Appendix S5. List of species identified from negative controls with *rbcL*, and the number of reads and frequency compared to pollen samples.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Taxon | Total no. of reads in negative controls | Frequency of occurrence in negative controls | Total no. of reads in bee samples | Frequency of occurrence above threshold in bee samples |
| Phylum Streptophyta | 56,395 | 41 | 3,164,307 | 195 |
| Species *Haemodorum laxum* | 10,486 | 39 | 236,889 | 28 |
| Genus *Hypericum* | 9022 | 32 | 12,474 | 3 |
| Species *Passiflora incarnata* | 7512 | 26 | 20,410 | 3 |
| Family Vitaceae | 2648 | 18 | 4415 | 2 |
| Class Liliopsida | 2196 | 38 | 48,946 | 16 |
| Species *Vitis rotundifolia* | 2072 | 7 | 3196 | 1 |
| Family Rubiaceae | 1330 | 11 | 4142 | 2 |
| Genus *Passiflora* | 1326 | 15 | 3188 | 2 |
| Family Fabaceae | 1235 | 41 | 638,996 | 56 |
| Family Melastomataceae | 954 | 8 | 1137 | 1 |
| Genus *Populus*\* | 851 | 7 | 104 | 0 |
| Family Haemodoraceae | 667 | 22 | 16,686 | 6 |
| Genus *Vitis* | 502 | 3 | 745 | 0 |
| Clade/subclass rosids | 394 | 31 | 31,406 | 13 |
| Family Lamiaceae | 271 | 40 | 134,042 | 20 |
| Species *Amorpha fruticosa* | 202 | 6 | 952 | 0 |
| Order Commelinales | 107 | 8 | 2390 | 0 |
| Genus *Ilex* | 82 | 26 | 48,273 | 9 |
| Species *Centrosema virginianum* | 70 | 4 | 4160 | 2 |
| Genus *Polanisia* | 64 | 28 | 100,157 | 36 |
| Species *Picea abies*\* | 61 | 1 | 59 | 0 |
| Species *Chamaecrista fasciculata*\* | 56 | 3 | 30 | 0 |
| Order Brassicales | 52 | 21 | 36,595 | 20 |
| Species *Syngonanthus flavidulus* | 51 | 18 | 23,700 | 4 |
| Species *Astronia meyeri* | 46 | 3 | 51 | 0 |
| Species *Richardia scabra*\* | 42 | 3 | 30 | 0 |
| Genus *Prunus*\* | 35 | 1 | 18 | 0 |
| Family Arecaceae | 33 | 12 | 10,556 | 3 |
| Family Rutaceae\* | 28 | 1 | 1 | 0 |
| Family Asteraceae | 26 | 13 | 19,237 | 7 |
| Family Cleomaceae | 24 | 15 | 24,352 | 11 |
| Species *Polanisia dodecandra* | 22 | 15 | 10,856 | 0 |
| Family Convolvulaceae | 22 | 11 | 9861 | 1 |
| Clade/subclass asterids | 22 | 10 | 903 | 0 |
| Order Malpighiales | 22 | 5 | 28 | 0 |
| Species *Populus deltoides*\* | 21 | 3 | 11 | 0 |
| Genus *Magnolia* | 19 | 10 | 18,083 | 1 |
| Family Passifloraceae | 19 | 3 | 33 | 0 |
| Genus *Pinus* | 14 | 2 | 1039 | 0 |
| Species *Lachnocaulon minus* | 11 | 7 | 8457 | 2 |
| Species *Polypremum procumbens* | 9 | 6 | 4759 | 1 |
| Order Lamiales | 9 | 7 | 1188 | 0 |
| Order Myrtales | 9 | 2 | 16 | 0 |
| Genus *Lachnocaulon* | 8 | 6 | 535 | 0 |
| Species *Hypericum hypericoides* | 8 | 5 | 125 | 0 |
| Genus *Centrosema* | 7 | 4 | 248 | 0 |
| Species *Poa pratensis*\* | 7 | 1 | 1 | 0 |
| Family Zamiaceae | 6 | 5 | 1283 | 1 |
| Family Eriocaulaceae | 6 | 6 | 970 | 0 |
| Order Gentianales\* | 6 | 2 | 5 | 0 |
| Species *Cyrilla racemiflora* | 5 | 5 | 1382 | 0 |
| Order Apiales | 4 | 4 | 480 | 0 |
| Genus *Rhexia* | 4 | 2 | 4 | 0 |
| Family Salicaceae\* | 4 | 1 | 1 | 0 |
| Species *Prunus davidiana*\* | 4 | 1 | 0 | 0 |
| Species *Lepidozamia hopei* | 3 | 3 | 5095 | 1 |
| Family Apiaceae | 3 | 3 | 3006 | 1 |
| Genus *Paspalum* | 3 | 2 | 1668 | 0 |
| Species *Cnidoscolus urens* | 3 | 2 | 1044 | 1 |
| Family Nymphaeaceae | 3 | 3 | 735 | 0 |
| Species *Nekemias cantoniensis* | 3 | 2 | 4 | 0 |
| Genus *Fagopyrum*\* | 3 | 1 | 0 | 0 |
| Genus *Eryngium* | 2 | 2 | 1112 | 1 |
| Species *Mimosa scabrella* | 2 | 2 | 860 | 0 |
| Genus *Solanum* | 2 | 2 | 417 | 0 |
| Genus *Richardia* | 2 | 1 | 3 | 0 |
| Species *Mollugo verticillata* | 2 | 1 | 2 | 0 |
| Species *Rudbeckia hirta* | 1 | 1 | 5071 | 2 |
| Genus *Nymphaea* | 1 | 1 | 1665 | 1 |
| Species *Eriocaulon compressum* | 1 | 1 | 1141 | 1 |
| Species *Scutellaria galericulata* | 1 | 1 | 1078 | 1 |
| Species *Solanum carolinense* | 1 | 1 | 706 | 0 |
| Genus *Smilax* | 1 | 1 | 659 | 0 |
| Genus *Hibiscus* | 1 | 1 | 659 | 0 |
| Genus *Clitoria* | 1 | 1 | 501 | 0 |
| Genus *Mimosa* | 1 | 1 | 440 | 0 |
| Family Malvaceae | 1 | 1 | 356 | 0 |
| Family Ericaceae | 1 | 1 | 206 | 0 |
| Family Euphorbiaceae | 1 | 1 | 147 | 0 |
| Species *Ilex rotunda* | 1 | 1 | 135 | 0 |
| Family Lythraceae | 1 | 1 | 132 | 0 |
| Family Poaceae | 1 | 1 | 131 | 0 |
| Genus *Lathyrus* | 1 | 1 | 69 | 0 |
| Genus *Syngonanthus* | 1 | 1 | 59 | 0 |
| Family Cyrillaceae | 1 | 1 | 43 | 0 |
| Family Solanaceae | 1 | 1 | 20 | 0 |
| Order Caryophyllales | 1 | 1 | 16 | 0 |
| Genus *Amaranthus* | 1 | 1 | 3 | 0 |
| Order Zingiberales | 1 | 1 | 1 | 0 |
| Family Hypericaceae | 1 | 1 | 1 | 0 |
| Species *Passiflora serratodigitata*\* | 1 | 1 | 0 | 0 |
| Species *Teucrium scorodonia*\* | 1 | 1 | 0 | 0 |
| Species *Vitex trifolia*\* | 1 | 1 | 0 | 0 |

\* Denotes taxa that were identified from a greater number of sequencing reads in negative controls than in samples.