**Supplementary materials**

Table S1 - Generalised linear mixed models used to estimate the relationships between aboveground biomass and the Y variables and associated measures of parsimony (AICc), support (ΔAICc, AICc weight) and goodness of fit (Marginal R2).

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Y Variable | Model structure | Log likelihood | AICc | ΔAICc | AICc weight | Marginal R2 |
| Soil respiration rate | Linear | -90.92 | 190.58 | 0 | 0.74 | 0.11 |
| Null | -93.45 | 193.33 | 2.75 | 0.19 | 0 |
| Quadratic | -91.96 | 195.05 | 4.47 | 0.08 | 0.12 |
| Net mineralisation | Quadratic | -239.73 | 490.72 | 0 | 0.63 | 0.05 |
| Linear | -241.57 | 491.96 | 1.24 | 0.34 | 0.05 |
| Null | -245.1 | 496.69 | 5.97 | 0.03 | 0 |
| Ectomycorrhizal fungi richness | Quadratic | -151 | 310.75 | 0 | 0.85 | 0.5 |
| Linear | -153.91 | 314.26 | 3.51 | 0.15 | 0.42 |
| Null | -183.05 | 370.32 | 59.57 | 0 | 0 |
| Ground flora richness | Linear | -194.62 | 395.67 | 0 | 0.74 | 0.47 |
| Quadratic | -194.53 | 397.79 | 2.12 | 0.26 | 0.46 |
| Null | -253.34 | 510.89 | 115.22 | 0 | 0 |
| Epiphytic lichens richness | Quadratic | -241.98 | 492.69 | 0 | 0.9 | 0.21 |
| Linear | -245.32 | 497.08 | 4.39 | 0.1 | 0.15 |
| Null | -261.67 | 527.55 | 34.86 | 0 | 0 |
| Commercially harvested fungi richness | Linear | -58.42 | 123.28 | 0 | 0.71 | 0.19 |
| Quadratic | -58.21 | 125.15 | 1.87 | 0.28 | 0.23 |
| Null | -64.03 | 132.28 | 9 | 0.01 | 0 |
| Recreation values | Linear | -2152.12 | 4312.28 | 0 | 1 | 0.03 |
| Quadratic | -2162.23 | 4334.53 | 22.25 | 0 | 0.03 |
| Null | -2170.47 | 4346.97 | 34.69 | 0 | 0 |
| Aesthetic values | Linear | -2124.17 | 4256.38 | 0 | 1 | 0.14 |
| Quadratic | -2135.89 | 4281.84 | 25.46 | 0 | 0.14 |
| Null | -2249.16 | 4504.35 | 247.97 | 0 | 0 |

Table S2 – Model-averaged coefficients of the generalised linear mixed models fitted.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Y Variable | Model parameter | Estimate | SE | P value |
| Aesthetic values | Intercept | -0.263 | 0.147 | 0.074 |
| AGB -linear | 0.007 | 0.01 | <0.001 |
| AGB - quadratic | <0.001 | <0.001 | 1 |
| Commercially harvested fungi richness | Intercept | -0.52 | 0.22 | 0.019 |
| AGB -linear | 0.53 | 0.18 | 0.004 |
| AGB - quadratic | -0.02 | 0.07 | 0.771 |
| Ectomycorrhizal fungi richness | Intercept | 2.15 | 0.08 | <0.001 |
| AGB -linear | 0.39 | 0.06 | <0.001 |
| AGB - quadratic | -0.07 | 0.05 | 0.112 |
| Epiphytic lichens richness | Intercept | 3.47 | 0.05 | <0.001 |
| AGB -linear | 0.16 | 0.03 | <0.001 |
| AGB - quadratic | -0.05 | 0.03 | 0.064 |
| Ground flora richness | Intercept | 2.63 | 0.08 | <0.001 |
| AGB -linear | -0.39 | 0.04 | <0.001 |
| AGB - quadratic | <0.001 | 0.02 | 0.843 |
| Net mineralisation | Intercept | 20.79 | 6.15 | 0.001 |
| AGB -linear | -4.97 | 3.15 | 0.123 |
| AGB - quadratic | -0.4 | 1.96 | 0.843 |
| Recreation values | Intercept | 0.558 | 0.141 | <0.001 |
| AGB -linear | 0.003 | <0.001 | <0.001 |
| AGB - quadratic | <0.001 | <0.001 | 0.997 |
| Soil respiration rate | Intercept | 4.25 | 2.04 | 4.25 |
| AGB -linear | 0.32 | 0.2 | 0.117 |
| AGB - quadratic | 0.01 | 0.04 | 0.885 |

Fig. S1: Relationships between above ground biomass and a) aesthetic values (Aes), b) commercially harvested fungi richness (CHF), c) ectomycorrhizal fungi richness (ECM), d) epiphytic lichens richness (EL), e) ground flora richness (GF), f) net mineralisation (NM), g) recreation values (Rec) and h) soil respiration rate (SRR). The black lines represent the averaged model fit.