**Supplementary Material:**

Fig. S1: Southern Brazil map, showing the distribution of the 15 collection points (1-8 representing flooded swamps, 9-15 representing nonflooded woods). Most collections were performed in the Rio Grande do Sul Brazilian state (RS in the map), across the Pampa and Mata Atlântica biomes (distinguished by distinct colors in the map). The RS coastal plain embraces the two of the Brazilian largest lagoons (Patos and Mirim Lagoons).

Table 1S. Group-wise hierarchical diversity estimates multiplicatively partitioned into alpha (within group), beta (among groups) and gamma (total) components according to richness measures. Uncertainty estimates were approximated using 999 bootstrap replicates, whose 0.95 quantiles are presented at the bottom of each table. L2 patterns, for points 1-8 and 9-15 refer to flooded areas and nonflooded areas, respectively, whereas L3 patterns were encountered for the total set of sampling points.

|  |
| --- |
| L3 patterns: points 1-15 |
|  | alpha | beta | gamma | turnover | Homogeneity |
| points 1-15 | 32.00 | 1.56 | 50.00 | 0.56 | 0.28 |
| SE | 4.06 | 0.21 | 7.24 | 0.21 | 0.25 |
| q0.025 | 18.50 | 1.02 | 20.00 | 0.02 | 0.23 |
| q0.975 | 33.50 | 1.63 | 47.00 | 0.63 | 0.96 |
|  |  |  |  |  |  |
| L2 patterns: points 1-8 |
|  | alpha | beta | gamma | turnover | Homogeneity |
| points 1-8 | 8.38 | 3.22 | 27.00 | 0.32 | 0.21 |
| SE | 1.65 | 0.47 | 3.91 | 0.07 | 0.07 |
| q0.025 | 5.13 | 1.91 | 14.00 | 0.13 | 0.16 |
| q0.975 | 11.63 | 3.76 | 27.00 | 0.39 | 0.46 |
|  |  |  |  |  |  |
| L2 patterns: points 9-15 |
|  | alpha | beta | gamma | turnover | Homogeneity |
| points 9-15 | 11.86 | 3.12 | 37.00 | 0.35 | 0.21 |
| SE | 1.58 | 0.33 | 4.35 | 0.06 | 0.07 |
| q0.025 | 9.14 | 1.80 | 20.00 | 0.13 | 0.21 |
| q0.975 | 15.15 | 3.12 | 36.00 | 0.35 | 0.48 |