### **Appendix S6.** Regressions parameters between resistance and the degree of disturbance.

**Table S6-1.** Details for the linear regressions fitted to estimate the relationships between resistance and the degree of disturbance for each ecosystem services and biodiversity values.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Pulse set | | | | | | Pulse + press set | | | | | |  |
| Variables | Best model | df | AICc | Intercept | Slope | R2 | Best model | df | AICc | Intercept | Slope | R2 | Threshold? |
| Aboveground biomass | Linear | 4 | 83.09 | 3.567 | 0.745 | 0.93 | Linear | 4 | 103.7 | -4.8 | 1.577 | 0.9 | No |
| Aesthetic values | Linear | 4 | 82.33 | 3.7 | 0.727 | 0.94 | Linear | 4 | 104.69 | -5.2 | 1.565 | 0.89 | No |
| Commercially harvested fungi richness | Linear | 4 | 83.34 | 3.7 | 0.777 | 0.94 | Linear | 4 | 102.19 | -3.967 | 1.593 | 0.91 | No |
| Ectomycorrhizal fungi richness | Linear | 4 | 82.51 | 3.567 | 0.728 | 0.94 | Linear | 4 | 104.47 | -5.1 | 1.57 | 0.89 | No |
| Epiphytic lichens richness | Linear | 4 | 83.9 | 3.3 | 0.69 | 0.92 | Linear | 4 | 107.14 | -6.133 | 1.543 | 0.86 | No |
| Ground flora richness | Linear | 4 | 120.06 | 71.8 | -1.41 | 0.58 | Linear | 4 | 120.06 | 71.8 | -1.41 | 0.58 | No |
| Net mineralisation | Linear | 4 | 120.06 | 71.8 | -1.41 | 0.58 | Linear | 4 | 120.06 | 71.8 | -1.41 | 0.58 | No |
| Recreation value | Linear | 4 | 83.75 | 3.433 | 0.705 | 0.92 | Linear | 4 | 106.15 | -5.767 | 1.553 | 0.87 | No |
| Soil nitrogen stock | Null | 3 | 33.27 | 6.333 | NA | 0 | Null | 3 | 33.27 | 6.333 | NA | 0 | No |
| Soil respiration rate | Linear | 4 | 83.09 | 3.567 | 0.745 | 0.93 | Linear | 4 | 103.7 | -4.8 | 1.577 | 0.9 | No |
| Timber volume | Linear | 4 | 97.58 | 0.6 | 1.547 | 0.94 | Linear | 4 | 104.24 | 0.1 | 1.688 | 0.9 | No |
| Total carbon stock | Linear | 4 | 82.13 | 3.767 | 0.73 | 0.94 | Linear | 4 | 104.85 | -5.4 | 1.563 | 0.88 | No |
| Trees species richness | Null | 3 | -733.86 | 6 | NA | 0 | Null | 3 | -733.86 | 6 | NA | 0 | No |

**Table S6-2.** Details for the linear regressions fitted to estimate the relationships between recovery time and the degree of disturbance for each ecosystem services and biodiversity values.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Pulse set | | | | | | Pulse + press set | | | | | |  |
| Variables | Best model | df | AICc | Intercept | Slope | R2 | Best model | df | AICc | Intercept | Slope | R2 | Threshold? |
| Aboveground biomass | Linear | 4 | 17.86 | -2.688 | 0.046 | 0.97 | Linear | 4 | 64.35 | -4.025 | 0.154 | 0.81 | No |
| Aesthetic values | Linear | 4 | 17.59 | -2.683 | 0.045 | 0.97 | Linear | 4 | 64.82 | -4.044 | 0.153 | 0.8 | No |
| Commercially harvested fungi richness | Linear | 4 | 20.24 | -2.669 | 0.047 | 0.97 | Linear | 4 | 63.5 | -3.979 | 0.154 | 0.82 | No |
| Ectomycorrhizal fungi richness | Linear | 4 | 16.5 | -2.692 | 0.045 | 0.97 | Linear | 4 | 64.67 | -4.04 | 0.153 | 0.8 | No |
| Epiphytic lichens richness | Linear | 4 | 15.61 | -2.725 | 0.044 | 0.97 | Linear | 4 | 65.85 | -4.097 | 0.152 | 0.78 | No |
| Ground flora richness | Linear | 4 | 74.59 | 4.004 | -0.145 | 0.58 | Linear | 4 | 74.59 | 4.004 | -0.145 | 0.58 | No |
| Net mineralisation | Linear | 4 | 74.59 | 4.004 | -0.145 | 0.58 | Linear | 4 | 74.59 | 4.004 | -0.145 | 0.58 | No |
| Recreation value | Linear | 4 | 16.54 | -2.709 | 0.045 | 0.97 | Linear | 4 | 65.43 | -4.078 | 0.153 | 0.79 | No |
| Soil nitrogen stock | Null | 3 | -7.07 | -2.715 | NA | 0 | Null | 3 | -7.07 | -2.715 | NA | 0 | No |
| Soil respiration rate | Linear | 4 | 17.86 | -2.688 | 0.046 | 0.97 | Linear | 4 | 64.35 | -4.025 | 0.154 | 0.81 | No |
| Timber volume | Linear | 4 | 61.98 | -3.442 | 0.132 | 0.8 | Linear | 4 | 57.83 | -3.738 | 0.159 | 0.9 | No |
| Total carbon stock | Linear | 4 | 18.34 | -2.68 | 0.045 | 0.97 | Linear | 4 | 64.97 | -4.06 | 0.153 | 0.8 | No |
| Trees species richness | Null | 3 | -733.29 | -2.769 | NA | 0 | Null | 3 | -733.29 | -2.769 | NA | 0 | No |

**Table S6-3.** Details for the regressions fitted to estimate the relationships between persistence and the degree of disturbance for each ecosystem services and biodiversity values.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Pulse set | | | | | | | Pulse + press set | | | | | | |  |
| Variables | Best model | df | AICc | Intercept | Slope | Quadratic coefficient | R2 | Best model | df | AICc | Intercept | Slope | Quadratic coefficient | R2 | Threshold? |
| Aboveground biomass | Null | 3 | -1206.55 | 1 | NA | NA | 0 | Quadratic | 5 | -31.94 | 0.906 | -0.221 | -0.107 | 0.98 | Yes |
| Aesthetic values | Null | 3 | -1206.55 | 1 | NA | NA | 0 | Quadratic | 5 | -70.16 | 0.983 | -0.065 | -0.039 | 0.98 | Yes |
| Commercially harvested fungi richness | Null | 3 | -1206.55 | 1 | NA | NA | 0 | Quadratic | 5 | -65.59 | 0.977 | -0.08 | -0.046 | 0.98 | Yes |
| Ectomycorrhizal fungi richness | Linear | 4 | -62.27 | 0.673 | 0.126 | NA | 0.98 | Quadratic | 5 | -37.4 | 0.929 | 0.147 | -0.065 | 0.96 | Yes |
| Epiphytic lichens richness | Quadratic | 5 | -58.76 | 0.591 | 0.121 | 0.023 | 0.98 | Quadratic | 5 | -28.87 | 0.902 | 0.171 | -0.064 | 0.95 | Yes |
| Ground flora richness | Null | 3 | -1206.55 | 1 | NA | NA | 0 | Quadratic | 5 | -48.45 | 0.948 | -0.142 | -0.075 | 0.98 | Yes |
| Net mineralisation | Null | 3 | -110.99 | 0.929 | NA | NA | 0 | Null | 3 | -73.4 | 0.852 | NA | NA | 0 | No |
| Recreation value | Null | 3 | -1206.55 | 1 | NA | NA | 0 | Quadratic | 5 | -92.02 | 0.989 | -0.037 | -0.021 | 0.99 | Yes |
| Soil nitrogen stock | Null | 3 | -1206.55 | 1 | NA | NA | 0 | Quadratic | 5 | -36.4 | 0.949 | -0.17 | -0.097 | 0.97 | Yes |
| Soil respiration rate | Null | 3 | -1206.55 | 1 | NA | NA | 0 | Quadratic | 5 | -106.79 | 0.992 | -0.024 | -0.013 | 0.99 | Yes |
| Timber volume | Null | 3 | -1206.55 | 1 | NA | NA | 0 | Null | 3 | -1206.55 | 1 | NA | NA | 0 | No |
| Total carbon stock | Null | 3 | -1206.55 | 1 | NA | NA | 0 | Quadratic | 5 | -37.18 | 0.912 | -0.187 | -0.084 | 0.98 | Yes |
| Trees species richness | Quadratic | 5 | -26.31 | 0.936 | -0.249 | -0.149 | 0.97 | Quadratic | 5 | -8.01 | 0.784 | -0.343 | -0.118 | 0.95 | Yes |