

## **COMPARING RUNOFF AND SEDIMENT TRANSPORT IN TWO CATCHMENTS WITH DIFFERENT PLANT COVER, CENTRAL SPANISH PYRENEES**

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Two experimental catchments have been instrumented in the flysch sector of the upper Aragon River, Central Spanish Pyrenees. Arnas catchment was completely cultivated until 50 myears ago and now abandoned, subject to a process of plant recolonization. Most of the catchment is occupied by oldfields covered by a dense shrub cover. San Salvador catchment has a dense forest cover (mainly with *Pinus sylvestris*) and for centuries has been only managed with extensive grazing. Large differences have been obtained between both catchments in runoff and sediment transport. In Arnas the intensity of floods is higher, with a quick response following almost any precipitation; the falling lim of the hydrograph is also very rapid showing the importance of immediate runoff, while in San Salvador runoff decreases slowly after the peak flow. Nevertheless, the occurrence of very low flows in San Salvador in summer suggests that evapotranspiration and interception processes play a very important role in the water balance. As for sediment transport, solutes largely dominate in the sediment balance of San Salvador, while in Arnas suspended sediment equals the solutes, and bedload can reach great volumes during high floods.