Appendix 1

**Table S1.** Observed species richness and first-order jackknife estimates for individual-based rarefaction curves for ground beetle species collected in 2013-2015 in forests at Powdermill Nature Reserve, Rector, Pennsylvania, USA.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Treatment** | **Year** | **Observed Species Richness** | **First-order Jackknife Estimate** | **Percentage of Species Sampled** |
| Canopy Gap | 2013 | 26 | 31.9 | 81.5% |
|  | 2014 | 29 | 36.9 | 78.5% |
|  | 2015 | 31 | 38.9 | 79.6% |
| Understory Removed | 2013 | 29 | 37.9 | 76.5% |
|  | 2014 | 24 | 25.9 | 92.6% |
|  | 2015 | 25 | 29.9 | 83.6% |
| Canopy + Understory | 2013 | 29 | 35.9 | 80.7% |
|  | 2014 | 29 | 35.9 | 80.7% |
|  | 2015 | 31 | 42.9 | 72.2% |
| Undisturbed | 2013 | 21 | 26.9 | 78.0% |
|  | 2014 | 25 | 32.9 | 75.9% |
|  | 2015 | 25 | 36.9 | 67.7% |

**Figure S1.** Pearson correlation analyses were used to assess the relationships among ground beetle traits. Traits that were highly correlated (≥ 0.70) were removed from further analyses. The traits shown below are: Dispersal capacity (dis); body length (bl); minimum body length range (bl\_min); maximum body length range (bl\_max); body length range (blr); head width (rhw); mandible length (rml); eye width (rew); antennae length (al); and back leg length (bll). Minimum and maximum body length and antennae length had correlation coefficients of 0.70 or higher with other traits and were removed.

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**Figure S2**. Individual-based rarefaction curves for ground beetle species collected in 2013 (top), 2014 (middle), and 2015 (bottom) in forests at Powdermill Nature Reserve, Rector, Pennsylvania, USA. Vertical lines indicate 95% confidence intervals.

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