Supplemental Table 2

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Taxon | N of occurrences | Mean abundance (%) | PANN | |  | Alpha | |  | TANN | |
| Rank | % |  | Rank | % |  | Rank | % |
| *Pinus* | 1175 | 19.35 | 1 | 38.1 |  | 5 | 12.1 |  | 2 | 14.1 |
| *Artemisia* | 1262 | 16.78 | 1 | 39.7 |  | 2 | 19.5 |  | 5 | 10.1 |
| Chenopodiaceae | 975 | 12.06 | 1 | 48.1 |  | 2 | 24.6 |  | 6 | 5.4 |
| *Castanopsis* | 369 | 5.83 | 1 | 28.6 |  | 6 | 7.5 |  | 4 | 10.9 |
| Poaceae | 1104 | 4.00 | 3 | 20.2 |  | 5 | 10.6 |  | 6 | 10.5 |
| *Betula* | 736 | 3.73 | 2 | 18.7 |  | 4 | 13.1 |  | 5 | 9.0 |
| Cyperaceae | 744 | 3.23 | 3 | 21.7 |  | 4 | 11.1 |  | 6 | 7.2 |
| *Cyclobalanopsis* | 345 | 3.16 | 1 | 53.2 |  | 6 | 3.7 |  | 4 | 8.6 |
| *Quercus* | 613 | 2.85 | 2 | 18.6 |  | 5 | 14.2 |  | 6 | 13.4 |
| *Ephedra* | 585 | 2.33 | 2 | 23.5 |  | 1 | 41.7 |  | 3 | 9.9 |
| *Picea* | 377 | 1.73 | 6 | 11.2 |  | 2 | 20.5 |  | 1 | 21.8 |
| Asteraceae | 928 | 1.57 | 4 | 14.7 |  | 2 | 16.3 |  | 6 | 7.6 |
| Ranunculaceae | 605 | 0.95 | 5 | 11.2 |  | 6 | 10.1 |  | 1 | 27.3 |
| Rosaceae | 603 | 0.93 | 2 | 17.9 |  | 4 | 11.8 |  | 6 | 6.0 |
| *Alnus* | 408 | 0.77 | 1 | 27.9 |  | 4 | 10.9 |  | 6 | 7.7 |
| Fabaceae | 518 | 0.72 | 1 | 22.9 |  | 5 | 15.1 |  | 2 | 17.9 |
| *Nitraria* | 386 | 0.71 | 1 | 33.2 |  | 2 | 21.5 |  | 3 | 14.7 |
| *Tamarix* | 197 | 0.70 | 2 | 27.5 |  | 1 | 45.9 |  | 4 | 7.5 |
| *Abies* | 237 | 0.68 | 2 | 16.8 |  | 5 | 13.8 |  | 4 | 14.5 |
| *Mallotus* | 162 | 0.63 | 2 | 20.5 |  | 6 | 9.2 |  | 3 | 20.2 |
| *Polygonum* | 403 | 0.63 | 4 | 15.2 |  | 1 | 41.9 |  | 5 | 5.4 |
| Brassicaceae | 450 | 0.56 | 1 | 25.1 |  | 4 | 16.4 |  | 6 | 6.0 |
| *Corylus* | 452 | 0.53 | 2 | 21.3 |  | 3 | 16.5 |  | 6 | 7.8 |
| Caryophyllaceae | 273 | 0.51 | 4 | 3.0 |  | 5 | 2.7 |  | 6 | 1.8 |
| *Juglans* | 332 | 0.42 | 2 | 26.9 |  | 4 | 13.0 |  | 3 | 13.0 |
| *Carpinus* | 282 | 0.41 | 2 | 24.1 |  | 1 | 32.7 |  | 5 | 8.2 |
| Taxodiaceae | 179 | 0.39 | 4 | 16.4 |  | 6 | 10.6 |  | 5 | 10.9 |
| Apiaceae | 352 | 0.37 | 5 | 7.1 |  | 4 | 12.6 |  | 6 | 2.2 |
| *Elaeagnus* | 243 | 0.37 | 2 | 23.2 |  | 4 | 14.5 |  | 1 | 29.7 |
| Lamiaceae | 333 | 0.37 | 4 | 8.2 |  | 5 | 3.9 |  | 6 | 1.9 |
| *Liquidambar* | 159 | 0.35 | 2 | 22.5 |  | 6 | 5.2 |  | 3 | 14.7 |
| *Ulmus* | 376 | 0.35 | 6 | 12.6 |  | 4 | 16.0 |  | 2 | 19.6 |
| Ericaceae | 208 | 0.34 | 2 | 21.0 |  | 3 | 15.3 |  | 4 | 11.6 |
| *Larix* | 128 | 0.34 | 4 | 11.5 |  | 5 | 4.9 |  | 6 | 3.0 |
| *Myrica* | 187 | 0.32 | 1 | 33.7 |  | 4 | 12.9 |  | 3 | 17.0 |
| *Populus* | 131 | 0.31 | 2 | 29.0 |  | 1 | 36.3 |  | 5 | 6.8 |
| *Platycarya* | 78 | 0.30 | 5 | 10.8 |  | 4 | 11.5 |  | 3 | 12.8 |
| Scrophulariaceae | 219 | 0.30 | 2 | 19.4 |  | 3 | 18.1 |  | 6 | 2.0 |
| Cupressaceae | 150 | 0.27 | 3 | 3.6 |  | 4 | 3.4 |  | 5 | 2.8 |
| *Salix* | 269 | 0.26 | 4 | 7.9 |  | 6 | 2.6 |  | 5 | 6.7 |
| *Castanea* | 170 | 0.25 | 1 | 29.6 |  | 6 | 7.2 |  | 3 | 16.1 |
| Araliaceae | 148 | 0.24 | 2 | 25.2 |  | 5 | 8.1 |  | 3 | 18.7 |
| Euphorbiaceae | 228 | 0.24 | 1 | 24.7 |  | 3 | 14.8 |  | 6 | 9.9 |
| *Ilex* | 169 | 0.24 | 4 | 18.1 |  | 6 | 7.8 |  | 2 | 21.0 |
| Moraceae | 217 | 0.21 | 3 | 20.4 |  | 6 | 6.1 |  | 2 | 22.4 |
| *Convolvulus* | 162 | 0.20 | 6 | 8.9 |  | 2 | 20.6 |  | 4 | 14.5 |
| Liliaceae | 221 | 0.20 | 4 | 6.7 |  | 6 | 3.4 |  | 5 | 4.2 |
| *Pterocarya* | 137 | 0.20 | 2 | 17.8 |  | 5 | 7.5 |  | 3 | 15.6 |
| *Tsuga* | 109 | 0.19 | 6 | 4.5 |  | 4 | 19.1 |  | 5 | 14.9 |
| *Elaeocarpus* | 118 | 0.18 | 3 | 21.4 |  | 5 | 11.4 |  | 4 | 14.4 |
| *Rhus* | 131 | 0.16 | 5 | 14.3 |  | 1 | 24.3 |  | 6 | 11.3 |
| *Sanguisorba* | 94 | 0.16 | 4 | 12.0 |  | 6 | 4.2 |  | 2 | 22.6 |
| Saxifragaceae | 173 | 0.16 | 3 | 15.3 |  | 4 | 12.8 |  | 6 | 10.5 |
| *Eurya* | 99 | 0.14 | 4 | 12.7 |  | 6 | 7.0 |  | 1 | 32.9 |
| Myrtaceae | 89 | 0.14 | 2 | 17.5 |  | 5 | 7.1 |  | 1 | 51.2 |
| Oleaceae | 176 | 0.14 | 3 | 19.3 |  | 1 | 23.6 |  | 4 | 14.2 |
| *Plantago* | 147 | 0.14 | 3 | 18.2 |  | 2 | 27.6 |  | 6 | 3.2 |
| Solanaceae | 121 | 0.14 | 3 | 24.7 |  | 2 | 35.0 |  | 5 | 0.6 |
| Rutaceae | 135 | 0.12 | 2 | 19.3 |  | 5 | 15.3 |  | 4 | 15.8 |
| Verbenaceae | 69 | 0.12 | 2 | 19.4 |  | 1 | 20.2 |  | 6 | 11.2 |
| *Symplocos* | 111 | 0.11 | 1 | 32.1 |  | 5 | 8.5 |  | 3 | 15.1 |
| Urticaceae | 172 | 0.11 | 1 | 38.8 |  | 6 | 8.3 |  | 5 | 8.5 |
| Cannabaceae | 105 | 0.10 | 4 | 17.0 |  | 3 | 18.6 |  | 5 | 7.2 |
| Hamamelidaceae | 119 | 0.10 | 2 | 22.3 |  | 6 | 7.3 |  | 4 | 15.1 |
| *Tilia* | 154 | 0.10 | 2 | 21.7 |  | 4 | 17.2 |  | 3 | 17.7 |
| Anacardiaceae | 93 | 0.09 | 2 | 16.8 |  | 6 | 11.1 |  | 3 | 16.2 |
| Rhamnaceae | 91 | 0.09 | 1 | 68.9 |  | 2 | 15.4 |  | 5 | 2.7 |
| Rubiaceae | 105 | 0.09 | 3 | 12.4 |  | 5 | 6.0 |  | 1 | 48.2 |
| Primulaceae | 89 | 0.08 | 5 | 8.9 |  | 2 | 30.2 |  | 6 | 2.9 |
| *Celtis* | 88 | 0.07 | 1 | 39.0 |  | 5 | 11.6 |  | 4 | 13.7 |
| *Gentiana* | 99 | 0.06 | 4 | 14.7 |  | 1 | 30.0 |  | 2 | 18.9 |
| *Rumex* | 74 | 0.06 | 3 | 16.0 |  | 1 | 28.8 |  | 6 | 5.7 |
| Theaceae | 81 | 0.06 | 1 | 30.9 |  | 3 | 13.5 |  | 6 | 9.7 |
| *Acer* | 85 | 0.05 | 3 | 17.2 |  | 4 | 11.9 |  | 6 | 5.5 |
| *Carya* | 75 | 0.04 | 3 | 17.6 |  | 5 | 9.8 |  | 2 | 21.2 |

Supplemental Table 2 continued

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Taxon | N of occurrences | Mean abundance (%) | MTWA | |  | MTCO | |  | GDD5 | |
| Rank | % |  | Rank | % |  | Rank | % |
| *Pinus* | 1175 | 19.35 | 6 | 9.2 |  | 4 | 12.9 |  | 3 | 13.6 |
| *Artemisia* | 1262 | 16.78 | 4 | 10.2 |  | 3 | 10.4 |  | 6 | 10.0 |
| Chenopodiaceae | 975 | 12.06 | 3 | 8.3 |  | 4 | 8.2 |  | 5 | 5.5 |
| *Castanopsis* | 369 | 5.83 | 5 | 10.7 |  | 3 | 19.2 |  | 2 | 23.0 |
| Poaceae | 1104 | 4.00 | 4 | 12.8 |  | 1 | 23.0 |  | 2 | 22.8 |
| *Betula* | 736 | 3.73 | 3 | 15.9 |  | 1 | 34.9 |  | 6 | 8.3 |
| Cyperaceae | 744 | 3.23 | 1 | 25.2 |  | 5 | 10.1 |  | 2 | 24.8 |
| *Cyclobalanopsis* | 345 | 3.16 | 3 | 13.0 |  | 2 | 15.1 |  | 5 | 6.4 |
| *Quercus* | 613 | 2.85 | 1 | 18.6 |  | 3 | 18.5 |  | 4 | 16.8 |
| *Ephedra* | 585 | 2.33 | 6 | 8.2 |  | 5 | 8.3 |  | 4 | 8.4 |
| *Picea* | 377 | 1.73 | 5 | 14.6 |  | 3 | 16.9 |  | 4 | 15.0 |
| Asteraceae | 928 | 1.57 | 3 | 15.2 |  | 5 | 12.2 |  | 1 | 33.9 |
| Ranunculaceae | 605 | 0.95 | 3 | 17.9 |  | 2 | 18.9 |  | 4 | 14.6 |
| Rosaceae | 603 | 0.93 | 1 | 39.0 |  | 5 | 9.1 |  | 3 | 16.2 |
| *Alnus* | 408 | 0.77 | 3 | 17.3 |  | 2 | 26.4 |  | 5 | 9.9 |
| Fabaceae | 518 | 0.72 | 3 | 15.4 |  | 4 | 15.1 |  | 6 | 13.6 |
| *Nitraria* | 386 | 0.71 | 6 | 9.8 |  | 5 | 10.3 |  | 4 | 10.5 |
| *Tamarix* | 197 | 0.70 | 3 | 8.4 |  | 5 | 6.5 |  | 6 | 4.3 |
| *Abies* | 237 | 0.68 | 3 | 16.0 |  | 1 | 25.8 |  | 6 | 13.1 |
| *Mallotus* | 162 | 0.63 | 4 | 10.4 |  | 1 | 29.7 |  | 4 | 9.9 |
| *Polygonum* | 403 | 0.63 | 3 | 16.4 |  | 6 | 2.5 |  | 2 | 18.6 |
| Brassicaceae | 450 | 0.56 | 3 | 21.9 |  | 5 | 7.7 |  | 2 | 22.9 |
| *Corylus* | 452 | 0.53 | 5 | 9.6 |  | 1 | 32.1 |  | 4 | 12.6 |
| Caryophyllaceae | 273 | 0.51 | 1 | 69.6 |  | 2 | 14.1 |  | 3 | 8.8 |
| *Juglans* | 332 | 0.42 | 5 | 11.0 |  | 1 | 27.0 |  | 6 | 9.1 |
| *Carpinus* | 282 | 0.41 | 4 | 10.1 |  | 3 | 19.9 |  | 6 | 5.0 |
| Taxodiaceae | 179 | 0.39 | 2 | 17.9 |  | 1 | 27.4 |  | 3 | 16.8 |
| Apiaceae | 352 | 0.37 | 2 | 22.8 |  | 3 | 13.7 |  | 1 | 41.6 |
| *Elaeagnus* | 243 | 0.37 | 6 | 5.5 |  | 3 | 16.8 |  | 5 | 10.3 |
| Lamiaceae | 333 | 0.37 | 1 | 46.6 |  | 3 | 11.9 |  | 2 | 27.6 |
| *Liquidambar* | 159 | 0.35 | 1 | 32.5 |  | 5 | 12.3 |  | 4 | 12.8 |
| *Ulmus* | 376 | 0.35 | 1 | 21.5 |  | 3 | 16.0 |  | 5 | 14.3 |
| Ericaceae | 208 | 0.34 | 5 | 9.0 |  | 1 | 35.0 |  | 6 | 8.0 |
| *Larix* | 128 | 0.34 | 3 | 19.0 |  | 1 | 42.4 |  | 2 | 19.2 |
| *Myrica* | 187 | 0.32 | 6 | 5.1 |  | 2 | 21.6 |  | 5 | 9.8 |
| *Populus* | 131 | 0.31 | 3 | 16.2 |  | 4 | 9.3 |  | 6 | 2.3 |
| *Platycarya* | 78 | 0.30 | 6 | 10.8 |  | 1 | 42.1 |  | 2 | 13.4 |
| Scrophulariaceae | 219 | 0.30 | 1 | 38.4 |  | 4 | 12.2 |  | 5 | 9.8 |
| Cupressaceae | 150 | 0.27 | 1 | 76.8 |  | 2 | 10.8 |  | 6 | 2.6 |
| *Salix* | 269 | 0.26 | 3 | 11.8 |  | 1 | 59.1 |  | 2 | 11.8 |
| *Castanea* | 170 | 0.25 | 5 | 10.9 |  | 2 | 22.2 |  | 4 | 13.9 |
| Araliaceae | 148 | 0.24 | 6 | 5.5 |  | 1 | 33.1 |  | 4 | 9.4 |
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| *Ilex* | 169 | 0.24 | 1 | 22.4 |  | 3 | 20.3 |  | 5 | 10.4 |
| Moraceae | 217 | 0.21 | 5 | 6.2 |  | 1 | 33.3 |  | 4 | 11.6 |
| *Convolvulus* | 162 | 0.20 | 3 | 16.0 |  | 1 | 28.9 |  | 5 | 11.0 |
| Liliaceae | 221 | 0.20 | 2 | 26.1 |  | 1 | 34.0 |  | 3 | 25.7 |
| *Pterocarya* | 137 | 0.20 | 1 | 40.3 |  | 4 | 11.7 |  | 6 | 7.0 |
| *Tsuga* | 109 | 0.19 | 3 | 19.4 |  | 1 | 22.1 |  | 2 | 20.1 |
| *Elaeocarpus* | 118 | 0.18 | 6 | 4.7 |  | 2 | 22.5 |  | 1 | 25.5 |
| *Rhus* | 131 | 0.16 | 3 | 16.7 |  | 2 | 19.1 |  | 4 | 14.3 |
| *Sanguisorba* | 94 | 0.16 | 5 | 4.8 |  | 1 | 40.4 |  | 3 | 16.1 |
| Saxifragaceae | 173 | 0.16 | 5 | 11.9 |  | 1 | 32.4 |  | 2 | 17.0 |
| *Eurya* | 99 | 0.14 | 2 | 19.1 |  | 3 | 18.4 |  | 5 | 9.8 |
| Myrtaceae | 89 | 0.14 | 4 | 9.1 |  | 3 | 12.8 |  | 6 | 2.3 |
| Oleaceae | 176 | 0.14 | 2 | 20.6 |  | 5 | 12.3 |  | 6 | 10.0 |
| *Plantago* | 147 | 0.14 | 1 | 39.3 |  | 4 | 7.0 |  | 5 | 4.8 |
| Solanaceae | 121 | 0.14 | 1 | 38.1 |  | 6 | 0.5 |  | 4 | 1.1 |
| Rutaceae | 135 | 0.12 | 3 | 17.0 |  | 1 | 20.4 |  | 6 | 12.2 |
| Verbenaceae | 69 | 0.12 | 3 | 17.1 |  | 5 | 15.9 |  | 4 | 16.2 |
| *Symplocos* | 111 | 0.11 | 4 | 14.4 |  | 2 | 21.9 |  | 6 | 8.1 |
| Urticaceae | 172 | 0.11 | 2 | 21.4 |  | 3 | 13.9 |  | 4 | 9.2 |
| Cannabaceae | 105 | 0.10 | 2 | 23.1 |  | 1 | 27.5 |  | 6 | 6.5 |
| Hamamelidaceae | 119 | 0.10 | 3 | 18.2 |  | 1 | 22.4 |  | 5 | 14.6 |
| *Tilia* | 154 | 0.10 | 5 | 10.8 |  | 1 | 25.6 |  | 6 | 7.1 |
| Anacardiaceae | 93 | 0.09 | 4 | 15.6 |  | 1 | 26.9 |  | 5 | 13.4 |
| Rhamnaceae | 91 | 0.09 | 4 | 3.9 |  | 6 | 2.4 |  | 3 | 6.6 |
| Rubiaceae | 105 | 0.09 | 6 | 5.7 |  | 2 | 19.8 |  | 4 | 7.8 |
| Primulaceae | 89 | 0.08 | 1 | 32.4 |  | 4 | 10.5 |  | 3 | 15.0 |
| *Celtis* | 88 | 0.07 | 3 | 14.2 |  | 2 | 14.9 |  | 6 | 6.6 |
| *Gentiana* | 99 | 0.06 | 5 | 12.6 |  | 3 | 16.3 |  | 6 | 7.4 |
| *Rumex* | 74 | 0.06 | 5 | 11.6 |  | 4 | 11.9 |  | 2 | 26.0 |
| Theaceae | 81 | 0.06 | 5 | 12.6 |  | 2 | 20.4 |  | 4 | 12.9 |
| *Acer* | 85 | 0.05 | 1 | 35.7 |  | 2 | 20.6 |  | 5 | 9.1 |
| *Carya* | 75 | 0.04 | 4 | 13.5 |  | 1 | 31.1 |  | 6 | 6.7 |