Table S1. Test statistics and P-values for analyses presented in Figures 1 – 4. The significance of no choice results were assessed with Wald Chi-squared tests, whereas the significance of choice results were assessed with F tests.

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| Trial type | Figure  | Data subset | Predictor | Test statistic | P value |
| No choice | 1 | *A. allardi* | Plant species | χ2 = 10.9 | < 0.001 |
| No choice | 1 | *G. pennsylvanicus* | Plant species | χ2 = 14.8 | < 0.001 |
| No choice | 1 | *H. pensylvanicus* | Plant species | χ2 = 13.7 | < 0.001 |
| No choice | 1 | *P. melanarius* | Plant species | χ2 = 20.6 | < 0.001 |
| Choice | 2 | *A. allardi* | Plant species | F = 22.39 | < 0.001 |
| Choice | 2 | *G. pennsylvanicus* | Plant species | F = 4.19 | < 0.001 |
| Choice | 2 | *H. pensylvanicus* | Plant species | F = 8.45 | < 0.001 |
| Choice | 2 | *P. melanarius* | Plant species | F = 8.45 | < 0.001 |
| No choice | 3 | *A. theophrasti* | Insect species | χ2 = 6.7 | < 0.001 |
| No choice | 3 | *A. artemisiifolia* | Insect species | χ2 = 0.88 | 0.35 |
| No choice | 3 | *H. vulgare* | Insect species | χ2 = 5.7 | 0.002 |
| No choice | 3 | *L. multiflorum* | Insect species | χ2 = 4.6 | 0.03 |
| No choice | 3 | *P. glaucum* | Insect species | χ2 = 4.2 | 0.04 |
| No choice | 3 | *R. raphanistrum* | Insect species | χ2 = 4.1 | 0.04 |
| No choice | 3 | *S. cereal* | Insect species | χ2 = 6.0 | 0.01 |
| No choice | 3 | *S. faberi* | Insect species | χ2 = 13.5 | < 0.001 |
| No choice | 3 | *S. alba* | Insect species | χ2 = 4.5 | 0.03 |
| No choice | 3 | *T. incarnatum* | Insect species | χ2 = 4.5 | 0.03 |
| No choice | 3 | *T. pratense* | Insect species | χ2 = 5.7 | 0.02 |
| No choice | 3 | *Triticale* | Insect species | χ2 = 4.4 | 0.04 |
| No choice | 3 | *V. villosa* | Insect species | χ2 = 0.32 | 0.57 |
| Choice | 4 | *A. theophrasti* | Insect species | NA\* | NA\* |
| Choice | 4 | *A. artemisiifolia* | Insect species | F = 0.85 | 0.52 |
| Choice | 4 | *H. vulgare* | Insect species | F = 0.57 | 0.65 |
| Choice | 4 | *L. multiflorum* | Insect species | F = 10.52 | < 0.001 |
| Choice | 4 | *P. glaucum* | Insect species | F = 0.48 | 0.7 |
| Choice | 4 | *R. raphanistrum* | Insect species | F = 14.22 | 0.005 |
| Choice | 4 | *S. cereal* | Insect species | F = 6.5 | 0.01 |
| Choice | 4 | *S. faberi* | Insect species | F = 15.1 | < 0.001 |
| Choice | 4 | *S. alba* | Insect species | F = 15.2 | < 0.001 |
| Choice | 4 | *T. incarnatum* | Insect species | F = 5.1 | 0.04 |
| Choice | 4 | *T. pratense* | Insect species | F = 12.2 | < 0.001 |
| Choice | 4 | *Triticale* | Insect species | F = 21.4 | < 0.001 |
| Choice | 4 | *V. villosa* | Insect species | NA\* | NA\* |