



Human impact on karst environments: A case study from central Styria, Austria

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This contribution focusses on different types of human impacts in a karst environment in central Styria, Austria, regionally referred to as “Mittelsteirischer Karst”. This karst environment is predominantly of the covered karst type (i.e. vegetation covers the limestone), occurs in an area of about 975 km², is formed predominantly in limestone rocks of palaeozoic age (to a lesser extent in dolomite and calcareous sandstone), houses over 900 known caves (a significant accumulation can be found in the surrounding area of Peggau (over 300 caves) and Weiz (over 250 caves)) and reaches a maximum elevation of 1720 m a.s.l. Some parts of this karst environment are rather densely populated and heavily influenced by human activities. Furthermore, some of the karst landforms within this area (in particular caves such as Repolusthöhle, Drachenhöhle and Badlhöhle) have been used already in the Palaeolithic some 300.000-10.000 years ago as temporary settlements and are now valuable historic sites. In general, a series of different types of human impacts affect (partly not anymore) this karst environment at present: (a) large-scale quarrying of limestone, (b) mining of phosphate in karst caves, (c) water management including water supply and sewage-treatment plants, (d) touristic landuse practise, (e) vandalism of landforms in karst caves and (f) usage of karst caves as waste disposal sites. Examples of each of these human-induced environmental pressure types are presented and its significance for this area as well as comparable environments are discussed in a wider context.