



*Supplement of*

**Seasonal variation and influence factors of river water isotopes in the East Asian monsoon region: a case study in the Xiangjiang River basin spanning 13 hydrological years**

**Xiong Xiao et al.**

*Correspondence to:* Xinping Zhang ([zxp@hunnu.edu.cn](mailto:zxp@hunnu.edu.cn))

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## Supplemental Materials

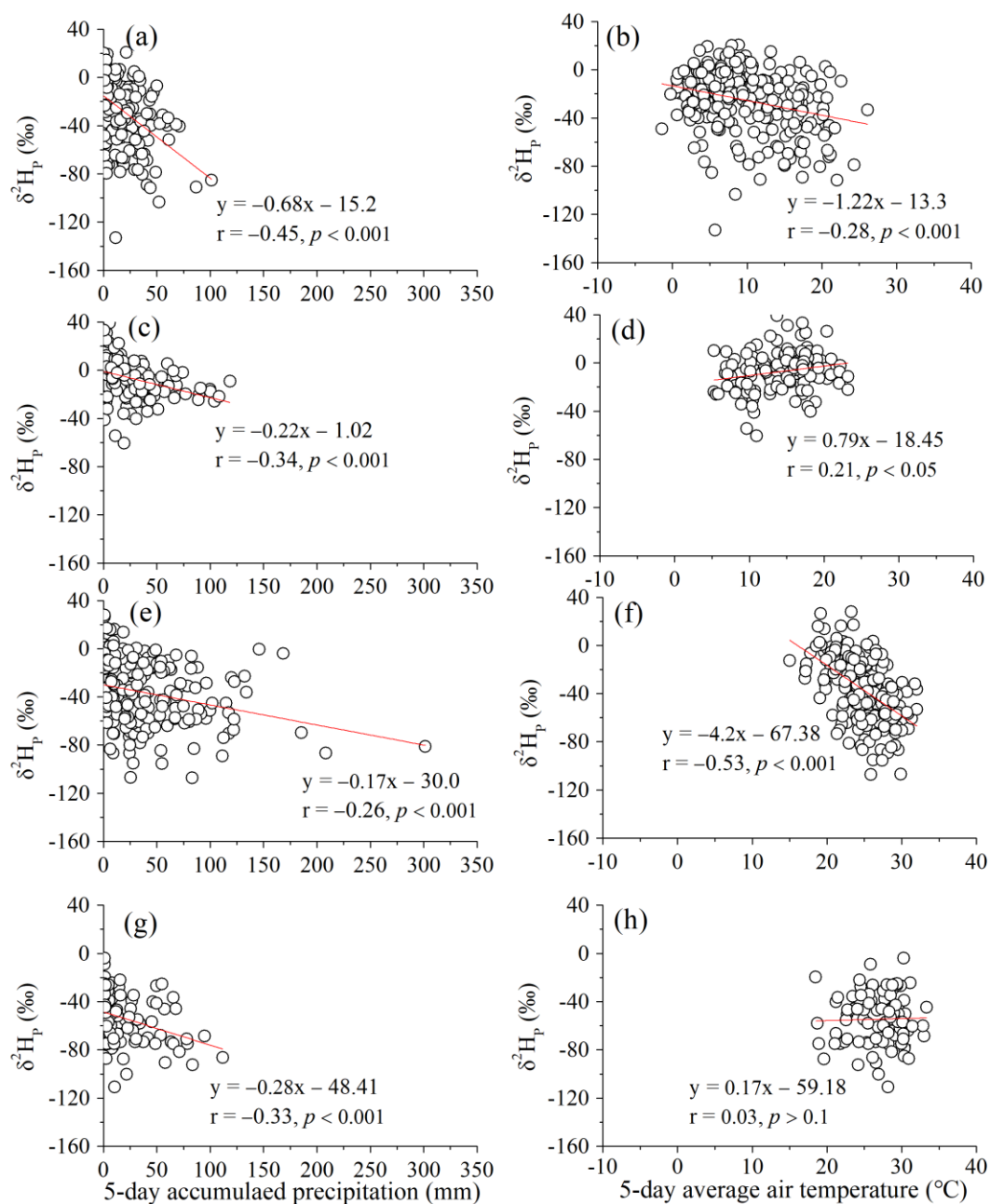


Figure S1. Relationship between the 5-day volume-weighted precipitation  $\delta^2\text{H}$  ( $\delta^2\text{H}_p$ ) and the corresponding 5-day accumulated precipitation and 5-day average air temperature in the rainless period (a and b), spring flood period (c and d), major flood period (e and f), and summer drought period (g and h), respectively.

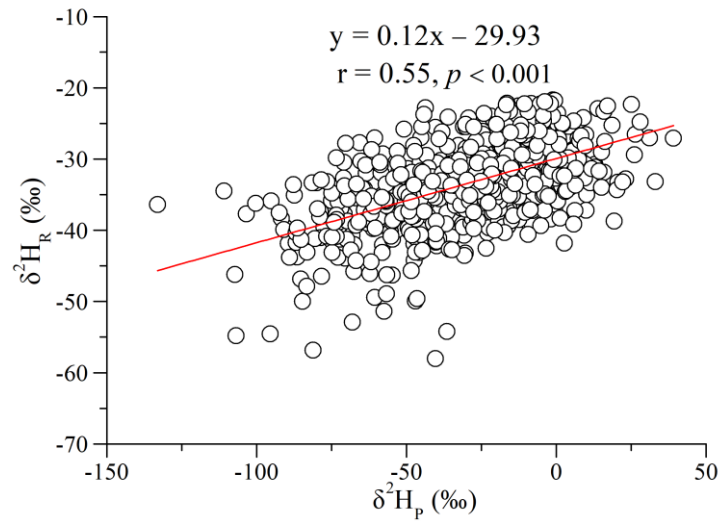


Figure S2. Relationship between the river water  $\delta^2\text{H}$  ( $\delta^2\text{H}_R$ ) and the corresponding 5-day volume-weighted precipitation  $\delta^2\text{H}$  ( $\delta^2\text{H}_P$ ).

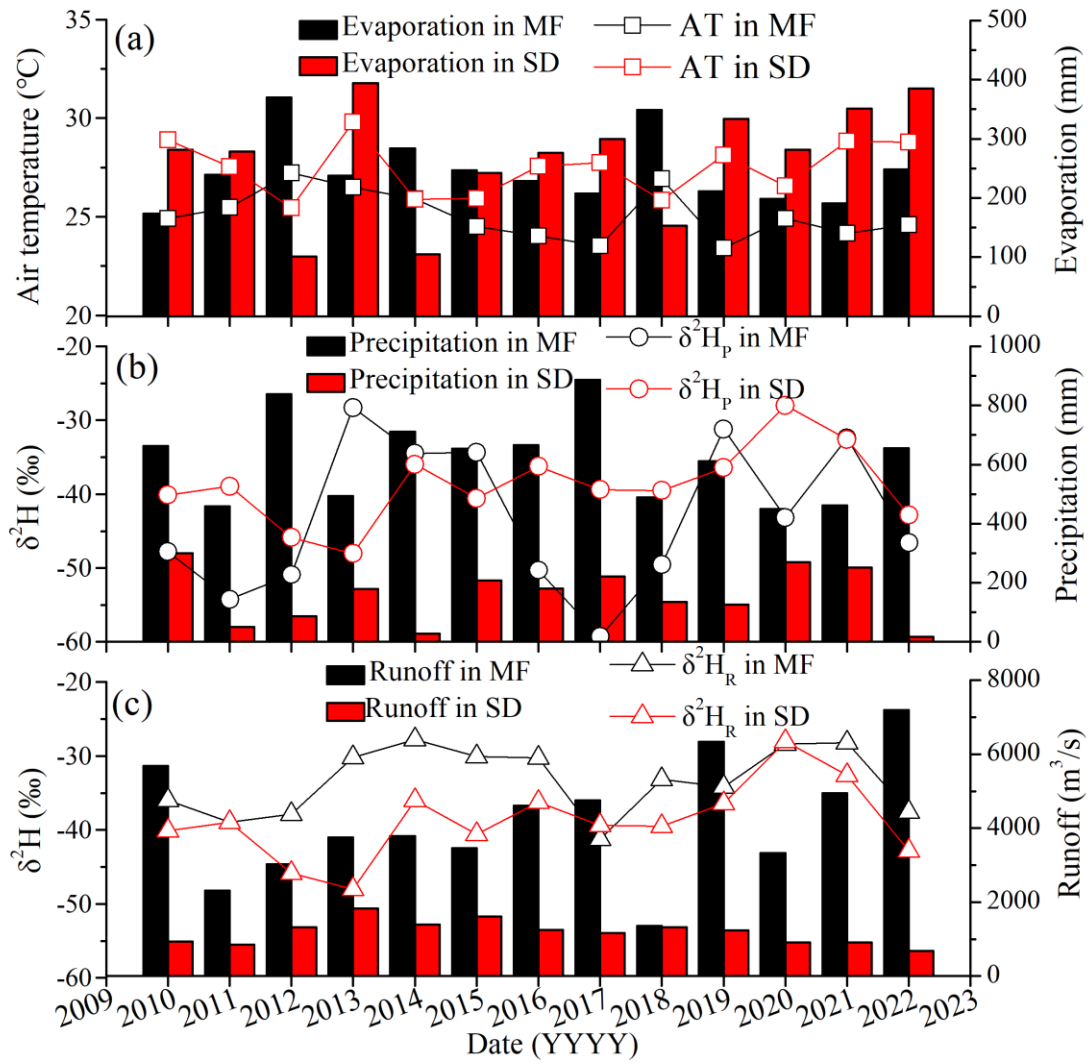


Figure S3. Inter-annual variation of the average air temperature and accumulated evaporation (a), accumulated precipitation and volume-weighted precipitation  $\delta^2\text{H}$  ( $\delta^2\text{H}_p$ ) (b), and average runoff discharge and volume-weighted river water  $\delta^2\text{H}$  ( $\delta^2\text{H}_R$ ) (c) in major flood period (MF) and summer drought period (SD), respectively.

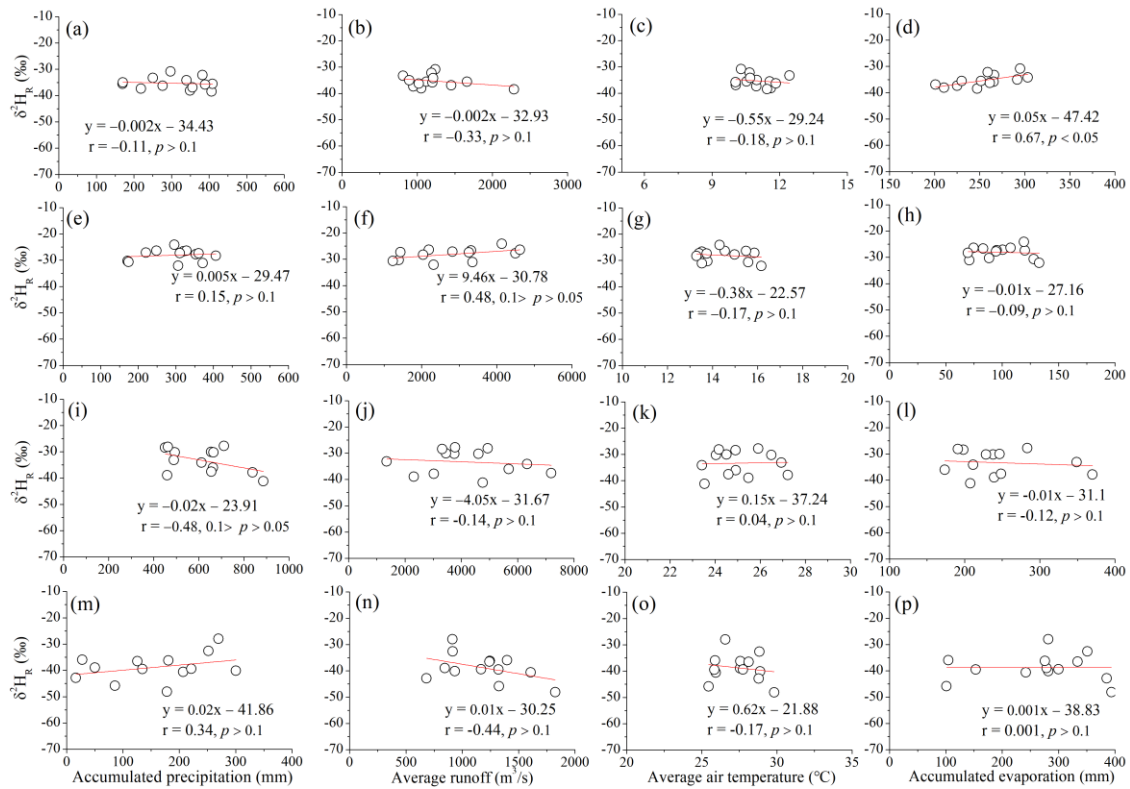


Figure S4. Relationships between the annual volume-weighted river water  $\delta^2\text{H}$  ( $\delta^2\text{H}_R$ ) and the corresponding accumulated precipitation (the first column), average runoff discharge (the second column), average air temperature (the third column), and accumulated evaporation (the fourth column) in different runoff periods, and the first row (a, b, c, and d), the second row (e, f, g, and g), the third row (i, j, k, and l), and the fourth row (m, n, o, and p) represent the rainless period, spring flood period, major flood period, and summer drought period, respectively.