**Supplementary Material**

**Table S1.** Number of species sampled at the four study sites in the Jalapão region (Tocantins state, Brazil) according to botanical family and habit.

|  |  |  |
| --- | --- | --- |
| SPECIES | Habit | Sites |
|  |  | 4 | 1 | 2 | 3 |
| Amaranthaceae |  |  |  |  |  |
| *Gomphrena agrestis* Mart. | herb | 3 | 12 | 20 | 6 |
| *Gomphrena graminea* Moq. | herb | 1 | 0 | 0 | 0 |
| *Gomphrena virgata* Mart. | herb | 1 | 0 | 0 | 2 |
| Apocynaceae |  |  |  |  |  |
| *Hemipogon acerosus* Decne. | herb | 0 | 0 | 0 | 13 |
| Arecaceae |  |  |  |  |  |
| *Astrocaryum campestre* Mart. | palm | 25 | 34 | 70 | 53 |
| *Syagrus glazioviana* (Dammer) Becc. | palm | 102 | 81 | 188 | 61 |
| Asteraceae |  |  |  |  |  |
| *Aspilia leucoglossa* Malme | subshrub | 1 | 13 | 23 | 1 |
| Cactaceae |  |  |  |  |  |
| *Discocactus catingicola* Buining & Brederoo | herb | 0 | 0 | 2 | 0 |
| Convolvulaceae |  |  |  |  |  |
| *Ipomoea cf. pyrenea* Meisn. | herb | 0 | 11 | 0 | 37 |
| *Jacquemontia evolvuloides* (Moric.) Meisn. | herb | 0 | 6 | 0 | 1 |
| Cyperaceae |  |  |  |  |  |
| *Bulbostylis conifera* (Kunth) C.B.Clarke | herb | 32 | 50 | 10 | 181 |
| *Bulbostylis junciformis* (Kunth) C.B.Clarke | herb | 10 | 127 | 99 | 119 |
| *Cyperus aggregatus* (Willd.) Endl. | herb | 1 | 7 | 0 | 0 |
| *Lagenocarpus verticillatus* (Spreng.) T.Koyama & Maguire | herb | 54 | 40 | 0 | 21 |
| *Rhynchospora consanguinea* (Kunth) Boeckeler | herb | 12 | 7 | 0 | 1 |
| *Rhynchospora terminalis* Nees ex Steud. | herb | 0 | 11 | 22 | 177 |
| Dioscoreaceae |  |  |  |  |  |
| *Dioscorea compacta* D.Araújo | herb | 0 | 13 | 0 | 0 |
| Euphorbiaceae |  |  |  |  |  |
| *Croton agoensis* Baill. | herb | 123 | 77 | 190 | 153 |
| *Croton grandivelus* Baill. | subshrub | 14 | 22 | 16 | 22 |
| *Euphorbia sarcodes* Boiss. | herb | 0 | 1 | 0 | 0 |
| *Euphorbia potentilloides* Boiss. | herb | 20 | 25 | 33 | 74 |
| *Manihot decurrens* M.Mend. & M.Martins | herb | 0 | 2 | 3 | 25 |
| Iridaceae |  |  |  |  |  |
| *Trimezia cathartica*(Klatt) Niederl. | herb | 0 | 3 | 3 | 0 |
| Lamiaceae |  |  |  |  |  |
| Lamiaceae sp.1 | subshrub | 1 | 0 | 0 | 0 |
| Leguminosae |  |  |  |  |  |
| *Aeschynomene paniculata* Willd. Ex Vogel | subshrub | 0 | 1 | 0 | 0 |
| *Arachis marginata* Gardner | herb | 0 | 0 | 0 | 48 |
| *Centrosema venosum* Mart. ex Benth. | herb | 26 | 25 | 38 | 9 |
| *Chamaecrista desvauxii* var. *desvauxii* (Collad.) Killip | subshrub | 20 | 29 | 45 | 52 |
| *Clitoria aff. guianensis* (Aubl.) Benth. | subshrub | 15 | 7 | 18 | 2 |
| *Mimosa piptoptera* Barneby | subshrub | 6 | 1 | 11 | 2 |
| *Stylosanthes* *guianensis* (Aubl.) Sw | subshrub | 7 | 0 | 9 | 4 |
| Lythraceae |  |  |  |  |  |
| *Cuphea micrantha* Kunth | herb | 0 | 0 | 17 | 5 |
| Marantaceae |  |  |  |  |  |
| *Maranta longiflora* S.Vieira & V.C.Souza | herb | 0 | 0 | 1 | 1 |
| Poaceae |  |  |  |  |  |
| *Axonopus marginatus* (Trin.) Chase | herb | 1 | 52 | 92 | 51 |
| *Ichnanthus hoffmannseggii* (Roem. & Schult.) Doll | herb | 0 | 0 | 0 | 14 |
| *Loudetiopsis chrysothrix* (Nees) Conert | herb | 31 | 27 | 9 | 86 |
| *Mesosetum loliiforme* (Hochst.) Chase | herb | 77 | 61 | 33 | 127 |
| *Paspalum marmoratum* Kuhlm. | herb | 0 | 0 | 1 | 28 |
| *Trachypogon spicatus* (L.f.) Kuntze | herb | 172 | 274 | 266 | 206 |
| Poaceae sp.1 | herb | 0 | 0 | 23 | 0 |
| Poaceae sp.2 | herb | 0 | 0 | 3 | 0 |
| Poaceae sp.3 | herb | 0 | 17 | 7 | 34 |
| Poaceae sp.4 | herb | 0 | 0 | 0 | 6 |
| Poaceae sp.5 | herb | 0 | 0 | 33 | 3 |
| Poaceae sp.6 | herb | 7 | 23 | 20 | 23 |
| Poaceae sp.7 | herb | 0 | 0 | 0 | 6 |
| Poaceae sp.8 | herb | 0 | 0 | 0 | 4 |
| Poaceae sp.9 | herb | 0 | 18 | 0 | 2 |
| Poaceae sp.10 | herb | 0 | 1 | 0 | 1 |
| Poaceae sp.11 | herb | 1 | 19 | 43 | 0 |
| Polygalaceae |  |  |  |  |  |
| *Polygala bringelii* J.F.B.Pastore & Antar | subshrub | 0 | 4 | 0 | 2 |
| *Polygala equisetoides* A.St.-Hil. & Moq. | herb | 0 | 0 | 2 | 2 |
| *Polygala longicaulis* Kunth | herb | 0 | 1 | 4 | 0 |
| Rubiaceae |  |  |  |  |  |
| *Borreria crispata* (K.Schum.) E.L.Cabral & Bacigalupo | subshrub | 5 | 21 | 39 | 14 |
| Smilacaceae |  |  |  |  |  |
| *Smilax oblongifolia* Pohl ex Griseb. | subshrub | 0 | 2 | 12 | 16 |
| Turneraceae |  |  |  |  |  |
| *Piriqueta breviseminata* Arbo | subshrub | 0 | 71 | 23 | 0 |
| *Turnera macrosperma* L.Rocha & Arbo | subshrub | 8 | 4 | 2 | 7 |
| Velloziaceae |  |  |  |  |  |
| *Vellozia squamata* Pohl | herb | 8 | 7 | 8 | 9 |
| Verbenaceae |  |  |  |  |  |
| *Casselia confertiflora* (Moldenke) Moldenke | subshrub | 9 | 8 | 5 | 6 |
| Indeterminate  |  |  |  |  |  |
| Indet sp.1 | herb | 0 | 7 | 0 | 0 |
| Indet sp.2 | subshrub | 0 | 0 | 0 | 4 |
| Indet sp.3 | herb | 0 | 0 | 2 | 12 |
| Indet sp.4 | herb | 0 | 0 | 0 | 3 |
| Indet sp.5 | herb | 2 | 0 | 0 | 1 |
| Indet sp.6 | subshrub | 1 | 0 | 0 | 0 |
| Indet sp.7 | herb | 3 | 0 | 0 | 0 |
| Indet sp.8 | herb | 2 | 0 | 0 | 0 |
| Indet sp.9 | herb | 0 | 9 | 20 | 0 |