Supporting Information

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Fig. S1. Sampling scheme. Three one-hectare plots (denoted I, II, and III in the diagram) were established in both pasture and forest, spaced at 1-km and 10-km distances. Nested 10-m², 1-m², 0.1-m² and 0.01-m² plots were established within each hectare quadrat (depicted in the detail blowup of the diagram). Soil cores (red stars in the diagram) were taken at the corners of each plot at each scale (for a total of 12 cores per hectare plot, and 36 per 10-km transect).



Fig. S2. Nonmetric multidimensional scaling plot of sampling points based on Bray–Curtis similarity. Vectors represent environmental variables: Al, aluminum; C, carbon; Ca, calcium; CEC, potential cation exchange capacity; H, hydrogen; Mg, magnesium; N, nitrogen; P, phosphorus; pH, potential activity of hydrogen; V, base saturation. Gray circles, pasture samples; black circles, forest samples.



Fig. S3. Response of landscape-scale diversity to ecosystem conversion. The accumulation of taxa (estimated for each soil core by using the abundance-based coverage estimator) with the number of soil cores. Each data point represents the mean of 30 independent resamplings. Open symbols, pasture samples; filled symbols, forest samples.

| Soil variable | Df | SS | MS | F | Р | Significance |
|---------------|----|-------|-------|---------|----------|--------------|
| Moisture | 1 | 5.218 | 5.218 | 139.794 | 2.08e-13 | *** |
| рН | 1 | 0.175 | 0.175 | 4.687 | 0.037718 | * |
| Total C | 1 | 0.414 | 0.414 | 11.099 | 0.002138 | ** |
| Total N | 1 | 0.018 | 0.018 | 0.492 | 0.487873 | ns |
| C/N ratio | 1 | 1.04 | 1.04 | 27.861 | 8.11e-06 | *** |
| Р | 1 | 0.676 | 0.676 | 18.12 | 0.000161 | *** |
| S | 1 | 0.2 | 0.2 | 5.36 | 0.026962 | * |
| К | 1 | 0.302 | 0.302 | 8.082 | 0.007613 | ** |
| Ca | 1 | 1.957 | 1.957 | 52.44 | 2.64e-08 | *** |
| Mg | 1 | 0.1 | 0.1 | 2.689 | 0.110568 | ns |
| Al | 1 | 0.45 | 0.45 | 12.046 | 0.001468 | ** |
| V | 1 | 0.068 | 0.068 | 1.83 | 0.185314 | ns |

Table S1. ANOVA results for comparison of environmental variables between forest and pasture soils

SS, sum of squares; MS, mean square. *, P < 0.05; **, P < 0.01; ***, P < 0.001; ns, nonsignificant.

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