Check List the journal of biodiversity data

LISTS OF SPECIES

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# Checklist of plants of Rashad and Alabassia localities (eastern Nuba Mountains), South Kordofan Sudan

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**Abstract:** This study identifies and documents species of the native flora the low rainfall woodland savanna of Rashad and Alabassia localities (eastern Nuba Mountains), Sudan. This study identified 260 species belonging to 176 genera and 59 families, including five new records to the flora of the Sudan. The flora is comprised of a variety of different life-forms. Most are phanerophytes 40%, therophytes 35%, and chamaephytes 21%; the remaining are geophytes, hydrophytes, hemicryptophytes and epiphytes. The majority of the plant species have important economic uses.

**Key words:** flora, vegetation of Sudan, biodiversity, lifeforms, economic uses

## INTRODUCTION

A thorough knowledge of the flora of a certain area is an essential prerequisite to sound land-use policy. The present study fills a gap in our knowledge of the flora of Rashad and Alabassia localities, eastern Nuba Mountains, Sudan. Furthermore, this contribution provides a reliable scientific basis for the assessment of the production potential and management of plant resources in the study area.

The flora of the Nuba Mountains is rarely covered in literature, either on its own or as part of the larger Sudan flora. The earliest collections from the area was reported by Massey (1926) who recorded three grasses. Shortly thereafter, Broun and Massey (1929) included 128 plant species from the area. In works of Andrews (1950, 1952, 1956) only 24 plant species from the area were recorded. Elamin's (1990) publication on the trees and shrubs of the Sudan included 66 woody plant species from the Nuba Mountains.

The flora of certain locations, including some special habitats, in the Nuba Mountains has been studied. El Ghazali (1985) recorded 178 medicinal plants from the eastern Nuba Mountains. Ismail (2007) studied the woody vegetation of Rashad district and recorded 87 indigenous species and 15 exotic species.

The region in the eastern Nuba Mountains ,selected for the present study, exhibits wide topographical variation which is reflected in the diversity of vegetation. This study aims to identify and document the flora of the eastern Nuba Mountains and consequently to contribute in updating the flora of Sudan. Vouchered specimens also contribute the reference collection in the Forestry Research Centre herbarium at Soba, Sudan.

## MATERIALS AND METHODS

### Study area

The study area is located in the northern part of the eastern Nuba Mountains of South Kordofan state, Sudan, and includes two localities (Rashad and Alabassia), extending from 11˚33′ to 12˚33′ N and from 031˚08′ to 031˚18′ E. (Figure 1). Most of study has scattered isolated hills and it is dissected by many seasonal watercourses. The Rashad and Alabassia localities occupy an area of 7872 km² (Adam et al. 2012). The study area classified as low rainfall woodland savanna (Harrison and Jackson 1958).

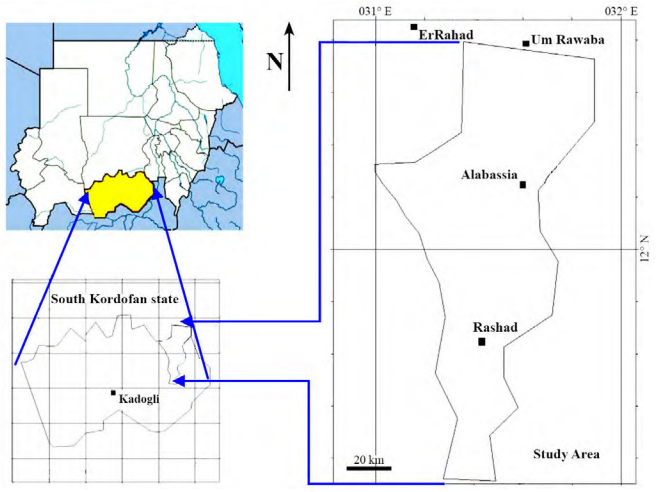


**Figure 1.** Study area: Rashad and Alabassia localities, South Kordofan state, Sudan.

### Specimen collection and identification

Plant specimens were collected during 2010–2011. The collection procedure followed methods described by Lawrence (1969) and Forman and Bridson (1991). Specimens were identified using Broun and Massey (1929), Andrews (1950, 1952 and 1956), and Elamin (1983, 1990). Identified specimens were confirmed with authenticated herbarium specimens in the Forestry Research Centre Herbarium at Soba.

Recent literature was consulted for current plant names: Friis and Vollesen (1998, 2005) and The Plant List (2013). The list of families covered in this study was arranged according to the Linear Angiosperm Phylogeny Group (LAPG) III (Haston et al. 2009), while subfamilies, genera, and species are arranged alphabetically within the families. Vernacular names and economic uses given were compiled from local people and available literature. The life-forms of plants were based on Raunkiaer (1934).

## RESULTS

A detailed botanical account on the flora is given in the form of a checklist. Altogether 260 plant species, beloning to 59 families and 176 genera (Table 1) were identified. This number exceeds the number of species recorded previously from the Nuba Mountains.

The flora is grouped into 11 clades. Most of the species belong to the core eudicots/rosids/fabids (eurosids I) (78 species, 42 genera and 10 families); core eudicots/rosids/malvids (eurosids II) (54 species, 35 genera and 12 families); eudicots/asterids/lamids (euasterids I) (44 species, 37 genera and 12 families); monocots commelinids (39 species, 24 genera and four families) and each of the other clades include less than 20 species (Figure 2). The families Fabaceae (Leguminosae), Poaceae and Malvaceae are well represented in the flora of South Kordofan. Asteraceae and Euphorbiaceae are moderately present, while other families had between one and nine species (Figure 3).

In this study, five species were added to the flora of Sudan: *Ludwigia adscendens* (Onagraceae), *Commicarpus chinensis* (Nyctaginaceae), *Crotalaria lanceolata* (Fabaceae), *Goniocaulon indicum* (Asteraceae) and *Tetrapogon tenuellus* (Poaceae).

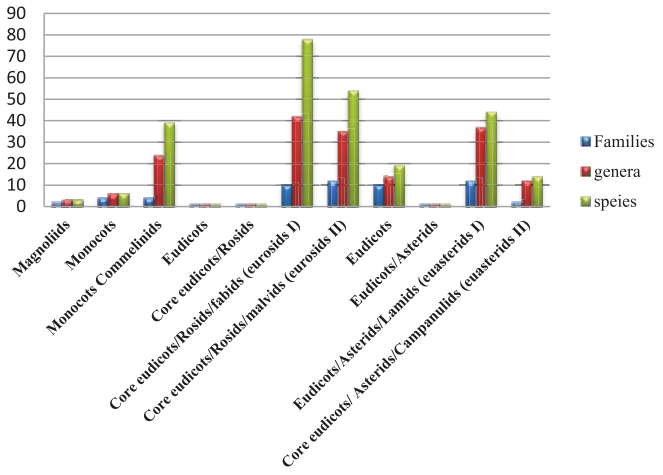


**Figure 2.** The plant species, genera and families included by clades.

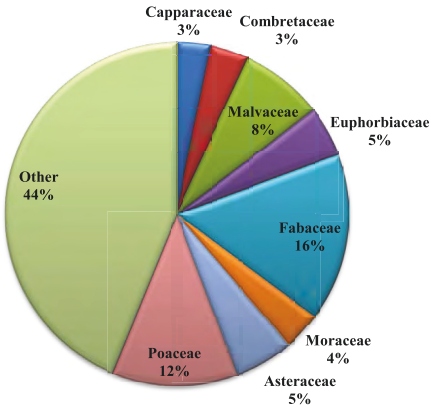


**Figure 3.** Distribution of plant species by family.

## DISCUSSION

Most of the plant species of the study area have important economic uses. The study area is considered as important sources for animal wellbeing; 26% of the species are fodder plants. However, an important alternative to fodder is woody vegetation, which is browsed by animals during the dry season. Both herbaceous and woody plants (39%) are used for medicinal purposes. Large trees and shrubs (7% of total flora) are utilized for timber that is used for making furniture, tool handles, and as building material (roofing, fencing, etc.). Timber is used for building material and other domestic uses such as roofing, fencing and as tool handles. Species used for fuel wood (8%) are important source sof energy. Plants (15%) also have edible fruits that are important during periods of famine. Some species (2%) produce gums: gum arabic from *Acacia senegal* and frankincense gum from *Boswellia papyrifera* and *Commiphora africana* Figure (5).

### Endangered species

This survey found that a number of economically important woody plants may be endangered. This includes *Borassus aethiopum,* a tree that is extensively cut for roof poles when mature; its germinating seeds are also dug for food ("Halook").. It is now only in protected

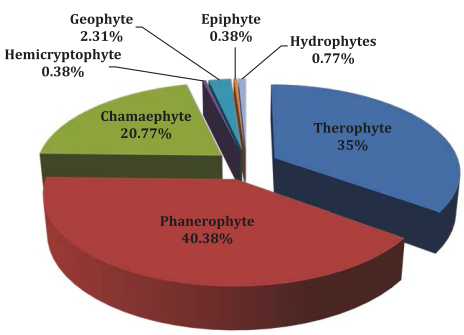


**Figure 4.** Life-form categories.

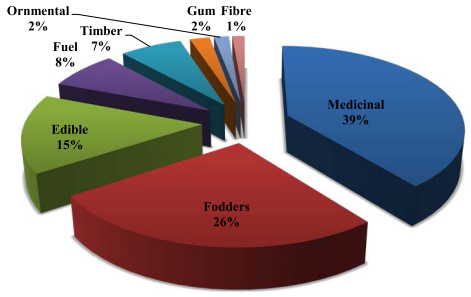


**Figure 5.** Economic uses of plant species.

areas such as gardens and around houses. *Hyphaene thebaica* was found only around houses as well. *Cordia africana* was observed only in gardens and aorund houses but were growing naturally. No regeneration of *Boswellia papyrifera* was recorded at the sites studied.

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**Table 1.** Checklist of Flora of Rashad and Alabassia localities, Nuba Mountains, Sudan. Life forms: Ph = phanerophyte, Th = therophyte, Ch = chamaephyte, G = geophytes, Hy = hydrophyte, He = hemicryptophyte, Ep = epiphyte. Economic uses: Fd = fodder, M= medicinal, T = timber, Fu = Fuel wood, Ef = edible fruit, G =gum.

| Taxa | Species | Vernacular name | Life form | Uses |
|---|---|---|---|---|
| **Clade Magnoliids** | | | | |
| **Order Piperales** | | | | |
| Family Aristolochiaceae | | | | |
| Subfamily Aristolochioideae | *Aristolochia bracteolata* Lam. | Um Jalajil, | Ch | M |
| **Order Magnoliales** | | | | |
| Family Annonaceae | *Annona senegalensis* Per. | Harhar, Gishta | Ph | T, M,E |
| | *Xylopia acutiflora* (Dunal) A. Rich. | Kurnagang | Ph | T, M,E |
| **Clade Monocots** | | | | |
| **Order Alismatales** | | | | |
| Family Araceae | | | | |
| Subfamily Aroideae | *Amorphophallus abyssinicus* (A. Rich.) N. E. Br. | | G | E |
| | *Pistia stratiotes* L. | | Hy | M |
| | *Stylochaeton hypogaeus* Lepr. | Basal Elkilab | G | M,E |

*Continued*

**Table 1.** *Continued.*

| Taxa | Species | Vernacular name | Life form | Uses |
|---|---|---|---|---|
| **Order Asparagales** | | | | |
| Family Xanthorrhoeaceae | | | | |
| Subfamily Asphodeloideae | *Aloe sinkatana* Reynolds, J. S. | Sabar | G | M |
| Family Amaryllidaceae | | | | |
| Subfamily Amaryllidoideae | *Scadoxus multiflorus* (Martyn) Raf. | Gash El Fil | G | O |
| Family Asparagaceae | | | | |
| Subfamily Asparagoideae | *Asparagus flagellaris* (Kunth) Baker. | | Ch | M,E |
| **Clade Monocots Commelinids** | | | | |
| **Order Arecales** | | | | |
| Family Arecaceae | | | | |
| Subfamily Coryphoideae | *Borassus aethiopum* Mart. | Deleib | Ph | M, E, T |
| | *Hyphaene thebaica* (Linn.) Mart. | Dom | Ph | M, E, T |
| **Order Commelinales** | | | | |
| Family Commelinaceae | | | | |
| Subfamily Commelinoideae | *Commelina benghalensis* L. | Bayad | Th | Fd |
| | *Commelina imberbis* Ehrenb. ex Hassk. | Ibrig El Faki | Th | Fd |
| **Order Poales** | | | | |
| Cyperaceae | *Cyperus amabilis* L | Seida | Th | M |
| | *Cyperus dives* Delile. | Seida | G | M |
| | *Cyperus rotundus* L. | Seida | G | M |
| | *Kyllinga squamulata* Vahl. | | Th | M |
| Family Poaceae | | | | |
| Subfamily Aristidoideae | *Aristida hordeacea* Kunth. | Danab Elkadees | Th | Fd |
| | *Aristida mutabilis* Trin. & Rupr. | Milesa | Th | Fd |
| Subfamily Bambusoideae | *Oxytenanthera abyssinica* (A. Rich.) Munro. | Ganna | Ph | Fd |
| Subfamily Chloridoideae | *Chloris pilosa* Schumach. & Thonn. | Abu Malhi | Th | Fd |
| | *Chloris virgata* Swartz. | Um Faru | Th | Fd |
| | *Dactyloctenium aegyptium* (L.) Willd. | Um Asabi | Th | Fd |
| | *Eragrostis aspera* (Jacq.) Nees. | | Th | Fd |
| | *Eleusine indica* (L.) Gaertn | | Th | Fd |
| | *Eragrostis cilianensis* (All.) Vign. ex Janchen. | Gash Elnamil | Th | Fd |
| | *Eragrostis ciliaris* (L.) R.Br. | | Th | Fd |
| | *Eragrostis japonica* (Thunb.) Trin. | | Th | Fd |
| | *Eragrostis tremula* Steud. | Bannu | Th | Fd |
| | *Microchloa indica* (L.f.) P.Beauv. | | Th | Fd |
| | *Schoenefeldia gracilis* Kunth. | Um farida | Th | Fd |
| | *Sporobolus festivus* Hochst. ex A.Rich. | Korieb, Um Tuk | He | Fd |
| | *Tetrapogon cenchriformis* (A. Rich.) W. D. Clyton. | Difra | Th | Fd |
| | *Tetrapogon tenellus* (Roxb.) Chiov. | | Th | Fd |
| Subfamily Panicoideae | *Brachiaria xantholeuca* (Hack.) Stapf. | Um Chir | Th | Fd |
| | *Cymbopogon nervatus* (Hochst.) Chiov. | Nal | Th | Fd |
| | *Echinochloa rotundiflora* Clayton. | Um-balil | Th | Fd |
| | *Hyparrhenia confinis* var. *nudiglumis* (Hack.) Clayton | Um Sileila | Th | Fd |
| | *Ischaemum afrum* (J.F. Gmel.) Dandy. | | Th | Fd |
| | *Melinis repens* (Willd.) Zizka. | | Th | Fd |
| | *Panicum callosum* Hochst. ex A.Rich. | | Th | Fd |
| | *Pennisetum nubicum* (Hochst.) K.Schum. ex Engl | | Th | Fd |
| | *Pennisetum pedicellatum* Tan. | Danab Elkadees, | Th | Fd |
| | *Pennisetum polystachion* (L.) Schult. | | Th | Fd |
| | *Pennisetum purpureum* Schumach. | Danab Elkalib | Th | Fd |
| | *Pennisetum ramosum* (Hochst.) Schweinf. | | Th | Fd |
| | *Setaria pumila* (Poir.) Roem. & Schult. | Danab Elkalib | Th | Fd |
| | *Setaria verticillata* (L.) P.Beauv | Abu elliseg | Th | Fd |
| **Clade Eudicots** | | | | |
| **Order Ranunculales** | | | | |
| Family Papaveraceae | | | | |
| Subfamily Papaveroideae | *Argemone mexicana* L. | | Ch | M |
| **Clade Core eudicots/Rosods** | | | | |
| **Order Vitales** | | | | |
| Family Vitaceae | | | | |
| Subfamily Vitoideae | *Cissus petiolata* Hook. f. | | Ph | M |
| | *Cissus quadrangularis* L. | Salala | Ph | M |

*Continued*

**Table 1.** *Continued.*

| Taxa | Species | Vernacular name | Life form | Uses |
|---|---|---|---|---|
| **Clade Core eudicots/Rosids/fabids (eurosids I)** | | | | |
| **Order Zygophyllales** | | | | |
| Family Zygophyllaceae | | | | |
| Subfamily Tribuloideae | *Balanites aegyptiaca* (L.) Delile | Heglig | Ph | T, E, Fd, M |
| | *Tribulus terrestris* L. | Direisa | Th | Fd |
| **Order Celastrales** | | | | |
| Family Celastraceae | | | | |
| Subfamily Celastroideae | *Maytenus senegalensis* (Lam.) Exdl. | Yoi | Ph | M |
| **Order Fabales** | | | | |
| Family Fabaceae | | | | |
| Subfamily Caesalpinoideae | *Bauhinia rufescens* Lam. | Kulkul | Ph | Fu, M |
| | *Bauhinia reticulata* DC. | Kharub | Ph | E, T, Fd, |
| | *Cassia sieberana* DC. | Um Kashu | Ph | T, Fu, O, M |
| | *Chamaecrista mimosoides* (L.) Greene | | Ch | M |
| | *Senna italica* Mill. | Sin Elkalib | Ch | M |
| | *Senna obtusifolia* (L.) Irwin & Barneb | Kawal | Ch | E |
| | *Senna occidentalis* (L.) Link. | Soreeb | Ch | M,E |
| | *Tamarindus indica* L. | Aradeib | Ph | E, Fd |
| Subfamily Mimosoideae | *Acacia gerrardii* Benth. | Salgam | Ph | Fu, M |
| | *Acacia mellifera* (Vahl) Benth. | Kitir | Ph | Fu, , Fd |
| | *Acacia nilotica* subsp. *adstringens* (Schum. & Thonn.) Roberty. | Sunut | Ph | T, Fd, M |
| | *Acacia oerfota* (Forssk.) Schweinf | Laot | Ph | M |
| | *Acacia polyacantha* Willd. | Kakamut | Ph | G, Fd, M |
| | *Acacia senegal* (L.) Willd. | Hashab | Ph | G, Fd, Fu |
| | *Acacia seyal* Del. var. seyal | Talih | Ph | G, Fd, Fu, M |
| | *Acacia sieberiana* DC. | Kuk | Ph | T, Fu |
| | *Acacia tortilis* (Forssk.) Hayne subsp. *raddiana* (Savi) Brenan | Sayal | Ph | Fd |
| | *Albizia amara* (Roxb.) Boiv. | Arad | Ph | T, Fu |
| | *Albizia anthelmintica* Brongn | Girfat Addud | Ph | Fd, M |
| | *Albizia aylmeri* Hutch. | Sireira | Ph | T |
| | *Dichrostachys cinerea* (L.)White & Arn. | Kadad | Ph | Fu, Fd |
| | *Faidherbia albida* (Del.) Chev. | Haraz | Ph | T, E |
| | *Prosopis africana* (Guill. & Perr.) Taub. | Abu-surug | Ph | Fd |
| Subfamily Faboidae | *Alysicarpus glumaceus* (Vahl) DC. | | Ch | Fd |
| | *Crotalaria lanceolata* E. Mey. | | Th | Fd |
| | *Crotalaria goreensis* Guill. & Perr. | | Ch | Fd |
| | *Crotalaria ochroleuca* G. Don | | Ch | Fd |
| | *Crotalaria ononoides* Benth. | | Ch | Fd |
| | *Crotalaria senegalensis* (Pers.) Bacle ex DC. | Sifeira | Th | Fd |
| | *Dalbergia melanoxylon* Guill. & Perr. | Babanous | Ph | T, M, Fd |
| | *Erythrina abyssinica* DC. | Hab Elaroos | Ph | O, M |
| | *Indigofera arrecta* A. Rich. | | Ch | Fd |
| | *Indigofera hirsuta* L. | | Th | Fd |
| | *Indigofera cordifolia* B. Heyne ex Roth | | Th | Fd |
| | *Indigofera hochstetteri* Baker | Sharaya | Th | Fd |
| | *Indigofera nummulariifolia* (L.) Livera | | Th | Fd |
| | *Indigofera spicata* Forssk. | | Ch | M |
| | *Lonchocarpus laxiflorus* Guill. & Perr. | Khashkhash Azrag | Ph | T, Fu, M |
| | *Mundulea sericea* (Willd.) A. Chev. | Abu-galinga | Ph | M |
| | *Sesbania leptocarpa* DC. | | Ph | Fd |
| | *Stylosanthes fruticosa* (Retz.) Alston | | Th | Fd |
| | *Tephrosia uniflora* Pers. | Irg El Tais, Abu Rassein | Ch | Fd |
| | *Zornia glochidiata* Reichb. ex DC. | Sheleni | Th | Fd |
| **Order Rosales** | | | | |
| Family Rhamnaceae | *Ziziphus abyssinica* Hochst. ex A. Rich. | Nabag Elfeel | Ph | T, E, Fd |
| | *Ziziphus spina-christi* (L.) Desf. | Nabag, | Ph | T, E, Fd |
| Family Ulmaceae | *Celtis toka* (Frossk.) Hepper &Wood | Mohagria | Ph | Fu, M |
| Family Moraceae | *Antiaris toxicaria* subsp. *africana* (Engl.) C. C. Berg | | Ph | T |
| | *Ficus abutilifolia* (Miq.) Miq. | Gumaiz | Ph | E |
| | *Ficus cordata* subsp. *salicifolia* (Vahl) C .C. Berg Thumb. | Um Sisi | Ph | M |
| | *Ficus glumosa* Del. | Gumaiz | Ph | T |

*Continued*

**Table 1.** *Continued.*

| Taxa | Species | Vernacular name | Life form | Uses |
|---|---|---|---|---|
| | *Ficus ingens* Miq. | Gumaiz | Ph | E |
| | *Ficus platyphylla* Del. | Gumaiz | Ph | M |
| | *Ficus populifolia* Vahl. | Gumaiz | Ph | E |
| | *Ficus sycomorus* L. | Gumaiz | Ph | E |
| | *Ficus thonningii* Blume. | Irkabi | Ph | M |
| **Order Cucurbitales** | | | | |
| Family Cucurbitaceae | | | | |
| Subfamily Cucurbitoideae | *Ctenolepis cerasiformis* (Stocks) C. B. Clarke. | Sim Elter | Th | M |
| | *Cucumis metuliferus* E.Mey. ex Naudin | Tibish Elkilab | Th | M |
| | *Cucumis prophetarum* L. | Fagoos Elmarfaeen | Th | M |
| | *Lagenaria siceraria* (Molina) Standley | Garaa or Bukhsa | Th | M |
| | *Luffa cylindrica* (L.) M. J. Roem. | Leef | Ch | M |
| | *Momordica balsamina* L. | Erra Iri | Th | M |
| **Order Malpighiales** | | | | |
| Family Euphorbiaceae | | | | |
| Subfamily Acalyphoideae | *Acalypha indica* Linn. | | Th | M |
| | *Cephalocroton cordofanus* Hochst. | | Ch | Fd |
| | *Dalechampia scandens* L. var. *cordofana* (Webb) Müll. | Abu Liseig | Th | |
| | *Ricinus communis* L. | Khirwa | Ph | M |
| Subfamily Crotonoideae | *Croton zambesicus* Muell. | Um Ghilela | Ph | M |
| | *Jatropha aethiopica* Muell. | Abu ofein | Ch | M |
| Subfamily Euphobioideae | *Euphorbia candelabrum* Trémaux ex Kotschy | Shagar El-sim | Ph | M |
| | *Euphorbia heterophylla* Wild. | | Th | M |
| | *Euphorbia hirta* L. | Um libena | Th | M |
| | *Euphorbia prostrata* Ait. Hort. | Um libena | Th | M |
| | *Euphorbia venenifica* Tremaux ex Kotschy | Shagar El-sim | Ph | M |
| Family Phyllanthaceae | *Bridelia micrantha* (Hochst) Baill. | Reel | Ph | T, Fu, M |
| Family Passifloraceae | | | | |
| Subfamily Passifloroideae | *Adenia venenata* Forssk. | Kudur | Ph | M |
| **Clade Core eudicots/Rosids/malvids (eurosids II)** | | | | |
| **Order Myrtales** | | | | |
| Family Combretaceae | *Anogeissus leiocarpus* (DC.) Guill. & Perr. | Sahab | Ph | T, Fu, Fd, M |
| | *Combretum aculeatum* Vent. | Shuheit | Ph | Fu, Fd, M |
| | *Combretum collinum* subsp. *binderianum* (Kotschy) Okafa. | Elhabeel | Ph | T, Fu |
| | *Combretum glutinosum* Perr. ex DC. | Habeel | Ph | Dyes |
| | *Combretum hartmannianum* Schwein f. Beitr. | Habeel | Ph | M |
| | *Combretum molle* R.Br. ex G. Don. | Habeel | Ph | T, Fu, M |
| | *Guiera senegalensis* J. F. Gmel. | Ghibaish | Ph | Fu, M |
| | *Terminalia brownii* Fresen | Subagh | Ph | T, M |
| | *Terminalia laxiflora* Engl. & Diels Monogr. | | Ph | T, M |
| Family Lythraceae | *Ammannia auriculata* Willd. | Tamr Elfar | Th | M |
| | *Woodfordia uniflora* (A.Rich.) Koehne. | Wad Am Elshai | Ph | G |
| Family Onagraceae | | | | |
| Subfamily Ludwigioideae | *Ludwigia erecta* (L.) Hara. | | Th | Fd,E |
| | *Ludwigia adscendens* (L.) Hara. | | Hy | M |
| Order Sapindales | | | | |
| Family Burseraceae | *Boswellia papyrifera* (Del.) Hochst. | Taragtarag | Ph | G, M, Fu |
| | *Commiphora africana* (A. Rich) Engl. | Gaffal | Ph | G, |
| Family Anacardiaceae | *Lannea humilis* (Oliv.) Engl. | Leyun | Ph | E, M |
| | *Lannea fruticosa* (Hochst. ex A. Rich.) Engl. | Leyun | Ph | T |
| | *Lannea schweinfurthii* (Engl.) Engl. | Rutrut | Ph | E, M, Fd |
| | *Lannea schimperi* (Hochst. ex. A. Rich.) Engl. | Elmilais, Amzaq | Ph | Fu, E |
| | *Sclerocarya birrea* (A. Rich.) Hochst. | El Homeid | Ph | T, E, M |
| Family Sapindaceae | *Allophylus africanus* P. Beauv. | | Ph | M |
| | *Cardiospermum halicacabum* L. | | Th | M |
| Family Rutaceae | *Vepris nobilis* (Del.) Mziray | Fideila | Ph | M |
| Family Meliaceae | *Khaya senegalensis* (Desr.) A. Juss. | Mahogani | Ph | T, M |
| | *Trichilia emetica* Vahl. | Dimso | Ph | T |
| Order Malvales | | | | |
| Family Malvaceae | | | | |
| Subfamily Bombacoideae | *Adansonia digitata* Linn. | Tabaldi | Ph | E, M, Fd, E, Fb |

*Continued*

**Table 1.** *Continued.*

| Taxa | Species | Vernacular name | Life form | Uses |
|---|---|---|---|---|
| Subfamily Grewiodeae | *Corchorus pseudocapsularis* Schweinf. | | Th | Fd |
| | *Corchorus tridens* L. | Khodra | Ch | E |
| | *Grewia bicolor* Juss. | Basham | Ph | Fu,T, Fd |
| | *Grewia flavescens* Juss. | Khlekhsan | Ph | Fu,E, Fd, M |
| | *Grewia mollis* Juss. | Basham | Ph | Fu, E |
| | *Grewia tenax* (Forsk.) Fiori. | Elgudiem | Ph | Fu, E, Fd |
| | *Grewia villosa* Willd. | Tikko | Ph | Fu, E, M |
| | *Triumfetta pentandra* J.M. Garg | Abu liseig | Ch | Fd ,E, M, Fd, |
| Subfamily Malvoideae | *Abelmoschus esculentus* (L.) Moench | Weika | Th | E |
| | *Abutilon angulatum* (Guill. & Perr.) Mast. | Amboru | Ch | Fb |
| | *Azanza garckeana* (F. Hoff.) Exell & Hillcoat. | Nakhgar | Ph | E, G |
| | *Hibiscus diversifolius* Jacq. | | Ch | Fb, M |
| | *Hibiscus vitifolius* L. | | Th | Fb, M |
| | *Hibiscus cannabinus* L. | Kirkaiya, Kenaf, Til | Ch | Fb |
| | *Sida alba* Linn. | Um-shadia | Ch | M |
| | *Sida cordifolia* L. | Nayada | Ch | M |
| | *Wissadula amplissima* (L.) R. E. Fr. Kongl. | | Ch | M |
| Subfamily Sterculiodeae | *Sterculia setigera* Del. | Tartar | Ph | G, M |
| | *Waltheria indica* L. | Erg Elnal | Ch | M |
| **Order Brassicales** | | | | |
| Family Salvadoraceae | *Dobera glabra* (Forssk.) Juss. ex Poir. | Mikah | Ph | Fd, |
| Family Capparaceae | *Boscia angustifolia* A. Rich. | Elsereh, Serha | Ph | Fu , E, Fd, M |
| | *Boscia senegalensis* Lam. | Mikhiet, Kursn | Ph | E, Fd, M |
| | *Cadaba rotundifolia* Forssk. | Kurmut | Ph | Fd, M |
| | *Capparis deciduas* (Forsk.) Edgew. | Tundub | Ph | Fu, E, Fd |
| | *Capparis tomentosa* Lam. | Murdu | Ph | Fd, M |
| | *Crateva adansonii* DC. | Dabkar | Ph | T, Fu, Fd |
| | *Maerua angolensis* DC. | Shagar Eldoud | Ph | T, Fd, M |
| Family Cleomaceae | *Cleome gynandra* L. | Tamaleka | Ch | E |
| **Clade Eudicots** | | | | |
| **Order Santalales** | | | | |
| Family Olacaceae | *Ximenia americana* L. | Kalto | Ph | E, Fd, M |
| Family Loranthaceae | *Tapinanthus globiferus* (A. Rich.) Tiegh. | Anaba | Ep | Fd, M |
| **Order Caryophyllales** | | | | |
| Family Tamaricaceae | *Tamarix nilotica* (Ehrenb.) Bunge | Tarfa | Ph | T |
| Family Plumbaginaceae | | | | |
| Subfamily Plumbaginoideae | *Plumbago zeylanica* L. | | Ch | M |
| Family Caryophyllaceae | *Polycarpaea corymbosa* (L.) Lam. | Um Fara | Th | O |
| Family Amaranthaceae | | | | |
| Subfamily Amaranthoideae | *Achyranthes aspera* L. | Fakhah | Th | M |
| | *Amaranthus graecizans* L. | Lisan Elteir | Th | Fd |
| | *Amaranthus hybridus* L. | Khadiga kouro | Th | Fd |
| | *Celosia argentea* L. | Danab Elkalib | Ch | O, M |
| | *Celosia trigyna* L. | | Th | M |
| | *Pupalia lappacea* (Linn) Juss. | Abu Luseg | Ch | M |
| Subfamily Gomphrenoideae | *Alternanthera pungens* Kunth. | Haskaneet | Ch | Fd |
| Family Aizoaceae | | | | |
| Subfamily Sesuvioideae | *Zaleya pentandra* (L.) C. | Rigl Eltir | Ch | M, Fd |
| Family Nyctaginaceae | *Boerhavia africana* Lour. | Abu Libin | Ch | M |
| | *Boerhavia chinensis* (L.) Rottb. | | Ch | E, M |
| | *Boerhavia diffusa* L. | Um Shiraya | Th | M |
| | *Boerhavia erecta* L. | Gashayt Elter | Th | E, Fd, M |
| Family Molluginaceae | *Glinus lotoides* L. | Raba'a | Th | M, Fd |
| Family Portulacaceae | *Portulaca oleracea* L. | Rigla | Th | E |
| **Clade Eudicots/Asterids** | | | | |
| **Order Ericales** | | | | |
| Family Ebenaceae | *Diospyros mespiliformis* Hochst. ex A. DC. | Goghan | Ph | T, E, Fd, M |
| **Clade Eudicots/Asterids/Lamids (euasterids I)** | | | | |
| **Order Gentiales** | | | | |
| Family Rubiaceae | | | | |
| Subfamily Cinchonoideae | *Sarcocephalus latifolius* (Smith) E. A. Bruce. | Karmadoda | Ph | E, M |

*Continued*

**Table 1.** *Continued.*

| Taxa | Species | Vernacular name | Life form | Uses |
|---|---|---|---|---|
| Subfamily Ixoroideae | *Catunaregam nilotica* (Stapf.) Tirveng. | Shagart Elmarfaein | Ph | Fu, M |
| | *Feretia apodanthera* Del. | Shai Elbitera | Ph | E, |
| | *Gardenia ternifolia* var. *jovis-tonantis* (Welw.) Verdc. | Baggis | Ph | M |
| | *Meyna tetraphylla* (Schweinf. ex Hiern) Robyns. | Simeim | Ph | E |
| | *Vangueria madagascariensis* Gmel. | Kirkir | Ph | E |
| Subfamily Rubioideae | *Oldenlandia corymbosa* L. | Bushari | Th | M |
| | *Spermacoce pusilla* Wall. | Tamr Elfar | Th | M |
| Family Loganiaceae | *Strychnos innocua* Del. | Um Bikhesa | Ph | E, T, Fd, M |
| Family Apocynaceae | | | | |
| Subfamily Apocynoideae | *Adenium obesum* (Forssk.) Roem & Schult. | Shagar Elsim | Ph | O, M |
| Subfamily Asclepiadoideae | *Calotropis procera* (Aiton) Dryand. | Elushar | Ph | M |
| | *Pergularia daemia* (Forssk.) Cheov. | | Ch | |
| **Unplaced in an order** | | | | |
| Family Boraginaceae | *Cordia africana* Lam. | Gimbeel | Ph | T, E |
| **Order Solanales** | | | | |
| Family Convolvulaceae | *Astripomoea lachnosperma* (Choisy) A. Meeuse | Um Ghaleila | Ch | M |
| | *Ipomoea cordofana* Choisy. | Tabar | Th | Fd |
| | *Ipomoea sinensis* (Desr.) Choisy. | Hantut | Th | Fd |
| | *Ipomoea eriocarpa* R. Br. | | Th | Fd |
| | *Ipomoea calophylla* Fenzl. | Um She`era | Th | M |
| | *Merremia aeygptia* (L.) Urb. | Erg M`oterash | Th | M |
| Family Solanaceae | | | | |
| Subfamily Solanoideae | *Datura innoxia* Mill. | Sikeran | Ch | M |
| | *Physalis peruviana* L. | kurm kurum | Ch | M |
| | *Solanum coagulans* Forssk. | Gubein | Ch | M |
| | *Solanum hastifolium* Hochst. ex Dunal. | | Ch | M |
| | *Solanum incanum* L. | Gubein | Ch | M |
| | *Solanum nigrum* L. | Um Gibin gibin | Th | M |
| | *Withania somnifera* (L.) Dunal. | Morgan, Sim Elfar | Ch | M |
| **Order Lamiales** | | | | |
| Family Scrophulariaceae | *Striga hermonthica* (Del.) Benth. | Bouda | Th | M |
| Family Pedaliaceae | *Rogeria adenophylla* J.Gray ex Del. | | Ch | M |
| | *Sesamum radiatum* Schumach. | Simsim Eljebal | Th | E, M |
| Family Lamiaceae | *Leonotis nepetifolia* (L.) R. Br. | Kashaw | Ch | M |
| | *Leucas martinicensis* R. Br. | Baraw | Th | M |
| | *Ocimum americanum* L. | Rehan | Ch | M |
| Family Acanthaceae | | | | |
| Subfamily Acanthoideae | *Barleria prionitis* L | | Ch | M |
| | *Barleria steudneri* C. B. | | Ch | |
| | *Blepharis linariifolia* Pers. | Baghel | Th | Fd |
| | *Dicliptera verticillata* (Forssk.) Christens. | | Th | M |
| | *Hypoestes verticillaris* (L. f.) Solander ex Roem. & Schult. | | Ch | E, M, Fd |
| | *Hygrophila auriculata* (Schumach.) Heine. | Abu Shweika | Ch | M |
| | *Monechma debile* (Forssk.) Nees. | | Th | |
| | *Peristrophe paniculata* (Forssk.) Brummitt. | Abu Rukab | Th | M, Fd |
| Family Bignoniaceae | *Kigelia africana* (Lam.) Banth. | Um Shutour | Ph | T, M |
| | *Stereospermum kunthianum* Cham. | Khashkhash abiad | Ph | Fu, M, Fd |
| Family Verbenaceae | *Clerodendrum capitatum* (Willd.) Schumach. & Thonn. | | Ch | M |
| | *Vitex doniana* Sweet. | Um-Togulgul | Ph | T, E, M |
| **Clade Core Eudicots/ Asterids/Campanulids (euasterids II)** | | | | |
| **Order Asterales** | | | | |
| Family Asteraceae | | | | |
| Subfamily Asteroideae | *Acanthospermum hispidum* DC. | Hurab hawsa | Th | M |
| | *Blainvillea gayana* Cass. | | Th | M |
| | *Bidens bipinnata* L. | | Th | E, M |
| | *Bidens chippii* (M.B.Moss) Mesfin. | | Th | |
| | *Chrysanthellum indicum* DC. | | Th | M |
| | *Dicoma tomentosa* Cass. | Um shoka | Ch | M |
| | *Goniocaulon indicum* C. B. Clarke | | Ch | M |
| | *Pentanema indicum* (L.) Y. Ling | | Th | M |
| | *Pseudoconyza viscosa* ( Mill.) D'Arcy | | | E, M |

*Continued*

**Table 1.** *Continued.*

| Taxa | Species | Vernacular name | Life form | Uses |
|---|---|---|---|---|
| | *Xanthium strumarium* subsp. *brasilicum* (Vell.) O. Bolos & Vigo | Ramtook | Ch | M |
| | *Sonchus oleraceus* (L.) L. | Moleita | Th | M |
| | *Vernonia adoensis* Schultz-Bip. ex Walp. | | Ch | M, O |
| | *Vernonia amygdalina* Del. | | Ph | M |
| **Order Apiales** | | | | |
| Family Apiaceae | | | | |
| Subfamily Saniculoideae | *Steganotaenia araliacea* Hochst. | Damin Ashara | Ph | Fu, M |