

Supporting Material for:

**Deterministic Assembly Processes of Sediment Bacterial Communities Regulate
the Effect of Nitrogen Input on Water Quality**

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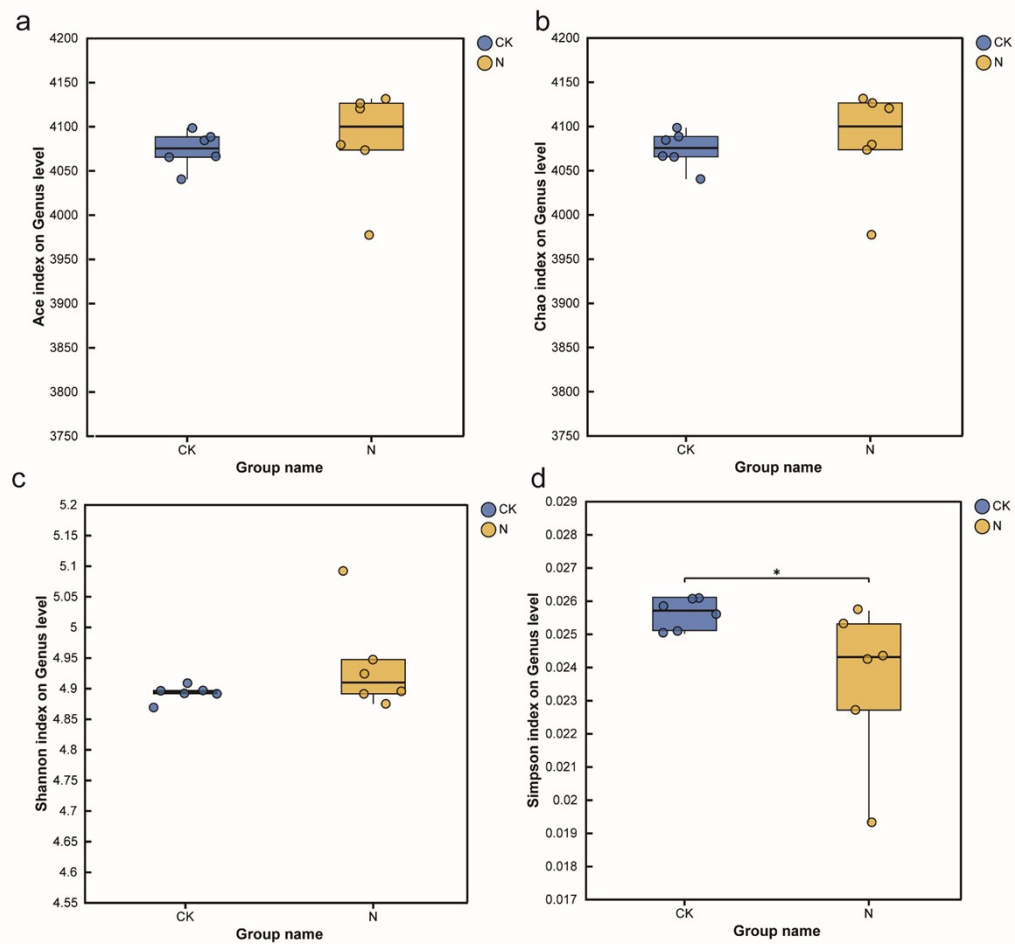


Fig. S1 Bacterial α -diversity in sediments treated with and without urea.

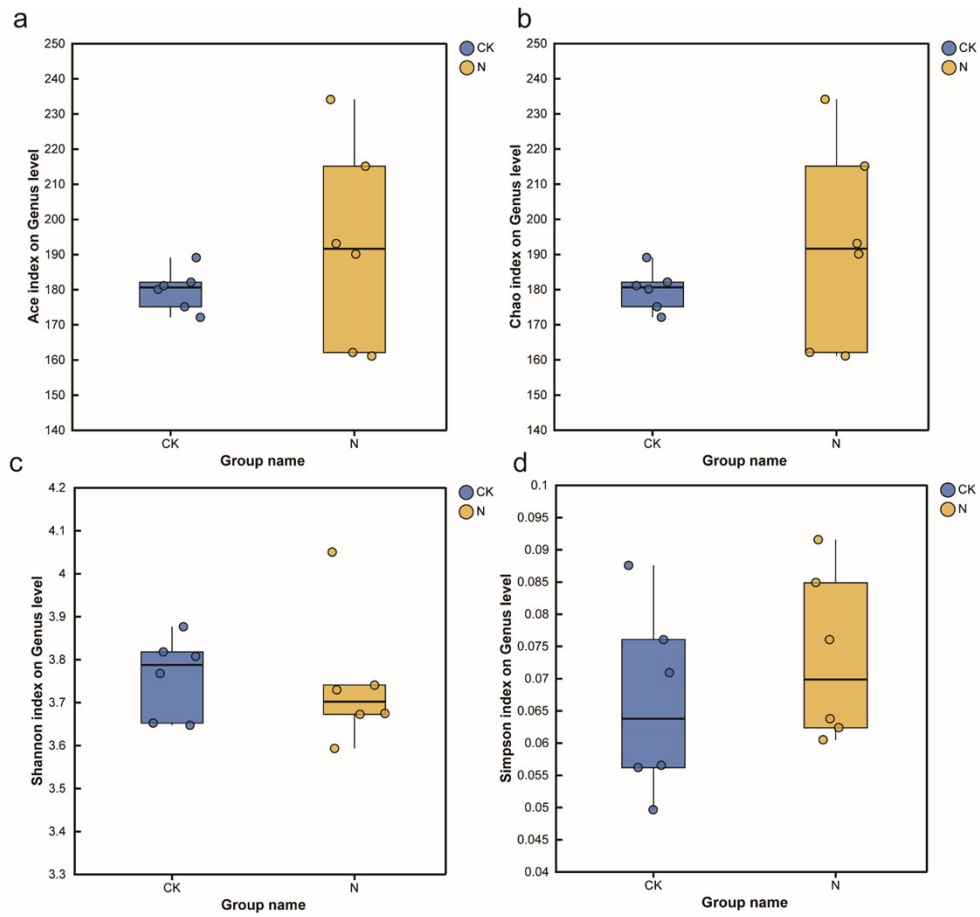


Fig. S2 Fungal α -diversity in sediments treated with and without urea.

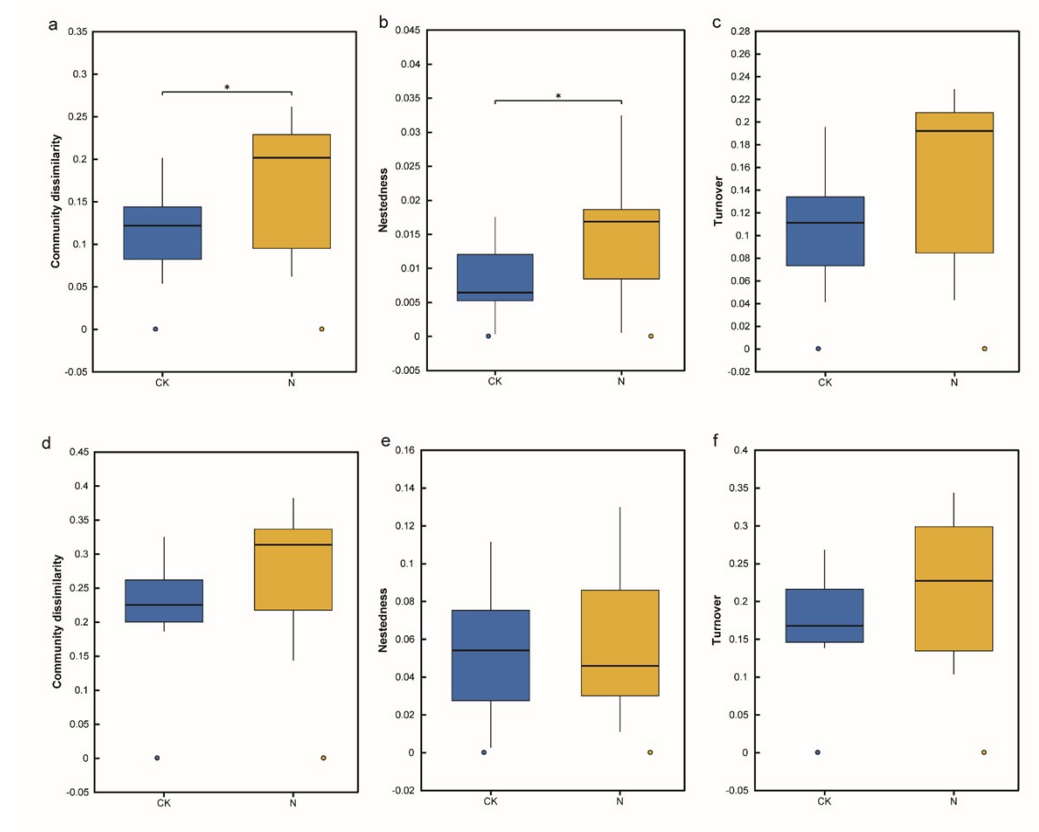


Fig. S3 Contribution of turnover and nestedness to bacterial (a–c) and fungal (d–f) β -diversity.

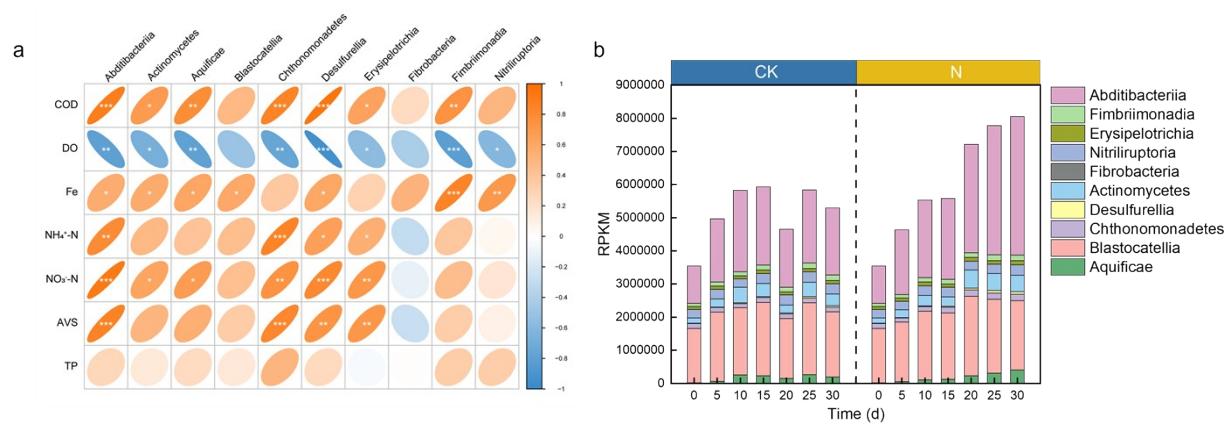


Fig. S4 Correlation analysis between biomarkers and physicochemical properties in water and sediment.

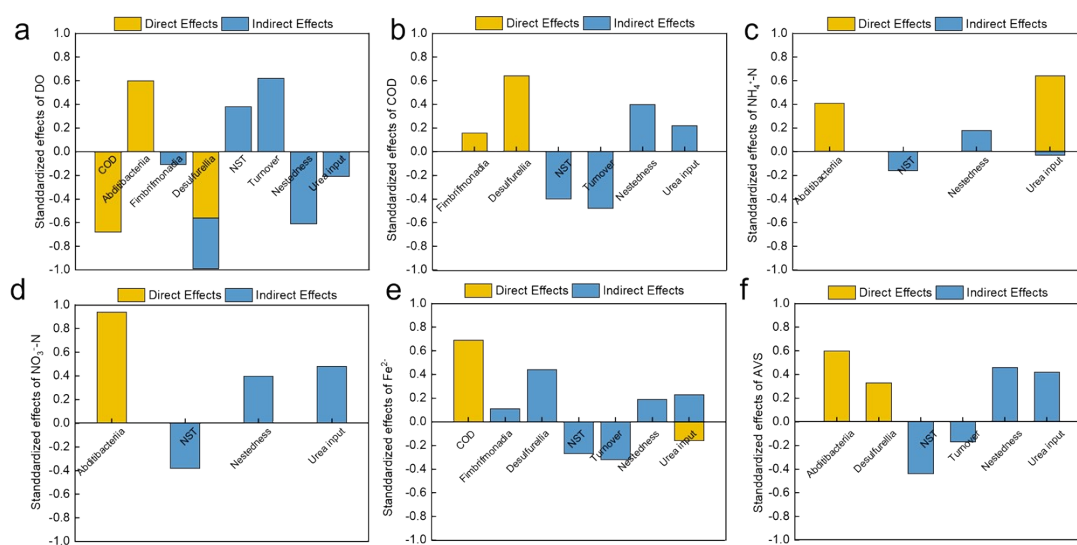


Fig. S6 Standardized effects derived from SEM. The panel represents standardized direct and indirect effects, together describing the total effect of each variable on DO (a), COD (b), $\text{NH}_4^+\text{-N}$ (c), $\text{NO}_3^-\text{-N}$ (d), Fe^{2+} (e), and AVS (f) levels.