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Supplementary Material

Flora and structure of the naturally regenerating riparian vegetation of the Rio Doce River: basis for environmental restoration actions

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Table S1 . List of all the families and species sampled in the Águas Claras - AC plots with their respective Importance Value Index (IVI).

FAMILY	SPECIES	IV
Anacardiaceae	<i>Tapirira obtusa</i> (Benth.) J.D.Mitch.	2.3734
	<i>Tapirira guianensis</i> Aubl.	1.8371
Annonaceae	<i>Xylopia sericea</i> A.St.-Hil.	17.336
	<i>Rollinia sylvatica</i> (A.St.-Hil.) Mart.	1.2883
Araliaceae	<i>Guatteria villosissima</i> A.St.-Hil.	0.8105
	<i>Aralia excelsa</i> (Griseb.) J.Wen	8.9091
Asteraceae	<i>Vernonanthura divaricata</i> (Spreng.) H.Rob.	1.8176
Bignoniaceae	<i>Handroanthus chrysotrichus</i> (Mart. ex DC.) Mattos	3.1868
Calophyllaceae	<i>Calophyllum</i> sp.	0.822
Celastraceae	<i>Salacia elliptica</i> (Mart.) G. Don	4.1556
	<i>Maytenus salicifolia</i> Reissek	1.5491
Chrysobalanaceae	<i>Hirtella martiana</i> Hook.f.	0.7959
	<i>Hirtella gracilipes</i> (Hook.f.) Prance	0.7915
Elaeocarpaceae	<i>Sloanea stipitata</i> Spruce ex Benth.	2.8557
Erythroxylaceae	<i>Erythroxylum pelleterianum</i> A.St.-Hil.	15.349
	<i>Erythroxylum daphnites</i> Mart.	10.744
Euphorbiaceae	<i>Mabea fistulifera</i> Mart.	2.7105
	<i>Maprounea brasiliensis</i> A.St.-Hil.	1.8148
Fabaceae	<i>Croton floribundus</i> Spreng.	0.8999
	<i>Copaifera langsdorffii</i> Desf.	8.8425
Hypericaceae	<i>Apuleia leiocarpa</i> (Vogel) J.F.Macbr.	2.5705
	<i>Anadenanthera falcata</i> (Benth.) Speg.	2.4865
Lauraceae	<i>Caesalpinia echinata</i> Lam.	2.4009
	<i>Calliandra</i> sp.	1.8476
Malpighiaceae	<i>Platypodium elegans</i> Vogel	1.7318
	<i>Bauhinia rufa</i> (Bong.) Steud.	1.6516
Malvaceae	<i>Anadenanthera colubrina</i> (Vell.) Brenan	1.1581
	<i>Lonchocarpus muehlbergianus</i> Hassl.	1.0437
Melastomataceae	<i>Piptadenia</i> sp.	0.9764
	<i>Diplotropis ferruginea</i> Benth.	0.931
Myrsinaceae	<i>Machaerium</i> sp.1	0.7966
	<i>Abarema jupunba</i> (Willd.) Britton & Killip	0.755
Myrsinaceae	<i>Vismia magnoliifolia</i> Cham. & Schldl.	1.1388
	<i>Nectandra oppositifolia</i> Nees & Mart.	7.6244
Myrsinaceae	<i>Ocotea pulchella</i> (Nees & Mart.) Mez	6.5542
	<i>Lauraceae</i> sp.	1.0301
Myrsinaceae	<i>Ocotea corymbosa</i> (Meisn.) Mez	0.7653
	<i>Byrsonima</i> sp.	1.4991
Myrsinaceae	<i>Luehea candicans</i> Mart.	1.0419
	<i>Melastomataceae</i> sp.1	7.0506
Myrsinaceae	<i>Melastomataceae</i> sp.2	1.8645
	<i>Tibouchina granulosa</i> (Desr.) Cogn.	1.3355
Myrsinaceae	<i>Leandra</i> sp.1	1.2639
	<i>Miconia cabucu</i> Hoehne	0.8707
Myrsinaceae	<i>Miconia</i> sp.	0.801

	<i>Miconia cinnamomifolia</i> (DC.) Naudin	0.7769
	<i>Melastomataceae</i> sp.3	0.7741
	<i>Miconia pusilliflora</i> (DC.) Naudin	0.7728
	<i>Miconia latecrenata</i> (DC.) Naudin	0.7603
Meliaceae	<i>Guarea</i> sp.	1.0186
Myrtaceae	<i>Myrciaria glanduliflora</i> (Kiaersk.) Mattos & D.Legrand	4.2512
	<i>Myrtaceae</i> sp.	3.5566
	<i>Myrcia amazonica</i> DC.	2.9702
	<i>Blepharocalyx salicifolius</i> (Kunth) O.Berg	2.2174
	<i>Myrcia eriopus</i> DC.	0.991
	<i>Myrcia splendens</i> (Sw.) DC.	0.7616
NA	sp.7	7.3495
	sp.26	4.2276
	sp.8	2.6465
	sp.12	1.9656
	sp.19	1.5088
	sp.23	1.4499
	sp.13	1.0195
	sp.16	0.9431
	sp.14	0.9365
	sp.17	0.8741
	sp.18	0.863
	sp.22	0.8561
	sp.2	0.8295
	sp.15	0.8281
	sp.25	0.8141
	sp.10	0.8039
	sp.21	0.8034
	sp.27	0.8017
	sp.1	0.7972
	sp.3	0.7954
	sp.24	0.7893
	sp.6	0.7886
	sp.20	0.7722
	sp.11	0.7583
Nyctaginaceae	<i>Guapira hirsuta</i> (Choisy) Lundell	0.8223
Peraceae	<i>Pera glabrata</i> (Schott) Baill.	0.9649
	<i>Pera barbinervis</i> (Mart. ex Klotzsch) Pax & K.Hoffm.	0.763
Piperaceae	<i>Piper arboreum</i> Aubl.	2.118
	<i>Piper</i> sp.	1.3398
	<i>Piper propinquum</i> C.DC.	1.1298
	<i>Piper gaudichaudianum</i> Kunth	0.8883
	<i>Piper aduncum</i> L.	0.7587
Quiinaceae	<i>Quiina guianensis</i> Aubl.	1.2182
Rubiaceae	<i>Ladenbergia</i> sp.1	11.774
	<i>Chomelia brasiliiana</i> A.Rich.	7.9628
	<i>Psychotria vellosiana</i> Benth.	7.9479
	<i>Bathysa australis</i> (A.St.-Hil.) K.Schum.	0.8855

	<i>Bathysa</i> sp.	0.8392
	<i>Posoqueria latifolia</i> (Rudge) Schult.	0.8343
	<i>Ladenbergia cujabensis</i> Klotzsch	0.7617
Rutaceae	<i>Zanthoxylum fagara</i> (L.) Sarg.	0.9104
Salicaceae	<i>Casearia</i> sp.	6.0812
	<i>Casearia arborea</i> (Rich.) Urb.	4.3033
Sapindaceae	<i>Matayba</i> sp.1	6.7487
	<i>Cupania vernalis</i> Cambess.	2.7464
	<i>Cupania emarginata</i> Cambess.	0.8586
Sapotaceae	<i>Pouteria gardneri</i> (Mart. & Miq.) Baehni	0.7835
	<i>Pouteria gardneriana</i> (A.DC.) Radlk.	0.7669
	<i>Chrysophyllum gonocarpum</i> (Mart. & Eichler ex Miq.) Engl.	0.7556
Siparunaceae	<i>Siparuna guianensis</i> Aubl.	34.05
	<i>Siparuna reginae</i> (Tul.) A.DC.	3.4707
	<i>Siparuna brasiliensis</i> (Spreng.) A.DC.	0.826
Solanaceae	<i>Solanum cernuum</i> Vell.	1.7606
	<i>Solanum</i> sp.1	0.9758
Thymelaeaceae	<i>Daphnopsis brasiliensis</i> Mart.	0.802

Table S2 . List of families and species sampled in the plots of Antônio Pereira – AP with their respective Importance Value Index (IVI).

FAMILY	SPECIES	IV
Anacardiaceae	<i>Tapirira obtusa</i> (Benth.) J.D.Mitch.	2.912
	<i>Tapirira guianensis</i> Aubl.	0.77
	<i>Tapirira guianensis</i> Aubl.	0.664
Annonaceae	<i>Xylopia sericea</i> A.St.-Hil.	7.209
	<i>Xylopia</i> sp.	3.114
	<i>Guatteria villosissima</i> A.St.-Hil.	2.96
	<i>Annona neolaurifolia</i> H.Rainer	1.201
	<i>Xylopia emarginata</i> Mart.	0.639
	<i>Xylopia brasiliensis</i> Spreng.	0.495
	<i>Xylopia</i> sp.1	0.469
	<i>Rollinia</i> sp.	0.454
	<i>Guatteria pogonopus</i> Mart.	0.446
Apocynaceae	<i>Himatanthus</i> sp.	0.849
Araliaceae	<i>Dendropanax cuneatus</i> (DC.) Decne. & Planch.	7.411
Asteraceae	<i>Eremanthus incanus</i> (Less.) Less.	0.669
Bignoniaceae	<i>Piriadacus</i> sp.	0.451
Burseraceae	<i>Protium</i> sp.	2.122
	<i>Protium spruceanum</i> (Benth.) Engl.	0.716
Calophyllaceae	<i>Calophyllum brasiliense</i> Cambess.	2.11
Combretaceae	<i>Buchenavia tomentosa</i> Eichler	0.649
Elaeocarpaceae	<i>Sloanea guianensis</i> (Aubl.) Benth.	1.71
	<i>Sloanea monosperma</i> Vell.	0.492
Ericaceae	<i>Agarista eucalyptoides</i> (Cham. & Schldl.) G.Don	0.619
Erythroxylaceae	<i>Erythroxylum pelleterianum</i> A.St.-Hil.	6.455
	<i>Erythroxylum nummularium</i> Peyr.	0.587
Euphorbiaceae	<i>Sebastiania commersoniana</i> (Baill.) L.B.Sm. & Downs	3.11
	<i>Alchornea sidifolia</i> Müll.Arg.	3.014
	<i>Alchornea triplinervia</i> (Spreng.) Müll.Arg.	0.448
Fabaceae	<i>Dalbergia nigra</i> (Vell.) Allemão ex Benth.	4.916
	<i>Dimorphandra</i> sp.	3.139
	<i>Andira fraxinifolia</i> Benth.	2.343
	<i>Inga flagelliformis</i> (Vell.) Mart.	1.805
	<i>Copaifera langsdorffii</i> Desf.	1.568
	<i>Inga tenuis</i> (Vell.) Mart.	1.187
	<i>Inga vera</i> Willd.	1.108
	<i>Desmodium adscendens</i> (Sw.) DC.	0.769
	<i>Stryphnodendron polyphyllum</i> Mart.	0.677
	<i>Inga cylindrica</i> (Vell.) Mart.	0.625
Humiriaceae	<i>Diplotropis ferruginea</i> Benth.	0.57
	<i>Platypodium elegans</i> Vogel	0.53
	<i>Senegalia polyphylla</i> (DC.) Britton & Rose	0.481
	<i>Machaerium hirtum</i> (Vell.) Stellfeld	0.461
	<i>Sacoglottis mattogrossensis</i> Malme	0.464

Lacistemaceae	<i>Lacistema pubescens</i> Mart.	14.67
	<i>Lacistema</i> sp.	0.444
Lamiaceae	<i>Vitex polygama</i> Cham.	0.534
Lauraceae	<i>Nectandra oppositifolia</i> Nees & Mart.	3.274
	<i>Aiouea saligna</i> Meisn.	1.942
	<i>Nectandra</i> sp.	1.839
	<i>Aniba</i> sp.2	1.305
	<i>Aniba firmula</i> (Nees & Mart.) Mez	1.051
	<i>Aniba canellilla</i> (Kunth) Mez	0.68
	<i>Aniba</i> sp.	0.611
	<i>Ocotea corymbosa</i> (Meisn.) Mez	0.452
	<i>Persea willdenovii</i> Kosterm.	0.45
Malpighiaceae	<i>Byrsonima crassifolia</i> (L.) Kunth	1.427
	<i>Byrsonima</i> sp.	0.664
	<i>Byrsonima pachyphylla</i> A.Juss.	0.492
Malvaceae	<i>Pavonia nemoralis</i> A.St.-Hil.	1.675
	<i>Pseudobombax</i> sp.	0.548
	<i>Malvaceae</i> sp.	0.445
	<i>Miconia pusilliflora</i> (DC.) Naudin	8.619
Melastomataceae	<i>Miconia albicans</i> (Sw.) Steud.	2.72
	<i>Miconia sellowiana</i> Naudin	1.143
	<i>Miconia ibaguensis</i> (Bonpl.) Triana	0.826
	<i>Miconia corallina</i> Spring	0.717
	<i>Miconia</i> sp.2	0.64
	<i>Miconia</i> sp.1	0.596
	<i>Miconia</i> sp.	0.507
	<i>Miconia macrothyrsa</i> Benth.	0.497
	<i>Leandra</i> sp.1	0.495
	<i>Clidemia</i> sp.	0.488
	<i>Leandra</i> sp.2	0.475
	<i>Tibouchina</i> sp.	0.449
	<i>Tibouchina fothergillae</i> (Schrank & Mart. ex DC.) Cogn.	0.445
Meliaceae	<i>Guarea</i> sp.	1.667
Monimiaceae	<i>Mollinedia triflora</i> (Spreng.) Tul.	0.481
	<i>Mollinedia schottiana</i> (Spreng.) Perkins	0.443
Moraceae	<i>Ficus</i> sp.	2.674
Myrtaceae	<i>Myrcia splendens</i> (Sw.) DC.	8.965
	<i>Blepharocalyx salicifolius</i> (Kunth) O.Berg	8.268
	<i>Eugenia florida</i> DC.	5.685
	<i>Myrcia guianensis</i> (Aubl.) DC.	5.222
	<i>Syzygium jambos</i> (L.) Alston	4.483
	<i>Eugenia blastantha</i> (O.Berg) D.Legrand	2.831
	<i>Myrcia hebepetala</i> DC.	2.817
	<i>Myrcia eriopus</i> DC.	2.001
	<i>Eugenia sonderiana</i> O.Berg	1.357
	<i>Myrcia amazonica</i> DC.	0.834
	<i>Myrcia vauthiereana</i> O.Berg	0.629
	<i>Eugenia australis</i> Colla	0.531

	<i>Myrciaria glomerata</i> O.Berg	0.525
	<i>Myrciaria floribunda</i> (H.West ex Willd.) O.Berg	0.484
	<i>Psidium cupreum</i> DC.	0.468
	<i>Marlierea laevigata</i> (DC.) Kiaersk.	0.452
	<i>Marlierea excoriata</i> Mart.	0.449
	<i>Marlierea</i> sp.	0.446
NA	sp.28	4.256
	sp.32	2.655
	sp.2	1.873
	sp.7	1.15
	sp.3	1.119
	sp.6	0.974
	sp.27	0.948
	sp.1	0.9
	sp.5	0.884
	sp.38	0.812
	sp.29	0.77
	sp.26	0.655
	sp.39	0.618
	sp.37	0.587
	sp.30	0.573
	sp.33	0.559
	sp.35	0.536
	sp.36	0.52
	sp.40	0.495
	sp.12	0.486
	sp.9	0.483
	sp.31	0.482
	sp.19	0.478
	sp.4	0.469
	sp.13	0.466
	sp.15	0.456
	sp.22	0.454
	sp.8	0.451
	sp.16	0.449
	sp.23	0.449
	sp.24	0.449
	sp.14	0.449
	sp.18	0.447
	sp.17	0.447
	sp.10	0.444
	sp.21	0.444
	sp.11	0.444
	sp.20	0.444
	sp.25	0.444
	sp.34	0.443
Nyctaginaceae	<i>Guapira hirsuta</i> (Choisy) Lundell	1.808
Phyllanthaceae	<i>Hyeronima alchorneoides</i> Allemão	1.024

Piperaceae	<i>Piper arboreum</i> Aubl.	10.93
	<i>Piper aduncum</i> L.	1.835
	<i>Piper</i> sp.	1.137
	<i>Piper</i> sp.1	1.049
	<i>Piper macedoi</i> Yunck.	0.91
Polygalaceae	<i>Bredemeyera floribunda</i> Willd.	0.47
Primulaceae	<i>Myrsine coriacea</i> (Sw.) R.Br. ex Roem. & Schult.	1.575
	<i>Myrsine lineata</i> (Mez) Imkhan.	0.466
	<i>Myrsine guianensis</i> (Aubl.) Kuntze	0.457
Rosaceae	<i>Prunus</i> sp.	1.645
	<i>Prunus myrtifolia</i> (L.) Urb.	0.451
Rubiaceae	<i>Psychotria vellosiana</i> Benth.	6.958
	<i>Ladenbergia</i> sp.	2.523
	<i>Alibertia edulis</i> (Rich.) A.Rich.	0.981
	<i>Palicourea marcgravii</i> A.St.-Hil.	0.446
	<i>Psychotria lupulina</i> Benth.	0.445
Rutaceae	<i>Zanthoxylum caribaeum</i> Lam.	0.467
	<i>Dictyoloma vandellianum</i> A.Juss.	0.466
	<i>Zanthoxylum rhoifolium</i> Lam.	0.445
Salicaceae	<i>Casearia</i> sp.1	1.189
	<i>Casearia decandra</i> Jacq.	1.067
	<i>Casearia sylvestris</i> Sw.	0.584
	<i>Casearia</i> sp.2	0.53
	<i>Casearia</i> sp.3	0.444
Sapindaceae	<i>Magonia</i> sp.	4.325
	<i>Cupania vernalis</i> Cambess.	3.674
	<i>Matayba guianensis</i> Aubl.	2.342
	<i>Matayba elaeagnoides</i> Radlk.	1.528
	<i>Matayba mollis</i> Radlk.	0.912
	<i>Cupania emarginata</i> Cambess.	0.522
	<i>Serjania</i> sp.	0.479
Siparunaceae	<i>Siparuna guianensis</i> Aubl.	18.57
	<i>Siparuna reginae</i> (Tul.) A.DC.	2.956
	<i>Siparuna brasiliensis</i> (Spreng.) A.DC.	1.304
Solanaceae	<i>Cestrum laevigatum</i> Schldl.	9.215
	<i>Cestrum schlechtendalii</i> G.Don	3.798
	<i>Solanum swartzianum</i> Roem. & Schult.	0.937
	<i>Solanum asperum</i> Rich.	0.855
	<i>Solanum cernuum</i> Vell.	0.559
	<i>Brunfelsia uniflora</i> (Pohl) D.Don	0.481
Thymelaeaceae	<i>Daphnopsis coriacea</i> Taub.	0.558

Table S3 . List of all the families and species sampled in the Monsenhor Horta – MH plots with their respective Importance Value Index (IVI).

FAMILY	SPECIES	IV
Achantaceae	<i>Aphelandra schottiana</i> (Nees) Profice	0.9778
Annonaceae	<i>Guatteria villosissima</i> A.St.-Hil.	5.392
	<i>Xylopia sericea</i> A.St.-Hil.	4.1665
Araliaceae	<i>Schefflera calva</i> (Cham.) Frodin & Fiaschi	1.0067
Bignoniaceae	<i>Cybistax antisiphilitica</i> (Mart.) Mart.	3.6674
	<i>Handroanthus</i> sp.3	2.0171
	<i>Handroanthus</i> sp.2	1.1217
	<i>Handroanthus</i> sp.	1.0063
	<i>Bignoniaceae</i> sp.	1.0215
Chloranthaceae	<i>Hedyosmum brasiliensis</i> Mart.	1.0306
Elaeocarpaceae	<i>Sloanea guianensis</i> (Aubl.) Benth.	1.3027
Erythroxylaceae	<i>Erythroxylum pelleterianum</i> A.St.-Hil.	14.283
	<i>Erythroxylum daphnites</i> Mart.	4.2237
	<i>Erythroxylum citrifolium</i> A.St.-Hil.	1.1021
Fabaceae	<i>Machaerium brasiliense</i> Vogel	9.7354
	<i>Dalbergia nigra</i> (Vell.) Allemão ex Benth.	8.2141
	<i>Bauhinia</i> sp.	4.947
	<i>Senegalia</i> sp.	3.0229
	<i>Anadenanthera colubrina</i> (Vell.) Brenan	2.6735
	<i>Senegalia polyphylla</i> (DC.) Britton & Rose	2.4634
	<i>Inga</i> sp.	2.3253
	<i>Inga flagelliformis</i> (Vell.) Mart.	2.1043
	<i>Andira fraxinifolia</i> Benth.	1.2155
	<i>Bauhinia</i> sp.2	1.1263
	<i>Bauhinia longifolia</i> (Bong.) Steud.	1.1148
	<i>Dalbergia</i> sp.	1.0308
	<i>Machaerium hirtum</i> (Vell.) Stellfeld	1.0299
	<i>Inga marginata</i> Willd.	1.0204
	<i>Inga tenuis</i> (Vell.) Mart.	1.0078
Lacistemataceae	<i>Lacistema pubescens</i> Mart.	6.8203
	<i>Lacistema</i> sp.	3.9663
Lauraceae	<i>Nectandra reticulata</i> (Ruiz & Pav.) Mez	6.3351
	<i>Endlicheria paniculata</i> (Spreng.) J.F.Macbr.	4.6655
	<i>Aniba firmula</i> (Nees & Mart.) Mez	2.9818
	<i>Urbanodendron verrucosum</i> (Nees) Mez	1.0811
	<i>Aniba</i> sp.	1.0116
Malpighiaceae	<i>Byrsonima sericea</i> DC.	1.3331
Malvaceae	<i>Luehea candidans</i> Mart.	1.9983
Melastomataceae	<i>Leandra reversa</i> (DC.) Cogn.	3.153
Meliaceae	<i>Guarea</i> sp.	7.3747
	<i>Trichilia pallida</i> Sw.	2.0537
	<i>Maclura tinctoria</i> (L.) D.Don ex Steud.	1.0859
	<i>Moraceae</i> sp.	0.9981

	<i>Eugenia florida</i> DC.	3.1089
	<i>Myrtaceae</i> sp.	3.0901
	<i>Marlierea laevigata</i> (DC.) Kiaersk.	1.1678
	<i>Psidium oblongatum</i> O.Berg	1.0767
	<i>Myrcia splendens</i> (Sw.) DC.	1.076
	<i>Myrcia fenzliana</i> O.Berg	0.9757
	<i>Blepharocalyx salicifolius</i> (Kunth) O.Berg	0.9753
NA	sp.10	1.298
	sp.7	1.1223
	sp.6	1.0722
	sp.3	1.0474
	sp.9	1.0394
	sp.5	1.015
	sp.4	1.0053
	sp.2	1.0016
	sp.1	1.0009
	sp.8	0.9918
	sp.12	0.9791
	sp.11	0.9752
Nyctaginaceae	<i>Guapira hirsuta</i> (Choisy) Lundell	1.3234
Piperaceae	<i>Piper propinquum</i> C.DC.	13.98
	<i>Piper</i> sp.	7.9832
	<i>Piper</i> sp.2	5.3444
	<i>Piper lhotzkyanum</i> Kunth	1.4233
Rubiaceae	<i>Psychotria vellosiana</i> Benth.	14.798
	<i>Chomelia brasiliiana</i> A.Rich.	7.9653
	<i>Psychotria nuda</i> (Cham. & Schldl.) Wawra	3.3288
	<i>Alibertia edulis</i> (Rich.) A.Rich.	1.6347
	<i>Faramea multiflora</i> A.Rich. in DC.	1.1286
	<i>Ladenbergia</i> sp.	1.0249
	<i>Psychotria malaneoides</i> Müll.Arg.	0.9952
	<i>Chomelia sericea</i> Müll.Arg.	0.9947
Rutaceae	<i>Zanthoxylum rhoifolium</i> Lam.	1.5866
Sapindaceae	<i>Matayba</i> sp.1	25.21
	<i>Allophylus racemosus</i> Sw.	2.1195
	<i>Allophylus strictus</i> Radlk.	1.4322
Siparunaceae	<i>Siparuna guianensis</i> Aubl.	45.169
Solanaceae	<i>Cestrum schlechtendalii</i> G.Don	3.1738
	<i>Solanum swartzianum</i> Roem. & Schult.	2.1136
	<i>Solanum cernuum</i> Vell.	1.0587
	<i>Solanum leucodendron</i> Sendtn.	1.0014
Verbenaceae	<i>Lippia brasiliensis</i> (Link) T.R.S.Silva	0.9833

Table S4 . Table showing all soil variables analyzed in this study for the areas of AP, AC and MH.

Plots	pH	P	K	Ca	Mg	Al	V%	CTC	Cu	Fe	Mn	Zn
AC_50	4.4	0.32	4.16	0.03	0.00	1.30	1.13	9.25	0.00	104.70	1.88	0.78
AC_51	4.2	0.10	3.92	0.00	0.00	1.44	1.07	6.75	0.00	88.51	1.27	0.62
AC_52	4.7	0.99	3.69	0.22	0.00	1.25	1.84	6.62	0.00	55.44	2.28	0.87
AC_53	4.1	0.31	3.85	0.00	0.00	1.54	0.86	8.77	0.00	94.04	1.33	0.51
AC_54	4.3	0.95	4.07	0.04	0.00	1.42	1.15	8.77	0.00	114.90	1.82	0.68
AC_55	4.2	0.39	3.79	0.00	0.00	1.55	0.88	8.01	0.00	111.10	0.17	0.43
AC_56	4.3	0.00	3.91	0.00	0.00	1.43	0.91	8.54	0.00	111.90	0.64	0.44
AC_57	4.4	0.00	3.69	0.00	0.00	1.55	0.80	8.32	0.00	93.30	1.02	0.49
AC_58	4.1	0.22	3.79	0.05	0.00	1.35	1.30	6.12	0.00	92.81	3.14	0.67
AC_59	4.3	0.29	3.91	0.38	0.00	1.32	2.13	7.95	0.00	74.73	2.95	0.50
AC_60	4.6	0.34	4.10	0.91	0.23	1.17	3.09	9.02	0.00	53.29	3.53	0.93
AC_61	4.9	0.61	4.39	1.02	0.31	1.08	3.45	7.73	0.03	49.75	3.83	1.23
AC_62	4.3	0.83	3.85	0.15	0.00	1.37	1.64	6.75	0.06	119.80	3.28	0.62
AC_63	3.8	0.23	3.61	0.00	0.00	1.46	0.78	8.09	0.00	163.00	1.56	0.54
AC_64	4.1	0.00	3.53	0.10	0.00	1.46	1.28	7.20	0.00	127.80	2.98	0.68
AC_65	3.9	0.00	3.88	0.00	0.00	1.57	0.74	11.21	0.34	131.70	1.59	0.69
AC_66	3.9	0.00	3.71	0.00	0.00	1.44	0.69	10.47	0.53	144.10	1.52	0.51
AC_67	4	0.00	3.79	0.00	0.00	1.39	0.87	8.15	0.34	130.60	2.01	0.62
AC_68	4.4	0.53	4.01	0.16	0.00	1.37	1.29	11.83	0.57	131.30	3.03	0.83
AC_69	4.3	0.96	4.01	0.00	0.00	1.41	0.93	9.20	0.77	91.11	2.92	0.94
AC_70	3.9	0.45	3.62	0.00	0.00	1.51	0.75	8.45	0.51	148.70	2.34	0.64
AC_71	4	0.65	3.76	0.00	0.00	1.50	0.76	9.58	0.36	113.30	1.71	0.70
AC_72	3.9	0.44	3.71	0.00	0.00	1.48	0.79	8.65	0.18	128.70	1.55	0.74
AC_73	3.9	0.00	3.64	0.00	0.00	1.56	0.68	9.95	0.17	123.10	1.17	0.63
AC_74	4	0.00	3.55	0.00	0.00	1.54	0.68	9.15	0.10	108.30	1.42	0.51

AC_75	4	0.21	3.59	0.00	0.00	1.55	0.73	8.65	0.02	110.80	1.06	0.42
AC_76	4.1	0.00	3.56	0.00	0.00	1.44	0.65	9.79	0.19	171.30	1.23	0.59
AC_77	4.1	0.00	3.69	0.00	0.00	1.46	0.70	10.03	0.12	115.00	1.16	0.55
AP_01	4.7	1.17	3.68	0.38	0.31	1.24	2.81	5.87	1.08	29.62	4.96	1.16
AP_02	4.8	1.36	3.98	1.05	0.57	1.06	3.72	6.85	0.86	24.17	4.92	1.34
AP_03	4.9	0.82	3.43	0.80	0.41	1.04	3.53	5.49	0.84	23.66	4.62	1.20
AP_04	4.7	1.57	4.07	0.85	0.45	1.19	3.26	8.20	1.26	55.15	5.12	1.19
AP_05	5.2	1.13	3.85	1.40	0.75	1.00	4.02	7.84	1.00	37.75	4.99	1.25
AP_06	4.1	1.43	4.16	0.17	0.13	2.19	1.61	12.40	0.46	147.50	2.44	0.73
AP_07	4.3	1.65	4.16	0.22	0.18	1.75	1.89	10.81	0.97	103.80	3.60	0.76
AP_08	4.7	1.32	4.21	0.19	0.13	1.62	1.82	10.11	1.17	107.70	2.83	0.74
AP_09	4.8	1.54	4.22	0.18	0.16	1.58	1.88	9.75	1.02	98.46	3.50	0.63
AP_10	4.6	1.63	4.31	0.31	0.22	1.65	2.19	10.07	1.02	77.86	4.06	0.63
AP_11	4.8	1.26	4.06	0.14	0.10	1.71	2.07	5.76	0.94	97.90	2.82	0.58
AP_12	4.5	1.42	4.07	0.23	0.19	1.71	2.34	6.63	1.11	86.87	4.04	0.57
AP_13	4.9	1.39	4.44	1.07	0.64	1.08	3.35	10.92	0.76	50.35	4.98	1.42
AP_14	5	1.44	4.06	1.07	0.74	1.08	3.36	11.35	0.29	55.84	5.45	1.44
AP_15	5.2	1.09	3.86	1.46	0.66	1.06	3.84	9.56	0.69	28.46	5.90	1.73
AP_16	5.3	1.40	3.92	1.11	0.59	1.00	3.78	6.89	0.73	11.54	5.85	0.85
AP_17	5.8	0.94	3.96	1.15	0.58	1.00	4.08	5.33	0.43	22.98	5.97	1.19
AP_18	5.5	0.90	3.90	1.05	0.62	1.00	4.08	4.86	0.61	26.73	5.66	1.20
AP_19	5.6	1.22	4.15	1.28	0.82	1.00	4.11	6.73	0.89	97.23	6.10	1.62
AP_20	6.1	0.87	3.86	1.61	0.90	1.00	4.22	8.32	0.86	167.50	5.94	1.09
AP_21	6	1.02	3.52	1.08	0.60	1.00	4.16	4.57	0.71	51.42	5.79	0.93
AP_22	5.7	1.06	3.76	0.82	0.59	1.00	4.08	3.77	0.63	45.29	6.08	1.00
AP_23	6.1	0.83	3.58	1.85	1.15	1.00	4.36	9.85	0.64	133.60	6.00	1.01
AP_24	4.9	1.35	4.10	0.75	0.55	1.09	3.17	8.76	0.73	47.99	5.74	1.28
MH_25	3.8	0.17	3.55	0.22	0.15	1.56	1.70	11.19	0.08	101.60	1.31	0.58
MH_26	3.9	0.00	3.97	0.12	0.11	1.46	1.59	9.88	0.08	98.83	1.42	0.48

MH_27	3.9	0.00	3.87	0.06	0.07	1.47	1.44	7.89	0.16	92.60	0.88	0.48
MH_28	3.8	0.00	4.07	0.13	0.10	1.54	1.69	9.03	0.10	86.69	1.42	0.53
MH_29	4	0.00	3.69	0.14	0.12	1.44	1.65	9.11	0.04	65.70	1.25	0.39
MH_30	4.1	0.00	3.84	0.23	0.13	1.35	1.84	9.76	0.06	56.53	2.23	0.60
MH_31	4.1	0.00	3.90	0.19	0.14	1.45	1.79	9.75	0.13	60.54	2.08	0.59
MH_32	4	0.46	4.08	0.28	0.17	1.50	1.91	11.37	0.22	80.53	2.26	0.80
MH_33	3.7	0.44	3.67	0.10	0.07	1.54	1.21	11.47	0.10	84.67	1.46	0.62
MH_34	3.8	0.67	3.93	0.20	0.16	1.51	1.69	11.74	0.22	112.30	2.23	0.72
MH_35	4.1	0.94	4.04	0.29	0.22	1.45	2.05	10.76	0.20	95.47	2.63	0.92
MH_36	5	0.49	5.14	1.55	0.77	1.01	3.94	10.58	0.39	14.87	4.21	1.22
MH_37	4.6	0.00	3.39	0.49	0.29	1.20	3.00	5.52	0.12	17.06	2.39	0.39
MH_38	4.4	0.91	3.99	0.82	0.37	1.17	3.32	6.96	0.52	27.83	3.84	0.88
MH_39	4.4	0.79	4.03	1.02	0.54	1.24	3.41	8.91	0.17	26.96	3.49	1.14
MH_40	5.1	0.00	4.23	0.80	0.48	1.02	3.55	5.98	0.43	8.75	3.75	0.88
MH_41	4.4	0.51	4.05	0.90	0.38	1.19	3.03	10.41	0.57	44.01	4.12	1.07
MH_42	3.9	0.73	3.81	0.32	0.17	1.56	1.98	10.94	0.24	81.50	3.06	0.60
MH_43	3.8	0.43	3.55	0.14	0.08	1.59	1.34	11.29	0.06	94.01	2.10	0.28
MH_44	4	0.77	3.97	0.36	0.18	1.62	1.94	12.96	0.04	98.08	2.72	0.88
MH_45	4	0.48	3.87	0.21	0.18	1.60	1.75	11.67	0.12	89.37	2.33	0.71
MH_46	3.9	0.58	3.79	0.22	0.14	1.62	1.56	13.35	0.21	89.27	2.81	0.51
MH_47	4.1	0.56	3.92	0.34	0.31	1.53	2.20	11.07	0.43	80.76	3.41	0.57
MH_48	4.5	0.59	4.32	0.46	0.21	1.22	2.29	11.45	0.56	48.24	4.34	1.09
MH_49	4.4	0.69	4.13	0.52	0.12	1.21	2.31	10.75	0.66	35.09	3.98	1.01

Table S5 . Results of NDMS ordination for species composition data in the studied plant communities and their overlap with edaphic variables using the enfit function in the vegan package.

Variables	NMDS1	NMDS2	r2	P value
pH	0.05357	-0.99856	0.4565	0.001
P	-0.0005	-1	0.2839	0.001
K	-0.43784	-0.89905	0.0292	0.307
Ca	0.06993	-0.99755	0.3226	0.001
Mg	0.07336	-0.99731	0.4076	0.001
Al	-0.04293	0.99908	0.2085	0.002
V%	0.0359	-0.99936	0.3691	0.001
CTC	0.01257	0.99992	0.1984	0.001
Cu	0.00737	-0.99997	0.3082	0.001
Fe	0.06722	0.99774	0.1013	0.018
Mn	0.02611	-0.99966	0.4549	0.001
Zn	0.00776	-0.99997	0.2748	0.001