**Similar vegetation structure in protected and non-protected wetlands in Central Brazil: conservation significance**

SUZANA N. MOREIRA, PEDRO V. EISENLOHR, ARNILDO POTT,VALI J. POTT AND ARY T. OLIVEIRA-FILHO

**SUPPLEMENTARY MATERIAL**

**Table S1** Species found in the 12 wetlands in central-western Brazil, with their respective occurrences (marked with X), relative frequencies (RF) and cover values (RC). The grey shading corresponds to the species that occurred in both sets of inventoried areas.

| Family | Species | With *M. flexuosa* | Without *M. flexuosa* | RF | RC |
| --- | --- | --- | --- | --- | --- |
| Acanthaceae | *Justicia laevilinguis* (Nees) Lindau | X | X | 0.04 | 0.15 |
|  | *Ruellia angustifolia* Sw. |  | X | 0.32 | 0.30 |
| Alismataceae | *Echinodorus grisebachii* Small |  | X | 0.02 | 0.15 |
|  | *Echinodorus longipetalus* Micheli | X | X | 1.25 | 1.04 |
|  | *Helanthium bolivianum* (Rusby) Lehtonen & Myllys | X | X | 0.74 | 1.39 |
|  | *Helanthium tenellum* (Martius) Britton |  | X | 0.07 | 0.05 |
|  | *Sagittaria rhombifolia* Cham. | X | X | 0.16 | 0.50 |
| Anacardiaceae | *Tapirira guianensis* Aubl. | X |  | 0.04 | 0.10 |
| Annonaceae | *Xylopia emarginata* Mart. | X |  | 0,02 | 0.05 |
| Apiaceae | *Eryngium ebracteatum* Lam. | X | X | 0.08 | 0.35 |
|  | *Eryngium floribundum* Cham. & Schltdl. | X |  | 0.10 | 0.25 |
|  | *Eryngium pandanifolium* Cham. & Schltdl. | X | X | 0.58 | 0.70 |
| Apocynaceae | *Asclepias mellodora* A. St.-Hil. |  | X | 0,02 | 0.05 |
|  | *Mandevilla widgrenii* C. Ezcurra | X | X | 0.01 | 0.05 |
|  | *Mandevilla rugosa* (Benth.) Woodson | X | X | 0.09 | 0.35 |
|  | *Rhabdadenia ragonesei* Woodson | X | X | 0.06 | 0.50 |
|  | *Widgrenia corymbosa* Malme | X |  | 0.12 | 0.10 |
| Aquifoliaceae | *Ilex affinis* Gardner | X |  | 0.10 | 0.15 |
| Araceae | *Urospatha sagittifolia* (Rudge) Schott | X | X | 0.06 | 0.30 |
|  | *Xanthosoma striatipes* (Kunth & Bouché) Madison | X |  | 0.05 | 0.25 |
| Araliaceae | *Hydrocotyle pusilla* A. Rich. |  | X | 0.02 | 0.10 |
| Arecaceae | *Mauritia flexuosa* L.f. | X |  | 0.05 | 0.05 |
| Asteraceae | *Achyrocline alata* (Kunth) DC. |  | X | 0,02 | 0.05 |
|  | *Acilepidopsis echitifolia* (Mart. ex DC.) H. Rob. | X | X | 0.48 | 0.70 |
|  | *Adenostemma suffruticosum* Gardner |  | X | 0.02 | 0.10 |
|  | *Baccharis glutinosa* Pers. |  | X | 0.01 | 0.05 |
|  | *Chromolaena laevigata* (Lam.) R.M. King & H. Rob. | X | X | 0.15 | 0.20 |
|  | *Clibadium armanii* (Balb.) Sch. Bip. ex O.E. Schulz | X |  | 0,02 | 0.05 |
|  | *Elephantopus palustris* Gardner | X | X | 0.16 | 0.50 |
|  | *Erechtites hieraciifolius* (L.) Raf. ex DC. | X | X | 0.05 | 0.20 |
|  | *Eupatorium caaguazuense* Hieron. | X |  | 0.10 | 0.25 |
|  | *Leptostelma tweediei* (Hook. & Arn.) D.J.N. Hind & G.L. Nesom | X | X | 0.21 | 0.65 |
|  | *Lessingianthus* aff. *bardanoides* (Less.) H. Rob. |  | X | 0.01 | 0.05 |
|  | *Mikania cordifolia* (L. f.) Willd. | X |  | 0.01 | 0.10 |
|  | *Mikania micrantha* Kunth |  | X | 0.03 | 0.20 |
|  | *Mikania stenophylla* W.C. Holmes | X |  | 0.18 | 0.10 |
|  | *Picrosia longifolia* D. Don | X |  | 0.06 | 0.10 |
|  | *Senecio* sp. | X |  | 0.04 | 0.10 |
|  | *Symphyotrichum squamatum* (Spreng.) G.L.Nesom | X |  | 0.01 | 0.10 |
|  | *Trichogonia crenulata* (Gardner) D.J.N. Hind | X | X | 0.15 | 0.65 |
|  | *Vernonanthura brasiliana* (L.) Druce |  | X | 0.13 | 0.20 |
|  | *Vernonanthura cuneifolia* (Gardner) H. Rob. | X |  | 0,02 | 0.05 |
|  | *Vernonanthura rubricaulis* Bonpl. | X | X | 0.09 | 0.45 |
| Begoniaceae | *Begonia cucullata* Willd. | X | X | 0.08 | 0.35 |
| Bignoniaceae | *Tabebuia insignis* (Miq.) Sandwith | X | X | 0.36 | 0.25 |
| Burmanniaceae | *Burmannia capitata* (Walter ex J.F. Gmel.) Mart. | X | X | 0.02 | 0.10 |
|  | *Burmannia flava* Mart. |  | X | 0,01 | 0.05 |
| Cabombaceae | *Cabomba furcata* Schult. & Schult. f. | X |  | 0.12 | 0.10 |
| Characeae | *Chara rusbyana* M.A.Howe |  | X | 0.05 | 0.10 |
| Commelinaceae | *Murdannia gardneri* (Seub.) G. Brückn. | X |  | 0.03 | 0.10 |
| Cyatheaceae | *Cyathea delgadii* Sternb. |  | X | 0.11 | 0.05 |
| Cyperaceae | *Ascolepis brasiliensis* (Kunth) Benth. ex C.B. Clarke | X | X | 0.24 | 0.95 |
|  | *Calyptrocarya glomerulata* (Brongn.) Urb. |  | X | 0.03 | 0.05 |
|  | *Cyperus haspan* L. | X | X | 0.32 | 1.19 |
|  | *Cyperus humilis* Kunth |  | X | 0.02 | 0.15 |
|  | *Cyperus odoratus* L. | X |  | 0.02 | 0.20 |
|  | *Cyperus reflexus* Vahl | X | X | 0.09 | 0.50 |
|  | *Eleocharis acutangula* (Roxb.) Schult. | X |  | 0.09 | 0.20 |
|  | *Eleocharis capillacea* Kunth | X | X | 0.25 | 0.70 |
|  | *Eleocharis elegans* (Kunth) Roem. & Schult. | X | X | 0.61 | 0.45 |
|  | *Eleocharis geniculata* (L.) Roem. & Schult. |  | X | 0.05 | 0.25 |
|  | *Eleocharis interstincta* (Vahl) Roem. & Schult. | X | X | 0.10 | 0.15 |
|  | *Eleocharis minima* Kunth | X | X | 0.08 | 0.55 |
|  | *Eleocharis nudipes* (Kunth) H. Pfeiff. | X | X | 0.63 | 0.85 |
|  | *Eleocharis plicarhachis* (Griseb.) Svenson | X | X | 0.75 | 0.90 |
|  | *Eleocharis* sp. | X |  | 0.11 | 0.20 |
|  | *Exochogyne amazonica* C.B. Clarke | X | X | 0.04 | 0.10 |
|  | *Fimbristylis autumnalis* (L.) Roem. & Schult. |  | X | 0.02 | 0.15 |
|  | *Fimbristylis dichotoma* (L.) Vahl |  | X | 0.04 | 0.05 |
|  | *Fuirena incompleta* Nees | X | X | 0.22 | 0.55 |
|  | *Fuirena umbellata* Rottb. | X | X | 0.08 | 0.40 |
|  | *Lipocarpha humboldtiana* Nees | X | X | 0.35 | 1.84 |
|  | *Pycreus lanceolatus* (Poir.) C.B.Clarke | X | X | 0.09 | 0.35 |
|  | *Pycreus megapotamicus* (Kunth) Nees | X | X | 0.04 | 0.25 |
|  | *Pycreus unioloides* (R. Br.) Urb. | X | X | 0.15 | 0.70 |
|  | *Rhynchospora albiceps* Kunth | X |  | 0,02 | 0.05 |
|  | *Rhynchospora corymbosa* (L.) Britton |  | X | 0.27 | 0.25 |
|  | *Rhynchospora emaciata* (Nees) Boeckeler | X | X | 12.01 | 2.44 |
|  | *Rhynchospora globosa* (Kunth) Roem. & Schult. | X | X | 0.57 | 0.85 |
|  | *Rhynchospora marisculus* Lindl. ex Nees | X | X | 0.30 | 1.59 |
|  | *Rhynchospora robusta* (Kunth) Boeckeler | X | X | 0.15 | 0.45 |
|  | *Rhynchospora rugosa* (Vahl) Gale |  | X | 0.06 | 0.10 |
|  | *Rhynchospora* sp. | X | X | 0.85 | 0.40 |
|  | *Rhynchospora trispicata* (Nees) Schrad. ex Steud. | X | X | 0.08 | 0.35 |
|  | *Rhynchospora velutina*  (Kunth) Boeckeler | X | X | 1.55 | 0.45 |
|  | *Scleria distans* Poir. |  | X | 0.03 | 0.10 |
|  | *Scleria leptostachya* Kunth | X | X | 0.16 | 0.70 |
|  | *Scleria lithosperma* (L.) Sw. | X | X | 0.18 | 0.90 |
|  | *Scleria microcarpa* Nees ex Kunth |  | X | 0,02 | 0.05 |
| Dilleniaceae | *Davilla nitida* (Vahl) Kubitzki |  | X | 0.02 | 0.05 |
| Droseraceae | *Drosera communis* A. St.-Hil. | X | X | 0.01 | 0.05 |
|  | *Drosera sessilifolia* A. St.-Hil. | X |  | 0.13 | 0.60 |
| Eriocaulaceae | *Commanthera xeranthemoides* (Bong.) L.R.Parra & Giul. | X | X | 1.56 | 1.24 |
|  | *Eriocaulon elichrysoide*s Bong. |  | X | 0.17 | 0.35 |
|  | *Eriocaulon sellowianum* Kunth | X |  | 0.04 | 0.10 |
|  | *Syngonanthus caulescens* (Poir.) Ruhland | X | X | 0.15 | 0.90 |
|  | *Syngonanthus gracilis* (Bong.) Ruhland | X | X | 0.12 | 0.40 |
|  | *Syngonanthus helminthorrhizus* (Mart. ex Körn.) Ruhland | X | X | 0.18 | 0.60 |
| Euphorbiaceae | *Caperonia castaneifolia* (L.) A. St.-Hil. | X | X | 0.31 | 0.35 |
|  | *Caperonia palustris* (L.) A. St.-Hil. | X |  | 0.27 | 0.15 |
| Fabaceae | *Desmodium barbatum* (L.) Benth. |  | X | 0,03 | 0.05 |
| Gentianaceae | *Chelonanthus alatus* (Aubl.) Pulle | X | X | 0.04 | 0.55 |
|  | *Schultesia brachyptera* Cham. |  | X | 0.02 | 0.15 |
| Gesneriaceae | *Sinningia elatior* (Kunth) Chautems | X | X | 0.10 | 0.55 |
| Gleicheniaceae | *Dicranopteris flexuosa* (Schrad.) Underw. |  | X | 0.01 | 0.10 |
| Hydroleaceae | *Hydrolea spinosa* L. |  | X | 0,02 | 0.05 |
| Iridaceae | *Sisyrinchium hasslerianum* Baker | X | X | 0.10 | 0.65 |
|  | *Trimezia spathata* (Klatt) Baker | X | X | 0.01 | 0.10 |
| Isoetaceae | *Isoetes panamensis* Maxon & C.V. Morton | X |  | 0.12 | 0.20 |
| Lamiaceae | *Hyptis althaeifolia* Pohl ex Benth. | X | X | 0.01 | 0.10 |
|  | *Hyptis crenata* Pohl ex Benth. |  | X | 0.01 | 0.15 |
|  | *Hyptis lavandulacea* Pohl ex Benth. | X | X | 0.05 | 0.30 |
|  | *Hyptis pulchella* Briq. |  | X | 0.01 | 0.15 |
|  | *Hyptis sinuata* Pohl ex Benth. | X | X | 0.09 | 0.65 |
|  | *Hyptis* sp. | X |  | 0.05 | 0.15 |
| Lentibulariaceae | *Genlisea aurea* A. St.-Hil. | X | X | 0,02 | 0.05 |
|  | *Utricularia amethystina* Salzm. ex A. St.-Hil. & Girard |  | X | 0,01 | 0.05 |
|  | *Utricularia cucullata* A. St.-Hil. & Girard |  | X | 0,02 | 0.05 |
|  | *Utricularia erectiflora* A. St.-Hil. & Girard |  | X | 0.13 | 0.15 |
|  | *Utricularia gibba* L. | X | X | 0.07 | 0.55 |
|  | *Utricularia hydrocarpa* Vahl | X |  | 0.01 | 0.05 |
|  | *Utricularia laxa* A. St.-Hil. & Girard |  | X | 0,01 | 0.05 |
|  | *Utricularia nana* A. St.-Hil. & Girard | X |  | 0.01 | 0.05 |
|  | *Utricularia nervosa* Weber ex Benj. | X | X | 0.13 | 0.45 |
|  | *Utricularia nigrescens* Sylvén |  | X | 0,02 | 0.05 |
|  | *Utricularia olivacea* C. Wright ex Griseb. | X |  | 0.01 | 0.05 |
|  | *Utricularia praelonga* St. Hilaire & Girard | X | X | 0.06 | 0.30 |
|  | *Utricularia trichophylla* Spruce ex Oliv. | X | X | 0.03 | 0.25 |
|  | *Utricularia tricolor* A. St.-Hil. | X | X | 0.13 | 0.60 |
| Lycopodiaceae | *Lycopodiella alopecuroides* (L.) Cranfill |  | X | 0.01 | 0.10 |
|  | *Palhinhaea camporum* (B. Øllg. & P.G. Windisch) Holub | X | X | 0.22 | 0.95 |
| Lythraceae | *Cuphea retrorsicapilla* Koehne | X | X | 0.21 | 0.85 |
| Malpighiaceae | *Heteropterys coriacea* A. Juss. | X | X | 0.44 | 0.40 |
|  | *Heteropterys* *eglandulosa* A. Juss. | X |  | 0,03 | 0.05 |
| Malvaceae | *Byttneria palustris* Cristóbal | X | X | 0.15 | 0.90 |
|  | *Melochia simplex* A. St.-Hil. | X |  | 0.03 | 0.15 |
| Mayacaceae | *Mayaca sellowiana* Kunth | X | X | 0.74 | 1,00 |
| Melastomataceae | *Acisanthera alsinaefolia* (DC.) Triana | X | X | 0.06 | 0.70 |
|  | *Acisanthera divaricata* Cogn. | X | X | 0.07 | 0.25 |
|  | *Clidemia* *hirta* (L.) D. Don |  | X | 0.02 | 0.20 |
|  | *Desmoscelis villosa* (Aubl.) Naudin | X | X | 0.09 | 0.65 |
|  | *Macairea radula* (Bonpl.) DC. | X | X | 0.14 | 0.25 |
|  | *Miconia chamissois* Naudin | X | X | 1.48 | 1.44 |
|  | *Rhynchanthera novemnervia* DC. | X | X | 0.03 | 0.15 |
|  | *Rhynchanthera ursina* Naudin | X | X | 0.02 | 0.10 |
|  | *Rhynchanthera verbenoides* Cham. |  | X | 0.04 | 0.20 |
|  | *Tibouchina gracilis* (Bonpl.) Cogn. | X | X | 0.03 | 0.35 |
|  | *Trembleya phlogiformis* DC. | X | X | 0.07 | 0.25 |
| Menyanthaceae | *Nymphoides indica* (L.) Kuntze | X | X | 0.01 | 0.10 |
| Nymphaeaceae | *Nymphaea gardneriana* Planch. | X |  | 0.11 | 0.30 |
| Ochnaceae | *Sauvagesia racemosa* A. St.-Hil. | X | X | 0.50 | 1.94 |
| Onagraceae | *Ludwigia bullata* (Hassl.) H. Hara | X |  | 0.02 | 0.15 |
|  | *Ludwigia decurrens* Walter |  | X | 0.01 | 0.10 |
|  | *Ludwigia major* (Micheli) Ramamoorthy |  | X | 0.08 | 0.20 |
|  | *Ludwigia nervosa* (Poir.) H. Hara | X | X | 1.30 | 2.44 |
|  | *Ludwigia sericea* (Cambess.) H. Hara |  | X | 0.01 | 0.10 |
|  | *Ludwigia tomentosa* (Cambess.) H. Hara | X |  | 0.05 | 0.05 |
| Orchidaceae | *Cyrtopodium paludicola* Hoehne | X | X | 0.12 | 0.45 |
| Orobanchaceae | *Buchnera tenuifolia* Philcox |  | X | 0.01 | 0.10 |
|  | *Esterhazya macrodonta* Cham. & Schltdl. | X |  | 0,02 | 0.05 |
|  | *Melasma strictum* Chodat & Hassl. | X |  | 0.01 | 0.10 |
| Phyllanthaceae | *Phyllanthus* sp. | X | X | 0.02 | 0.15 |
|  | *Phyllanthus stipulatus* (Raf.) G.L. Webster | X | X | 0.24 | 0.75 |
| Piperaceae | *Piper aduncum* L. |  | X | 0.04 | 0.05 |
|  | *Piper fuligineum* Kunth | X | X | 0.26 | 0.90 |
|  | *Piper macedoi* Yunck. | X |  | 0.03 | 0.05 |
| Plantaginaceae | *Bacopa australis* V.C.Souza |  | X | 0.48 | 0.30 |
|  | *Bacopa reflexa* (Benth.) Edwall | X |  | 0.01 | 0.05 |
|  | *Bacopa salzmannii* (Benth.) Wettst. ex Edwall | X | X | 0.22 | 0.15 |
|  | *Bacopa scabra* Descole & Borsini | X | X | 0.08 | 0.50 |
|  | *Bacopa stricta* (Schrad.) Edwall | X |  | 0.01 | 0.05 |
| Poaceae | *Andropogon bicornis* L. | X | X | 0.25 | 0.45 |
|  | *Andropogon glaziovii* Hack. |  | X | 0.08 | 0.15 |
|  | *Andropogon hypogynus* Hack. | X | X | 0.07 | 0.45 |
|  | *Andropogon leucostachyus* Kunth |  | X | 0.08 | 0.05 |
|  | *Andropogon macrothrix* Trin. |  | X | 0.04 | 0.20 |
|  | *Anthaenantia lanata* (Kunth) Benth. | X | X | 3.35 | 1.59 |
|  | *Anthaenantiopsis trachystachya* (Nees) Mez ex Pilg. | X | X | 3.23 | 0.45 |
|  | *Arundinella hispida* (Humb. & Bonpl. ex Willd.) Kuntze | X | X | 0.08 | 0.15 |
|  | *Axonopus brasiliensis* (Spreng.) Kuhlm. | X | X | 0.07 | 0.15 |
|  | *Axonopus comans* (Trin. ex Döll) Kuhlm. |  | X | 0.55 | 0.25 |
|  | *Axonopus siccus* (Nees) Kuhlm. |  | X | 0.51 | 0.25 |
|  | *Axonopus uninodis* (Hack.) G.A. Black | X | X | 7.59 | 1.34 |
|  | *Eragrostis articulata* (Schrank) Nees |  | X | 0.01 | 0.10 |
|  | *Eriochrysis cayennensis* P. Beauv. | X | X | 0.51 | 0.95 |
|  | *Eriochrysis holcoides* (Nees) Kuhlm. | X | X | 0.95 | 0.80 |
|  | *Eriochrysis laxa* Swallen | X | X | 4.06 | 1.04 |
|  | *Gymnopogon burchellii* (Munro ex Döll) Ekman | X |  | 0.01 | 0.05 |
|  | *Hymenachne pernambucensis* (Spreng.) Zuloaga | X |  | 1.13 | 0.30 |
|  | *Hyparrhenia bracteata* (Humb. & Bonpl. ex Willd.) Stapf | X | X | 0.15 | 0.25 |
|  | *Hyparrhenia rufa* (Nees) Stapf | X |  | 0.01 | 0.05 |
|  | *Hypogynium virgatum* (Desv. ex Ham.) Dandy | X | X | 4.04 | 2.34 |
|  | *Ichnanthus procurrens* (Nees ex Trin.) Swallen | X | X | 0.35 | 0.50 |
|  | *Loudetia flammida* (Trin.) C.E. Hubb. | X | X | 0.20 | 0.25 |
|  | *Luziola fragilis* Swallen | X |  | 0.09 | 0.15 |
|  | *Mnesithea aurita* (Steud.) de Koning & Sosef | X | X | 0.09 | 0.20 |
|  | *Panicum caaguazuense* Henrard | X | X | 0.04 | 0.25 |
|  | *Panicum exiguum* Mez | X |  | 0.01 | 0.05 |
|  | *Panicum parvifolium*  Lam. | X | X | 0.18 | 0.60 |
|  | *Panicum tricholaenoides* Steud. | X |  | 0.03 | 0.05 |
|  | *Paspalum cordatum* Hack. |  | X | 0.54 | 0.85 |
|  | *Paspalum dedeccae* Quarin | X | X | 4.34 | 1.39 |
|  | *Paspalum maculosum* Trin. | X | X | 0.96 | 0.85 |
|  | *Paspalum multicaule* Poir. |  | X | 0.11 | 0.05 |
|  | *Paspalum stellatum* Humb. & Bonpl. ex Flüggé | X |  | 0.14 | 0.05 |
|  | Poaceae sp. | X | X | 1.53 | 1.00 |
|  | *Rhytachne rottboellioides* Desv. | X | X | 6.43 | 0.85 |
|  | *Saccharum asperum* (Nees) Steud. | X | X | 0.55 | 1.39 |
|  | *Saccharum villosum* Steud. | X | X | 1.35 | 2.04 |
|  | *Sacciolepis vilvoides* (Trin.) Chase | X | X | 0.34 | 0.30 |
|  | *Schizachyrium condensatum* (Kunth) Nees | X | X | 0.27 | 0.90 |
|  | *Schizachyrium gracilipes* (Hack.) A. Camus |  | X | 0.04 | 0.30 |
|  | *Schizachyrium tenerum* Nees |  | X | 0.08 | 0.10 |
|  | *Setaria paucifolia* (Morong) Lindm. | X | X | 9.09 | 1.19 |
|  | *Sorghastrum setosum* (Griseb.) Hitchc | X |  | 3.30 | 0.35 |
|  | *Steinchisma hians* (Elliott) Nash |  | X | 0.03 | 0.15 |
|  | *Steinchisma laxum* (Sw.) Zuloaga | X | X | 0.75 | 0.30 |
| Polygalaceae | *Polygala capitata* Sessé & Moc. |  | X | 0.01 | 0.05 |
|  | *Polygala longicaulis* Kunth | X | X | 0.01 | 0.10 |
| Pontederiaceae | *Pontederia parviflora* Alexander | X |  | 0.15 | 0.45 |
| Primulaceae | *Centunculus minimus* L. | X | X | 0.19 | 0.30 |
|  | *Myrsine umbellata* (Mart.) Mez | X | X | 0.07 | 0.35 |
| Pteridaceae | *Adiantum serratodentatum* L. |  | X | 0.05 | 0.30 |
|  | *Pityrogramma calomelanos* Humb. & Bonpl. ex Willd. | X | X | 0.21 | 0.80 |
|  | *Pityrogramma trifoliata* (L.) R.M. Tryon |  | X | 0.01 | 0.05 |
| Rapateaceae | *Cephalostemon angustatus* Malme | X |  | 0.12 | 0.25 |
| Rosaceae | *Prunus* sp. |  | X | 0.01 | 0.10 |
| Rubiaceae | *Borreria pulchristipula* (Bremek.) Bacigalupo & E.L. Cabral | X | X | 0.13 | 0.50 |
|  | *Coccocypselum lanceolatum* (Ruiz & Pav.) Pers. | X |  | 0.01 | 0.05 |
|  | *Diodella radula* (Willd. ex Roem. & Schult.) Delprete | X | X | 0.06 | 0.45 |
|  | *Emmeorhiza umbellata* (Spreng.) K. Schum. |  | X | 0.02 | 0.20 |
|  | *Galium* sp. | X |  | 0.01 | 0.15 |
|  | *Psychotria carthagenensis* Jacq. | X |  | 0.01 | 0.05 |
|  | Rubiaceae | X |  | 0.01 | 0.05 |
|  | *Rudgea* sp. | X |  | 0.02 | 0.05 |
| Sapindaceae | *Serjania marginata* Casar. | X |  | 0.01 | 0.05 |
| Sphagnaceae | *Sphagnum perichaetiale* Hampe | X | X | 0.27 | 0.75 |
| Thelypteridaceae | *Thelypteris rivularioides* (Fée) Abbiatti |  | X | 0.02 | 0.05 |
|  | *Thelypteris serrata* (Cav.) Alston | X | X | 0.24 | 0.95 |
| Urticaceae | *Cecropia pachystachya* Trécul | X | X | 0.06 | 0.30 |
| Verbenaceae | *Lippia recolletae* Morong | X | X | 0.07 | 0.30 |
| Xyridaceae | *Abolboda poarchon* Seub. | X | X | 0.08 | 0.20 |
|  | *Xyris jupicai* Rich. | X | X | 0.61 | 1.74 |
|  | *Xyris macrocephala* Vahl | X | X | 0.32 | 0.90 |
|  | *Xyris savanensis* Miq. | X | X | 0.02 | 0.20 |
|  | *Xyris schizachne* Mart. | X | X | 0.28 | 1.00 |
|  | *Xyris stenocephala* Malme | X | X | 0.43 | 0.50 |
|  | *Xyris tenella* Kunth | X | X | 0.12 | 0.35 |
|  | *Xyris tortula* Mart. |  | X | 0.10 | 0.40 |

**Table S2** Numerical results of the indirect ordination analyses (NMS) for MP (with *Mauritia flexuosa*) and MA (without *M. flexuosa*) wetlands in central-western Brazil. R²: coefficient of determination based on the correlations between the ordinations of the original n-dimensional space and the distances reproduced in the ordination axes.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **Axis 1 (R2)** | **Axis 2 (R2)** | **Axis 3 (R2)** | **Accumulated R2** | **Final Stress** |
| Occurrence | 30.10 | 19.50 | 18.60 | 70.4% | 18.05 |
| Frequency | 30.50 | 23.10 | 18.40 | 72.0% | 16.42 |
| Cover | 22.50 | 23.70 | 24.20 | 68. 2% | 15.94 |

**Table S3** Results from partial linear models for occurrence, frequency and cover of the species sampled in the 12 wetlands with and without *Mauritia flexuosa* in central-western Brazil as a function of a set of environmental and spatial variables (MEMs). The adjusted coefficients of determination (R² aj.) refer to the partitioned contribution of four fractions for each response variable: [a] purely environmental fraction; [b] environmental-spatial fraction; [c] purely spatial fraction; [d] undetermined fraction. In the case of 1/D, there are no fractions [a] and [b] because no environmental variable was selected. Significant results appear in bold. \*Negative fractions have negligible ecological value (Legendre & Legendre 2012). – indicates missing values.

| **Response variables and selected predictor variables** | **Fractions** | **R² aj.** | **F** | **p** |
| --- | --- | --- | --- | --- |
| *Occurrence* (n = 12) |  |  |  |  |
| Temperature seasonality (Bio 4), Annual temperature amplitude (Bio 7) and MEM 3 |
|  | [a] | 0.04 | 1.215 | 0.073 |
|  | [b] | 0.031 | - | - |
|  | [c] | -0.004\* | 0.962 | 0.59 |
|  | [d] | 0.933 | - | - |
| *Frequency* (n = 12) |  |  |  |  |
| Annual temperature amplitude (Bio 7), MEM 3 and MEM 11 |
|  | [a] | 0.046 | 1.493 | **0.025** |
|  | [b] | 0.017 | - | - |
|  | [c] | 0.014 | 1.146 | 0.36 |
|  | [d] | 0.924 | - | - |
| *Cover* (n = 12**)** |  |  |  |  |
| Aridity index and MEM 11 |
|  | [a] | 0.02 | 1.214 | 0.2 |
|  | [b] | 0.032 | - | - |
|  | [c] | 0.016 | 1.169 | 0.31 |
|  | [d] | 0.932 | - | - |
| *Reciprocal Simpson’s Index* (n = 12) |  |  |  |  |
| MEM 1, MEM 9 and MEM 11 |
|  | [c] | 0.705 | 9.753 | **0.005** |
|  | [d] | 0.295 | - | - |

C:\Users\Pedro\Documents\Parcerias científicas\Suzana\Artigo Qualificação\Material para submissão\MoreiraAppendixS2.tif

**Figure S1** Ordination graphs generated with the NMS method applied to the species frequency data from 72 sampling transects in MP (with *Mauritia flexuosa*) and MA (without *M. flexuosa*) wetlands in central-western Brazil.

C:\Users\Pedro\Documents\Parcerias científicas\Suzana\Artigo Qualificação\Material para submissão\MoreiraAppendixS3.tif

**Figure S2** Ordination graphs generated with the NMS method applied to the species cover data from 72 sampling transects in MP (with *Mauritia flexuosa*) and MA (without *M. flexuosa*) wetlands in central-western Brazil.

C:\Users\Pedro\Documents\Parcerias científicas\Suzana\Artigo Qualificação\Material para submissão\MoreiraAppendixS6.tif

**Figure S3** Ordination graph resulting from the linear model (RDA) for frequency of the species sampled in the 12 wetlands with and without *Mauritia flexuosa* in central-western Brazil as a function of predictor variable BIO7 (annual temperature amplitude), the only significant variable among those selected to explain the variations in composition and structure of the examined communities. The increasing size of the symbols reflects the influence of BIO7 in the analysis.



**Figure S4** Graphs resulting from the partial linear model (multiple regression) for the reciprocal Simpson’s index in the 12 wetlands with and without *Mauritia flexuosa* in central-western Brazil using three spatial eigenvectors as predictors (MEMs, Moran’s Eigenvector Maps).