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S. Santoni, F. Huneau, E. Garel, H. Celle-Jeanton

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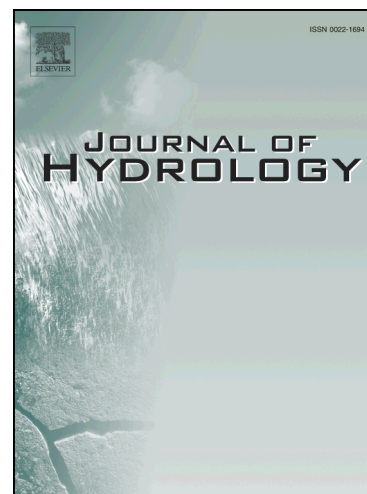
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**Multiple recharge processes to heterogeneous Mediterranean coastal aquifers  
and implications on recharge rates evolution in time**

S. Santoni<sup>1,2,\*</sup>, F. Huneau<sup>1,2</sup>, E. Garel<sup>1,2</sup>, H. Celle-Jeanton<sup>3,4</sup>

<sup>1</sup>Université de Corse Pascal Paoli, Faculté des Sciences et Techniques, Laboratoire d'Hydrogéologie, Campus Grimaldi, BP 52, F-20250 Corte, France.

<sup>2</sup>CNRS, UMR 6134 SPE, F-20250 Corte, France.

<sup>3</sup>Université de Bourgogne Franche-Comté, UFR Sciences et Techniques, 16 route de Gray, F-25 030 Besançon Cedex, France.

<sup>4</sup>CNRS, UMR 6249 Chrono-Environnement, F-25 030 Besançon Cedex, France.

(\*) Corresponding author: Sébastien Santoni, Laboratoire d'Hydrogéologie, UMR CNRS SPE 6134 Université de Corse Pasquale Paoli, Campus Grimaldi, F-20250 Corte, France. Contact: [santoni7@univ-corse.fr](mailto:santoni7@univ-corse.fr) or [santonisebastien17@gmail.com](mailto:santonisebastien17@gmail.com)

**Abstract**

Climate change is nowadays widely considered to have major effects on groundwater resources. Climatic projections suggest a global increase in evaporation and higher frequency of strong rainfall events especially in Mediterranean context. Since evaporation is synonym of low recharge conditions whereas strong rainfall events are more favourable to recharge in heterogeneous subsurface contexts, a lack of knowledge remains then on the real ongoing and future drinking groundwater supply availability at aquifers scale. Due to low recharge potential and high inter-annual climate variability, this issue is strategic for the Mediterranean hydrosystems. This is especially the case for coastal aquifers because they are exposed to seawater intrusion, sea-level rise and overpumping risks. In this context, recharge processes and rates were investigated in a Mediterranean coastal aquifer with subsurface heterogeneity located in Southern Corsica (France). Aquifer recharge rates from combining ten physical and chemical methods were computed. In addition,

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