

Supplementary Materials

Determination of long-term soil apparent thermal diffusivity using near-surface soil temperature on the Tibetan Plateau

Bing Tong¹, Hui Xu¹, Robert Horton², Lingen Bian³, Jianping Guo^{*1}

¹ State Key Laboratory of Severe Weather, Chinese Academy of Meteorological Sciences,
Beijing, China

² Agronomy Department, Iowa State University, Ames, Iowa

³ Chinese Academy of Meteorological Sciences, Beijing, China

*Corresponding author: Jianping Guo (jpguo@cma.gov.cn)

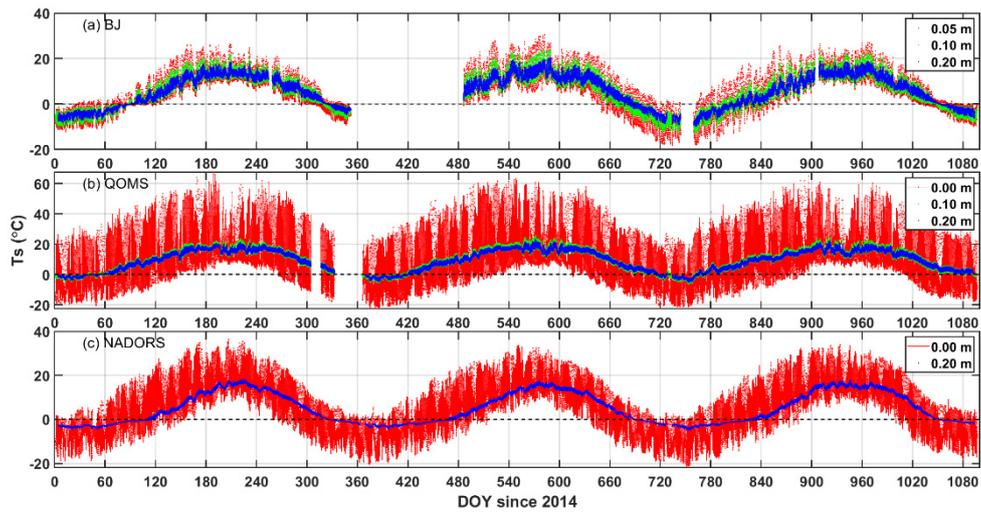


Figure S1. The variations of soil temperature at (a) BJ, (b) QOMS, (c) NADORS, respectively.

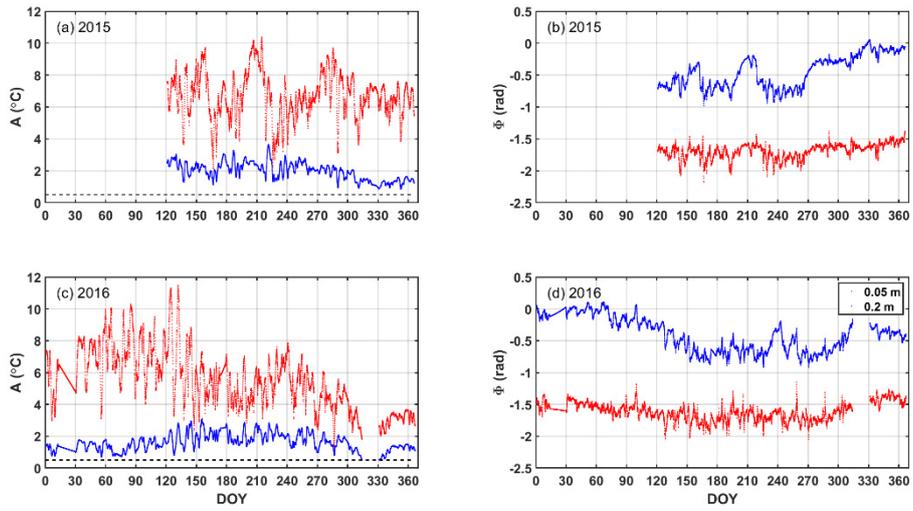


Figure. S2. The amplitude (A , °C) and phase (Φ , rad) of soil temperature 2015-2016 at BJ.

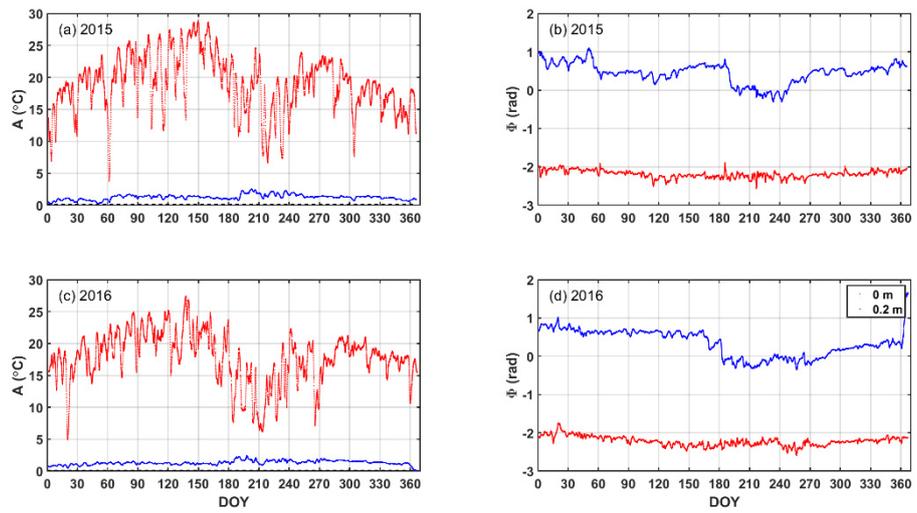


Figure. S3. The amplitude (A , °C) and phase (Φ , rad) of soil temperature 2015-2016 at QOMS.

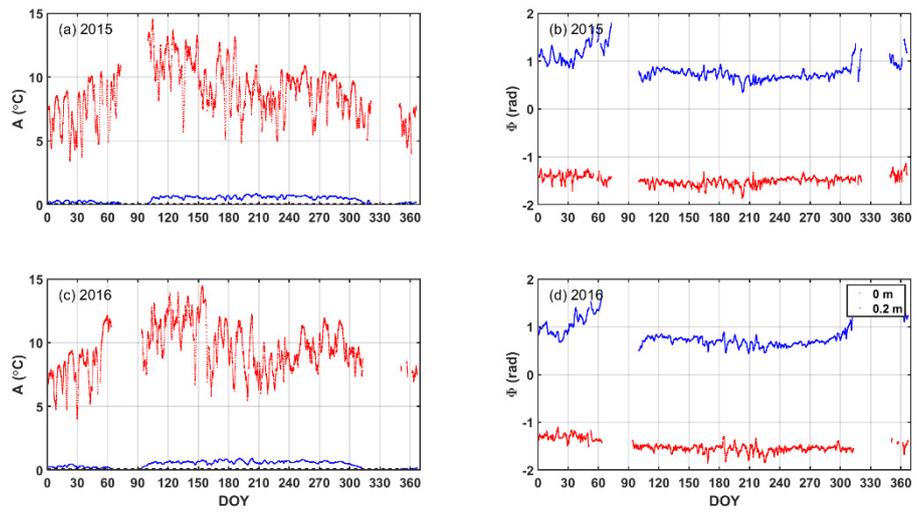


Figure. S4. The amplitude (A , °C) and phase (Φ , rad) of soil temperature 2015-2016 at NADORS.

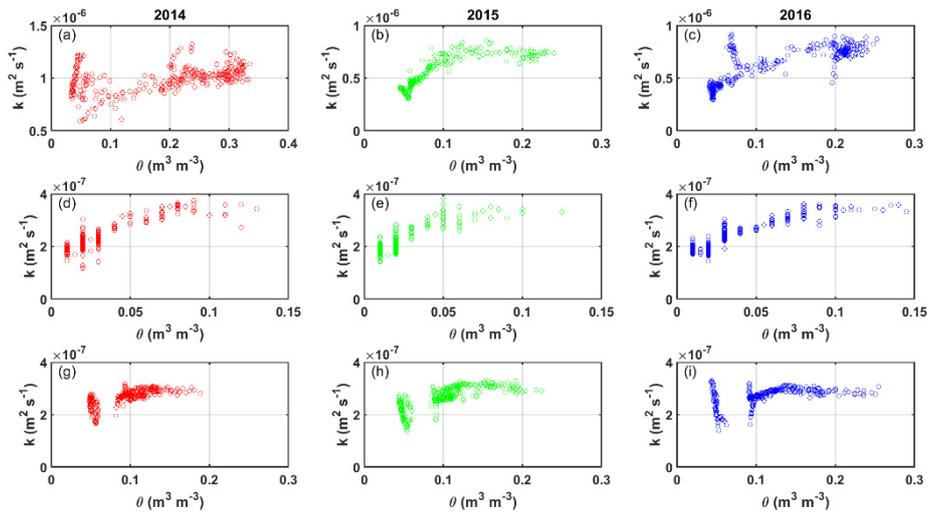


Figure. S5. The variation of soil apparent thermal diffusivity (k , $\text{m}^2 \text{s}^{-1}$) with soil moisture (θ , $\text{m}^3 \text{m}^{-3}$) on a daily timescale in 2014 (in the 1st column), 2015 (in the 2nd column) and 2016 (in the 3rd column) at (a-c) BJ, (d-f) QOMS, and (g-i) NADORS, respectively.