

## Landscape Evolution in the light of young tectonic uplift at the eastern margin of the Alps: A geomorphological map of the Fischbach Alps

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Recent studies suggest that the eastern end of the Alps may have experienced almost one kilometer of surface uplift at post-Miocene times. In order to improve our understanding of the extent and magnitude of this not very well-constrained surface uplift event, we map planation surfaces in the Fischbach Alps of eastern Austria. In this region, elevations range from about 1800 m in the north to 350 m at the orogen-basin transition zone in the south. The Fischbach Alps remained ice-free during the glacial periods and thus offer the opportunity to interpret mapped planation surfaces in terms of pre-Pleistocene relict landscapes.

Combining geomorphic mapping in the field and morphometric analysis, we identify several planation surfaces, which we correlate to established reference-surfaces in other parts of the Styrian block. In particular, we recognize planation surfaces at about 150 - 200 m (correlating with the Stadelberg/Zahrerberg-Level) and 25 -80 m (correlating with the Niedere- and Mittlere Terassengruppe) above the current base-level of the Feistritz river. At higher elevations, we recognize relict landscapes that correlate with the Teichalm (Hubenhalt-Level). The results of our mapping extend our knowledge about surface uplift in the Plio-Pleistocene period further to the east and suggest that the Fischbach Alps experienced a southward tilting of the Styrian block during this time. Some peculiar changes in the drainage direction of the Feistritz along the (Anger-Piregg)-fault point towards tectonic unrest in the area during the Pliocene.