By supplementing Figures S1–S3, it can be found that the deviation degree of rainfall in drought years in Sichuan and Chongqing regions, Guizhou region, and Guangxi region is the highest, followed by the deviation degree of evapotranspiration. Among them, vegetation transpiration and soil evapotranspiration in drought years obviously show high deviations in summer, autumn and bright seasons, and the deviation degree of the region generally reaches more than 12%. Severe low rainfall combined with vigorous vegetation transpiration tends to exacerbate the occurrence of drought.

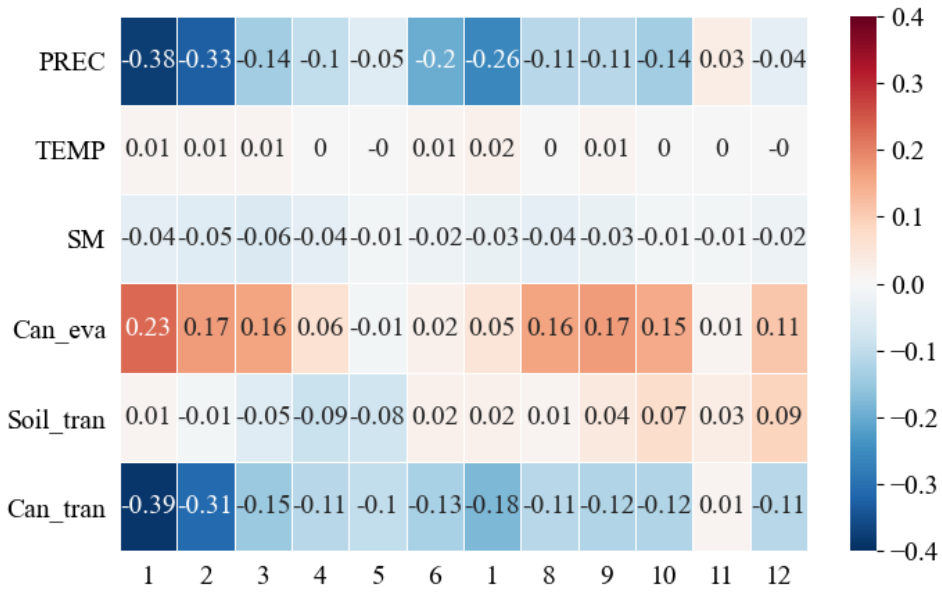

Figure S1. Deviation degree of driving factors in different months of drought years in Chuanyu.

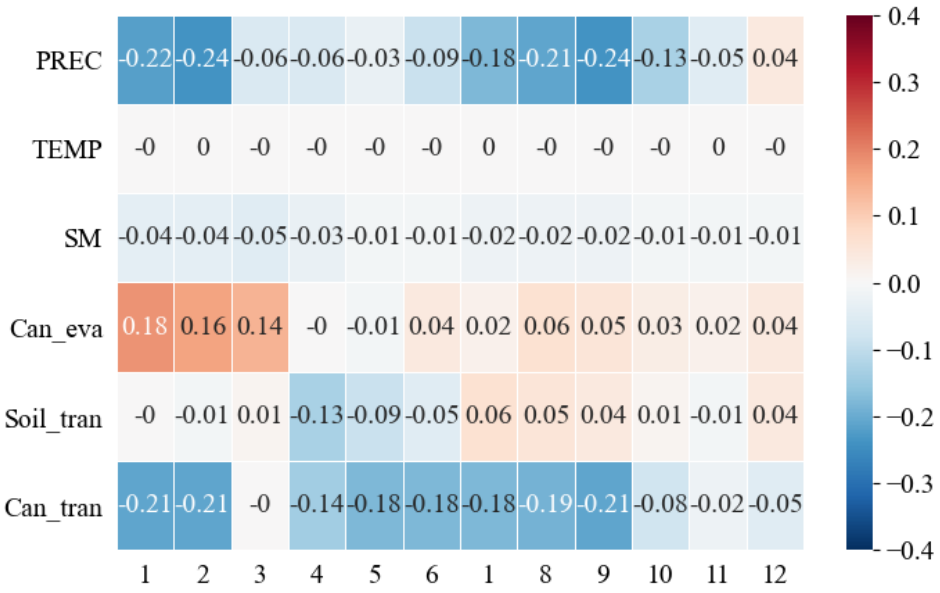

Figure S2. Deviation degree of driving factors in different months of drought years in Guizhou.

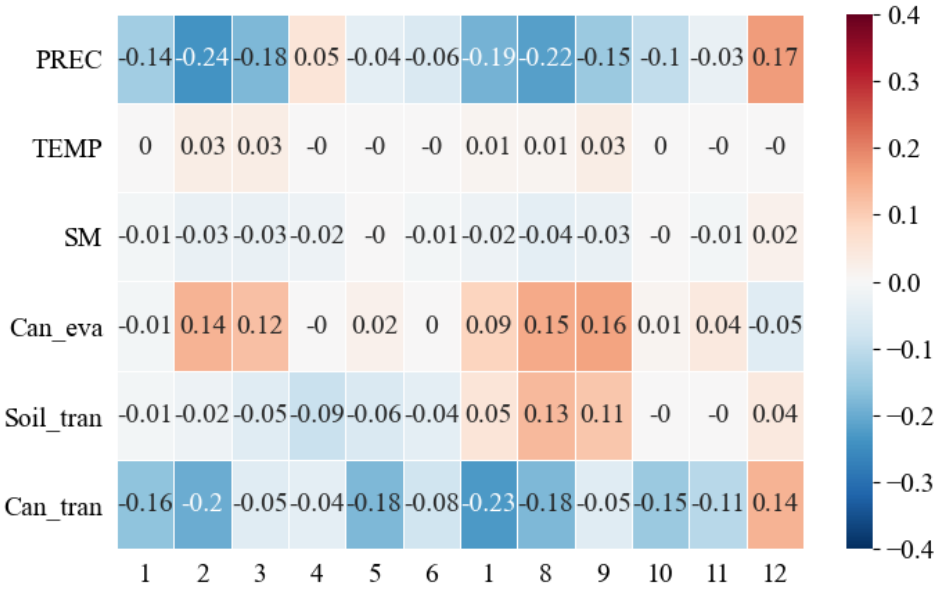

Figure S3. Deviation degree of driving factors in different months of drought years in Guangxi.