



Different approaches in mapping geomorphological features – A case study in the Niedere Tauern Range (Austria)

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The alpine land-cover has already been mapped exhaustively regarding topographic and geological information but there is still a remarkable lack of geomorphological cartographic material. In our poster we present a comprehensive analysis of geomorphological features in one of the eastern-most glacial formed landscapes of the Alps, the Niedere Tauern Range (Austria), comprising an area of about 850km² up to 2862m asl. (Hochgolling). The results are to be used as a basis for the management plans of the EU's environmental programme "Natura 2000".

Different methods can be used to collect the information needed. The traditional way is to actually examine the area in a field study, comparing it with topographic and geological maps and aerial photographs and integrating all elements. This method provides very accurate results, because the examiner judges the formations with their own eyes and thus they are not dependent on any possibly falsifying media. The main disadvantage of this procedure is its high labour- and resource-intensity.

The second approach takes advantage of the fact that geomorphological information can also be extracted directly from existing maps and photographs. Afterwards, the generated map needs to be verified doing spot checks in the terrain. The result of this process contains a set of specific patterns of common geomorphological elements which can then be applied to other areas as well. However, the accuracy of the latter method is limited by the scales and the accuracy of the utilised maps.

Regardless of the method, the most difficult challenge in creating these maps is the integration and compaction of a huge amount of data in order to achieve a well readable

result. Thus, the variety of features of specific areas needs to be generalised without losing important information. The mapped formations have been classified with a special view on the fact, that landscape evolution is a continuous process. Additionally, a finished map must include exact and complete explanatory annotations.