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Influence of fault-morphology and -rock on karstification

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Besides bedding plains faults form the major initial fissures that initiate subsurface karstification. Data from the eastern part of the Northern Calcareous Alps and some weakly metamorphic limestone of the Semmering Mesizoikum include a digital tectonic map with faults classified according to lithology, their deformation history, fault rock and hydrologic behaviour. These different fault properties are analysed and compared with the surface and subsurface karst features. The analyses show that for many cases faults are major attractors for karstification and cave genesis. But there are also cases where fault rocks prohibit karstification and only form surface brooks (sealing fault). The formation of high alpine dry valleys can be correlated with massive cataclastic zones.