**Supplementary material Table 5**: position on the ordination of all fitted functional groups (based on traits) in NMDS1 and NMDS2) and their significance.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Functional group** | **NMDS1** | **NMDS2** | **R2** | ***P*** | |
| **Birds** | |
| omnivorous | -0.95 | 0.32 | 0.11 | 0.18 |  |
| insectivorous | -0.31 | 0.95 | 0.25 | 0.02 | \* |
| granivorous | 0.88 | 0.47 | 0.60 | <0.001 | \*\*\* |
| carnivorous | 0.41 | 0.91 | 0.02 | 0.77 |  |
| ground | 0.75 | 0.66 | 0.40 | 0.00 | \*\* |
| tree | 0.09 | 1.00 | 0.21 | 0.03 | \* |
| air | 0.27 | 0.96 | 0.21 | 0.04 | \* |
| near ground | 0.20 | -0.98 | 0.02 | 0.75 |  |
| cavities | -0.47 | 0.88 | 0.16 | 0.09 | . |
| nest tree branches | 0.75 | 0.66 | 0.66 | <0.001 | \*\*\* |
| nest bushes | -0.56 | -0.83 | 0.12 | 0.18 |  |
| nest built structures | 0.74 | 0.67 | 0.07 | 0.34 |  |
| nest ground.1 | 0.81 | 0.58 | 0.01 | 0.90 |  |
| nest sand bank | 0.00 | 0.00 | 0.00 |  |  |
| body (less 11.9 cm) | -0.42 | 0.91 | 0.41 | <0.001 | \*\*\* |
| body (12 to 16.9 cm) | 0.80 | 0.60 | 0.70 | <0.001 | \*\*\* |
| body (17 to 26.9 cm) | -0.98 | 0.18 | 0.02 | 0.74 |  |
| body (more 27 cm) | 0.60 | -0.80 | 0.02 | 0.82 |  |
|  |  |  |  |  |  |
| **Lichens** |  |  |  |  |  |
| water 1 (very hygrophytic) | 0.35 | -0.94 | 0.00 | 0.93 |  |
| water 2 | 0.88 | -0.48 | 0.21 | 0.03 | \* |
| water 3 | 0.84 | 0.54 | 0.44 | <0.001 | \*\*\* |
| water 4 | -0.85 | -0.53 | 0.50 | <0.001 | \*\*\* |
| water 5 (very xerophytic) | -1.00 | -0.03 | 0.51 | <0.001 | \*\*\* |
| eutrof 1 (very oligotrophic) | 0.96 | 0.28 | 0.46 | <0.001 | \*\*\* |
| eutrof 2 | 0.99 | 0.16 | 0.27 | 0.01 | \*\* |
| eutrof 3 | 1.00 | -0.06 | 0.28 | 0.01 | \* |
| eutrof 4 | -0.98 | -0.22 | 0.47 | <0.001 | \*\*\* |
| eutrof 5 (very nitrophytic) | -0.91 | -0.42 | 0.54 | <0.001 | \*\*\* |
|  |  |  |  |  |  |
| **Butterflies** |  |  |  |  |  |
| univoltine | 0.47 | 0.88 | 0.26 | 0.01 | \* |
| multivoltine | 0.00 | 1.00 | 0.53 | <0.001 | \*\*\* |
| bivoltine | 0.05 | 1.00 | 0.21 | 0.05 | . |
| overwinter\_ larva | 0.19 | 0.98 | 0.28 | 0.01 | \*\* |
| overwinter\_ larva/pupa | -0.08 | 1.00 | 0.50 | <0.001 | \*\*\* |
| overwinter pupa | 0.28 | 0.96 | 0.29 | 0.02 | \* |
| host plant oligophagous | 0.11 | 0.99 | 0.53 | 0.00 | \*\*\* |
| host plant polyphagous | 0.35 | 0.94 | 0.18 | 0.07 | . |
| host plant monophagous | 0.02 | 1.00 | 0.20 | 0.05 | . |
| herbaceous | 0.14 | 0.99 | 0.49 | <0.001 | \*\*\* |
| herbaceous/shrubs | 0.35 | 0.94 | 0.19 | 0.07 | . |
| trees | -0.11 | 0.99 | 0.18 | 0.08 | . |
| shrubs | 0.05 | 1.00 | 0.21 | 0.05 | . |
| size large (≥27.5 mm)small (≤17.5 mm) | 0.21 | 0.98 | 0.32 | 0.02 | \* |
| size medium (17.5-27.5 mm) | 0.04 | 1.00 | 0.40 | 0.00 | \*\* |
| size small (≤17.5 mm) | 0.39 | 0.92 | 0.23 | 0.02 | \* |
| dispersal l (minimum) | -0.48 | 0.88 | 0.18 | 0.12 |  |
| dispersal 2 | 0.52 | 0.86 | 0.18 | 0.05 | . |
| dispersal 3 | -0.13 | 0.99 | 0.66 | <0.001 | \*\*\* |
| dispersal 4 (maximal) | 0.22 | 0.98 | 0.32 | 0.02 | \* |
| habitat 4 (not specialist) | 0.25 | 0.97 | 0.40 | 0.01 | \*\* |
| habitat 3 | -0.13 | 0.99 | 0.48 | <0.001 | \*\*\* |
| habitat 2 (specialized) | 0.24 | 0.97 | 0.09 | 0.22 |  |