

Ecography

**ECOG-01226**

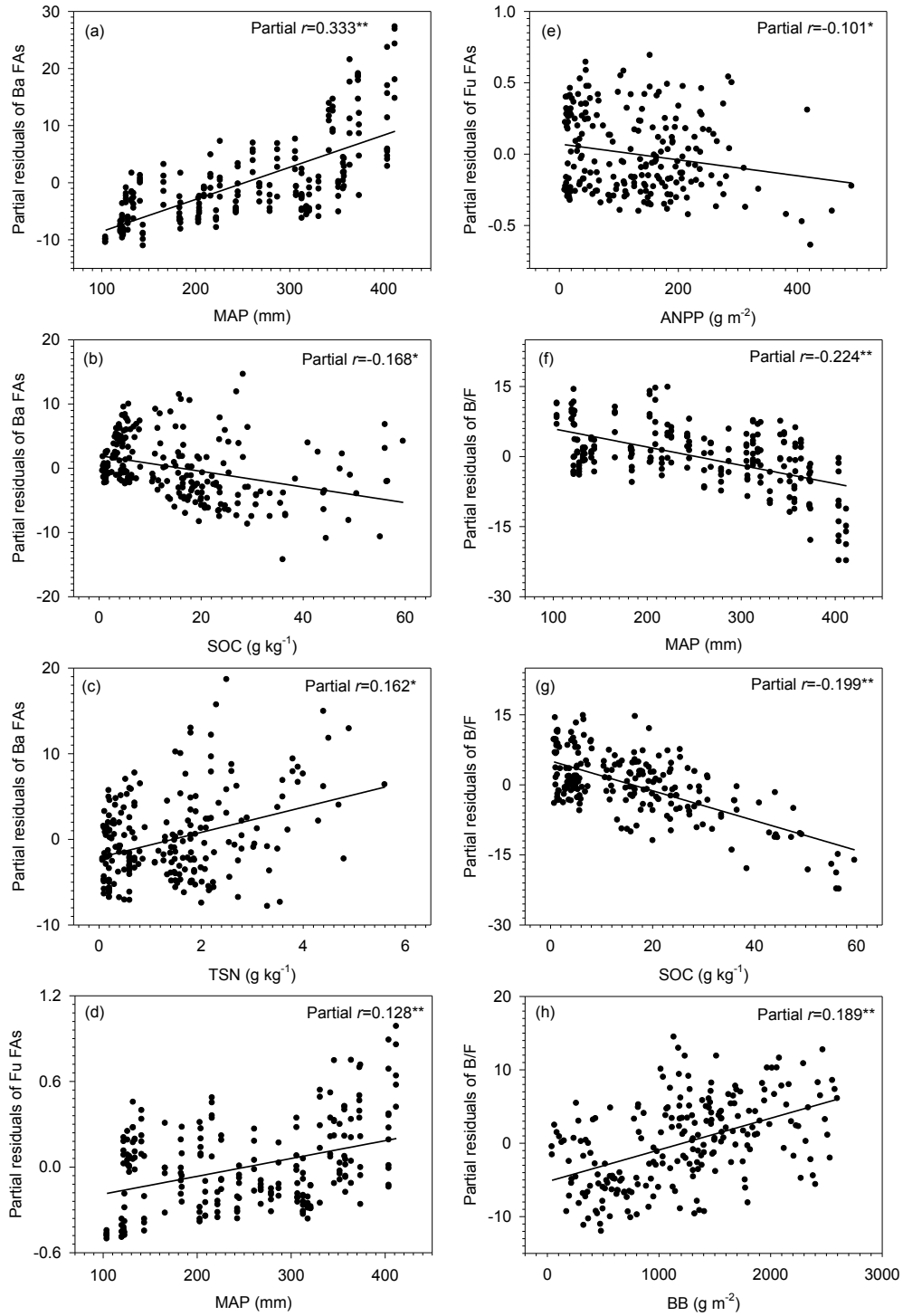
Chen, D., Cheng, J., Chy, P., Hu, S., Xie, Y., Tuvshintogtokh, I. and Bai, Y. 2014. Regional-scale patterns of soil microbes and nematodes across grasslands on the Mongolian plateau: Relationships with climate, soil, and plants. – Ecography doi: 10.1111/ecog.01226

**Supplementary material**

**Appendix 1:** Climate, soil, and plant characteristics of the four vegetation types in the Mongolian grassland. Values are means (SE). Different letters in a row indicate significant differences among the four vegetation types (one-way ANOVA,  $P < 0.05$ ).

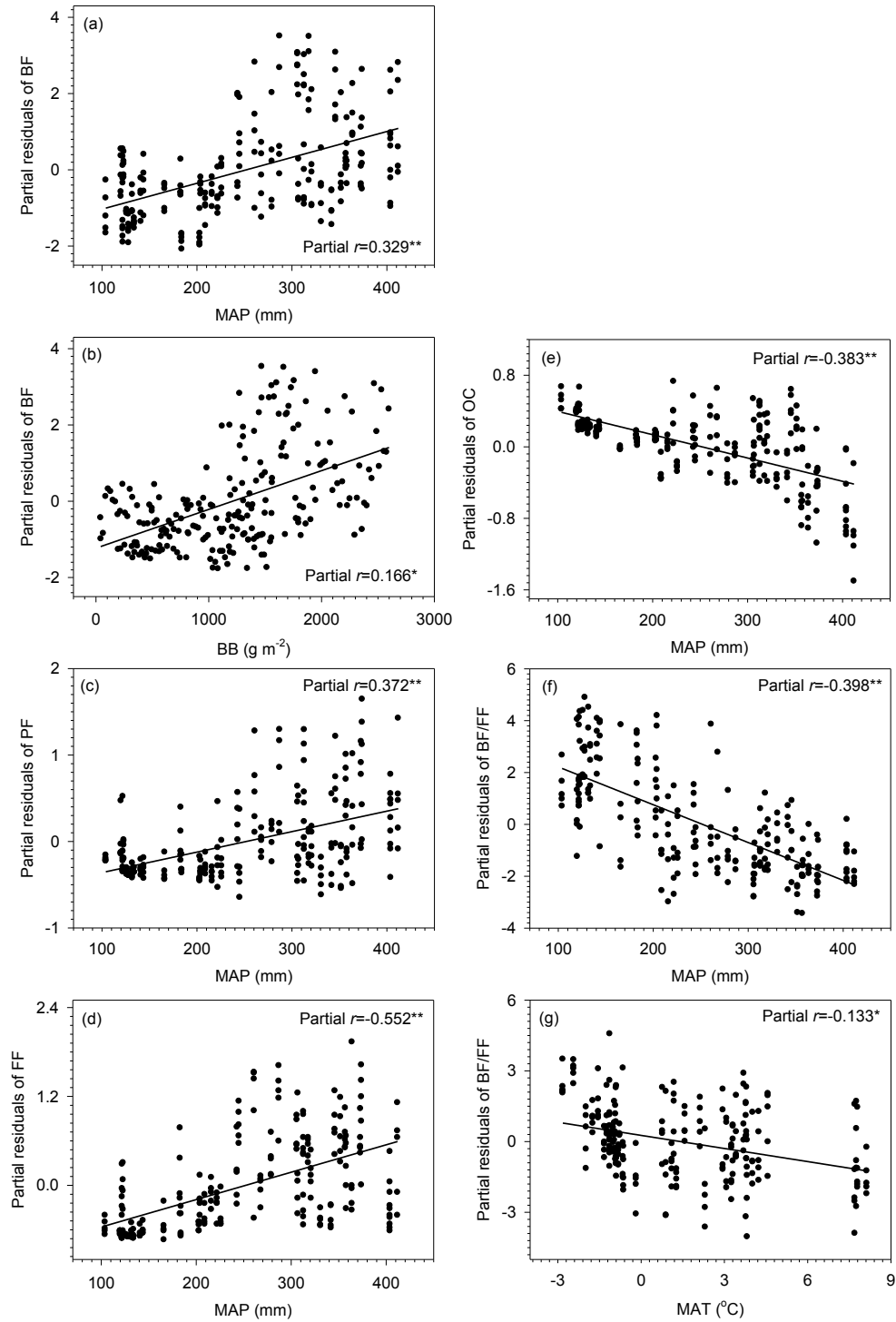
Characteristics	Desert	Desert steppe	Typical steppe	Meadow steppe
	11 sites	11 sites	10 sites	12 sites
<b>Climate</b>				
MAP (mm)	127(1) <sup>a</sup>	213(4) <sup>b</sup>	305(6) <sup>c</sup>	359(5) <sup>d</sup>
MAT (°C)	4.98(0.30) <sup>d</sup>	1.79(0.31) <sup>c</sup>	0.48(0.17) <sup>b</sup>	-1.40(0.08) <sup>a</sup>
<b>Soil</b>				
pH	8.3(0.1) <sup>c</sup>	7.9(0.1) <sup>b</sup>	7.6(0.1) <sup>b</sup>	7.0(0.1) <sup>a</sup>
SOC (g kg <sup>-1</sup> )	2.8(0.2) <sup>a</sup>	10.4(0.9) <sup>b</sup>	17.6(0.9) <sup>c</sup>	32.1(1.7) <sup>d</sup>
TSN (g kg <sup>-1</sup> )	0.21(0.02) <sup>a</sup>	1.05(0.09) <sup>b</sup>	1.69(0.09) <sup>c</sup>	2.75(0.14) <sup>d</sup>
<b>Plant</b>				
ANPP (g m <sup>-2</sup> )	7.7(0.3) <sup>a</sup>	11.5(1.0) <sup>b</sup>	11.4(0.6) <sup>c</sup>	20.3(1.1) <sup>d</sup>
PSR	29(3) <sup>a</sup>	88(7) <sup>b</sup>	176(9) <sup>c</sup>	215(11) <sup>d</sup>
BB (g m <sup>-2</sup> )	397(26) <sup>a</sup>	1056(44) <sup>b</sup>	1464(30) <sup>c</sup>	1889(61) <sup>d</sup>

Note: MAP, mean annual precipitation; MAT, mean annual temperature; SOC, soil organic carbon; TSN, total soil nitrogen; ANPP, aboveground net primary productivity; PSR, plant species richness; BB, belowground plant biomass.



**Appendix 2:** Partial residual plots of the relationship between variables of microbial community (Ba FAs, Fu FAs, and B/F) and environmental factors at the regional scale in the Mongolian grassland.

Abbreviations are explained in Table 1 and 2.



**Appendix 3:** Partial residual plots of the relationship between variables of nematode community (BF, FF, PF, OC, and BF/FF) and environmental factors at the regional scale in the Mongolian grassland.

Abbreviations are explained in Table 1 and 2.