**Appendix. Supplementary Material**

**Table A.1.** Species represents the tree species at both sites of Nazinga Game Ranch and Bontioli Nature Reserve collectively. n = number of trees for each species. Relative abundance (%) (percentage of tree species individuals relative to the total number of trees). Wood density represents the published values of wood densities at species and generic levels for all the trees at both sites.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Species** | ***N*** | **Relative Abundance**  **(%)** | **Wood Density**  **(g cm-3)** | | **References** |
|  |  |  | **Species level** | **Generic level** |  |
| *Acacia sieberiana* DC. var. villosa A. Chev. | 2 | 0.36 | 0.65 |  | (UNFCCC, 1992) |
| *Afzelia africana* Sm. | 1 | 0.18 | 0.71 |  | (Ogunwusi et al., 2013) |
| *Anogeissus leiocarpa* (DC.) Guill. & Perr. | 152 | 28.04 | 0.73 |  | (Ogunwusi et al., 2013) |
| *Bridelia scleroneura* Müll. Arg. | 3 | 0.55 |  | 0.81 | (Agbontalor, 2008) |
| *Cassia sieberiana* DC. | 16 | 2.95 | 0.72 |  | (Nyg and Elfving, 2000) |
| *Combretum adenogonium* Steud. ex A. Rich. | 13 | 2.39 | 0.64 |  | (Brazier et al., 1983) |
| *Combretum collinum* Fresen. | 8 | 1.47 | 0.79 |  | (UNFCCC, 1992) |
| *Combretum fragrans* F.Hoffm. | 37 | 6.82 | 0.64 |  | (Brazier et al., 1983) |
| *Combretum glutinosum* Perr. ex DC. | 2 | 0.36 | 0.90 |  | (von Maydell, 1983) |
| *Daniellia oliveri* (Rolfe) Hutch. & Dalz. | 13 | 2.39 | 0.40 |  | (Rijsdijk and Laming, 1994) |
| *Detarium microcarpum* Guill. & Perr. | 4 | 0.73 | 0.78 |  | (Fontodji et al., 2013) |
| *Diospyros mespiliformis* Hochst. ex A. DC. | 1 | 0.18 |  | 0.72 | (Nyg and Elfving, 2000) |
| *Entada africana* Guill. & Perr. | 7 | 1.29 | 0.53 |  | (Nyg and Elfving, 2000) |
| *Gardenia erubescens* Stapf & Hutch. | 1 | 0.18 | 0.64 |  | (UNFCCC, 1992) |
| *Gardenia ternifolia* Schum. & Thonn. | 3 | 0.55 | 0.81 |  | (Agbontalor, 2008) |
| *Lannea microcarpa* Engl. & K. Krause | 1 | 0.18 | 0.51 |  | (Nyg and Elfving, 2000) |
| *Maytenus senegalensis* (Lam.) Exell | 2 | 0.36 |  | 0.71 | (Brown, 1997) |
| *Mitragyna inermis* (Willd.) O. Ktze. | 70 | 12.91 |  | 0.56 | (Brown, 1997) |
| *Parkia biglobosa* (Jacq.) R. Br. ex G. Don f. | 17 | 3.13 | 0.61 |  | (Bolza and Keating, 1972) |
| *Pericopsis laxiflora* (Benth. ex Bak.) van Meeuwen | 1 | 0.18 |  | 0.93 | (Louppe et al., 2008) |
| *Piliostigma thonningii* (Schum.) Milne-Redhead | 9 | 1.66 | 0.61 |  | (Nyg and Elfving, 2000) |
| *Pseudocedrela kotschyi* (Schweinf.) Harms | 7 | 1.29 | 0.62 |  | (Takahashi, 1978) |
| *Pterocarpus erinaceus* Poir. | 4 | 0.73 | 0.62 |  | (Nyg and Elfving, 2000) |
| *Saba senegalensis* (A. DC.) Pichon | 6 | 1.10 |  | 0.62 | (Nyg and Elfving, 2000) |
| *Stereospermum kunthianum* Cham. | 3 | 0.55 | 0.60 |  | (Brazier et al., 1983) |
| *Terminalia laxiflora* Engl. & Diels | 65 | 11.99 |  | 0.71 | (Brown, 1997) |
| *Terminalia macroptera* Guill. & Perr. | 23 | 4.24 |  | 0.71 | (Brown, 1997) |
| *Vitellaria paradoxa* C.F. Gaertn. | 67 | 12.36 | 0.72 |  | (Van der Vossen and Mkamilo, 2007) |
| *Ximenia americana* L. | 4 | 0.73 | 0.95 |  | (von Maydell, 1983) |

UNFCCC = United Nations Framework Convention on Climate Change

**Table A.2.** IVI of tree species at Nazinga Game Ranch and Bontioli Nature Reserve. Rf (%) is the relative frequency of tree species, RDe (%) is the relative density of trees species and RDo (%) is the relative basal area of the tree species.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Nazinga Game Ranch** | | | | |
| **Species** | **Rf (%)** | **RDe (%)** | **RDo (%)** | **IVI** |
| *Afzelia africana* Sm. | 5 | 0.38 | 0.67 | 6.06 |
| *Anogeissus leiocarpa* (DC.) Guill. & Perr. | 35 | 53.84 | 26.72 | 115.56 |
| *Cassia sieberiana* DC. | 30 | 6.15 | 16.28 | 52.43 |
| *Detarium microcarpum* Guill. & Perr. | 10 | 1.53 | 0.25 | 11.79 |
| *Diospyros mespiliformis* Hochst. ex A. DC. | 5 | 0.38 | 0.04 | 5.43 |
| *Maytenus senegalensis* (Lam.) Exell | 10 | 0.76 | 0.08 | 10.85 |
| *Mitragyna inermis* (Willd.) O. Ktze. | 25 | 8.84 | 31.58 | 65.43 |
| *Parkia biglobosa* (Jacq.) R. Br. ex G. Don f. | 5 | 0.38 | 5.13 | 10.51 |
| *Piliostigma thonningii* (Schum.) Milne-Redhead | 5 | 0.38 | 0.06 | 5.44 |
| *Saba senegalensis* (A. DC.) Pichon | 15 | 2.30 | 14.17 | 31.48 |
| *Stereospermum kunthianum* Cham. | 5 | 0.38 | 0.03 | 5.42 |
| *Terminalia laxiflora* Engl. & Diels | 25 | 11.15 | 2.14 | 38.29 |
| *Vitellaria paradoxa* C.F. Gaertn. | 25 | 13.46 | 2.78 | 41.25 |
| **Bontioli Nature Reserve** | | | | |
| **Species** | **Rf (%)** | **RDe (%)** | **RDo (%)** | **IVI** |
| *Acacia sieberiana* DC. var. villosa A. Chev. | 5 | 0.70 | 0.16 | 5.87 |
| *Anogeissus leiocarpa* (DC.) Guill. & Perr. | 15 | 4.25 | 6.12 | 25.38 |
| *Bridelia scleroneura* Müll. Arg. | 5 | 1.06 | 0.51 | 6.57 |
| *Combretum adenogonium* Steud. ex A. Rich. | 15 | 4.60 | 2.00 | 21.61 |
| *Combretum collinum* Fresen. | 5 | 2.83 | 0.50 | 8.33 |
| *Combretum fragrans* F.Hoffm. | 15 | 13.12 | 7.62 | 35.75 |
| *Combretum glutinosum* Perr. ex DC. | 10 | 0.70 | 0.10 | 10.81 |
| *Daniellia oliveri* (Rolfe) Hutch. & Dalz. | 15 | 4.60 | 9.63 | 29.24 |
| *Entada africana* Guill. & Perr. | 10 | 2.48 | 0.51 | 12.99 |
| *Gardenia erubescens* Stapf & Hutch. | 5 | 0.35 | 0.06 | 5.41 |
| *Gardenia ternifolia* Schum. & Thonn. | 10 | 1.06 | 0.72 | 11.78 |
| *Lannea microcarpa* Engl. & K. Krause | 5 | 0.35 | 0.26 | 5.61 |
| *Mitragyna inermis* (Willd.) O. Ktze. | 35 | 16.66 | 46.93 | 98.59 |
| *Parkia biglobosa* (Jacq.) R. Br. ex G. Don f. | 10 | 5.67 | 5.09 | 20.77 |
| *Pericopsis laxiflora* (Benth. ex Bak.) van Meeuwen | 5 | 0.35 | 0.18 | 5.53 |
| *Piliostigma thonningii* (Schum.) Milne-Redhead | 20 | 2.83 | 0.31 | 23.15 |
| *Pseudocedrela kotschyi* (Schweinf.) Harms | 10 | 2.48 | 1.59 | 14.07 |
| *Pterocarpus erinaceus* Poir. | 5 | 1.41 | 3.39 | 9.81 |
| *Stereospermum kunthianum* Cham. | 5 | 0.70 | 0.05 | 5.76 |
| *Terminalia laxiflora* Engl. & Diels | 20 | 12.76 | 2.92 | 35.69 |
| *Terminalia macroptera* Guill. & Perr. | 5 | 8.15 | 3.73 | 16.89 |
| *Vitellaria paradoxa* C.F. Gaertn. | 25 | 11.34 | 7.20 | 43.55 |
| *Ximenia americana* L. | 15 | 1.41 | 0.30 | 16.72 |