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RESEARCH ARTICLE

THE FLORAL DIVERSITY IN A DISTURBED EAST AFRICAN COASTAL FOREST, A CASE STUDY OF KAYA MUHAKA FOREST, KENYA

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ABSTRACT

Kaya Muhaka Forest in the Kenyan Coast is one of the remaining lowland forest patches belonging to Zanzibar-Inhambane vegetation mosaic of Eastern Africa, which are rich in endemic and threatened flora and fauna. Although gazetted and protected as a national monument, the forest biodiversity is still endangered. This research attempted to establish the Diversity of flora along disturbance gradient ranging from the forest core to the agro-ecosystems of the forest. The belt transect method was used where quadrats of 20m x 20m placed at intervals of every 250 m were systematically selected along two parallel transects of 3 km long each and all the plant species recorded. An additional nine plots of similar size and placement were surveyed on three parallel transects of 1km each established from the edge of the forest to the forest core. The flora diversity was calculated by use of the Shannon-Wiener Diversity Index.There was a high diversity of plant species in the Kaya Muhaka forest and agro-ecosystems. The forest was found to be homogenous with most of the species being indigenous and endemic. The forest edge was the most diverse while the forest core was the least diverse with the species richness steadily increasing from the forest core towards the edge. There was no significant difference in the species diversity between the forest core, forest edge and agroecosystems. The forest edge contained a higher Shannon-wiener diversity index of 5.25 as compared to the forest core which had a Shannon-Wiener diversity index of 4.70. The general trend showed that the diversity reduced from the forest edge to the forest core. A total of 493 species were recorded from 97 families with Papilionaceae (7.9%), Rubiaceae (6.8%), Euphorbiaceae (5.4%), Moraceae and Caesalpiniaceae (4.1%) being the most represented. The high floral diversity displayed is probably a result of frequent disturbances from the surrounding resource poor farmers.

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INTRODUCTION

The coastal forests of East Africa belongs to Zanzibar-Inhambane vegetation mosaic covering an area of approximately 3,170 km^2 from Southern Somalia to Northern Mozambique including small amounts of forest in South Eastern Malawi and Eastern Zimbabwe. They are one of the top ten priority ecosystems for biodiversity conservation on the African continent (Burgess and Clarke, 2000) and are globally earmarked as one of the 25 hotspots of biodiversity. To qualify as a biodiversity hotspot on Myers *et al*. (2000) edition of the hotspot-map, a region must meet two strict criteria: it must contain at least 0.5% or 1,500 species of vascular plants as endemics, and it has to have lost at least 70% of its primary vegetation. In Kenya, these fragmented, sometimes in relatively miniature forest relicts conserved as 'Kayas' are situated on the coastal plains and hills. The Kaya forests are botanically diverse and have a high conservation value. More than half of Kenya's rare plants are found in the coastal region, many in the Kayas (Githitho, 1998). The logging of trees and other activities that could potentially cause damage to the forest around the Kayas and sacred spots was strictly forbidden by the Kaya Elders (Githitho, 1998). There is a high possibility of collecting more unique species, some even new to science as the Kaya forest sites are generally understudied. However, increased demand for forest resources is undermining the conservation efforts to save these rare species from extinction. The increasing pressure on land resources, urbanization and social transformations as well as fast diminishing traditions and cultural practices associated to the Kaya settlements pose a great danger to the social fabric and cohesiveness of the Mijikenda communities who venerate and celebrate them as their identity and symbol of continuity. The coastal forests need greater recognition of their global values; they also need adequate protection, appropriate use and effective management (Burgess and Clarke, 2000). Kaya Muhaka Forest, covering an area of about 150 ha, being one of the largest Kayas in Kwale

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(Myers *et al*., 2000) is however, one of those facing great threats driven by human population pressure. It has a high species diversity and endemism and it is therefore imperative that it is conserved for future generations. The forest has been described as "wetter mixed semi-deciduous forest" by Lehmann and Kioko (2005) and is locally dominated by caesalpiniaceous trees such as *Cynometra* and *Scorodophloeus*. Kaya Muhaka forest also contains rare species like *Gigasiphon macrosiphon* (Harms) Brenan and *Keetia lukei* Bridson, some restricted to less than five localities and only located to the Kenyan coast (Lehmann and Kioko, 2005). Kaya Muhaka, just like other Kayas is under protected, in spite of its environmental and ecological vulnerability. In fact, nearly 40% of Kenyan coastal forests are either poorly protected or otherwise wholly unprotected (Conservation International and McGinley, 2008).

The prevailing threats to the forest include agricultural encroachment, charcoal burning, firewood collection, tree felling for building material, over exploitation of ornamental and medicinal plants and invasion of exotic species (UNESCO, 2009). Unsustainable logging especially of mature tree species such as *Julbernardia magnistipulata* (Harms) Troupin, *Cynometra suaheliensis* (Taub.) Baker F. and the threatened *Synsepalum subverticillatum* E.A.Bruce has highly contributed to forest degradation in the recent past. The soils within the Kaya are poor and can only support subsistence agriculture with most agricultural development involving short term shifting cultivation concentrating on food crops such as cassava, maize, coconut and banana. The human population is increasing at 2.5–3.5 percent annually and the demand for additional farmland increases every year (UNESCO, 2009). Recently, commercial growing of *Casuarina equisetifolia* L. and *Jatropha curcas* L. species has been common in landscapes further threatening the indigenous forest species. The communities living around Kaya Muhaka practice subsistence agriculture for their livelihoods and often turn to overexploitation of forest resources for their livelihoods and social-economic needs. The fallows maintained by the farmers may harbor unique flora that is yet to be studied. There is a general paucity of information on the plant species diversity and species composition within Kaya Muhaka. For decades, conservation of biodiversity within Kaya Muhaka has been compromised by continued anthropogenic effects exacerbated by gradual decline of traditional values coupled with rising poverty among the rural communities. This is despite the important role the Kaya has provided through a multiplicity of ecosystem services at landscape level. The overall objective of this research was to assess the plant diversity and species richness of Kaya Muhaka forest and its agro-ecosystems.

MATERIALS AND METHODS

Study Area

Kaya Muhaka (Figure 1) is located 0419°S 3931°E, at an altitude of 45m above sea level (Robertson and Luke, 1993), about 32 km south of Mombasa City and 5.5 km inland from the Indian Ocean and 15 km South East of the Shimba Hills, close to Muhaka village (Figure, 1). With 150 ha, it is one of the largest Kayas in Kwale (Myers *et al*., 2000; Lehmann and Kioko, 2005). The rainfall average is 1129 mm annually and is received in two seasons. The long rain (mean of 568 mm) is received from April to June, and the short rains (mean of 257 mm) received from September to November (Jaetzold and Schmidt, 1983). Kaya Muhaka is situated on lagoonal deposits and sub recent marine deposits (Kilindini sands). The soils are complex and very deep (>130m), of varying drainage condition and colour, texture and salinity. They are classified as; albic and ferralic Arenosols, orthic Ferralsols, gleyic Luvisols to Acrisols and sodic Planosols; vertigleyic Luvisols and pellic Vertisols, sodic phase (Michieka *et al*., 1978). of the forest (transect A) and the other across the southern side (transect B), both running in an East-West direction with 2 km stretching into the agro-ecosystems (Figure 2). The Northern part exhibits characteristics of a dry forest while the southern part is more moist (Lehman & Kioko, 2005). Three parallel transects of 1 km each from the western edge of the forest to the forest core were laid namely; transect C1 along the forest edge, transect C1.1 parallel to C1 and transect C1.2 parallel to C1.1. This was done so as to capture species diversity and composition from the forest edge to the forest core so as to monitor disturbance. Quadrats measuring 20m by 20m were laid out at regular intervals of 250m apart along each transect to ensure sample independence. Each quadrat was further divided into four sub-quadrats of 10 m by 10 m for systematic collection of specimen. Overall 32 plots were sampled totaling to 1.28 Ha of the area sampled.

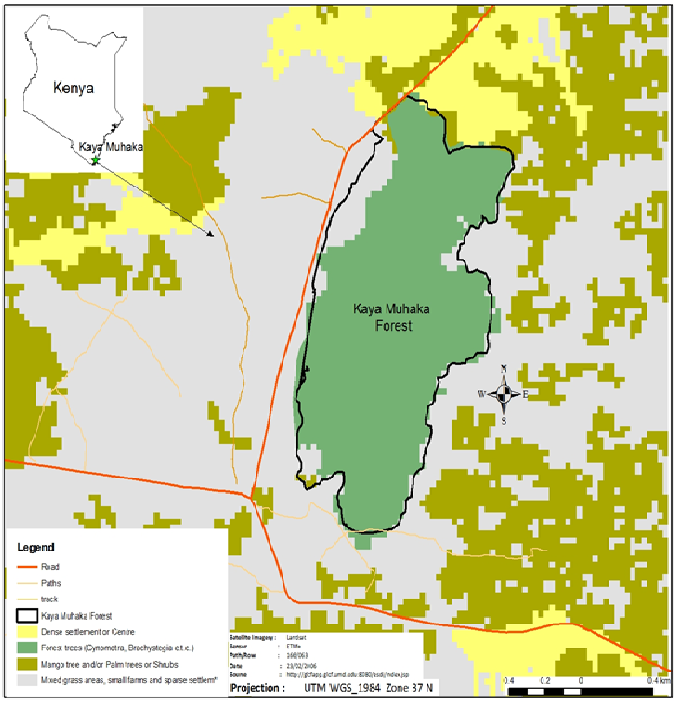

Figure 1. Map showing the location of Kaya Muhaka Forest

Vegetation sampling methods

The vegetation sampling method was adopted from Wilder *et al*. (1998) and Bullock (1996). Two main transects of about 3 km length each were established, one across the Northern side. Identifications were conducted according to Agnew & Agnew (1994) and Beentje (1994).

Species diversity

The presence or absence of species in each plot was recorded. Data collected included Diameter at Breast Height (DBH) of plants with more than 5cm and number of species. The data was used to calculate the Shannon-Wiener diversity index of each species according to Shannon & Wiener (1963) and Kumar & Bhatt (2006) using the following equation:

$H = -\Sigma\, p_i \log p_i$

Where pi is the proportion of the i^{th} species in the sample and log is the natural logarithm of p ***i***.

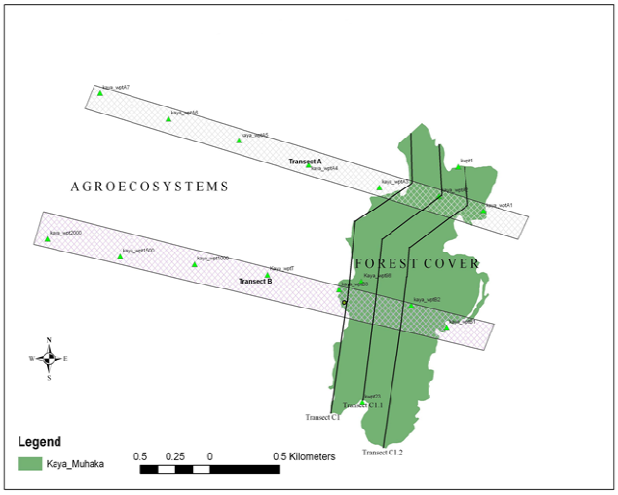

Figure 2. Map showing the vegetation sampling methods

Data Analysis

The data obtained from the Shannon index of biodiversity was subjected to Analysis of Variance (ANOVA).

Table 1. Analysis of variance (ANOVA) for diversity of flora in the forest core, forest edge and agro-ecosystems at 5% probability, 2 and 29 degrees of freedom showing that there was no significant difference in diversity of flora between the forest core, forest edge and agro-ecosystems

Source of Variation	SS	Df	MS	F	P-value	F crit
Between Groups	0.86292	2	0.43146	0.70676	0.50154	3.32765
Within Groups	17.7039	29	0.61048			
Total	18.5668	31				

Table 2. The Shannon-Wiener Diversity Index (*H'*) and the species richness across all the transects

Parameter	Transect A	Transect B	Transect C1	Transect C1.1	Transect C1.2
Species Diversity (H')	5.67	5.62	5.25	4.87	4.70
Species richness (S)	365	228	152	124	124

RESULTS

Diversity of Flora

There was no significant difference in the species diversity between the forest core, forest edge and agroecosystems (Table 1). The Shannon-Wiener Diversity Index (*H'*) increased with an increase in number of species. The forest edge (Transect C1) contained a higher *H'*of 5.25 as compared to the forest core (Transect C1.2) which had a *H'*of 4.70 (Table 2). Transect A had the highest *H'*of 5.67 closely followed by transect B at 5.62. Transect C1.2 (the forest core) had the lowest *H'*. The general trend showed that the diversity reduced from the forest edge to the forest core. Transect A had the highest species richness (365), followed by transects B (228), C1 (152), C1.1 (124) and C1.2 (124) in that order (Table 2).A total of 493 species were recorded from 97 families with Papilionaceae (7.9%), Rubiaceae (6.8%), Euphorbiaceae (5.4%), Moraceae and Caesalpiniaceae (4.1%) being the most represented (Appendix I).

DISCUSSION

This study showed that there was no significant difference in species diversity between the forest core, forest edge and agro-ecosystems. The relatively small size of the forest (150 ha) coupled with the high population density may have contributed to uniform disturbance across the entire forestleading to the high species diversity. The differences in species richness between the forest core, forest edge and agro-ecosystems was probably because of fragmentation and heterogeneity of the plant species in the study sites. It may also be as a result of the differences in the microclimates between the forest core, forest edge and agro-ecosystems due to the canopy effects. These results are in agreement with Clarke (2000) who suggested that there is a huge turnover of species between patches, especially in the less mobile species in the Eastern African Coastal Forests Mosaic. Forests that are only 100 km apart can differ in 80 percent of their plants (Clarke, 2000). In some invertebrate taxa, 80-90 percent of species can be strictly endemic to a single site (Scharff *et al*., 1981; Scharff, 1992, 1993; Burgess, Fjeldsa, and Botterweg, 1998). Further, Burgess (2000) and WWF (2003) suggested that the pattern of endemism in the Coastal Forest Mosaic is complex, reflecting the wide range of habitats and heterogeneous forest types, a high degree of turnover of local species between adjacent forest patches and many disjunct distributions. The value of diversity index in the present study ranged from 4.70 to 5.67. Knight (1975) reported that the diversity index is generally higher in tropical forests, which was reported as 5.06 and 5.40 for young and old stands respectively, whereas for Indian forests it ranged between 0.83 to 4.1 (Visalakshi, 1995) and between 1.16 to 3.40 for temperate forests (Pande *et al*., 1996). The values of diversity indices of the present study therefore lie within the range reported for tropical forests. It has been observed that diversity is lower in the absence of disturbance as well as in the presence of too much of disturbance (Pandey and Shukla, 1999). This research showed that the forest edge had a higher *H'* than the forest core. The forest edge being an ecotone has some of the characteristics of each bordering community and often contains species not found in the overlapping communities. A total of 152 species were recorded in the forest edge while the forest core had a total of 124 species. It is expected that the forest edge would have more species because the rate of regeneration is high due to open canopy in agreement with Sagar *et al*. (2008) that an open canopy will have higher species richness. The forest core transect had the least species as it ran across the forest core where there was a denser canopy with taller trees hence encouraging species homogeneity within the forest.

Conclusion

This study showed that disturbance from surrounding smallholder farmers was uniformly distributed across the forest henceit had no effect on species diversity between the Kaya Muhaka Forest and its agro-ecosystems.There is high plant species diversity in the Kaya Muhaka forest and the adjacent agro-ecosystems. The forest is homogenous with most of the

species being evenly distributed. Most of the species are indigenous and endemic to the area.

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APPENDIX I

Family	Genus	Species	Author1	Rank1	Species2	author2
Acanthaceae	*Asystasia*	*gangetica*	(L.) T.Anderson			
Acanthaceae	*Blepharis*	*maderaspatensis*	Heine ex Roth	ssp.	*rubiifolia*	(Schumach.) Napper
Acanthaceae	*Dychoriste*	*clinopodioides*	Mildbr.			
Acanthaceae	*Elytraria*	*minor*	Dokosi			
Acanthaceae	*Hypoestes*	*forskahlii*	(Vahl) R.Br.			
Acanthaceae	*Justicia*	*striata*	(Klotzsch) Bullock			
Acanthaceae	*Lankesteria*	*alba*	Lindau			
Acanthaceae	*Monothecium*	*aristatum*	T.Anderson			
Acanthaceae	*Thunbergia*	*alata*	Bojer ex Sims			
Acanthaceae	*Thunbergia*	*kirkii*	Hook.f.			
Acanthaceae	*Thunbergia*	*shimbensis*	S.Moore			
Acanthaceae	*Whitfieldia*	*elongata*	(P.Beauv.) C.B.Clarke			
Acanthaceae	*Hygrophila*	*auriculata*	Rolfe			
Amaranthaceae	*Achyranthes*	*aspera*	L.			
Amaranthaceae	*Amaranthus*	*hybridus*	L.	ssp.	*hybridus*	
Amaranthaceae	*Cyathula*	*coriacea*	Schinz			
Amaranthaceae	*Gomphrena*	*celosioides*	Mart.			
Amaranthaceae	*Psilotrichum*	*sericeum*	(Roxb.) Dalziel			
Amaranthaceae	*Pupalia*	*lappacea*	(L.) A.Juss.			
Amaryllidaceae	*Scadoxus*	*multiflorus*	(Martyn) Raf.			
Anacardiaceae	*Anacardium*	*occidentale*	L.			
Anacardiaceae	*Lannea*	*welwitschii*	(Hiern) Engl.			
Anacardiaceae	*Mangifera*	*indica*	L.			
Anacardiaceae	*Ozoroa*	*insignis*	Delile	ssp.	*reticulata*	(Baker f.) Gillet
Anacardiaceae	*Rhus*	*natalensis*	Krauss			
Anacardiaceae	*Sclerocarya*	*birrea*	(A.Rich.) Hochst.			
Anacardiaceae	*Sorindeia*	*madagascariensis*	DC.			
Annonaceae	*Annona*	*senegalensis*	Pers.	ssp.	*senegalensis*	
Annonaceae	*Artabotrys*	*modestus*	Diels	ssp.	*macranthus*	Verdc.
Annonaceae	*Asteranthe*	*asterias*	(S.Moore) Engl. & Diels	ssp.	*asterias*	
Annonaceae	*Isolona*	*cauliflora*	Verdc.			
Annonaceae	*Lettowianthus*	*stellatus*	Diels			
Annonaceae	*Mkilua*	*fragrans*	Verdc.			
Annonaceae	*Monanthotaxis*	*trichocarpa*	(Engl. & Diels) Verdc.			
Annonaceae	*Monodora*	*grandidieri?*				
Annonaceae	*Ophrypetalum*	*odoratum*	Diels	ssp.	*longipedicellatum*	Verdc.
Annonaceae	*Uvaria*	*lucida*	Benth.	ssp.	*lucida*	
Annonaceae	*Uvariodendron*	*kirkii*	Verdc.			
Annonaceae	*Xylopia*	*parviflora*	(A.Rich.) Benth.			
Apocynaceae	*Acokanthera*	*sp*				
Apocynaceae	*Alafia*	*microstylis*	K.Schum.			
Apocynaceae	*Ancylobothrys*	*petersiana*	(Klotzsch) Pierre			
Apocynaceae	*Baissea*	*myrtifolia*	(Benth.) Pichon			
Apocynaceae	*Landolphia*	*watsoniana*	Romburgh			

Apocynaceae	*Pleiocarpa*	*pycnantha*	(K.Schum.) Stapf			
Apocynaceae	*Saba*	*comorensis*	(Bojer) Pichon			
Apocynaceae	*Schizozygia*	*caffaeoides*	Baill.			
Apocynaceae	*Strophranthus*	*kombe*	Oliv.			
Apocynaceae	*Thevetia*	*peruviana*				
Apocynaceae	*Alafia*	*caudata*	Philipson	ssp.	*latiloba*	(Baker.f) Mabb.
Araceae	*Anchomanes*	*abbreviatus*	Engl.			
Araceae	*Gomatopus*	*marattoides*	(A. Peter) Bogner			
Araceae	*Zamioculcas*	*sp nov*				
Araceae	*Zamioculcas*	*zamiifolia*	(Lodd.) Engl.			
Araliaceae	*Cussonia*	*zimmermannii*	Harms			
Asclepiadaceae	*Cryptolepis*	*hypoglauca*	K.Schum.			
Asclepiadaceae	*Cryptolepis*	*sinensis*	(Lour.) Merr.	ssp.	*africana*	Bullock
Asclepiadaceae	*Pergularia*	*daemia*				
Asclepiadaceae	*Sarcostemma*	*sp*				
Asclepiadaceae	*Secamone*	*parvifolia*	(Oliv.) Bullock			
Asclepiadaceae	*Secamone*	*punctulata*	Decne.			
Asparagaceae	*Asparagus*	*racemosus?*	Willd.			
Bignoniaceae	*Fernandoa*	*magnifica*	Seem.			
Bignoniaceae	*Markhamia*	*zanzibarica*	K.Schum.			
Bignoniaceae	*Stereospermum*	*kunthianum*	Cham.			
Bixaceae	*Bixa*	*orellana*	L.			
Bombacaceae	*Adansonia*	*digitata*	L.			
Bombacaceae	*Ceiba*	*pentadra*	(L.) Gaertn.			
Boraginaceae	*Bourreria*	*petiolaris?*	(Lam.) Thulin			
Boraginaceae	*Cordia*	*guineenis*	Friis & Jellis	ssp.	*mutica*	*K. Krause*
Burseraceae	*Commiphora*	*africana?*	(A.Rich.) Engl.			
Burseraceae	*Commiphora*	*obovata*	Chiov.			
Buxaceae	*Notobuxus*	*obtusifolius*	(Mansf.) P.J.Cribb			
Cactaceae	*Opuntia*	*vulgaris*				
Caesapinaceae	*Cordyla*	*africana*				
Caesalpiniaceae	*Afzelia*	*quanzensis*	Welw.			
Caesalpiniaceae	*Brachystegia*	*longifolia?*	Benth.			
Caesalpiniaceae	*Cassia*	*abbreviata*	Oliv.	ssp.	*abbreviata?*	
Caesalpiniaceae	*Cassia*	*occidentalis*	L.			
Caesalpiniaceae	*Chamaecrista*	*mimosoides*	(Taub.) Standley			
Caesalpiniaceae	*Cynometra*	*suaheliensis*	(Taub.) Baker f.			
Caesalpiniaceae	*Cynometra*	*webberi*	Baker f.			
Caesalpiniaceae	*Dialium*	*holtzii*	Harms			
Caesalpiniaceae	*Erythrophleum*	*suaveolens*	(Guill. & Perr.) Brenan			
Caesalpiniaceae	*Gigasiphon*	*macrosiphon*	(Harms) Brenan			
Caesalpiniaceae	*Hymenaea*	*verrucosa*	Gaertn.			
Caesalpiniaceae	*Julbernardia*	*magnistipulata*	(Harms) Troupin			
Caesalpiniaceae	*Paramacrolobium*	*coeruleum*	(Taub.) J.L,on			
Caesalpiniaceae	*Piliostigma*	*thonningii*	(Schumach.) Milne-Redh.			
Caesalpiniaceae	*Scorodophloeus*	*fischeri*	(Taub.) J.L,on			

Caesalpiniaceae	*Senna*	*didymobotrya*	(Fresen.) Irwin & Barneby			
Caesalpiniaceae	*Senna*	*occidentalis*	(L.) Link			
Caesalpiniaceae	*Senna*	*singueana*	(Delile) Lock			
Caesalpiniaceae	*Tamarindus*	*indica*	L.			
Campanulaceae	*Wahlenbergia*	*napiformis*	E.Mey.			
Capparaceae	*Capparis*	*erythrocarpos*	Isert	var.	*rosea*	(Klotzsch) De Wolf
Capparaceae	*Capparis*	*fascicularis*	DC.	var.	*scheffleri*	
Capparaceae	*Capparis*	*viminea*	Oliv.	var.	*orthacantha*	
Capparaceae	*Maerua*	*triphylla*	A.Rich.	var.	*pubescens*	(Klotzsch) De Wolf
Capparaceae	*Ritchiea*	*albersii*	Gilg			
Caricaceae	*Carica*	*papaya*	L.			
Casuarinaceae	*Casuarina*	*equisetifolia*	L.			
Celastraceae	*Elaeodendron*	*schweinfurthianum*	(Loes.) Loes.			
Celastraceae	*Maytenus*	*heterophylla*	(Eckl. & Zeyh.) N.Robson			
Celastraceae	*Maytenus*	*undata*	(Thunb.) Blakelock			
Celastraceae	*Salacia*	*elegans*	Oliv.			
Celastraceae	*Salacia*	*madagascariensis*	(Lam.) DC.			
Celastraceae	*Salacia*	*sp.*				
Celastraceae	*Salacia*	*stuhlmanniana*	Loes.			
Colchicaceae	*Gloriosa*	*superba*	L.			
Combretaceae	*Combretum*	*illairii*	Engl.			
Combretaceae	*Combretum*	*paniculatum*	Vent.	ssp.	*paniculatum*	
Combretaceae	*Combretum*	*pentagonum*	M.A.Lawson			
Combretaceae	*Combretum*	*schumannii*	Engl.			
Combretaceae	*Quisqualis*	*littorea*	(Engl.) Exell			
Combretaceae	*Terminalia*	*catappa*	L.			
Combretaceae	*Terminalia*	*sambesiaca*	Engl. & Diels			
Commelinaceae	*Aneilema*	*aequinoctiale*	Kunth			
Commelinaceae	*Aneilema*	*rendlei*	C.B.Clarke			
Commelinaceae	*Aneilema*	*taylori*	C.B.Clarke			
Commelinaceae	*Commelina*	*africana*	L.			
Commelinaceae	*Commelina*	*albiflora*	Faden			
Commelinaceae	*Commelina*	*benghalensis*	Wall.			
Commelinaceae	*Commelina*	*bracteosa*	Hassk.			
Commelinaceae	*Commelina*	*forskalaei*	Vahl			
Commelinaceae	*Murdannia*	*axillaris?*	Brenan			
Commelinaceae	*Murdannia*	*simplex*	(Vahl) Brenan			
Compositae	*Acanthospermum*	*hispidum*	DC.			
Compositae	*Ageratum*	*conyzoides*	L.			
Compositae	*Aspilia*	*kotschyi*	(Sch.Bip. ex Hochst.) Oliv.			
Compositae	*Aspilia*	*mossambicensis*	(Oliv.) Wild			
Compositae	*Bidens*	*pilosa*	L.			
Compositae	*Blainvillea*	*acmella*	(L.) Philipson			
Compositae	*Emilia*	*coccinea*	(Sims) Sweet			
Compositae	*Galinsoga*	*parviflora*	Cav.			
Compositae	*Guizotia*	*reptans?*	Hutch.			

Compositae	*Gutenbergia*	*cordifolia*	Benth. ex Oliv.			
Compositae	*Launaea*	*cornuta*	(Hochst. ex Oliv. & Hiern) C.J			
Compositae	*Tridax*	*procumbens*	L.			
Compositae	*Vernonia*	*glabra*	(Steetz) Vatke	var.	*glabra*	
Compositae	*Vernonia*	*hildebrandtii*	Vatke			
Compositae	*Vernonia*	*zanzibarensis*	Less.			
Compositae	*Blainvillea*	*gayana*	Mattam, R.W.			
Compositae	*Crassocephalum*	*crepidioides*	Leippert, H.			
Connaraceae	*Agelaea*	*pentagyna*	Gilg			
Connaraceae	*Ellipanthus*	*hemandradenioides*	Brenan (Pancovia?)			
Connaraceae	*Rourea*	*coccinea*	(Schum.) Benth.	ssp.	*boiviniana*	(Baill.) Jongkind
Connaraceae	*Rourea*	*orientalis*	Baill.			
Connaraceae	*Connarus*	*longistipitatus*	Gilg			
Convolvulaceae	*Evolvulus*	*alsinoides*	(L.) L.			
Convolvulaceae	*Hewittia*	*sublobata*	(L.f.) Kuntze			
Convolvulaceae	*Ipomoea*	*batatas*	(L.) Lam.			
Convolvulaceae	*Ipomoea*	*pes-tigridis*	L.	var.	*pes-tigridis*	
Cruciferae	*Erucastrum*	*arabicum*	Fisch. & C.A.Mey.			
Cucurbitaceae	*Coccinia*	*grandis*				
Cucurbitaceae	*Cucumis*	*sacleuxii*	Paill. & Bois			
Cucurbitaceae	*Peponium*	*vogelii*	(Hook.f.) Engl.			
Cyperaceae	*Cyperus*	*hemisphaericus*	Boeck.			
Cyperaceae	*Cyperus*	*rotundus*	L.	ssp.	*tuberosus*	(Rottb.) Kük.
Cyperaceae	*Fuirena*	*umbellata*	Rothb.			
Cyperaceae	*Kyllinga*	*cartilaginea*	K.Schum.			
Cyperaceae	Schoenoplectus	*sp*				
Davalliaceae	*Davallia*	*chaerophylloides*	(Poir.) Steud.			
Dichapetalaceae	*Dichapetalum*	*arenarium*	Breteler			
Dichapetalaceae	*Dichapetalum*	*ruhlandii*	Engl.			
Dichapetalaceae	*Dichapetalum*	*sp (bg lved climber)*				
Dichapetalaceae	*Dichapetalum*	*zenkeri*	Engl.			
Dichapetalaceae	*Tapura*	*fischeri*	Engl.			
Dilleniaceae	*Tetracera*	*boiviniana*	Baill.			
Dioscoreaceae	*Dioscorea*	*astericus (3 lved)*	Burkill			
Dioscoreaceae	*Dioscorea*	*dumetorum*	(Kunth) Pax			
Dracaenaceae	*Dracaena*	*deremensis*	Engl.			
Dracaenaceae	*Sansevieria*	*conspicua*	N.E.Br.			
Dryopteridaceae	*Tectaria*	*sp*				
Ebenaceae	*Diospyros*	*abyssinica*	(Hiern) F.White	ssp.	*abyssinica*	
Ebenaceae	*Diospyros*	*greenwayi*	F.White			
Ebenaceae	*Diospyros*	*kabuyeana*	F.White			
Ebenaceae	*Diospyros*	*squarrosa*	Klotzsch			
Eriocaulaceae	*Eriocaulon*	*elegantulum*				
Euphorbiaceae	*Acalypha*	*cf. Lanceolata*		var.	*glandulosa*	
Euphorbiaceae	*Acalypha*	*lanceolata*	Willd.	var.	*glandulosa*	(M.A.) A.R-Sm.
Euphorbiaceae	*Acalypha*	*neptunica*	Müll.Arg.	var.	*neptunica*	

Euphorbiaceae	*Acalypha*	*neptunica*	Müll.Arg.	var.	*pubescens*	
Euphorbiaceae	*Acalypha*	*ornata?*	A.Rich.			
Euphorbiaceae	*Acalypha*	*racemosa*	Baill.			
Euphorbiaceae	*Alchornea*	*laxiflora*	(Benth.) Pax & K.Hoffm.			
Euphorbiaceae	*Antidesma*	*venosum*	Tul.			
Euphorbiaceae	*Bridelia*	*cathartica*	G.Bertol.			
Euphorbiaceae	*Croton*	*sp*				
Euphorbiaceae	*Drypetes*	*natalensis*	(Harv.) Hutch.	var.	*leiogyna*	
Euphorbiaceae	*Drypetes*	*parvifolia*	(Müll.Arg.) Pax & K.Hoffm.			
Euphorbiaceae	*Erythrococca*	*kirkii*	(Müll.Arg.) Prain			
Euphorbiaceae	*Euphorbia*	*hirta*	L.			
Euphorbiaceae	*Flueggea*	*virosa*	(Willd.) Voigt	ssp.	*virosa*	
Euphorbiaceae	*Jatropha*	*curcas*	L.			
Euphorbiaceae	*Mallotus*	*oppositifolius*	(Geiseler) Müll.Arg.	var.	*oppositifolius*	
Euphorbiaceae	*Manihot*	*esculenta*	Crantz			
Euphorbiaceae	*Mildbraedia*	*carpinifolia*	(Pax) Hutch.			
Euphorbiaceae	*Phyllanthus*	*fischeri?*	Pax			
Euphorbiaceae	*Phyllanthus*	*reticulatus*	Poir.			
Euphorbiaceae	*Phyllanthus*	*sp (sm herb)*				
Euphorbiaceae	*Pycnocoma*	*littoralis*	Pax.			
Euphorbiaceae	*Ricinodendron*	*heudelotii*	(Baill.) Heckel	var.	*tomentellum*	(Hutch. & E.A.Bruce) Radcl.-Sm.
Euphorbiaceae	*Ricinus*	*communis*	L.			
Euphorbiaceae	*Tragia*	*adenanthera?*	Baill.			
Euphorbiaceae	*Tragia*	*furialis*	Bojer			
Flacourtiaceae	*Bivinia*	*jalbertii*	Tul.			
Flacourtiaceae	*Dovyalis*	*macrocalyx*	(Oliv.) Warb.			
Flacourtiaceae	*Flacourtia*	*indica*	(Burm.f.)Merrill			
Flacourtiaceae	*Grandidiera*	*boivinii*	Jaub.			
Flacourtiaceae	*Homalium*	*abdessammadii*	Asch. & Sleumer			
Flacourtiaceae	*Scolopia*	*rhamniphylla*	Gilg			
Flacourtiaceae	*Xylotheca*	*tettensis*	(Klotzsch) Gilg	var.	*kirkii*	
Flacourtiaceae	*Dovyalis*	*abyssinica*	Muller, T.; Biegel, H.			
Flagellariaceae	*Flagellaria*	*guineensis*	Schumach.			
Gramineae	*Aristida*	*barbicollis*	Trin. & Rupr.			
Gramineae	*Bothriochloa*	*insculpta*	(A.Rich.) A.Camus			
Gramineae	*Brachiaria*	*sp*				
Gramineae	*Cynodon*	*dactylon*	(L.) Pers.			
Gramineae	*Dactyloctenium*	*ctenioides*	(Steud.) Bosser			
Gramineae	*Dactyloctenium*	*geminatum*	Hack.			
Gramineae	*Digitaria*	*ciliaris*	(Retz.) Koeler			
Gramineae	*Digitaria*	*milaujiana*	(Rendle.)Stapf.			
Gramineae	*Eleusine*	*indica*	(L.) Gaertn.			
Gramineae	*Eragrostis*	*ciliaris*	(L.) R.Br.			
Gramineae	*Eragrostis*	*sp.*				
Gramineae	*Heteropogon*	*contortus*	(L.) Roem. & Schult.			
Gramineae	*Hyparrhenia*	*filipendula*	(Hochst.) Stapf			

Gramineae	*Hyparrhenia*	*sp.*			
Gramineae	*Imperata*	*cylindrica*	(L.) Raeusch.		
Gramineae	*Leptochloa*	*uniflora*	A.Rich.		
Gramineae	*Megastachya*	*mucronata*	(Poir.)P.Beauv.		
Gramineae	*Oplismenus*	*compositus*	(L.) P.Beauv.		
Gramineae	*Oryza*	*sativa*			
Gramineae	*Panicum*	*laticomum*	Nees		
Gramineae	*Paspalum*	*scrobiculatum*	L.		
Gramineae	*Setaria*	*sp*			
Gramineae	*Setaria*	*sphacelata*	(Schumach.) Moss		
Gramineae	*Sporobolus*	*sp (coll)*			
Gramineae	*Zea*	*mays*	L.		
Guttiferae	*Garcinia*	*buchananii*	Baker		
Guttiferae	*Garcinia*	*livingstonei*	T.Anderson		
Guttiferae	*Garcinia*	*volkensii*	Engl.		
Hyacinthaceae	*Albuca*	*abyssinica*	Jacq.		
Hyacinthaceae	*Scilla*	*hyacinthina*	(Roth.) Alston		
Icacinaceae	*Apodytes*	*dimidiata*	Arn.		
Icacinaceae	*Pyrenacantha*	*kaurabassana*	Baill.		
Labiatae	*Hoslundia*	*opposita*	Vahl		
Labiatae	*Hyptis*	*suaveolens*	Poit.		
Labiatae	*Ocimum*	*basilicum*	L.		
Labiatae	*Ocimum*	*gratissimum*	Forssk.		
Labiatae	*Plectranthus*	*flaccidus*	Gürke		
Labiatae	*Leonotis*	*nepetifolia*	(Pax) Pax		
Lauraceae	*Cassytha*	*filiformis*	L.		
Linaceae	*Hugonia*	*castaneifolia*	Engl.		
Lobeliaceae	*Lobelia*	*fervens*	Thunb.	ssp.	*fervens*
Loganiaceae	*Strychnos*	*madagascariensis*	Poir.		
Loganiaceae	*Strychnos*	*panganensis*	Gilg		
Loganiaceae	*Mostuea*	*brunonis*	Didr.	var.	*brunonis*
Loranthaceae	*Englerina*	*?woodfordioides*	(Schweinf.) Balle		
Lythraceae	*Lawsonia*	*inermis*	L.		
Malpighiaceae	*Acridocarpus*	*zanzibaricus*	A.Juss.		
Malvaceae	*Abutilon*	*mauritianum*	(Jacq.) Sweet		
Malvaceae	*Gossypioides*	*kirkii*	(Mast.) J.B. Hutch.		
Malvaceae	*Hibiscus*	*cannabinus*	L.		
Malvaceae	*Hibiscus*	*flavifolius?*	Ulbr.		
Malvaceae	*Hibiscus*	*micranthus*	L.f.		
Malvaceae	*Hibiscus*	*ovata*			
Malvaceae	*Hibiscus*	*physaloides*	Guill. & Perr.		
Malvaceae	*Hibiscus*	*surattensis*	L.		
Malvaceae	*Sida*	*acuta*	Burm.f.		
Malvaceae	*Sida*	*linifolia*	Cav.		
Malvaceae	*Sida*	*ovata*			
Malvaceae	*Sida*	*rhombifolia?*	L.		

Malvaceae	*Thespesia*	*danis*	Oliv.			
Malvaceae	*Urena*	*lobata*	L.			
Melastomataceae	*Dissotis*	*rotundifolia*	(Sm.) Triana			
Melastomataceae	*Memecylon*	*amaniense*	(Gilg) A.Fern. & R.Fern.	var.	*A*	
Melastomataceae	*Memecylon*	*sansibarica*	Taub.	var.	*sansibarica*	
Meliaceae	*Azadirachta*	*indica*	A.Juss.			
Meliaceae	*Melia*	*azedarach*	L.			
Meliaceae	*Pseudobersama*	*mossambicensis*	(Sim) Verdc.			
Meliaceae	*Trichilia*	*emetica*	Vahl			
Meliaceae	*Turraea*	*nilotica*	Kotschy & Peyr.			
Menispermaceae	*Cissampelos*	*pareira*	L.			
Menispermaceae	*Jateorhiza*	*palmata*	(Lam.)Miers			
Menispermaceae	*Tiliacora*	*funifera*	(Miers) Oliv.			
Menispermaceae	*Triclisia*	*sacleuxii*	(Pierre)Diels.			
Mimosaceae	*Acacia*	*pentagona*	(Schumach. & Thonn.) Hook.f.			
Mimosaceae	*Acacia*	*senegal*		var.	*?*	
Mimosaceae	*Albizia*	*adianthifolia*	(Schumach.) W.Wright			
Mimosaceae	*Albizia*	*versicolor*	Welw. ex Oliv.			
Mimosaceae	*Dichrostachys*	*cinerea*	(L.) Wight & Arn.			
Mimosaceae	*Leucaena*	*leucocephala*	(Lam.) de Wit			
Mimosaceae	*Newtonia*	*paucijuga*	(Harms) Brenan			
Mimosaceae	*Parkia*	*filicoidea*	Welw. ex Oliv.			
Mimosaceae	*Pithecellobium*	*dulce*	(Roxb.)Benth			
Moraceae	*Antiaris*	*toxicaria*	Lesch.	ssp.	*welwitschii*	(Engl.) C.C.Berg
Moraceae	*Artocarpus*	*heterophyllus*	Lmk.			
Moraceae	*Dorstenia*	*cf hildebrandtii*				
Moraceae	*Dorstenia*	*kameruniana*	Engl.			
Moraceae	*Dorstenia*	*tayloriana*	Rendle	var.	*laikipiensis*	
Moraceae	*Ficus*	*exasperata*	Vahl			
Moraceae	*Ficus*	*lingua*	De Wild. & T.Durand	ssp.	*depauperata*	(Sim) C.C.Berg
Moraceae	*Ficus*	*lutea*	Warb.			
Moraceae	*Ficus*	*ottoniifolia?*	(Miq.) Miq.	ssp.	*ulugurensis*	(Mildbr. & Burret) C
Moraceae	*Ficus*	*polita*	Vahl	ssp.	*polita*	
Moraceae	*Ficus*	*sycomorus*	L.			
Moraceae	*Ficus*	*thonningii*	Blume			
Moraceae	*Ficus*	*tremula*	Warb.	ssp.	*tremula*	
Moraceae	*Ficus*	*craterostoma*	Mildbr. & Burret			
Moraceae	*Ficus*	*sansibarica*	Warb.	ssp.	*sansibarica*	
Moraceae	*Ficus*	*scassellatii*	Pamp.	ssp.	*scassellatii*	
Moraceae	*Maclura*	*africana*	(Bureau)Corner			
Moraceae	*Milicia*	*excelsa*	(Welw.) C.C.Berg			
Moraceae	*Streblus*	*usambarensis*	(Engl.) C.C.Berg			
Moraceae	*Trilepisium*	*madagascariensis*	DC.			
Moringaceae	*Moringa*	*oleifera*	Lam.			
Musaceae	*Musa*	*acuminata*	Colla			
Myrtaceae	*Eucalyptus*	*sp*				

Myrtaceae	*Psidium*	*guajava*	L.			
Myrtaceae	*Syzygium*	*cordatum*	Hochst.			
Myrtaceae	*Syzygium*	*cumini*	(L.) Skeels			
Myrtaceae	*Eugenia*	*taxon D of KTSL*				
Nyctaginaceae	*Boerhavia*	*diffusa*	L.			
Ochnaceae	*Brackenridgea*	*zanguebarica*	Oliv.			
Ochnaceae	*Ochna*	*mossambicensis*	Klotzsch			
Oleaceae	*Chionanthus*	*mildbraedii*	(Gilg & Schellenb.) Stearn			
Oleaceae	*Jasminum*	*fluminense*	Vell.	ssp.	*fluminense*	
Onagraceae	*Ludwigia*	*octovalvis*	(Jacq.)Raven			
Orchidaceae	*Aerangis*	*kirkii*	(Rchb.f.) Schltr.			
Orchidaceae	*Diaphananthe*	*rutila*	(Rchb.f.) Summerh.			
Orchidaceae	*Eulophia*	*speciosa*	R. Br. ex Lindl.			
Oxalidaceae	*Biophytum*	*umbraculum*	Welw.			
Palmae	*Cocos*	*nucifera*	L.			
Palmae	*Elaeis*	*guineensis*	Jacq.			
Palmae	*Hyphaene*	*compressa*	H.Wendl.			
Palmae	*Hyphaene*	*coriacea*	Gaertn.			
Palmae	*Phoenix*	*reclinata*	Jacq.			
Papilionaceae	*Abrus*	*precatorius*	L.	ssp.	*africanus*	Verdc.
Papilionaceae	*Alysicarpus*	*glumaceus*	(Vahl.)Dc.	ssp.	*glumaceus var. intermedius*	
Papilionaceae	*Anglocalyx*	*braunii*	Harms			
Papilionaceae	*Cajanus*	*cajan*	(L.) Millsp.			
Papilionaceae	*Canavalia*	*cathartica*	Thouars			
Papilionaceae	*Craibia*	*brevicaudata*	(Vatke) Dunn	ssp.	*brevicaudata*	
Papilionaceae	*Crotalaria*	*emarginata*	Benth.			
Papilionaceae	*Dalbergia*	*boehmii*	Taub.	ssp.	*boehmii*	
Papilionaceae	*Dalbergia*	*melanoxylon*	Guill. & Perr.			
Papilionaceae	*Derris*	*trifoliata?*	Lour.			
Papilionaceae	*Desmodium*	*velutinum*	(Willd.) DC.			
Papilionaceae	*Desmodium*	*gangetium*	(L.)DC.			
Papilionaceae	*Desmodium*	*umbellatum*	(L.)DC.			
Papilionaceae	*Eriosema*	*glomeratum*	(Guill. & Perr.) Hook.f.			
Papilionaceae	*Erythrina*	*abyssinica*	DC.	ssp.	*abyssinica*	
Papilionaceae	*Erythrina*	*sacleuxii*	Hua			
Papilionaceae	*Indigofera*	*arrecta?*	A.Rich.			
Papilionaceae	*Indigofera*	*congesta*	Baker			
Papilionaceae	*Indigofera*	*hirsuta*	L.			
Papilionaceae	*Indigofera*	*paniculata*	Pers.	ssp.	*paniculata*	
Papilionaceae	*Indigofera*	*sp*				
Papilionaceae	*Indigofera*	*trita*	L.	var.	*subulata*	(Poir.) Ali
Papilionaceae	*Indigofera*	*vohemarensis*	Baill.			
Papilionaceae	*Lonchocarpus*	*bussei*	Harms			
Papilionaceae	*Millettia*	*lasiantha*	Dunn			
Papilionaceae	*Mucuna*	*pruriens*	(L.) DC.			
Papilionaceae	*Ormocarpum*	*kirkii*	S.Moore			

Papilionaceae	*Pseudarthria*	*hookeri*	Wight & Arn.	var.	*hookeri*	
Papilionaceae	*Rhynchosia*	*hirta*	(Andr.) Meikle & Verdc.			
Papilionaceae	*Rhynchosia*	*viscosa*	(Roth.)DC.	var.	*breviracemosa*	
Papilionaceae	*Sesbania*	*sp*				
Papilionaceae	*Sophora*	*sp.*				
Papilionaceae	*Stylosanthes*	*fruticosa*	(Retz.) Alston			
Papilionaceae	*Tephrosia*	*linearis*	(Wild.) Pers.			
Papilionaceae	*Tephrosia*	*purpurea*	(L.) Pers.	ssp.	*leptostachya var.?*	(DC.) Brummitt
Papilionaceae	*Tephrosia*	*villosa*	(L.) Pers.	ssp.	*ehrenbergiana*	(Schweinf.) Brummitt
Papilionaceae	*Vigna*	*radiata*				
Papilionaceae	*Vigna*	*reticulata*	Hook.f.			
Papilionaceae	*Vigna*	*unguiculata*	(L.) Walp.	ssp.	*cylindrica*	(L.) van Eseltine
Passifloraceae	*Adenia*	*sp (A. gummifera)*				
Passifloraceae	*Passiflora*	*edulis*	Sims			
Passifloraceae	*Schlechterina*	*mitostemmatoides*	Harms			
Pedaliaceae	*Sesamum*	*angustifolium*	(Oliv.) Engl.			
Polygalaceae	*Carpolobia*	*goetzei*	Gürke			
Polygalaceae	*Polygala*	*sphenoptera*	Fresen.			
Polygalaceae	*Securidaca*	*longipedunculata*	Fresen.			
Polygonaceae	*Oxygonum*	*atriplicifolium*	(Meisn.) Martelli			
Rhamnaceae	*Colubrina*	*asiatica*	(L.) Brongn.	var.	*asiatica*	
Rhamnaceae	*Lasiodiscus*	*mildbraedii*	Engl.	ssp.	*ferrugineus*	(Verdc.) Faden
Rhamnaceae	*Lasiodiscus*	*mildbraedii ?*	Engl.	ssp.	*ferrugineus*	(Verdc.) Faden
Rhamnaceae	*Ziziphus*	*sp*				
Rhizophoraceae	*Cassipourea*	*euryoides*	Alston			
Rosaceae	*Prunus*	*cerasoides*				
Rubiaceae	*Agathisanthemum*	*bojeri*	Klotzsch	var.	*bojeri*	
Rubiaceae	*Catunaregam*	*nilotica*	(Stapf) Tirveng.			
Rubiaceae	*Chassalia*	*umbraticola*	Vatke	ssp.	*umbraticola*	
Rubiaceae	*Chazaliella*	*abrupta*	(Hiern) Petit & Verdc.	var.	*abrupta*	
Rubiaceae	*Coffea*	*sessiliflora*	Bridson	ssp.	*sessiliflora*	
Rubiaceae	*Coffea*	*sp*				
Rubiaceae	*Crassopteryx*	*febrifuga*	Benth.			
Rubiaceae	*Cremaspora*	*triflora*	(Thonn.) K.Schum.	ssp.	*confluens*	(K.Schum.) Verdc.
Rubiaceae	*Didymosalpinx*	*norae*	(Swynn.) Keay			
Rubiaceae	*Gardenia*	*fiorii*	Chiov.			
Rubiaceae	*Geophila*	*obvallata*	(Schumach.) Didr.	ssp.	*ioides*	(K.Schum.) Verdc.
Rubiaceae	*Keetia*	*gueinzii*	(Sond.) Bridson			
Rubiaceae	*Keetia*	*zanzibarica*	(Klotzsch) Bridson	ssp.	*zanzibarica*	
Rubiaceae	*Leptactina*	*platyphylla*	Taylor, V.A.			
Rubiaceae	*Mitracarpus*	*villosus*	(Sw.) DC.			
Rubiaceae	*Oldenlandia*	*wiedemannii ?*		var.	*wiedemannii*	(Vatke) Verdc.
Rubiaceae	*Pentas*	*bussei*	K.Krause			
Rubiaceae	*Pentas*	*parvifolia*	Hiern			
Rubiaceae	*Pentas*	*zanzibarica*	(Klotzsch) Vatke	var.	*zanzibarica*	
Rubiaceae	*Polysphaeria*	*parvifolia*	Hiern			

Rubiaceae	*Psychotria*	*capensis*	(Ecklon) Vatke	ssp.	*riparia*	(K.Schum. & K.Krause) Verdc.
Rubiaceae	*Psychotria*	*faucicola*	K.Schum.			
Rubiaceae	*Psychotria*	*sp*				
Rubiaceae	*Rytigynia*	*celastroides*	(Baill.) Verdc.	var.	*celastroides*	
Rubiaceae	*Rytigynia*	*mrimaensis*	Verdc.			
Rubiaceae	*Spermacoce*	*filituba*	(K.Schum.) Verdc.			
Rubiaceae	*Spermacoce*	*sp*				
Rubiaceae	*Vangueria*	*infausta*	Burch.	ssp.	*rotundata*	
Rubiaceae	*Vangueria*	*randii*	S.Moore	ssp.	*acuminata*	Verdc.
Rubiaceae	*Oldenlandia*	*affinis*	(Roem. Et Schult.)DC			
Rubiaceae	*Rothmannia*	*macrosiphon*	Waterman, P.G.; McKey, D.			
Rubiaceae	*Mussaenda*	*monticola*	Parkyns, M.	var.	*monticola*	
Rubiaceae	*Oldenlandia*	*corymbosa*	N.E.Br.	var.	*corymbosa*	
Rubiaceae	*Gardenia*	*posoquerioides*	(Robyns) Verdc.			
Rutaceae	*Citrus*	*limon*	(L.) Burm.f.			
Rutaceae	*Teclea*	*amaniensis*	Engl.			
Rutaceae	*Toddaliopsis*	*sansibarensis*	(Engl.) Engl.			
Rutaceae	*Zanthoxylum*	*holtzianum*	(Engl.) P.G.Waterman	ssp.	*holtzianum*	
Sapindaceae	*Allophylus*	*pervillei*	Blume			
Sapindaceae	*Allophylus*	*rubifolius*	(Hochst.) Engl.			
Sapindaceae	*Blighia*	*unijugata*	Baker			
Sapindaceae	*Chytranthus*	*obliquinervis*	Radlk. ex Engl.	ssp.	*longiflorus*	(Verdc.) Halle
Sapindaceae	*Deinbollia*	*borbonica*	Scheffler			
Sapindaceae	*Haplocoelum*	*africana*	F.G.Davies ined.			
Sapindaceae	*Lecaniodiscus*	*fraxinifolius*	Baker	ssp.	*vaughanii*	(Dunkley) Friis
Sapindaceae	*Lepisanthes*	*senegalensis*	(Poir.) Leenh.			
Sapindaceae	*Pancovia*	*golungensis*	(Hiern) Exell & Mendon¦a			
Sapindaceae	*Paullinia*	*pinnata*	L.			
Sapindaceae	*Majidea*	*zanguebarica*	J.Kirk			
Sapindaceae	*Glenniea*	*africana*	Meyer, H.			
Sapotaceae	*Inhambanella*	*henriquesii*	(Engl. & Warb.) Dubard			
Sapotaceae	*Synsepalum*	*brevipes*	(Baker) Pennington			
Sapotaceae	*Synsepalum*	*subverticillata*	E.A.Bruce			
Scrophulariacea	*Cycnium*	*adonense*	E.Mey. ex Benth.	ssp.	*adonense*	E.Mey. ex Benth.
Scrophulariacea	*Striga*	*asiatica*	(L.) Kuntze			
Selaginellaceae	*Selaginella*	*sp*				
Simaroubaceae	*Harrisonia*	*abyssinica*	Oliv.			
Solanaceae	*Capsicum*	*frutescens*	L.			
Solanaceae	*Solanum*	*incanum*	L.			
Sterculiaceae	*Cola*	*minor*	Brenan			
Sterculiaceae	*Cola*	*octoloboides?*	Brenan			
Sterculiaceae	*Cola*	*ululoma*	Brenan			
Sterculiaceae	*Melhania*	*ovata*	(Cav.) Spreng.			
Sterculiaceae	*Nesogordonia*	*holtzii*	(Engl.) Capuron	ssp.	*holtzii*	Capuron
Sterculiaceae	*Waltheria*	*indica*	L.			
Taccaceae	*Tacca*	*leontopetaloides*	(L.) Kuntze			

Thymelaeaceae	*Synaptolepis*	*kirkii*	Oliv.			
Tiliaceae	*Corchorus*	*aestuans*	L.			
Tiliaceae	*Corchorus*	*olitorius*	L.			
Tiliaceae	*Grewia*	*sulcata*	Mast.			
Tiliaceae	*Grewia*	*ectasicarpa*	S.Moore			
Tiliaceae	*Grewia*	*plagiophylla*	K.Schum.			
Tiliaceae	*Grewia*	*trichocarpa*	Hochst. ex A.Rich.			
Tiliaceae	*Triumfetta*	*rhomboidea*	Jacq.			
Ulmaceae	*Trema*	*orientalis*	(L.) Blume			
Urticaceae	*Laportea*	*lanceolata*				
Urticaceae	*Pouzolzia*	*fadenii*	Friis&Jellis			
Urticaceae	*Urera*	*sansibarica*	Engl.			
Urticaceae	*Urera*	*trinervis*	(Hochst.) Friis & Immelman			
Verbenaceae	*Clerodendrum*	*hildebrandtii*	Vatke	var.	*hildebrandtii*	
Verbenaceae	*Clerodendrum*	*incisum*	Klotzsch			
Verbenaceae	*Lantana*	*camara*	L.			
Verbenaceae	*Premna*	*zanzbarica?*				
Verbenaceae	*Stachytarpheta*	*urticifolia*	Sims			
Verbenaceae	*Vitex*	*doniana*	Sweet			
Verbenaceae	*Vitex*	*mombassae*	Vatke			
Verbenaceae	*Vitex*	*payos*	(Lour.) Merr.	var.	*glabrescens*	
Verbenaceae	*Premna*	*chrysoclada*	(Boj.)Gurke			
Verbenaceae	*Premna*	*discolor*	K. Krause	var.	*dianiensis*	
Violaceae	*Rinorea*	*arborea*	(Thouars) Baill.			
Violaceae	*Rinorea*	*ilicifolia*	(Oliv.) Kuntze	var.	*illicifolia*	
Violaceae	*Rinorea*	*squamosa*	(Tul.) Baill.	ssp.	*kaessneri*	(Engl.) Grey-Wilson
Vitaceae	*Ampelocissus*	*africana*		var.	*africana*	
Vitaceae	*Ampelocissus*	*obtusata*	Wild & R.B.Drumm.	ssp.	*kirkiana*	(Planch.) Wild & R.B
Vitaceae	*Cissus*	*rotundifolia*	(Forssk.) Vahl			
Vitaceae	*Cissus*	*sciaphila*	Gilg			
Vitaceae	*Cissus*	*slyvicola*	Masinde & L.E. Newton			
Vitaceae	*Cyphostemma*	*buchananii*	(Planch.) Wild & R.B.Drumm.			
Vitaceae	*Cyphostemma*	*kirkianum*	(Planch.) Wild & R.B.Drumm.	ssp.kirkianum		
Zingiberaceae	*Aframomum*	*orientale*				
Zingiberaceae	*Siphonochilus*	*brachystemon*	(K.Schum.) B.L.Burtt			

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