

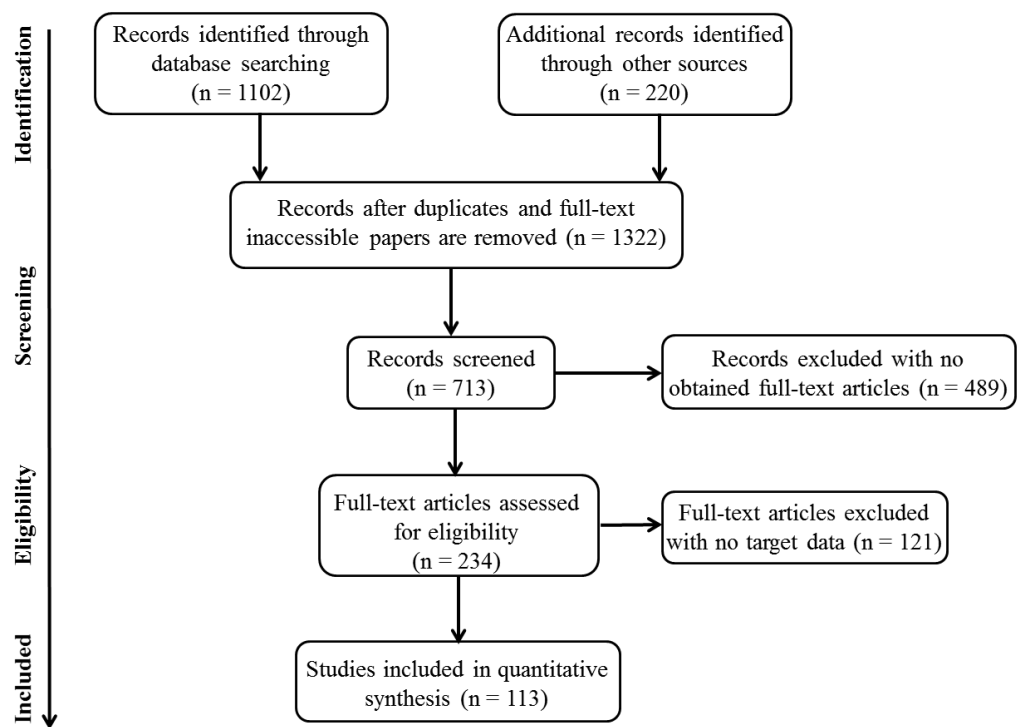
1 **S1** Summary of site information, climatic variables, and soil texture for the global meta-analysis.

Index	Mean	Median	SD	SE	95%CI	Min	Max
Latitude (°)	33.6	32.0	8.09	0.28	29.2-32.8	-7.1	60.5
Longitude (°)	99.5	113.3	41.0	1.43	84.3-105.1	-114.0	126.6
MAT (°C)	14.5	15.6	4.71	0.16	15.3-16.9	-3.5	27.0
MAP (mm)	970	1000	475	16.6	1155-1307	32	1926
Aridity indexes	0.76	0.80	0.38	0.01	0.89-1.01	0.02	1.54
Sand (%)	38.0	43.1	11.29	1.07	35.8-40.1	7.5	60.5
Silt (%)	32.9	22.8	15.34	1.42	29.4-35.2	12.1	92.0
Clay (%)	28.1	34.1	13.35	1.16	28.1-29.4	7.72	69.5

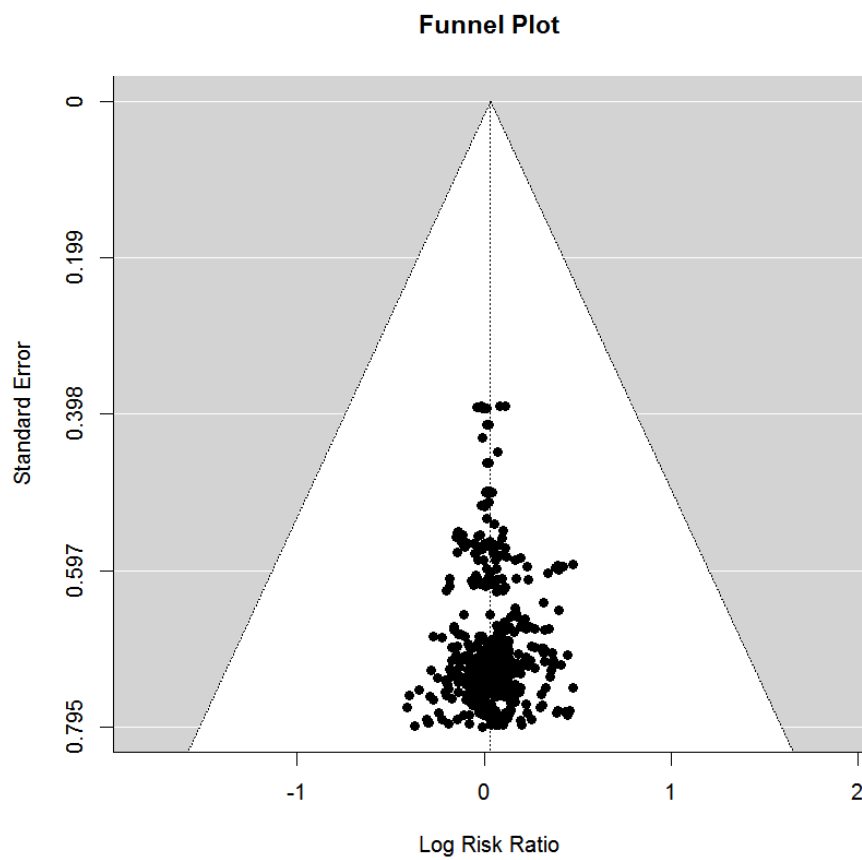
2 Note: MAT, mean annual temperature; MAP, mean annual precipitation; SD, standard deviation; SE,
3 standard error. CI, confidence interval.

4

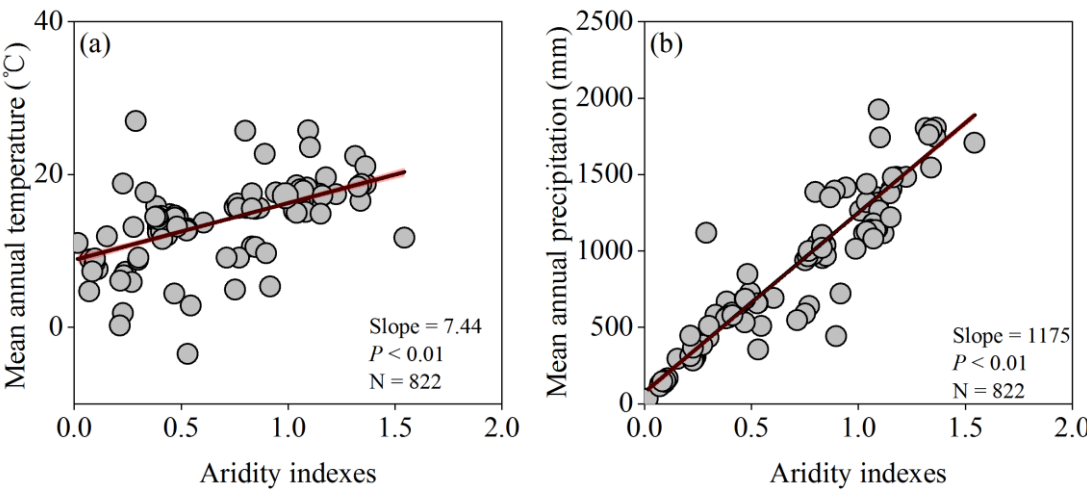
5 S2 Flow diagram showing the procedure used for selection of studies for synthesis.



- 8 S3 Funnel plots for rhizospheric effects on soil and microbial stoichiometry ($P = 0.79$).

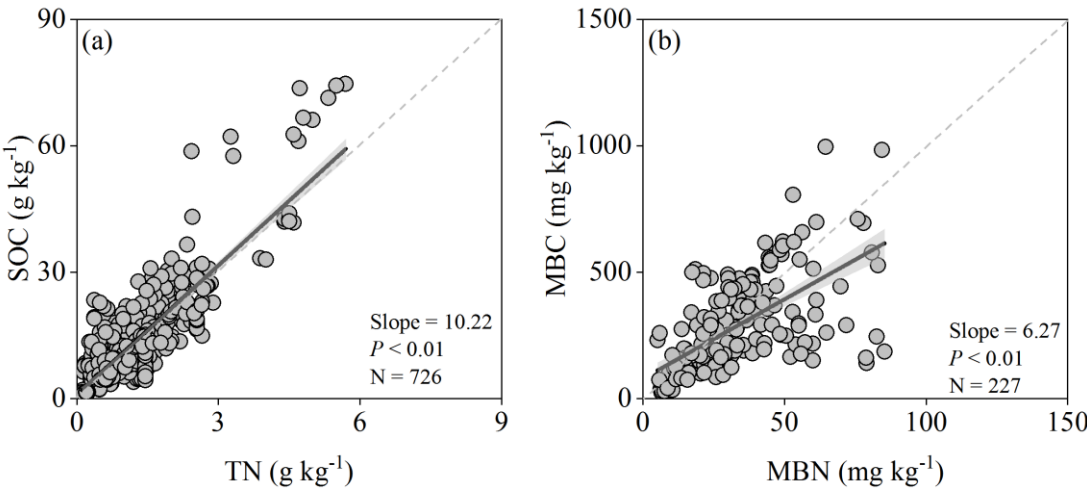


10 **S4** Relationship between aridity indexes and mean annual temperature (a) and mean annual
11 precipitation (b).



12

13 S5 The relationship between carbon and nitrogen in the soil (a) and microbial (b). SOC, TN, MBC, and
14 MBN represent soil organic carbon, soil total nitrogen, soil microbial biomass carbon, and
15 soil microbial biomass nitrogen, respectively.



18 **S6** Relationship among aridity indexes (AI), the rhizospheric effects on soil organic carbon (SOC), soil
 19 pH, soil total phosphorous (TP), soil available phosphorous (AP), soil nitrate-nitrogen (NO_3^- -N), soil
 20 ammonium-nitrogen (NH_4^+ -N), soil C:N, soil C:P, soil N:P, microbial C:N, microbial C:P, and
 21 microbial N:P.

