Supplementary Materials: Simulation of Pan Evaporation and Application to Estimate the Evaporation of Juyan Lake, Northwest China under a Hyper-Arid Climate

Teng-Fei Yu [1,2,3], Jian-Hua Si [1,2,3], Qi Feng [1,2,3,*], Hai-Yang Xi [1,2,3], Yong-Wei Chu [4] and Kai Li [4]

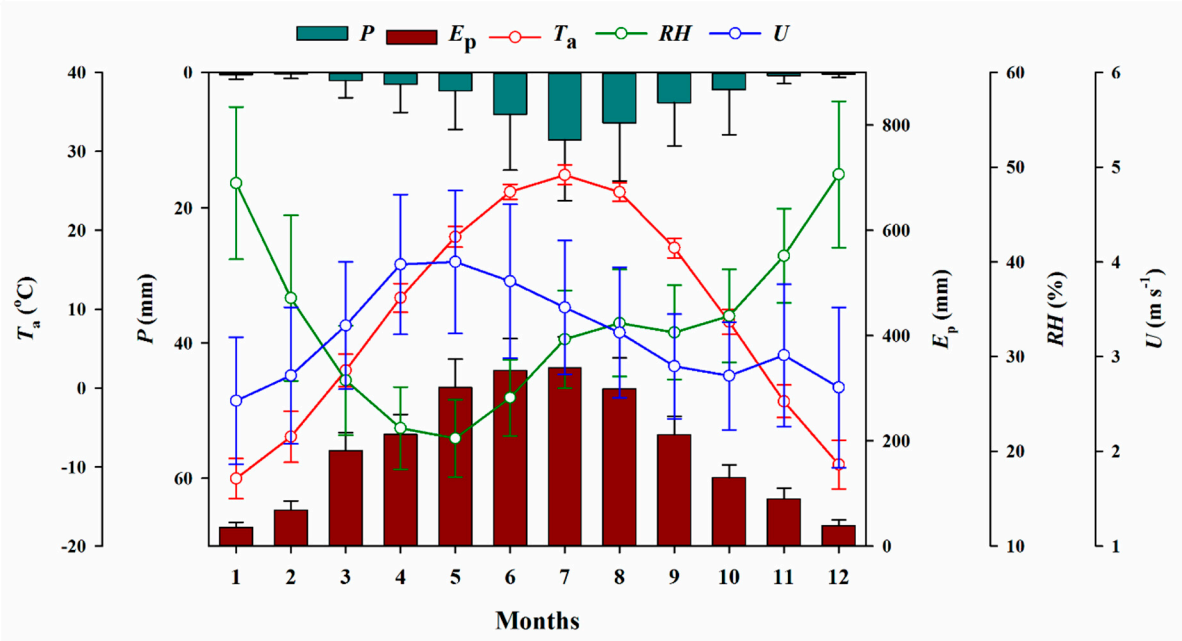

Figure S1. The monthly variation in mean annual meteorological variables included precipitation (*P*, mm), pan evaporation (E_P, mm), air temperature (T_a, °C), relative humidity (*RH*, %) and wind speed (*U*, m·s^{-1}).

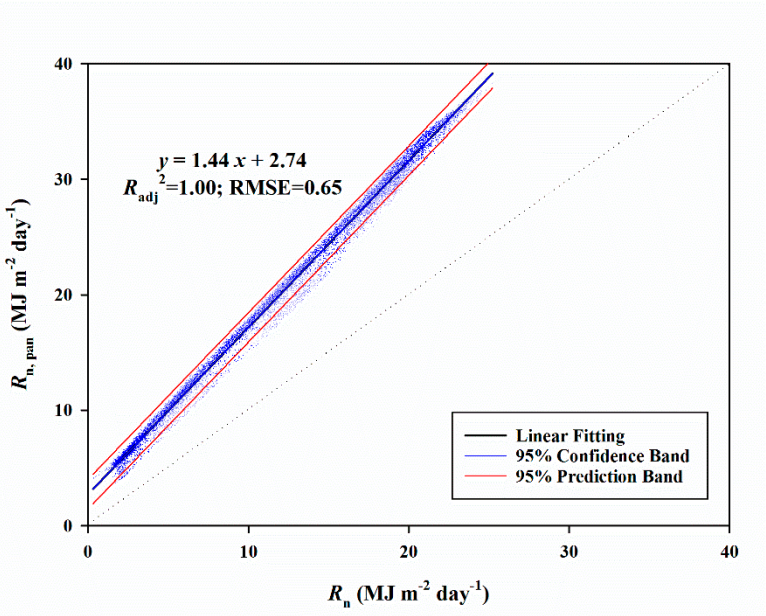

Figure S2. The relationship between net radiation (R_n, MJ·m^{-2}·day^{-1}) calculated by the Penman-Monteith model (equation (8)) and R_n of pan ($R_{n,\,Pan}$, MJ·m^{-2}·day^{-1}) calculated by the original PenPan model (equation (3)–(6)) from 1957 to 2016. The linear fitting and 95% confidence band and prediction band line and value of regression analysis was shown.

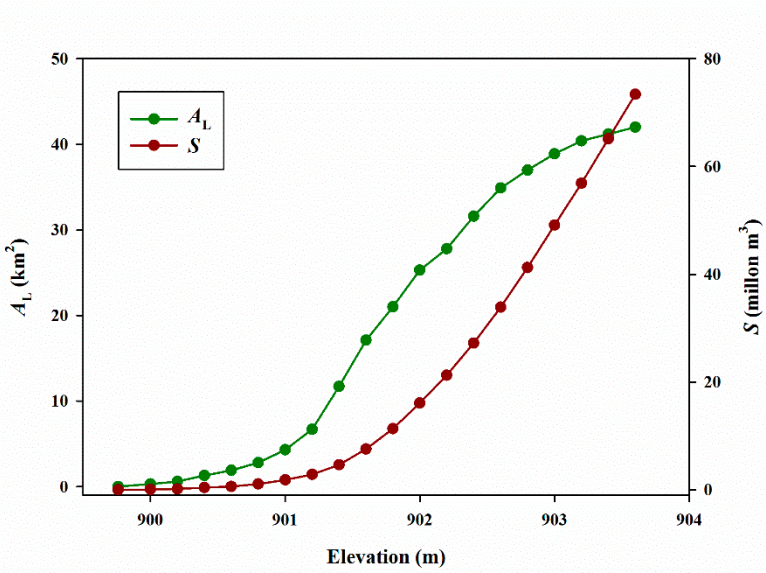

Figure S3. The relationship between lake elevation (m) and area (AL, km2) and storage (S, million m3) of Juyan Lake, as surveyed by the Wuhai Hydrographic and Water Resources Survey Bureau, Inner Mongolia, China, in 2003.

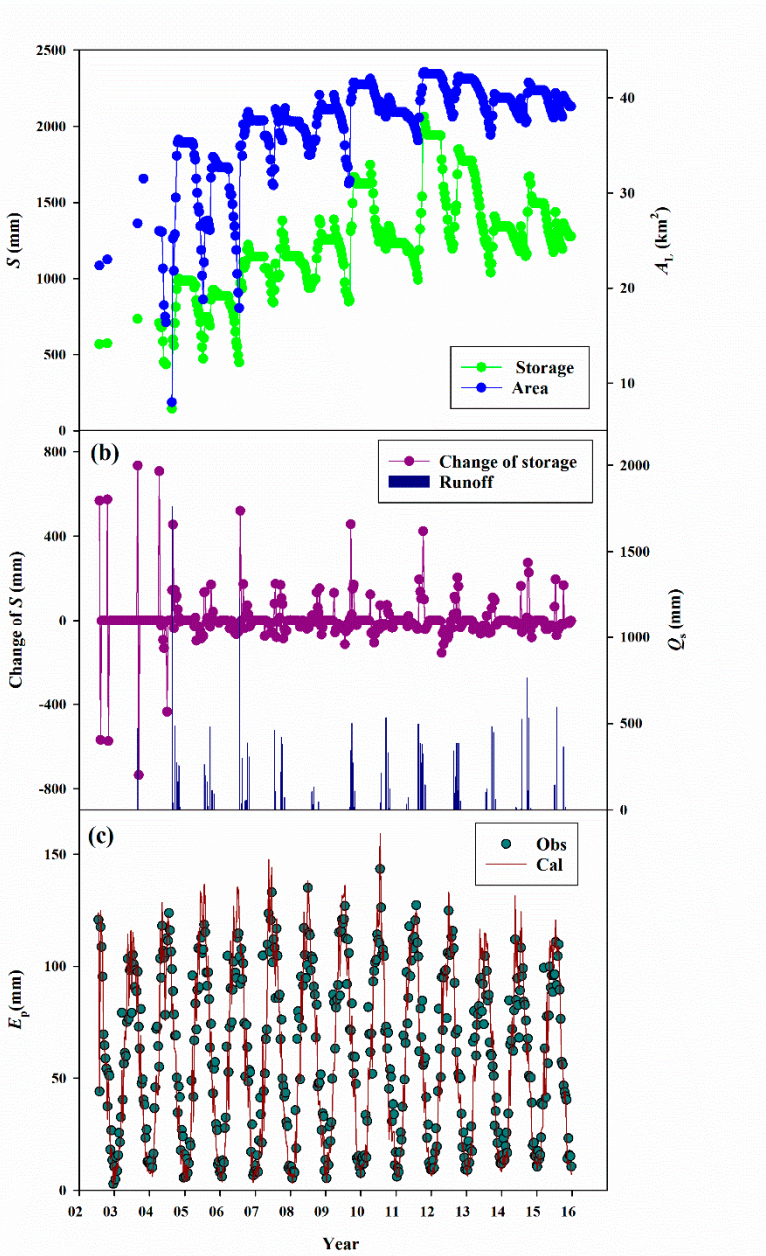

Figure S4. The time series of ten-days measured (a) lake storage (S, mm) and area (AL, km2), (b) change of S (mm) and surface runoff (Qs, mm) for Juyan Lake, and (c) observed pan evaporation (Ep, mm) by the E601 (Obs) and calculated by the modified PenPan model (Cal) from 2002 to 2015.