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## Relative impacts of climate change and anthropogenic forcing on karst spring discharge forecasting of a Mediterranean catchment

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The Mediterranean region is identified as a climate change hotspot, where future scenarios indicate an increase of temperature associated with a decrease of precipitation. Providing future scenarios of water resource availability considering both climate and anthropogenic changes on karst catchments remains a major challenge for hydrological sciences. The study concerns the Oeillal spring, which is one outlet of the karst catchment associated with the Fonfroide-Monredon massif (southern France), mainly composed by Jurassic limestones. We assess the relative effects of climate changes and anthropogenic forcing on the karst spring discharge by coupling 12 climate model simulations (GCM/RCM) under two emission scenarios (RCP 4.5 and RCP 8.5) with 3 hydrological models and considering 4 scenarios of groundwater abstraction for drinking water supply (no abstraction, present-day abstraction, +50 % abstraction and +100 % abstraction at horizon 2100). We find that climate change has a major effect on the future evolution of the Oeillal spring's discharge and that groundwater abstraction constitutes a secondary but non-negligible factor, which increases the occurrence of dry up of the Oeillal spring.