

**Paleohydrological changes in  
Southeast China since 13 ka BP  
based on a multi-proxy record from  
Shuizhuyang peat**

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Moisture evolution in the East Asian monsoon regions of China exhibited great variabilities across space. To achieve a better understanding of the spatial patterns of hydrological changes in the East Asian monsoon regions of China, multi-proxy records with high resolution and precise dating are needed, especially in south China where the records are relatively lacking. In this study, analyses of hopanoid flux, total organic carbon content (TOC), Ti content and Rb/Sr ratios were combined in a peat core from Shuizhuyang, Southeast China, to decipher the paleohydrological evolution over the last 13 ka. Four stages of moisture changes were identified: 13.1-10.7 ka BP: a humid period; 10.7-8.6 ka BP: a dry period, 8.6-4.1 ka BP: Holocene moisture optimum; 4.1-2.5 ka BP: a dry period. The Holocene moisture optimum identified in our study is broadly coincidental with the Holocene thermal optimum revealed by the pollen [1] and GDGTs [2] records and in SZY.

[1] Yue, Y., Zheng, Z., Huang, K., Chevalier, M., Chase, B.M., Carré, M., Ledru, M.-P. & Cheddadi, R. (2012), *Palaeogeogr Palaeoclimatol Palaeoecol* 365, 115-123.

[2] Wang, M., Zheng, Z., Man, M., Hu, J. & Gao, Q. (2017), *Chem Geol* 463, 94-102.