



Latest Pleistocene and Holocene river dynamics of the Guadalete River (SW-Andalusia)

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The river Guadalete runs through the southwestern part of Andalusia (Spain) with its river head being located in the heights of the Sierra de Grazalema. On its course into the Bahía de Cádiz, the Guadalete passes a landscape of high sensitivity. Because of steep gradients in the headwater and several constructions of water reservoirs along the upper course, only the lower reaches of the river are suitable to the reconstruction of Holocene river history. Fluvial architecture is quite complex and shows phases of river aggradation, river stability including features of soil formation inside the sediment and phases of incision as well. However, fluvial behavior and resulting sediment characteristics are likewise dependent on valley geometry, varying from narrow sections to wide valley floors. Particular landscape sensitivity is expressed by local tectonic activity primarily forced by the tilting of marly Keuper substratum, as well as by high erodibility of the surrounding marl landscape, which underlies an intense land use.

Several profile analyses of gravel pits and corings enabled us to compile a standard profile, which provides information about the Late Pleistocene and Holocene river history. In our presentation we attempt to describe causes and effects of different sedimentation patterns, meanwhile providing them with a chronological framework.