

The Medicinal Plants of the Woodlands in northern Malawi (Karonga District)

Tina V. Bundschuh, Karen Hahn & Rüdiger Wittig

Summary: In rural Africa, the use of wild plants for medicinal purposes is widespread. Many publications provide regional checklists of medicinal plants, but only a few of these checklists cover Malawi. In the Karongo district, northern Malawi, 30 traditional healers and birth attendants were interviewed regarding their use of woody medicinal plants. This survey reveals that 71 of the 102 woody species that are found in this area are used for a variety of treatments. These medicinal plants are most commonly applied in obstetrics. The favoured wild plants are frequently found in the area; however, three species are perceived as decreasing in abundance.

Keywords: ethnobotany, miombo woodland, sustainability, traditional medicine

LES PLANTES MÉDICINALES DE LA FORÊT CLAIRE EN MALAWI DU NORD (KARONGA DISTRICT)

Résumé: Dans les zones rurales en Afrique, l'utilisation des plantes indigènes à des fins médicinales est largement répandue. En dépit d'une abondante littérature qui présente à l'échelle régionale les listes des plantes médicinales, mais très peu de ces listes concernent le Malawi. Dans le district de Karonga au nord du Malawi, 30 tradithérapeutes et sages-femmes ont été interviewés au sujet de l'utilisation des plantes médicinales ligneuses. Cette étude montre que 71 des 102 espèces ligneuses présentes dans cette région sont utilisées dans divers traitements. Ces plantes médicinales sont en généralement utilisées en obstétrique. Les plantes les plus recherchées sont couramment présentes dans la région. Cependant, on constate que l'abondance de trois espèces diminue.

Mots clés: ethnobotanique, forêt claire miombo, gestion durable, médecine traditionnelle

DIE MEDIZINALPFLANZEN DER GEHÖLZVEGETATION IN NORD-MALAWI (KARONGA-DISTRIKT)

Zusammenfassung: Im ländlichen Afrika ist der Gebrauch von Wildpflanzen für medizinische Zwecke weit verbreitet. Insgesamt gesehen wurden bisher zwar zahlreiche Listen von Heilpflanzen veröffentlicht, der Norden von Malawi wurde aber bisher kaum berücksichtigt. Aus diesem Grunde wurden in Nord-Malawi (Karonga Distrikt) 30 traditionelle Heiler und Geburtshelferinnen bezüglich der medizinischen Nutzung von Gehölzen befragt. Die Untersuchung ergab, dass 71 der insgesamt 102 im Untersuchungsgebiet vorkommenden Gehölzarten für zahlreiche medizinische Anwendungen genutzt werden. Am häufigsten werden Wildpflanzen in der Geburtshilfe angewendet. Alle beliebten Medizinpflanzen kommen im Gebiet häufig vor, für drei der Arten wird aber von den Nutzern eine Abnahme konstatiert.

Schlagworte: Ethnobotanik, Miombo woodland, Nachhaltigkeit, traditionelle Medizin

1 INTRODUCTION

In rural Africa, a large number of people depend on the natural resources provided by their environment. Many wild plant species are collected for purposes such as wood fuel, construction, food or traditional medicine. This study reveals that the people living in Malema (District of Karonga, Malawi) and its adjacent areas have a strong demand for traditional medicine. One of the principal reasons for this demand is that the health care system of Malawi is not able to sufficiently provide for the needs of its rural population. To enable the people to overcome this lack of governmental services to a certain degree, it is important to foster the sustainable use of wild plants that can be used for medicinal purposes. Therefore, this study identifies the medicinal species of a representative area and their importance to the area's traditional healers and birth attendants. Specifically, a list is presented of the woody species used as medicinal plants in the environs of Malema, an area that can be regarded as representative of the miombo woodland in northern Malawi. The results of this survey furnish an indication of the degree of sustainability associated with medicinal plants and their use.

2 STUDY AREA

The study area is located in the northern part of Malawi, approximately 10 km south of the city of Karonga. It covers parts of the territories of the villages of Malema, Merere and Mwangolera and of the Ulamwe hill, a protected area whose highest peak reaches 908 m a.s.l. According to the Population and Housing Census (NATIONAL STATISTICAL OFFICE 1998), Mwangolera, Merere and Malema comprise 404, 140 and 111 households, respectively.

From a biogeographical perspective, the area belongs to the zoniobiome of savannas, deciduous forests and grasslands (BRECKLE 1999). The climate is characterised by a rainy season from mid-November to April followed by a dry season (Fig. 1).

The zonal natural vegetation of most parts of Malawi is generally represented by miombo woodland (COLE 1986), which includes a humid and a dry subtype (WHITE 1983). The dry subtype occurs in the research area. This woodland grows on the shallow stony soils of the rift escarpment, most prominently represented by Ulamwe hill. However, deeper soils and sandy soils are found in the area that slopes

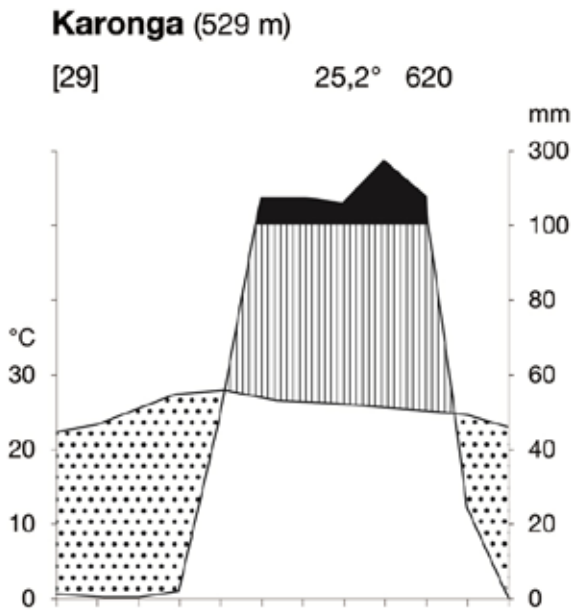


Fig. 1: Climate diagram of Karonga / Diagram ombrothermique de Karonga

towards Lake Malawi. In this area, patterns of farmland and undifferentiated “woodlands and thickets of low altitude” form small island-like thickets between the cultivated fields (BUNDSCHUH et al. 2010).

The main ethnic groups of the study area are Ngonde and Tumbuka. Malawi has an average population density of 105 people per square kilometre. The population density in Karonga District ranges from 50 to 100 people per square kilometre (NATIONAL STATISTICAL OFFICE 1998). In the villages investigated, most people earn their living from agriculture or by raising cattle and pigs. The most important crops are maize, cassava, cotton, sesamum and the *Borassus* palm. In addition, wild plants are collected for many purposes: for use as fuel, food and spices, for the construction of buildings and furniture and for medicinal purposes.

The nation of Malawi offers free medical services to every citizen. However, many hospitals are poorly equipped (in terms of personnel, equipment and independent financial planning). Therefore, most members of the rural population prefer to consult traditional healers and birth attendants.

3 METHODS

To investigate the extent to which woody plants are collected for medicinal purposes, 30 traditional healers and birth attendants living in and near Malema were interviewed concerning their use of medicinal plants. The majority of the persons interviewed belonged to the ethnic groups of Ngonde (15) and Tumbuka (12). All of the interviewees were informed about the aims of the study prior to the interviews and gave their consent for the documentation and publication of the data presented. The interviews were held with the assistance of an interpreter (either male or female) in a semi-structured format involving a questionnaire (CUNNINGHAM 2002) that included the following questions:

- vernacular names of the medicinal plant species area from which the species is collected
- estimated abundance of the species compared to its abundance in the past
- part(s) of the species used
- ailments cured by the species

The item that asked the healers whether the abundance of a plant had changed compared to its abundance in the past included four possible answers: more abundant, no change, slightly less frequent or definitely less frequent. The interviews were supported by an assistant who was familiar with the local plant names and by one of the two interpreters. The findings were verified through field surveys with several of the interviewed healers.

Herbarium material of each species was collected for scientific identification. In addition to the Flora Zambesiaca (KEW ROYAL BOTANIC GARDENS 2004), “Trees of Southern Africa” (COATES-PALGRAVE 2002) and the “Field Guide to the Trees and Shrubs of the Miombo Woodlands” (SMITH & ALLEN 2004) were used to determine the species. The determination was verified by staff members of the National Herbarium and Botanic Gardens of Malawi in Zomba.

4 RESULTS

Of the 102 woody species found in the study area, 71 (69 %) are used for medicinal purposes (Appendix). Most of these species are used by only one or two healers or birth attendants. Table 1 contains 25 woody species that were mentioned by at least three of the interviewees. Additionally, the holoparasitic herbaceous *Cassytha filiformis* was included in the list for two reasons: five healers highlighted this plant as very important, and in the local classification epiphytes growing on woody plants are also regarded as woody plants.

The healers collect the plants in the thickets in their immediate vicinity. Only a few healers walk farther, e.g., to the protected area of Ulamwe hill, to collect certain species.

The question about the recent abundance of species compared to the past abundance elicited different responses from different healers about particular species. However, they agreed that, except of three species, none of the plants were formerly more abundant. The three plant species that were considered by several healers to have become increasingly scarce are *Zanha africana* (Sapindaceae), *Ziziphus abyssinica* (Rhamnaceae) and *Securidaca longepedunculata* (Polygalaceae).

The healers primarily collect the roots (90 % of the species), followed by the leaves (36 %) and the bark (12 %). The shoot is used only in a few cases (3 %). The roots and leaves are collected in fresh condition in small amounts, and vertical strips of bark are removed from the eastern and western sides of the stems.

In the majority of cases, the plant material is boiled, and the patients drink the decoction. Certain healers prefer to administer the decoction as porridge. In a few cases, the plant material is extracted with cold water or as an infusion with hot water. This infusion can be applied externally by rubbing it into the skin. For particular purposes, dried plant ma-

Table / Tableau 1: The most preferred medicinal plant species / Les espèces de plantes médicinales les plus recherchées

Scientific name of the plant	Number of times mentioned	Preferred by interviewee	Plant family	Local name (Chitumbuka/ Chinkhonde)
<i>Ziziphus abyssinica</i>	9	2	Rhamnaceae	Kaperekese
<i>Terminalia kaiseriana</i>	8	3	Combretaceae	Mpululu
<i>Annona senegalensis</i>	8	2	Annonaceae	Mnyere
<i>Zanha africana</i>	7	4	Sapindaceae	Mzakaka
<i>Cassytha filiformis</i>	6	5	Lauraceae	Sakazinje
<i>Maytenus senegalensis</i>	6	3	Celastraceae	Chimika
<i>Rhus natalensis</i>	6	2	Anacardiaceae	Nyamtatu
<i>Pseudolachnostylis maprouneifolia</i>	6	1	Euphorbiaceae	Msolo
<i>Ricinus communis</i> (cultivated)	5	3	Euphorbiaceae	Mayembayemba
<i>Byrsocarpus orientalis</i>	5	3	Connaraceae	Muyokayoka
<i>Holarrhena pubescens</i>	5	3	Apocynaceae	Njenje
<i>Asparagus setaceus</i>	5	1	Asparagaceae	Mkhorankhanga
<i>Carica papaya</i> (cultivated)	5	0	Caricaceae	Papaya lyanmarume (♂)
<i>Ozoroa reticulata</i>	4	3	Anacardiaceae	Chizimya
<i>Senna siamea</i>	4	2	Fabaceae	Ndengere
<i>Bauhinia petersiana</i>	4	1	Fabaceae	Mpapa
<i>Vernonia colorata</i>	4	0	Asteraceae	Mluzuza
<i>Lansea discolor</i>	3	3	Anacardiaceae	Nakawumbu
<i>Pouzolzia mixta</i>	3	2	Urticaceae	Lukopyo
<i>Vangueria infausta</i>	3	2	Rubiaceae	Maviru
<i>Combretum apiculatum</i>	3	2	Combretaceae	Mlama
<i>Steganotaenia araliacea</i>	3	1	Apiaceae	Mnyongoloko
<i>Allophylus chaunostachys</i>	3	1	Sapindaceae	Nyamtatu
<i>Strychnos madagascariensis</i>	3	0	Loganiaceae	Msongolo
<i>Piliostigma thonningii</i>	3	0	Fabaceae	Mthukutu
<i>Securidaca longepedunculata</i>	3	0	Polygalaceae	Mughuluka

terial is pulverised or, less frequently, burnt to ash. In these cases, application occurs by tattooing. Certain healers also dry the material and shape it so that it can be carried as a talisman (Fig. 2).

Generally, individual healers specialise in a certain practice. Thus, they do not use many different plant species (average

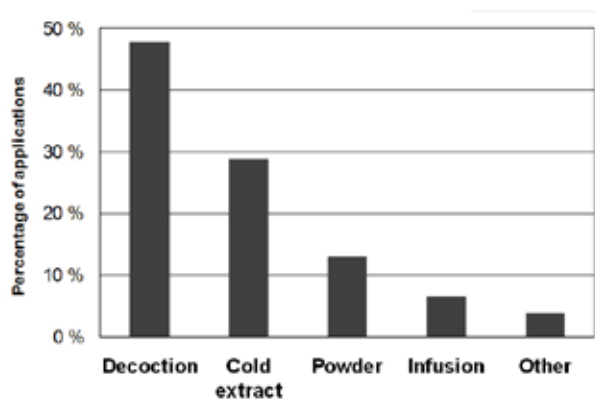


Fig. 2. Mode of preparation of the medicines obtained from woody species / Mode de préparation des médicaments obtenus à partir des espèces ligneuses

7, maximum 15). Birth attendants need even fewer species (average 3, maximum 7).

The ailments treated by the healers and birth attendants are shown in Figure 3. Most of the plants (38 %) are used in obstetrics. The next most frequent category is the treatment of pulmonary diseases, including pneumonia, coughing or asthma. More than a quarter of the plants are used to ease specific pains (e.g., headache, stomach ache) or general body pains, including gout. The digestive disorders treated by the healers include dysentery and constipation. The children's diseases cited by the healers were generally characterised by fever and were not further specified. The infections cited by the healers were yellow fever, malaria and leprosy. Certain collected wild plants (17 %) are used to treat infertility. This ailment is treated by relatively specialised healers. Mental diseases and epilepsy are also treated by specialists. These diseases are often considered to be of supernatural origin and are generally treated by the performance of rituals. The most common of these rituals, Vimbuza, originated from Tumbuka and is known throughout Malawi. A number of healers use charms for the prevention of danger or thievery or to make a person more attractive. Sexually transmitted diseases (STDs), such as gonorrhoea, were also mentioned. These diseases are often treated by the

same healers who specialise in infertility. A few species are used to treat snake bites in humans and in cows.

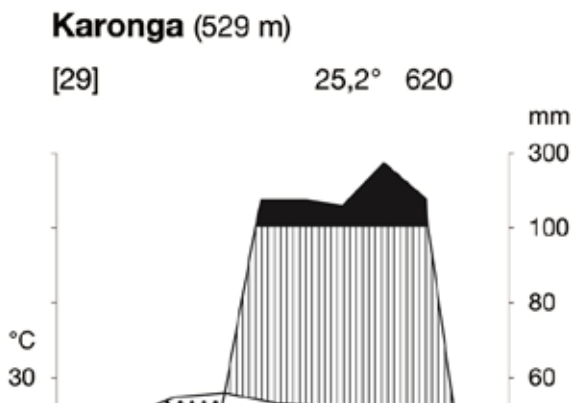


Fig. 3: Use of medicinal plants as indicated in the interviews (percentage of all medicinal plants mentioned). STDs: Sexually transmitted diseases / Usage des plantes médicinales tel que indiqué par les personnes interviewées (pourcentage de toutes les plantes médicinales mentionnées). STDs: Maladies Sexuellement Transmissibles

5 DISCUSSION

The pharmaceutical use of 69 % of the existing woody species represents a relatively high value. Unfortunately, most of the regional works about medicinal plants in Africa provide species checklists without showing the plants in their floristic or vegetational context. Thus, a comparison of the rate of pharmaceutical use found by this study with results from other regions cannot be drawn. However, it is possible to indicate the woody plant species mentioned by the traditional healers of the environs of Malema that are also reported to be of medicinal value in other African regions. MORRIS (1996) reports information about southern Malawi; ARNOLD et al. (2002) cover southern Africa (Namibia, Botswana, South Africa); CHHABRA et al. (1989, 1993), DERY et al. (1999) and HEINE & LEGERE (1995) address eastern Africa (Tanzania, Uganda and Kenya), and BURKILL (2004) provides detailed information about West Africa. The similarities between the determinations of medicinal use made by these previous studies and the findings of this study are summarised in Fig. 4.

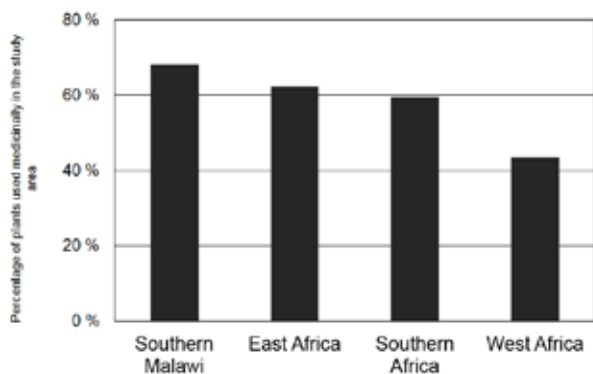


Fig. 4: Percentage of the plants used in Karonga District also used in other regions in Africa. / Pourcentage des plantes utilisées dans le district de Karonga et aussi appliquées dans d'autres régions en Afrique.

Geographically and in terms of its vegetation, Malawi bridges eastern, southern and central Africa. It is rarely included in the main regional studies. However, many of the species used in the area of investigation are well known in other regions of Africa for their medicinal effects (Fig. 4).

The species that were assessed to have decreased in abundance, *Zanha africana*, *Ziziphus abyssinica* and *Securidaca longepedunculata*, were not found in the miombo woodland vegetation. These species occur in the undifferentiated woodlands and in the low-altitude thickets scattered between cultivated lands. Because the need for farmland continues to increase, those relict thickets could vanish. Hence, the thickets and the three species cited here should be a focus of further research or a target for management.

In contrast to the tradition practised in West Africa (KROHMER 2004), but in accordance with that of neighbouring Tanzania (CHHABRA et al. 1993), the root is the plant part that is used most frequently in traditional medicine. This custom represents a threat to the individual plant because damage to the roots can destroy the plant. Excessive removal of tree bark similarly represents a threat to the plant. However, at present, the species in use are still available in sufficient numbers. Apparently, the healers are well experienced in the sustainable use of their pharmaceutical plants.

The results of this study regarding the preparation of the plant material agree with the findings of a study conducted in eastern Tanzania (CHHABRA et al. 1993). Decoctions are the most favoured type of preparation.

Most of the medicinal plants cited by the healers interviewed in this study are used in obstetrics. This substantial representation is the result of the common need for assistance in giving birth and of the great number of traditional birth attendants and specialised healers in the region. We found many women in the region saying that they would stay in their home environment to give birth and would prefer not to go to the hospital. They would only see a physician if surgical intervention, such as a Caesarean section, were required.

Pulmonary diseases are common in the area for two main reasons. First, the lack of a healthy diet leaves most people vulnerable to infections. Second, most households prepare their food over an indoor fireplace, which fills their homes with unhealthy smoke.

Finally, the threat of HIV/AIDS poses a problem concerning the use of traditional medicinal practices. This condition is difficult for traditional healers to diagnose because it is a syndrome, i.e., a combination of symptoms. Each individual symptom can occur for other reasons or can represent an illness on its own. Furthermore, HIV/AIDS is a socially unacceptable topic and is typically not discussed. Traditional healers are highly respected as a group, and most people in rural Africa consult traditional healers about any type of physical problem. For this reason, traditional healers could play a major role in encouraging more open discussion of HIV/AIDS.

Although certain preferences exist, almost all of the woody plant species are also used for purposes other than medicine. According to own observations, the use of these species as

wood fuel is the most frequent of these other uses (BUNDSCHUH 2008). Currently, the collection of plants for use as wood fuel does not threaten the diversity of woody plant species in the region and does not represent a threat to the abundance of medicinal plants (BUNDSCHUH et al. 2010). However, an increasing demand for wood fuel can be expected due to the development of Karonga and its rising population.

6 CONCLUSIONS

The people living in the rural area south of Karonga rely on traditional herbal medicine and have developed a specialised health system. The woody plant species collected for medicinal purposes are mostly collected near the homes of the healers and in thickets located bet-

ween the cultivated areas. The most important medicinal plant species are still available, but a focus on sustainable use can be recommended for three of these species.

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LITERATURE CITED

ARNOLD TH, PRENTICE CA, HAWKER LC, SNYMAN, EE, TOMALIN M, CROUCH NR & POTTAS-BIRCHER C (2002): Medicinal and magical plants of southern Africa: an annotated checklist. National Botanical Institute, Pretoria.

BRECKLE S-W (1999): Walter's Vegetation of the Earth. Springer-Verlag, Berlin.

BUNDSCHUH TV, WITTIG R & HAHN K (2010): The Dry Miombo Woodland in Northern Malawi. *Flora et Vegetatio Sudano-Sambesica* 13: 22-34.

BURKILL HM (2004): The useful plants of West tropical Africa (Vol. VI). Royal Botanic Gardens, Kew.

CHHABRA SC., MAHUNNAH RLA & MSHIU EN (1989): Plants used in traditional medicine in Eastern Tanzania. II. Angiosperms (Capparidaceae to Ebenaceae). *J. Ethnopharmacology* 25:339-359.

CHHABRA SC, MAHUNNAH RLA & MSHIU EN (1993): Plants used in traditional medicine in Eastern Tanzania. VI. (Sapotaceae to Zingiberaceae). *J. Ethnopharmacology* 39:83-103.

COATES-PALGRAVE M (2002): Keith Coates-Palgrave Trees of Southern Africa. Struik Publishers, Cape Town.

COLE MM (1986): The Savannas: biogeography and geobotany. Academic Press Inc., London.

CUNNINGHAM AB (2002): Applied Ethnobotany (People, Wild Plant Use & Conservation). Earthscan Publications Ltd., London.

DERY BB, OTSYINA R & NG'ATIGWA C (1999): Indigenous knowledge of medicinal trees and setting priorities for their domestication in Shinyanga Region, Tanzania. International Centre for Agricultural Research, Nairobi.

HEINE B & LEGÈRE K (1995): Swahili Plants: An Ethnobotanical Survey. Rüdiger Köppe Verlag, Cologne.

KEW ROYAL BOTANIC GARDENS (2004): Flora Zambesiaca. Retrieved August 2008, from <http://apps.kew.org/efloras/search.do>.

KROHMER, J (2004): Umweltwahrnehmung und -klassifikation bei Fulbegruppen in verschiedenen Naturräumen Burkina Faso und Benin (Westafrika). Frankfurt am Main: Dissertation zur Erlangung des Doktorgrades der Naturwissenschaften.

MORRIS B (1996): Chewa Medical Botany: A Study of Herbalism in Southern Malawi. Lit., Hamburg

NATIONAL STATISTICAL OFFICE (NSO) (1998): Malawi Population and Housing Census. Zomba.

SMITH, P & ALLEN Q (2004): Field Guide to the Trees and Shrubs of the Miombo Woodlands. Royal Botanic Gardens, Kew.

WHITE F (1983): The vegetation of Africa. UNESCO, Paris.

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Appendix

List of woody species used for traditional medicine in the area of Karonga and their local names. All species names are approved. Relevant synonyms are provided for certain species. / Liste des plantes ligneuses utilisées en médecine traditionnelle dans la région de Karonga ainsi que leurs noms locaux. Tous les noms d'espèces sont acceptés. Certains noms d'espèces sont suivis de leurs synonymes correspondants.

Species name	Plant family	Local name (Chitumbuka/ Chinkhonde)	Synonym
<i>Acacia nilotica</i> (L.) Willd ex Del.	Fabaceae	Chibiriri	
<i>Acacia</i> sp.	Fabaceae	Chimbwe	
<i>Azelia quanzensis</i> Welw.	Fabaceae	Kamilang'onga	
<i>Allophylus chaunostachys</i> Gilg	Sapindaceae	Nyatatu	
<i>Annona senegalensis</i> Pers.	Annonaceae	Mnyere	
<i>Anthospermum</i> spec.	Rubiaceae	Mzuula	

Species name	Plant family	Local name (Chitumbuka/ Chinhonde)	Synonym
<i>Asparagus setaceus</i> (Kunth) Jessop	Asparagaceae	Mkhorankhanga	
<i>Azanza garckeana</i> (F. Hoffm.) Exell & Hillcoat	Malvaceae	Mtowo	
<i>Bauhinia petersiana</i> Bolle	Fabaceae	Mpapa	
<i>Brachystegia allenii</i> Hutch. & Burt Davy	Fabaceae	Nguti	
<i>Bridelia cathartica</i> G. Bertol.	Euphorbiaceae	Mguzabango	
<i>Byrsocarpus orientalis</i> (Baill.) Bak.	Connaraceae	Mwawani	<i>Rourea orientalis</i>
<i>Canthium glaucum</i> ssp. <i>frangula</i> (S. Moore) Bridson	Rubiaceae	Kamyong'onyo	
<i>Carica papaya</i> L.	Caricaceae	Papaya	
<i>Cassipourea mollis</i> (R. E. Fr.) Alston	Rhizophoraceae	Kafulankhwale	
<i>Cassytha filiformis</i> L.	Lauraceae	Sakazinje	
<i>Cissus cornifolia</i> (Bak.) Planch.	Vitaceae	Mlewe („male“)	
<i>Clerodendrum glabrum</i> E. Mey.	Verbenaceae	Kawingawazimu	
<i>Combretum apiculatum</i> Sond.	Combretaceae	Mlama	
<i>Combretum fragrans</i> F. Hoffm.	Combretaceae	Kansewe	<i>C. adenogonium</i> , <i>C. ghasalense</i>
<i>Commiphora mossambicensis</i> (Oliv.) Engl.	Burseraceae	Chitonto	
<i>Crossopteryx febrifuga</i> (Afzel. ex G. Don) Benth.	Rubiaceae	Chiwaja chikhowo	
<i>Dalbergia nitidula</i> Baker	Fabaceae	Luwewa	
<i>Dichrostachys cinerea</i> (L.) Wight & Arn.	Fabaceae	Mphangala	
<i>Diospyros kirkii</i> Hiern	Ebenaceae	Chigulya	
<i>Diplorhynchus condylocarpon</i> (Muell. Arg.) Pichon	Apocynaceae	Mnthalembe	
<i>Erythrophleum suaveolens</i> (Guill. & Perr.) Brenan	Fabaceae	Mwavi	
<i>Euphorbia matabelensis</i> Pax	Euphorbiaceae	Wulimbo	
<i>Flacourtia indica</i> (Burm. f.) Merr.	Flacourtiaceae	Ndawi	
<i>Grewia stolzii</i> Ulbr.	Tiliaceae	Lusako	
<i>Holarrhena pubescens</i> (Buch.-Ham.) Wall. ex G. Don	Apocynaceae	Njenje	
<i>Hymenodictyon floribundum</i> (Hochst. & Steud.) B.L. Rob.	Rubiaceae	Chitechitechi	
<i>Hymenodictyon parvifolium</i> Oliv.	Rubiaceae		
<i>Indigofera emarginella</i> Steud. ex A. Rich.	Fabaceae	Mwafongo	
<i>Julbernardia globiflora</i> (Benth.) Troupin	Fabaceae	Kamphoni	
<i>Khaya nyasica</i> Stapf ex Bak. f.	Meliaceae	Mbawa	<i>Khaya anthotheca</i>
<i>Kigelia africana</i> (Lam.) Benth.	Bignoniaceae	Mfungwe	
<i>Lannea discolor</i> (Sond.) Engl.	Anacardiaceae	Kaumbweumbwe	
<i>Maerua parvifolia</i> Pax	Capparaceae	Luvwi	
<i>Margaritaria discoidea</i> (Baill.) G.L. Webster	Euphorbiaceae	Mpondania	<i>Phyllanthus discoideus</i>
<i>Maytenus heterophylla</i> (Eckl. & Zeyh.) N. Robson	Celastraceae	Mbambang'oma	<i>Gymnosporia buxifolia</i>
<i>Maytenus senegalensis</i> (Lam.) Exell	Celastraceae	Chimika	<i>G. senegalensis</i>
<i>Monodora junodii</i> Engl. & Diels	Annonaceae	Nyampamba	
<i>Olax dissitiflora</i> Oliv.	Olacaceae	Foka	
<i>Olax obtusifolia</i> De Wild.	Olacaceae	Kavundula	
<i>Ormocarpum kirkii</i> S. Moore	Fabaceae	Mbankho	
<i>Ozoroa reticulata</i> (Bak. f.) R. & A. Fernandes	Anacardiaceae	Chizimya	<i>Heeria insignis</i> , <i>Ozoroa insignis</i>
<i>Piliostigma thonningii</i> (Schumach.) Milne-Redh.	Fabaceae	Mthukutu	
<i>Popowia obovata</i> (Benth.) Engl. & Diels	Anacardiaceae	Ntchinka	<i>Friesodielsia obovata</i>
<i>Pouzolzia mixta</i> Solms-Laub.	Urticaceae	Lukopyo	
<i>Pseudolachnostylis maprouneifolia</i> Pax	Euphorbiaceae	Msolo	
<i>Rhus natalensis</i> Bernh. ex Krauss	Anacardiaceae	Nyatatu	
<i>Ricinus communis</i> L.	Euphorbiaceae	Mayembayemba	
<i>Rytigynia adenodonta</i> var. <i>reticulata</i> (Robyns) Verde.	Rubiaceae	Mpokuso	<i>Rytigynia reticulata</i>
<i>Rytigynia monantha</i> (K. Schum.) Robyns	Rubiaceae	Mpokuso	
<i>Sclerocarya caffra</i> Sond.	Anacardiaceae	Msere	<i>Sclerocarya birrea</i> ssp. <i>caffra</i>
<i>Securidaca longepedunculata</i> Fresen.	Polygalaceae	Mughuluka	
<i>Senna siamea</i> (Lam.) H.S. Irwin & Barneby	Fabaceae	Ndengere	<i>Cassia siamea</i>
<i>Steganotaenia araliacea</i> Hochst.	Apiaceae	Mnyongoloko	
<i>Sterculia quinqueloba</i> (Garcke) K. Schum.	Sterculiaceae	Mosha	
<i>Stereospermum kunthianum</i> Cham.	Bignoniaceae	Msungwanthu	
<i>Strychnos madagascariensis</i> Poir.	Loganiaceae	Kamira walumba	
<i>Terminalia kaiseriana</i> F. Hoffm.	Combretaceae	Mpululu	
<i>Terminalia stenostachya</i> Engl. & Diels	Combretaceae	Mpokwa	
<i>Vangueria infausta</i> Burch.	Rubiaceae	Maviru	
<i>Vernonia colorata</i> (Willd.) Drake	Asteraceae	Mluluzya	
<i>Vitex payos</i> (Lour.) Merr.	Lamiaceae	Mfuru	
<i>Ximenia caffra</i> Sond.	Olacaceae	Mlewe (edible)	
<i>Zanha africana</i> (Radlk.) Exell	Sapindaceae	Mzakaka	
<i>Ziziphus abyssinica</i> Hochst. ex A. Rich.	Rhamnaceae	Kaperekese	