**Table S5:** Estimated average marginal effect (AME) of protection and environmental covariates (PCA axes) for each biodiversity indicator model. The reserve level is taken as the intercept.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Indicator | Explanatory variable | AME | SE | p-value | 2.5% CI | 97.5% CI |
| R | **spatial autocov** | **0.014** | **0.005** | **0.012** | **0.003** | **0.024** |
| **PC 1** | **0.052** | **0.014** | **0.000** | **0.024** | **0.079** |
| **PC 2** | **-0.051** | **0.016** | **0.001** | **-0.083** | **-0.020** |
| **PC 3** | **0.054** | **0.017** | **0.001** | **0.021** | **0.087** |
| PC 4 | 0.002 | 0.022 | 0.917 | -0.042 | 0.046 |
| **Reserve** | **-0.125** | **0.049** | **0.011** | **-0.221** | **-0.029** |
| FD | spatial autocov | 0.008 | 0.004 | 0.085 | -0.001 | 0.017 |
| PC 1 | -0.027 | 0.016 | 0.100 | -0.059 | 0.005 |
| **PC 2** | **0.038** | **0.019** | **0.042** | **0.001** | **0.076** |
| PC 3 | -0.030 | 0.020 | 0.137 | -0.069 | 0.009 |
| PC 4 | -0.005 | 0.026 | 0.840 | -0.057 | 0.046 |
| **Reserve** | **0.145** | **0.058** | **0.012** | **0.032** | **0.259** |
| PD | **spatial autocov** | **0.016** | **0.005** | **0.001** | **0.007** | **0.026** |
| **PC 1** | **-0.058** | **0.011** | **0.000** | **-0.080** | **-0.035** |
| **PC 2** | **0.027** | **0.013** | **0.038** | **0.001** | **0.052** |
| PC 3 | -0.014 | 0.014 | 0.311 | -0.041 | 0.013 |
| PC 4 | -0.003 | 0.018 | 0.851 | -0.039 | 0.032 |
| **Reserve** | **0.087** | **0.039** | **0.027** | **0.010** | **0.164** |
| LFI | **spatial autocov** | **0.027** | **0.010** | **0.006** | **0.008** | **0.047** |
| PC 1 | -0.018 | 0.014 | 0.194 | -0.044 | 0.009 |
| PC 2 | 0.001 | 0.016 | 0.939 | -0.030 | 0.032 |
| PC 3 | -0.002 | 0.017 | 0.899 | -0.035 | 0.031 |
| PC 4 | 0.033 | 0.022 | 0.133 | -0.010 | 0.077 |
| Reserve | -0.054 | 0.049 | 0.271 | -0.150 | 0.042 |
| Crypto | **spatial autocov** | **0.898** | **0.271** | **0.001** | **0.366** | **1.430** |
| **PC 1** | **0.051** | **0.014** | **0.000** | **0.023** | **0.078** |
| PC 2 | -0.004 | 0.016 | 0.790 | -0.036 | 0.027 |
| PC 3 | 0.000 | 0.017 | 0.998 | -0.033 | 0.033 |
| **PC 4** | **-0.063** | **0.022** | **0.004** | **-0.107** | **-0.020** |
| Reserve | -0.001 | 0.048 | 0.989 | -0.095 | 0.094 |
| DP\_B\_ratio | **spatial autocov** | **0.600** | **0.161** | **0.000** | **0.284** | **0.916** |
| PC 1 | -0.015 | 0.009 | 0.122 | -0.033 | 0.004 |
| **PC 2** | **0.024** | **0.011** | **0.026** | **0.003** | **0.045** |
| PC 3 | -0.006 | 0.011 | 0.573 | -0.029 | 0.016 |
| PC 4 | 0.010 | 0.015 | 0.505 | -0.019 | 0.040 |
| **Reserve** | **0.071** | **0.033** | **0.030** | **0.007** | **0.136** |
| RedList | spatial autocov | 0.003 | 0.002 | 0.058 | 0.000 | 0.007 |
| PC 1 | -0.037 | 0.020 | 0.060 | -0.075 | 0.002 |
| PC 2 | -0.037 | 0.021 | 0.081 | -0.078 | 0.005 |
| PC 3 | 0.050 | 0.026 | 0.054 | -0.001 | 0.101 |
| PC 4 | -0.031 | 0.031 | 0.308 | -0.092 | 0.029 |
| Reserve | 0.002 | 0.065 | 0.977 | -0.126 | 0.130 |
| Chondri | spatial autocov | 0.001 | 0.001 | 0.448 | -0.002 | 0.004 |
| **PC 1** | **-0.126** | **0.047** | **0.007** | **-0.217** | **-0.034** |
| PC 2 | -0.050 | 0.030 | 0.097 | -0.109 | 0.009 |
| PC 3 | 0.049 | 0.040 | 0.218 | -0.029 | 0.126 |
| PC 4 | -0.029 | 0.046 | 0.531 | -0.119 | 0.061 |
| Reserve | -0.106 | 0.080 | 0.184 | -0.263 | 0.051 |
| Vulner | **spatial autocov** | **0.022** | **0.010** | **0.027** | **0.003** | **0.041** |
| **PC 1** | **0.048** | **0.013** | **0.000** | **0.023** | **0.073** |
| PC 2 | -0.013 | 0.015 | 0.393 | -0.042 | 0.016 |
| PC 3 | 0.015 | 0.015 | 0.314 | -0.014 | 0.045 |
| **PC 4** | **-0.055** | **0.020** | **0.006** | **-0.095** | **-0.016** |
| Reserve | 0.017 | 0.044 | 0.697 | -0.069 | 0.104 |
| Commercial | **spatial autocov** | **0.006** | **0.003** | **0.030** | **0.001** | **0.012** |
| PC 1 | 0.010 | 0.011 | 0.388 | -0.012 | 0.031 |
| **PC 2** | **0.033** | **0.013** | **0.010** | **0.008** | **0.059** |
| **PC 3** | **-0.034** | **0.014** | **0.012** | **-0.061** | **-0.008** |
| PC 4 | 0.031 | 0.018 | 0.083 | -0.004 | 0.067 |
| Reserve | 0.026 | 0.040 | 0.514 | -0.052 | 0.104 |
| High\_commerc | **spatial autocov** | **0.022** | **0.004** | **0.000** | **0.013** | **0.031** |
| PC 1 | 0.002 | 0.011 | 0.859 | -0.020 | 0.024 |
| **PC 2** | **0.041** | **0.013** | **0.002** | **0.015** | **0.067** |
| PC 3 | -0.025 | 0.014 | 0.080 | -0.052 | 0.003 |
| **PC 4** | **0.052** | **0.019** | **0.005** | **0.016** | **0.089** |
| Reserve | 0.063 | 0.041 | 0.122 | -0.017 | 0.142 |