Table S2 Composition and ecological status of species: rare, dominant, exclusively found in the habitat, exogenous, and IUCN conservation status. At least five most abundant and rare species in each habitat based on their relative abundance are indicated.

| N° | Family | Scientific name | Acr | PA | UA | AP |
| --- | --- | --- | --- | --- | --- | --- |
| 1 | Mimosaceae | *Acacia ataxacantha*  | Aa | 18.28% Ab  | 0.08% Ra | 0.18% Ra |
| 2 | Mimosaceae | *Acacia erythrocalyx*  | Ae | 26.57% Ab | 0.51% | 0.35% |
| 3 | Mimosaceae | *Acacia gourmaensis \** | Ag | 0.05% Ra |  |  |
| 4 | Mimosaceae | *Acacia hockii +* | Ah |  | 0.08% Ra |  |
| 5 | Mimosaceae | *Acacia macrostachya*  | Am | 1.15% | 4.12% | 1.58% |
| 6 | Mimosaceae | *Acacia nilotica* x | An |  |  | 0.70% |
| 7 | Mimosaceae | *Acacia senegal*  | As | 0.32% | 0.93% | 0.35% |
| 8 | Mimosaceae | *Acacia seyal*  | Ase | 2.29% | 2.36% | 0.70% |
| 9 | Mimosaceae | *Acacia sieberiana*  | Asi |  | 0.08% Ra | 0.18% Ra |
| 10 | Bombaceae | *Adansonia digitata*  | Ad | 0.14% |  | 0.18% Ra |
| 11 | Caesalpiniaceae | *Afzelia Africana*Vu \* | Aaf | 0.05% Ra |  |  |
| 12 | Mimosaceae | *Albizia chevalieri*  | Ac | 0.60% | 0.51% |  |
| 13 | Apocynaceae | *Ancylobotrys amoena \** | Aam | 0.18% |  |  |
| 14 | Annonaceae | *Annona senegalensis*  | Asen | 0.27% |  | 0.35% |
| 15 | Combretaceae | *Anogeissus leiocarpa*  | Al | 4.31% Ab | 3.96% | 3.50% |
| 16 | Meliaceae | *Azadirachta indica* Ex | Ai |  | 0.08% Ra | 1.58% |
| 17 | Apocynaceae | *Baissea multiflora \** | Bm | 0.27% |  |  |
| 18 | Balanitaceae | *Balanites aegyptiaca*  | Ba | 1.15% | 3.11% | 7.01% Ab |
| 19 | Bombaceae | *Bombax costatum*  | Bc | 0.05% Ra | 0.08% Ra | 0.18% Ra |
| 20 | Capparaceae | *Boscia angustifolia*  | Ban | 0.37% | 0.42% |  |
| 21 | Capparaceae | *Boscia senegalensis +* | Bs |  | 0.34% |  |
| 22 | Capparaceae | *Capparis sepiaria \** | Cs | 0.09% |  |  |
| 23 | Caesalpiniaceae | *Cassia sieberiana*  | Csi | 0.60% | 6.65% Ab | 2.63% |
| 24 | Combretaceae | *Combretum aculeatum \** | Ca | 0.27% |  |  |
| 25 | Fabaceae | *Combretum collinum*  | Cc | 0.05% Ra | 1.85% | 0.88% |
| 26 | Combretaceae | *Combretum glutinosum*  | Cg | 1.01% | 6.23% Ab | 4.55% |
| 27 | Combretaceae | *Combretum micranthum*  | Cm | 7.88% Ab | 22.14% Ab | 10.86% Ab |
| 28 | Combretaceae | *Combretum nigricans*  | Cn | 3.85% | 6.23% Ab | 1.23% |
| 29 | Burseraceae | *Commiphora africana* \* | Caf | 0.23% |  |  |
| 30 | Rubiaceae | *Crossopteryx febrifuga* + | Cf |  | 0.25% |  |
| 31 | Fabaceae | *Dalbergia melanoxylon*  | Dm | 0.46% | 0.25% | 0.18% Ra |
| 32 | Caesalpiniaceae | *Detarium microcarpum* \* | Dmi | 0.23% |  |  |
| 33 | Mimosaceae | *Dichrostachys cinerea*  | Dc | 0.14% | 0.67% | 4.55% |
| 34 | Ebenaceae | *Diospyros mespiliformis*  | Dme | 0.69% | 0.93% | 3.68% |
| 35 | Mimosaceae | *Faidherbia albida*  | Fa |  | 0.17% | 1.75% |
| 36 | Rubiaceae | *Feretia apodanthera*  | Fap | 0.32% | 0.51% | 0.70% |
| 37 | Moraceae | *Ficus sycomorus* x | Fs |  |  | 0.35% |
| 38 | Phyllanthaceae | *Flueggea virosa*  | Fv |  | 0.08% Ra | 0.18% Ra |
| 39 | Rubiaceae | *Gardenia erubescens*  | Ge | 0.27% | 0.51% | 1.93% |
| 40 | Rubiaceae | *Gardenia sokotensis*  | Gs | 0.23% | 0.34% | 0.70% |
| 41 | Rubiaceae | *Gardenia ternifolia* x | Gt |  |  | 0.18% Ra |
| 42 | Malvaceae | *Grewia bicolor*  | Gb | 0.41% | 0.76% |  |
| 43 | Malvaceae | *Grewia flavescens* \* | Gf | 0.14% |  |  |
| 44 | Malvaceae | *Grewia mollis* \* | Gm | 0.41% |  |  |
| 45 | Combretaceae | *Guiera senegalensis*  | Gse | 1.15% | 13.47% Ab | 11.38% Ab |
| 46 | Apocynaceae | *Holarrhena floribunda*  | Hf | 0.14% | 0.25% | 0.35% |
| 47 | Meliaceae | *Khaya senegalensis* Vu \* | Ks | 0.18% |  |  |
| 48 | Anacardiaceae | *Lannea acida*  | La | 0.14% | 0.17% |  |
| 49 | Anacardiaceae | *Lannea microcarpa*  | Lm | 2.61% | 2.10% | 5.60% |
| 50 | Anacardiaceae | *Lannea velutina* + | Lv |  | 0.08% Ra |  |
| 51 | Apocynaceae | *Leptadenia hastata*  | Lh |  | 0.08% Ra | 0.53% |
| 52 | Anacardiaceae | *Mangifera indica* Ex x | Mi |  |  | 0.70% |
| 53 | Celastraceae | *Maytenus senegalensis*  | Ms | 0.05% Ra | 0.34% | 1.23% |
| 54 | Mimosaceae | *Parkia biglobosa*  | Pb |  | 0.17% | 0.18% Ra |
| 55 | Caesalpiniaceae | *Piliostigma reticulatum*  | Pr | 0.60% | 3.20% | 10.33% Ab |
| 56 | Mimosaceae | *Prosopis africana*  | Pa |  | 0.25% | 0.18% Ra |
| 57 | Combretaceae | *Pteleopsis suberosa* \* | Ps | 0.05% Ra |  |  |
| 58 | Fabaceae | *Pterocarpus erinaceus* En | Pe | 0.23% | 0.25% | 0.18% Ra |
| 59 | Fabaceae | *Pterocarpus lucens*  | Pl | 0.69% | 5.05% | 0.53% |
| 60 | Apocynaceae | *Saba senegalensis*  | Ss | 13.42% Ab | 2.10% | 0.53% |
| 61 | Anacardiaceae | *Sclerocarya birrea*  | Sb | 2.52% | 1.18% | 3.50% |
| 62 | Malvaceae | *Sterculia setigera* + | Sse |  | 0.08% Ra |  |
| 63 | Bignoniacea | *Stereospermum kunthianum*  | Sk | 0.14% | 0.25% |  |
| 64 | Loganiaceae | *Strychnos spinosa* \* | Ssp | 0.09% |  |  |
| 65 | Caesalpiniaceae | *Swartzia madagascariensis*  | Sm |  | 0.08% Ra | 0.35% |
| 66 | Caesalpiniaceae | *Tamarindus indica*  | Ti | 0.05% Ra | 0.34% | 0.35% |
| 67 | Combretaceae | *Terminalia avicennioides*  | Ta | 0.09% | 2.44% | 1.58% |
| 68 | Combretaceae | *Terminalia macroptera* + | Tm |  | 0.34% |  |
| 69 | Sapotaceae | *Vitellaria paradoxa* Vu | Vp | 3.94% | 2.36% | 10.68% Ab |
| 70 | Olacaceae | *Ximenia americana*  | Xa | 0.41% | 0.67% |  |
| 71 | Rhamnaceae | *Ziziphus mauritiana*  | Zm | 0.27% | 0.51% | 0.70% |

Acr.= Acronym; PA=Protected areas; UA=Unprotected areas; AP= Agroforestry parks; Ab= Abundant; Ra = Rare; Ex = Exogenous; Threatened species (IUCN red list):En = Endangered; Vu = Vulnerable; Species exclusively identified on: \*= protected areas, += unprotected areas, and x= agroforestry parks