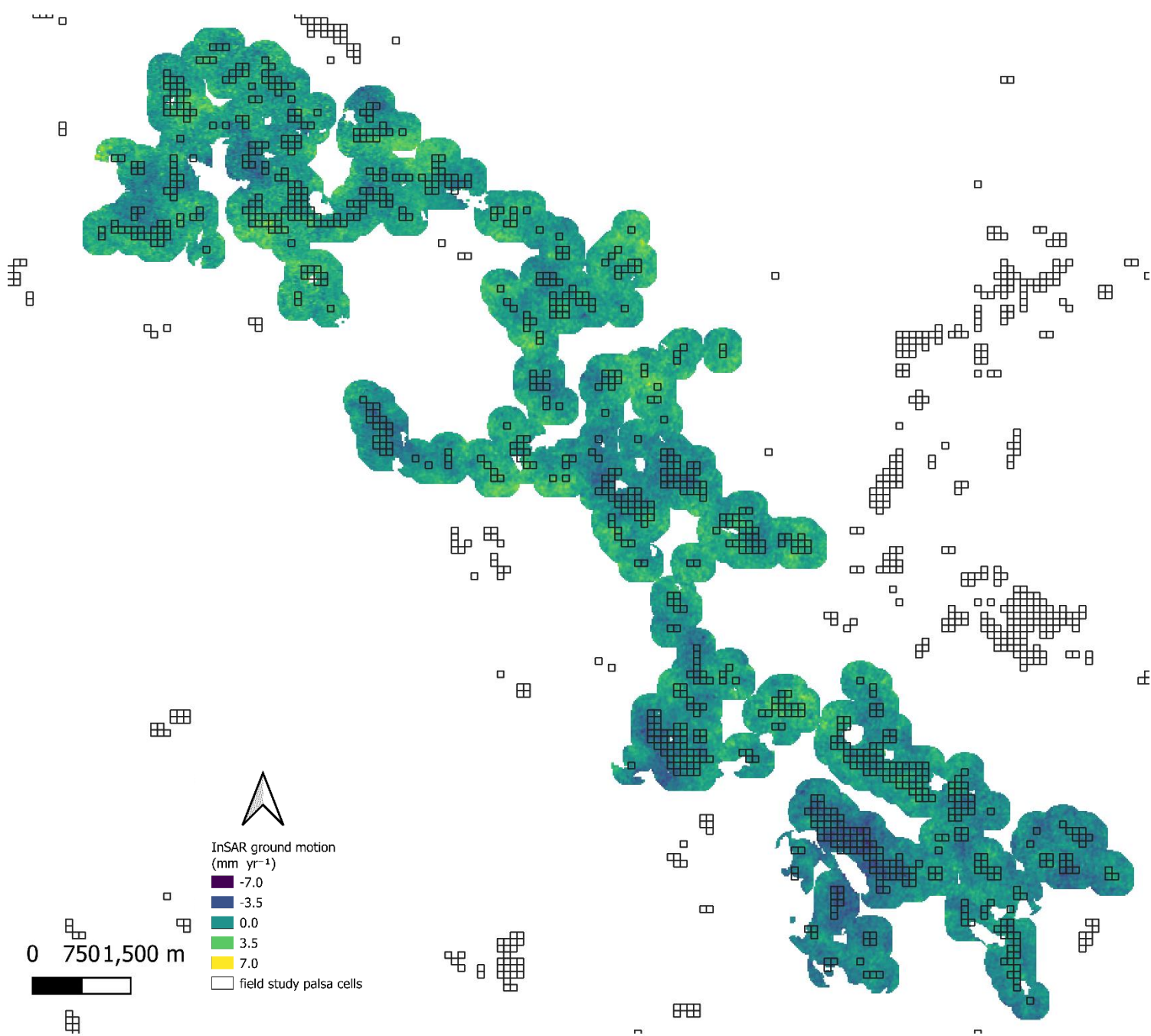


Figure. S6: InSAR derived surface motion in Ragesvuomus-Pirttimysvuoma complex. Palsa 100*100m cells overlaid on buffered area from Backe, 2014.

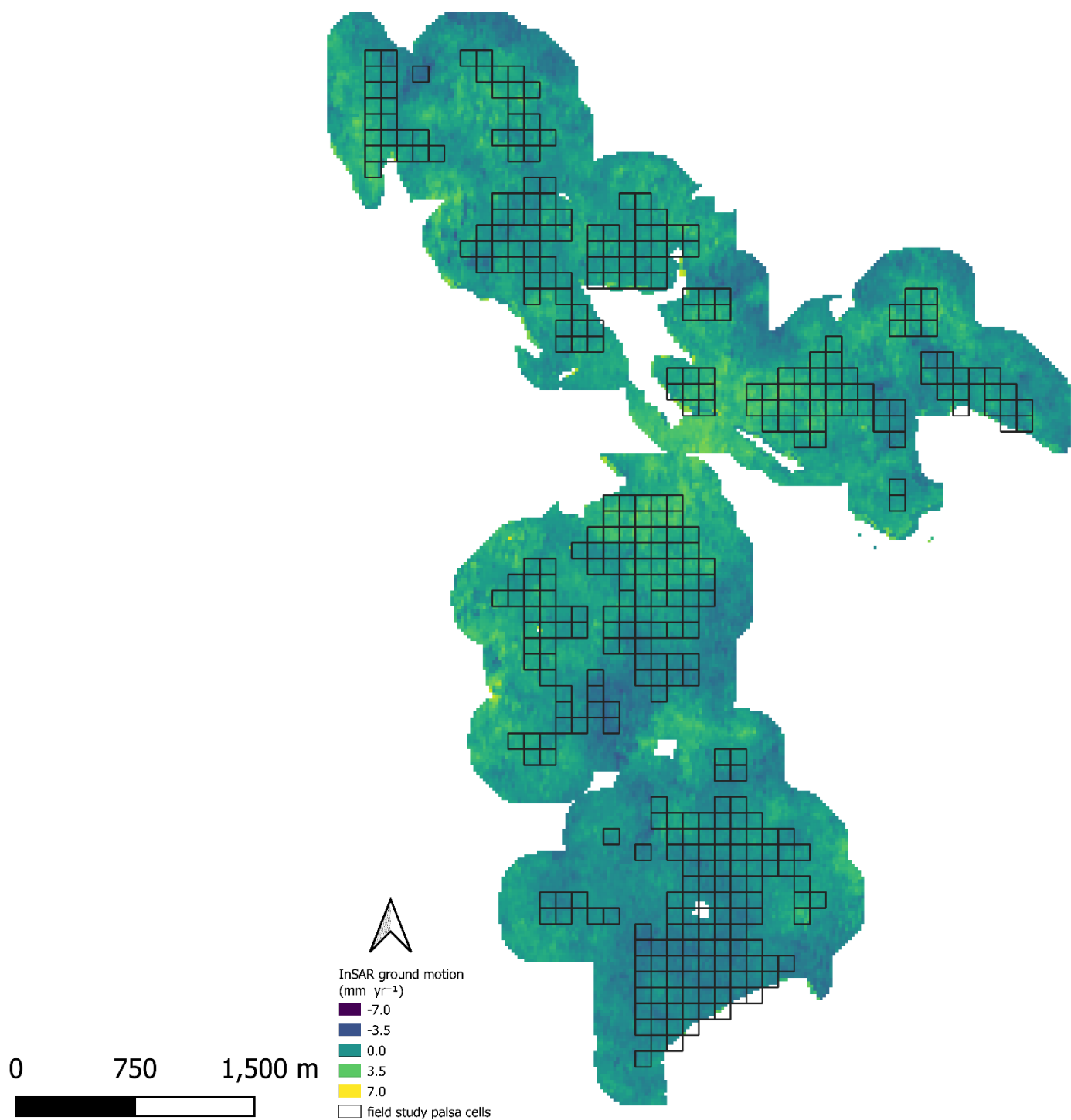


Figure. S7: InSAR derived surface motion in Sirccam complex. Palsa 100*100m cells overlaid on buffered area from Backe, 2014.

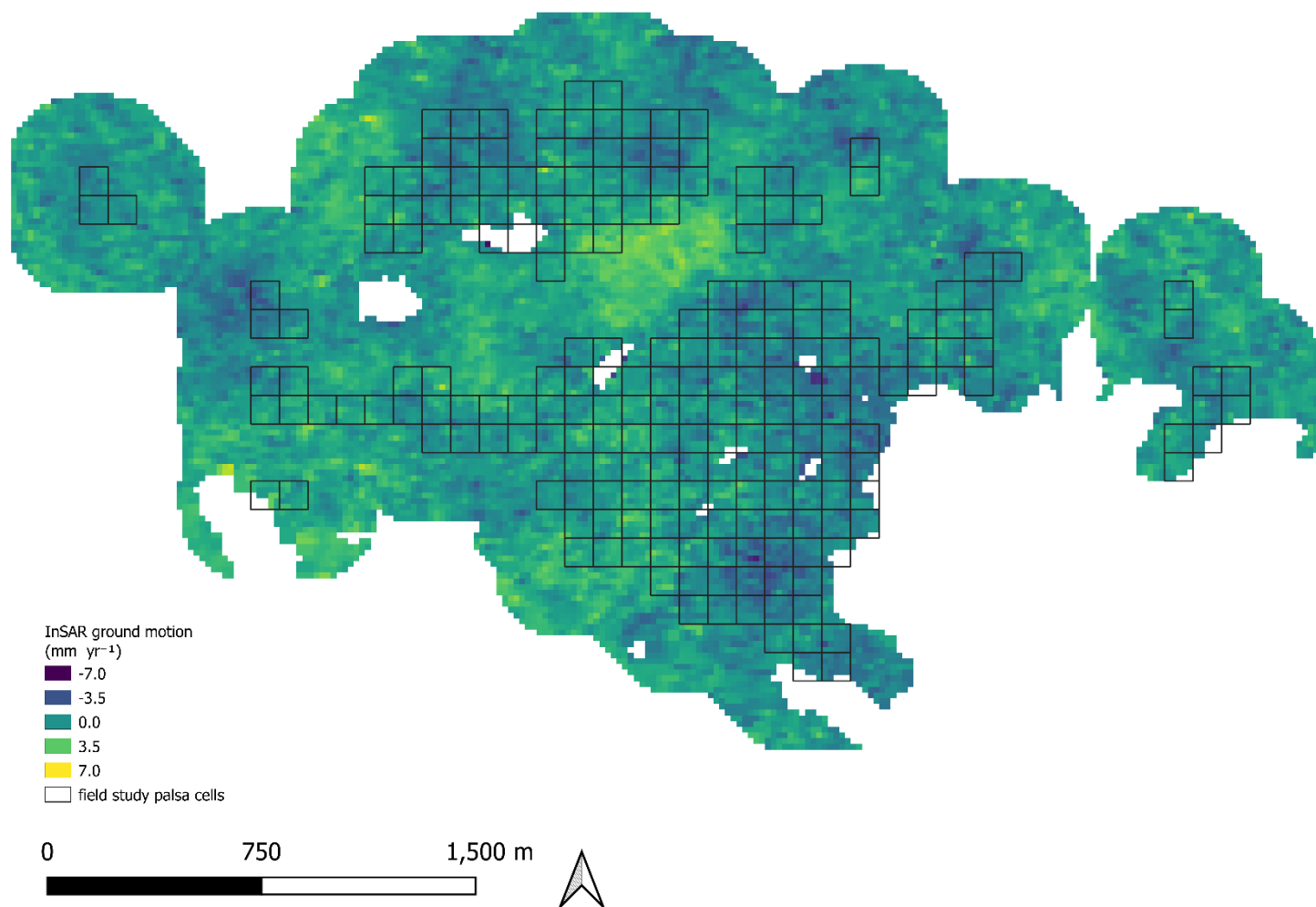


Figure. S8: InSAR derived surface motion in Ribasvuomus complex. Palsa 100*100m cells overlaid on buffered area from Backe, 2014.

S2. Orthophotos InSAR ground motion examples

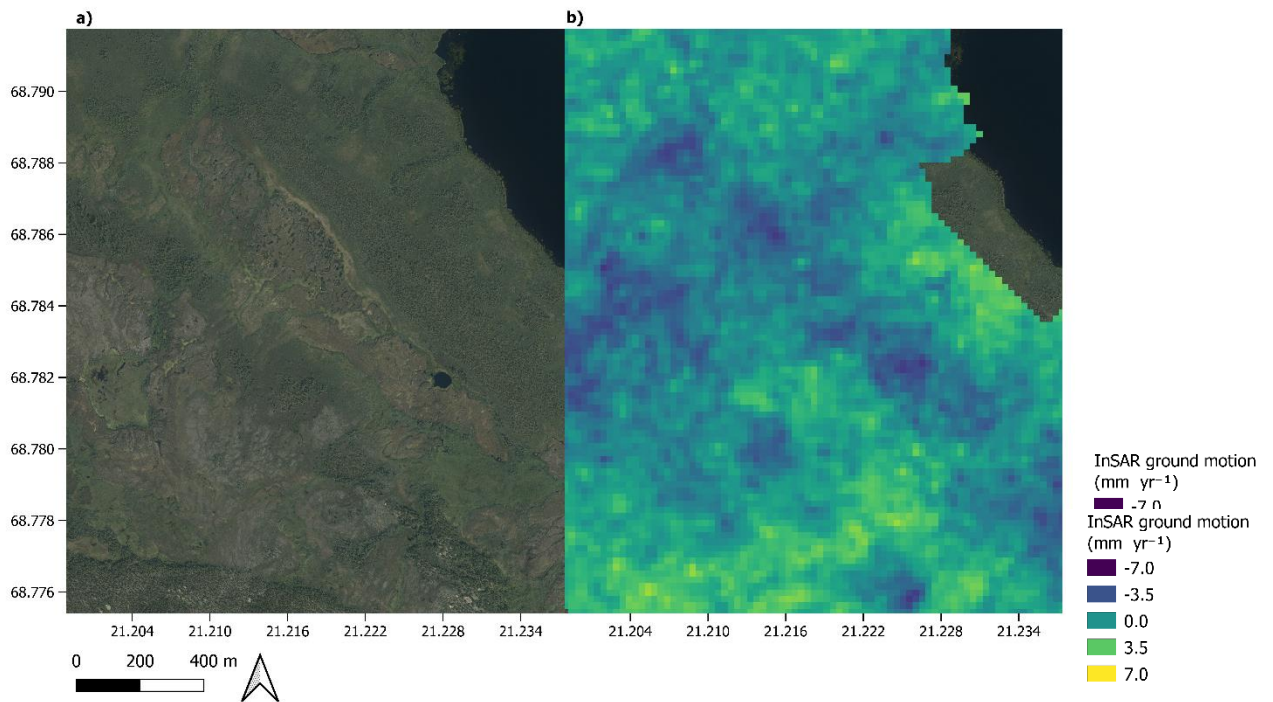


Figure. S9: Aerial (a) and InSAR derived ground motion (b) imagery of palsa at Vissátvuopmi. Airborne imagery surveys commissioned by the 194 Swedish Mapping, Cadastral and Land Registration Authority (www.lantmateriet.se; © Lantmäteriet).

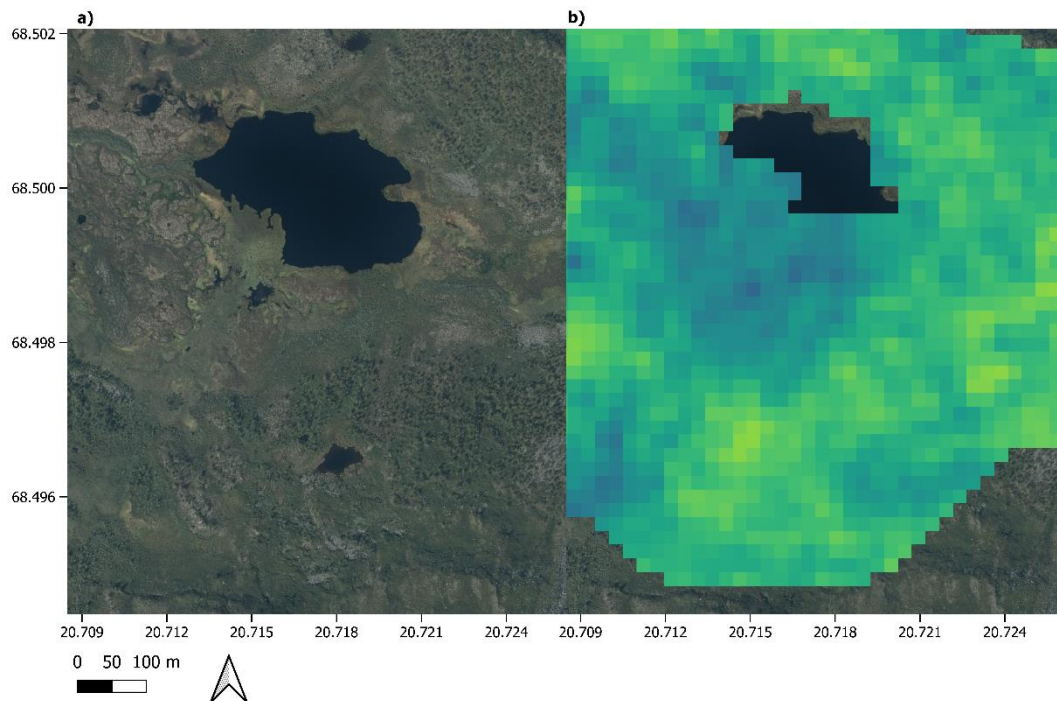


Figure. S10: Aerial (a) and InSAR derived ground motion (b) imagery of palsa at Tavvavuoma. Airborne imagery surveys commissioned by the 194 Swedish Mapping, Cadastral and Land Registration Authority (www.lantmateriet.se; © Lantmäteriet).

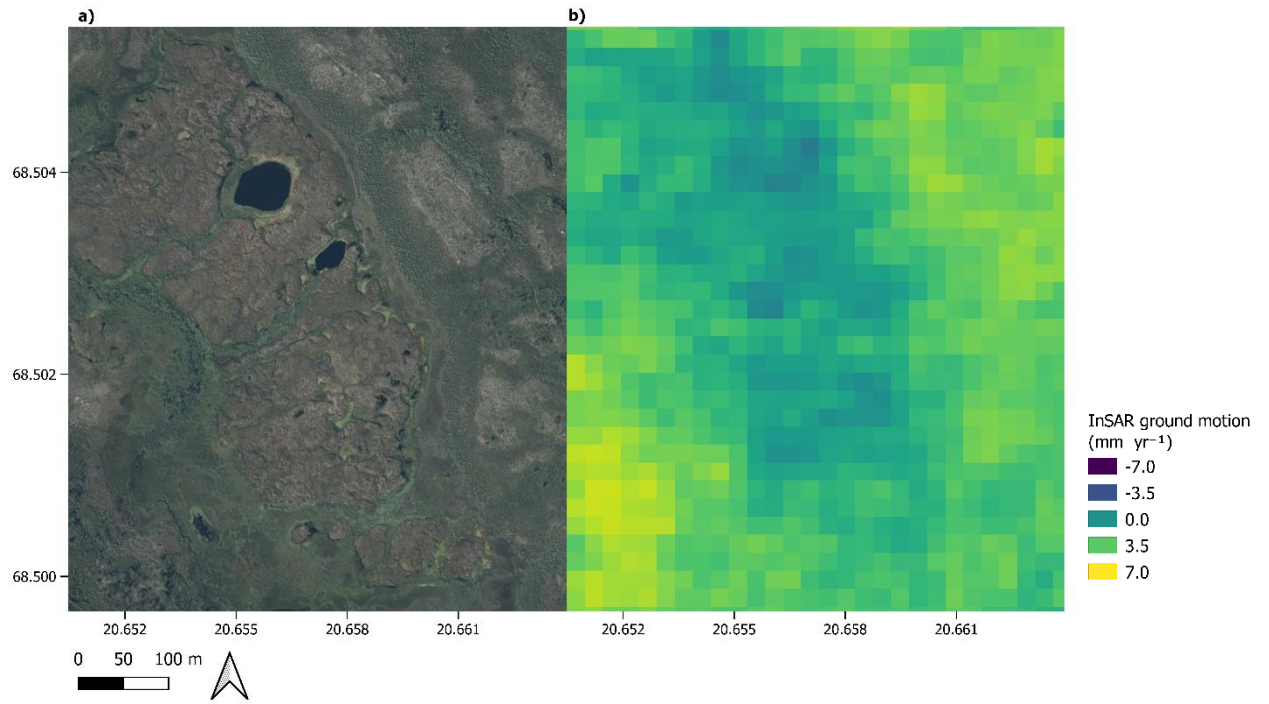


Figure. S11: Aerial (a) and InSAR derived ground motion (b) imagery of palsa at Western Tavvavuoma. Airborne imagery surveys commissioned by the 194 Swedish Mapping, Cadastral and Land Registration Authority (www.lantmateriet.se; © Lantmateriet).

S3. Climatic variables

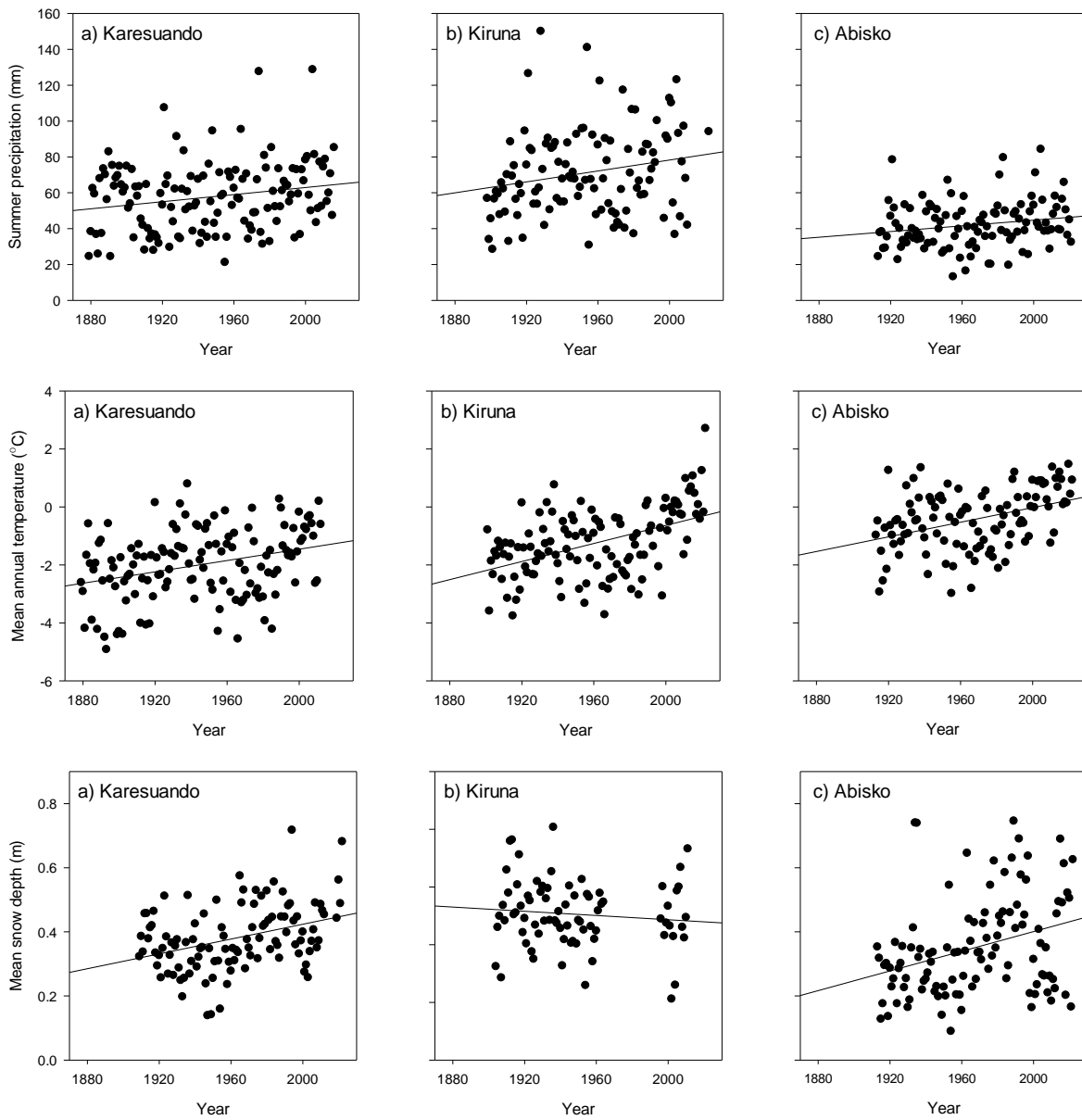


Figure. S12: Long term climatic variables that were not found to have clear temporal relationships at any of the three weather stations.

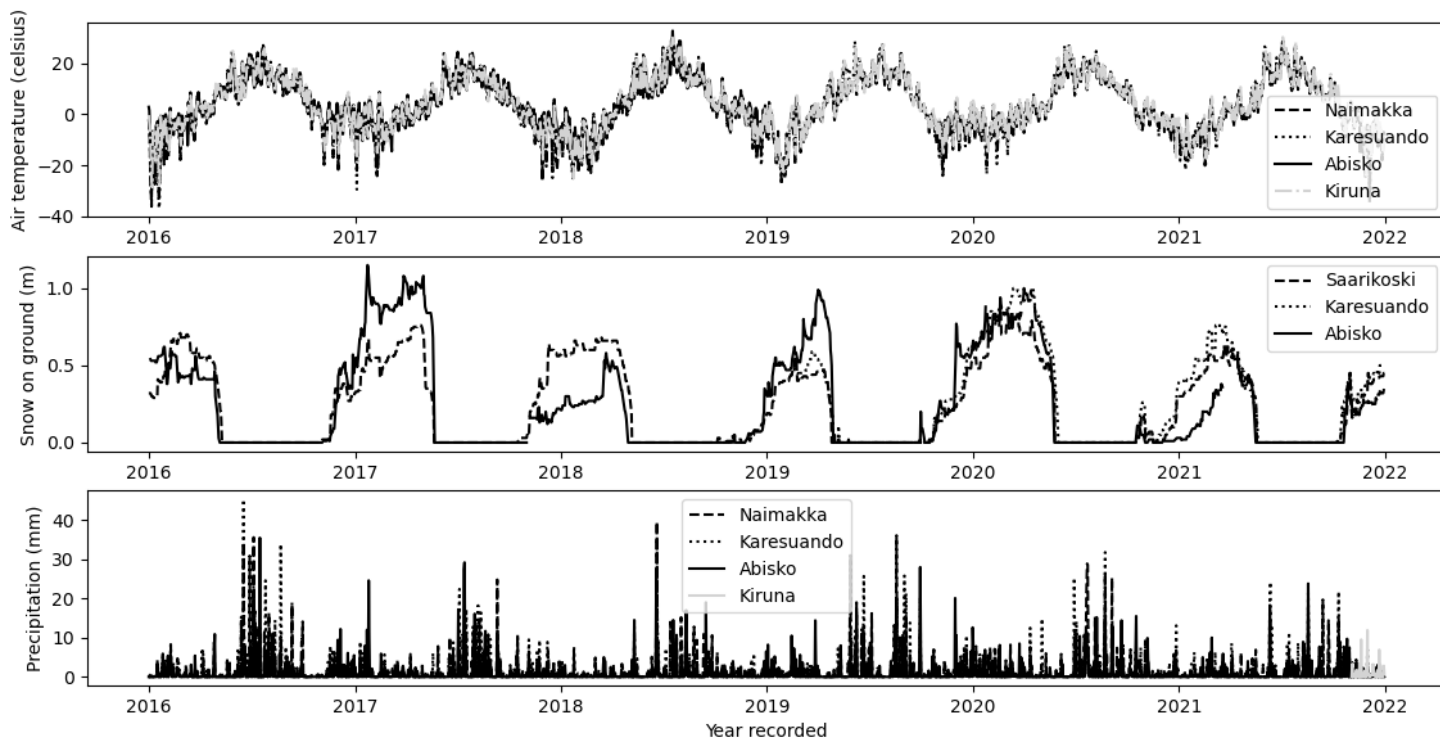


Figure. S13: Daily air temperature, rainfall, and precipitation for the period that InSAR data was captured over.

S4. Field Photographs



Figure. S14: Degrading palsja edge at Vissátvuopmi provided by Matthias Stiewert