

# Supplementary Information

## **Nitrogen-based fertilizers differentially affect protist community composition in paddy field soils**

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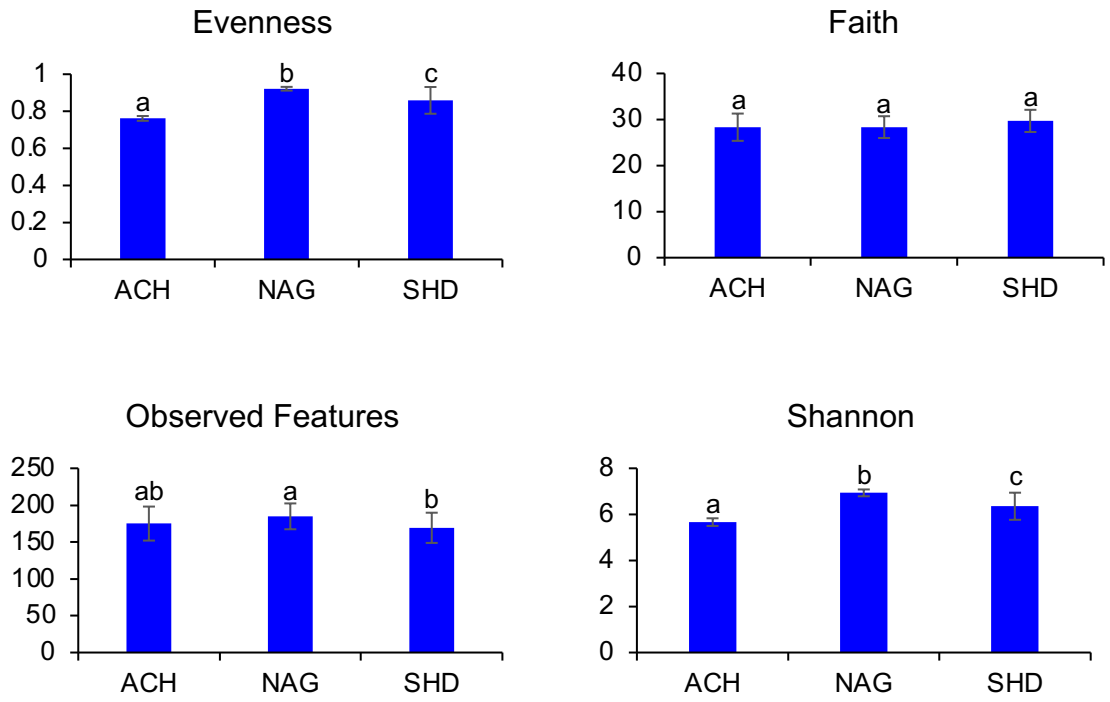
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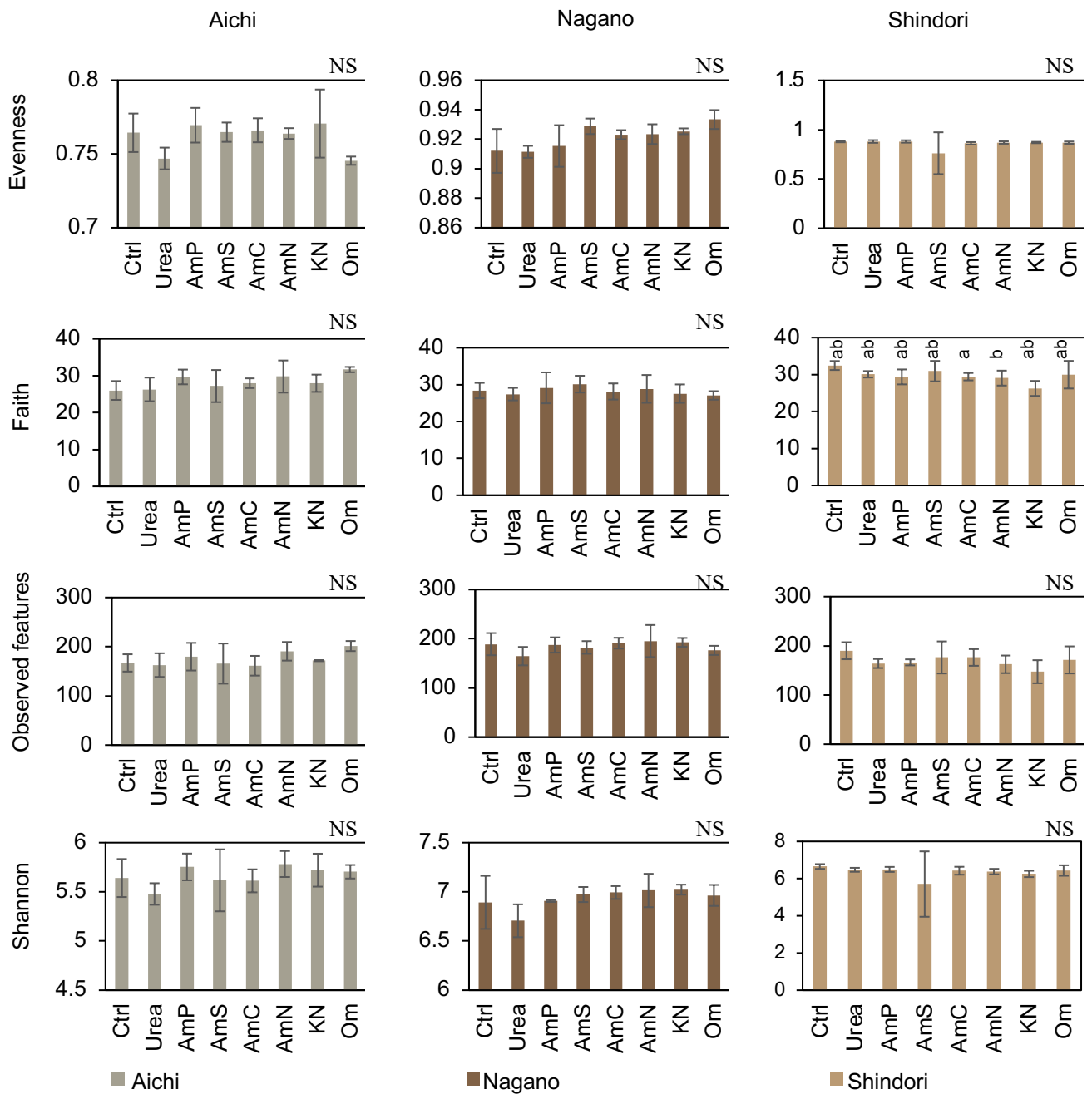
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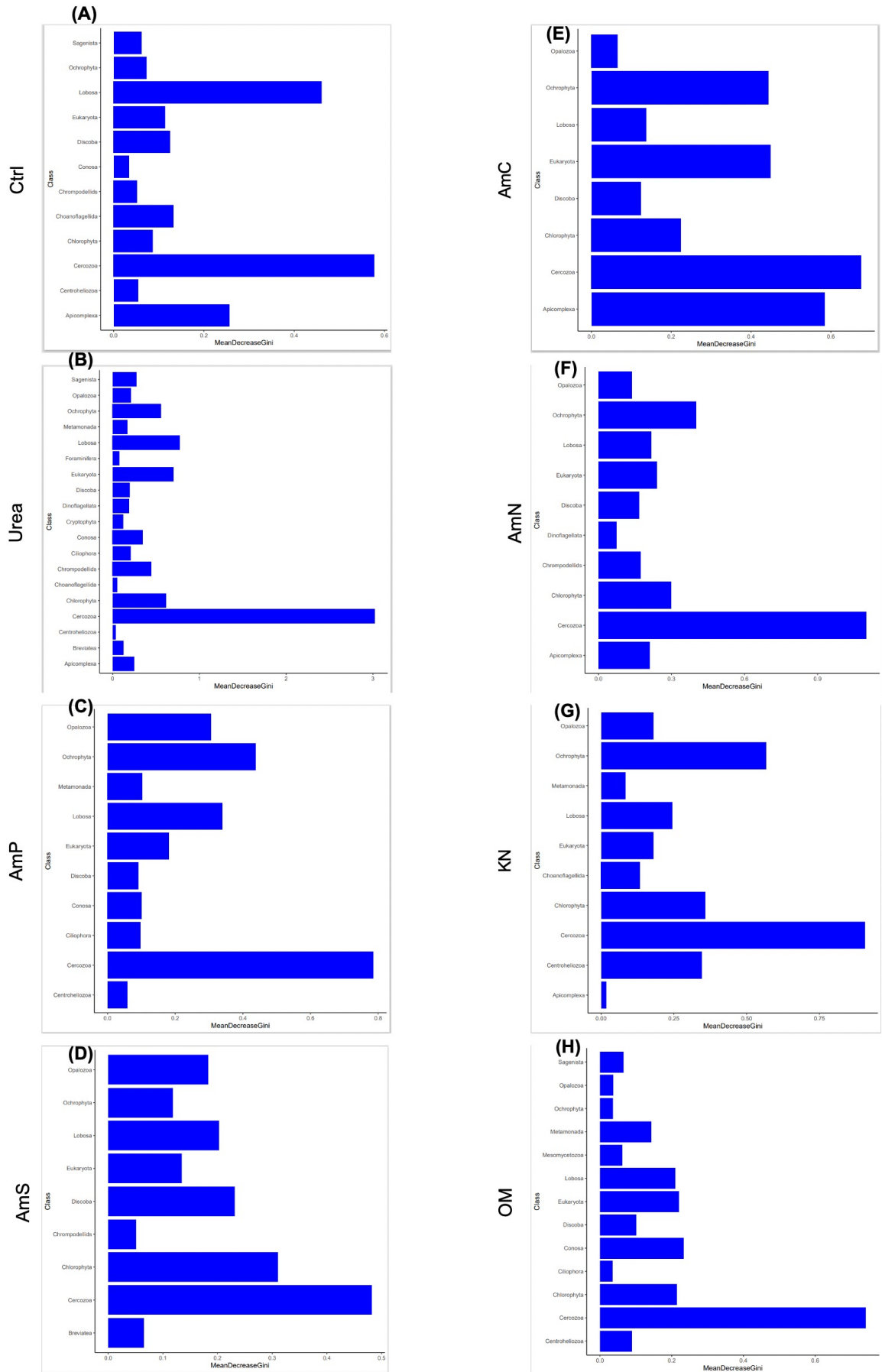
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**Fig. S1.** Bar plots show the alpha diversity of the protist community in each soil and treatment, using the evenness, Faith, Observed features, and Shannon index.



**Fig. S2.** Bar plots show each soil's alpha diversity of protists (Aichi; ACH, Nagano; NAG, and Shindori; SHD). The alpha diversity was measured using the Evenness, Faith, Observed features, and Shannon indexes. Ctrl, control treatment with no fertilizer addition; Urea, Urea treatment; AmP, Ammonium Phosphate treatment; AmC, Ammonium Chloride treatment; AmN, Ammonium Nitrate treatment; KN, Potassium Nitrate treatment; OM, Organic Matter. NS, no significant difference (ANOVA,  $p < 0.05$ ). The letters indicate a significant difference (ANOVA,  $p < 0.05$ ).



**Fig. S3.** Bar plots represent the Mean Decrease Gini of protists at the class level in a random forest analysis for each treatment indicating their importance in predicting the target variable. The higher the value, the more important the feature is in contributing to the model's accuracy. Ctrl, control treatment with no fertilizer addition; Urea, Urea treatment; AmP, Ammonium Phosphate treatment; AmC, Ammonium Chloride treatment; AmN, Ammonium Nitrate treatment; KN, Potassium Nitrate treatment; OM, Organic Matter.