



Fan type end moraine related glaciofluvial deposits of Last Glaciation from Lithuania

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Several alluvial-fan type end moraine related sites were chosen for detailed sedimentological analyses in ice marginal zone of the last glaciation in Lithuania. Such glaciofluvial ice-marginal fans are formed close to linear ice-sheet front and have semi-conical form or represent simple asymmetric hill forms or more complex ridges with steep proximal and gentler distal slopes. Sedimentary sequences of ice-marginal fans studied consist mainly of waterlain sandy and gravelly deposits with pebbles and boulders. In some sequences a debris-flow deposits are observed as well as beds of sorted material interbedded with dominating high energy sheetflow deposits. Sediment grain size, sorting, structure and bedding characteristics dependent on ice proximity and hydrodynamic conditions were analysed. Highly pulsatory water discharge can be interpreted from depositional architecture of the end moraine related fans. The inferred character of sedimentation suggests that landforms consisting of deposits studied are genetically similar to the alluvial fans. According to the sedimentation features the investigated landforms are an intermediate between the marginal glaciofluvial ridges and sandur fans. Are they a transition zone of sedimentation between the end moraines and proximal outwash plains, or can be the end moraine related fans distinguished as a separate type of glaciofluvial deposits? This question is still open.