



Ephemeral stream channel reference sites in the Ebro basin: classification and morphodynamics

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Lithological and aridity conditions in the central area of the Ebro Basin favour the abundance of intermittent and ephemeral rivers. These rivers suffer important environmental problems but lack specific scientific studies, and in most cases they are not even considered water bodies in their management. A methodological proposal is launched combining photointerpretation and evolutionary cartography with different field monitoring techniques (tomography, river bed coring, granulometry, bed load transport). The recognition of aerial photographs and the verification of hydrological records have allowed the identification of existing ephemeral rivers with at least a 20 m wide alluvial channel. Geomorphological classification has been made based on planform basic characters. Subsequently, reference sites of each of the considered river types have been selected. The detailed geomorphological characterization of the selected sites/reaches includes the analysis of their evolution, highlighting among all of them, for its very active channel dynamics, the Tudela stream (Navarre), in which several meander cutoffs have been recorded in the last decades. This research constitutes a starting point of a comparison and joint work with ephemeral streams of other basins, which follows the enhancement of these rivers and the requirement of protection and restoration actions.