

Supplementary Materials

Title

Regionalization of Root Zone Moisture Estimations from Downscaled Surface Moisture and Environmental Data with the Soil Moisture Analytical Relationship Model

Authors

Yonghao Liu¹, Taohui Li¹, Wenxiang Zhang^{1*} and Aifeng Lv^{2*},

Affiliations

1 Key Laboratory of Plateau Geographic Processes and Environment Change of Yunnan Province, Faculty of Geography, Yunnan Normal University, Kunming 650500, China; lyh201758@163.com (Y.L.); taohui0813@foxmail.com (T.L.)

2 Key Laboratory of Water Cycle and Related Land Surface Processes, Institute of Geographic Sciences and Natural Resources Research, CAS, Beijing 100101, China

* Correspondence: wenxiangzhang@ynnu.edu.cn (W.Z.); lvaf@igsnrr.ac.cn (A.L.)

Supplementary Table S1. Elevation, land use, and texture information for the area studied

Site	Elevation(m)	Land use type	Text*
L1	1433	grassland	Sandy loam
L2	1401	grassland	Sandy clay
L6	1369	grassland	Sandy clay loam
L8	1435	grassland	Sandy clay loam
L9	1443	grassland	Loamy sand
L10	1410	grassland	Sandy clay
L11	1280	grassland	Sandy clay loam
L12	1315	grassland	Loamy sand
L13	1329	grassland	Loamy sand
L14	1383	grassland	sandy clay
M1	1343	grassland	Sandy clay loam
M3	1466	farmland	Sandy clay loam
M5	1433	grassland	Loamy sand
M6	1308	grassland	Sandy loam
M9	1280	grassland	Sandy clay loam

M10	1327	grassland	Sandy loam
M11	1470	grassland	sand
S2	1363	grassland	Loamy sand
S3	1343	grassland	Sandy loam
S5	1327	grassland	clay
S7	1332	grassland	Sandy clay loam
S8	1334	grassland	clay

Note: *Soil texture is classified according to USUD-NRCS.

Supplementary Table S2. Parameters associated with soil texture type and SMAR modeling

Soil Texture	por	S _{C1}	S _{W2}
Sand	0.437	0.14	0.06
Loamy sand	0.437	0.24	0.11
Sandy loam	0.453	0.42	0.19
Silty loam	0.501	0.57	0.27
Loam	0.463	0.5	0.25
Sandy clay loam	0.398	0.62	0.34
Silty clay loam	0.471	0.73	0.45
Clay loam	0.464	0.67	0.4
Sandy clay	0.43	0.75	0.51
Silty clay	0.479	0.78	0.52
Clay	0.475	0.8	0.56