BALDUS

UNITED REPUBLIC OF TANZANIA

MINISTRY OF NATURAL RESOURCES & TOURISM

GAME DIVISION

MIOMBO RESEARCH CENTRE

THE VEGETATION OF THE EASTERN SELOUS GAME RESERVE

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MAY 1973

Section One: Introduction and General Methods

This Study area of the Miombo Research Centre, (38°30'E, 8°30'S) and virtually the whole of the Selous Game Reserve, fall into the south-east Tanzania block of deciduous woodland or "miombo" (Gilman 1949: Russell 1961). This vegetation type covers large areas of East and Central Africa, from Rhodesia in the south through parts of Mozambique, Angola, Zaire and through Zambia into south-western and eastern Tanzania. A physiognomically similar woodland exists in West Africa, the "Guinea savanna" (Ramsay & Rose-Innes 1963).

Within Tanzania this formation is estimated to cover almost 450,000 square kilometres, or just under half the total land surface. The south-eastern block is separated from the western areas by a drier zone running from the Rukwa through to Dodoma. This dry belt had suggested importance as a past link between the arid communities of Somalia and South West Africa (Carcasson 1964: van Zinderen Bakker 1967). The south-eastern block differs from the more typical western and Zambezian miombo floras by having less endemic miombo elements and by the inclusion of coastal elements, especially in the riverine and thicket communities. (Rodgers 1968: Hedberg 1966).

The miombo formation can be defined as follows: "A deciduous unarmed woodland occurring in the unimodal rainfall areas of East and Central Africa on old, acid, sandy soils. It is characterised by Caesalpinaceous trees, especially species of Brachystegia and Julbernardia. The ground cover varies from a dense coarse grass growth to a sparse cover of herbs and small grasses. The shrub layer is variable in density and species composition, often dominated by Diplorhyncus condylocarpon and species of Combretum. The whole is maintained by periodic dry season fires."

Maj r plant taxonomic collections of this area are those of Busse,1900 to 1903 and Schlieben from 1932 to 1934. These collections and species lists were not available for reference, and so a herbarium collection was initiated. This herbarium is maintained as a fully mounted,annotated herbarium at the Centre, with duplicates at Nairobi and Dar es Salaam. To date over 900 species have been identified by the East African Herbarium. This collection probably covers over 95% of the grass and woody species of the area; herbs are less well represented. An annotated species list, giving local vernacular and scientific names, is included.

Full aerial photograph coverage of the study area is available as fo lows:

1947 to 1952	Occassional flight lines RAF	1:32;000
1965	Full stereo cover	1:48,000
1970	Selected flight lines	1:10,000

Vegetation communities were recognised qualitatively over five years of field studies and located on air photographs. Species lists and determination of dominants were made for various communities, and these and data from collected specimens were mounted on punch cards, cross referenced for habitat, dominance and regional floristic affinities.

Selected areas were assessed quantitatively in terms of woody basal cover and species frequency. Grassland communities were assessed by a species frequency inventory at mile intervals along the road transect system.

A vegetation map, at a scale of 1:125,000, was drawn on to a base map from aerial photographs using a Zeiss Sketchmaster to reduce the photo scale of 1:48,000. The base map was overdrawn with the air photo flight lines and photo centres. A geometric diagram of a scaled down photograph showing photo centre, photo limits, stereo overlap and diagonals was used to minimise edge distortion. A mirror stereoscope was used to clarify vegetation boundaries. (Howard 1972).

Vegetation mapping at this scale necessitates some sacrifice of detail for final visual clarity. In practice any vegetation unit of less than 2 mm on the final map was not shown (Kuchler 1967).

Several of the vegetation boundaries are not discrete, and communities tend to merge rather than end abruptly: in such cases boundary lines are rather subjectively positioned.

Final colouration of the map was chosen to show major physiognomic types as well as individual associations.

No standard procedure of hierarchical classification exists for African vegetation. The following procedure is adopted for this report. The miombo woodlands of Africa as a whole are referred to as a "formation type". The word formation is used to denote separate physiognomic vegetation types - e.g. forest or grassland. These formations are divided into associations, which are frequently occurring vegetation groupings characterised by similar broad species dominance, physiognomy and ecology. Their terminology follows that described by Pratt, Greenway and Gwynne (1966) in their paper on the classification of East African rangeland. In this method, association names are compounded of dominant genera and physiognomic characters. In some cases, as in thickets, the choice of dominants is difficult, and I have resorted to geographical and ecological criteria. Two vernacular terms are partly retained in the terminology and text, both of which have extensive usage in East and Central Africa. These are "miombo", which now specifically refers to the Brachystegia/Julbernardia

communities, and "chipya", a Zambian term used to describe the fierce fire woodland communities with dense grass cover. The terms "upper valley" and "lower valley" as defined by Trapnell (1953) are useful categories, and they are partly retained in association names. Their relevance is discussed in the text.

Five physiognomic formations are recognised. These are:

(A) Forest - here defined as a closed stand of trees over 8 metres in height whose canopies touch. There may or may not be an understorey of shrubs or small trees. The ground layer, if present, is sparse.

(B) Thicket - here defined as a closed vegetation type dominated by shrubs and trees of less than 8 metres. Where emergents occur their crowns are not touching. A sparse ground cover may be present.

(C) Woodland - here defined as a vegetation type dominated by trees, but whose crowns are not touching and the ground layer is predominantly grass. An understorey of trees or shrubs may or may not occur.

(D) Scattered Tree Grassland - defined as an open vegetation type, dominated by grassland, with occasional trees or groups of trees. Canopy cover is less than 20%.

(E) Grassland - a completely open type with no, or very few, woody elements.

Within these formations, nineteen associations are recognised. These are:

(A) Forest Formation:
1. Ground Water Forest
2. Riverine Forest
3. Coastal Dry Evergreen Forest

(B) Thicket Formation:
1. Riverine Thicket
2. *Brachystegia microphylla* Thicket
3. Coastal Dry Thicket on Clays
4. Coastal Dry Thicket on Sands

(C) Woodland Formation:
1. *Brachystegia* woodland (Miombo)
2. *Pterocarpus-Pseudolachnostylis* woodland (Chipya)
3. *Pteleopsis-Millettia* woodland (Chipya)
4. *Combretum-Terminalia sericea* woodland

5. Upper Valley Mixed Woodland
6. Lower Valley, Combretum-Sclerocarya woodland
7. Shallow Soil Stunted woodland

(D) Scattered Tree Grassland Formation:

1. Terminalia spinosa-Spirostachys Wooded Grassland
2. Acacia-Combretum Shrub Short Grassland
3. Cassia-Combretum Shrub Medium Grassland

(E) Grassland Formation:

1. Seasonally Flooded Tall Grass Swamp

(F) Oddments:

1. Anthill Communities

This report is concerned only with the vegetation description, map and species list. More detailed treatment of vegetation succession, habitat affinities and productivity will be published at a later stage.

Section Two: The Habitat

The topography varies from a flat flood plain of recent origin at 120 metres a.s.l to low rolling hills of 800 metres a.s.l in the east. The underlying geology is the Karoo sandstone formation, which to the east becomes overlaid by Pleistocene gravels and sands and Recent alluvial clays (Rodgers 1968).

Three main soil types are recognised:

(1) Deep, well-drained, acid, old, red sandy earths on the Karoo formations. pH 4.5 to 6, very low N.P.K status.

(2) Alkaline grey clay sands, calcareous nodular hard pan at 30 cms depth, poorly drained. pH 9 to 9.5, low N.P.K status.

(3) Deep, black, cracking vertisolic clays. neutral pH, low N.P.K.status.

Annual rainfall averages 760 mm in a single rainy season from late November to early May. Temperatures and humidities are high.

Fires have been a feature of this environment for as long as settlement has been in existence. At present, policy is to early burn a mosaic approximately 60% burns every year.

Section Three: Vegetation Description

A.1 Ground Water Forest:

This association occurs as a discrete 10 km^2 area at the northern end of a large flood plain, where there is permanent water seepage. The southern half of the forest consists largely of mature wild date palms, Phoenix reclinata, overlooking muddy swamp pools. The northern half, away from the water seepage, becomes more similar to riverine forest. The canopy cover is dense, but no well-defined layering exists. Forest trees have buttressed boles and lianes are common, but not epiphytes. A ground cover exists only where the canopy is broken. The whole area is criss-crossed by the trails of hippopotamus, for which the forest offers a dry season refuge. The edge is sharply defined by the action of fire. Several small alkaline streams enter from the east, and saline plant species occur - e.g. Haplocoelum mombasense, Salvadora persica and Sporobolus virginicus.

Common trees are Phoenix reclinata, Hyphaene spp, Lepisanthes senegalensis, Alangium salviifolium, Balanites wilsoniana, Celtis wightii, Azanza garkeana, Sorendeia madagascariensis, Mimusops kummel and M. fruticosa, Calancoba and Memecylon spp, which present a continual evergreen aspect.

The understorey contains many Rubiaceae and Celastraceae - e.g. Tarenna, Canthium, Coffea, Psychotria and Tricalysia, and Elaedendron, Salacia and Mystroxylon. Commiphora species are common.

Several small isolated clumps are scattered around the edge. Tamarindus indica, Afzelia quanzensis, Hyphaene and Euphorbia species are common elements.

Grasses are mainly riverine - e.g. Leptochloa and Eleusine species. Cynodon dactylon and Chloris gayana are common in the clearings.

A small area of ground water forest occurs to the north of the study area, at Maua (38°10'E, 8°20'S), around a fresh water spring. Dominant species are Khaya nyassica, Ficus species and Sterculia appendiculata. Syzygium guineense and Majidea zanguebarica are common in the understorey. This is more similar to the ground water forests of Zambia (Lawton 1963 and Wild 1964).

A.2 Riverine Forest:

This is a varied association, occurring as true gallery forest along only two rivers - the Lungonyo and lower Lihangwa. isolated patches

occur on the Mwende. In all these cases the forest is rapidly decreasing due to both fire and river bank encroachment.

The gallery forest varies from a few metres to over 100 metres in width, with discrete fire maintained edges and several game trails. Where the forest has been cleared, many such trails lead to severe erosion gulleys. Dominant trees are Pterocarpus holtzii, Diospyros kirkii and D. mespiliformis, Sterculia appendiculata and Terminalia kilimandscharica. Albizia amara and A. zimmermanii are occasional elements. Common understorey trees are Garcinia livingstonei, Dalbergia arbutifolia, Erythroxylum emarginatum, Haplocoelum mombasense, Commiphora zanzibarica, Cleistochylamys kirkii, and Cola species.

The shrub layer contains many species, especially Rubiaceous elements - e.g. Lamprothamnus, Pavetta, Polysphaeria, Tricalysia etc. Grasses such as Leptochloa, Rottboelia, Heteropogon melanocarpus, Oryza are common in open glades.

Climbers such as Artabotrys, Abrus, Monodora and Entada are common. A fringe zone of shrubs such as the Malvaceae -- Thespesia, Urena and Hibiscus species with Deinbollia borbonica and Combretum goetzei is common.

One small relict forest of primarily riverine species occurs on clay soils away from major rivers. Examination of air photographs from 1949 shows these patches were more frequent even twenty years ago. Dominant trees are Diospyros, Mimusops, Sterculia and Afzelia.

There are a very few forest patches in the upland areas on more sandy acid soils. Where they occur Pterocarpus holtzii is common as a riverine tree. Mention must be made of a small (one hectare) forest at Mpapule on alluvium by permanent water. This forest patch is dominated by tall Trichilia emetica trees, with Ficus spp. The understorey is largely composed of Markhamia accuminata, Vangueria acutiloba and Cleistochlamys.

A.3 Coastal Dry Evergreen Forest:

Restricted to the higher areas (above 700 metres) of the western watershed, with an estimated rainfall of 1000 to 1200 mm per annum. The forest shows a dense stunted aspect on steep slopes with a closed shrub layer. Taller stands with an open ground layer occur on deep soil ridge tops. Usnea is common, but other epiphytes are rarely seen. The soil shows a permanent litter/humus layer of up to 5 cm and the top soil is a rich sandy loam.

Common canopy trees are Mimusops busseana, Albizia adianthifolia, Trachylobium, Brachylaena, Dracaena, Ricinodendron tomentellum, Ficus zanzibaricus, Manilkara discolor and M. sulcata, Pteleopsis, Strychnos sp. and Lannea sp.

Sapium, Drypetes, Fagara chalybea, Byrsocarpus bovinianus, Calancoba gigantocarpa and Hymenocardia are common in the understorey.

Typical thicket species occur on the slopes as a shrub layer - e.g. Croton pseudopulchellus, Grewia conocarpa, Salacia senegalensis, Lingelsheimia, Memecylon, Maerua and Uvaria species.

Climbers such as Combretum trothae and C. pedoides, Acacia brevispica and Schlecterina mitostemmatoides are frequent.

Polyneura squarrosa is a sparse creeping grass on the open floor.

B.1 Riverine Thicket:

As with the gallery forest, analysis of photographs reveals a general decrease in extent since 1949. This formation occurs in several forms:

1. Degraded riverine forest, still with occasional emergents such as Pterocarpus holtzii. Dense groves of Lamprothamnus, Polysphaeria, Haplocoelum etc.
2. Flood plain, fringing the major channels - Combretum constrictum with small composite shrubs - e.g Pluchea dioscoridis, Vernonia exsertifolia.
3. Drier areas on clay - Maytenus putterlickioides, Albizia anthelmintica, Capparis tomentosa, Harrisonia abyssinica, Dalbergia melanoxylon and the occasional baobab - Adansonia digitata.
4. Wetter areas on clay - Markhamia accuminata, Heinsia crinita.
5. On deep alluvial sands, often in association with trees such as Stereospermum, Trichilia, Kigelia and Dalbergia boehmii. Typical shrub species are Xylotheca glutinosa, Antidesma venosum, Pseorospermum febrifugum, Canthium zanzibaricum, Dichrostachys cinerea etc.
6. In miombo valleys where fire protected - Ziziphus abyssinica, Dichrostachys, Harrisonia, Maytenus senegalensis. etc.

B.2 Brachystegia microphylla Thicket:

Restricted to steep upper slopes of major hill systems, on poor soils. The canopy, which is light and feathery, virtually restricted to B. microphylla and the occasional Rhodo-

gnaphalon schumannianum. On better sites such trees as Cleistachne sp. Afzelia, Cussonia zimmermanii, Albizia petersiana and even Tamarindus indica have been seen as occasional emergents.

Common shrubs and small trees are Garderia resiniflua and Gardenia sp. = Mgaza 272 (both restricted to this association), Hymenocardia ulmoides, Strychnos henningsii and S. panganensis, Maerua kirkii, Lingelsheimia, Croton, Paropsia braunii, Rothmannia englerana, Vernonia zanzibarica, Acokanthera schimperi and Alchornea laxiflora. Usnea is common, grasses are rare, the ground usually being covered by B. microphylla seedlings.

B.3 Coastal Thicket on Clay:

This association occurs in small patches in this study area, but occupies a high proportion of the clay soil to the north. The soil is highly alkaline (pH 9.0 with high sodium content) and sets very hard in the dry season. The association is semi-deciduous and xeric in character.

Common emergents are Spirostachys africana, Afzelia, Manilkara mochisia and M. sp. (Muhike), Tamarindus and Millettia stuhlmannii. Diospyros cornii and D. bussei are common, as is Euphorbia candelabrum. Several shrub species occur, chiefly Cola species, Cleistochlamys, Commiphora, Suregada zanzibarensis, Erythroxylum emarginatum, Euphorbia grandicornis, Sansevieria species, Lamprothamnus, Teclea simplicifolia, Securinega virosa, Indigofera schimperi, Toddaliopsis, Dichapetalum, Croton and Harrisonia.

Several large seasonal water pans occur, often with hippopotamus, especially when fire produced open open woodland areas are close.

B.4 Coastal Thicket on Sands:

This occupies several large areas in the study area (totalling almost 150 km^2). Nearly always restricted to ridge tops or the upper slopes on deep sandy soils. It is semi-deciduous, with a virtually open ground layer and a sharp fire controlled edge.

Dominant emergents are Pteleopsis myrtifolia and Millettia stuhlmannii with occasional to common Commiphora serrata, Lannea sp. (Mumbo), Vitex species, Manilkara discolor and Oldfieldia somalensis. Understorey trees are: Calanceba, Markhamia obtusifolia, Drypetes gerrardii, Ochna holstii, Citropsis daweana, Cola microcarpa, Hymenocardia ulmoides, Memecylon sp, Fagara chalybea, Haploceleum inopleum, Wrightia sp, Erythroxylum emarginatum and Strychnos henningsii.

Common shrubs are Polyalthia sp., Uvaria acuminata, Salacia senegalensis, Dichapetalum spp., Croton pseudopulchellus, Grewia conocarpa, Lingelsheimia sp., Leptactina bussei, Strophanthus hispidus, Lindackeria sp., Alchornea laxiflora, Chassalia umbraticola, Clerodendrum spp., Pentas parvifolia and Mildbraedia carpinifolia.

Climbers are common, viz: Hugonia castaneifolia, Combretum trothae and C. padoides, Acacia brevispica (sp. aff), Schlecterina, Monodora junodii, Ancyclobothrys petersiana and Landolphia sp.

Small ephemeral herbs are common in the ground layer - e.g. Triumfetta kirkii. Thicket grasses such as Megastachya mucronata and Panicum heterostachyon occur.

An occasional variant of this type is a thicket dominated by Manilkara discolor and M. sulcata often found just above the Brachystegia microphylla zone.

The thicket to the west of Balani is unusual in that it is completely deciduous and poor in species composition. Pteleopsis and Millettia are complete dominants, and Leptactina bussei the commonest shrub. This community gives rise to the Pteleopsis, Millettia woodlands when opened up by fire.

Isolated thicket and pioneer thicket clumps are occasionally found. Landolphia spp., Markhamia obtusifolia, Grewia conocarpa, Monodora junodii, Hymenodictyon floribundum and Vernonia zanzibarica are amongst the earliest pioneer species.

On isolated steep scarps a drier variant occurs, composed almost entirely of Diospyros bussei, Croton pseudopulchellus and Strychnos henningsii.

C.1 Brachystegia Woodland (Miombo):

This association is the true "miombo" of Central Africa. It rarely reaches the height, density or species richness of the Zambian form, and often contains coastal elements. Here it is dominated by Brachystegia spiciformis and Julbernardia globifera, either together or separately. Julbernardia appears to dominate on poorer soils. The shrub layer is dominated by Diplorhynchus condylocarpon and Byrsocarpus orientalis; occasional Xeromphis obovata, Tetracera masuiana, Ximenia caffra and Flacourtia indica occur. Hugonia busseana and Lonchocarpus eriocalyx are common understorey trees. The ground layer is more open than the fierce fire woodland; rarely are dense, coarse strands of grass present. Herbs, sedges and

suffrutices are common. Grasses are sweet, chiefly Panicum infestum, with several small species such as Sporobolus ioclados and Sporobolus subglobosus.

Other Brachystegia species are more restricted in their distribution. Mention has been made of B. microphylla, which can occur as a woodland dominant on steep, rocky soils, without a thicket understorey.

B. utilis is rare in this area, but can be found on steep slopes below the B. microphylla zone.

B. bussei is usually restricted to poor, steep slopes, but is occasionally found in dense groves in valley bottoms.

B. boehmii is common on lower slopes of higher clay content, often in poorly drained areas.

In deep shade, and usually fire protected, thicket pioneer clumps occur: Landolphia and Leptactina bussei are common.

Throughout this association, occasional trees of Afzelia, Ficus sp., Pterocarpus angolensis, Pteleopsis, Millettia stuhlmannii, Pseudolachnostylis and Strychnos innocua occur.

Pterocarpus-Pseudolachnostylis Woodland (Chipya):

Referred to as "chao" in this area, this is the basic fierce fire woodland, with a dense coarse grass cover. Dominant and common trees are Pseudolachnostylis, Pterocarpus angolensis, Pteleopsis myrtifolia, Millettia stuhlmannii, Combretum zeyheri and C. binderanum, Strychnos innocua, Boscia salicifolia and Xeroderris stuhlmannii.

Shrubs are rare and subject to severe die back due to fierce annual fires. Terminalia sericea seedlings may be common. Grasses are sour and coarse, and dominated by Andropogon schirensis and Hyparrhenia spp. Sedges, small grasses and herbs are not common. Herbs, where they do occur, are semi-suffruticose, such as Crotalaria and Phyllanthus.

A richer form occurs, dominated by Burkea, Amblygonocarpus and Erythrophleum africanum. It is not known whether this is a successional series or edaphically controlled.

A related form occurs on the slopes of the Tundu Hills, which is dominated by Boscia salicifolia, Pseudolachnostylis and some Pterocarpus and Millettia. Grewia monticola is a common constituent of the shrub layer.

On the lower slopes of upland valleys, a woodland dominated by Pseudolachnostylis is common. The grass layer is dominated by Loudetia arundinacea and Tristachya bequartii. The lack of fire sensitive elements, and a dense grass layer, warrants its inclusion in this association.

C.3 Pteleopsis-Millettia Woodland (Chipya):

Possibly a variant of C.2 (above), but is discrete and readily identifiable. Trees are almost exclusively Millettia stuhlmannii and Pteleopsis, with a few Schrebera trichoclada. One occurrence of this community is adjacent to the deciduous thicket variant discussed under B.4. Markhamia obtusifolia and Millettia micans are dominant shrubs. Pseudolachnostylis has only been seen as a rare seedling and sapling.

C.4 Combretum-Terminalia Tall Grass Woodland:

As will be shown later, this is a successional stage following cultivation, and will revert to a miombo or chipya form in time.

The woodland is dominated by trees of Terminalia sericea, Combretum zeyheri, Pseudolachnostylis and Ostryoderris. Suffrutices of T. sericea are very conspicuous in the ground layer. Grasses are predominantly tall and coarse, Andropogon schirensis, Loudetia simplex. Tristachya and Themeda are common.

Other trees found are Combretum binderanum and C. molle, Lannea sp. (Mwipwi), and Lonchocarpus eriocalyx and Pterocarpus angolensis. More mature woodland contains more Pterocarpus, Burkea, Erythrophloeum, Millettia and Afzelia. Shrubs are more common, especially Diplorhynchus, Pterocarpus orientalis and Xeromphis. Saplings of B. spiciformis occur. The grass cover becomes more open and sweet, with Panicum infestum and several herbs.

Occasional copses of mature B. spiciformis occur.

C.5 Upper Valley Mixed Woodland:

A complex and heterogenous zone with many variants. They occur in the valley bottoms of all upland sandy alluvial valleys or "dambos". As such they are aptly described by the blanket association term "upper valley mixed woodland".

Type 1: Dominated by Pericopsis angolensis, Vitex doniana and Hyphaene species. Albizia versicolor, A. harveyi and

Acacia nigrescens are common, with the occasional Tamarindus and Dalbergia boehmi and Kigelia aethiopum and Cleistachne. Tamarindus, Ziziphus sp. and Boscia angustifolia are common on anthills. Grasses are tall and dense, and include Panicum maximum, P. aphanoneurum, Cymbopogon giganteum and the occasional Setaria.

Type 2: On more sandy soils. Acacia sieberana, Piliostigma thonningii, Lonchocarpus capassa and several Combretum species - e.g. C. collinum, C. psidiodes, C. fragrans and C. molle. Annona senegalensis is common. Ricinodendron rautanenii sometimes occurs.

Shrubs of Xeromphis, Maytenus senegalensis, Mimosa pigra, Securinega, Dichrostachys and Ziziphus are common to both forms.

Lower Valley, Combretum-Sclerocarya Woodland:

An equally heterogenous associes. Found on the more extensive and gentle slopes of the lower valleys. It also shows sandy and clay communities. Soils are usually pale, and the community is an inter-zone between the woodland and scattered tree grassland.

Type 1: On more sandy soils of drainage lines such as Chimbiriri and Balenje, Sclerocarya caffra, Crossopteryx febrifuga, Combretum species, Manilkara mochisia and the occasional Brachystegia boehmi, Pseudolachnostylis and Xeroderris are common.

Type 2: On clay soils, drying hard and slightly alkaline, the following are common: Dalbergia melanoxylon, Acacia nigrescens, Albizia harveyi, Dobera glabra, Berchemia discolor, Sclerocarya caffra, Combretum species, Lonchocarpus capassa and L. eriocalyx. Combretum imberbe and Balanites aegyptiaca in some lower areas. Mimusops schliebenii, Manilkara mochisia and Tamarindus are common on anthills. The occasional water pan occurs with fringing thicket. The baobab and Sterculia africana are characteristic elements.

In both types the shrub layer is poorly developed. Diospyros usum-barensis, Ziziphus sp., Turraea nilotica and Cassia petersiana are common. Acacia nilotica and A. clavigera occur.

Grasses vary from tall Themeda, Hyparrhenia, Loudetia communities to medium Hereropogon contortus and Digitaria milanjiana on heavier soils. Panicum infestum is common in shade.

4.4 Stunted Woodland on Stony Slopes:

Common in other parts of the Selous, here restricted to small areas near Balenje and Nunga to Mpapule. Stunted Julbernardia and Brachystegia boehmi occur. Uapaca nitida is restricted to this community in this area. Diospyros busse, and Dalbergia melanoxylon are common, as is Acacia robusta. Alloteropsis semialata is a characteristic grass species.

4.5 Terminalia spinosa-Spirostachys Wooded Short Grassland:

The dominant vegetation type on alkaline, poorly-drained, sandy clay soils in the absence of thicket.

Terminalia spinosa is the characteristic dominant, although in some areas it gives way to pure Spirostachys africana. Other common trees are Acacia nigrescens, Afzelia, Sterculia africana, Cassia petersiana, Albizia harveyi, Sclerocarya caffra, Dobera glabra and, on anthills, Tamarindus, Euphorbia candelabrum, Mimusops schliebenii, Manilkara mochisia and Berchemia discolor.

Common small trees and shrubs are Diospyros usumbarensis, Cassia petersiana, Acacia senegal, A. zanzibarica and A. robusta, Dalbergia melanoxylon, Turraea nilotica and Markhamia acuminata; Combretum hereroense is very common.

The grass cover is short, usually less than 60 cms., and sweet. Common species are Sporobolus ioclados, Digitaria milanjiana, Panicum infestum and many annual species of Eragrostis, Brachiaria, Ctenium, Urochloa, Aristida and Chloris. Sedges, especially Mariscus mollipes, are common. The herb layer is dominated by Cynthula lanceolata, Heliotropium strigosum, Cassia mimosoides, and Tephrosia pumila. Patches of ungrazed fire-resistant Pennisetum pertusa are common.

To the south, on heavier clays, trees, especially Terminalia spinosa, become less conspicuous, although several dead stumps indicate greater densities in the past. The grass cover becomes more dense and dominated by Heteropogon contortus and Digitaria milanjiana.

Several permanent and semi-permanent water pans occur with a fringing thicket of Markhamia acuminata, Lamprothamnus and Polysphaeria, and trees of Mimusops and Tamarindus and the occasional baobab.

4.6 Acacia-Combretum Shrub Short Grassland:

Small areas in the vicinity of the Miombo Research Centre headquarters

show a community dominated by Acacia robusta, A. senegal, and what is probably A. germaniii. Combretum hereroense and some C. zeyheri are present. Both Terminala spinosa and Spirostachys africana are absent. The status of this community is not known.

D.3 Cassia-Combretum Shrub Medium Grassland:

Running across types D.1 and D.2 are low sandy ridges which bear a characteristic vegetation type. Both Terminala spinosa and Spirostachys are absent, and common trees are Xeroderris, Sclerocarya and the occasional Pseudolachnostylis, Burkea, Lonchocarpus eriocalyx and Lannea sp. (Mpwipwi). Combretum zeyheri, C. molle and Cassia petersiana dominate the shrub layer, with some Diospyros usumbarensis, Turraea nilitica and both Markhamia acuminata and M. obtusifolia. occur in this type.

Grasses are dense, and chiefly Themeda, Heteropogon and Hyparrhenia spp., with some Panicum infestum in shade. Astripomoea malvacea is dominant in the herb layer.

E.1 Seasonally Flooded Tall Grass Swamp:

Occurs in two major localities, the main flood plain of the upper Lungonyc River (c. 125 km^2) and a smaller plain at Nangue (c. 25 km^2).

Nangue is dominated by Sataria sphacelata, Echinochloa haploclada and Andropogon gayanus, Several dead tree stumps (mainly Dalbergia melanoxylon) indicate a possible recent increase in area.

The Lungonyo flood plainsis bordered by trees of Combretum imberbe and Balanites aegyptiaca. Major channels are bordered by Combretum constrictum.

Grass dominants are Echinochloa haploclada, Ischaemum afrum, Setaria sphacelata, Andropogon gayanus, Bothriochloa glabra and Vetiveria nigritana and V. zizaniodes. The edges are characteristically Echinochloa, Themeda and Digitaria milanjiana, and tussock Sporobolus such as S. pyremidalis; Imperata cylindrica occurs in small areas.

There is a rich herb flora and occasional outcrops of Sesbania hirtistyla and Aeschynomene spp.

F.1 Ant Hill Communities:

These present a very diverse flora, only partially related to the surrounding community. In general, anthills provide a more alkaline base rich habitat and this is reflected by the vegetation cover,

Tamarindus, Mimusops schliebenii and Manilkara mochisia have already been mentioned as common anthill trees. Smaller trees are Commiphora spp., Salvadora, Cleistochlamys, Ziziphus spp., including Z. pubescens, and Ehretia amoena and Cordia spp. Euphorbia candelabrum and several fleshy climbers are common, as are species of Pavetta and other Rubiceae. Grasses are often sweet, and include Leptochloa, Cynodon, Sporobolus and Chloris virgata.

Section Four: Annotated Species List for the Eastern Selous Game Reserve

1. Families are arranged alphabetically, as are the generic and specific names.

2. Full authorities are given for each name.

3. The abbreviations indicate the following:

   a) First column (in capitals) Habit

   e.g. H = Herb
   F = Suffrutex
   C = Climber
   S = Shrub
   T = Tree
   A = Annual
   P = Perennial

   Combinations may be used.

   (b) Second column (small letters) Distribution and frequency

   e.g. l = local
   w = widespread
   r = rare
   o = occasional
   c = common
   d = dominant

   (c) Third column (capital letters) Habitat

   e.g. M = Woodland (all types, miombo, chipya, valley etc.)
   OW = Scattered Tree Grassland and Scrubland (all types)
   T = Thicket and forest
   R = Riverine communities
   GW = Ground Water Forest
   S = Swamp and flood plain

   (d) Fourth column: R and a number is the collecting reference number. SN indicates no number has been assigned.

4. The vernacular name in common use is given. This is nearly always Kingindo: 'S' indicates Swahili.

5. The suffix (P) after a family name denotes a Pteridophyte; the suffix (M) denotes a monocotyledon.

6. F.T.E.A. and a year in brackets after a family name indicates the year the family was published for the Flora of Tropical East Africa. In a few cases, more recent authorities for the family are cited as well.

ACANTHACEAE

Asystasia gangetica (L) Anders	H	-	-	R219-379	
Barleria prionitis (L)	HC	-	-	R385-654	
B. setigera Rendle	HC	-	-	R40	
B. sp.	H	-	-	R603	
Blepharis maderaspatensis	H	-	-	R1306	
B. panduriformis Lindau	H	-	-	R297	
B. sp.	H	-	-	R302	
Brillantaisia pubescens Oliv	H	-	-	R1337	
Dyschoriste sp.	H	-	-	R435	
Ecbolium sp.	H	-	-	R993	
Hygrophila sp.	H	-	-	R1007	
Hypoestes verticillaris (L.f) R.Br.	H	-	-	R1081	
Justicia fittoniodes S. Moore	H	-	-	R1367	
J. insularis T.Anders	H	-	-	R968-969	
J. nyassana Lindau	H	-	-	R1332	
J. stachytarphetoides (Lindau) C.B. Cl.	H	-	-	R1103	
J. uncinulata Oliv	C	-	-	R177	
J. sp. nr. nyassana Lindau	H	-	-	R286	
J. sp.	H	-	-	R324-189	
Monechma debile (Forsk) Nees	H	-	-	R1402	
Phaulopsis sp.	H	-	-	R1060	
Pseuderanthemum hildebrandtii (Lindau) C.B. Cl.	H	-	-	R322	
Ruspolia seticalyx (C.B.Cl) Milne-Redh.	S	-	-	R.319	
Schlerochiton vogelii (Nees) T.Anders ssp. holstii (Lindau) Napper	S	lc	T	R896	
Thunbergia sp.	H	-	-	R215	

AGAVACEAE

Dracaena usembarensis Engl.	T	lc	T	R933	Mtetema S
Sansevieria sp.1	S	lc	T	R560	Konge Mwitu S
S. sp.2	S	lc	T	R1066	Konge Mwitu S

AIZOACEAE F.T.E.A. (1961)

Gisekia pharnaceoides L	H	-	-	R1218
Glinus latoides L.	H	-	-	R373-485
Limeum viscosum (Gay) Fenzl	H	-	-	R485+1324
Mullugo nudicaulis Lam.	H	-	-	R1407

LISMATICEAE F.T.E.A. (1960)

urnatia enneandra Micheli	H	-	-	R981

ALANGIACEAE F.T.E.A. (1958)

Alangium salviifolium (L.f)Wangerin	T	o	GW	R847

AMARANTHACEAE

Aerva lanata (L) Juss.	H	-	-	R325
A. leucura Moq. var. lanatoides Suesseng.	H	-	-	R386
Alteranthera sessilis (L) R.Br.	H	-	-	R374
Centemopsis Kirkii (Hook.f) Schinz	H	-	-	R1313
Cyathula lanceolata Schinz	H	-	-	R179
Pupalia lappacea Juss	H	-	-	Rsn(DSM614)
Psilotrichum scleranthum Oliv	S	lo	RT	R1014
Pupalia atropurpurea Moq.	H	-	-	R176

AMARYLLIDACEAE (M)

Ammocharis tinneana (Kotschy & Peyr) Milne-Redh. & Schweick	H	-	-	R87
Haemanthus filiflorus Bak.	H	-	-	R550

ANACARDIACEAE

Lannea schimperi (A.Rich.) Engl	T	r	M	R1227	Mumbo ya Bondi K
L. stuhlmannii (Engl.) Engl	T	f	M/OW	R68	Mpwirwi K
Ozoroa reticulata (Bak.f) Engl	T	r	M	R206	Mtukwambako K
Sclerocarya caffra Sond.	T	c	OW/M	R54	Mng'ongo S
Sorindeia madagascariensis DC	T	r	CW/R	R781	Mpilipili S

ANNONACEAE F.T.E.A. (1971)

Artabotrys sp. nr. brachypetalus Benth.	C	o	R	R771	Mng'ombe K
Annona senegalensis Pers.	T	ol	M	R1070	Mtopetope S
Cleistochlamys kirkii Oliv	T	f	TR	R663	Mgongolo K
Hexalobus monopetalus (A.Rich) Engl.	T	lf	MR	R704-778	Mkungumwali K
Monanthotaxis buchananii (Engl) Verdc.	C	lo	T	R958	
Monodora grandidieri Baill.	S	lo	T	R1359	
M. junodii Engl. & Diels	S	lo	T	R1003	Mngamba Kamba K
Polyalthia sp. near P. korinti (Dun) Hook,f. & Thoms	S	fw	T	R608	Mmjechwe K

ANNONACEAE (continued)

Uvaria acuminata Oliv	S	fw	T	R166-651	Muhou	K
U. kirkii Hook.f.	S	lc	R	R816	Mkonjiganga	K
Xylopia parvifolia (A.Rich) Benth	T	lo	T/OW	R1193		
X. odoratissima Oliv	T	wo	M	R1166	Kipondo	

APOCYNACEAE

Acokanthera schimperi (A.D/C) Benth	T	lc	T	R	Sumu	S
Adenium obesum (Forsk.) Roem.& Schult.	H	o	OW	R736-42		
Ancylobothrys petersiana (Kl.) Pierre	C	o	T	R521	Mambome	K
Carissa edulis (Forsk.) Vahl	S	o	OW/R	R676		
Carvalhoa macrophylla K. Schum.	T	o	RT	R932	Lulaa	K
Diplorhynchus condylocarpon (Mueil./Arg.) Pichon	T	dw	M	R67-430	Mtomoni	K.S
Holarrhena febrifuga Klotzsch	T	o	MT	R646	Litogo Lilume	K
Landolphia kirkii Dyer	S	w	MT	R249-95-730	Kibungo	K
L. parvifolia K. Schum.	C	o	T	R354		
Schizozygia coffaeoides (Boj.) Baill.	S	c	R	R20		
Strophanthus hispidus DC	S	lo	T	R1054	Lipembe-ya-mbawala	
Wrightia natalensis Stapf.	T	lr	T	R1051	Umbwiga	

ARALIACEAE F.T.E.A. (1968)

Cussonia zimmermannii Harms	T	r	T	R910	Mtumbitumbi	

ASCLEPIADACEAE

Aspidoglossum interruptum (E.Mey.) Bullock	H	-	-	R1221		
Calotropis gigantea (L) Ait.	H	-	-	R1430		
Cryptolepis sp.	H	-	-	R1329		
Pachycarpus spurius (N.E.Br) Bullock	S	r	M	R966	Mwembere	
Stathmostelma paucifloruum (Klotzsch) K. Schum.	H	-	-	R460		
Tylophora stenoloba (K.Schum.) N.E. Br.	C	lc	R	R819		

BALANITACEAE

Balanites aegyptiaca (L.) Del.	T	wc	OW	R1115	Mnuwili	S
B. wilsoniana Dawe & Sprague	T	lc	GW/R	R868		
B. sp.	T	o	T	R278	Mnuwili ya Msitu	S

BIGNONIACEAE

Fernandoa magnifica Seem	T	lo	T	R1247		
Kigelia africana (Lam.) Benth.	T	lc	R	R669	Mtandi	S
Markhamia acuminata (Klotzsch) K.Schum.	ST	c	OW/R	R86	Mtandawala	S
M. obtusifolia (Bak.) Sprague	ST	lc	T/M	R575	Mpugupugu	S.K
M. zanzibarica Engl.	ST	r	R	R497	Mtalawanda	S
Stereospermum kunthianum Cham.	T	lo	R/M	R405	Mngongolo	

BOMBACACEAE

Adansonia digitata L.	T	wo	OW/R/M	R472	Mbuyu	S
Rhodognaphalon schumannianum A.Robyns	T	lo	T/M	R s.n	Msufi Pori	S

BORAGINACEAE

Cordia goetzei Guerke	S	o	R	R731		
C. sp. near C. myxa L.	S	lo	R	R1147	Mnamata mpiata	
C. ovalis DC.	S	o	R/OW	R826		
C. sinensis Lam. (C. gharaf)	S	lc	R	R794		
C. sp.	T	o	GW	R829	Ubavu wa faro	S
Ehretia amoena Klotzsch	S	c	R/OW	R551	Mkakatale	
E. litoralis Guerke	S	lc	GW	R1204		
Heliotropium baclei DC var. rostratum Johnston	H	-	-	R4		
H. indicum L.	H	-	-	R351		
H. ovalifolium Forsk.	H	-	-	R7		
H. strigosum Willd.	H	-	-	R178		
H. subulatum (DC.) Martelli	H	-	-	R427		
H. supinum L.	H	-	-	R366		

BURSERACEAE

Commiphora fulvotomentosa Engl.	T	lo	T	R1294	Mpome	
C. pteleifolia Engl.	T	l	T/R	R1211	Mpome	
C. serrata Engl.	T	c	T	R798	Mpome	
C. ugogensis Engl.	T	o	T	R576/1215	Mpome	
C.zanzibarica (Baill.) Engl.	T	c	GW/R/OW	R610	Mjengaua	S
C. sp. nr. C. puguensis Engl.	T	l	R/GW	R988	Ubavu	S
C. sp. nr. C. madagascariensis Jacq.	TS	o	T	R515	Mpome wasMsitu	
C. sp. = Harris 584	T	o	T	R528		
C. sp.	S			R564		

CAESALPINIACEAE (FTEA (1967)

Afzelia quanzensis Welw.	T	wo	M/T/OW	R1345	Mkongo	S
Bauhinia tomentosa L.	S	c	R	R238	Kiubahuba	
Brachystegia boehmii Taub.	T	wf	M	R52	Muyombo	S
B. bussei Harms	T	lc	M	R105	Mgelegele	
B. microphylla Harms	T	d	T	R715	Muhani	
B. spiciformis Benth.	T	d	M	R51	Mtondo	S
B. utilis Hutch. & Burtt Davy	T	o	M	R699	Muhiga	
Burkea africana Hook.	T	wf	M	R210	Mpuga	
Cassia abbreviata Oliv.	T	c	OWM	R	Mkundekunde	S
C. absus L.	H	-	-	R983		
C. burtii Bak. f.	S	lo	R	R1352		
C. grantii Oliv.	H	-	-	R959		
C. mimosoides L.	H	-	-	R200		
C. obtusifolia L.	S	lo	M	R1302		
C. petersiana Bolle	S	f	OW	R211	Mkundekunde	S
C. siamea Lam.	T	o	OW	R	Msonobali	S
C. singueana Del.	S	l	OW	R518		
C. sp.	T	o	M	R688		
Cordyla africana Lour.	T	r	M	R416	Mndundu	
Cryptosepalum maraviense Oliv.	F	lo	M	R542	Mgome	
Dialium holtzii Harms	T	lo	T/M	R1162		
Erythrophleum africanum (Benth.) Harms	T	f	M	R205	Mkaa	S
Julbernardia globiflora (Benth.) Troupin	T	d	M	R717	Mchenga	S
Tamarindus indica L.	T	c	OW/T/M	R	Mkwachu	S
Tessmannia densiflora Harms	T	o	T	R1319	Muindeu	
Trachylobium verrucosum (Gaertn.) Oliv.	T	ol	T	R418	Mtandalusi	S
Tylosema fassoglensis (Schweinf.) Torre and Hillcoat	H	-	-	R740		

CAMPANULACEAE

Lightfootia leptophylla L.H. Wright	H	-	-	R1046		

CAPPARACEAE FTEA (1964) (Capparidaceae)

Boscia angustifolia A. Rich. var. corymbosa (Gilg) De Wolf	T	l	M	R421	Mkondamgunga	
B. salicifolia Oliv.	T	c	M	R50	Mlindinde	
Cadaba farinosa Forsk.	S	lo	OW	R1159		
Capparis tomentosa Lam.	S	lc	R	R674		
Cleome hirta (Klotzsch) Oliv.	H	-	-	R1398		
Cynandropsis gynandra (L.) Briq.	H	-	-	R1399		

CAPPARACEAE (continued)

Maerua angolensis DC.	T	o	OW	R543	
M. bussei (Gilg & Bened.) Wilczek	T	o	T	R763	
M. edulis (Gilg & Bened.) De Wolf	H	c	OW	R425	
M. holstii Gilg	S	l	OW	R1069	Muhanga mbwile
M. kirkii (Oliv.) F. White	T	o	T/OW	R417	Muhakala
M. sp. near bussei (Gilg & Bened.) Wilczek	F	lc	M	R452	

CARYOPHYLLACEAE FTEA (1956)

Polycarpaea corymbosa (L.) Lam.	H	-	-	R223	

CELASTRACEAE (including Hippocrateaceae)

Elaeodendrum buchananii (Loes.) Loes	T	r	OW/M	R247	Kihokole
E. schlechteranum (Loes.) Loes.	S	l		R1344	Mtolob
E. schweinfurthianum (Loes.) Loes.	S	lc	GW	R1102	Mtoloba
E. sp.	S	lc	GW	R1125	Mtoloba
Hippocratea sp.	C	lo	T	R939	Umbula
Maytenus senegalensis (Lam.) Exell	T	f	R/M	R270	Muhokoveli
M. putterlickioides (Loes.) Exell & Mendonca	S	o	R	R400	Muhokoveli mwitu
Mystroxylon aethiopicum (Thunb.) Loes.	T	l	R	R1133	
Salacia bussei Loes.	F	lc	M	R733	
S. senegalensis (Lam.) DC.	SC	f	T	R412	Mrdumbi
S. madagascariensis (Lam.) DC.	SC	lo	T/R	R1110	
S. stuhlmanniana Loes.	SC	lc	R/GW	R1121	Mndumbi ya bondo
S. sp. = Mgaza 356	S	lc	T	R1228	Mchengechenge

CHAILLETIACEAE

Dichapetalum mossambicense (Klotzsch) Engl.	S	o	T	R776	Kibaba
D. stuhlmannii Engl.	TS	c	T	R411	Muhunihuni

COMBRETACEAE

C. Combretum collinum Fres. ssp binderanum (Kotschy) Okafor	T	wc	M	R356	Muhindila
C. collinum Fres. ssp. suluense (Engl. & Diels) Okafor	T	lc	M	R420	Muhulalio mwitu
C. collinum Fres. ssp. taborense (Engl.) Okafor	T	lc	M	R207	Muhulalio
C. constrictum (Benth.) Laws.	S	lc	R	R46	Kipupulu
C. fragrans F. Hoffm.	T	f	M	R429	Likope liboile
C. goetzei Engl. & Diels	S	lc	R	R422	Kipupulu
C. hereroense Schinz	T	f	OW	R424	Mtikanyumbu

COMBRETACEAE (continued)

. imberbe Engl.	T	lc	OW	R581	Mpangati
. molle G. Don	T	wf	M	R235	Kimbilia
. obovatum O. Hoffm.	T	o	M	R272	Mlama S
. padoides Engl. & Diels	C	lc	T	R278	Likochoka-munga
. pentagonum Laws.	S	lc	R	R535	Kigokulu
. psidoides Welw.	S	o	M	R913	Kimbilia kubwa
. trothae Engl. & Diels	S	lc	T	R879	Likocho kumnga
. zeyheri Sond.	T	wf	OWM	R196	Mgonogo
Pteleopsis myrtifolia (Laws.) Engl. & Diels	T	wf	M/T	R15	Mnepa S
Terminalia kilimandscharica Engl.	T	lc	R	R262	Mkuliungu
. mollis Laws.	T	lc	M	R743	
. sericea Burch.	T	wf	M	R423	Mchuya
. spinosa Engl.	T	wd	OW	R352	Mkambale
. stenostachya Engl. & Diels	T	lc	M	R950	Mchuya mkubwa

COMMELINACEAE (M)

Aneilema pedunculosum C.B.Cl.	H	-	-	R320	
Commelina bracteosa Hassk.	H	-	-	R76	Nelela
. erecta ssp. livingstonii (C.B.Cl.) J.K. Morton	H	-	-	R129	
. forskalaei Vahl	H	-	-	R1403	
. subulata Roth vel sp. aff.	H	-	-	R1299	
Cyanotis lanata Benth.	H	-	-	R1002	Likolowa
Murdannia simplex (Vahl) Brenan	H	-	-	R99	

COMPOSITAE

Ageratum conyzoides L.	H	-	-	R468	
Aspilia kotschyi (Hochst.) Oliv.	H	-	-	R1058	
. sp.	H	-	-	R1024	
Bidens grantii (Oliv.) Sherff	H	-	-	R217	Lipigipigi
Blumea aurita (L.f.) Wight	H	-	-	R384	
Brachylaena hutchinsii Hutch.	T	lc	T	R684	Mmelendende
Conyza sp.	H	-	-	R481	
Dicoma sessiliflora Harv.	H	-	-	R701	Lihomanga
Eclipta prostrata (L.) L.	H	-	-	R554	Linyunyu
Emilia integrifolia Bak.	H	-	-	R980	
Erythrocephalum minus Oliv. & Hiern	H	-	-	R198	
Gnaphalium luteoalbum L.	H	-	-	R484	
Grangea maderaspatana Poir.	H	-	-	R483	

COMPOSITAE (continued)

Gutenbergia sp.	H	-	-	R221	
Hypericophyllum compositarum Steetz s.lat.	H	-	-	R203	
Lactuca capensis Thunb.	H	-	-	R458	Sunga S
Launaea cornuta (Oliv. & Hiern) C. Jeffrey	H	-	-	R326	
Melanthera albinervia O. Hoffm. ssp. albinervia	H	-	-	R1234	
Pluchea dioscoridis (L.) DC.	S	lc	R	R22	
Sonchus sp.	H	-	-	R130	
Sphaeranthus africanus L.	H	-	-	R557	
S. ukambensis Volkens & O. Hoffm.	H	-	-	R434	
Vernonia aemulans Vatke	H	-	-	R119	
V. chloropappa Bak.	H	-	-	R605	
V. exsertiflora Bak.	S	o	GW	R340	
V. glabra (Steetz) Vatke	S	o	R	R1009	
V. pauciflora Less.	H	-	-	R214	
V. petersii Oliv. & Hiern	H	-	-	R1305	
V. poskeana Vatke & Hildebr.	H	-	-	R1314	
V. stuhlmannii O. Hoffm.	S	l	T	R1057	
V. zanzibarensis Less.	S	l	T	R705	Lipuyungu
V. sp.	H	-	-	R213	

CONNARACEAE FTEA (1956)

Byrsocarpus boiviniamus (Baill.) Schell.	CS	r	T	R522	
B. orientalis (Baill.) Bak.	T	wf	M	R493	Dawa ya Moto S
Vismianthus punctatus Mildbr.	S	lo	T	R1334	

CONVOLVULACEAE

Astripomoea malvacea (Klotzsch) Meeuse	H	-	-	R308	
Bonamia mossambicensis (Klotzsch) Hall.f.	C	-	-	R287	
Hewittia sublobata (L.f.) Ktze.	C	-	-	R285	
Ipomoea aquatica Forsk.	C	-	-	R132	
I. cairica (L.) Sweet	C	-	-	R323	
I. crepidiformis Hall.f. var. crepidiformis	C	-	-	R1393	
I. intrapilosa Rose	C	-	-	R713	
I. sp.	C	-	-	R321	
Jacquemontia paniculata (Burm.f.) Hall.f.	H	-	-	R1384	Bwalabwaya
J. tamnifolia (L.) Griseb.	H	-	-	R1077	
Merremia pinnata (Choisy) Hall.f.	H	-	-	R1076	
Seddera hirsuta Hall.f. var.gracilis	H	-	-	R1395	
Turbina stenosiphon (Hall.f.) Meeuse	C	-	-	R246	

CRASSULACEAE

Kalanchoe sp.	H	-	-	R403	

CRUCIFERAE

Rorippa madagascariensis (DC.) Hara	H	-	-	R370	

CUCURBITACEAE FTEA (1967)

Coccinia grandiflora Cogn.	C	lr	T	R1067	
Corallocarpus sp. = Koritschoner 2109	C	-	-	R1400	
Kedrostis foetidissima (Jacq.) Cogn.	C	-	-	R383	
Momordica trifoliolata Hook.f.	C	-	-	R41	
Cucumis hirsutus Sond.	C	-	-	R954	Lutanga kan
C. sp.	C	-	-	R301	

CYPERACEAE (M) see papers by D.M. Napper in J.E.A.N.H.S. (1963-71)

Bulbostylis aphyllanthoides (Ridl.) C.B.Cl.	R1026
B. barbata (Rottb.) C.B.Cl.	R9
B. sp.	R102
Cyperus compressus L.	R185
C. holstii Kukenth.	R1025
C. longus L. ssp. tenuiflorus L. Rottb.) Kukenth.	R3
Fimbristylis bisumbellata (Forsk.) Bub.	R487
F. exilis (H.B.K.) Roem. & Schult.	R100
F. triflora (L.) K. Schum.	R103
F. sp.	R101
Fuirena calolepis K. Schum.	R157
Mariscus hemisphaericus (Boeck.) C.B.Cl.	R978
M. macropus C.B.Cl.	R81
M. mollipes C.B.Cl.	R69
Pycreus pumila Domin.	R292
Scleria foliosa A Rich.	R1413

DILLENIACEAE FTEA (1968)					
Tetracera masuiana De Wild. & T. Dur.	T	c	M	R363	Lijenge
DIOSCOREACEAE M.					
Dioscorea sansibarensis Pax	C	O	R	R1010	
DIPTEROCARPACEAE					
Monotes africanus A.D.C.	T	r	M	R180	Mkagati

EBENACEAE

Diospyros consolatae Chiov.	T	lc	T	R714	Kijibejiba
D. cornii Chiov.	T	lc	T	R1101	Mkalakawa
D. usambarensis F. White	T	wf	OW	R463	Mdaa S
D. kirkii Hiern	T	lc	OW/R	R768	Mkalakawa
D. verrucosa Hiern	T	lo	M	R1374	
D. sp. 1	T	l	OW	R263	
Euclea divinorum Hiern	T	lc	GWT	R721	Mpuchupuchu
E. sp.	T	r	M	R437	

ERYTHROXYLACEAE

Erythroxylum emarginatum Schumach. & Thonn.	T	lc	GW/R/T	R843	
E. fischeri Engl.	T	o	T	R631	Mtunda

EUPHORBIACEAE

Acalypha glomerata Hutch.	H	-	-	R1396	
Alchornea laxiflora (Benth.) Pax & Hoffm.	T	o	T	R519	
Antidesma venosum Tul.	T	wc	R/M	R23	Mkundahobi
Bridelia cathartica Bertol.f. ssp. melanthesoides (Klotz) J. Leonard	S	wc	M	R1276	Mnong'omela
Cleistanthus sp.	T	lo	M/R	R821	Mtache
Croton dichogamus Pax	S	o	T	R805	Kipiata
C. pseudopulchellus Pax	S	f	T	R523	Naiolo
C. sp. = Gillman 1356	S	lo	T	R1227A	
Cyathogyne bussei Pax	S	o	R	R1032	
Drypetes gerrardii Hutch.	T	o	T/GW	R725	Kipondo ya mbitu
Erythrococca atrovirens (Pax) Prain	S	wc	R/M	R641	Mipalapala
E. kirkii (Muell.-Arg) Prain	S	lo	OW	R1282	
Euphorbia engleri Pax	ST	lo	T	R1246	
E. candelabrum Trem. ex Kotschy	T	c	OWT	Rs.n.	Mpanga panga
E. grandicornis Goebel	T	lc	T	Rs.n.	
E. hypericifolia L.	H	-	-	R342	Kipiliili
E. tirucalli L.	T	o	T	R948	Lung'ou
Hymenocardia acida Tul.	S	lr	T	R1154	
H. ulmoides Oliv.	T	c	T	R410	Mtete
Jatropha stuhlmannii Pax	H	-	-	T1031	Mmalika
Lingelsheimia sp. = Gillman 1147	S	c	T	R764	Kiwagawaga
Mallotus oppositifolius (Geiseler) Muell.-Arg.	S	lo	T	R1190	
Margaritaria discoidea (Baill.) Webster	S	lo	T	R1216	Kipala ngwale
Micrococca mercurialis (L.) Benth.	H	-	-	R977	
Mildbraedia carpinifolia (Pax) Hutch.	S	o	OW/R	R1013	

EUPHORBIACEAE (continued)

Oldfieldia somalensis (Chiov.) Milne-Redh.	T	o	T	R681	Mmulubulu
Phyllanthus baillei Hutch.	S	lo	T	R1244	
P. leucanthus Pax	H	-	-	Rs.n.	
P. maderaspatensis L.	H	-	-	R381	
P. reticulatus Poir.	S	c	R	R680	Muhimera
P. sp.	H	-	-	R465	
Pseudolachnostylis maprouneifolia Pax	T	dw	M	R60	Msolo S
Ricinodendeon rautanenii Schinz	T	o	M	R545	Mkanganangu
R. tomentellum Hutch. & E.A. Bruce	T	lr	T	R1160	
Sapium armatum Pax & K. Hoffm.	T	o	T	R875	
Securinega virosa (Willd.) Pax & K. Hoffm.	S	cw	R/T	R491	Kipalapala bonde
Spirostachys africana Sond.	T	wd	OW/T	R512	Msagawi
Suregada zanzibariensis Baill.	T	c	T	R686	Mdimu Poli S
Tragia furialis Boj.	C	-	-	R957	Lupiupiu
T. hildebrandtii Muell.Arg.	C	-	-	R578	
T. sp.	C	-	-	R456	
Uapaca nitida Muell. Arg.	T	lc	M	R711	Muhekela

FLACOURTIACEAE

Buchnerodendron lasiocalyx (Oliv.) Gilg	S	o	M	R958	Namata
Caloncoba gigantocarpa Perkins & Gilg	T	o	T	R940	
C. welwitschii (Oliv.) Gilg	T	o	T/R/GW	R583	Malwanjai
Flacourtia indica (Burm.f.) Merr.	T	wc	M	R961	Mtaba
Lindackeria sp.	S	l	T	R1061	
Xylotheca tettensis (Klotzsch) Gilg var. kirkii (Oliv.) Wild	T	c	R	R212	Mlyambopo
X. tettensis (Klotzsch) Sleumer var. macrophylla	T	o	R	R627	

FLAGELLARIACEAE (M) FTEA (1971)

Flagellaria guineensis Schumach.	H	-	-	R382	

GENTIANACEAE

Enicostema hyssopifolium (Willd.) Verdoorn	H	-	-	R125	
E. latiloba N.E. Br.	H	-	-	R1414	

GRAMINEAE (M) FTEA part I (1970) D.M. Napper Grasses of Tanganyika (1965)

Alloteropsis cimicina (L.) Stapf	P	o	OW	R1533	
A. semialata (R.Br.) Hitchc. var. semialata	P	lc	M	R945	
Andropogon gayanus Kunth var. squamulatus (Hochst.) Stapf	P	lf	S	R32	Nambanda
A. schirensis A. Rich.	P	wd	M	R222	Nambanda
Aristida adscensionis L.	A	o	OW	R753	
A. barbicollis Trin. & Rupr.	A	o	OW	R168	
A. funiculata Trin. & Rupr.	A	o	OW	R754	
A. hordeacea Kunth	A	c	OW	R184	
Bothriochloa glabra (Roxb.) A. Camus	P	lc	S	R14	
B. pertusa (L.) A. Camus	P	wc	OW	R38	
Brachiaria brizantha (A.Rich.) Stapf	P	wc	M/OW	R42	
B. deflexa (Schumach.) Robyns	A	wc	OW	R141	
B. leucacrantha (K. Schum.) Stapf	A	o	OW	R997	
B. pubifolia Stapf	A	lc	OW	R138	
B. serrata (Spreng.) Stapf	P	lc	M	R98	
Chloris gayana Kunth	P	lo	S	R136	
C. virgata SW.	A	wc	OW	R37	
Cleistachne sorghoides Benth.	A	lo	S	R339	
Cymbopogon giganteus (Hochst.) Chiov.	P	wc	M	R142	
Cymbosetaria sagittifolia (A.Rich.) Schweickt.	A	lo	OW	R140	
Cynodon dactylon (L.) Pers.	P	lc	M/R	R158	
C. nlemfuensis Vanderyst var. nlemfuensis	P	lo	M	R1377	
Dactyloctenium giganteum Fischer & Schweickt.	A	wf	OW	R139	Kiaga
D. sp.	A	wf	OW	R135	Kiaga
Dichanthium papilosum (A. Rich.) Stapf	P	lo	S	R117	
Digitaria adscendens (H.B.K.) Henr.	A	lo	R	R333	
D. debilis (Desf.) Willd.	A	lo	S	R1363	
D. gymnostachys Pilg.	P	lo	T	R1039	
D. gayana (Kunth.) Stapf	A	lo	M	R1047	
D. milanjiana (Rendle) Stapf	P	wd	OW/M	R1	Lukomba
Echinochloa crus-pavonis (H.B.K.) Schult.	A	r	R	R242	
E. haploclada (Stapf) Stapf	P	wf	OW/S	R33	Timba ndembo
Eleusine africana Kennedy O'Byrne	P	lo	M/R	R156	
E. multiflora A.Rich.	A	lo	T/GW	R328	

GRAMINEAE (continued)

Elymandra grallata (Stapf) Clayton	P	lo	M	R183	
Enteropogon macrostachyus (A.Rich.) Benth.	AP	lo	OW	R255	
Eragrostis aethiopica Chiov.	A	lo	OW	R986	
E. aspera (Jacq.) Nees	A	lo	GW	R329	
E. atrovirens (Desf.) Steud. var. atrovirens	P	lc	S	R94	
E. castellaneana Busc. & Muschl.	P	fw	OW/M	R303	
E. chapelieri (Kunth) Nees	P	c	M	R254	
E. ciliaris (L.) R.Br.	A	wc	OW	R299	
E. lappula Nees var. divaricata Stapf	P	lo	OW	R167	
E. namaquensis Schrad.	A	lo	R	R1409	
E. pilosa (L.) Beauv.	P	lo	OW	R1300	
E. racemosa (Thunb.) Steud.	P	o	M	R160	
E. setulifera Pilg.	A	c	OW	R34	
E. superba Peyr.	P	wc	OW/M	R93	
Eragrostiella bifaria (Vahl) Bor	P	wo	OW/M	R78	
Eriochloa procera (Retz.) C.E. Hubb.	A	lc	S	R336	
E. parvispiculata C.E. Hubb.	A	lc	R/S	R314	
Eustachys paspaloides (Vahl) Lanza & Mattei	P	lc	M	R92	
Heteropogon contortus (L.) Roem. & Schult.	P	wf	M/OW	R39	Kisuki
H. melanocarpus Benth. (Hochst.) Stapf	A	r	R	R244	
Hyparrhenia filipendula var. filipendula	P	w	OW/M	R35	
Hyperthelia dissoluta (Steud.) Clayton	P	wf	OW/M	R192	
Imperata cylindrica (L.) Beauv. var. major (Nees) C.E. Hubb.	P	lo	S	R115	
Ischaemum afrum (J.F. Gmel.) Dandy	P	wc	S	R112	
Leptocarydion vulpiastrum (De Not.) Stapf	A	lc	M	R1309	
Leptochloa panicea (Retz.) Ohwi	A	lo	R/T	R337	
L. squarrosa Pilg.	A	lo	R/T	R338	
L. uniflora A. Rich	A	lo	R	R250	
Loudetia arundinacea (A. Rich.) Steud.: var. hensii (De Wild.) Pichi-Serm.	P	wf	M	R229	
L. pennata (Chiov.) C.E. Hubb.	P	r	M	R252	
L. simplex (Nees) C.E. Hubb.	P	wd	M	R234	
Megastachya mucronata (Poir.) Beauv.	A	l	T	R230	
Miscanthidium sp.	P	r	OW	R45	
Oryza eichingeri Peter	P	lc	S	R29	
O. longistaminata Chev. & Roehr.	P	lc	S	R30	Pungapunga S
O. punctata Steud.	P	lc	S	R316	Pungapunga S
Oxytenanthera abyssinica (A.Rich.) Munro	P	lc	T/R	R	Muanzi

GRAMINEAE (continued)

Panicum aphanoneurum Stapf	P	lc	M/R	R1065	
P. deustum Thunb.	P	lo	M/R	R1272	
P. heterostachyum Hack.	A	lo	T	R231	
P. infestum Anderss.	P	wf	M/OW	R161	Liputu
P. massaiense Mez	A	c	OW	R318	Nambola wa Bonde
P. maximum Jacq.	P	wf	OW/M	R163	Lihcha
P. meyeranum Nees	P	lo	S	R390	
P. subalbidum Kunth.	P	lo	S/OW	R1389	
P. trichocladum K. Schum.	P	lc	R	R21	
Paspalum auriculatum J. Presl.	P	lo	S	R313	
Pennisetum polystachyon (L.) Schult.	AP	r	R	R710	
Perotis hildebrandtii Mez	AP	wc	M/OW	R257	
P. patens Gand.	AP	lo	R	R97	
Pogonarthria squarrosa (Roem. & Schult.) Pilg.	P	o	M	R236	
Polyneura squarrosa Peter	A	lo	T	R934	
Rottboelia exaltata L.f.	A	lo	S/R	R240	
Sacciolepis curvata (L.) Chase	P	lo	M	R1315	
Schizachyrium sanguineum (Retz.) Alston	P	wo	M	R253	
Schoenefeldia transiens (Pilg.) Chiov.	P	wo	OW	R1236	
Setaria holstii Herrm.	P	c	S	R11	
S. incrassata (Hochst.) Hack.	P	lc	S	R110	
S. pallidifusca (Schult.) Stapf & C.E. Hubb.	A	wc	M	R s.n.	
S. planifolia Stapf	P	lc	S	R154	
S. sphacelata Stapf & C.E. Hubb.	P	lc	S	R368	
Sorghum brevicarinatum Snowden	P	lo	R	R964	
S. verticilliflorum (Steud.) Stapf	P	lc	OW	R2	
S. versicolor Anderss.	P	lc	R	R237	
Sporobolus festivus A. Rich.	P	lc	OW	R82	
S. fimbriatus Nees	P	lc	R/S	R867	
S. ioclados (Trin.) Nees.(S.marginatus)	P	wd	OW	R83 R1237	
S. pyramidalis Beauv.	P	wc	OW/S	R147	
S. stolzii Mez	A	lo	OW	R999	
S. subglobosus A. Chev.	P	lo	M	R1042	
S. virginicus (L.) Kunth	P	lc	G/W	R1091	Ukoka S
Thelepogon elegans Roem. & Schult.	A	r	S	R269	
Themeda triandra Forsk.	P	wf	OW/M/S	R143	Lukubi
Tragus berteronianus Schult.	A	lo	OW	R572	
Tristachya bequaertii De Wild.	P	wf	M	R144	
T. nodiglumis K. Schum.	P	lo	M	R1296	
Urochloa pullulans Stapf	P	lc	OW	R151	
U. trichopus (Hochst.) Stapf	A	lc	OW	R137	Likaka ta

GRAMINEAE (continued)

Vetiveria nigritana (Benth.) Stapf	P	lc	S	R384	
V. zizanioides (L.) Nash	P	lc	S	R113	
Zonotriche inamoena (K. Schum.) Clayton	P	lo	M	R960	

GUTTIFERAE

Garcinia livingstonei T. Anders.	T	lc	R	R1123	Mtiko
Psorospermum febrifugum Spach var. ferrugineum Keay & Milne-Redh.	T	lc	R/M	R404	Kalijenge

HYDROPHYLLACEAE					
Hydrolea sansibarica Gilg	H	-	-	R309	
HYPERICACEAE					
Vismia orientalis Engl.	T	lo	T	R1287	Kalijenge ya msitu
HYPOXIDACEAE (M)					
Hypoxis angustifolia Lam.	H	-	-	R127	

ICACINACEAE FTEA (1968)

Pyrenacantha kaurabassana Baill.	C	-	-	R957	Likupula

IRIDACEAE (M)

Gladiolus psittacinus Hook.f.	H	-	-	R942	

LABIATAE

Becium sp.	H	-	-	R284	
Endostemon sp.	H	-	-	R1386	
Englerastrum djalonense A. Chev.	H	-	-	R1043	
Leonotis nepetifolia (L.) R.Br.	H	-	-	R1038	
Leucas deflexa Hook.f.	H	-	-	R75	
L. glabrata R.Br.	H	-	-	R970	
L. stenophylla Guerke	H	-	-	R1017	
Ocimum sp.	H	-	-	R371	
Plectranthus lasianthus Guerke	H	-	-	R1321	
P. flaccidus Guerke	H	-	-	R1388	
P. sp.	H	-	-	R72	
P. sp. novum	H	-	-	R1000,R1301	
Tinnea aethiopica Kotschy & Peyr	S	lo	M	R1279	
Labiatae - Anderson 1235	H	-	-	R305	

LENTIBULARIACEAE

Utricularia gibba L.	H	-	-	R359	

LILIACEAE (M)

Anthericum subpapillosum Von Poell.	H	-	-	R19	
A. sp.	H	-	-	R70	
Asparagus setaceus (Bak.) Jessop	C	-	-	R906	Lututu
A. sp.	H	-	-	R31	
Chlorophytum gallabatense Bak.	H	-	-	R1351	
C. inopinum Von Poell.	H	-	-	R1111	
Drimiopsis sp.	H	-	-	R128	
Gloriosa simplex L.	H	-	-	R251	
Scilla edulis Engl.	H	-	-	R1205	

LINACEAE FTEA (1966) including Hugoniaceae

Hugonia bussoana Engl.	T	wc	M	R63	Muhondoka
H. castaneifolia Engl.	C	lc	T	R563	Muhondoka mwitu

LORELIACEAE

LOGANIACEAE FTEA (1960)

Mostuea brunonis Didr. var. brunonis	F	lo	M	R799	
M. microphylla Gilg	S	lo	R	R818	
Strychnos henningsii Gilg	T	lc	T	R682	Mbalambao
S. innocua Del. var. pubescens Solered.	T	wf	M	R1150	Mtonga tonga
S. panganensis Gilg	S	o	M	R909	Kibulu
S. potatorum L.	T	o	R	R995	
S. sp.	T	lc	T	R936	Mkwiro

LORANTHACEAE

Englerina sp.	P	-	-	R279	Changula
Helixanthera kirkii (Oliv.) Danser	P	-	-	R233/1269	Changula
Phragmanthera proteicola Engl.	P	-	-	R709	Changula

LYTHRACEAE

Ammannia prieureana Guill. & Perr.	H	-	-	R480	
A. sp.	H	-	-	R121	
Nesaea radicans Guill. & Perr.	H	-	-	R360	

MALPIGHIACEAE FTEA (1968)

Acridocarpus chloropterus Oliv.	S	lc	R	R595	
Tristellateia africana S. Moore	H	-	-	R1327	

MALVACEAE

Abutilon hirtum (Lam.) Sweet	S	wc	OW	R25	
Azanza garkeana (F.Hoffm.) Exell & Hillcoat	T	lo	GW	R611	Mtobo
Gossypioides kirkii (Mast.) J.B. Hutch.	C	wc	T	R409	Pambamwitu S
Hibiscus aethiopicus L.	S	wc	OW	R122	
H. cannabinus L.	S	wc	OW	R194	
H. micranthus L.f.	S	r	T	R220	
H. sabdariffa L.	H	-	-	R1427	
H. surattensis L.	H	-	-	R1325	
H. vitifolius L.	S	lo	R/OW	R226	
H. sp.?apconeurus Sprague & Hutch.	S	o	R	R984	
H. sp.	S	o	R	R258	
Pavonia leptocalyx (Sond.) Ulbr.	S	o	T	R280	
Sida ovata Forsk.	S	o	OW	R974	
Thespesia danis Oliv.	S	lo	R	R1158	
Urena lobata L.	S	o	R	R471	

MELASTOMATACEAE

Dissotis debilis (Sond.) Triana	H	-	-	R1428	
Memecylon sansibaricum Taub.	T	l	GW	R1134	
M. sp.	T	lc	T	R801	Mmete

MELIACEAE

Trichilia emetica (Forsk.) Chiov.	T	lc	R	R407	Muhukulilo
Turraea nilotica Kotschy & Peyr.	T	lc	OW	R44	Mlelewana
T. sp.	T	o	T	R586	

MENISPERMACEAE FTEA (1956)

Cissampelos pareira L. var. orbiculata (DC.) Miq.	C	-	-	R856	Ligugu

MIMOSACEAE FTEA (1959)

Acacia brevispica Harms	C	wc	T	R649	Ligobe
A. robusta Burch. ssp. usambarensis (Taub.) Brenan	T	wc	OW/GW	R392	Muhungo
A. hockii De Wild.	T	o	OW	R540	Kinjacha

MIMOSACEAE (continued)

Acacia macrothyrsa Harms	T	o	M	R1255	
A. nigrescens Oliv.	T	wf	OW	R43	Msengele
A. nilotica (L.) Del. ssp. Kraussiana (Benth.) Brenan	T	wc	OW	R498	Kinjacha
A. senegal (L.) Willd.	T	lc	OW	R266	Kiluma
A. sieberana DC. var. sieberana	T	lc	R	R770	Mchonda
A. zanzibarica (S. Moore) Taub.	T	wc	OW	R440	Kijimba
Albizia amara (Roxb.) Boiv.	T	lc	R	Rs.n.	Mtanga wa bonde S
A. adianthifolia (Schumach.) W.F. Wight	T	lc	T	R438	Mtanga wa msito S
A. anthelmintica (A.Rich.) Brogn.	T	lc	OW/R	R396	Mfwilete
A. harveyi Fourn.	T	wo	OW/M	R310	Mjanda
A. petersiana (Bolle) Oliv.	T	lc	R/T	R1034	Mtanga mbeleti
A. versicolor Oliv.	T	lo	M	R716	Mtanga S
A. zimmermannii Harms	T	r	R	R239	Mtanga ya bonde S
Amblygonocarpus andongensis (Oliv.) Exell & Torre	T	wc	M	R61	Mjekele
Dichrostachys cinerea (L.) Wight & Arn.	T	wc	R/T/M	R	Kingunguti
Elephantorhiza goetzii	S	lc	M	R445	Mlanjati
Entada chrysostachys (Benth.) Drakei	C	o	R	R772	Mkurumu
Mimosa busseana Harms	C	lc	T	R1217	Lutatangima
M. pigra L.	S	lc	R	R1095	Kigonimamba
Neptunia oleracea Lour.	C	o	OW/R	R994	

MONTINIACEAE

Grevea eggelingii Milne-Redh.	S	lo	T	R1243	

MORACEAE

Ficus cardiogyne africana Bureau	S	lo	GW	R1086	Ungaka
F. Fischeri Mildbr. & Burret	T	lo	T/M	R1149	Mpumbe
F. ingens (Miq.) Miq.	T	wo	M	R708	Mlandega
F. sansibaricus Warb.	T	lo	T	R1082	Mpondopondo
F. sycomorus L.	T	wo	Ow/R/M	Rn.n.	Mkuyu S

MORINGACEAE

Moringa oleifera Lam.	S	o	M	R517	Mlongilongi

MYRTACEAE

Syzygium cordatum Krauss.	T	o	GW	R1375	
[illegible] (Willd.) DC	T	o	R	R777	Muhulahuti

NYCTAGINACEAE					
Commicarpus stellatus (Wight) Bernhaut	H	-	-	R327	
NYMPHAEACEAE					
Nymphaea lotus L.	H	-	-	R555	Kingʻala

OCHNACEAE

Ochna holstii Engl.	T	o	T	R524	Muhindama mwitu
O. macrocalyx Oliv.	T	lo	R	R537	Muhindama mwitu
O. mossambicensis Klotzsch	T	wf	M	R104	Muhindama
O. polyneura Gilg	T	lo	T	R1157A	Nungamu
O. rovumensis Gilg	T	o	R	R807	Muhindama
O. sp. nr. ovata F. Hoffm.	T	lc	T	T809	Mbalala
O. sp.	T	lc	T	R532	

OLACACEAE FTEA (1968)

Olax dissitiflora Oliv.	S	lc	T	R1320	Mlyambunjo
Ximenia caffra Sond.	T	wc	M	R448	Mpingi

OLEACEAE FTEA (1952)

Jasminum biflorum Knobl.	C	lo	T	R890	
J. fluminense Vell.	C	wc	OW	R614	
J. meyeri-johannis Engl.	S	lc	R	R622	
J. stenolobum Rolfe	S	lo	R	R820	
Schrebera trichoclada Welw.	T	lc	M	R275	Mmangangwalu

ONAGRACEAE FTEA (1953) Emend. Raven (1964)

Ludwigia erecta L.	H	-	-	R482	
L. perennis L.	H	-	-	R1422	
L. stenorraphe (Brenan) Hara	H	-	-	R469	

OPHIOGLOSSACEAE (P)

Ophioglossum polyphyllum A.Br.	H	-	-	R979	Ngwanga

ORCHIDACEAE FTEA Part I (1968)

Ansellia gigantea (Reichb) f. V. nilotina	H	-	-	R1243	
Eulophia sp. nr. E. walleri (Reichb.f.) Kraenzl.	H	-	-	R202	
Habenaria clavata Lindl.	H	-	-	R1022	

OXALIDACEAE FTEA (1971)

Biophytum petersianum Klotzsch	H	-	-	R1100	Kakuwi

PALMAE (M)

Borassus aethiopum Mart.	T	lo	R	Rs.n.	Mvumo	S
Hyphaenae coriacea Gaertn.	T	lc	R	Rs.n.	Mkoche	S
Phoenix reclinata Jacq.	T	lc	GW	R559	Mkindu	S

PAPILIONACEAE FTEA (1972)

Abrus precatorius L.	C	..	-	R613	Nakandumbwa
Aeschynomene cristata Vatke var. pubescens J. Leonard	S	lc	R	R8	
A. minutiflora Taub.	S	lo	OW	R1001	
A. uniflora E. Mey.	S	lc	R	R1020	
Alysicarpus glumaceus (Vahl) DC. ssp. glumaceus	C	-	-	R380	
A. ovalifolius (Schumach.) J. Leonard	H	-	-	R1135	
Baphia massaiensis Taub.	T	lo	M	R864	
Clitoria ternatea L.	C	..	-	R133	
Crotalaria axillaris Ait.	H	-	-	R1245	
C. barkae Schweinf. f.	H	-	-	R766	
C. cephalotes A. Rich.	H	-	-	R274	
C. goodiiformis Vatke	H	-	-	R1041	
C. hyssopifolia Klotzsch	H	-	-	R1045	
C. pterocalyx Harms	H	-	-	R1274	
C. reptans Taub.	H	-	-	R1391	
C. vasculosa Benth.	H	-	-	R1392	
C. virgalata Klotzsch	H	-	-	R1408	
C. zanzibarica Benth.	H	-	-	R186	
C. sp.	H	-	-	R191	
Dalbergia arbutifolia Bak. ssp. arbutifolia	T	r	R	R271	
D. armata E. Mey.	S/C	lo	T	R1267	Mtambula
D. boehmii Taub. ssp. boehmii	T	lo	M	R780	
D. melanoxylon Guill. & Perr.	T	wf	OW	R510	Mpingo
Desmodium triflorum (L.) DC.	H	-	-	R1322	
Droogmansia pteropus (Bak.) De wild.	T	lc	M	R1122	Mgelekana
Indigofera cuneata Bak.	H	-	-	R294	
I. erythrogramma Bak.	H	-	-	R1405	
I. garkeana Vatke	S	lo	R	R502	
I. hirsuta L.	H	-	-	R1371	
I. lobata Gillett.	H	-	-	R1406	
I. malongensis Cronq.	S	lo	T	R1261	
I. praticola Bak.f.	H	-	-	R1016	
[illegible] Bak. var. rhynchocarpa	S	lo	R/M	R963	Muhimira

PAPILIONACEAE (continued)

Indigofera schimperi Jaub. & Spach	S	lc	R/T/GW	R347	
I. subargentea De Wild.	H	-	-	R1411	
I. subcorymbosa Bak.	S	lc	T	R1064	
I. tinctoria L.	S	lc	M	R228	
I. viscidissima Bak. ssp. orientalis Gillett.	S	lo	N	R1278	
Lonchocarpus bussei Harms	T	l	R	R413	Mmundu; Kigwaya
L. capassa Rolfe	T	wc	OW	R209	Mkouya
Macrotyloma maranguense (Taub.) Verdc.	H	-	-	R1029	Kinjekule
Millettia eetveldeana (Micheli) Hauman	T	r	T	R1214	
M. micans Taub.	T	lc	T/M	R91	Mkwala
M. stuhlmannii Taub.	T	wf	M/T	R444	Mnamwezi
Mundulea sericea (Willd.) A.Chev.	T	lc	M/OW	R449	Mgelekana bonde
Neorantanenia mitis (A.Rich.) Verdc.	H	-	-	R1290	
Ormocarpum sp.	S	lc	M	R245	
Pericopsis angolensis (Welw.) Van Meeuwen	T	lc	M	R707	Manga
Pseudarthria hookeri Wight & Arn	S	-	-	R232	
Pterocarpus angolensis DC.	T	wc	M	R442	Mtumbati
P. tinctorius Welw. var. megalocarpus	T	lc	R	R698	Mtumbati jito
P. rotundifolius (Sond.) Druce	T	o	M	R599	Lindulu
Rhynchosia minima (L.) DC. var. minima	C	-	-	R585	
Sesbania hirtistyla Gillett. var. hirtistyla	T	lo	S	R1091	Lipatako
Stylosanthes fruticosa (Retz.) Alston	H	-	-	R1170	
Tephrosia pumila (Lam.) Pers.	H	-	-	R295	
Vigna pubescens Wilczek	C	-	-	R182	
V. vexillata (L.) A. Rich.	C	-	-	R131	
Xeroderris stuhlmannii (Taub.) Mendonca & E.P. Sousa	T	wf	M	R57	Mlondondo
Zornia brevipes Milne-Redh.	H	-	-	R289	

PASSIFLORACEAE

Adenia sp.	H	-	-	R1288	
Paropsia braunii Gilg	S	o	T	R785	
Schlechterina mitostemmatoides Harms	C	lc	T	R525	Kindetete
Tryphostemma lanceolatum Engl.	H	-	-	R985	

PEDALIACEAE FTEA (1953)

Sesamum angustifolium (Oliv.) Engl.	H	-	-	R65	
S. indicum L.	H	-	-	R470	Linyololo

PLUMBAGINACEAE

Plumbago zeylanica L.	H	-	-	R1311	

POLYGALACEAE

Polygala erioptera DC.	H	-	-	R1015	
P. petitiana A.Rich.	H	-	-	R1033	
P. sphenoptera Fres.	H	-	-	R1341	
P. wadibomica Chod.	H	-	-	R1385	

POLYGONACEAE

Oxygonum magaalenae	H	-	-	R	Mbigili

PORTULACACEAE

Talinum portulacifolium (Forsk.) Schweinf.	H	-	-	R855	
Portulaca pilosa L.	H	-	-	R18	

RHAMNACEAE FTEA (TS)

Berchemia discolor (Klotzsch) Hemsl.	T	wo	OW	R566	Mkelienge
Scutia myrtina (Burm.f.) Merr.	S	lo	GW	R1144	
Ziziphus abyssinica A.Rich.	S	wc	M	R565	Mpengere
Z. mucronata Willd.	T	lc	R	R637	Mpengere ya bonde
Z. pubescens Oliv.	T	lc	OW	R88	Mlaba tatu S

ROSACEAE FTEA (1960)

Parinari curatellifolia Benth.	T	r	OW/M	R633	Mula

RUBIACEAE

Adina microcephala (Del.) Hiern	T	lc	R	R732	Mgwina
Borreria subvulgata K. Schum.	H	-	-	R364	
Canthium huillense Hiern	S	o	T	R938	Kiti cha mbutuka
C. kaessneri S. Moore	S	o	R/T	R346	
C. pallidum (K. Schum.) Bullock	S	o	T	R902	Mkandaa ya msito
C. zanzibaricum Klotzsch	S	lc	R	R408	
C. sp. 1	S	o	GW	R612	Mneu
C. sp. 2	S	o	T	R899	Kicha kanje
Chassalia umbraticola Vatke	S	lc	R	R774	
Coffea sp.	S	o	GW/R	R834,R1220	
Crossopteryx febrifuga (G. Don) Benth.	T	wc	M	R201	Mchonjele
Cuviera semseii Verdcourt	S	lo	T	R1212	
Fadogia sp. = Welch 450	H	-	-	R567	
Feretia sp.	S	lo	R	R538	
Gardenia lutea Fres.	T	wc	M	R362	Kilimandembo
G. sp. nr. resiniflua Hiern	S	r	T	R947	
G. sp. = Mgaza 272	S	lc	T	R706	Kilogoti
Heinsia bussei Verdc.	S	lo	R/T	R746	
H. crinita (Afzel.) G. Taylor	S	lc	TR	R506	Kiumbaumba
Hymenodictyon floribundum (Hochst. & Steud.) B.L. Robinson	T	lc	TR	R601	Mpelema
Kohautia effusa (Oliv.) Brem.	H	-	-	R199	
Kraussia kirkii (Hook.f.) Bullock	S	o	R	R28	
Lamprothamnus zanguebaricus Hiern	T	lc	R	R387	Mpumbe
Leptactina bussei K. Schum. & Krause	S	wc	TM	R507	Mbanganachwena
L. sp. = Proctor 2894	S	lo	T	R1186	
L. sp. = Shabani 243	S	wo	M	R1283	
Oldenlandia affinis (Roem & Schult.) DC.	H	-	-	R293	
O. verticillata Brem.	H	-	-	R1316	

RUBIACEAE (continued)

Oxyanthus speciosus DC.	S	lo	T	R1208	
O. sp.	S	lo	T	R687	
Pavetta albicaulis S. Moore	S	o	M	R908	
P. albertina S. Moore	S	lc	R/T	R1207, R582	
P. oliverana Hiern	S	lo	R	R853	
P. schumanniana K. Schum.	S	o	M	R218	
P. stenosepala K. Schum.	S	o	R	R861	
P. sp. 1	S	lo	R	R539	
P. sp. 2	S	wo	T	R928	
P. sp. 3	T	lc	T	R1030	
Pentas bussei Krause	S	o	T	R505	
P. parvifolia Hiern	S	c	T	R884	Kikuchamembe
Pentodon pentandrus (Schum. & Thonn.) Vatke var. minor Brenan forma	H	-	-	R375	
Polysphaeria dischistocalyx Brenan	T	wc	T/R	R513	Mwombe
P. sp. = Harris 2966	S	lo	GW	R394	
P. multiflora Hiern	S	lo	R	R1012	
P. parvifolia Hiern	S	lo	T	R658	
Psychotria abrupta Hiern	S	lo	T	R1263	
P. holtzii (K. Schum.) Petit	S	lo	T	R859	
P. linearisepala Petit	S	l	T	R878	
P. punctata Vatke	S	wc	R/T	R865	
P. riparia (K. Schum. & K. Krause) Petit	S	l	GW/R	R1250, R739	
P. sp. 1	S	l	R	R990	Maigembanya
P. sp. 2	S	l	T	R931	
P. sp. 3	S	l	GW	R841	
Rothmannia englerana (K. Schum.) Keay	S	lo	T	R1084	
R. fischeri (K. Schum.) Oberm.	T	lo	T	R741	
R. whitfieldii (Lindley) Dandy	S	lo	T	R683	Mmbome
Rytigynia amaniensis (Krause) Bullock	S	lo	T	R1256	
R. schumannii Robyns	T	lo	T	R877	
R. sp. nr. R. eickii (Krause) Bullock	S	lo	GW	R1171	
R. sp. nr. R. neglecta Robyns	S	lc	T	R1182, R1286	
R. sp. 1	S	lo	R/T	R506, R1266	
R. sp. 2	S	lo	R/T	R514	
R. sp. 3	S	lc	T	R885	Kikuchamsmbe
R. sp. 4	S	lo	RT	R1035	
Tapiphyllum fadogia Bullock	S	lo	T	R989	
T. sp. = Shabani 247	S	lo	T	R1271	
Tarenna nigrescens (Hook.f.) Hiern	S	lo	GW	R849	
Temnocalyx obovatus (N.E.Br.) Robyns	S	lo	RT	R869	

RUBIACEAE (continued)

Trianolepis africana Hook.f.	S	lo	T	R571	
Tricalysia allenii (Stapf) Brenan var. kirkii	S	lr	RT	R1056	
T. cacondensis Hiern	S	lc	T	R765	
T. ovalifolia Hiern	S	lo	T	R845	
Vangueria acutiloba Robyns	T	lo	R	R534	Muhulo
V. tomentosa Hochst.	T	lo	M/R	R503	
Xeromphis obovata (Hochst.) Keay	T	wc	M	R265	Kihuluhulu

RUTACEAE

Citropsis daweana Swingle & Kellerm. forma vel. sp. aff.	T	lo	T	R1163	
Clausena anisata (Willd.) Benth.	S	o	T	R991	
Fagara chalybea (Engl.) Engl.	T	f	T	R874	Mulungu
F. trijuga	S	lo	OW/M	R.s.n	Mulunga pori
Teclea simplicifolia (Engl.) Verdoorn	T	o	R	R261	Kipondo
T. sp.	S	lc	T	R1105	Kimberete
Toddaliopsis sansibarensis Engl.	S	lc	R	R697	
Vepris sp.	T	o	T	R729	

SALVADORACEAE FTEA (1968)

Dobera loranthifolia (Warb.) Harms	T	wo	OW	R439	Mtele
Salvadora persica L.	S	wc	OW	R511	Mswaki

SANTALACEAE

Thesium schweinfurthii Engl.	H	-	-	R1225	

SAPINDACEAE

Allophylus africanus P. Beauv.	S	lc	I/GWT	R175	Muhecha
Cardiospermum halicacabum L.	H	-	-	R5	
Deinbollia borbonica Scheff.	S	lc	R/GW	R391	Mpuga mahoka
Dodonaea viscosa Jacq.	T	lc	M	R1370	
Haplocoelum inopleum Radlk.	T	lc	T	R796	Kijunde
H. mombasense Bullock	T	lo	R/GW	R621	
Lepisanthes senegalensis (Poir.) Leenh.	T	lr	GW	R719	
Majidea zanguebarica Oliv.	T	lo	GW	R792	
Sapindus saponaria L.	T	lc	OW	R1050	Mtasubiri S
Zanha africana (Radlk.) Exell	T	r	M	R419	Mjuju

SAPOTACEAE FTEA (1968)

Manilkara discolor (Sond.) J.H. Hemsley	T	lc	T	R398	Mkwichimbe
M. mochisia (Bak.) Dubard	T	wc	OW	R573	Msama
M. sulcata (Engl.) Dubard	T	lc	T	R871	Muhamba
M. sp.	T	lo	R/T	R696	Muhike
Mimusops fruticosa A. DC.	T	r	GW	R393	
M. kummel A. DC.	T	lo	GW	R1089	
M. schliebenii Mildbr. & Schulze	T	wc	OW	R561	Mgama
Sideroxylon innerme L. ssp. diospyroides (Bak.) J.H. Hemsley	T	lc	R	R660	

SCROPHULARIACEAE

Alectra kirkii Hemsl.	H	-	-	R1312	
Artenema longifolium (L.) Vatke var. amplexicaule	H	-	-	R216	
Bacopa crenata (P. Beauv.) Hepper	H	-	-	R358	
B. floribunda (R.Br.) Wettst					
Ilysanthes sp.	H	-	-	R467	
Limnophila indica (L.) Druce	H	-	-	R1429	
Lindernia sp.	H	-	-	R377	
Micrargeria filiformis (Schumach. & Thonn.) Hutch. & Delz.	H	-	-	R298	

SCROPHULARIACEAE (continued)

Rhamphicarpa jamesii Skan	H	-	-	R123	
R. tubulosa Benth.	H	-	-	R1418	
Striga asiatica (L.) O. Kuntze	H	-	-	R169	
S. gesnerioides (Willd.) Vatke	H	-	-	R1394	
S. pubiflora Klotzsch	H	-	-	R62	

SIMAROUBACEAE

Harrisonia abyssinica Oliv.	S	wc	OW/R	R267	Mlawali

SOLANACEAE

Solanum goetzei Dammer	S	wo	OWM	R987	Mbwenyenye
S. incanum L.	S	wo	OW/M	R941	Ndungulucha
S. lamprocarpum Bitter	S	lo	T	R1251	

SPHENOCLEACEAE

Sphenoclea zeylanica Gaertn.	H	-	-	R466	

STERCULIACEAE

Cola clavata Mast.	T	lc	RT	R797	Likubati
C. cf. clavata Mast. = Eggeling 6729	T	lc	RT	R260	Likubati
C. microcarpa Brenan	T	lc	T	R652	Likubati
C. sp. nr. C. discoglypremnophylla Brenan	T	lo	R	R618	
Dombeya cincinnata K. Schum.	T	w	R/OW	R273	Mugalagala
Melochia corchorifolia L.	H	-	-	R602	
Sterculia africana (Lour.) Fiori	T	wc	OW/R	R74	Mtubwi
S. appendiculata K. Schum.	T	lc	R	R	Mgude
S. quinqueloba (Garke) K. Schum.	T	o	M	R	Mvuja
Waltheria indica L.	H	-	-	R195	

TACCACEAE (M) FTEA (1962)						
Tacca leontopetaloides (L) O. Ktze.	H	-	-	R227	Utondwa	
THYMELAEACEAE						
Synaptolepis kirkii oliv.	S	le	M/R	R692		
Synaptolepis longiflora Gilg	S	we	M	R432	Lukubi	
TILIACEAE						
Carpodiptera africana Mast.	T	lc	R	R204	Nng'ongolo	
Corchorus fascicularis Lam.	H	-	-	R372		
C. olitorius L.	H	-	-	R259	Mlenda	S
Grewia conocarpa K. Schum.	S	f	T	R290	Mtao	
G. forbesii Mast.	S	lc	R	R1171		
G. sp. nr. microcarpa K. Schum.	S	lo	T	R872	Mpuputu	
G. monticola Sond.	S	wc	M	R447	Mkolekole	S
G. sulcata Mast.	S	wc	OW	R174	Mpaya	
G. trichocarpa A. Rich.	S	lc	R	R24		
G. sp.	S	lo	OW	R671	Mpei	
Triumfetta kirkii Mast.	H	-	-	R1040		
T. intermedia De Wild.	S	lc	M	R224		
T. pentandra A. Rich.	H	-	-	R1027		
T. sp.	C	-	-	R282		
TURNERACEAE FTEA (1954)						
Wormskioldia brevicaulis Urb. var. brevicaulis	H	-	-	R89		
W. longipedunculata Mast.	H	-	-	R1284		
TYPHACEAE (M) FTEA (1971)						
Typha domingensis Pers.				R553	Lubele	

ULMACEAE FTEA (1966)						
Celtis wightii Planch.	T	lo	GW	R720		
UMBELLIFERAE						
Steganotaenia araliacea Hochst.	H	-	-	R1340		
VAHLIACEAE						
Vahlia ? digyna (Retz.) O. Ktze.	H	-	-	R369		
VERBENACEAE						
Clerodendrum eriophyllum Guerke	S	lc	R	R862		
C. hildebrandtii Vatke	S	lc	GW/R	R341		
C. incisum Klotzsch	H	-	-	R77		
C. lanceolatum Guerke	F	o	GW	R1203		
C. myricoides (Hochst.) Vatke	S	lo	T	R883		
C. scheffleri Guerke	S	lo	GW	R848		
C. sp.	H	-	-	R956		
Lantana trifolia L.	S	lo	T	R1270		
L. ? viburnoides	S	o	OW	R188		
Lippia javanica (Burm.f.) Spreng.	S	o	R	R712	Likupwa njenjema	
Premna angolensis Guerke	S	o	GW	R840/1202		
Vitex aff. V. altissima L.f.	T	lc	T	R164	Mpujwa wa msitu	
V. buchananii Guerke	T	lc	MT	R343	Mfuru	S
V. doniana Sweet	T	lc	R	R459	Mfuru bonde	S
V. mombassae Vatke	T	lo	M	R.s.n	Mfuru	S
V. volkensii Guerke	T	o	T	R1071		
V. sp.	T	lo	T	R1180		
VIOLACEAE						
Hybanthus enneaspermus (L.) F.Muell. var. enneaspermus	H	-	-	R1028		
Rinorea elliptica (Oliv.) Kuntze	H	-	-	R1112		
VITACEAE						
Cayratia gracilis (Guil.. & Perr.) Suesseng.	C	-	-	R903		
Cissus sp.	H	-	-	R454		
Cyphostemma buchananii (Planch.) Descoigns	H	-	-	R181		
C. hildebrandtii (Gilg) Wild & Drum.	C	-	-	R996		
Rhoicissus reviolii Planch.	C	-	-	R624		

XYRIDACEAE (M)

Xyris decipiens N.E. Br.	H	-	-	R357	

ZINGIBERACEAE (M)

Kaempferia rosea Benth. & Hook.f.	H	-	-	R16	Tungulu

ZYGOPHYLLACEAE

Tribulus terrestris L.	C	-	-	R84	Mbigili ng'ombe

Section Five: Vernacular - Latin Dictionary

NOTE: The majority of names included here are of Kingindo origin. In some cases Kingindo and Kiswahili share the same word. Rarely, two names exist for the same species; where this happens both names are included. The Wangindo people occupy the area from south of the Rufiji River to Liwale along the eastern boundary of the Selous Reserve. Within this range local names for the same plant vary considerably; names quoted here are in general usage to the north of the range only.

Care must be taken over the use of the descriptive adjectives "msito", "bonde","pori", which are not always given. Similarly, interchange of the letters l and r, v and b, u and w, o and u must be noted.

Vernacular name	Botanical name	Family
Bamia poli	Hibiscus sp.	Malvaceae
Bwala bwaya	Jacquemontia tamnifolia	Convolvulaceae
Changula	Englerina sp.	Loranthaceae
Changula	Helixanthera kirkii	Loranthaceae
Changula pamba	Phragmanthera proteicola	Loranthaceae
Chungwa ya mbuke	Hypericophyllum compositarum	Compositae
Dawa ya moto	Byrsocarpus orientalis	Connaraceae
Kakuwi (Kijuti)	Biophytum petersianum	Oxalidaceae
Kalijenge ya msitu	Vismia orientalis	Hypericaceae
Kalijenge	Psorospermum febrifugum	Hypericaceae
Kalitengule	Cissus aphyllantha	Vitaceae
Kamba kamba	Ipomoea shupangensis	Convolvulaceae
Kandumbwa	Abrus precatorius	Mimosoideae
Kiaga	Dactyloctenium aegyptium	Gramineae
Kibaba	Dichapetalum mossambicense	Chailletiaceae
Kibala njai	Byrsocarpus boivinianus	Connaraceae
Kibulu	Strychnos panganensis	Loganiaceae
Kibungo	Landolphia kirkii	Apocynaceae
Kichakanje	Canthium sp.	Rubiaceae
Kigoje	Ormocarpum kirkii	Papilionoideae
Kigonimamba	Mimosa nigra	Mimosoideae
Kigwaya	Lonchocarpus bussei	Papilionoideae
Kihegwa	Faurea speciosa	Proteaceae
Kihimbiti	Combretum psidoides	Combretaceae
Kihokole	Elaeodendron buchananii	Celastraceae
Kihuluhulu	Xeromphis obovata	Rubiaceae
Kijibajiba	Diospyros consolatae	Ebenaceae
	Acacia zanzibarica	Mimoscideae

Vernacular name	Botanical name	Family
Kijunde	Haplocoelum inopleum	Sapindaceae
Kijunde ya bondeni	Haplocoelum mombassense	Sapindaceae
Kikochongo	Vigna pubescens	Papilionoideae
Kikucha membe	Rytigynia sp.	Rubiaceae
Kikwegwe	Vangueria sp.	Rubiaceae
Kilaya	Leptochloa squarrosa	Gramineae
Kilei	Eleusine africana	Gramineae
Kilima ndembo	Gardenia lutea	Rubiaceae
Kilogoti	Gardenia sp. = Ngaza 272	Rubiaceae
Kiluma	Acacia senegal	Mimosoideae
Kimbelete dume	Teclea sp.	Rutaceae
Kimbelete jike	Toddaliopsis sansibarensis	Rutaceae
Kimbilia	Combretum molle	Combretaceae
Kimbilia kubwa	Combretum psidioides	Combretaceae
Kindetete	Schlecterina mitostemmatoides	Passifloraceae
King'ala	Nymphaea lotus	Nymphaeaceae
Kingamba	Ipomoea intrapilosa	Convolvulaceae
Kingunguti	Dichrostachys cinerea	Mimosoideae
Kinjacha	Acacia nilotica	Mimosoideae
Kinjekule	Macrotyloma maranguense	Papilionoideae
Kipala ngwale	Margaritaria discoidea	Euphorbiaceae
Kipalapala	Erythrococca atrovirens	Euphorbiaceae
Kipiata	Croton dichogamus	Euphorbiaceae
Kipililli	Euphorbia hypericifolia	Euphorbiaceae
Kipombo	Cissus sp.	Vitaceae
Kipondo	Xylopia odoratissima	Annonaceae
Kipondo ya msitu	Drypetes sp.	Euphorbiaceae
Kipupulu	Combretum goetzei	Combretaceae
Kiruma	Acacia senegal	Mimosoideae
Kisuki	Heteropogon contortus	Gramineae
Kiteleka	Setaria sphacelata	Gramineae
Kiticha mbutuka	Canthium huillense	Rubiaceae
Kiuba huba	Bauhinia tomentosa	Caesalpinioideae
Kiumbaumba	Heinsia crinita	Rubiaceae
Kiwaga waga	Lingelsheimia sp. = Gillman 1147	Euphorbiaceae
Kiyukulu	Combretum pentagonum	Combretaceae
Konge mwitu	Sansevieria sp.	Agavaceae
Ligobe	Acacia pennata	Mimosoideae
Ligugu	Cissampelos pareira	Menispermaceae
Liheha	Panicum maximum	Gramineae
Lihomanga	Dicoma sessiflora	Compositae

Vernacular name	Botanical name	Family
Lijenge	Tetracera boiviniana	Dilleniaceae
Likakata	Urochloa trichopus	Gramineae
Likocho kununga	Combretum padoides	Combretaceae
Likoloa	Cyanotis lanata	Commelinaceae
Likope lya himba	(Thicket grass)	Gramineae
Likubi	Themeda triandra	Gramineae
Likupula	Pyrenacantha kaurabassana	Icacinaceae
Likupwa njenjema	Lippia javanica	Verbenaceae
Lilungwile	Rottboellia exaltata	Gramineae
Lindulu	Pterocarpus rotundifolius	Papilionoideae
Linyololo	Sesamum indicum	Pedaliaceae
Linyunyu	Eclipta prostrata	Compositae
Lipapwa nyani	Loudetia simplex	Gramineae
Lipetako	Sesbania hirtistyla	Papilionoideae
Lipembe mbabala	Strophanthus hispidus	Apocynaceae
Lipigipigi	Bidens grantii	Compositae
Lipungapunga	Oryza punctata	Gramineae
Liputu	Panicum infestum	Gramineae
Lipuyungu	Vernonia zanzibarensis	Compositae
Litogolilume	Holarrhena febrifuga	Apocynaceae
Litope liboile	Combretum fragrans	Combretaceae
Lubao	Commiphora sp. nr. C. puguensis	Burseraceae
Lubele	Typha domingensis	Typhaceae
Luhimbani	Hyparrhenia filipendula	Gramineae
Luhuguya	Sporobolus ioclados	Gramineae
Lukomba	Digitaria milanjiana	Gramineae
Lukubi	Synaptolepis longiflora	Thymelaeaceae
Lukubi wa msitu	Synaptolepis kirkii	Thymelaeaceae
Lugobi	Acacia pinnata	Mimosoideae
Lulaa	Carvalhoa macrophylla	Apocynaceae
Lung'ou	Euphorbia tirucalli	Euphorbiaceae
Lunyegele	Sorghum versicolor	Gramineae
Lupiopio	Tragia furialis	Euphorbiaceae
Lutanga kanyai	Cucumis hirsutus	Cucurbitaceae
Lutata ngima	Mimosa busseana	Mimosoideae
Lututu	Asparagus setaceus	Liliaceae
Mahanga	Landolphia kirkii	Apocynaceae
Mai ga mbanya	Psychotria sp.	Rubiaceae
Malwa njai	Caloncoba welwitschii	Flacourtiaceae
Mambone	Rothmania whitfieldii	Rubiaceae
Manjwili	Heinsia bussei	Rubiaceae

Vernacular name	Botanical name	Family
Mbalala	Ochna sp. nr. ovata	Ochnaceae
Mbalambao	Strychnos henningsii	Loganiaceae
Mbalikiwa (Mkongo)	Afzelia quanzensis	Caesalpinioideae
Mbanga nachwena	Leptactina bussei	Rubiaceae
Mbigili	Oxygonum magdalenae	Polygonaceae
Mbigili ng'ombe	Tribulus terrestis	Zygophyllaceae
Mbuyu	Adansonia digitata	Bignoniaceae
Mbwabwa	Psychotria punctuata	Rubiaceae
Mbwenyenye	Solanum goetzei	Solanaceae
Mchenga	Julbernardia globifera	Caesalpinioideae
Mchengechenge	Salacia senegalensis	Celastraceae
Mchenjele	Crossopteryx febrifuga	Rubiaceae
Mchonda	Acacia sieberiana	Mimosoideae
Mchulochulo	Dalbergia boehmii	Papilionoideae
Mchuya	Terminalia sericea	Combretaceae
Mchuya mkubwa	Terminalia stenostachys	Combretaceae
Mchwili	Grewia sp.	Tiliaceae
Mdaa	Diospyros usambarensis	Ebenaceae
Mdimu poli	Suregada zanzibarensis	Euphorbiaceae
Mdonga tonga	Strychnos potatorum	Loganiaceae
Mdonga tonga	Strychnos sp.	Loganiaceae
Mfulu	Vitex sp.	Verbenaceae
Mfulu bonde	Vitex doniana	Verbenaceae
Mfwilete	Albizia anthelmintica	Mimosoideae
Mgama	Mimusops schliebenii	Sapotaceae
Mgelegele	Brachystegia bussei	Caesalpinioideae
Mgelekana	Droogmansia pteropus	Papilionoideae
Mgelekana dume	Mundulea sericea	Papilionoideae
Mgome	Cryptosepalum maraviense	Caesalpinioideae
Mgongolo	Cleistoclamys kirkii	Annonaceae
Mgonogo	Combretum zeyheri	Combretaceae
Mgwina	Adina microcephala	Rubiaceae
Mjanda	Albizia harveyi	Mimosoideae
Mjanjati	Elephantorrhiza goetzei	Mimosoideae
Mjekele	Amblygonocarpus andogensis	Mimosoideae
Mjenga uwa	Commiphora zanzibarica	Burseraceae
Mjuju	Zanha africana	Sapindaceae
Mkaa	Erythrophleum africana	Caesalpinioideae
Mkagati	Monotes africana	Dipterocarpaceae
Mkakatale	Ehretia amoena	Boraginaceae
Mkalakawa	Diospyros sp.	Ebenaceae
Mkalakawa wa bondeni	Diospyros kirkii	Ebenaceae

Vernacular name	Botanical name	Family
Mkalakawa wa msitu	Diospyros comii	Ebenaceae
Mkalanda	Acacia macrothyrsa	Mimosoideae
Mkambale	Terminalia spinosa	Combretaceae
Mkandaa	Lamprothamnus zanguebaricus	Rubiaceae
Mkanganangu	Ricinodendron rautanenii	Euphorbiaceae
Mkelienge	Berchemia discolour	Rhamnaceae
Mkindu	Phoenix reclinata	Palmae
Mkoche	Hyphaena coriacea	Palmae
Mkolekole	Grewia monticolor	Tiliaceae
Mkolimbanga	Maerua angolensis	Capparaceae
Mkonda mgunga	Boscia corymbosa	Capparaceae
Mkongo (Mbalikiwa)	Afzelia quanzensis	Caesalpinioideae
Mkonjiganga	Uvaria kirkii	Annonaceae
Mkoya	Lonchocarpus capassa	Papilionoideae
Mkubati wa msitu	Cola clavata	Sterculiaceae
Mkubati wa msitu	Cola microcarpa	Sterculiaceae
Mkubati wa bondeni	Cola sp. nr. C. clavata	Sterculiaceae
Mkuliungu	Terminalia kilimandscharica	Combretaceae
Mkunda hobi	Antidesma venosum	Euphorbiaceae
Mkundekunde	Cassia abreviata	Caesalpinioideae
Mkundekunde	Cassia petersiana	Caesalpinioideae
Mkundekunde	Cassia singueana	Caesalpinioideae
Mkundemiti	Indigofera rhynchocarpa	Papilionoideae
Mkungu mwali	Hexalobus monopetalus	Annonaceae
Mkunya (Mgude)	Sterculia appendiculata	Sterculiaceae
Mkurumu	Entada chrysostachys	Mimosoideae
Mkuyu	Ficus sycomorus	Moraceae
Mkwaju	Tamarindus indica	Caesalpinioideae
Mkwala	Millettia micans	Papilionoideae
Mkwichimbe	Manilkara discolor	Sapotaceae
Mkwilu	Strychnos sp.	Loganiaceae
Mlaba tatu	Ziziphus pubescens	Rhamnaceae
Mlama	Combretum obovata	Combretaceae
Mlandege	Ficus ingens	Moraceae
Mlawali	Harrisonia abyssinica	Simaroubaceae
Mlela wana	Turraea nilotica	Meliaceae
Mlenda	Corchorus oliotus	Tiliaceae
Mlimia mbopo	Xylotheca tettensis	Flacourtiaceae
Mlindinde	Boscia salicifolia	Capparaceae
Mlondondo	Xeroderris stuhlmannii	Papilionoideae
Mlongelonge	Moringa oleifera	Moringaceae
Mluluva	Vernonia sp.	Compositae

Vernacular name	Botanical name	Family
Mlungu	Fagara chalybea	Rutaceae
Mlungu wa msitu	Fagara trijuga	Rutaceae
Mlyambunju	Olax dissitiflora	Olacaceae
Mmalika	Jatropha stuhlmannii	Euphorbiaceae
Mmanga	Pericopsis angolensis	Papilionoideae
Mmanga wa msitu	Millettia eetveldeana	Papilionoideae
Mmanga ngwale	Schrebera trichoclada	Oleaceae
Mmelendende	Brachylaena hutchinsii	Compositae
Mmete	Memecylon sp.	Melastomataceae
Mmula	Parinari curatelliflora	Rosaceae
Mmulubulu	Oldfieldia somalensis	Euphorbiaceae
Mmumbu wa bonde	Lannea schimperi	Anacardiaceae
Mmumbu	Lannea sp.	Anacardiaceae
Mnamata mpiata	Cordia sp. nr C. myxa	Boraginaceae
Mnamwezi	Millettia stuhlmannii	Papilionoideae
Mnangu mtandalusi	Trachylobium verrucosum	Caesalpinioideae
Mndumbi	Salacia senegalensis	Celastraceae
Mndumbi wa bondeni	Salacia stuhlmanniana	Celastraceae
Mndundu	Cordyla africana	Papilionoideae
Mnepa	Pteleopsis myrtifolia	Combretaceae
Mnepa wa msitu	Pteleopsis myrtifolia	Combretaceae
Mneu	Canthium sp.	Rubiaceae
Mngalagala	Dombeya cincinnata	Sterculiaceae
Mngambakamba	Monodora junodii	Annonaceae
Mng'eng'e	Swartzia madagascariensis	Papilionoideae
Mng'ombe	Artabotrys brachypetalus	Annonaceae
Mng'ongo	Sclerocarya caffra	Anacardiaceae
Mng'ongolo	Carpodiptera africana	Tiliaceae
Mngongolo	Stereospermum kunthianum	Bignoniaceae
Mnong'omela	Bridelia cathartica	Euphorbiaceae
Mnundu	Lonchocarpus bussei	Papilionoideae
Mnuwili	Balanites aegyptiacum	Balanitaceae
Mnuwili wa msitu	Balanites wilsoniana	Balanitaceae
Mpangapanga	Euphorbia candelabra	Euphorbiaceae
Mpangati	Combretum imberbe	Combretaceae
Mpaya	Grewia sulcata	Tiliaceae
Mpei	Grewia sp.	Tiliaceae
Mpelema	Hymenodictyon floribundum	Rubiaceae
Mpengele	Ziziphus abyssinica	Rhamnaceae
Mpengele wa bondeni	Ziziphus mucronata	Rhamnaceae
Mpilipili	Sorindeia madagascariensis	Anacardiaceae
Mpingi	Ximenia caffra	Oleaceae

Vernacular name	Botanical name	Family
Mpingo	Dalbergia melanoxylon	Papilionoideae
Mpoloto	Ficus sansibaricus	Moraceae
Mpome	Commiphora madagascariensis	Burseraceae
Mpome	Commiphora sp.. = Harris 384	Burseraceae
Mpome wa bondeni	Commiphora sp.	Burseraceae
Mpome wa msitu	Commiphora serrata	Burseraceae
Mpondopondo	Ficus sansibaricus	Moraceae
Mpuchupuchu	Euclea divinorum	Ebenaceae
Mpuga	Burkea africana	Caesalpinioideae
Mpuga mahoka	Deinbollia borbonica	Sapindaceae
Mpugupugu	Markhamia obtusifolia	Bignoniaceae
Mpujwa wa bondeni	Vitex buchanannii	Verbenaceae
Mpujwa wa msitu	Vitex altissima	Verbenaceae
Mpumbe	Ficus fischeri	Moraceae
Mpunju (Mtopetope)	Annona senegalensis	Annonaceae
Mpuputu	Grewia microcarpa	Tiliaceae
Mpwipwi	Lannea stuhlmannii	Anacardiaceae
Msegawi	Spyrostachys africana	Euphorbiaceae
Msama	Manilkara mochisia	Sapotaceae
Msegese	Piliostigma thonningii	Caesalpinioideae
Msengele	Acacia nigrescens	Mimosoideae
Msolo	Pseudolachnostylis maprouneifolia	Euphorbiaceae
Msonobali	Cassia simea	Caesalpinioideae
Msufi poli	Rhodognaphalon schumannianum	Bombacaceae
Mswaki	Salvadora persica	Salvadoraceae
Mtaba	Flacourtia indica	Flacourtiaceae
Mtachi	Cleistanthus sp.	Euphorbiaceae
Mtalawanda	Markhamia zanzibarica	Bignoniaceae
Mtambula	Dalbergia armata	Papilionoideae
Mtandalusi (Mnangu)	Trachylobium verrucosum	Caesalpinioideae
Mtandawala	Markhamia acuminata	Bignoniaceae
Mtandi (Muegeya)	Kigelia africana	Bignoniaceae
Mtanga	Albizia versicolor	Mimosoideae
Mtanga mbelete	Albizia petersiana	Mimosoideae
Mtanga wa bondeni	Albizia amara	Mimosoideae
Mtanga wa msitu	Albizia adianthifolia	Mimosoideae
Mtao	Grewia conocarpa	Tiliaceae
Mtasubili	Sapindus saponaria	Sapindaceae
Mtatu	Rhoicissus revoilii	Vitaceae
Mtele	Dobera loranthifolia	Salvadoraceae
Mtetakana	Securinega virosa	Euphorbiaceae

Vernacular name	Botanical name	Family
Mtete	Dymenocardia ulmoides	Euphorbiaceae
Mtetema	Dracaena usambarensis	Agavaceae
Mtikanyumbu	Combretum hereroense	Combretaceae
Mtiko	Garcinia livingstonei	Guttiferae
Mtobo	Azanza garkeana	Malvaceae
Mtoloba	Elaeodendron schweinfurthianum	Celastraceae
Mtomondo	Rauvolfia caffra	Apocynaceae
Mtomoni	Diplorrhynchus condylocarpon	Apocynaceae
Mtondo	Brachystegia spiciformis	Caesalpinioideae
Mtongatonga	Strychnos cocculoides	Loganiaceae
Mtukwambako	Ozoroa reticulata	Anacardiaceae
Mtukwambako wa bondeni	Sideroxylon innerme	Sapotaceae
Mtumbati	Pterocarpus angolensis	Papilionoideae
Mtumbati jito	Pterocarpus tinctorius	Papilionoideae
Mtumbwi	Sterculia africana	Sterculiaceae
Mtunda	Erythroxylum fischeri	Erythroxylaceae
Mtundulus	Combretum sp. = WAR.277	Combretaceae
Muanzi	Oxytenanthera abyssinica	Gramineae
Muhakala	Maerua kirkii	Capparaceae
Muhamba	Manilkara sulcata	Sapotaceae
Muhanga mtwile	Maerua holstii	Capparaceae
Muhani	Brachystegia microphylla	Caesalpinioideae
Muhecha	Allophyllus africana	Sapindaceae
Muhegwa	Faurea speciosa	Proteaceae
Muhekela	Uapaca nitida	Euphorbiaceae
Muhiga	Brachystegia utilis	Caesalpinioideae
Muhike	Manilkara sp.	Sapotaceae
Muhilu	Vangueria acutiloba	Rubiaceae
Muhimila	Phyllanthus reticulatus	Euphorbiaceae
Muhindana	Ochna mossambicensis	Ochnaceae
Muhindana	Ochna sp.	Ochnaceae
Muhindana wa msitu	Ochna macrocalyx	Ochnaceae
Muhindeu	Tessmannia densiflora	Caesalpinioideae
Muhindila	Combretum collinum s.sp. binderanum	Combretaceae
Muhokobeli	Maytenus senegalensis	Celastraceae
Muhokobeli wa msitu	Maytenus putterlickioides	Celastraceae
Muhondoka	Hugonia busseana	Linaceae
Muhondoka wa msitu	Hugonia castaneifolia	Linaceae
Muhondoka mkubwa	Sapium armatum	Euphorbiaceae
Muhou	Uvaria acuminata	Annonaceae
Muhuja	Sterculia quinqueloba	Sterculiaceae

Vernacular name	Botanical name	Family
Muhukuliro	Trichilia emitica	Meliaceae
Muhulalio	Combretum collinum	Combretaceae
Muhulalio wa nsitu	Combretum aureonitens	Combretaceae
Muhuluhuti	Syzygium guineense	Myrtaceae
Muhungo	Acacia robusta	Mimosoideae
Muhungo njacha	Acacia gerrardii	Mimosoideae
Muhunihuni	Dichapetalum stuhlmannii	Celastraceae
Mulubulu	Oldfieldia somalensis	Euphorbiaceae
Munjwechwe	Polyalthia korinti	Annonaceae
Muyombo	Brachystegia boehmii	Caesalpinioideae
Mvumo	Borassus aethiopum	Palmae
Mwembe	Polysphaeria dischistocalyx	Rubiaceae
Mwembele	Pachycarpus spurius	Asclepiadaceae
Nakandumbwa	Abrus precatorius	Papilionoideae
Naiolo	Croton pseudopulchellus	Euphorbiaceae
Nalioto	Vernonia glabra	Compositae
Namata	Desmodium triflorum	Papilionoideae
Nambanda	Andropogon schirensis	Gramineae
Nambanda ya bondeni	Andropogon gayanus	Gramineae
Nambole ya bondeni	Panicum massaiense	Gramineae
Ndumbe tumbe	Cussonia zimmermannii	Araliaceae
Ndungulucha	Solanum incanum	Solanaceae
Nelila	Commelina errecta	Commelinaceae
Ngombokwa	Gloriosa simplex	Liliaceae
Ngwanga	Ophioglossum polyphyllum	Ophioglaceae
Njunju	Ricinodendron tomentellum	Euphorbiaceae
Nungamu	Ochna polyneura	Ochnaceae
Pamba mwitu	Gossypioides kirkii	Malvaceae
Sunga	Lactuca capensis	Compositae
Timba ndembo	Echinochloa haploclada	Gramineae
Tungulu	Kaemferia rosea	Zingiberaceae
Ubavu	Commiphora sp. nr. C. pugaensis	Burseraceae
Ubavu wa faru	Cordia sp.	Boraginaceae
Uchungu (Sumu)	Acokanthera schimperi	Apocynaceae
Ukoka	Sporobolus virginicus	Gramineae
Umbula	Hippocratea sp.	Celastraceae
Umbwiga	Wrightia natalensis	Apocynaceae
Ungaka	Cardiogyne africana	Moraceae
Ung'ombe	Hippocratea obtusifolia	Celastraceae
Utondo	Tacca leontopetaloides	Taccaceae

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Section Six: Acknowledgements

The senior author would like to acknowledge the work of the second author. Mr Ludanga has undertaken the bulk of the field collecting and the curation of the herbarium for the last three years. Mr Ludanga has compiled the vernacular dictionary. Both authors owe a great deal to the two herbarium field assistants, Messrs Mohammed Ligogi and Nchigage Mfaume, for their help in collecting, curating and supplying local names.

Our thanks are due to the staff of the East African Herbarium, Nairobi, especially Mr Gillett and Miss Kabuye, and to the herbarium staff of the Botany Department, University of Dar es Salaam, especially Dr Hariss and Mr Wingfield, for species identification, encouragement and assistance. Mr Gillett of the East African Herbarium very kindly reviewed this manuscript in an earlier stage.

This study has been greatly assisted by a generous grant from the Government of Denmark to the Miombo Research Centre.

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Addenda and Corrigenda

Page 25	-	Under Caryophyllaceae. Add P. eriantha A. Rich. var effusa (Pax) Turrill	H	-	- R1069
Page 26	-	Under Combretaceae. Terminalia kilimandscharica should read T. zambesiaca Engl. & Diels			
Page 45/46	-	Under Papilionaceae. Add Crotalaria kirkii Bak. and delete C. zanzibarica.	H	-	- T186
		Add Indigofera podocarpa Bak.f. & Martin	H	-	- R1444
		Add Pseudarthria hookeri Wight & Arn.	H	-	- R962
		Add Swartzia madagascariensis Desv.	T	lo	M Rs.n. Mugenge