**Table S2.** Results of Spearman correlations between the size of randomly generated paired assemblages under scenarios of varying differences of species richness (1:1, 1:0.5, 1:0.1), considering highly-conservative Holm-Bonferroni sequential adjustments of P-values. Significant results are marked with an asterisk.

| Measure | 1:1 | | 1:0.5 | | 1:0.1 | |
|---|---|---|---|---|---|---|
| | r | P | r | P | r | P |
| $\beta_j$ | −0.074 | 0.465 | 0.117 | 0.246 | 0.273 | 0.006 |
| $\beta_{sor}$ | −0.042 | 0.679 | 0.132 | 0.19 | 0.276 | 0.005 |
| $\beta_{sim}$ | 0.042 | 0.679 | −0.077 | 0.446 | 0.08 | 0.427 |
| $\beta_{-3}$ | 0.074 | 0.465 | −0.018 | 0.859 | 0.106 | 0.292 |
| $\beta_{-2}$ | 0.042 | 0.679 | −0.034 | 0.738 | 0.102 | 0.314 |
| $\beta_r$ | 0.004 | 0.967 | −0.081 | 0.421 | 0.095 | 0.346 |
| $\beta_{sne}$ | – | – | −0.034 | 0.737 | −0.154 | 0.127 |
| $\beta_{jtu}$ | 0.074 | 0.465 | −0.048 | 0.632 | 0.124 | 0.218 |
| $\beta_{jne}$ | – | – | −0.017 | 0.871 | −0.15 | 0.136 |
| $\beta_{rich}$ | – | – | −0.227 | 0.023 | −0.374 | <0.0001* |
| $\beta_{rich.s}$ | – | – | −0.439 | <0.0001* | −0.489 | <0.0001* |
| $\beta_{-3.s}$ | 0.042 | 0.679 | −0.048 | 0.636 | 0.1 | 0.323 |