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AN ETHNOBOTANICAL STUDY ON MT. KILIMANJARO

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Abstract. During an ethnobotanical field study project at Mt. Kilimanjaro (Tanzania) many of the plants found there were investigated for their uses and their local names in the Chagga dialect of Old Moshi. It appeared that the Chagga make use of their plant environment in a great variety of ways, and consequently there is a large vocabulary of plant names. The plants serve as forage, for household and agricultural purposes, in medicinal applications, as drugs and for magic purposes. The knowledge is largely found only among the older people, while younger people tend to disdain such „traditional" resources, preferring „modern" industrial products. Therefore it must be feared that this traditional knowledge will fall into oblivion in the near future. *Accepted 16 September 1999.*

Key words: Ethnobotany, pharmaceutical plants, Mt. Kilimanjaro, Tanzania, Chagga.

INTRODUCTION

During an ethnobotanical field study project in the years 1989-1992, as part of the *Sonderforschungsbereich 214* project "identity in Africa" of Bayreuth University, the plants occurring at Mt. Kilimanjaro (Tanzania) were investigated for their uses and their local names in the Chagga dialect of Old Moshi. The local names will be added to a dictionary of the Chagga language, prepared by Prof. J. C. Winter (Bayreuth).

STUDY AREA

Mt. Kilimanjaro is located 300 km south of the equator in Tanzania on the border to Kenya between 2°45' and 3°25' S and 37°00' and 37°43' E. The study was carried out on the southern slopes of Mt. Kilimanjaro in Tanzania, in the area of Old Moshi (Fig. 1).

The vegetation zones on the southern slope of Mt. Kilimanjaro are used in various ways, depending on the changing climatic conditions, by the Chagga, a Bantu tribe (Fig. 1; cf. Hemp *et al.* 1999). Between 700 and 1000 m a.s.l. the dry and hot savannah zone stretches round the foot of the mountain. Most areas are used as maize, bean, and sunflower fields, in West Kilimanjaro even as wheat fields. East of Moshi rice is planted, in the plains south of Moshi sugar plantations replace a formerly forested area.

Between 1000 and 1800 m lies the zone which is most intensively cultivated by the Chagga. Here the population reaches its maximum with a density of over 500 persons per km². The Chagga cultivate their land using an agroforestry system (cf. Fernandes *et al.* 1984, O'Kting´ati & Kessy 1991). This means that under a tree layer, which provides firewood, fodder and shadow, banana trees (in about 25 varietys, cf. Simmonds 1966) are grown, under the bananas coffee trees, and under these vegetables. This system allows the multilayered use of precious land that could not be otherwise worked without a complex irrigation system (Fig. 2).

The Chagga live in their home gardens in single dwellings, tightly built towns do not exist. The compounds built in the middle of their banana groves are connected by small trails and a few untarred main roads. Along the main roads the village centers are located, with church, village council, schools and some shops.

Livestock like cattle, goats, sheep and pigs, sometimes even chickens, are kept in stables. The women and children spend a great part of the day collecting grass and foraging for herbs along paths, field and forest edges and steep meadow slopes. Pasture farming is rare in the plantation belt due to intensive agriculture and the lack of larger grazing grounds, but stable-feeding is mainly due to facilitating dung collection to manure the banana plants.

The montane forest borders the plantation belt at Old Moshi at about 1700 m. A half-mile forest strip ranges between the plantation belt and the forest reserve which provides timber and firewood, and here mostly pines, cypress and eucalyptus are planted. The population also uses this strip to collect fodder for their livestock; sometimes the area also serves as pas-

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ture land. Meadows reach far into the montane forest, especially along the rivers (Fig. 2).

The forest strip grades into natural montane forest, which as "forest reserve" should be excluded from any usage (Groß 1982). Nevertheless, between 1958 and 1994 about 9% of the forest was changed into cypress and pine plantations (Hemp *et al.* 1999). The illegal cutting of timber, especially of *Ocotea usambarensis*, has an even greater effect, leading to enormous changes in the quality of the forest communities. Even at an altitude of 2500 m clearings can be found. In addition, the Chagga use the upper forest zone for putting out traps to catch bush pigs (*Potamochoerus porcus*) and tree hyrax (*Dendrohyrax arboreus*). Honey collectors also frequent the upper montane forest zone.

The forest ends in the area of Old Moshi at about 2700 m, in other areas it continues up to 3200 m. The so-called moorland zone fringes the forest border with tussock grasses and giant lobelias grading at steeper slopes into Erica bushland. At an altitude of about 3900 m the *Erica* heathlands grade into *Helichrysum* cushion vegetation, reaching up to 4500 m. The higher altitudes are very poor in vegetation while the highest elevations of Kibo peak are covered with glaciers (for aspects of the (sub-) alpine vegetation of Mt. Kilimanjaro cf. Hedberg 1951, Klötzli 1958, Beck *et al.* 1983).

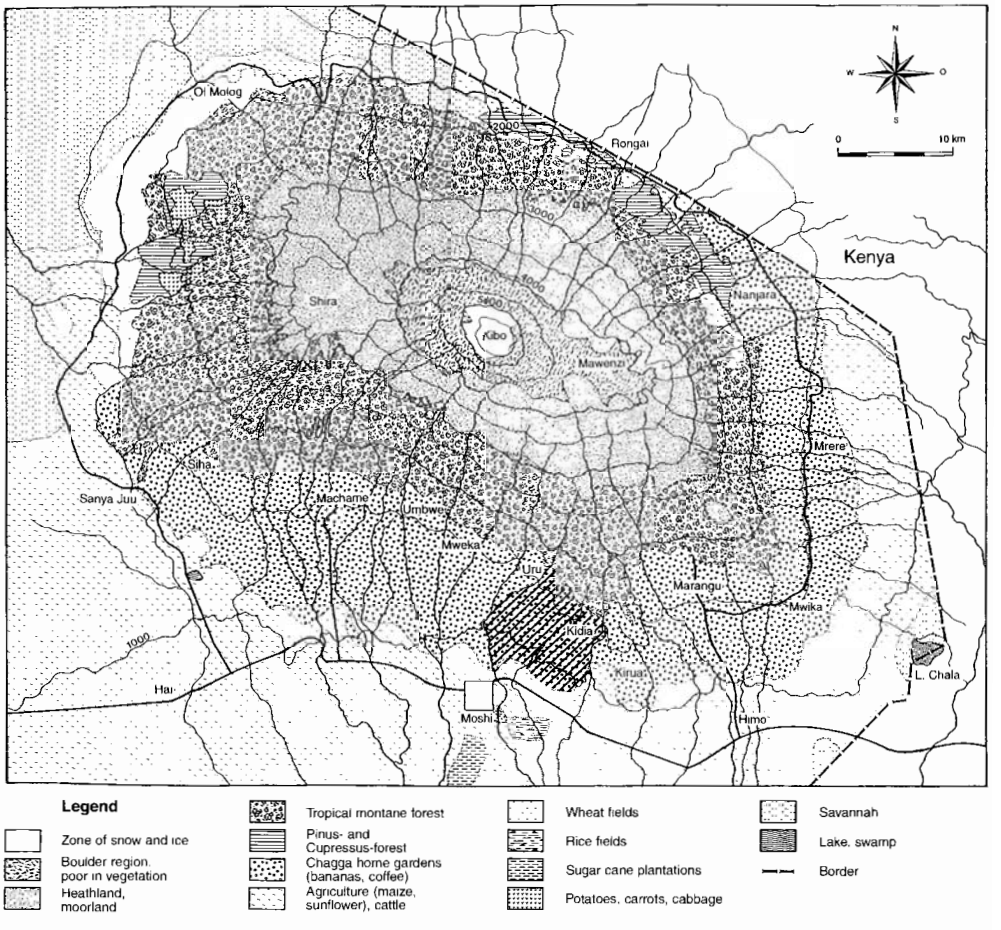

FIG. 1: Land-use and vegetation on Mt. Kilimanjaro. Hatched: Area of Old Moshi dialect.

FIG. 2: Most irrigation canals start in the montane forest.

Except for some tourist routes for climbing Kibo the Afroalpine zone is untouched by human influence.

METHOD

The first step of the investigation was to find suitable co-workers among the inhabitants of Old Moshi. On market days, when the main street was crowded, groups of people were approached and asked for the Chagga names of various "test plants." In a short time numerous Chagga gathered around, most of them at first following the conversation with interest, then later taking an active role in finding proper expressions for the plants presented. With this method, the local name for a plant was confirmed independently several times and an overview of capable speakers among the population was ascertained.

Besides asking people in the streets, individual Chagga were seen at their homes. Care was taken that as many members of the family as possible were present during the interview. Chagga with a profound knowledge of plants were additionally taken on trips, especially into the montane forest belt.

An attempt was made to confirm each Chagga name at least twice. To test the knowledge of a speaker, "test plants" for which the name was already verified, were presented.

Finally, for every vegetation zone competent informants were found to act as assistants. Old women especially showed an immense knowledge of local plant names.

The scientific nomenclature follows Hubbard *et al.* (1952-), Haines & Lye (1983), Agnew & Agnew (1994), and Beentje (1994).

CRITICAL REMARKS ON THE PRESENT WORK

It was not possible in all cases to verify every Chagga name twice, as different expressions were used for some plants in subsequent interviews. Thus the task was not only to confirm one term for a certain plant a second time, but also to ascertain two, sometimes up to six, names for one and the same plant species. In some cases expressions were found to be wrong, but often more than one term existed for a plant species depending on the clan membership of the person interviewed.

Another problem is collective names that define a group of vegetatively similar plants which systematically belong to different families. When these

species (e.g., plants with the name nduwà-màdu´) are used as medicinal plants, it must be presumed (and is so presumed, too, by many native speakers), that the term was originally valid only for one plant species. Chagga with less knowledge of medicinal plants also applied this term to other, similar plant species. Thus not less than five different plant species are known today by the Chagga name nduwá-mádu´. Which of these plants might be the original species is now impossible to discern.

RESULTS

Flora. Over 1100 plant species were found during the field work belonging to 630 genera in 163 families, including new records for Kilimanjaro and the region T2 (Hemp 1996, 1997). Dicotyledonae were represented with 112 families, 471 genera and 797 species, Monocotelydonae with 184 species in 97 genera and 24 families, and the Gymnospermae with 24 families, 60 genera and 131 species.

Richest in species among the flowering plants were the families Compositae (Asteraceae) (101 species), Poaceae (79 species), Rubiaceae (46 species), Papilionaceae (Fabaceae) (41 species), Euphorbiaceae (40 species), Labiatae (Lamiaceae) (34 species), Cyperaceae (33 species), Acanthaceae (30 species), Orchidaceae (23 species), Mimosaceae (22 species), and Caesalpiniaceae (21 species). Dominant fern families were the Aspleniaceae (21 species) and Adiantaceae (16 species).

Herbarium specimens are deposited in the Tanzania National Herbarium, Tanzania (NHT), the East African Herbarium Nairobi, Kenya (EA), in the Herbarium of the Berlin Botanical Museum, Germany (B), in the Herbarium at Kew, England (K), in the National Museum of Natural History (Smithsonian Institution), USA and at Bayreuth University, Germany.

Chagga names. For 600 plant species, use and local names in the Old Moshi dialect were determined. Two main criteria are applied by the Chagga for naming plants: a conspicuous character (mostly vegetative) or the usage of the plant. Thus abstract groups of plants are formed with common characteristics that may however differ in other apparent characters, mostly in the flower.

Some examples are given below for some frequent Chagga terms and important plant species. The complete list of plants with their Chagga names is given in the Appendix. For information on writing and intonation of the Chagga language see Hemp, A. & Winter (1999). Further lists of different Chagga dialects are published by Bayard Hora & Greenway (1940), Watt & Breyer-Brandwijk (1962), Steele (1966), and Beentje (1994). For more data on botanical nomenclature in East Africa also see Heine & Legére (1995) and Brenzinger *et al.* (1994).

An example of a Chagga name for a heterogeneous plant group with a common vegetative character is nduwà-màdu´. This expression (nduwà` = water store, madu´ = ears) denotes plants with roundish, ear-like leaves which occur in moist places: *Centella asiatica* (Umbelliferae), *Hydrocotyle mannii* (Umbelliferae), *Alchemilla volkensii* (Rosaceae), and *Geranium arabicum* (Geraniaceae). The first part of the name refers to the habitat of the plants growing on humid soils, while the second refers to the shape of the leaves.

Ku̱ùshî (which means slippery) is a collective expression for completely different botanical plant species (flowering plants, ferns, mosses) that often form a slippery cover on stones (*Trichomanes melanotrichum* (Hymenophyllaceae), various moss species); or it refers to small epiphytes on trees in humid montane rain forest like *Streptocarpus montanus* (Gesneriaceae), *Cynorkis* and *Polystachia* spp. (Orchidaceae) and filmy ferns (*Hymenophyllum* and *Trichomanes* spp.); or epiphytic ferns, that are not "real" ichamérî´-ferns because of their lingulate, entire leaves (e.g., *Elaphoglossum*, *Loxogramme*, *Vittaria*, *Lepisorus*, and *Pleopeltis* spp.).

Plants called isilè` possess aciculate leaves, e.g., trees and shrubs of *Erica* species or *Stoebe kilimandscharica* (Asteraceae).

Sometimes plants covered by one Chagga name are also classed together in the botanical system. Thus *Eriosema montanum*, *Desmodium repandum*, *Tephrosia villosa*, and *Crotalaria lachnocarpoides*, belonging to the family Papilionaceae, are all known by the name mbalàshò´. Also the name oruchú´, which is the Chagga name for *Caesalpinia decapetala*, *Mimosa invisa*, and *Pterolobium stellatum*, stands for papilionaceous plants with thorny branches which are, however, different in the color of their flowers (yellow, red, white) and their growth form.

A systematic group is formed also by the term itoló´, standing for the labiatiflorous shrubs *Englerastrum scandens*, *Plecthrantus alboviolaceus*, *P. comosus*, *P. igniarius*, *Solenostemon sylvaticus*, and *Tetradenia riparia*.

The life form of a plant is important for the description as well. Thus, kiserānìndà´, which means "banana tree climber" is a term used for twining plants like *Thunbergia alata* or *Lactuca glandulifera*. Neither plants show similarities in other respects.

A common name for grasses is mkarí´ ("the tough one"). However, for some grass species there are special terms, like msukí` for the barb grasses with long beards *Hyparrhenia hirta* and *rufa* (tribe Andropogoneae), *Heteropogon contortus*, and *Hyperthelia dissoluta*. *Isachne mauritiana* and *Panicum trichocladum* with delicate, tufted inflorescences are called kokòwò`, while digitiform grasses like *Chloris pycnothrix*, *Cynodon dactylon*, and *Cynodon nlemfuensis* are known as otsuó`. Grasses used as roof covering for the traditional Chagga hut are named natsì´ (*Cymbopogon caesius*, *Themeda triandra*).

General expressions for sedges are ilachù´ and lahò´. Ilachù´ is used for bigger species, while lahò´ characterizes smaller sedges, which are also identified as lilùwù´. A more specialized term for *Bulbostylis* and *Fimbrystilis* species with juncaceous leaves is otsungà´.

The differentiation of shrubby Rubiaceae, which resemble each other vegetatively and are even hard to identify with scientific keys is very precise in the Old Moshi Chagga dialect. The two major groups are mkarìkárà` (*Keetia gueinzii*, *Pauridiantha paucinervis*, *Rutidea fuscescens*) and mwengèchá` (*Chassalia* and *Psychotria* species). In addition to the above mentioned Rubiaceae there are at least six further shrub species with their own Chagga names.

Even more names exist for trees, which are designated to species level in many cases. Chagga expressions for 104 tree species were found during the study. Very important trees are, e.g., msedí´ (*Ocotea usambarensis*, valuable timber) or mshihíò` (*Olea capensis* ssp. *welwitschii*, an old cultural tree).

Plants with clover-like leaves are onyonyò´ (there are similar terms in the German language: "genuine" clover species (Klee) in the family Papilionaceae and the systematically unrelated wood sorrels (*Oxalis*, "Sauer"klee) or fern species of the genus *Marsilea* ("Klee"farn) with clover-shaped leaves). In Chagga, onyonyò´ defines *Parochetus communis* (Papilionaceae), *Oxalis corniculata*, and *latifolia* (Oxalidaceae), *Marsilea minuta* (Marsileaceae) and *Alchemilla volkensii* (Rosaceae), which, however, differ slightly in leaf shape.

A frequent name is ipuchì´ ("cloud"). This term is applied often to Acanthaceae species (*Asystasia gangetica*, *Barleria micrantha*, *Justicia striata*, *J. flava*, *Phaulopsis imbricata*) and the Lamiaceae *Platostoma africana*. These plants have in common small zygomorphic flowers, whitish in color.

Asteraceae species with small, longlasting flowers which cannot be used as cattle food because of their strong aromatic smell (*Conyza sumatrensis*, *Helichrysum foetidum*, *H. forskahlii*, *H. odoratissimum*, *Pseudognaphalium luteo-album*) are called ilya-nzíhè`, which means "eat grasshopper" in Chagga (nzihè` = grasshopper). Similar expressions can also be found in German and English, e.g., for weeds: *Melampyrum pratense* (Cow-wheat, Wachtelweizen) or *Pedicularis* spp. (Lousewort, Läusekraut).

An example of a term referring to a purely vegetative character is isungùwàlá´. Plants with sappy, translucent and soft stems, like most *Impatiens*, *Dorstenia*, *Elatostema*, *Pilea*, and *Begonia*, also some *Streptocarpus* species are known under this Chagga expression.

Mdehá-fùkò` means "mole rat trapper," the name suggesting already the function of the winding *Stephania abyssinica* (Menispermaceae). To prevent caries, *Acmella calirhiza* (= *Spilanthes mauritiana*) is used. Its name kisingà-mùaná-hèhò` has the meaning "apply it to the first tooth of the child."

Usage is the main aspect in fern names. Ichaméri´ are all soft-leafed species which are eaten by cattle, while isulú` are taken for stall litter only because of their hard and perhaps poisonous (*Pteridium aquilinum*) fronds. The expression kichaméri´ designates small species, e.g., ferns of the genus *Adiantum* like *A. poiretii*. The flowering plant *Thalictrum rhynchocarpum*, which has very similar leaves, is called kichaméri´ as well. This is another example of how flowers are of minor interest in naming plants. There is the expression ihofú´ for all tree ferns and the huge shrub-like *Marattia fraxinea*. All humble moss ferns and club mosses creeping on the ground carry the Chagga name ikurèrà´, while kurùshí` are epiphytic ferns with tongue-like leaves (see above).

Usage. The majority of the 600 plant species investigated were used for cattle forage (56.6%, see Table 1). A similar situation was found by Esser (1986) and Brenzinger *et al.* (1994) with other East African people as well. The easily satiated goats are given mostly thorny plants, while pigs are fed with the sappy *Impatiens*, *Begonia*, and *Commelina* species (isungùwàlá´, ikengérâ´). The most tender herbs are reserved for rabbits. Cattle eat the greatest varieties of plant species.

TABLE 1. Usage of plants on Mt. Kilimanjaro.

usage	species numbers	species numbers in % (out of 600)
Cattle forage	334	56.6
cattle	237	39.5
goats	47	7.8
pigs	12	2.0
sheep	5	0.8
Stall litter	9	1.5
Medicinal plants (incl. magical plants)	176	29.3
Construction material	48	8.0
Food	57	9.5
Ornamental plants	11	1.8
Others	60	10.0

The second most important position, 29.3% or 176 species, is held by medicinal plants (Table 2). The pharmacologically most important plant families on Mt. Kilimanjaro are the Compositae (Asteraceae) with 27 potent species, followed by Labiatae (Lamiaceae) with 13, Papilionaceae (Fabaceae) with 9 and Caesalpiniaceae with 7 species. Apocynaceae, Cucurbitaceae, Euphorbiaceae, Umbelliferae (Apiaceae) each contributed 6 pharmacological species. The area richest in medicinal plants proved to be the savannah.

The central focus of medicinal care is the gastrointestinal tract (Table 2), followed by veterinary, anticough (during the long rains is gets quite cold) and dermatological medicine. Of some importance are also haemostatic ointments, little wonder considering the daily handling of sharp bush knives. Dental problems also seem to be common at Mt. Kilimanjaro. The different plant species, together with their pharmacological properties are listed in Hemp (1990). Information about mechanisms and components are given, e.g., in Bally (1938), Watt & Breyer-Brandwijk (1962), Sengbusch & Dippold (1980) or Neuwinger (1996).

9.5% of the plants species were used for food, and 8.0% for construction material. Various natural materials were taken primarily to erect the rraditional Chagga hut, the so-called bee-hive hut which has now nearly disappeared. For the vertical arms of the hut basket (ndingó`), branches of *Pauridiantha paucinervis*, *Lasianthus kilimandscharicus*, *Trichocladus ellipticus*, *Oxyanthus speciosus*, *Rutidea fuscescens* or *Olea capensis* ssp. *welwitschii* were cut. These arms were elongated with offshoots (masoórâ´) of *Dombeya torrida*, *Macaranga kilimandscharica*, *Dracaena steudneri* or *Rapanea melanophloeos* which create the curved top of the basket. The horizontal bent branches (mavendò`) connecting the vertical structures were particularly flexible boughs of *Rhamnus prinoides*. For the lower wall measuring about 1 m in height (sambàrâ`) *Rytigynia uhligii* was utilized. Appropriate rree species for the four inner supporting posts of the hut (mbedíâ`), the two door poles (shiekó`), as well as the posts of the cattle stall (mbangó´) were *Xymalos monospora* and the rermite resistant tree-fern *Cyathea manniana*. Limbs of *Schefflera volkensii* were used as connecting bars (mriíchò`) between the posts of the cattle stall (mbangó`). Carpenters used *Macaranga kilimandscharica* and *Syzygium guineense* for supporting bars of the storage loft (mhambà´). Ropes were cut from the barks of *Dalbergia lactea*, *Ocinotis tenuiloba*, *Rutidea fuscescens*, *Urera hypselodendron*, and *Stephania abyssinica* to connect the loft bars. *Cyperus laxus* and dried banana leaves (ndawà´) served as roofing material, but mostly the grasses *Cymbopogon caesius* and *Themeda triandra* (natsì´) were used.

The four plant species with magic properties – mostly against the evil eye – seem to be only a small part of the applied magical plant species, but especially in the presence of white people such secrets are not easily revealed.

The section "others" contains various usages in the household and agriculture, e.g., agents against cockroaches and mole rats, the manufacturing of fibers, the adding of flavors to brew the local banana beer, the obtaining of glues and polishing materials, and the technique of lighting fires with the aid of special pieces of wood.

To light a fire, a piece of wood of the tree *Xymalos monospora* is carved to a square cross-section, along one edge of which shallow grooves are incised. On one side these holes continue as projections. The holes function as supports for rotating dry *Xymalos monospora* sticks, while the projections lead the resulting heat to the tinder material (dried bark or lichens). The fire wood (kipongòrò´) and stick (ovitó´) can be used several times, depending on the number of holes. Höhnel (1892) also described a similar technique used by people in East Africa to make fire.

Bee-keeping plays an important role at Mt. Kilimanjaro. Two bee species are kept: the bigger, stinging honey-bee *Apis mellifera* ssp. *monticola* that res-

TABLE 2. Medicinal plant families and their use on Mt. Kilimanjaro.

Usage	Plant family	Species number
gastro-intestinal remedies	Compositae (9), Papilionaceae (3), Umbelliferae (3), Solanaceae (2), Apocynaceae (2), Ebenaceae (2), Verbenaceae (1), Papaveraceae (1), Basellaceae (1), Melianthaceae (1), Bignoniaceae (1), Oxalidaceae (1), Sapindaceae (1), Urticaceae (1), Plantaginaceae (1), Polygonaceae (1), Nyctaginaceae (1), Malvaceae (1), Mimosaceae (1), Rubiaceae (1), Sterculiaceae (1), Myrtaceae (1); against amoebal infections: Acanthaceae (1); against diarrhoea: Caesalpiniaceae (5); purgative: Cucurbitaceae (3); against stomach ulcers and heartburn: Begoniaceae (1), Labiatae (6), Euphorbiaceae (3), Simaroubaceae (1), Melastomataceae (1), Meliaceae (1)	61
veterinary medicine	Compositae (1), Rhamnaceae (1), Lauraceae (1), Agavaceae (1), Alangiaceae (1), Caesalpiniaceae (1), Euphorbiaceae (1); anthelminthic agent: Polygonaceae (1); against BSE: Combretaceae (2); against pustules, stomach remedy: Labiatae (2); against intestinal obstruction: Compositae (1), Vitaceae (2); for increasing lactation quantity and quality: Vitaceae (2), Poaceae (2), Urticaceae (1), Papilionaceae (1)	21
skin medicine	Crassulaceae (2), Euphorbiaceae (2), Rubiaceae (2), Tiliaceae (1), Polygonaceae (1), Labiatae (1), Compositae (1), Araliaceae (1), Rhamnaceae (1), Flacourtiaceae (1), Ebenaceae (1); against skin fungi: Phytolaccaceae (1); against burns: Tiliaceae (1), Cactaceae (1); against age spots: Malvaceae (1), Papilionaceae (1)	19
cough medicine (bronchitis, asthma, pulmonary infection	Compositae (3), Polygonaceae (3), Liliaceae (2), Labiatae (2), Caryophyllaceae (1), Santalaceae (1), Polygalaceae (1), Caesalpiniaceae (1), Rutaceae (1), Papilionaceae (1); against throat infections: Cucurbitaceae (2)	18
styptic medicine	Compositae (5), Violaceae (1), Boraginaceae (1), Papilionaceae (1), Liliaceae (1), Mimosaceae (1), Solanaceae (1)	11
dental medicine	Ebenaceae (1), Umbelliferae (1), Solanaceae (1); preventive caries ointment: Polygonaceae (1); gum diseases: Compositae (2), Verbenaceae (1)	7
anthelmintic medicine	Myrsinaceae (2), Campanulaceae (1), Liliaceae (1), Acanthaceae (1), Chenopodiaceae (1)	6
magical plants	Solanaceae (1), Moraceae (1), Labiatae (1), Menispermaceae (1), Velloziaceae (1)	5
antimalaria drugs	Myrsinaceae (2), Liliaceae (1), Cucurbitaceae (1)	4
antirheumatics, anti-arthritics, against sprains	Crassulaceae (2), Compositae (1)	3
wound ointments	Boraginaceae (1), Liliaceae (1); for disinfection: Tiliaceae (1)	3
Painkillers	Caryophyllaceae (1), Papilionaceae (1)	2
ear medicine	Umbelliferae (1), Labiatae (1)	2
eye ointments	Compositae (1), Moraceae (1)	2
kidney medicine	Polygonaceae (1), Campanulaceae (1)	2
liver medicine	Urticaceae (1), Apocynaceae (1)	2
against tongue-shingles	Compositae (2)	2
blood pressure drugs	Umbelliferae (1)	1
heart medicine	Urticaceae (1)	1
aphrodisiacs	Apocynaceae (1)	1
to bewitch women	Podocarpaceae (1)	1
to expedite birth	Compositae (1)	1
abortifacient	Papilionaceae (1)	1
against influenza	Caryophyllaceae (1)	1
snake bite remedy	Combretaceae (1)	1
epileptic medicine	Verbenaceae (1)	1
to stimulate appetite	Guttiferae (1)	1
throat infections	Papilionaceae (1)	1

embles the European honey-bee, and a small stingless bee of the genus *Meliponula* (Hemp, C. & Winter 1999). Due to the contrasting defense mechanisms of these two bee species, the modes of harvesting the honey by the Chagga are completely different. Forty to 50-cm thick hollowed-out trunks of *Xymalos monospora* or *Ocotea usambarensis* serve as bee-hives and are fixed on easy accessible trees with horizontal branches in the montane forest belt, in the case of the njukí`-bees (*Apis mellifera* ssp. *monticola*). This type of bee-hive can be found in the area of Old Moshi up to the upper forest border at altitudes of about 2700 m. At this altitude, forests with *Erica excelsa* dominate (Hemp & Beck, in press), which is a good source of honey. The more thermophilic nyorì`-bee (*Meliponula* sp.) is kept at lower altitudes, mostly in the plantation belt where the hives are often placed directly under house roofs or in trees of the savannah gallery forests.

To harvest the honey of the aggressive njukí`-bees, a bundle of plants is prepared to smoke out these stinging bees. The honey collector first cuts logs of *Aphloia theiformis* into pieces giving a particularly hot fire, ties them with lianas like *Urera hypselodendron*, and holds the bunch into a fire of dry *Erica* twigs, which are lit very easily. Then he gathers leafy branches of the Rubiaceae shrub *Pauridiantha paucinervis*, as well as fronds of the bigger *Asplenium* species, and covers the glowing *Aphloia* logs. The whole, now heavily smoking bundle is again tied with liana ropes except for a space in the upper part of the bundle for blowing in air. With this smoking weapon, the honey collector can dare to approach the bee-hive to take out the combs. Combs filled with larvae are regarded as exceptionally delicious. Of course with this method the bee-hives are heavily damaged. Even more radical is the harvesting of wild bee colonies, since during the smoking process the whole adjacent forest is sometimes also set on fire.

Less dramatic is the harvesting of the honey of the stingless bees. After opening the hive, the unusual comb-structures are revealed. The nyorì`-bees do not build horizontally orientated hexagonal combs like the njukí`-bees, but fill the hive with roundish, spindle-shaped "honey-pots" which measure about 5 cm in diameter. Thus the harvesting is not performed by taking out whole combs but by smashing the honey-pots to release a fluid, watery honey (Fig. 3). This cu-

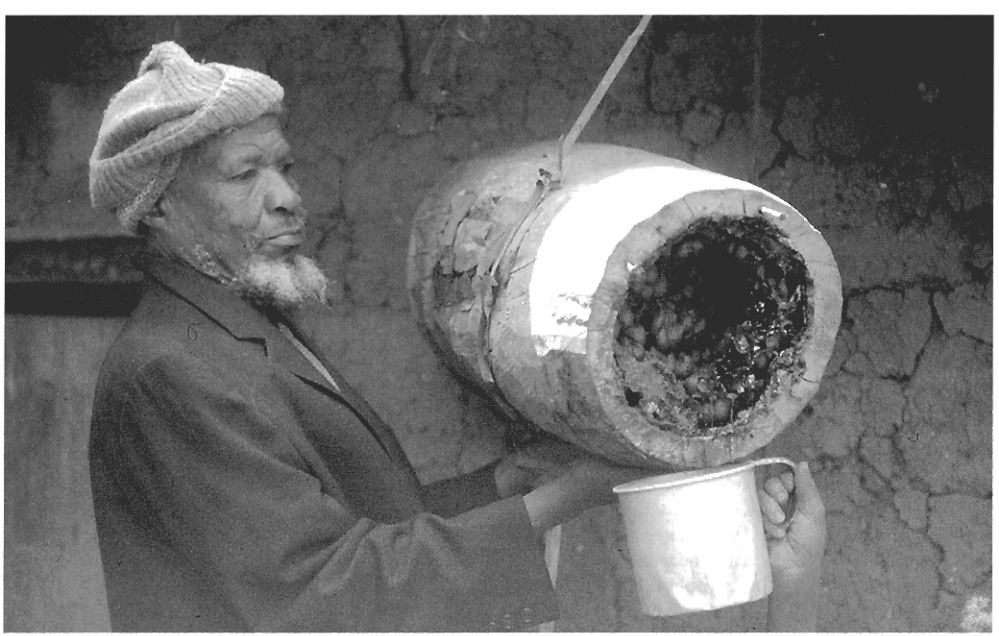

FIG. 3: Mzee Elizieri Malisa harvests the honey of the stingless nyorì`-bee (*Meliponula* sp.) by smashing the honey-pots to release a fluid, watery honey.

rious, sour-tasting nyorì`-honey (losì´) is regarded as highly medicinal, while the njukî`-honey (wuukî`) is similar in tasre to European honey.

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Appendix. Vascular plants of Kilimanjaro with their scientific and Chagga names. In the cases of several Chagga names per plant the most frequently used is underlined, ?= uncertain Chagga names, *= Chagga name without phonetical investigation, kisw.= Kiswahili expression.

Spermatophyta: Gymnospermae	
Cupressaceae	
Cupressus lusitanica MILL.:	irambàhù´, mwerèsì`
Podocarpaceae	
Podocarpus latifolius (THUNB.) MIRB.:	mtong'òsò´
Spermatophyta: Angiospermae: Dicotyledonae	
Acanthaceae	
Adhatoda engleriana C. B. CL.:	idungu
Asystasia gangetica (L.) T. ANDERS.:	ipuchì´, ilindí´, ivindì´
Barleria micrantha C. B. Cl.:	ifunà`, kimamúò´, mkundú-kûndú´, ipuchì´
Isoglossa lactea LINDAU:	mlovìná`
Justicia flava VAHL:	ipuchì´
Justicia striata (KL.) BULLOCK:	ipuchì´
Macrorungia pubinervia (T. ANDERS.) C.B. CL.:	mlovìná`
Mimulopsis kilimandscharica LINDAU	mlovìná`
Phaulopsis imbricata (FORSK.) SWEET:	ipuchì´
Thunbergia alata SIMS:	kiserá-nìndà`
Aizoaceae	
Glinus lotoides L.:	mchimbìrì´
Alangiaceae	
Alangium chinense (LOUR.) REHDER:	iringònú´
Amaranthaceae	
Achyranthes aspera L.:	iambádà`, ikamà-mùmbè`
Aerva javanica (BURM. F.) SCHULTES (*Aerva persica* (BURM. F.) MERRILL):	msufì`
Amaranthus hybridus L. ssp. *hybridus*:	kianá`
Celosia schweinfurthiana SCHINZ.:	itoyá`, mroè´
Cyathula polycephala BAK.:	ifumbò`, ikamà-mùmbè`, ikamìsùrá lyà mútsudú`
Anacardiaceae	
Sorindeia madagascariensis DC:	ndaràhò´, ngoèdá`
Annonaceae	
Uvaria leptocladon OLIV.:	kikomú´
Apocynaceae	
Carissa edulis (FORSK.) VAHL:	(i)otopò`, mchuhùná`, imang'ò´ (Srrychninfrucht)
Landolphia buchananii (HALL. F.) STAPF:	mnyarìhì´
Oncinotis tenuiloba STAPF:	mruwà`
Rauvolfia caffra SOND.:	msesévê´
Rauvolfia mannii STAPF:	kirahá-sùsù` kyá mûrsudú`
Saba comorensis (BOJER) PICHON:	mtuwà`
Tabernaemontana pachysiphon STAPF (*T. holstii* K. SCHUM.):	irachà´, mbaràshà`
Thevetia peruviana (PERS.) K. SCHUM.:	irasùwà`
Aquifoliaceae	
Ilex mitis (L.) RADLK.:	msahìdà`
Araliaceae	
*Cussonia s*picata* THUNB.:	iengérè´, iporòrì`
Polyscias fulva (HIERN) HARMS:	mcharoro*
Schefflera myriantha (BAK.) DRAKE (*S. polysciadia* HARMS):	mfurùmá`
Schefflera volkensii (ENGL.) HARMS:	ikodè-kòdè`, mfurùmá`
Asclepiadaceae	
Gomphocarpus semilunatus A. RICH.:	imuwalàlè lyá Nûkà` la porini, ifurù-fúrù´
Mondia whytei (HOOK. F.) SKEELS:	mruwà`
Secamone punctulata DECNE.:	mnyarìhì´
Balsaminaceae	
Impatiens digitata WARB. ssp. *digitata*:	isungùwàlá´
Impatiens kilimanjari OLIV. :	isungùwàlá´
Impatiens pseudoviola GILG:	isungùwàlá´
Impatiens nana ENGL. (*I. trichochila* WARB.):	isungùwàlá´
Impatiens volkensii WARB.:	mworerèmù´
Impatiens walleriana HOOK.F.:	isungùwàlá´
Balanitaceae	
Balanites aegytiaca (L.) DEL.:	iungù´
Basellaceae	
Basella alba L.:	ilelèmà`
Begoniaceae	
Begonia johnstonii OLIV.:	iolò´
Begonia meyeri-johannis ENGL.:	iringò-rìngó´, ikangà` sumbùra`?
Begonia sutherlandi HOOK. F:	iolò´, isungùwàlá´
Bignoniaceae	
Kigelia africana (LAM.) BENTH. (*K. aethiopicum* (FENZL) DANDY):	imomò´
Markhamia lutea (BENTH.) K. SCHUM. (*M. platycalyx* SPRAGUE):	mturù-wàndá´
Stereospermum kunthianum CHAM.:	iungá´
Tecoma stans (L.) H. B. & K.:	mbihìnù´
Bombacaceae	
Adansonia digitata L.:	mbuyú`
Ceiba pentandra (L.) GAERTN.:	msufì`
Boraginaceae	
Cordia africana LAM. (C. abyssinica R. BR.):	mringà-ríngà´
Cynoglossum lanceolatum FORSK.:	ichambàdá`
Ehretia cymosa THONN.:	mnemvù´
Trichodesma zeylanicum (L.) R. BR.:	iwashá`
Cactaceae	
Rhipsalis baccifera (J. MILL.) STEARN:	etumbulu, mnyarà´

Caesalpiniaceae	
Bauhinia tomentosa L.:	mchahémbè´
Parkinsonia aculeata L.:	msambòchì´
Caesalpinia decapetala (ROTH) ALSTON:	oruchú´, msha´
Caesalpinia pulcherrima (L.) SWARTZ:	irehèrà`
Cassia siamea LAM.:	mnjohòró` (kisw.)
Cassia spectabilis DC.:	mnjohòró` (kisw.)
Chamaecrista mimosoides (L.) GREENE (*Cassia mimosoides* L.):	iwandàlà`, kirundú´, kimunahá-nàhá`, kimaà-mùtsikó`, ikamà-mùmbè`
Delonix elata (L.) GAMBLE:	imerà´
Oxystigma msoo HARMS:	msohú´, msohòhó´, msohó´
Piliostigma thonningii (SCHUMACH.) MILNE-REDH.:	idongó-njòfù, mkandà-kándà´
Pterolobium stellatum (FORSK.) BRENAN:	oruchú´
Senna bicapsularis (L.) ROXB. (*Cassia bicapsularis* L.):	hechî, otupá`
Senna didymobotrya (FRESEN.) IRWIN & BARNEBY (*Cassia didymobotrya* FRESEN.):	ivinù´
Senna septentrionalis (VIVIANI) IRWIN & BARNEBY (*Cassia floribunda* CAV.):	otupá`, hechî, ivinù´
Tamarindus indica L.:	mwoyà´
Campanulaceae	
Wahlenbergia abyssinica (A. RICH.) THULIN:	lima?*, mtakúnyà´, kima-márùwá`, mbihìnù´
Capparaceae	
Cleome monophylla L.:	moè´, imaà-kùnárè´, fundó-fùndó`
Maerua angolensis DC.:	ilemà-njòfù
Caricaceae	
Carica papaya L.:	ipapâî
Caryophyllaceae	
Drymaria cordata (L.) ROEM. & SCHULTES:	iwadá-ngùmbí´, orumbàhì´
Stellaria media (L.) VILL.:	orumbàhì´, mbarà-hàangà´
Celastraceae	
Hippocratea goetzei LOES.:	mlaá`
Maytenus acuminata (L. F.) LOES.:	msewùsá`
Maytenus mossambicensis (KLOTZSCH) BLAKELOCK var. *mossambicensis*:	msambòchì´
Maytenus senegalensis (LAM.) EXELL:	msambòchì´ músorò´
Chenopodiaceae	
Chenopodium ambrosioides L.:	imbiò-mbíò´
Combretaceae	
Combretum zeyheri SOND.:	ikalà-ngòyò´
Terminalia brownii FRESEN:	msahìdà`
Terminalia kilimandscharica ENGL.:	mpukó´
Compositae (Asteraceae)	
Acmella calirhiza DEL. (*Spilanthes mauritiana* (PERS.) DC.):	kisingà-mùaná-hèhò`
Adenostemma mauritianum DC.:	mbechè yá mùringéni´
Ageratum conyzoides L.:	ifunà`
Anisopappus oliverianus WILD:	iwará-kùilà `
Artemisia afra WILLD.:	itasì`
Aspilia pluriseta SCHWEINF.:	singàrèrè
Bidens pilosa L.:	mbechè´
Conyza attenuata DC. (*C. persicifolia* (BENTH.) OLIV. & HIERN.):	isina, ifunà`, ipasà´
Conyza hypoleuca A. RICH.:	mchowà´
Conyza newii OLIV. & HIERN:	ikamà-nìndà`, ikachì´, iparà-njùwà` (?), ira-ndáwà´, isinà lyá mûrsudú`
Conyza subscaposa O. HOFFM.:	irié`
Conyza sumatrensis (RETZ.) E. H. WALKER (*C. floribunda* H. B. K.):	ichombèrî`, ialà-njàá`, panjàví`
Conyza vernonioides (A. RICH.) WILD:	kiwalé´
Crassocephalum crepidioides (BENTH.) S. MOORE:	irombò´, sufi`
Crassocephalum montuosum (S. MOORE) MILNE-REDH.:	irambòhò´, iparà-ngòmî`, iparà-njùwà`, irombò´
Crassocephalum picridifolium (DC.) S. MOORE:	ipachà-sòká´
Dichrocephala integrifolia O. KUNTZE:	ifunà`, ifunà` lyà kísorò´
Emilia discifolia (OLIV.) C. JEFFREY (*Senecio discifolius* OLIV.):	kipungùrù`, kisungùrù`, kimamúò´, imbudé`
Galinsoga parviflora CAV.:	ipanjàví`, kimakà-mákà´, ihenù`, kima-mákà´, ingerèsà´
Helichrysum foetidum (L.) CASS.:	ipachà-sòká´?, ilya-nzíhè
Helichrysum forskahlii (J. F. GMEL.) HILLIARD & BURTT (*H. cymosum* (L.) LESS.):	kima-mbórà`, ilya-nzíhè
Helichrysum odoratissimum (L.) LESS.:	iparà-njùwà`, ialà-njàá`
Helichrysum schimperi (SCH. BIP.) MOESER:	ikumádá´, ifu-ífu´
Helichrysum setosum HARV.:	iwará-kùilà`
Helichrysum splendidum (THUNB.) LESS.:	ifudà-fùdá´
Lactuca glandulifera HOOK.F.:	kisorá-nìndà`
Lactuca inermis FORSK. (*L. capensis* THUNB.):	kima-máruwá`, ima-márùwá`
Launaea cornuta (OLIV. & HIERN.) C. JEFFREY:	kima-máruwá`, mchungá`(kilemà-ndàmàngó`)
Melanthera scandens (SCHUMACH. & THONN.) ROBERTY:	ipachà-sòká´, kifahà-fáhà
Microglossa pyrrhopappa (A. RICH.) AGNEW (*Conyza pyrrhopappa* C. H. SCHULTZ EX A. RICH.):	ifunà`, ifu-ífu´, ichowà´
Piloselloides hirsuta (FORSK.) C. JEFFREY:	imbarù-mbárù´
Pseudognaphalium luteo-album (L.) HILLIARD & BURTT:	ifu-ífu´i, ilya-nzíhè`

Psiadia punctulata (DC.) VATKE:	mchowà´, isinà´, itorò´
Senecio maranguensis O. HOFFM.:	(k)ikundá-mbùrú`, kiwalé kyá pórini, mbirì`
Senecio syringifolius O. HOFFM.:	ilelèmà`
Solanecio angulatus (VAHL) C. JEFFREY (*Crassocephalum bojeri* (DC.) ROBYNS):	porsò-pótsò´, ipa̱rà-njùwà`
Solanecio mannii (HOOK. F.) C. JEFFREY (*Crassocephalum mannii* (HOOK. F.) MILNE-REDH.):	i̱ringìrí´, itumu-ringiri*
Sonchus oleraceus L.:	kima-máruwá`
Sphaeranthus gomphrenoides O. HOFFM.:	i̱faámìà`
Stoebe kilimandscharica O. HOFFM. var. *densiflora* O. HOFFM.:	isilè`
Tagetes minuta L.:	imbangì`, iwa̱rumú`, iwaró`
Tithonia diversifolia (HEMSL.) GRAY:	imtahó`, iwaró`
Tolpis capensis (L.) SCH. BIP.:	kima-máruwá`
Tridax procumbens L.:	mbichìrí`
Vernonia brachycalyx O. HOFFM.:	ifu-ífu´
Vernonia galamensis (CASS.) LESS. ssp. *afromontana* (R. E. FRIES) M. GILBERT:	iwonú`
Vernonia glabra (STEETZ) VATKE (*V. hindei* S. MOORE):	kima-máruwá`
Vernonia myriantha HOOK. F. (*V. subuligera* O. HOFFM.):	iduhùdù´
Vernonia purpurea WALP. (*V. duemmeri* S. MOORE):	ifu-ífuí`
Connaraceae	
Rourea thomsonii (BAK.) JONGKIND (*Jaundea pinnata* (BEAUV.) SCHELLENB.):	mchoḥòró`, msinèfu fó mûtsudú`
Convolvulaceae	
Convolvulus kilimandschari ENGL.:	ikuwù´, ikuwù lyá mûtsudú`
Dichondra repens J.R. & G. FORST.:	nduwà-màdu´
Ipomoea batatas POIR.:	kisohîa´
Afrocrania volkensii (HARMS) HUTCH.:	irundú´
Crassulaceae	
Bryophyllum pinnatum (LAM.) OKEN:	iokò´
Crassula alsinoides (HOOK. F.) ENGL.:	ikidembè´, iwandàlà`
Kalanchoe crenata (ANDREWS) HAW.:	imboókò-mbóôkò´, iokò´
Kalanchoe densiflora ROLFE var. *densiflora* CUF.:	iokò´, iolo
Cruciferae (Brassicaceae)	
Lepidium bonariense L.:	ichombèrí`, ialà-njàá`
Raphanus sativus L.:	imurá`
Cucurbitaceae	
Ctenolepis cerasiformis C. B. CLARKE IN HOOK. F.:	irundà lyà njókâ`
Diplocyclos palmatus (L.) C. JEFFREY:	kimaà-ngànú´
Diplocyclos schliebenii (HARMS) C. JEFFREY:	kisamà-sàmá´
Luffa cylindrica (L.) ROEM.:	idodòkí´(kisw.)
Momordica foetida SCHUMACH.:	i̱rengò`, iserá-nindà`, iwurú`
Momordica friesiorum (HARMS) C. JEFFREY:	kokorò´

Oreosyce africana HOOK. F.:	kifahà-fáhà, ikuwù´
Telfairia pedata (SIMS) HOOK.:	ikomè´
Zehneria scabra (L.F.) SOUL:	mbawá´?, iparù´, mserùwá`, mwosaràngè´, kirorò´
Dipsacaceae	
Dipsacus pinnatifidus A. RICH.:	ipachà-sòká´
Ebenaceae	
Diospyros mespiliformis A. DC.:	ichengò`
Euclea divinorum HIERN.:	mwurúkà´, iwurúkà´, iwurúkà`
Euclea natalensis A. DC.:	iwurúkà´
Ericaceae	
Agauria salicifolia (COMM. EX LAM.) HOOK. F. EX OLIV.:	ihahánà´, mwadàì`
Erica arborea L.:	isilè`
Erica excelsa (ALM & FRIES) BEENTJE (*Philippia excelsa* ALM & FRIES):	isilè`
Erica trimera (ENGL.) BEENTJE (*Philippia trimera* ENGL.)	isilè`
Euphorbiaceae	
Acalypha fruticosa FORSSK. var. *eglandulosa* A.R.-SM.:	ikundá-mbùrú`
Acalypha ornata A. RICH.:	isongoléà´
Acalypha psilostachya HOCHST. var. *psilostachya*:	kikundá-mbùrú`
Acalypha racemosa BAILL.:	ikundá-mbùrú`
Acalypha volkensii PAX:	ikundá-mbùrú`, kirundú´
Bridelia micrantha (HOCHST.) BAILL.:	mwarìé`
Clutia abyssinica JAUB. & SPACH var. *usambarica* PAX & K. HOFFM.:	iparàchìchí´ (kisw.)
Clutia robusta PAX:	mwolóràwà´, mndundú`
Croton macrostachyus DEL.:	mfurù-fúrù´
Croton megalocarpus HUTCH.:	mfurù-fúrù´
Drypetes gerrardii HUTCH.:	mwadàì`
Euphorbia hirta L.:	kima-mútsirí´, mbichìrí`
Euphorbia systyloides PAX:	kima-máruwá`
Macaranga capensis (BAILL.) SIM.:	ihahá´
Macaranga kilimandscharica PAX:	ihahá´, mnahá-nàhá`
Margaritaria discoidea (BAILL.) WEBSTER var. *nitida* (PAX) A.R. SM.:	mshamànà´
Manihot esculenta CRANTZ:	idumá´
Micrococca volkensii (PAX) PRAIN:	kikarìkárà`, mdowó´
Phyllanthus suffrutescens PAX:	kima-múrukà´, kifurúhánjè`, o̱rumbàhì´, kiohì´, mkunáre´
Ricinus communis L.:	iwonú`
Synadenium glaucescens PAX.:	irasò´
Tragia brevipes PAX:	kimaná-ngìná`
Flacourtiaceae	
Aphloia theiformis (VAHL) BENN.:	mhinjà`, iwurúkà lyá mûtsudú`, itu̱ùhúngà`

Casearia battiscombei R. E. FRIES:	mṭikà-wàndu`
Dovyalis abyssinica (A. RICH.) WARB.:	mmangò´
Flacourtia indica (BURM.F.) MERR.:	mdochì´, msambòchì´ (íka´)
Oncoba spinosa FORSK.:	msambòchì´
Geraniaceae	
Geranium arabicum FORSK.:	sangàrî`, nduwà-màdu´
Gesneriaceae	
Streptocarpus caulescens VATKE:	isungùwàlá´, lekùrà´, ipachà-sòká´
Streptocarpus montanus OLIV.:	kuṛushî`
Hamamelidaceae	
Trichocladus ellipticus ECKL. & ZEYH.:	isinà´
Gutriferae (Hypericaceae)	
Garcinia volkensii ENGL.:	mtoviṛî`
Hypericum peplidifolium A. RICH.:	ndoró`, sunguru
Hypericum revolutum VAHL ssp. *keniense* (SCHWEINF.) N. ROBSON:	kilala
Hypericum revolutum VAHL ssp. *revolutum*:	kilya-múchaṛè´, kidambùò`, ihengè-múṛa´, itoṛò´
Labiarae (Lamiaceae)	
Englerastrum scandens (GÜRKE) ALSTON:	ilelèmà`, kiroló´
Isodon ramosissimum (J. D. HOOKER) CODD (*Homalocheilos ramosissmum* (HOOK. F.) J. K. MORTON):	iwuṛí-wùṛî`, mwoserèká`
Leucas grandis VATKE (*L. mollis* BAKER):	isamùri´, ifumbò`?, ima-mukangá´
Ocimum gratissimum L. (*O. suave* WILLD.):	ikachì´
Platostoma africanum P. BEAUV.:	ipuchì´, irengò`, itombòlò`, kima-mbórà`, ifunà`
Plectranthus alboviolaceus GÜRKE:	iroló´
Plectranthus coeruleus (GÜRKE) AGNEW:	kiombo (Rombo-Dialekr)
Plectranthus comosus SIMS (*P. barbatus* GÜRKE):	mwoserèká`, iroló´
Plectranthus edulis (VATKE) AGNEW:	ipachà-sòká´
Plectranthus igniarius (SCHWEINF.) AGNEW:	iroló´, ihombò´
Pycnostachys meyeri GÜRKE:	idawàwá´
Salvia coccinea L.:	kimamúò´,
Salvia nilotica JACQ.:	ima-mukangá´
Satureia abyssinica (BENTH.) BRIQ.:	iṛaá-njùkî`
Satureia biflora (D. DON) BENTH.:	kimamúò´?, kirindi*, kimamírî´
Solenostemon sylvaticus (GÜRKE) AGNEW:	itoló´
Tetradenia riparia (HOCHST.) CODD:	itoló´, ihombò´
Lauraceae	
Cinnamomum camphora (L.) J. PRESL:	msedí´?
Ocotea usambarensis ENGL.:	msedí´
Persea americana MILL.:	ipaṛàchìchí´ (kisw.)
Lobeliaceae	
Lobelia deckenii (ASCHERS.) HEMSL.:	isambò´
Lobelia giberroa HEMSL.:	isambò´, kuṛushî`?
Lobelia holstii ENGL.:	kimamdoko?, mtakúnyà´
Monopsis stellarioides (PRESL.) URB.:	oṛumbàhì´, oyovindi*
Loganiaceae	
Nuxia floribunda BENTH.:	mwengúrà´
Strychnos scheffleri BAK. F.:	mlaá`
Loranthaceae	
Agelanthus elegantulus (ENGL.) POLH. & WIENS (*Loranthus keudelii* ENGL.):	mwadài`, ndamàngó`
Englerina holstii ENGL.:	ndamàngó`
Englerina woodfordioides (SCHWEINF.) BALLE:	ndamàngó`
Loranthus ulugurense ENGL.:	ndamàngó`
Phragmanthera usuiensis (OLIV.) M. GILBERT (*Loranthus rufescens* DC.):	ndamàngó`
Plicosepalus curviflorus (OLIV.) VAN TIEGH.:	ndamàngó`
Tapinanthus brunneus (ENGL.) DANSER:	ndamàngó`, ndamàngó`
Malvaceae	
Hibiscus vitifolius L.:	iwashá`, iruwàwà´
Kosteletzkya adoensis (A. RICH.) MAST.:	ishoshókò´
Pavonia urens CAV.:	ilembèhú´
Sida acuta BURM. F.:	mnahá-nàhá`
Sida tenuicarpa VOLLESEN (*S. cuneifolia* agg. ROXB.):	kirundú´
Melastomataceae	
Dissotis senegambiensis (GUILL. & PERR.) TRIANA:	mnafù`, kiungùyà`, iolò´, kifahà-fáhà, mbalàshò yá mùsaṛî`
Meliaceae	
Lepidotrichilia volkensii (GÜRKE) LEROY:	mchengò`, mwowonì`, kimuovíṛò´, mkondè-kóndè´ , mlya-ndéhè´ fo mûtsudú´?
Toona ciliata M. ROEM.:	iṛiṛá-ngèlá`
Trichilia emetica VAHL:	ngoèdá`, mṛsuṛsù´
Turraea robusta GÜRKE:	mlya-ndéhè´
Melianrhaceae	
Bersama abyssinica FRESEN.:	ira-ndáwà´, irandà-ngùvè`, kichengò`, mlaí-làî`
Menispermaceae	
Stephania abyssinica (DILLON & A. RICH.) WALP. var. *formentella* (OLIV.) DIELS:	mdehá-fukò`
Tiliacora funifera (MIERS) OLIV.:	kirundú´
Mimosaceae	
Acacia albida DEL.:	mmerà´
Acacia brevispica HARMS:	kikalè´
Acacia hockii DE WILD.:	mmerà´
Acacia mearnsii DE WILD.:	iwotónì´
Acacia melanoxylon R. BR.:	iwotónì´
Acacia nubica BENTH.:	mgunga mavi (kisw.)
Albizia gummifera (GMEHL) SMITH:	mlamvîà`
Albizia petersiana (BOLLE) OLIV.:	milú´
Albizia schimperiana OLIV. var. *amaniensis* (BAK.F.) BRENAN:	mfuṛúhánjè`, mrukà`
Dichrostachys cinerea ssp. *cinerea* (L.) WIGHT & ARN.:	kimaàkùnáṛè´, mwerà´

Mimosa invisa MART. EX COLLA:	oruchú´
Newtonia buchananii (BAKER) GILB. & BOUT.:	mkufí´
Monimiaceae	
Xymalos monospora (HARV.) BAILL.:	mtovìrî`, mdiří´, kiolà-fùó`, ndidì`
Moraceae	
Dorstenia zanzibarica OLIV.:	isungùwàlá´, iokò´
Ficus exasperata VAHL:	itsatsá´
Ficus lutea VAHL:	mtembó´
Ficus sur FORSSK. (*Ficus capensis* THUNB.):	mkuyù´
Ficus thoningii BL.:	mfumù´
Ficus vallis-choudae DEL.:	mkuyù´
Milicia excelsa (WEIN.) C. C. BERG (*Chlorophora excelsa* WELW.):	mvulè` (kisw.), mrìè`
Trilepisium madagascariense DC. (*Bosqueia phoberos* BAILL.):	isangà`?
Myricaceae	
Myrica salicifolia A. RICH.:	iwachè´
Myrsinaceae	
Embelia schimperi VATKE:	ngetsì`
Maesa lanceolata FORSSK.:	imkuyù lyá mûtsudú`, irido*
Rapanea melanophloeos (L.) MEZ.:	mrasò´, msahìdà`, ifumù´, msahìdà`?
Myrtaceae	
Eucalyptus saligna SM.:	opanì`
Psidium guajava L.:	mperá`
Syzygium guineense (WILLD.) DC.:	mmasáê´
Nyctaginaceae	
Boerhavia diffusa L.:	mtindì fó ngûvè`, ifunà`
Ochnaceae	
Ochna insculpta SLEUMER:	kirihá-mènyá`, kirahá-sùsù` (fruiting plant)
Olacaceae	
Strombosia scheffleri ENGL.:	mkondè-kóndè´
Oleaceae	
Jasminum schimperi VATKE (J. eminii GILG):	kimuovírò´
Olea europea L. ssp. *africana* (MILL.) P. S. GREEN (*O. africana* MILL., *O. chrysophylla* LAM.):	msènèfù´
Olea capensis L. ssp. *welwitschii* (KNOBL.) FRIIS & P. S. GREEN:	mshihìò`
Oliniaceae	
Olinia rochetiana A. JUSS.:	msadá`, iwachè´?
Onagraceae	
Fuchsia magellanica LAM. var. *discolor* (LINDL.) BAILEY:	kima-mámbô´
Ludwigia abyssinica A. RICH.:	ihengè-múra´
Orobanchaceae	
Orobanche minor SMITH:	ososì
Oxalidaceae	
Oxalis corniculata L.:	onyonyò´, inyonyò´
Oxalis latifolia H. B. & K.:	inyonyò´, onyonyò´, isunjùkù´
Papaveraceae	
Argemone mexicana L.:	kima-máruwá`
Papilionaceae (Fabaceae)	
Abrus precatorius L.:	mdelá´
Aeschynomene mimosifolia VATKE:	iwaró`
Arachis hypogaea L.:	karàngà` (kisw.)
Clitoria ternatea L.:	ikilewò´
Crotalaria lachnocarpoides ENGL.:	mbalàshò´
Crotalaria natalitia MEISSN.:	mnahá-nàhá`
Dalbergia lactea VATKE:	mpalálùó`
Desmodium repandum (VAHL) DC.:	mbalàshò´
Eriosema montanum BAK. F. var. *montanum*:	mbalàshò´, mbalàshò´
Erythrina abyssinica DC. ssp. *abyssinica*:	mdidì`
Glycine wightii (WIGHT & ARNE.) VERDC.:	fundó-fùndó`
Indigofera arrecta A. RICH.:	inahá-nàhá`
Indigofera swaziensis BOLUS var. *perplexa*:	ipasà´, iwurí-wùrî`, irehèrà`
Parochetus communis D. DON:	onyonyò´
Tephrosia villosa (L.) PERS.:	imbalàshò´
Tephrosia vogelii HOOK. F.:	otupá`
Vigna membranacea A. RICH. ssp. *membranacea*:	okohò´
Vigna parkeri BAK.:	okohò´, sokò-ndèhè´, fundó-fùndó`, opuchà`
Vigna vexillata (L.) BENTH. var. *angustifolia*:	okohò´
Zornia setosa BAK. F.:	lekùrà´, opuchà`
Passifloraceae	
Passiflora edulis SIMS:	ikungù´
Adenia gummifera (HARV.) HARMS:	msangàrî`
Basananthe hanningtoniana (MAST.) DE WILDE:	mhawò`
Phytolaccaceae	
Phytolacca dodecandra L`HÉRIT.:	iveésâ´
Piperaceae	
Peperomia abyssinica MIQ.:	kimamírí´, ikengérâ´
Peperomia tetraphylla (FORST.) HOOK. & ARN.:	kiwovè´, kurerà-mbírî´
Piper capense L. F.:	iringò-rìngó´
Piper umbellatum L.:	iringò-rìngó´
Plantaginaceae	
Plantago fischeri ENGL.:	isa-mbàtù´
Plantago palmata HOOK. F.:	itengèrà´(?), mlimú-lìmú`, liliwù´
Polygalaceae	
Polygala sphenoptera FRESEN.:	kima-ndókò´
Polygonaceae	
Oxygonum sinuatum (MEISN.) DAMMER:	mbihìnù´
Polygonum pulchrum BLUME:	mlimí-lìmî`
Polygonum salicifolium WILLD.:	ipachà-sòká´
Polygonum senegalense MEISN.:	mlimí-lìmî`
Rumex abyssinicus JACQ.:	iolò´
Rumex steudelii A. RICH. (*R. bequaertii* DE WILD):	mlimú-lìmú`, mlimí-lìmî`

Rumex usambarensis (DAMMER) DAMMER:	iolò´, iwolò´
Proteaceae	
Grevillea robusta A. CUNN. EX R. BR.:	kapìlìá` (kisw.), kapìlìá`(kisw.)
Punicaceae	
Punica granatum L.:	ikurù-mángá` (kisw.), mkungumanga
Ranunculaceae	
Ranunculus multifidus FORSK.:	mbechè´
Thalictrum rhynchocarpum DILLON & A. RICH.:	kichaméri´
Rhamnaceae	
Rhamnus prinoides L'HERIT:	mshimbà-mùmbà´
Scutia myrtina (BURM. F.) KURZ.:	oche´, oropò`
Rosaceae	
Alchemilla volkensii ENGL.:	nduwà-màdu´, onyonyò´
Hagenia abyssinica (BRUCE) J. F. GMEL.:	mwangá`, mlangà´
Mespilus japonica (THUNB.) LINDLEY:	helìmú`
Prunus africana (HOOK. F.) KALKM.:	mwudí´
Rubus rosifolius SM.:	ipalà´ (plant), ihurò´ (fruit)
Rubus steudneri SCHWEINF.:	ipalà´ (plant), ihurò´ (fruit), iveri´ ?
Rubiaceae	
Canthium oligocarpum HIERN ssp. *captum* (BULLOCK) BRIDSON:	mdowó´, kidowó´
Chassalia parvifolia K. SCHUM.:	mwengèchá`, mwadài`
Cremaspora triflora (THONN.) K. SCHUM. ssp. *triflora* VERDC.:	msewùsá`
Galiniera saxifraga (HOCHST.) BRIDSON:	iliwà´
Galium aparinoides FORSK.:	ipuchì´, kiwashá`
Keetia gueinzii (SOND.) BRIDSON:	kikarìkárà`
Lasianthus kilimandscharicus K. SCHUM. ssp. *kilimandscharicus*:	mdashù´
Mitragyna rubrostipulata (K. SCH.) HAVIL.:	mkundú-kûndú´, kuìnìnì` (engl.)
Mussaenda frondosa L.:	kuìnìnì` (engl.), ikuyù lyá mûtsudú`
Oxyanthus speciosus DC. ssp. *globosus* BRIDSON:	kirorò̱rò´, loliondo, mtovìri`
Pauridiantha paucinervis ssp. *holstii* (K. SCHUM.) BREM.:	kikarìkárà`, mkarìkárà`
Pavetta abyssinica FRESEN. var. abyssinica:	mdowó´
Pentas lanceolata (FORSK.) DEFLERS:	mwoserèká`
Psychotria capensis (ECKL.) VATKE ssp. *riparia* (K. SCHUM. & K. KRAUSE) VERDC. var. *riparia*:	kiroro̱´
Psychotria cyathicalyx PETIT:	mwengèchá`, ikondè-kóndè lyá mûrsudú`, iporò lyà mútsudú`
Psychotria fractinervata PETIT:	mtovìri`, imowiro lya mtsudu, mwengèchá`
Psychotria lauracea (K. SCHUM.) PETIT:	mrahàchà´, irachà´, (k)iparadima, (k)ishimbíra-dìmá`, ishimbá-dìmá`, irangòchò´
Richardia scabra L.:	mbichìrí`
Rutidea fuscescens HIERN. ssp. *fuscescens* (*R. odorata* K. KRAUSE):	mkarìkárà`, kikundá-mbùrú`
Rytigynia uhligii (K. SCHUM. & K. KRAUSE) VERDC. (*R. schumannii* ROBYNS):	kiwurá-kìo´, ivirò´?
Vangueria infausta BURCH. ssp. *rotundata* (ROBYNS) VERDC. (*V. rotundata* ROBYNS):	ndovìrò´ (fruit), kidowó´ (plant)
Rutaceae	
Clausena anisata (WILLD.) BENTH.:	ndawàwá´
Teclea simplicifolia (ENGL.) VERDOORN:	mwadài`
Toddalia asiatica (L.) LAM.:	mkaà-Nàngá`
Santalaceae	
Osyridocarpos scandens ENGL.:	kidambùò`
Osyris lanceolata HOCHST. & STEUDEL (*O. compressa* (BERG) A. DC.):	mdambùò
Sapindaceae	
Allophylus abyssinicus RADLK.:	mpekà´
Allophylus ferrugineus TAUB.:	kiolà-fùó`
Dodonaea viscosa (L.) JACQ.:	irukà`, iturùwá´
Filicium decipiens (WIGHT & ARN.) THWAITES:	mtovìri`, ikondè-kóndè´ , mkufí´ mûsoro̱`
Paullinia pinnata L.:	mngorúsù´
Sapotaceae	
Bequaertiodendron natalense (SOND.) HEINE & J. H. HEMSL.:	isangà`
Scrophulariaceae	
Alectra sessiliflora (VAHL) KUNTZE:	kimamúò´, mnahá-nàhá`, kikachù´
Striga asiatica (L.) KTZE.:	unanua (Rombo-Dialekt)
Verbascum brevipedicellatum (ENGL.) HUBER-MORATH (*Celsia floccosa* BENTH.):	ikachì´
Simaroubaceae	
Brucea antidysenterica MILL.:	kirasì´, ichengo
Harrisonia abyssinica OLIV.:	kingotùò`, otopò`
Solanaceae	
Capsicum frutescens L.:	kiwasì´
Cestrum nocturnum L.:	cha-ùsikú`(kisw.)
Cyphomandra betacea (CAV.) SENDTN.:	ipìringànì´ (kisw.)
Datura stramonium L.:	kimaà-ngànú´
Datura suaveolens HUMB. ET BONPL. EX WILLD.:	iduhùdù´, kimaà-ngànú´
Nicandra physalodes SCOP.:	irungùchà`, iverò´, idungu
Physalis peruviana L.:	irungùchà`
Solanum aculeatissimum JACQ.:	iduó`
Solanum anguivi LAM. (*S. indicum* AUCT. NON. L.):	iduó`
Solanum incanum L.:	iduó`, nduó`

Solanum nakurense C. H. WRIGHT:	mnasaga (sic?)
Solanum nigrum L.:	nafù`
Solanum terminale FORSK. ssp. *terminale*:	irondòwólò´, ikunda mburu
Sterculiaceae	
Dombeya torrida (J. F. GMEL.) P. BAMPS (*D. goetzenii* K. SCHUM.):	mkiwú´
Waltheria indica L.:	ichadà´
Thymelaeaceae	
Gnidia latifolia (OLIV.) GILG:	kimuovinà`
Peddiea fischeri ENGL.:	msahìdà`?, irisí-rìsí´
Tiliaceae	
Grewia bicolor JUSS.:	ipaṛà-ngòyò´, salemi (Rombo-Dialekt)
Triumfetta flavescens A. RICH.:	ichadà´, ishoshókò´
Triumfetta rhomboidea JACQ.:	ishoshókò´
Triumfetta tomentosa BOJ.:	ishoshókò´
Ulmaceae	
Trema orientalis (L.) BL. (*T. guineensis* (SCHUM. & THONN.) FICALHO):	iisí`, isasà´?, ikuyù´?, ìfifimù´
Umbelliferae (Apiaceae)	
Agrocharis incognita (NORMAN) HEYW. & JURY (*Caucalis incognita* NORMAN):	ipachà-sòká´?, kimambórà`, mwambádà`, ikaà-nà-ìra´
Apium leptophyllum (PERS.) BENTH.:	kimuwerèsì`, oṛumbàhì´, mbirì njìsisé`
Centella asiatica (L.) URB.:	nduwà-màdu´
Cryptotaenia africana (HOOK. F.) DRUDE:	ima-múhasà`
Hydrocotyle mannii HOOK. F. var. *mannii*:	nduwà-màdu´
Peucedanum kerstenii ENGL.:	kiwalé´
Peucedanum linderi NORMAN:	kiwalé´
Sanicula elata DON.:	ipoṛóṛì`?, mbechè´?, mbiṛì`, ima-mukangá`
Urticaceae	
Elatostema paivaeanum WEDD.:	nzungà´, isungùwàlá´ lyá mûgingéni`
Girardinia diversifolia (LINK) FRIIS:	mbawá´
Laportea aestuans GAUD.:	mbawá´
Pilea johnstonii OLIV. subsp. *johnstonii*:	isungùwàlá´, ipachà-sòká´
Pilea rivularis WEDD.:	kisungùwàlá´, imamthiko, iolò´, ipachà-sòká´
Urera hypselodendron (A. RICH.) WEDD.:	mchiṭì`
Verbenaceae	
Clerodendrum johnstonii OLIV.:	ifumbò`
Lantana camara L.:	kiwuṛá-kìo´
Lantana trifolia L.:	iwaṛó`
Lantana viburnoides VAHL:	iṛaámìà`
Lippia kituiensis VATKE (*L. ukambensis* VATKE):	kifafa*
Stachytarpheta jamaicensis (L.) VAHL:	mwambádà`, kiwaṛó`
Violaceae	
Viola eminii (ENGL.) R.E. FRIES:	onyonyò´
Vitaceae	
Cissus oliveri (ENGL.) GILG:	itumbùlù´
Cissus rotundifolia (FORSK.) VAHL:	ishimbá-dìmá`
Cyphostemma cyphopetalum (FRESEN.) WILD & DRUM. (*C. nierense* (TH. FR. JR.) DESC.):	kisamà-sàmá´, itumbùlù´
Cyphostemma maranguense (GILG) DESC.:	kima-múhasà`, itumbùlù´
Cyphostemma masukuense (BAK.) WILD & DRUM. ssp. *masukuense*:	itumbùlù´, mhongò`
Rhoicissus tridentata (L. F.) WILD & DRUM.:	mṛumbù-ṛùmbù`, ingarù´
Spermatophyta: Angiospermae: Monocotyledonae	
Agavaceae	
Furcraea cubensis VENT.:	katàní` (kisw.)
Aloaceae	
Aloe ballyi REYNOLDS:	mwalàlè´, inaboru (Rombo-Dialekt)
Aloe macrocarpa TOD. ssp. *lateritia* (ENGLER) GILBERT & SEBSEBE (*A. graminicola* REYNOLDS):	mngapòlí`
Aloe volkensii ENGL.:	mratùné´
Amaryllidaceae	
Scadoxus multiflorus (MARTYN) RAE.:	mbongò`
Scilla hyacinthina (ROTH.) ALSTON (*S. indica* BAK.):	mbongò`, iduha (Rombo-Dialekt)
Zephyranthes grandiflora HERB.:	mbongò`
Anthericaceae	
Chlorophytum comosum (THUNB.) JACQ. (*C. elgonense* BULLOCK):	isalé´, isalé´ lyá mûtsudù`
Chlorophytum viridescens ENGL.:	isalé´
Araceae	
Colocasia esculenta (L.) SCHOTT:	idumá´, jimbi (kisw.), sohò´
Asparagaceae	
Asparagus africanus LAM.:	kiseṛá-nìndà`, kumaà-mùtsirí´
Asphodelaceae	
Kniphofia thomsonii BAK.:	mbawálé´?, iratùné´
Cannaceae	
Canna bidentata BERTOL.:	limí-lìmí`
Commelinaceae	
Aneilema aequinoctiale (P. BEAUV.) KUNTH:	ikengéṛá´
Aneilema minutiflorum FADEN:	ikengéṛá´
Commelina benghalensis L.:	ikengéṛá´
Commelina foliacea CHIOV.:	ikengéṛá´
Bulbostylis coleotricha (A. RICH.) C. B. CL. (*Abbildgaardia coleotricha* (A. RICH.) K. LYE):	otsungá`
Carex chlorosaccus C. B. CL.	ilachù´, lahò`
Cyperus articulatus L.	irié`?
Cyperus atroviridis C. B. CL.	ilachù´
Cyperus brevifolius (ROTTB.) HASSKN. ssp. *intricatus* (CHERM.) K. LYE	lilùwù´?

Cyperus cyperoides (L.) KUNTZE ssp. *cyperoides* var. *cyperoides*	lahò`, kimirì-mìrí´?
Cyperus dichroöstachyus A. RICH.	
Cyperus distans L. F. ssp. *distans*	ilachù´, lahò`
Cyperus distans L. F. ssp. *longibracteatus* (CHERM.) K. LYE var. *niger* C. B. CL.	kivirì´
Cyperus laxus LAM. ssp. *sylvestris* (RIDLEY) K. LYE (*C. diffusus* VAHL ssp. *sylvestris*)	ilachù´, herù´
Cyperus maranguensis K. SCHUM.	ilachù´
Cyperus mundtii (NEES) KUNTH	lilùwù´, lahò`
Cyperus niger RUIZ & PAV. ssp. *elegantulus* (STEUDEL) K. LYE	lahò`, lilùwù´, kivirì´
Cyperus niveus RETZ. var. *leucocephalus* (KUNTH) FOSBERG	lilùwù´
Cyperus pseudoleptocladus KÜK. var. *polycarpus* KÜK.	ilachù´
Cyperus rigidifolius STEUDEL	lahò`
Cyperus sesquiflorus (TORR.) MATTF. & KÜK. ssp. *apendiculatus* (K. SCHUM.) K. LYE	lahò`
Cyperus sesquiflorus (TORR.) MATTF. & KÜK. ssp. *sesquiflorus*	lahò`
Cyperus tomaiophyllus K. SCHUM.	ilachù´
Fimbristylis dichotoma (L.) VAHL	otsungâ`
Dioscoreaceae	
Dioscorea bulbifera L.:	okohò´
Dracaenaceae	
Dracaena afromontana MILDBR.:	isalé´
Dracaena steudneri ENGL.:	isalé´
Gramineae (Poaceae)	
Aristida adoensis HOCHST.:	msukî, ikarí´?
Arundinaria alpina K. SCHUM.:	mwiwalé´
Chloris pycnothrix TRIN.:	otsuó`
Chloris roxburghiana SCHULT.:	mwoshoko (Pare-, Rombo-Dialekt)
Cymbopogon caesius (HOOK & ARN.) STAPF:	natsì´
Cynodon dactylon (L.) PERS.:	otsuó`
Cynodon nlemfuensis VANDERYST:	orsuó`
Digitaria macroblephara (HACK.) STAPF:	sangàrî`
Digitaria pearsonii STAPF:	kokòwò`
Eleusine indica (L.) GAERTN.:	ialà-njàâ`
Elionurus muticus (SPRENG.) KUNTZE:	kifuwà`
Enneapogon cenchroides (ROEM & SCHULT.) C. E. HUBBARD:	nguru-nguru (Pare-, Rombo-Dialekt)
Eragrostis schweinfurthii CHIOV.:	ikarí´
Eragrostis tenuifolia (A. RICH.) STEUD.:	ikarí´
Festuca abyssinica A. RICH.:	mkarí´
Harpachne schimperi A. RICH.:	mkarí`, mbarà-hàangà´, njoòyà´
Heteropogon contortus (L.) ROEM. & SCHULT.:	njoòyà´, kitsatsò´, msukî`
Hyparrhenia hirta (L.) STAPF:	msukî`, kitsatsò´
Hyparrhenia rufa (NEES) STAPF:	msukî`, kitsatsò´
Hyperthelia dissoluta (STEUD.) W. D. CLAYTON:	msukî`
Isachne mauritiana KUNTH:	kokòwò`
Melinis minutiflora P. BEAUV.:	sangàrî`, (i)ifudà-fùdá´
Panicum maximum JACQ.:	mhuhù´
Panicum trichocladum K. SCHUM.:	kokòwò`
Paspalum conjugatum BERG.:	ikarí´
Pennisetum polystachion (L.) SCHULT. ssp. *polystachion*.:	nguru-nguru (Pare-, Rombo-Dialekt)
Pennisetum purpureum SCHUMACH.:	cha-pùng'â`
Pennisetum setaceum (FORSSK.) CHIOV.:	nguru-nguru (Pare-, Rombo-Dialekt)
Rhynchelytrum repens (WILLD.) C. E. HUBBARD:	mkarí´, ilalé`, mbarà-hàangà´
Rottboellia cochinchinensis (LOUR.) W. D. CLAYTON (*R. exaltata* L. F.):	cha-pùng'â`
Setaria homonyma (STEUD.) CHOIV.:	mlaâ`
Setaria megaphylla (STEUD.) TH. DUR. & SCHINZ:	ilalé`
Setaria plicatilis (HOCHST.) ENGL.:	ilalé`, ikarí´, ifahìà`, mlaâ`
Sorghum arundinaceum (DESV.) STAPF:	iverà`
Sorghum vulgare L.:	mtamâ`
Sporobolus africanus (POIR) ROBYNS & TOURNAY:	ikarí´
Sporobolus festivus A. RICH.:	ikarí´
Sporobolus fimbriatus (TRIN.) NEES:	ikarí´
Themeda triandra FORSSK.:	natsì´
Zea mays L.:	iimbá´
Iridaceae	
Aristea alata BAK.:	ilalé`
Dierama cupuliflorum KLATT (*D. pendulum* (L. F.) BAK.):	ilachù´
Musaceae	
Ensete edule (J. F. GMEL.) HORAN (*E. ventricosum* (WELW.) G. E. CHEESM.):	(i)isangàrúhù´
Orchidaceae	
Aerangis coriacea SUMMERH.:	mbawálé´, kurèrà´
Cynorkis pleistadenia (REICHB. F.) SCHLTR.:	kurushî`
Polystachia simplex RENDLE:	kurushî`
Palmaceae	
Phoenix reclinata JACQ.:	ikangáchì`
Smilacaceae	
Smilax anceps WILLD. (*S. kraussiana* MEISN.):	mkoróròmù´
Typhaceae	
Typha domingensis PERS.:	ilalé`
Velloziaceae	
Xerophyta spekei BAK.:	kirsewú´
Zingiberaceae	
Aframomum angustifolium (SONNERAT) K. SCHUM.:	ilìkì`?
Elettaria cardamomum MATEN:	ilìkì`
Pteridophyta	
Acriniopteridaceae	
Actiniopteris dimorpha PIC. SERM.	ichaméri´
Actiniopteris radiata (SWARTZ) LINK	ichaméri´
Actiniopteris semiflabellata PIC. SERM.	ichaméri´

Adiantaceae
Adiantum capillus-veneris L.: ichaméṟî´
Adiantum hispidulum SWARTZ: ichaméṟî´
Adiantum incisum FORSSK.: ichaméṟî´
Adiantum poiretii WIKSTR. (*A. thalictroides* SCHLECHTEND.): ichaméṟî´
Adiantum raddianum PRESL: (**k**)ichaméṟî´
Cheilanthes farinosa (FORSK.) KAULF.: ichaméṟî´
Cheilanthes multifida (SWARTZ) SWARTZ: ichaméṟî´
Doryopteris kirkii (HOOK.) ALSTON (*Doryopteris concolor* (LANGSD. & FISCH.) KUHN var. kirkii HOOK.): ichaméṟî´
Pellaea quadripinnata (FORSSK.) PRANTL: ichaméṟî´
Pellaea schweinfurthii (HIERON.) DIELS: ichaméṟî´
Pellaea viridis (FORSSK.) PRANTL: ichaméṟî´
Aspleniaceae
Asplenium abyssinicum FEE: ichaméṟî´
Asplenium adiantum-nigrum L. : ichaméṟî´
Asplenium aethiopicum (BURM. F.) BECHERER: ichaméṟî´
Asplenium bugoiense HIERON.: ichaméṟî´
Asplenium elliottii C. H. WRIGHT: ichaméṟî´
Asplenium erectum WILLD. var. *usambarense* HIERON.: ichaméṟî´
Asplenium friesiorum C. CHR.: ichaméṟî´
Asplenium gemmiferum SCHRAD.: ichaméṟî´
Asplenium hypomelas KUHN: ichaméṟî´
Asplenium linckii KUHN: ichaméṟî´
Asplenium loxoscaphoides BAK.: ichaméṟî´
Asplenium monanthes L.: ichaméṟî´
Asplenium normale D. DON: ichaméṟî´
Asplenium praegracile ROSENST.: ichaméṟî´
Asplenium protensum SCHRAD.: ichaméṟî´
Asplenium sandersonii HOOK.: ichaméṟî´
Asplenium smedsii PIC. SERM.: ichaméṟî´
Asplenium strangeanum PIC. SERM. (*A. rutifolium* (BERG.) KUNZE): ichaméṟî´
Asplenium theciferum (KUNTH) METT.: ichaméṟî´, ikurèṟà´
Asplenium unilaterale LAM.: ichaméṟî´
Asplenium volkensii HIERON: ichaméṟî´
Blechnaceae
Blechnum attenuatum (SWARTZ) METT.: ichaméṟî´
Blechnum australe L.: ichaméṟî´, irengò`?
Cyatheaceae
Cyathea humilis HIERON ichaméṟî´, ihofú
Cyathea manniana HOOK.: ichaméṟî´, ihofú ´
Dennstaedtiaceae
Blotiella glabra (BORY) TRYON: ichaméṟî´
Blotiella stipitata (ALSTON) FADEN: ichaméṟî´
Hypolepis sparsisora (SCHRAD.) KUHN: ichaméṟî´
Pteridium aquilinum ssp. *aquilinum* (L.) KUHN: isulú`
Dryopteridaceae
Arachniodes foliosa (C. CHR.) SCHELPE: ichaméṟî´
Didymochlaena truncatula (SWARTZ) J. SM.: ichaméṟî´
Dryopteris antarctica (BAK.) C. CHR. (*Dryopteris callolepis* C. CHR.): ichaméṟî´
Dryopteris atamanthica (KUNZE) KUNTZE: ichaméṟî´
Dryopteris fadenii PIC. SERM. (*Dryopteris pentheri* (KRASSER) C. CHR. of 1. ed. of UKWF): ichaméṟî´
Dryopteris kilemensis (KUHN) O. KUNTZE: ichaméṟî´
Dryopteris pentheri (KRASSER) C. CHR. (*Dryopteris inaequalis* (SCHLECHTEND.) O. KUNTZE of 1. ed. of UKWF) : ichaméṟî´
Megalastrum lanuginosum (KAULF.) HOLTTUM (*Ctenitis lanuginosa* (KAULF.) COPEL): ichaméṟî´
Nothoperanema squamiseta (HOOK.) CHING (*Dryoptris squamiseta* (HOOK.) O. KUNTZE): ichaméṟî´
Polystichum fuscopaleaceum ALSTON: ichaméṟî´
Tectaria gemmifera (FEE) ALSTON: ichaméṟî´
Gleicheniaceae
Dicranopteris linearis (BURM. F.) UNDERW.: isulú`
Hymenophyllaceae
Hymenophyllum kuhnii C. CHR.: kuṟushî`
Hymenophyllum tunbrigense (L.) SM.: kifuwà`
Trichomanes melanotrichum SCHLECHTEND.: kuṟushî`, ikuṟèṟà´
Lomariopsidaceae
Elaphoglossum aubertii (DESV.) MOORE: kuṟushî`
Elaphoglossum deckenii (KUHN) C. CHR. mlimú-limú`,
Elaphoglossum hybridum (BORY) BRACK.: ichaméṟî´
Lycopodiella cernua (L.) PIC. SERM.: ikurèṟà´ , italáhòmbò`, ihombò´, kila-hómbò´
Lycopodium clavatum L.: ikuṟèṟà´ , iṟeṟà`
Marattiaceae
Marattia fraxinea SM.: ichaméṟî´, ihofú´
Marsileaceae
Marsilea minuta L.: kimaà-mùonyó`, ionyò´
Oleandraceae
Arthropteris orientalis (GMEL.) POSTH.: ichaméṟî´
Oleandra distenta KUNZE: loliondo, mnyahà-sàkà fó mûrsudú`
Polypodiaceae
Drynaria volkensii HIERON.: ichaméṟî´
Lepisorus excavatus (WILLD.) MOORE (*Pleopeltis excavata* (WILLD.) SLEDGE): ichaméṟî´, ikuṟèṟà´, kuṟushî`
Loxogramme abyssinica (BAK.) M. G. PRICE (*L. lanceolata* (SWARTZ) C. PRESL): ikuṟèṟà´, kuṟushî`
Pleopeltis macrocarpa (WILLD.) KAULF.: ichaméṟî´, ikuṟèṟà´, kuṟushî`
Pteridaceae
Pteris catoptera KUNZE: ichaméṟî´
Pteris dentata FORSSK.: ichaméṟî´
Pteris vittata L.: ichaméṟî´
Schizaeaceae
Mohria vestita BAK. (*M. caffrorum* (L.) DESV.): ichaméṟî´
Selaginellaceae
Selaginella abyssinica SPRING: ikuṟèṟà´