



## **Estimation of water uptake by a laurel forest in the Garajonay National Park combining monitoring and simulation techniques**

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Water uptake by the vegetation, i.e. actual transpiration, is an important issue necessary to study the ecohydrological processes that constrain the distribution of a relict mature laurel forest in the Garajonay National Park (La Gomera, Spain). Potential evapotranspiration can be computed from meteorological data. However, this variable does not fully describe the water used by this vegetation. In this work, we study the relationship between actual and potential evapotranspiration by inverse simulation using a numerical model, which describes water movement in the soil, and data collected in a small laurel forest watershed located in the Garajonay National Park. Data include annual time series from monitored daily values of meteorological variables and soil moisture at different locations within the watershed. Soil hydraulic parameters are also taken into account.