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Table S1. Environmental variables; website and source.

Code	Variable	Website and source
BIO1	Annual Mean Temperature (°C)	http://worldclim.org/version2 (Fick & Hijmans 2017)
BIO2	Mean Diurnal Range (Mean of monthly (max temp - min temp)) (°C)	http://worldclim.org/version2 (Fick & Hijmans 2017)
BIO3	Isothermality (BIO2/BIO7) (* 100) (°C)	http://worldclim.org/version2 (Fick & Hijmans 2017)
BIO4	Temperature Seasonality (standard deviation *100) (°C)	http://worldclim.org/version2 (Fick & Hijmans 2017)
BIO5	Max Temperature of Warmest Month (°C) (AB)	http://worldclim.org/version2 (Fick & Hijmans 2017)
BIO6	Min Temperature of Coldest Month (°C)	http://worldclim.org/version2 (Fick & Hijmans 2017)
BIO7	Temperature Annual Range (BIO5-BIO6) (°C)	http://worldclim.org/version2 (Fick & Hijmans 2017)
BIO8	Mean Temperature of Wettest Quarter (°C)	http://worldclim.org/version2 (Fick & Hijmans 2017)
BIO9	Mean Temperature of Driest Quarter (°C)	http://worldclim.org/version2 (Fick & Hijmans 2017)
BIO10	Mean Temperature of Warmest Quarter (°C)	http://worldclim.org/version2 (Fick & Hijmans 2017)
BIO11	Mean Temperature of Coldest Quarter (°C)	http://worldclim.org/version2 (Fick & Hijmans 2017)
BIO12	Annual Precipitation (mm)	http://worldclim.org/version2 (Fick & Hijmans 2017)
BIO13	Precipitation of Wettest Month (mm)	http://worldclim.org/version2 (Fick & Hijmans 2017)
BIO14	Precipitation of Driest Month (mm)	http://worldclim.org/version2 (Fick & Hijmans 2017)
BIO15	Precipitation Seasonality (Coefficient of Variation)	http://worldclim.org/version2 (Fick & Hijmans 2017)
BIO16	Precipitation of Wettest Quarter (mm)	http://worldclim.org/version2 (Fick & Hijmans 2017)
BIO17	Precipitation of Driest Quarter (mm)	http://worldclim.org/version2 (Fick & Hijmans 2017)
BIO18	Precipitation of Warmest Quarter (mm)	http://worldclim.org/version2 (Fick & Hijmans 2017)
BIO19	Precipitation of Coldest Quarter (mm)	Http://worldclim.org/version2 (Fick & Hijmans 2017)
Annual.PET	Annual Global Potential Evapotranspiration (mm/year)	https://cgiarcsi.community/data/global-aridity-and--pet-database/ (Zomer et al. 2007; 2008)
Aridity	Annual Global Aridity Index	https://cgiarcsi.community/data/global-aridity-and--pet-database/(Zomer et al. 2007; 2008)
Cloud.Cover_ Mean	Mean Cloud Cover	http://www.cgiar-csi.org/data/uea-cru-ts-v3-10--01-historic-climate-database (Harris et al. 2020).
Elevation	Elevation (m)	http://srtm.csi.cgiar.org/ (Jarvis et al. 2008).
EVI_cv	Enhanced Vegetation Index Cover	http://www.earthenv.org/. (Tuanmu & Jetz 2015)
EVI_rng	Enhanced Vegetation Index	http://www.earthenv.org/. (Tuanmu & Jetz 2015)
EVI_std	Enhanced Vegetation Index Standad	http://www.earthenv.org/. (Tuanmu & Jetz 2015)
HERB_cov	Land use - Herbaceous Vegetation	http://www.earthenv.org/.(Tuanmu & Jetz 2014)
Nutrient_soil	Nutrient availability (Soil texture, soil organic carbon, soil pH, total exchangeable bases)	http://www.fao.org/soils-portal/data-hub/soil-maps--and-databases/harmonized-world-soil-database-v12/en/(Fischer et al. 2008)
RFloodVeg	Land use - Regularly Flooded Vegetation	http://www.earthenv.org/. (Tuanmu & Jetz 2014)
Root	Rooting conditions (Soil textures, bulk density, coarse fragments, vertic soil properties and soil phases affecting root penetration and soil depth and soil volume)	http://www.fao.org/soils-portal/data-hub/soil-maps--and-databases/harmonized-world-soil-database-v12/en/ (Fischer et al. 2008)
Solar.Rad_Max	Maximum Solar Radiation (kJ m^{-2} day^{-1})	http://worldclim.org/version2 (Fick & Hijmans 2017)
Solar.Rad_Mean	Mean Solar Radiation (kJ m^{-2} day^{-1})	http://worldclim.org/version2 (Fick & Hijmans 2017)
Solar.Rad_Min	Minimum Solar Radiation (kJ m^{-2} day^{-1})	http://worldclim.org/version2 (Fick & Hijmans 2017)
WATBODIES_cov	Water Bodies Coverage	http://www.fao.org/soils-portal/data-hub/soil-maps--and-databases/harmonized-world-soil-database-v12/en/ (Fischer et al. 2008)
Water.Vapor. Press_Max	Maximum Water Vapor Pressure (kPa)	http://worldclim.org/version2 (Fick & Hijmans 2017)
Water.Vapor. Press_Mean	Mean Water Vapor Pressure (kPa)	http://worldclim.org/version2 (Fick & Hijmans 2017)
Water.Vapor. Press_Min	Minimum Water Vapor Pressure (kPa)	http://worldclim.org/version2 (Fick & Hijmans 2017)
Wind.Speed_Max	Maximum Wind Speed (m s^{-1})	http://worldclim.org/version2 (Fick & Hijmans 2017)
Wind.Speed_Mean	Mean Wind Speed (m s^{-1})	http://worldclim.org/version2 (Fick & Hijmans 2017)
Wind.Speed_Min	Minimum Wind Speed (m s^{-1})	http://worldclim.org/version2 (Fick & Hijmans 2017)
Workability	Workability (Soil texture, effective soil depth/volume, and soil phases constraining soil management (soil depth, rock outcrop, stoniness, gravel/concretions and hardpans)	http://www.fao.org/soils-portal/data-hub/soil-maps--and-databases/harmonized-world-soil-database-v12/en/(Fischer et al 2008)

Table S2. Frequency of aquatic herbaceous plants species in the PELD-MAUA plots in *igapó* and *campinarana* ecosystems of the Parque Nacional Jaú (JC= Jaú *campinarana*, JI= Jaú *igapó*) and Reserva de Desenvolvimento Sustentável do Uatumã (UC= Uatumã *campinarana*, UI= Uatumã *igapó*) in Central Amazonia. Species indicated in bold were chosen for potential distribution modeling; Aq = aquatic, Te = terrestrial, Ru = rupicolous, Ep = epiphytic, Sa = saprophytic. Classification according to the Flora do Brasil 2020 (2021).

Family	Species	Life form	JI	JC	UI	UC	Voucher
Acanthaceae	*Justicia comata* (L.) Lam.	Te			1		287454
Alismataceae	*Sagittaria guayanensis* Kunth	Aq			1		287439
Amaranthaceae	***Alternanthera paronychioides* A. St.-Hil.**	**Te**			**5**		**287434/287443**
Apocynaceae	*Tassadia berteroana* (Spreng.) W.D.Stevens	Te			1		sterile
Apocynaceae	*Tassadia trailiana* (Benth.) Fontella	Te	1		1		sterile
Araceae	*Montrichardia arborescens* (L.) Schott	Te,Aq	1		1		sterile
Asteraceae	*Erechtites hieracifolius* (L.) Raf. ex DC.	Te			1		sterile
Asteraceae	*Lepidaploa arenaria* (Mart. ex DC.) H. Rob.	Te				1	287411
Asteraceae	*Wedelia calycina* Rich.	Te			1		LOD766
Boraginaceae	*Euploca filiformis* (Lehm.) J.I.M.Melo & Semir	Te,Aq				1	287435
Bromeliaceae	*Aechmea huebneri* Harms	Te,Ep				1	LOD1223
Bromeliaceae	***Bromelia tubulosa* L. B. Sm.**	**Te**				**2**	**sterile**
Bromeliaceae	*Neoregelia eleutheropetala* (Ule) L. B. Sm.	Ep				1	sterile
Bromeliaceae	*Tillandsia adpressiflora* Mez	Te,Ep				1	287405
Burmanniaceae	*Dictyostega* sp.					2	268634
Convolvulaceae	*Evolvulus genistoides* Ooststr.	Te				1	sterile
Convolvulaceae	*Ipomoea rubens* Choisy	Te	1				sterile
Cyperaceae	*Bulbostylis junciformis* (Kunth) C.B.Clarke	Te				1	287413
Cyperaceae	*Cyperus aggregatus* (Willd.) Endl.	Te			2		287449
Cyperaceae	*Cyperus distans* L.	Te			1		287445
Cyperaceae	*Diplasia karatifolia* Rich. ex Pers.	Te	1				287105
Cyperaceae	*Eleocharis minima* Kunth	Te,Aq	1				sterile
Cyperaceae	*Fimbristylis aestivalis* Vahl	Te			3		287451
Cyperaceae	*Fimbristylis miliacea* (L.) Vahl	Te			1		287090
Cyperaceae	*Fimbristylis vahlii* (Lam.) Link	Te,Aq			2		287448/287448
Cyperaceae	***Scleria secans* (L.) Urb.**	**Te**	**8**				**287094/287432**
Cyperaceae	*Pleurostachys sparsiflora* Kunth	Te				1	sterile
Cyperaceae	*Rhynchospora amazonica* Poepp. & Kunth	Te	1				287092
Cyperaceae	*Rhynchospora divaricata* (Ham.) M. T. Strong	Te	1				287093
Cyperaceae	*Scleria gaertneri* Raddi	Te	1				287446
Cyperaceae	*Scleria microcarpa* Nees ex Kunth	Te			3		sterile
Cyperaceae	***Lagenocarpus rigidus* Nees**	**Te,Ru**			**8**		**sterile**
Cyperaceae	***Hypolytrum longifolium* (Rich.) Nees**	**Te**	**3**				**287091/287430**
Cyperaceae	***Everardia montana* Ridl.**	**Te,Ru**	**1**	**8**			**sterile**
Dryopteridaceae	*Elaphoglossum* Schott ex J.Sm.					1	LOD1179
Eriocaulaceae	*Comanthera kegeliana* (Körn.) Moldenke	Te				1	268622
Eriocaulaceae	*Paepalanthus fasciculatus* (Rottb.) Kunth	Te				1	sterile
Eriocaulaceae	*Syngonanthus longipes* Gleason	Te	1				sterile
Eriocaulaceae	***Syngonanthus setifolius* Hensold**	**Te**		**1**			**287112**
Eriocaulaceae	*Syngonanthus williamsii* (Moldenke) Hensold	Te		1			sterile
Euphorbiaceae	*Croton dissectistipulatus* Secco	Te				1	287412
Gentianaceae	***Voyria aphylla* (Jacq.) Pers.**	**Te,Sa**				**6**	**LOD1192**
Gentianaceae	*Irlbachia poeppigii* (Griseb.) L.Cobb & Maas	Te	2				sterile
Gentianaceae	*Voyria caerulea* Aubl.	Te,Sa				1	287427
Hymenophyllaceae	***Trichomanes martiusii* C. Presl**	**Te,Ep**	**1**	**1**		**1**	**LOD117**
Hymenophyllaceae	*Trichomanes pinnatum* Hedw.	Te				1	LOD173
Lamiaceae	*Hyptis atrorubens* Poit.	Te	1				sterile
Lamiaceae	*Hyptis* sp.				1		287444
Lamiaceae	*Hyptis parkeri* Benth.	Te			4		287436
Lentibulariaceae	***Utricularia foliosa* L.**	**Aq**	**1**		**8**		**287097**
Lentibulariaceae	*Utricularia olivacea* C.Wright ex Griseb.	Aq	1				sterile
Lentibulariaceae	*Utricularia subulata* L.	Te,Ru	1				sterile
Lindsaeaceae	*Lindsaea schomburgkii* Klotzsch	Te				2	sterile

Table S2. Cont.

Family	Species	Life form	JI	JC	UI	UC	Voucher
Lythraceae	*Cuphea annulata* Koehne	Te				1	sterile
Marantaceae	*Calathea* sp.					1	sterile
Marantaceae	*Goeppertia acuminata* (Steyerm.) Borchs. & S. Suárez	Te				1	sterile
Marantaceae	***Ischnosiphon cannoideus* L. Andersson**	**Te**	**1**	**1**			**287101**
Marantaceae	*Ischnosiphon* sp.					1	sterile
Marantaceae	*Ischnosiphon leucophaeus* (Poepp. & Endl.) Körn.	Te				1	sterile
Marantaceae	*Ischnosiphon polyphyllus* (Poepp. & Endl.) Körn.	Te	1				sterile
Melastomataceae	*Aciotis ornata* (Miq.) Gleason	Te	1				sterile
Melastomataceae	***Tococa subciliata* (DC.) Triana**	**Te**	**4**				**sterile**
Melastomataceae	*Miconia calvescens* DC.	Te	2				sterile
Melastomataceae	***Miconia subsimplex* Pilg.**	**Te**	**1**	**2**			**sterile**
Onagraceae	*Ludwigia erecta* (L.) H.Hara	Te,Aq			1		sterile
Onagraceae	*Ludwigia hyssopifolia* (G.Don) Exell	Te,Aq	1				sterile
Orchidaceae	*Bifrenaria longicornis* Lindl.	Ep				1	284814
Orchidaceae	*Brassavola martiana* Lindl.	Ep				1	284757
Orchidaceae	*Encyclia conchaechila* (Barb.Rodr.) Porto & Brade	Ep				1	sterile
Orchidaceae	*Encyclia mapuerae* (Huber) Brade & Pabst	Te,Ep				1	274283
Orchidaceae	*Epidendrum orchidiflorum* (Salzm.) Lindl.	Te				1	274283
Orchidaceae	*Sobralia granitica* G.A.Romero & Carnevali	Te,Ru				3	268616
Orchidaceae	*Prosthechea fragrans* (Sw.) W.E.Higgins	Ep				1	274268
Plantaginaceae	*Bacopa egensis* (Poepp.) Pennell	Te,Aq			1		287438
Poaceae	*Acroceras zizanioides* (Kunth) Dandy	Te			1		287447
Poaceae	*Digitaria ciliaris* (Retz.) Koeler	Te			1		sterile
Poaceae	*Echinochloa polystachya* (Kunth) Hitchc.	Te,Aq			4		sterile
Poaceae	*Guadua ciliata* Londoño & Davidse	Te	2				sterile
Poaceae	*Hymenachne amplexicaulis* (Rudge) Nees	Te,Aq	2				287098/287433
Poaceae	*Olyra longifolia* Kunth	Te	1				sterile
Poaceae	***Reimarochloa brasiliensis* (Spreng.) Hitchc.**	**Te**			**5**		**sterile**
Poaceae	***Paspalum repens* P. J. Bergius**	**Aq**			**5**		**287441**
Poaceae	*Oryza rufipogon* Griff.	Aq	1				287099
Poaceae	*Pariana radiciflora* Sagot ex Döll	Te				1	sterile
Poaceae	*Paspalum multicaule* Poir.	Te			1		287453
Poaceae	*Paspalum pulchellum* Kunth	Te			3		sterile
Poaceae	***Oryza grandiglumis* (Döll) Prod.**	**Te,Aq**	**1**		**6**		**278061**
Poaceae	***Oryza glumaepatula* Steud.**	**Te,Aq**	**1**				**sterile**
Podostemaceae	***Oserya perpusilla* (Went) P. Royen**	**Aq**	**1**				**287096**
Rapateaceae	*Saxofridericia aculeata* Körn.	Te				1	287407/287428
Rapateaceae	***Duckea squarrosa* (Willd. ex Link) Maguire**	**Te**		**7**			**287102**
Rubiaceae	*Psychotria stipulosa* Müll.Arg.	Te	2				287525
Schizaeaceae	***Schizaea elegans* (Vahl) Sw.**	**Te**				**4**	**287415/287426**
Schizaeaceae	***Actinostachys pennula* (Sw.) Hook.**	**Te**				**6**	**268637/287414**
Turneraceae	*Piriqueta cistoides* (L.) Griseb.	Te			1		287442
Xyridaceae	***Xyris involucrata* Nees**	**Te**		**3**			**287103**
Xyridaceae	***Abolboda grandis* Griseb.**	**Te,Aq**		**2**			**287100/268632**
Xyridaceae	***Xyris subuniflora* Malme**	**Te**		**1**			**287104**

Table S3. Eigenvalues of environmental variables for the eleven PC axis used in species distribution models for the Neotropics.

PC	Eigenvalue	%	PC	Eigenvalue	%
1	13.9921	34.127	7	1.64287	4.007
2	5.73449	13.987	8	1.15389	2.8144
3	3.65129	8.9056	9	1.03795	2.5316
4	3.21081	7.8312	10	0.986138	2.4052
5	2.5774	6.2863	11	0.944804	2.3044
6	2.12127	5.1738			

Table S4. Values of TSS, ROC and sensitivity for each algorithm projection of Neotropical herbaceous species.

Species	Local	Records	Consensus			ANN			CTA			FDA			GBM			GLM			MaxEnt			RandomForest			S R E		
			Sensitivity (mean)	Sensitivity (Standard Deviation)	Reliability or robustness	TSS	ROC Testing. data	ROC Sensitivity*	TSS	ROC Testing. data	ROC Sensitivity*	TSS	ROC Testing. data	ROC Sensitivity*	TSS	ROC Testing. data	ROC Sensitivity*	TSS	ROC Testing. data	ROC Sensitivity*	TSS	ROC Testing. data	ROC Sensitivity*	TSS	ROC Testing. data	ROC Sensitivity*	TSS	ROC Testing. data	ROC Sensitivity*
Abolboda grandis	JC	56	84.22	17.50	good	0.84	0.95	96.88	0.71	0.86	92.24	0.78	0.93	97.09	0.87	0.95	62.83	0.84	0.95	96.76	0.75	0.90	88.12	0.89	0.96	NA	0.52	0.76	55.65
Actinostachys pennula	UC	262	85.84	2.32	good	0.70	0.91	87.54	0.58	0.81	82.92	0.60	0.87	82.90	0.68	0.90	87.27	0.66	0.89	88.83	0.60	0.86	84.99	0.70	0.91	86.46	0.39	0.69	67.25
Alternanthera paronychioides	UI	159	80.23	3.68	good	0.52	0.80	77.52	0.42	0.72	75.73	0.54	0.83	82.30	0.57	0.83	82.98	0.56	0.85	85.43	0.51	0.80	76.50	0.58	0.84	81.16	0.27	0.64	60.82
Bromelia tubulosa	UI	20	86.39	10.72	good	0.81	0.93	92.83	0.63	0.82	87.83	0.78	0.91	95.50	NA	NA	NA	0.64	0.82	76.17	0.74	0.88	70.33	0.86	0.95	95.67	0.01	0.50	60.50
Duckea squarrosa	JC	28	80.02	33.08	good	0.86	0.96	96.50	0.65	0.83	94.88	0.81	0.93	10.00	0.83	0.93	98.75	0.80	0.90	86.00	0.69	0.85	75.88	0.83	0.94	98.13	0.35	0.68	38.13
Everardia montana	M	56	83.04	15.42	good	0.82	0.95	91.82	0.64	0.83	85.53	0.75	0.93	90.35	0.82	0.95	93.47	0.82	0.93	93.12	0.58	0.79	62.06	0.84	0.96	92.88	0.51	0.75	55.12
Hypolytrum longifolium	JI	128	90.47	2.71	optimum	0.67	0.89	88.42	0.64	0.82	92.95	0.67	0.89	90.08	0.72	0.91	93.50	0.70	0.90	90.95	0.65	0.87	85.71	0.72	0.91	91.66	0.38	0.69	55.05
Ischnosiphon polyphyllus	JI	36	84.92	10.03	good	0.89	0.97	95.82	0.74	0.87	95.82	0.86	0.96	96.73	0.85	0.95	98.36	NA	NA	NA	0.68	0.84	72.45	0.87	0.96	97.73	0.35	0.67	37.55
Lagenocarpus rigidus	UI	829	85.31	8.02	good	0.78	0.95	89.27	0.72	0.90	87.06	0.72	0.93	86.90	0.78	0.95	88.77	0.73	0.93	88.82	0.68	0.87	83.61	0.83	0.97	91.71	0.47	0.74	66.31
Miconia subsimplex	M	20	81.90	6.31	good	0.87	0.95	91.83	0.69	0.84	90.33	0.89	0.94	94.33	NA	NA	NA	0.74	0.87	77.67	0.82	0.91	84.33	0.89	0.94	92.50	0.25	0.63	42.33
Oryza grandiglumis	M	59	77.46	14.80	good	0.78	0.93	87.35	0.68	0.85	80.59	0.71	0.92	75.59	0.80	0.94	88.59	0.80	0.94	88.53	0.56	0.78	54.35	0.80	0.93	89.47	0.51	0.75	55.18
Oryza glumaepatula	JI	93	79.34	12.25	good	0.72	0.91	87.18	0.57	0.80	80.36	0.60	0.86	79.46	0.73	0.91	87.39	0.73	0.91	91.39	0.51	0.76	57.86	0.73	0.91	87.54	0.43	0.72	63.57
Paspalum repens	UI	395	78.56	3.35	good	0.60	0.85	79.84	0.51	0.78	74.34	0.58	0.85	80.06	0.63	0.88	82.66	0.59	0.85	75.99	0.55	0.83	75.19	0.65	0.88	81.85	0.20	0.60	67.97
Reimarochloa brasiliensis	UI	44	80.14	3.03	good	0.76	0.90	85.92	0.63	0.82	85.54	0.70	0.88	83.85	0.74	0.88	89.46	0.71	0.89	86.85	0.67	0.87	81.00	0.76	0.90	89.54	0.32	0.66	39.00
Saxofridericia aculeata	UC	69	88.71	13.52	good	0.82	0.95	94.67	0.70	0.87	92.24	0.74	0.92	94.14	0.81	0.94	95.24	0.80	0.93	92.95	0.73	0.91	89.24	0.81	0.94	95.57	0.46	0.73	55.62
Schizaea elegans	UC	574	82.54	3.11	good	0.57	0.85	83.83	0.48	0.78	79.04	0.51	0.82	82.13	0.56	0.85	84.12	0.52	0.83	88.04	0.51	0.82	79.58	0.59	0.88	81.02	0.25	0.62	70.79
Scleria secans	JI	558	77.79	2.95	good	0.57	0.86	79.28	0.49	0.78	76.91	0.56	0.85	79.89	0.58	0.87	83.01	0.57	0.86	81.98	0.50	0.81	75.04	0.62	0.89	82.26	0.25	0.63	63.93
Sobralia granitica	UC	13	90.79	13.35	optimum	0.89	0.96	98.00	0.67	0.83	94.50	0.74	0.86	93.00	NA	NA	NA	0.60	0.80	64.00	0.88	0.94	95.50	0.88	0.94	99.75	0.13	0.56	60.25
Syngonanthus setifolius	JC	23	89.17	7.63	good	0.84	0.94	93.00	0.51	0.75	91.57	0.81	0.91	94.14	NA	NA	NA	0.71	0.86	75.57	0.77	0.90	91.57	0.12	0.05	97.29	0.20	0.60	36.29
Tococa subciliata	JI	173	87.36	8.46	good	0.76	0.93	89.52	0.71	0.88	92.77	0.69	0.91	87.38	0.78	0.94	92.44	0.72	0.92	89.83	0.71	0.90	88.25	0.80	0.95	91.69	0.53	0.77	66.98
Trichomanes martiusii	M	120	83.62	10.29	good	0.69	0.89	86.20	0.64	0.83	86.86	0.67	0.88	85.11	0.72	0.91	91.36	0.69	0.91	88.39	0.61	0.84	80.69	0.73	0.91	90.78	0.44	0.72	59.56
Utricularia foliosa	M	468	79.23	2.14	good	0.61	0.86	81.47	0.54	0.78	80.05	0.56	0.84	81.41	0.62	0.88	82.01	0.56	0.84	86.19	0.53	0.82	79.70	0.66	0.89	82.55	0.23	0.61	60.48
Voyria aphylla	UC	425	80.24	2.41	good	0.64	0.88	82.07	0.56	0.81	81.25	0.61	0.86	80.99	0.64	0.89	84.76	0.61	0.87	84.85	0.57	0.85	79.25	0.67	0.91	85.62	0.34	0.67	63.12
Xyris subuniflora	JC	28	82.80	15.90	good	0.79	0.92	87.25	0.69	0.85	93.75	0.75	0.89	88.63	0.84	0.93	96.13	0.75	0.88	82.75	0.62	0.81	65.38	0.87	0.95	96.25	0.50	0.75	52.25
Xyris involucrata	JC	85	86.60	10.98	good	0.81	0.95	92.36	0.59	0.81	89.76	0.75	0.93	93.16	0.77	0.94	91.36	0.82	0.95	93.64	0.69	0.87	78.60	0.78	0.94	91.72	0.43	0.71	62.20

* ROC Sensitivity: probability that a test result will be positive when the species is present (true positive rate, expressed as a percentage).

Bold: Algorithms that had TSS<0.4 and did not enter in the consensus model.

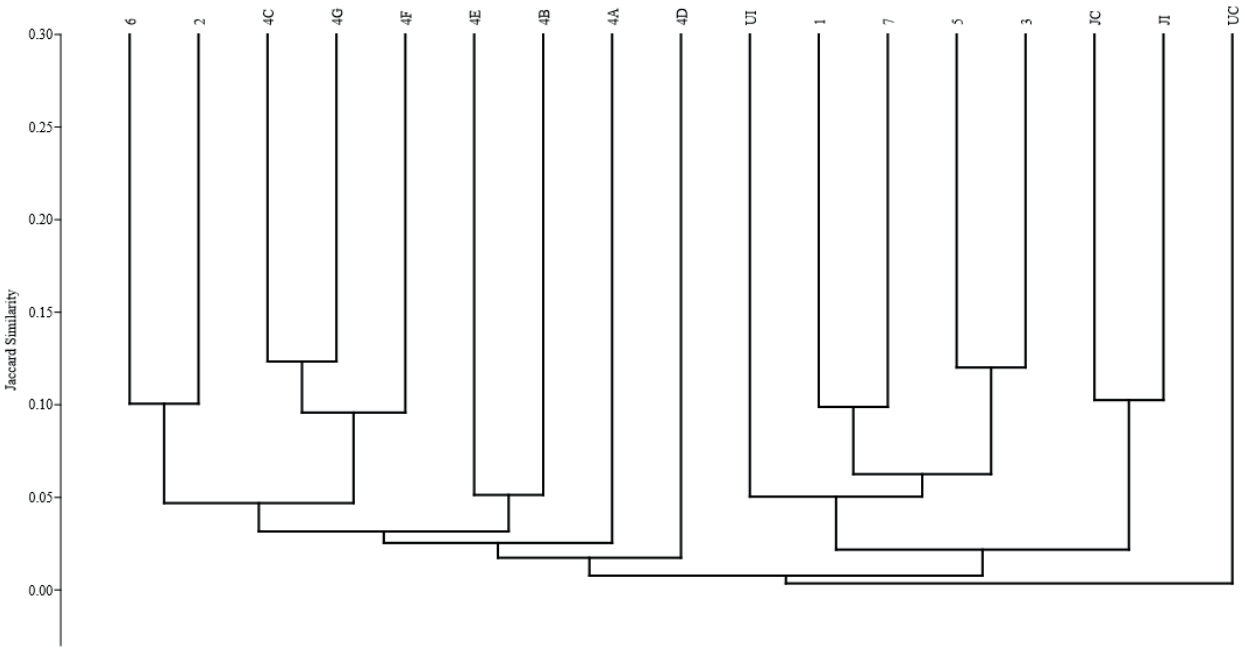

Figure S1. Grouping by the UPGMA algorithm with Jaccard distance with data of presence of aquatic herbaceous species in different wetland inventories (cophen. corr 0.82). Wetlands (*campinarana* and *igapó*) inventoried in Parque Nacional Jaú (JC= Jaú *campinarana*, JI= Jaú *igapó*) and Reserva de Desenvolvimento Sustentável do Uatumã (UC= Uatumã *campinarana*, UI= Uatumã *igapó*) and Brazilian wetland inventories: 1) Amazonian várzea floodplains (Junk & Piedade 1993); 2) *campinaranas* of Parque Nacional Viruá (Costa *et al*. 2016); 3) clear-water *igapó* of Tapajos River (Crema 2017); 4) wetlands in the savanna biome, gallery forests (4A), *campo limpo úmido* (4B), *campo úmido* (4C), *campo sujo com murundus* (4D), *campo limpo de murundus* (4E), *campo com murundus* (4F) and *vereda* (4G) (Chacon *et al*. 2009); 5) Pantanal (Pott & Pott 1997); 6) wetlands in the savanna biome (Cerrado), vereda (Silva *et al*. 2018); 7) semi-arid Caatinga (Torres *et al*. 2016).

References

Chacon RG, Martins RC, Azevedo INC, Oliveira MS, Paiva VF. 2009. Florística da Estação Ecológica do Jardim Botânico de Brasília e Jardim Botânico de Brasília. Heringeriana 3: 11-78.

Costa SM, Barbosa TDM, Bittrich V, Amaral MDCE. 2016. Floristic survey of herbaceous and subshrubby aquatic and palustrine angiosperms of Viruá National Park, Roraima, Brazil. PhytoKeys 58: 21-48.

Crema LC. 2017. Caracterização de igapós de águas claras e pretas e suas disponibilidades alimentares para o peixe-boi-da-Amazônia (*Trichechus inunguis*). PhD Thesis. Instituto Nacional de Pesquisas da Amazônia, Manaus.

Fick SE, Hijmans RJ. 2017. WorldClim 2: new 1km spatial resolution climate surfaces for global land areas. International Journal of Climatology 37: 4302-4315.

Fischer G, Nachtergaele FO, Prieler S, Velthuizen HT, Verelst L, Wiberg D. 2008. Global agro-ecological zones assessment for agriculture (GAEZ 2008). Laxenburg, International Institute for Applied Systems Analysis-IIASA.

Flora do Brasil 2020. 2021. http://floradobrasil.jbrj.gov.br/. 20 Oct. 2020

Harris I, Osborn TJ, Jones P, Lister D. 2020. Version 4 of the CRU TS monthly high-resolution gridded multivariate climate dataset. Scientific Data 7: 1-18.

Jarvis A, Reuter HI, Nelson A, Guevara E. 2008. Hole-filled seamless SRTM data V4, International Centre for Tropical Agriculture (CIAT). https://srtm.csi.cgiar.org. 18 Oct. 2020

Junk WJ, Piedade MTF. 1993. Herbaceous plants of the Amazon floodplain near Manaus: Species diversity and adaptations to the flood pulse. Amazoniana 12: 467-484.

Pott VJ, Pott A. 1997. Checklist das macrófitas aquáticas do Pantanal, Brasil. Acta Botanica Brasilica 11: 215-227.

Silva DPD, Amaral AG, Bijos NR, Munhoz CBR. 2018. Is the herb-shrub composition of veredas (Brazilian palm swamps) distinguishable? Acta Botanica Brasilica 32: 47-54.

Torres CRM, Fernando EM, Lucena MF. 2016. Checklist de plantas aquáticas em trechos de caatinga do semiárido paraibano, Nordeste do Brasil. Gaia Scientia 10: 284-296.

Tuanmu M-N, Jetz W. 2014. A global 1-km consensus land-cover product for biodiversity and ecosystem modeling. Global Ecology and Biogeography 23: 1031-1045.

Tuanmu M-N, Jetz W. 2015. A global, remote sensing-based characterization of terrestrial habitat heterogeneity for biodiversity and ecosystem modeling. Global Ecology and Biogeography 24: 1329-1339.

Zomer RJ, Bossio DA, Trabucco A, Yuanjie L, Gupta DC, Singh VP. 2007. Trees and water: Smallholder agroforestry on irrigated lands in Northern India. Colombo, International Water Management Institute.

Zomer RJ, Trabucco A, Bossio DA, Straaten O, Verchot LV. 2008. Climate change mitigation: A spatial analysis of global land suitability for clean development mechanism afforestation and reforestation. Agriculture, Ecosystems & Environment 126: 67-80.