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Subsurface storage drives drought propagation and recovery across climates and catchment properties

2017 drought in central Italy - imaggeo.eu

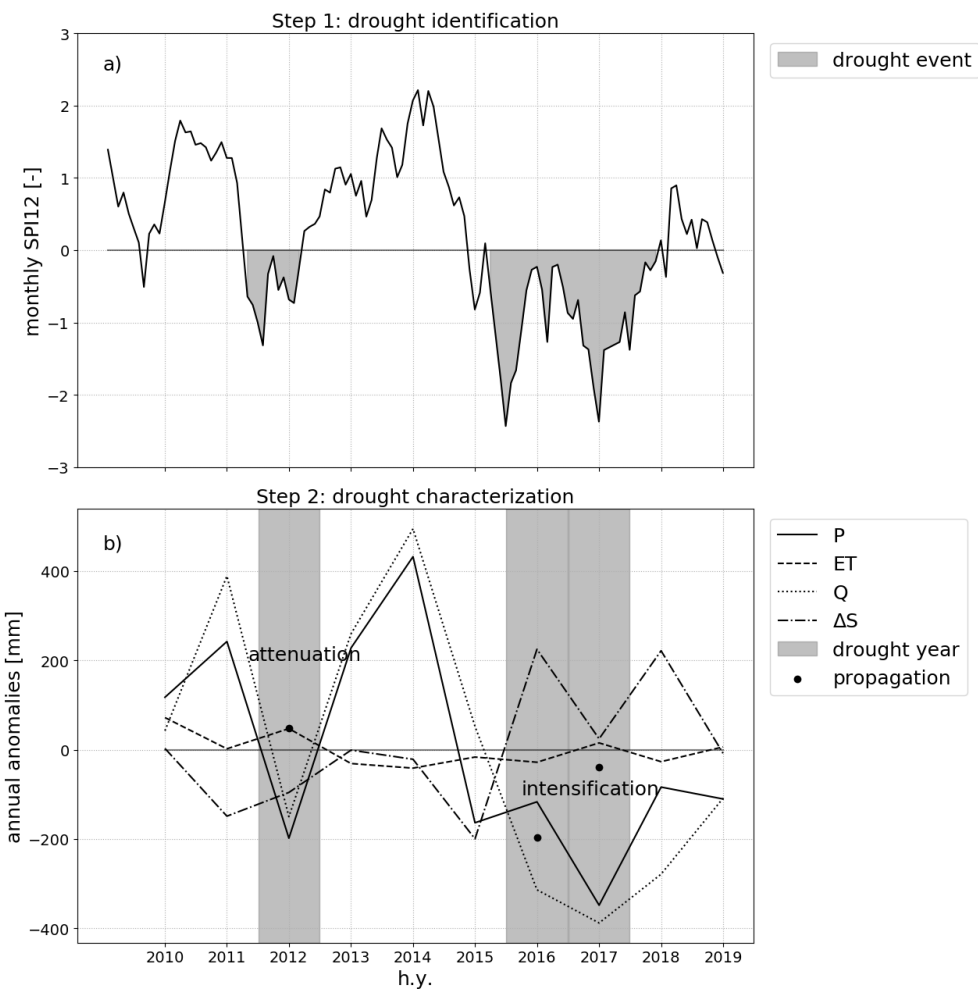
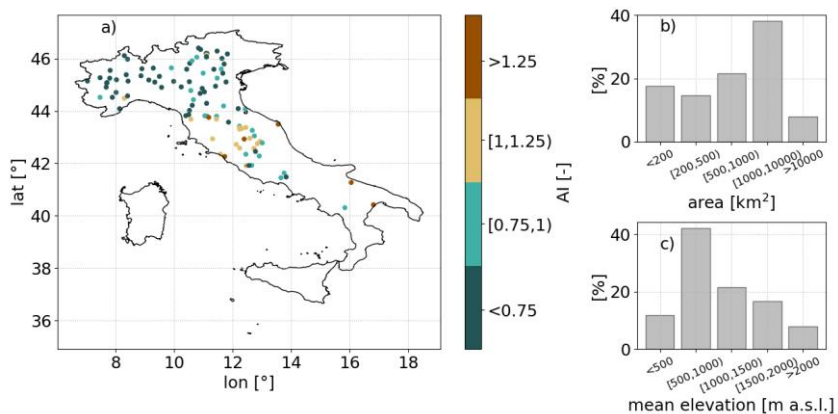
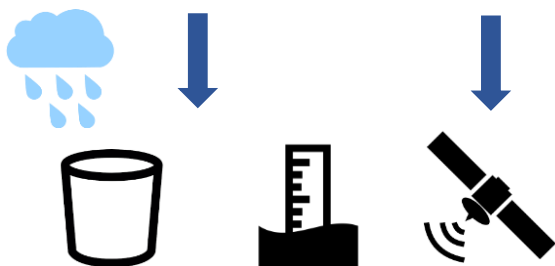


What is the role of subsurface storage in the propagation of precipitation deficits into discharge deficits?

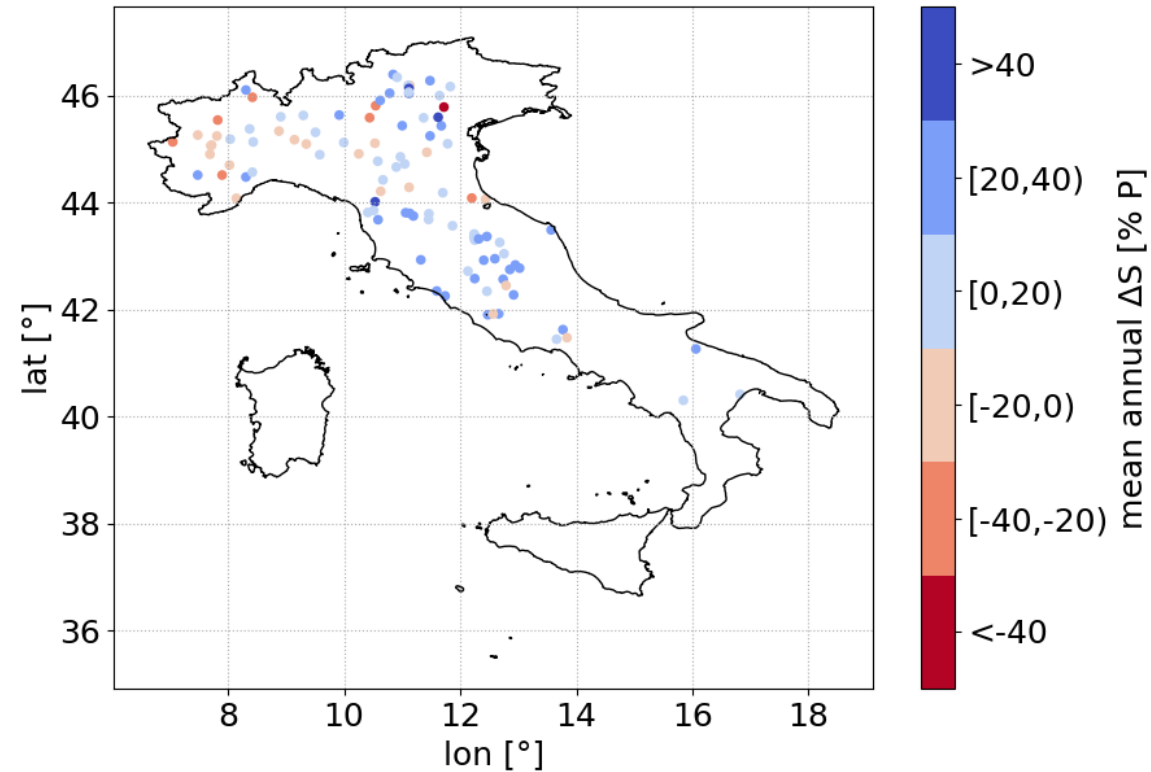


Po river at Ponte Becca in March 2022 - rainews.it

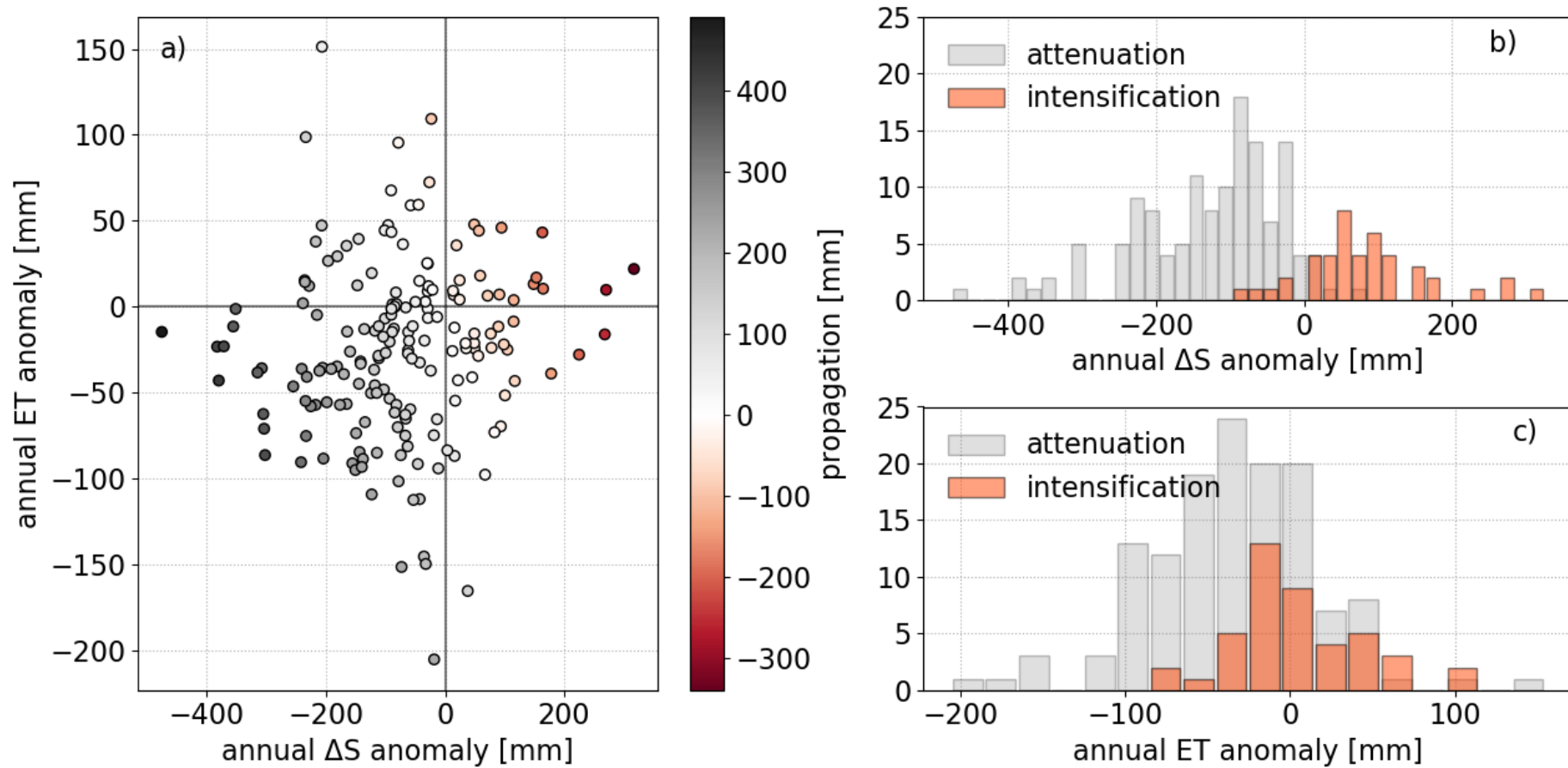
$$P = Q + ET + \Delta S$$



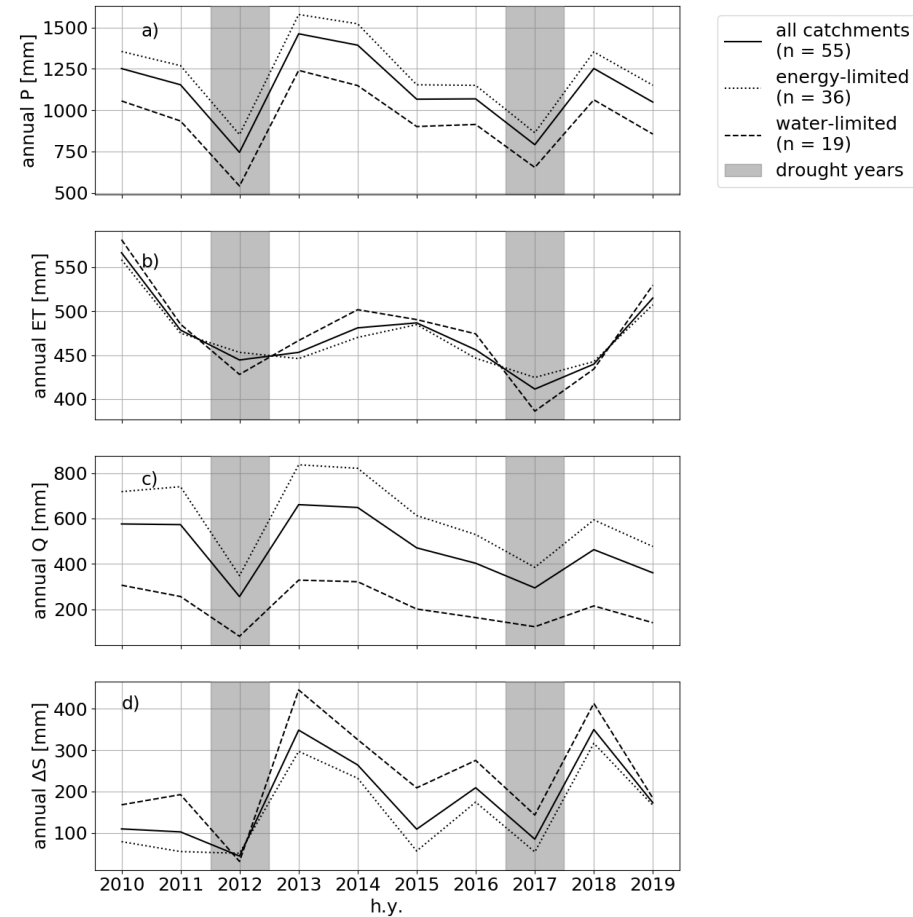
1) Mean annual ΔS is on average the 11% of P.



2) ΔS depletion sustains Q during drought across catchments and climates.



3) Q and ΔS recovery from drought is similar, while ET recovery is delayed.





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Thank you! Questions? Please get in touch!

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