

Electronic Appendix E for the article: "High-resolution LiDAR mapping of glacial landforms and ice stream lobes in Finland" by Putkinen et al. (2017), Bulletin of the Geological Society of Finland, vol. 89, issue 2.

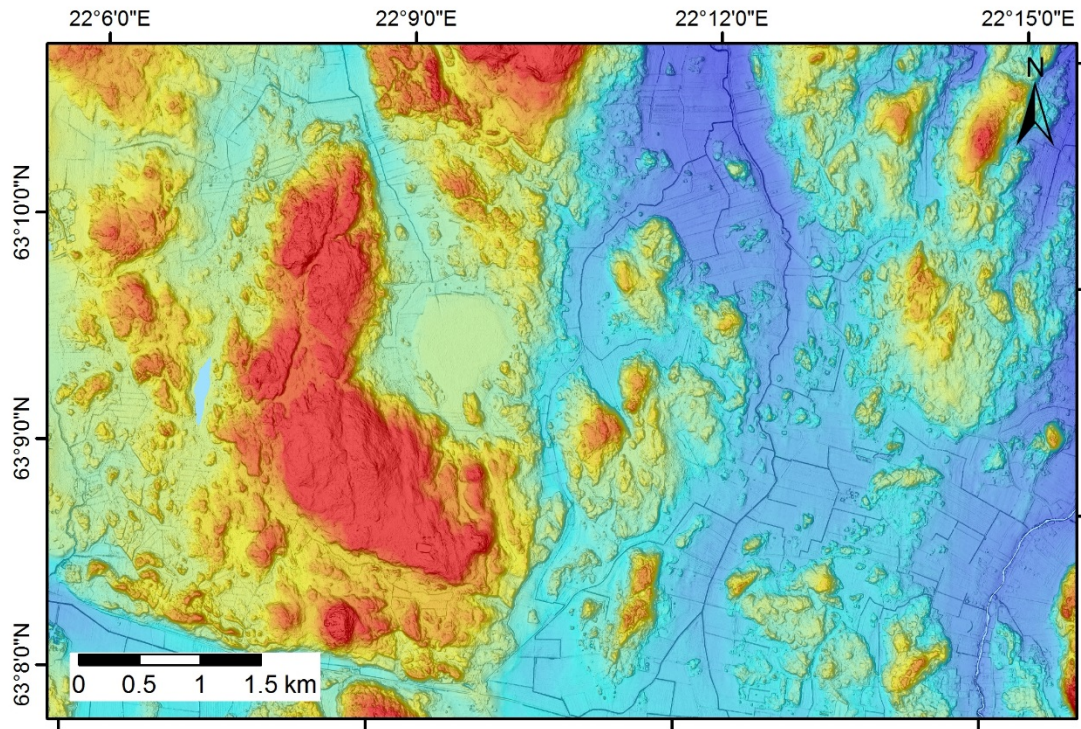


Figure 30. A possible meteorite impact crater at Kärkinemossen, Mustasaari surrounded by ribbed and hummocky moraine terrain. The site was found during the mapping process. See:

<http://www.somerikko.net/impacts/database.php?id=405>

CLASSES IN THE DATABASE: 4.3, 4.4

COORDINATES (EUREF-FIN): 257201 / 7012382

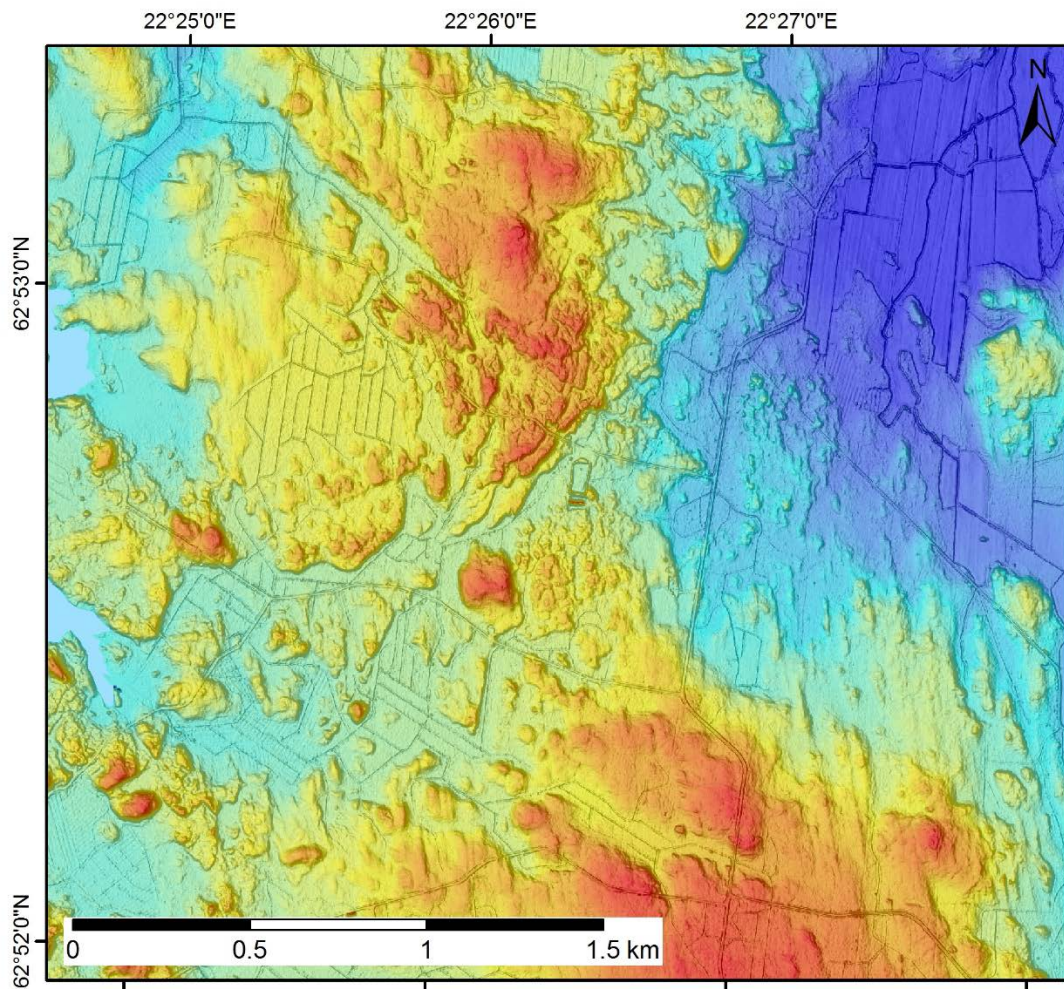


Figure 31. Poorly-defined SW-NE oriented subaquatic late deglacial deposits superposed on drumlins and megaflutings at Öberget, Seinäjoki recording north to south ice flow.

CLASSES IN THE DATABASE: Groups 3, 4, 4.1.3

COORDINATES (EUREF-FIN): 268142 / 6980319

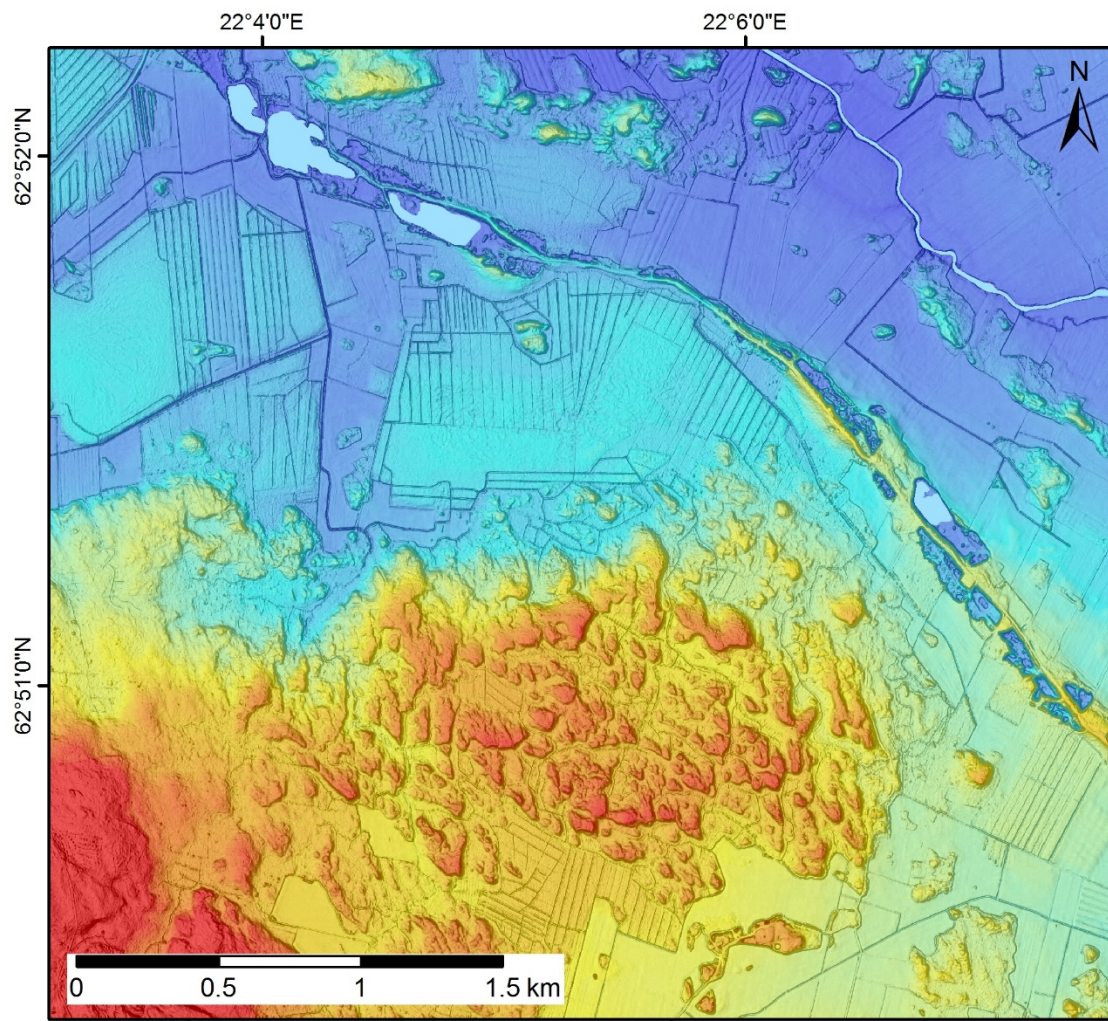


Figure 32. Unusual arcuate-shaped forms composed of diamicton at Jokisalo, Laihia.

CLASSES IN THE DATABASE: 1.1, 3, 4.3

COORDINATES (EUREF-FIN): 250289.511 / 6979035.503

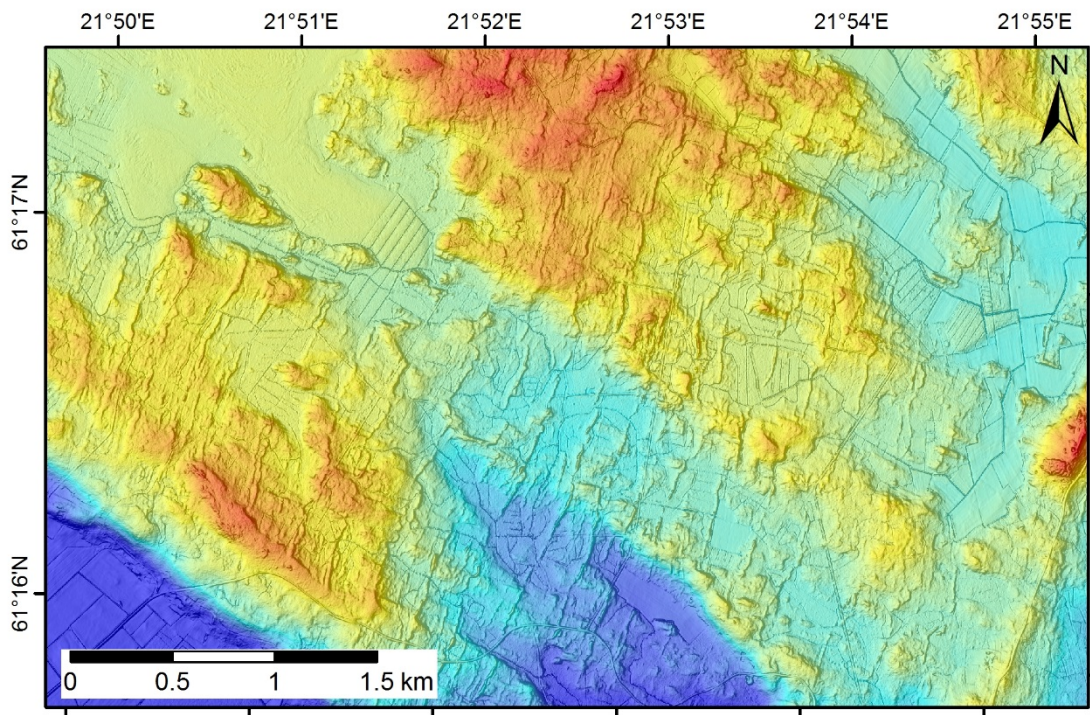


Figure 33. De Geer moraine ridges (class 1b according to Ojala 2016) from Huhdankangas in the Eura-Lavia De Geer moraine field with mean separation distances of 196 m and formed in 120–125 m water depths.

CLASS IN THE DATABASE: 4.1.2

COORDINATES (EUREF-FIN): 225430 / 6804050

References:

Ojala, A. E. K., 2016. Appearance of De Geer moraines in southern and western Finland – Implications for reconstructing glacier retreat dynamics. *Geomorphology* 255, 16-25.

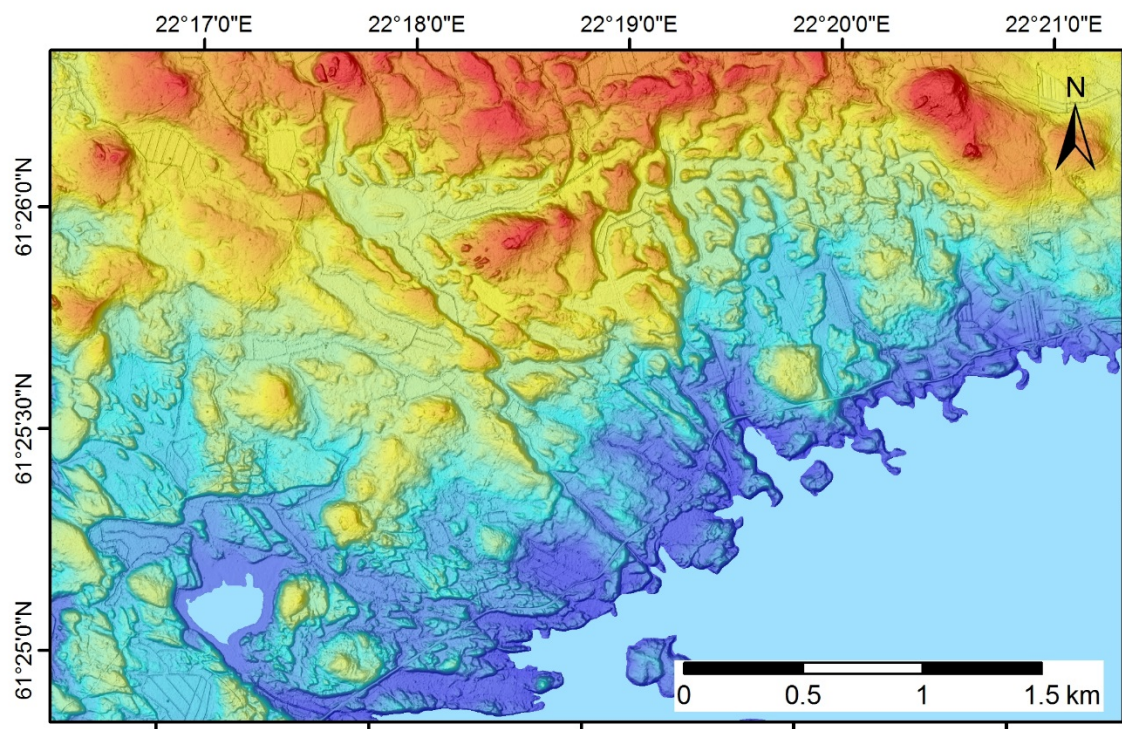


Figure 34. Poorly-understood arcuate-shaped landscape of subglacially deposited hummocky moraine in Satakunta left by the Baltic Sea ice stream in southwestern Finland (see Mäkinen et al., 2017).

CLASS IN THE DATABASE: 4.3

COORDINATES (EUREF-FIN): 250198 / 6819648

References:

Mäkinen, J., Kajuutti, K., Palmu, J.-P., Ojala, A. & Ahokangas, E., Triangular-shaped landforms reveal subglacial drainage routes in SW Finland. *Quaternary Science Reviews*, Vol. 164, pp. 37-53.

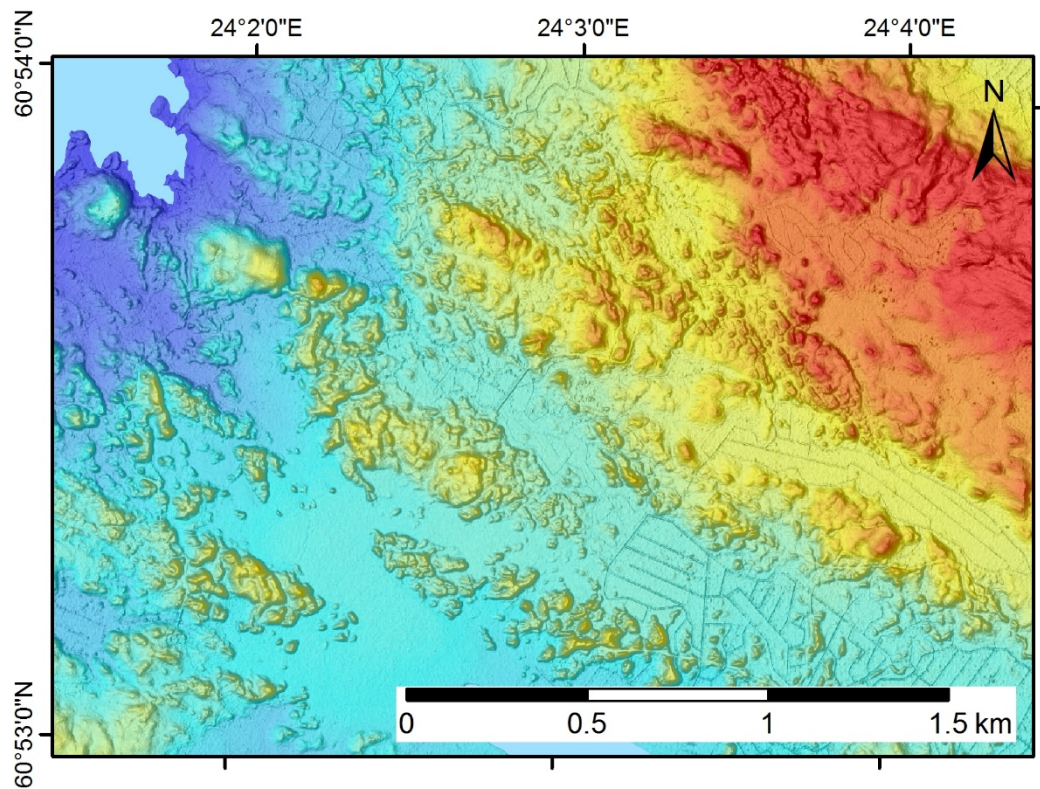


Figure 35. Hummocky moraine of the Häme Lake Upland near the village of Teuro, Hattula and Hämeenlinna, in southwestern Finland likely deposited under stagnant ice.

CLASSES IN THE DATABASE: 1.1, 4.3.2

COORDINATES (EUREF-FIN): 340255 / 6754312

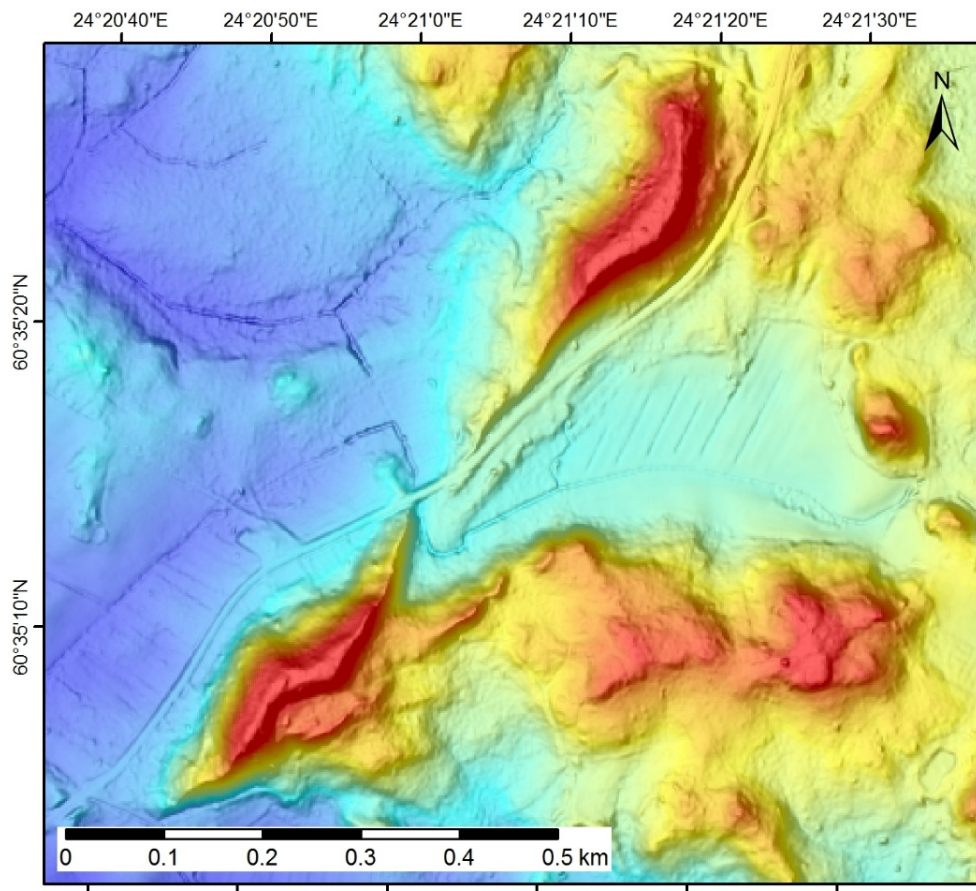


Figure 36. Two large end moraine ridges composed of till of the II Salpausselkä end moraine zone in Karkkila, near Lake Vaskijärvi, in southern Finland.

CLASSES IN THE DATABASE: 4.2, 4.2.1

COORDINATES (EUREF-FIN): 354952 / 6719814

References:

Palmu, J. P. 1999. Sedimentary environment of the second Salpausselkä ice marginal deposits in the Karkkila-Loppi area in southwestern Finland (Vol. 148). Geologian tutkimuskeskus.

Virkkala, K. 1963. On ice-marginal features in southwestern Finland. Bulletin de la Commission géologique de Finlande 210, 1–76.

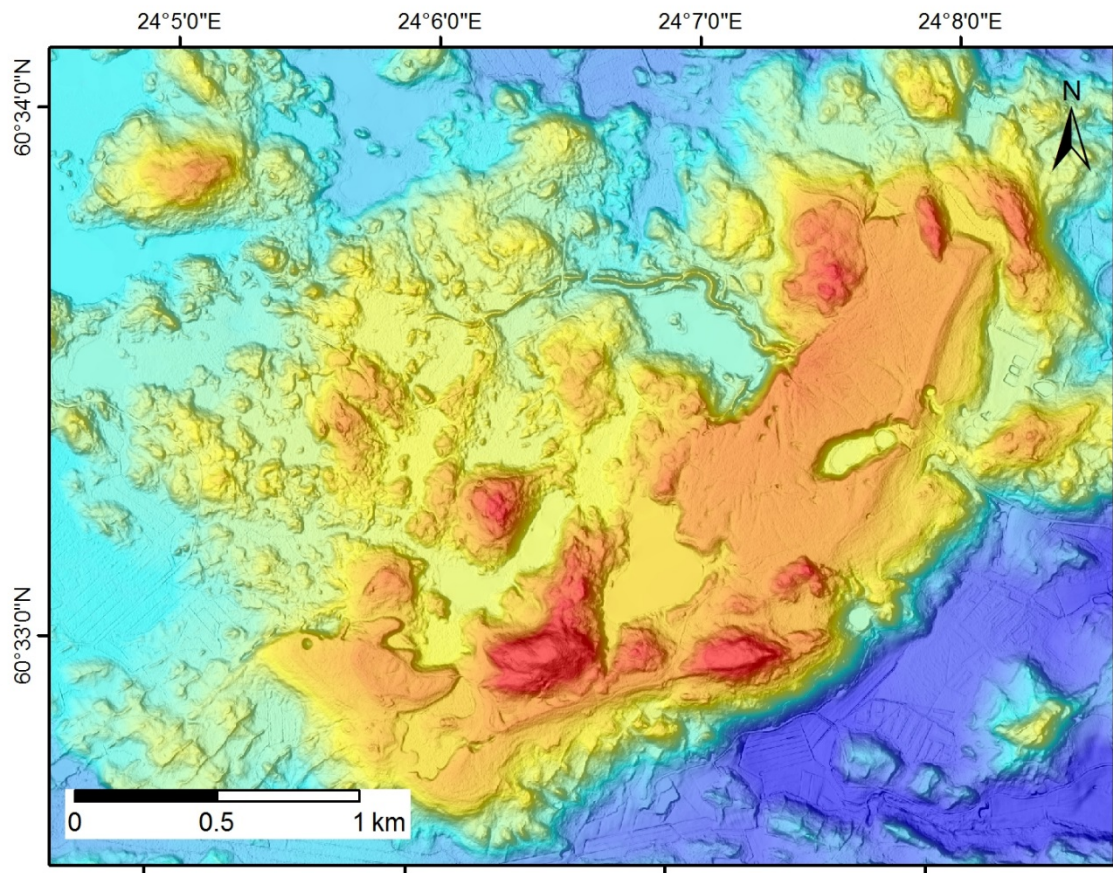


Figure 37. Hauklammennummi sandur-delta inside the II Salpausselkä in Karkkila, Southwestern Finland. The ice marginal deposit has been deposited to and slightly above the level of the Baltic Ice Lake, just before the water level 25 meter drop to the Yoldia Sea stage level. Notice the feeding esker towards northwest and the De Geer ridges at SW part of the map.

CLASSES IN THE DATABASE: 1.1, 1.3.2

COORDINATES (EUREF-FIN): 341538 / 6716886

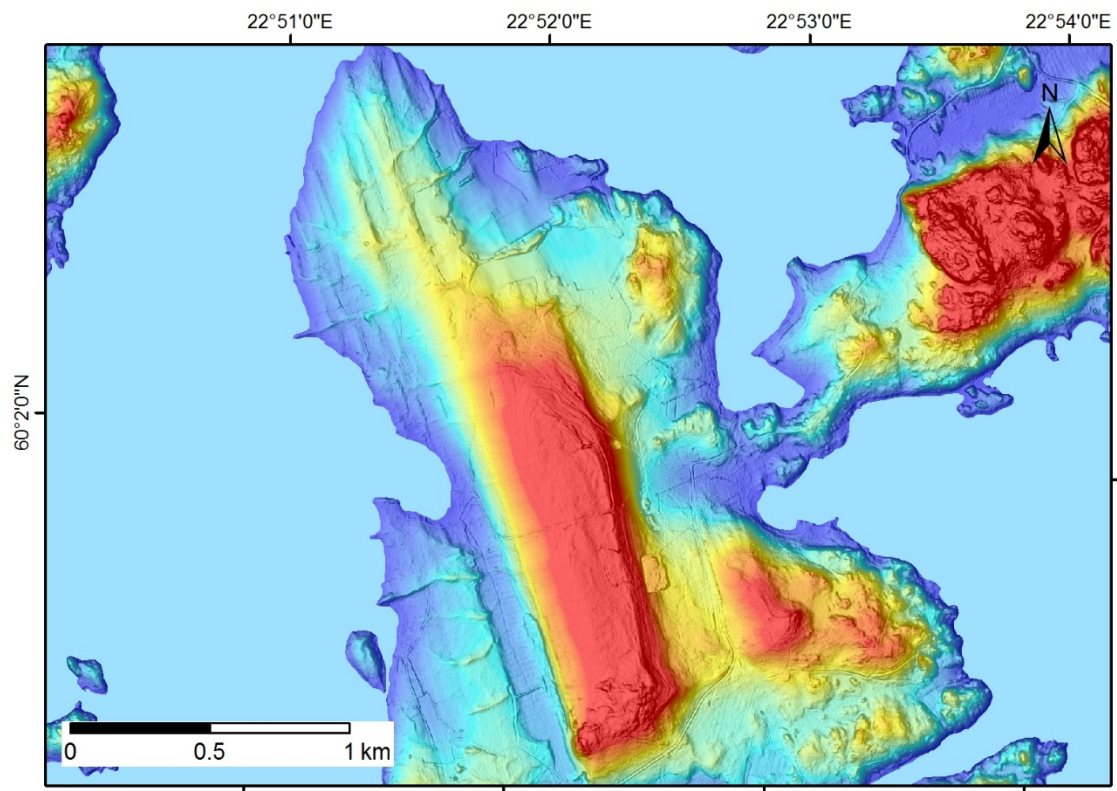


Figure 38. 'Pre-crag' at Utö, Bromarv composed of older relict sediment preserved on upstream (stoss) side of bedrock high. Note development of megaflutings with superposed De Geer moraines.

CLASSES IN THE DATABASE: 3.4, 3.6, 4.1.2

COORDINATES (EUREF-FIN): 269931 / 6662403

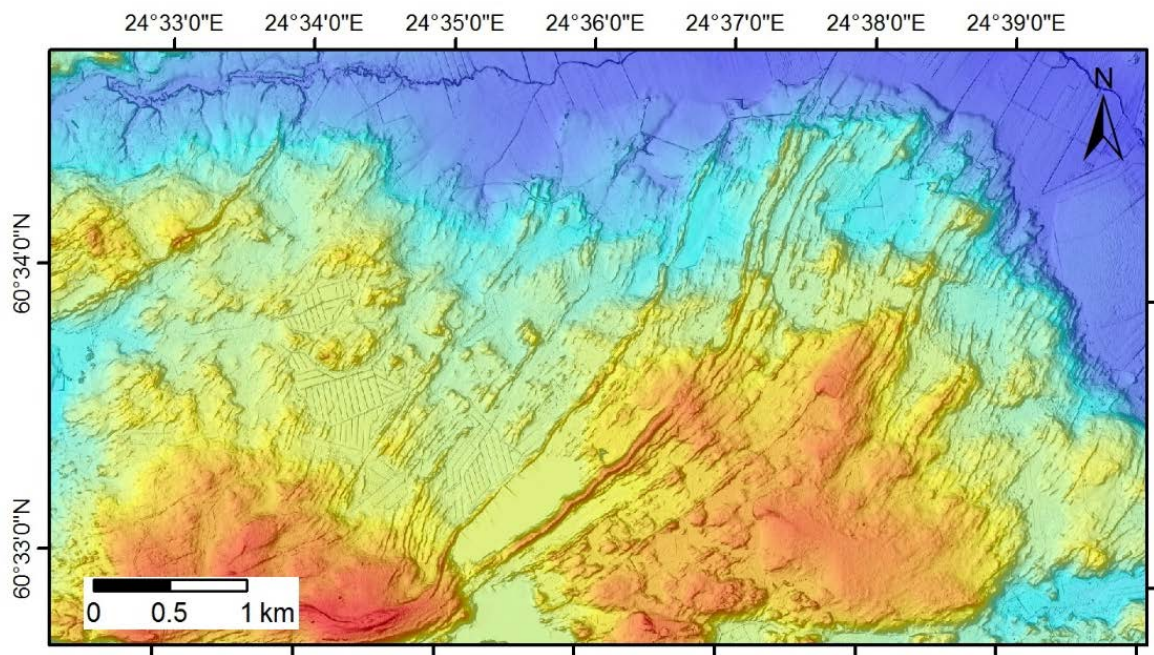


Figure 39. Portion of the Mustalammi-Valkealammi ridge field at Hyvinkää-Nurmijärvi, Uusimaa in Southern Finland composed of numerous diamicton-dominated ice marginal ridges deposited just north of the I Salpausselkä ice marginal complex.

CLASSES IN THE DATABASE: 4.1, 4.1.1

COORDINATES (EUREF-FIN): 368591 / 6716581