

Table S12. Model estimates of persistence-area relationships (realized-PAR and potential-PAR) and species-area relationships (Diversity-SAR) using averaged scaling of suitable habitat. Separate models were fit for each scale.

| Data type | Scale level | Estimated proportion | 95% CI |
|-----------------------------|-------------|----------------------|-----------|
| Diversity (SAR) | plot | 0.56 | 0.5, 0.6 |
| Potential with neighbors | plot | 0.17 | 0.14, 0.2 |
| Potential without neighbors | plot | 0.32 | 0.26, 0.4 |
| Realized with neighbors | plot | 0.10 | 0.07, 0.1 |
| Realized without neighbors | plot | 0.18 | 0.14, 0.2 |
| Diversity (SAR) | grid | 0.96 | 0.87, 1 |
| Potential with neighbors | grid | 0.14 | 0.06, 0.3 |
| Potential without neighbors | grid | 0.53 | 0.33, 0.7 |
| Realized with neighbors | grid | 0.14 | 0.06, 0.3 |
| Realized without neighbors | grid | 0.49 | 0.3, 0.7 |
| Diversity (SAR) | site | 1.00 | 1, 1 |
| Potential with neighbors | site | 0.10 | 0.02, 0.4 |
| Potential without neighbors | site | 0.59 | 0.24, 0.9 |
| Realized with neighbors | site | 0.10 | 0.02, 0.4 |
| Realized without neighbors | site | 0.59 | 0.24, 0.9 |