



Palaeoglaciology of the Central European Uplands – a link between the former ice masses over the Alps and Scandinavia

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The Central European Uplands are located northeast of the Alps along the western edge of the Czech border. A horseshoe shaped range of low mountains contains the Bavarian Forest Mountains, the Fichtel Mountains, the Erz Mountains and the Giant Mountains, with highest summit altitudes ranging from 1051 m a.s.l. (Fichtel Mountains) to 1603 m a.s.l. (Giant Mountains). The location north of the Alps makes these mountains highly interesting as a possible link between the Scandinavian ice sheet and the Alps. Although the glacial traces of the Central European Uplands have been investigated for more than 100 years, the glacial history is still elusive. While the highest mountains (the Bavarian Forest and the Giant Mountains) hold evidence of valley glaciers, the lower mountains (the Fichtel and the Erz Mountains) lack unambiguous glacial traces.

As a first step towards a palaeoglaciological reconstruction for the Central European Uplands, we present a digital map of glacier termini with elevation data from the SRTM elevation model, compiled from previous investigations of the area. The glacial map of the Central European Uplands presents the pattern of glacial traces over an extensive area in central Europe and forms the basis for reconstructing the extent of former glaciers. We compare the glacial evidence with modern day climate data (from the high resolution WorldClim database), from which we can estimate the climate change needed to produce Central European Upland glaciers. The glacial traces of the Central European Uplands hold information on past climate of the region and this may be a key to link the glacial record of the Alps with the Scandinavian ice sheet.