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*Soil Research*

### Supplementary Material

#### **Two years of nitrogen addition altered soil microbial community structure and function in a desert steppe of northern China**

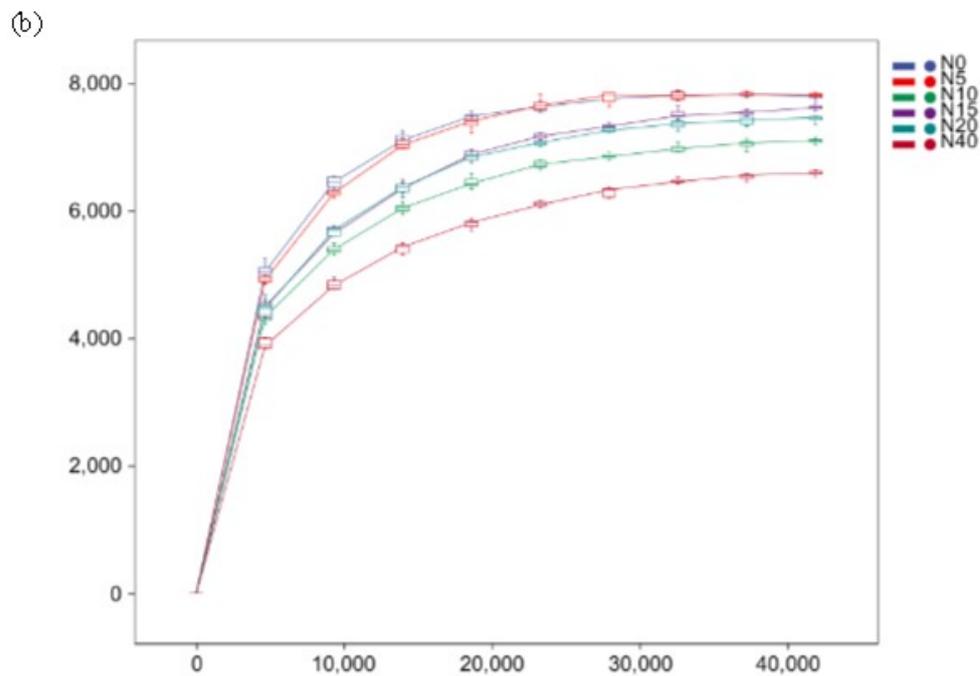
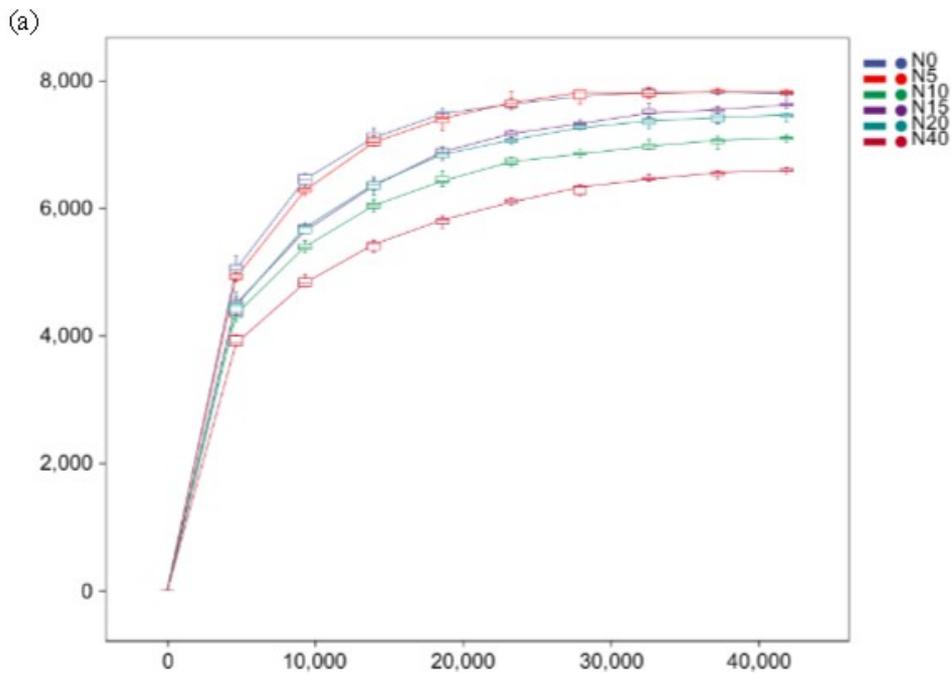
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**Fig.S1** rarefaction curves of prokaryotic (a) and fungi (b) in N added grassland soils. N0, N5, N10, N15, N20 and N40 are 0, 5, 15, 20, and 40 g N/m<sup>2</sup> were added in grassland, while 1, 2, 3, and 4 following N added amount are replicated times, and 10 mean 0–10 cm soil depth.



**Fig. S2. Venn diagram of amplicon sequence variant (ASV) numbers in the prokaryotic community across N addition rates.** The numbers within ovals represent the specific ASV in each N-added soil, and the core number represents the common ASV present in all treatments. N0, N5, N10, N15, N20 and N40 represent N addition rates of 0, 5, 15, 20, and 40 g N m<sup>-2</sup> year<sup>-1</sup>, respectively.



**Fig. S3. Venn diagram of amplicon sequence variant (ASV) numbers in the fungal community across N addition rates.** The numbers within ovals represent the specific ASV in each N-added soil, and the core number represents the common ASV present in all treatments. N0, N5, N10, N15, N20 and N40 represent N addition rates of 0, 5, 15, 20, and 40 g N m<sup>-2</sup> year<sup>-1</sup>, respectively.