



**Figure S1 Correlation between AMF richness and nitrogen fertilizer gradients in N treatments (a); Correlation between AMF richness and phosphorus fertilizer gradients in P treatments (b); Correlation between AMF richness and phosphorus fertilizer gradients in N10P treatments (c); Correlation between *Glomus* and phosphorus fertilizer gradients in N10P treatments (d); Correlation between *Paraglomus* and phosphorus fertilizer gradients under N10P treatments (e); Correlation between *Paraglomus* and plant richness across all the samples (f); Correlation between *Archaeospora* and plant richness across all the samples (g).**

Solid lines indicate significant correlation, dashed lines indicate non-significant correlation. N treatments included N05, N10, N15 and CK; P treatments included P2, P4, P8 and CK; N10P treatments included N10P0, N10P2, N10P8 and N10P8.