



# Edible Wild Plants of Tanzania



**Christopher K. Ruffo**  
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Bo Tengnäs



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CHRISTOPHER K. RUFFO

ANN BIRNIE AND BOTENGNÄS



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Top: Selling fruit, including *Strychnos cocculoides* and *Parinari curatellifolia*,  
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Middle: *Borassus aethiopum*

Bottom: *Nymphaea lotus*

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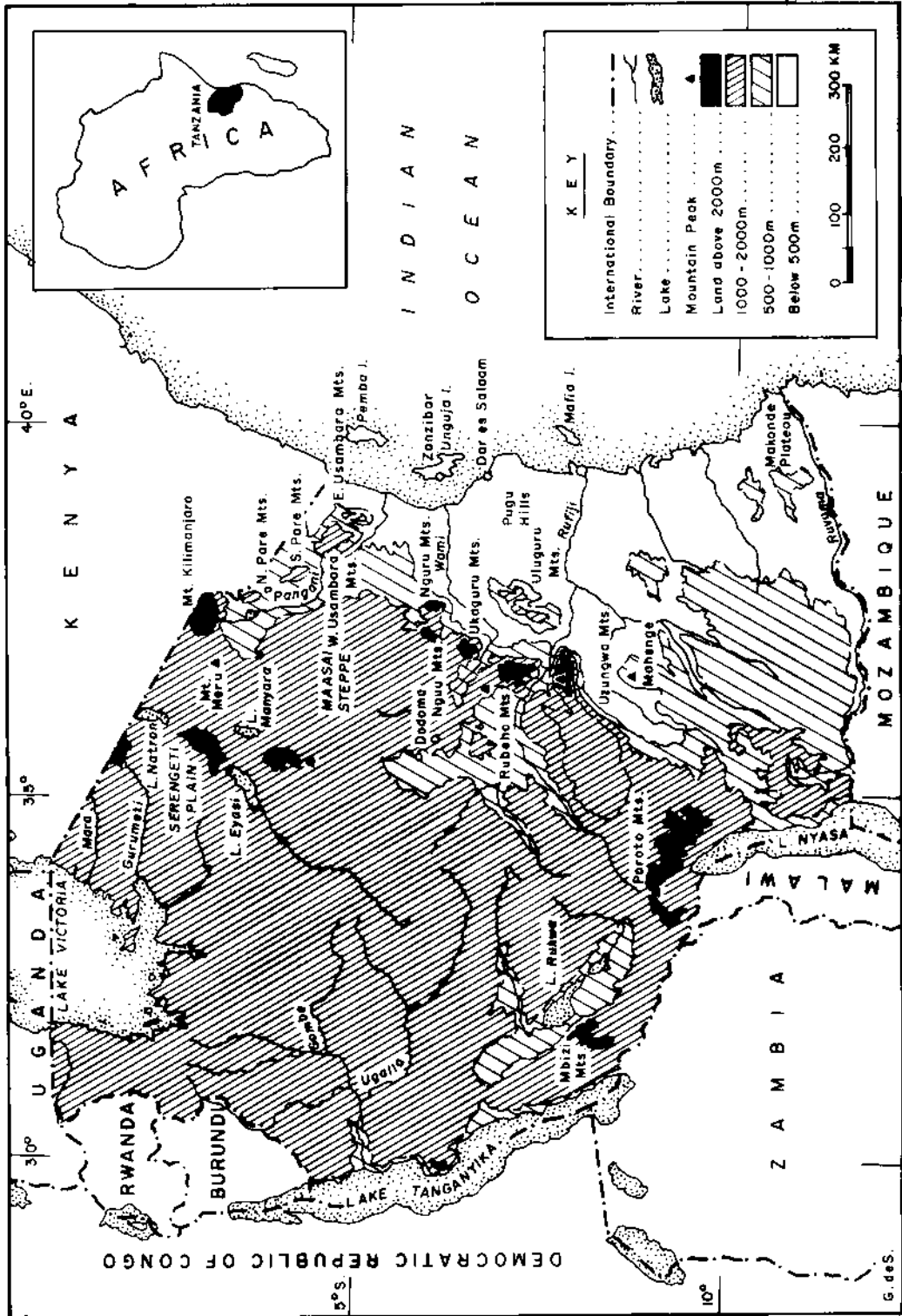
The content of this book is based on information gathered from a wide range of informants in the field at locations throughout Tanzania and is presented in good faith. If you have any doubts, before putting into practice any of its recommendations we advise you to verify information on uses and preparation with knowledgeable people in your own situation and community. Neither RELMA nor the individual authors will accept any liability for misidentification of the plants described or any ill effects that may result from their consumption or any other form of use.

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Map 1. The main physical features of Tanzania



## Foreword

This book can be regarded as the third in a series begun in 1999 when the National Museums of Kenya published *Traditional Food Plants of Kenya* with sponsorship and technical assistance from RELMA, among others. Later the same year RELMA's *Wild Food Plants and Mushrooms of Uganda* was launched, and now we are very pleased to publish this volume, *Edible Wild Plants of Tanzania*.

In all three, it proved difficult to select the species to be included. The flora of this region is so rich that any complete catalogue of all the wild plants that have current or potential uses as food would result in enormously cumbersome books.

RELMA sees four good reasons for documenting this kind of information on the edible wild plants of east and southern Africa in an easily accessible format:

- As a general principal, we should attempt to record all traditional knowledge and wisdom that is at risk of dying out. There are still many people—often the old people—who know how to utilize the resources of the “wild”, but this is knowledge that nowadays is seldom passed on to the younger generation;
- During periods of crop failure and famine, wild foods are often available provided people know where to look for them, recognize them and can cook them appropriately;
- Eating habits are changing very rapidly, both in the South and the North. Unfortunately, however, not all these changes are nutritionally sound. Sometimes the modern staple foods relied upon in Africa are monotonous and lack nutrients essential for a balanced diet. The addition of some wild plant foods to such poor staple-based diets can mean the difference between a healthy child and one whose future may be blighted by the consequences of malnutrition;
- Probably the most important edible plant species in the world have already been identified, domesticated, propagated, developed and put to economic use. Modern gene-modification techniques have the potential for developing new plants in the laboratory, but I am convinced that there will always be uses for existing but not-so-well-known “new” plants in food production. The promotion of “functional foods”—those that are “extra healthy”, or half way to being medicines—is growing rapidly. It is more than likely that among all the edible wild plants of eastern Africa there are substances with the potential for being developed into products that could play an important economic role in the region.

Lastly, I would like to commend the main author, Christopher K. Ruffo, whose extensive knowledge of the ethnobotany of Tanzania, resulting from decades of botanical work in his country, forms the basis of this book. This initial information was supplemented by further data gathered by him in the course of extensive travels to five regions of Tanzania mainland, i.e. Kilimanjaro, Tanga, Iringa, Tabora and Kigoma, and also Zanzibar, and interactions with local people in all those areas. The rest of the team behind this book relied heavily on Mr Ruffo's expertise.

*Åke Barklund*  
Director, RELMA

## Acknowledgements

This book is the result of the combined efforts of a team of people facilitated by a Sida grant through the Regional Land Management Unit, RELMA. Christine Holding and Bo Tengnäs initiated the project through RELMA, and Bo Tengnäs and Gatheru Kimaru facilitated the field work and production throughout.

An initial text was supplemented by a great amount of data gathered in the course of extensive travels to five Regions of Tanzania mainland, i.e. Kilimanjaro, Tanga, Iringa, Tabora and Kigoma, and also to Zanzibar, and interaction with local people in the areas visited.

Many organizations and individuals contributed to the successful completion of that part of the work, and in particular the following deserve mention:

- The Commissioner of Natural Resources, Zanzibar, and his staff who guided us to various important places and facilitated data collection on the use of wild food plants in Zanzibar;
- The Regional Natural Resources Officer and Regional Agricultural Officer of Tanga whose competent extension staff arranged for us to interview local farmers in Tanga, Muheza, Korogwe and Lushoto Districts;
- The Project Manager of East Usambara Catchment Project, Tanga, and his staff for their co-operation and allowing us access to their library;
- The District Agricultural Officer, Moshi, and his staff for arranging meetings and interviews with local people. Mama Moshi, in particular, drove us tirelessly and courageously on muddy roads to collect data in Kilimanjaro Region;
- The District Agricultural Officer and District Forest Officer, Same District, who arranged for us to meet and interview Maasai and Pare tribesmen in Ruvu Mferejini and Mbagga villages, respectively;
- The District Natural Resources Officer and District Agricultural Officer of Iringa, Mafinga and Njombe Districts and their staff who arranged meetings with groups of women, men and young people in various villages;
- The Regional Natural Resources Officer, Tabora Region, and District Agricultural Officers of Tabora, Nzega and Igunga Districts who arranged for us to meet Nyamwezi tribesmen and herbalists;
- The Director of the Agricultural Training Centre, Tumbi, Tabora, and his staff for taking us on a field visit through the intact Tumbi Forest Reserve accompanied by local people to identify and discuss their use of wild food plants;
- The Co-ordinator of Lake Tanganyika Catchment Forest and Education

(TACARE) and the Warden in charge of the Gombe Stream National Park, Kigoma District for their kind co-operation in the field;

- The District Natural Resources Officers of Kasulu and Kibondo Districts for arranging interviews with Ha tribesmen;
- The Co-ordinator of the Soil Erosion Control and Agroforestry Project (SECAP) at Lushoto who arranged for us to visit local markets at Lushoto, Soni and Lukozi.

My sincere gratitude to the Director of the Tanzania Forestry Research Institute (TAFORI) at Morogoro and the Head, Botany Department, University of Dar es Salaam and their staff who allowed us to use their herbaria for the identification of plants collected in the field.

I owe a particular debt of gratitude to Professors Inga and Olov Hedberg, both of the University of Uppsala, for their useful comments on the plants which have been included in this book. I also thank Ingvar Backeus of the University of Uppsala for arranging a study visit to that institution for Agnes Nyambo and myself in February 2000.

I also acknowledge the important contributions made by all the participants at the review workshop held in Iringa in November 2000 (Appendix II) and thank them for their input. I also thank Agnes Nyambo for her good company and co-operation during our field work.

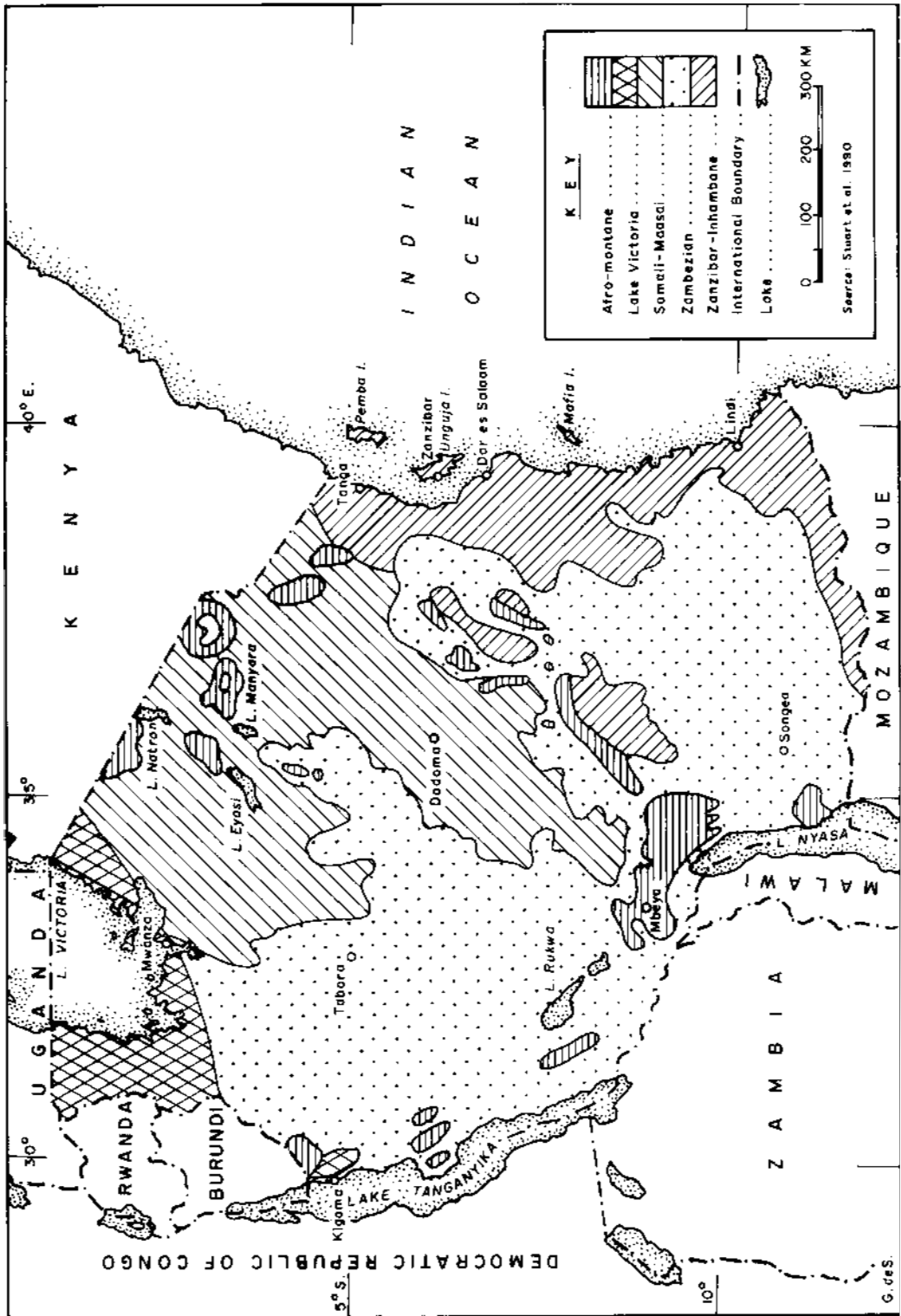
An initial manuscript was then put together by all three authors with the help of Yasmin Kalyan's usual speedy and efficient data entry. Further details were reviewed at the University of Uppsala in Sweden.

Ann Birnie, botanical consultant and artist, prepared the botanical descriptions and supplemented information on the ecology and distribution of the selected species. She also organized and coordinated production of the many illustrations required, including making a few original drawings. Nicholas Muema drew some illustrations in the field, but most drawings were made from dried specimens in the East African Herbarium, National Museums of Kenya, Nairobi. The authors remain indebted to the staff of the Herbarium for their assistance in this. Other illustrations were taken from previous RELMA/Sida publications (those in the volumes of the *Useful Trees and Shrubs* series and *Wild Food Plants and Mushrooms of Uganda*), and a few were original work by Mr H. P. Msanga of the National Tree Seed Centre, Morogoro.

I am grateful to the National Museums of Kenya and the East Africa Natural History Society for permission to use the illustrations taken from *Kenya Trees, Shrubs and Lianas* by H.J. Beentje and *Upland Kenya Wild Flowers* by A.D.Q. Agnew and S. Agnew, respectively. Illustrations from the published family volumes of the *Flora of Tropical East Africa (FTEA)* are reproduced courtesy the Library, Royal Botanic Gardens, Kew. The copyright to all the above illustrations remains with the original publishers.

Finally, I wish to thank all the other people who contributed in one way or another during data collection and final production of the book but are not specifically mentioned here.

*Christopher K. Ruffo*



Map 2. The main phytogeographical regions of Tanzania

# Introduction

## Biodiversity and the vegetation of Tanzania

Tanzania, with an area of 945,000 km<sup>2</sup>, has the greatest diversity of plant species of all African countries with the exception of the Democratic Republic of Congo (DRC) and South Africa. There are over 9,000 species of higher plants in Tanzania, many of which are so-called endemic species, meaning that they are only found in Tanzania. The vegetation of an area is generally classified into regions based on the species and plant associations found there. These regions are called phytogeographical regions, and those regions found in Tanzania are indicated below and shown in Map 2:

- Afro-montane region
- Lake Victoria region
- Somali–Maasai region
- Zambezian region
- Zanzibar–Inhambane region.

The **Afro-montane region** covers the high mountain areas of Tanzania, including Kilimanjaro, Meru, Ngorongoro, Hanang, Rungwe, Mbizi and Makale. Afro-montane vegetation is also found in the eastern arc mountains, which include Pare, Usambara, Nguu, Nguru, Ukaguru, Malundwe, Rubeho and Mahenge. The eastern arc mountains are known to be extremely rich in species diversity and endemism. Over 25% of the eastern arc species are endemic, including several species of wild coffee, e.g. *Coffea mongensis* and *Coffea mufindiensis*. This region receives high rainfall (1,000–3,000 mm per year) and is densely populated because of the favourable conditions for agriculture.

The **Lake Victoria region** covers the areas around Lake Victoria and the northern part of Lake Tanganyika. The rainfall is relatively high (1,500–2,000 mm per year) in this region too. Most of the luxuriant forests around these lakes have been cleared for agriculture, with the exception of the forest at Minziro, which is rich in species, including some Afro-montane species such as *Podocarpus falcatus*.

The **Somali–Maasai region** is in the central and northern parts of Tanzania. Thickets, woodlands and grasslands dominate in this region. *Acacia* and *Commiphora* are common. There are also many endemic species of plants, e.g.

*Acacia tanganyikensis* and *Cordyla densiflora*. The rainfall is low (300–700 mm per year) and these areas are economically important for wildlife and livestock rearing.

The **Zambezi** region covers much of western and southern Tanzania and occupies about 40% of the country's total land area. A large proportion of this zone is covered with miombo or *Brachystegia* woodland with many species of *Brachystegia*, *Julbernardia* and *Isobertia*. Many edible plants and timber species are found in the miombo woodlands.

The **Zanzibar–Inhambane** region covers mainly the eastern parts of Tanzania. The vegetation in this region consists mostly of coastal forests, woodlands, bushlands and thickets. About 40% of the species found are endemic, e.g. *Milletia puguensis* and *Philippia mafiensis*. However, most of the coastal forests, woodlands and thickets have been cleared, mainly for agricultural purposes. The indigenous forest remains in only a few areas such as Pugu, Zeraninge, Ngezi and Jozani.

All these areas, but especially the Zambezi and Zanzibar–Inhambane regions, are sources of wild foods, medicine and other products such as timber, poles and firewood. All these are essential for the livelihood of local people.

## Wild plants as sources of food

Wild food plants are those plants with edible parts which are found growing naturally on farms, fallow or on uncultivated land. For example, many of the leafy vegetables described in this book are found as weeds on farmland, fallow or abandoned farmlands, while other food plants are only found in natural forests. Most of the 326 plants described in this book are indigenous, though a few were exotic in origin.

Several types of food can be obtained from wild plants. **Leaves**, either fresh or dried, frequently accompany staple grain dishes. **Seeds and nuts** are also used in various side dishes and sauces. **Fruit** are a seasonal food supply and are often eaten as snacks or made into juices. In some cases, fruit may form a very substantial part of the diet, e.g. bananas. **Roots and tubers** provide carbohydrates and minerals and are especially valuable dry-season and famine-period foods. Some may be eaten raw as snacks, while others require complicated processing and thus are only used in times of food scarcity. Some *Acacia* species such as *Acacia senegal* yield edible **gum**, and the **sap** from other trees is used in various ways. The **bark** of some trees can be eaten or used as a spice. All these types of food provide essential elements in the human diet. Some of these uses of the plants covered in this book are summarized in Table 1.

**Table 1.** Some wild food plants and their role in the diet

<b>Oil seeds</b>		
Allanblackia	<i>Allanblackia</i> spp.	Oil
Desert date	<i>Balanites aegyptiaca</i>	Oil
Wild kapok	<i>Bombax rhodognaphalon</i> var. <i>tomentosum</i>	Oil, snack, famine food
Cork-wood tree	<i>Ricinodendron heudelotii</i> subsp. <i>africanum</i>	Oil famine food
Cape mahogany	<i>Trichilia emetica</i>	Oil
<b>Cereals</b>		
Crow-foot grass	<i>Dactyloctenium aegypticum</i>	Famine-period staple
Crow-foot grass	<i>Dactyloctenium giganteum</i>	Famine-period staple
Wild sorghum	<i>Sorghum purpureo-sericeum</i>	Staple
<b>Beverages</b>		
Baobab	<i>Adansonia digitata</i>	Drink, snack, famine food
Wild coffee	<i>Coffea</i> spp.	Drink
Tamarind	<i>Tamarindus indica</i>	Drink, snack
Marula plum	<i>Sclerocarya birrea</i>	Snack, drink, famine food
Wild loquat	<i>Uapaca</i> spp.	Snack, drink, famine food
<b>Fruit</b>		
Wild custard apple	<i>Annona senegalensis</i>	Mainly snacks
African ebony	<i>Diospyros mespiliformis</i>	Mainly snacks, famine food
Indian plum	<i>Flacourtia indica</i>	Mainly snacks, jam
Mobola plum	<i>Parinari curatellifolia</i>	Snacks, drink, famine food
Wild medlar	<i>Vangueria</i> spp.	Mainly snacks, drink, famine food
<b>Leafy vegetables</b>		
Amaranth	<i>Amaranthus spinosus</i>	Sauce, vegetable
Wild simsim	<i>Sesamum calycinum</i> var. <i>angustifolium</i>	Sauce, vegetable
Common purselane	<i>Portulaca oleracea</i>	Sauce, vegetable
Hibiscus	<i>Hibiscus</i> spp.	Sauce, vegetable
<b>Roots and tubers</b>		
Yams	<i>Dioscorea</i> spp.	Staple and famine food
<b>Spices, flavourings</b>		
Wild cardamom	<i>Aframomum angustifolium</i>	Improve palatability and taste
Ashanti pepper	<i>Piper guineense</i>	Improve palatability and taste

## Food categories

The culinary culture and dishes of the various communities in Tanzania, as in most of Africa, are, of course, different from those in the West. As a result, in many cases there are no exactly equivalent English words for African dishes or components of a meal.

### *Staple*

A staple food is the major or dominant food, usually high in carbohydrate, that forms the most important component of a meal, e.g. sweet potatoes, millet, rice, maize or cassava. Relatively few staples are collected from the wild, but most

communities know of “emergency staples” that can be relied upon during famine, for example *Dactyloctenium* spp.

The main staples eaten in Tanzania are either boiled or steamed (e.g. potatoes, green bananas, rice), or ground into flour (e.g. maize, millet, cassava). The flour is cooked with water into a stiff dough-like “porridge”, generally eaten with the various vegetable dishes or “sauces” described in this book. There is no exact equivalent for this stiff “porridge” in the English language or Western cuisine, either in its consistency (somewhat similar to dry mashed potatoes) or its dominating role as the basic component of the meal. Therefore, in this book we have used the Swahili word *ugali*, unless a local Tanzania name is specified. We use the word “porridge” to mean a much thinner gruel-type food (called *uji* in Swahili) that can be drunk from a bowl or cup. Often this thin porridge is made from the same flours as the staple *ugali* of the area with the addition of various plant juices and flavourings, or in more urban situations, milk, sugar or lemon juice.

### *Vegetable or sauce*

These terms are used for the dishes that are the main accompaniment to the staple, usually vegetables, including the wild leafy plants described in this book. They are often cooked with a base of fried onions and tomatoes or the addition of legumes and pulses, e.g. pounded groundnuts or simsim, and coconut milk. Depending on affordability and availability, meat, whether from domestic animals or wild game, as well as fish (fresh, dried or smoked) and insects, e.g. grasshoppers and termites, may be used in varying proportions.

### *Snacks*

Any relatively small amount of food eaten between main meals, e.g. fruit, nuts, a drink, roasted seeds or root crops, is regarded as a snack. Snacks increase the variety of foods eaten and improve the individual’s nutrition. This is crucial in Tanzania because, for example, traditionally fruits and nuts many not often be part of a main meal.

Snack foods are especially important for children since children need to eat more frequently than adults, and wild fruits and nuts are good sources of the micronutrients that may be deficient in the common cereal-based diets. Among pastoral peoples in the semi-arid areas of Tanzania, or more widely during famine, some of these so-called “snack” foods may become the only food available and consequently at such times fulfil a much more substantial role in the daily diet.

### *Oil foods*

These are foods from which oil can be obtained either by extraction or direct consumption, e.g. groundnuts, sesame seeds (simsim), wild kapok seeds, oil palm kernels and sunflower seed. Oils provide concentrated energy in the diet and enhance palatability.



*Spices and flavourings*

These are foods, often strongly flavoured, and therefore used in small amounts, which are added as seasoning to improve the taste of dishes and enhance the appetite.

*Tenderizers*

Many of the plants are used as tenderizing agents. The leaves may be cooked together with other leafy vegetables to soften them during cooking. Alternatively, other parts of the plants are burnt to obtain ash which is also used to tenderize other vegetables, to hasten the cooking of dry pulses or as a substitute for common salt.

*Juices*

As a snack the juice is sucked from many fruit picked in the wild. Also the pulp of many ripe fruit may be soaked in water, squeezed or mashed, filtered and sugar added to make larger quantities of juice for consumption in the home or for sale. These juices supply vitamin C and energy.

*Famine food*

Many of the plants in this book are listed as famine foods. In these cases, leaves, roots or tubers, for example, may all be eaten on occasions but the term implies that they are only used when other more favoured alternatives are unavailable.

**The nutritional value of wild food plants**

Malnutrition is prevalent in Tanzania, as evidenced by the fact that 27% of children are underweight, and micronutrient malnutrition affects a large proportion of the population of Tanzania. Some 2,000–4,000 children go blind each year due to lack of vitamin A in the diet. It has been estimated that 40% of the people live in iodine-deficient areas and about 1.6% have severe deficiency and therefore suffer from goitre. Prevalence of anaemia due to iron deficiency is 86% in children and 85% in pregnant women (FAO 1990, Kavishe 1993, UNICEF 1990).

The major cause of malnutrition is inadequate intake of nutrients. In addition, there is insufficient information and knowledge on the foods that are rich in nutrients, and especially micronutrients, vitamins and minerals. In Tanzania, therefore, wild plants that could supply these important nutrients are important since many people cannot afford to buy the variety of foods otherwise needed for an adequate diet.

Few Tanzanian wild food plants have been analysed for their nutritional content, but available data indicate that many local vegetables and fruits have a higher nutritive value than exotic vegetables commonly sold in markets. For example, *Amaranthus spinosus*, *Bidens pilosa* and *Sesamum angolense* are among the local vegetables which are high in protein, fat and minerals (calcium and iron). Other local vegetables have calcium contents 1.5–3.2 times higher than those of the cabbage-family species whose calcium con-

tent is the highest of all the exotic vegetables. Some wild fruits such as *Adansonia digitata*, *Annona senegalensis* and *Parinari curatellifolia* are high in protein and fat. Furthermore, the fruit of *Adansonia digitata* and *Ximenia caffra* have a higher vitamin C content than mango (*Mangifera indica*) or orange (*Citrus sinensis*).

### **The role of wild food plants for food security in Tanzania**

In humid areas of Tanzania, wild food plants, especially vegetables such as *Amaranthus spinosus* and *Bidens pilosa*, are available throughout the year. But others are only available seasonally. For example, in dry areas of Tanzania vegetables are most abundant between December and June, while fruits are abundant from April to June. Some of the wild food plants, e.g. *Ceratotherca sesamoides*, *Adansonia digitata* and *Azanza garckeana*, are collected during the peak season and preserved for use during the off-season. Some fruits such as *Adansonia digitata* and *Tamarindus indica* are dried in the sun and stored. Other fruits, for example *Azanza garckeana* and *Vangueria infausta*, may be steamed before being dried and stored. Vegetables are usually collected in large amounts, dried in the sun before or after being steamed and stored. Leafy vegetables are often dried, pounded and stored in powder form. Other wild foods such as roots and tubers of *Ritchiea albersii* and *Dioscorea* spp. are important sources of food during periods of food scarcity.

In addition to making significant additions to individual family food supplies, wild food plants can contribute to household food security in other ways. Income and employment can be obtained from sale or exchange of fruit, nuts and vegetables. Juices and local alcoholic drinks are made from *Adansonia digitata*, *Tamarindus indica*, *Sclerocarya birrea* and *Uapaca kirkiana*.

### **Promotion of the use and domestication of wild food plants**

However, although many wild food plants are used by the majority of rural Tanzanians, they are still not as much appreciated or valued as some of the introduced food plants such as mango, orange, cabbage or Chinese cabbage. To a certain extent these wild food plants are still regarded as inferior and only appropriate for the poor. There is also a widespread decline in knowledge about wild food plants, especially among young people and those who live in urban areas.

As noted earlier, however, many wild food plants are both nutritious and important for food security. Many tasty dishes can be prepared from such plants. In addition, the indigenous species are adapted to the local environment and therefore propagate and grow easily with few requirements for external input such as fertilizers and pesticides. Thus they can be easily integrated into sustainable farming systems.

The aim of this book, therefore, is to encourage more people to learn about and promote the use of wild food plants found in their areas. It is hoped, for example,

that extension officers, village leaders, district and group leaders may use it to help them take an active role in the promotion and use of wild food plants and dissemination of information about them to their communities. Moreover, it is hoped that this book will prove useful to students, foresters, horticulturists, botanists, primary and secondary school teachers, college and university lectures and researchers.

## Conservation of natural resources including food plants

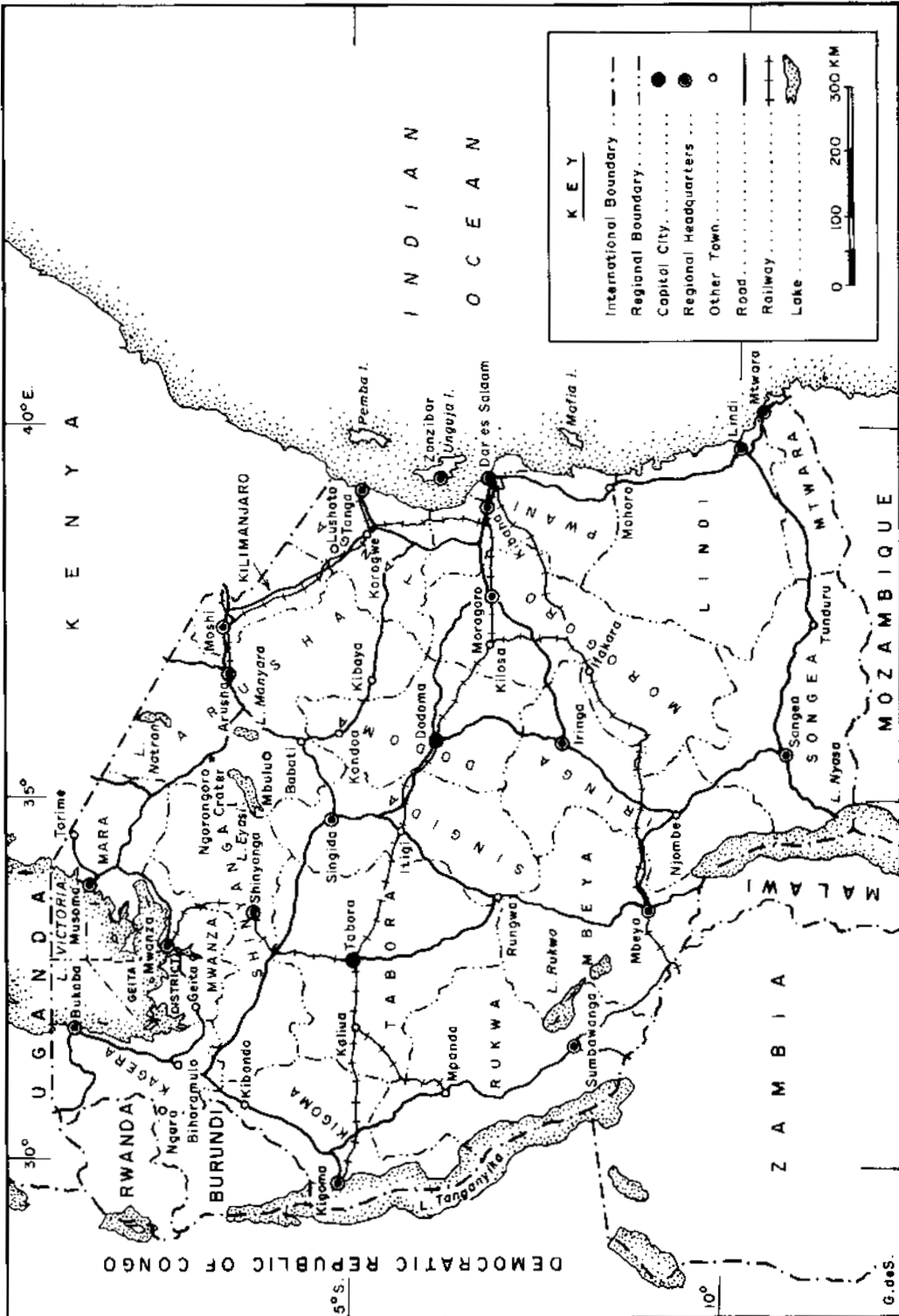
However, it is not simply enough to encourage the use of these plants without conserving them and the environment that will ensure their survival. With increasing deforestation, exploitation and changes in land use, the diversity of natural vegetation in Tanzania is declining and many of these wild foods and fruits are no longer readily available. Some of the important wild food plants have already disappeared or are becoming very rare. Examples are the orchids (*Habenaria* and *Satyrium* spp.) covered in this publication, which are amongst many orchid species that have become endangered because of recent massive collecting, harvesting or trading for food purposes, particularly in the Southern Highlands. They are still included in this book because of their local importance as food plants and their potential for future domestication, but unsustainable harvesting of all rare or threatened species should be discouraged.

There is, therefore, a great need for some of these indigenous wild plants to be domesticated, starting with those that have a high nutritive value and are easy to propagate. They also need genetic improvement and further development of methods for storage, processing and cooking.

There are numerous programmes, projects and activities in Tanzania aimed at the conservation of the country's natural resources. The main sectors involved are agriculture, forestry, fisheries, wildlife, water and lands. Most programmes aim at capacity building, restoration or rehabilitation, creation of awareness and facilitation or enhancement of sustainable utilization of natural resources. Such efforts are supported by Government policies such as the National Environmental Policy and the National Environmental Action Plan. The establishment of the National Environment Management Council (NEMC) has also been important.

Research and training institutions also play a crucial role in conserving Tanzania's rich natural resources. Tertiary training institutions include three universities, the College of African Wildlife, the Tanzania Fisheries Training Institute, the Tanzania Forestry Training Institute, the Beekeeping Training Institute and the Ministry of Agriculture training institutes in agriculture, livestock and horticulture. Research institutions are co-ordinated by the Commission of Science and Technology (COSTECH), and research is carried out by universities, the Tanzania Forestry Research Institute (TAFORI), the Tanzania Fisheries Research Institute (TAFIRI), several agricultural and livestock research stations, the Serengeti Wildlife Research Institute, and the Tanzania Pesticide Research Institute (TPRI).

There are also a number of non-governmental organisations (NGOs) that have



Map 3. The administrative regions and main towns of Tanzania

contributed substantially in the conservation of natural resources in Tanzania. Examples are the International Union for Conservation of Nature (IUCN), the Worldwide Fund for Nature (WWF) and the Wildlife Conservation Society of Tanzania.

### **Suggested activities**

The workshop held in Iringa in November 2000 to review the draft of this book was attended by many resource persons representing various disciplines (Appendix II). The participants made the following recommendations for the promotion of wild food plants in Tanzania:

- More exploration and studies of edible and medicinal plants should be carried out throughout Tanzania and documented;
- Propagation and domestication of wild food plants and medicinal plants should be started through efforts of the government, NGOs and women's groups;
- Knowledge about wild food and medicinal plants should be taught in villages, schools, colleges and universities;
- Pamphlets, booklets and newspapers on food plants should be produced so that people can be more exposed to current local knowledge;
- Wild food plants that provide food during periods of food scarcity or famine should be particularly promoted for planting in farmlands in order to improve household food security;
- More research should be carried out on the nutritional and medicinal properties of wild plants;
- People should be encouraged to protect and conserve wild food plants in their farmlands;
- People should be encouraged to retain some natural vegetation during land preparation (in situ conservation).
- Information about wild food and medicinal plants should also be disseminated through the media and at workshops, seminars and exhibitions;
- Valued traditional foods from the wild, for example those eaten during special occasions, should be studied and their continued use encouraged.

### **How to use this book**

The main part of this book consists of descriptions and information about the wild food plant species (each with an illustration), arranged alphabetically by scientific name. This main section is preceded by list of the local (vernacular) names of these plants in the main languages of Tanzania, again arranged alphabetically within each language category (this section is printed on coloured paper).

If you wish to find information about a particular plant but only know its name in your own language:

1. Look for the language you want in the list of local names. Languages are also organized alphabetically.
2. Find the name you are looking for in that list.

3. Check the botanical (scientific) name that is listed next to it.
4. Look up the page for that plant in its alphabetical place in the main section of the book.

At the end of the book there is a list of the species covered according to the taxonomic families they belong to, and a separate alphabetical index of all the species.

We have also included a feedback form at the end of the book where interested readers can give us their views on any of the material in this book and make suggestions for additions or corrections to be included in any future edition.

### **Medicinal use of wild plants**

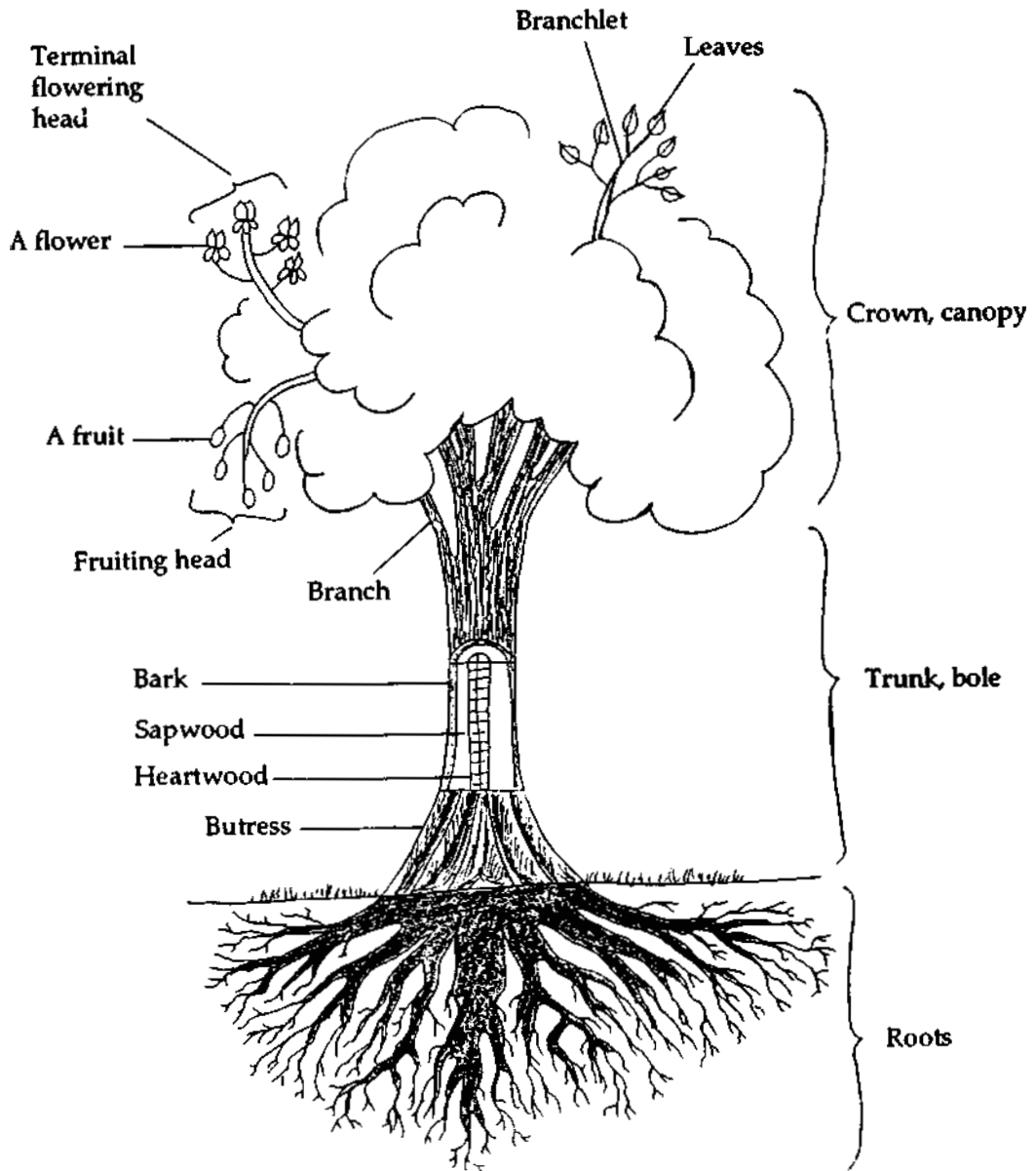
Some 60% of the plants described in this book are also known to be used as medicine for treating different human diseases.

Wild plants provide the only medicines cheaply and readily available to the vast majority of the rural population of Tanzania, as is the case in many other developing countries in the world. They are also a source of some of the active ingredients in modern pharmaceuticals.

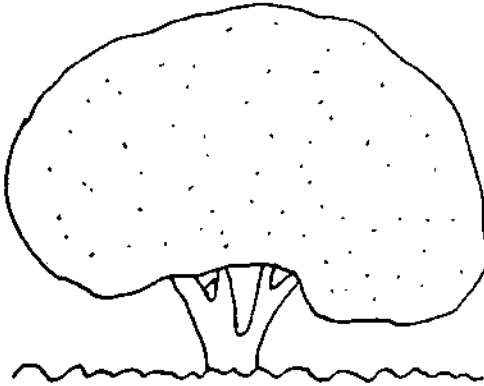
However, the active compounds, proper methods of preparation, dosages, effectiveness and side effects of medicines prepared from these plants have not yet been studied extensively. More research is needed before they can be used with absolute safety and effectiveness. Therefore, people who may wish to use any of these plants for medicinal purposes should take great care, seek expert advice where possible, and be aware that any such use is made at their own risk.

# Illustrated glossary of botanical terms (A. Birnie)

## The parts of a typical tree



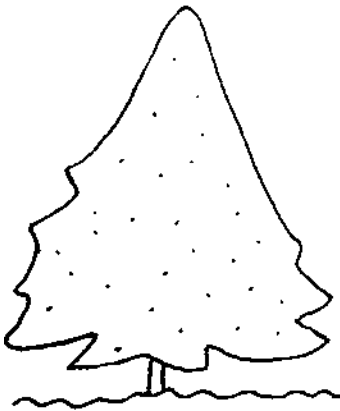
## Tree shapes



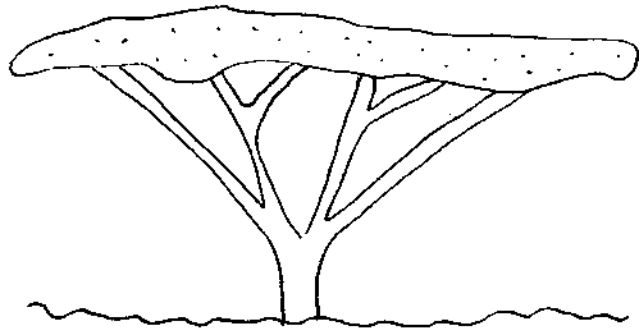
**Rounded crown, dense, shady canopy**



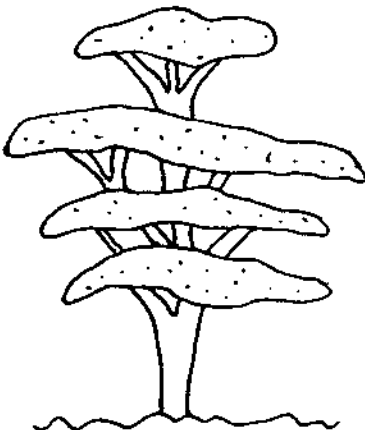
**Narrow open crown, light shade**



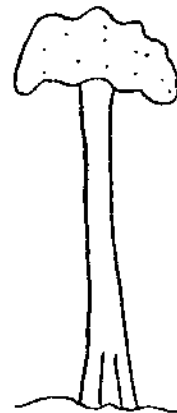
**Conical crown**



**Flat-topped, spreading crown**



**Canopy in layers**

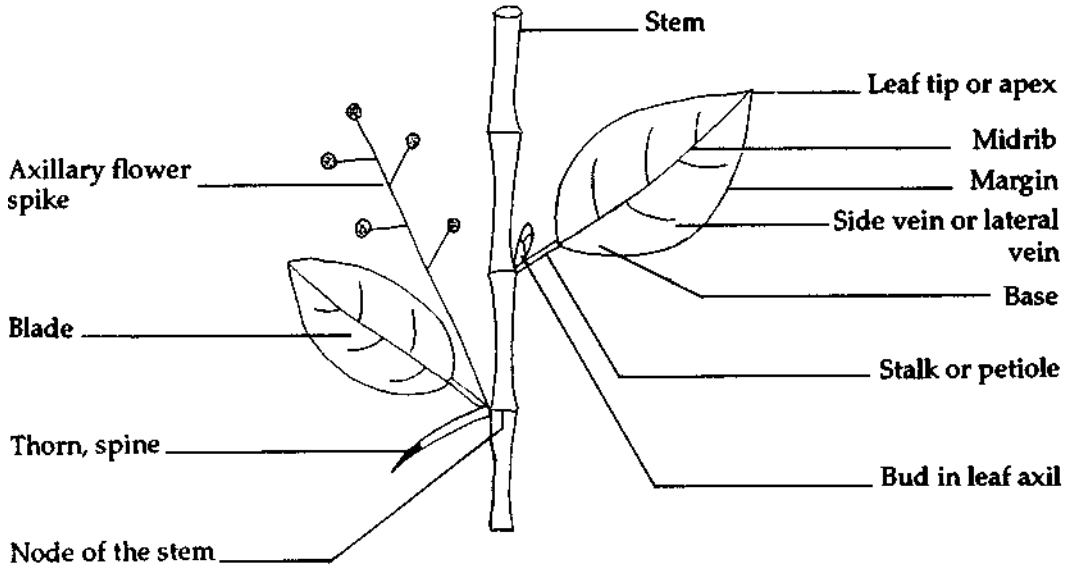


**A tall bole, small dense crown**

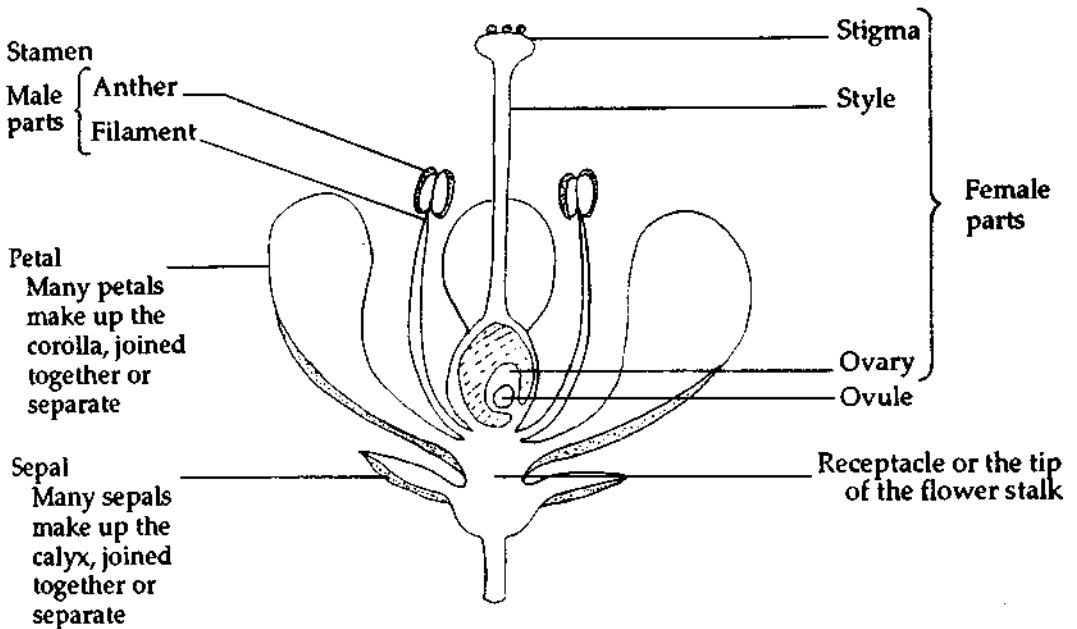


## Leaves and stems

Diagram showing two simple leaves alternate on a stem

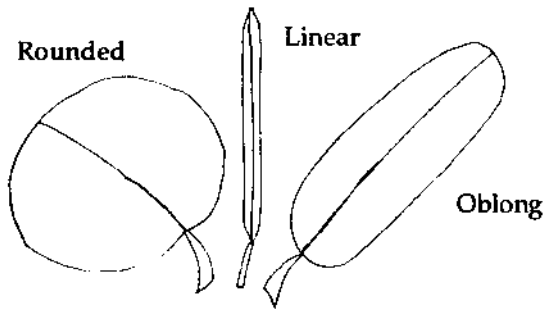
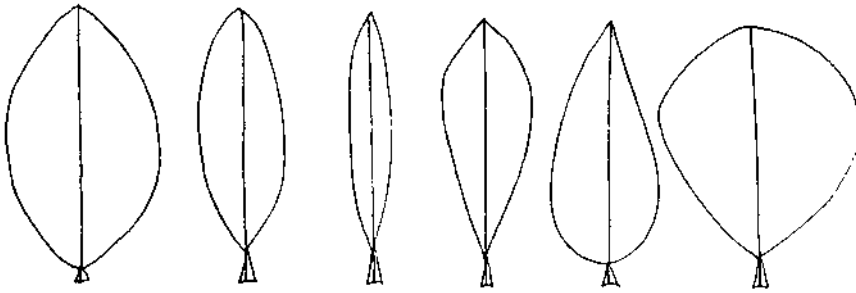


## A diagrammatic section through a typical flower



# Leaves

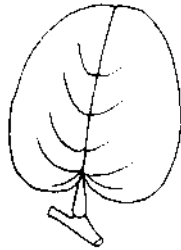
A variety of simple oval-shaped leaves



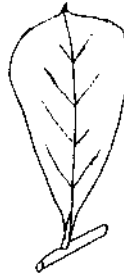
## Leaf base



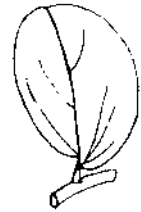
No leaf stalk  
—sessile



Leaf base heart  
shaped

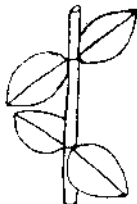


Leaf base narrowed



Leaf base unequal  
—asymmetric

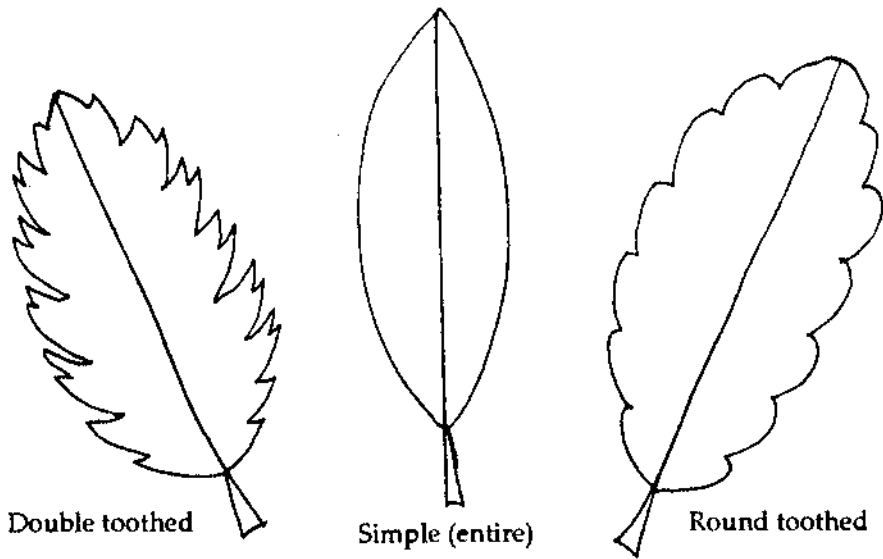
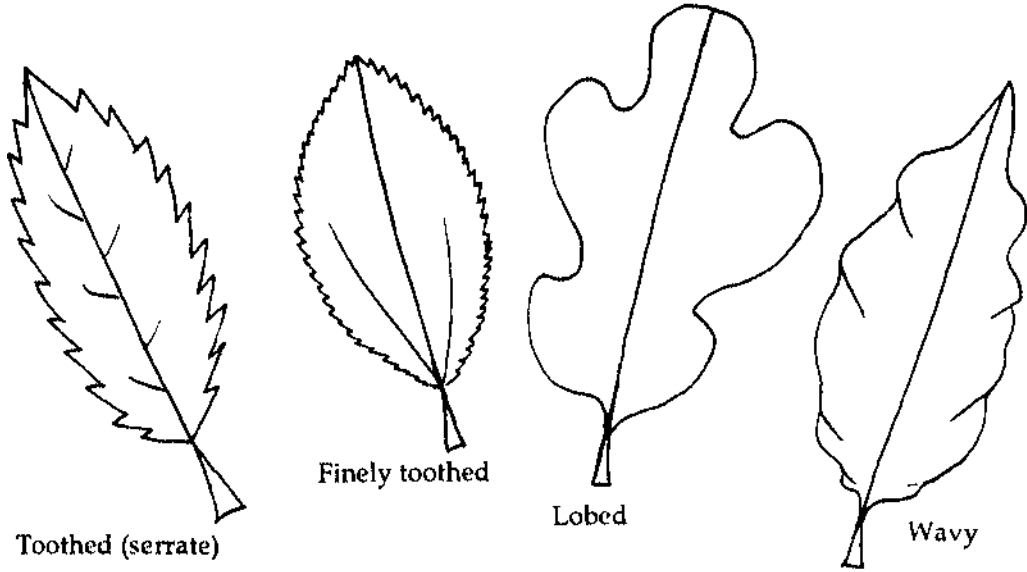
Opposite pairs of  
leaves



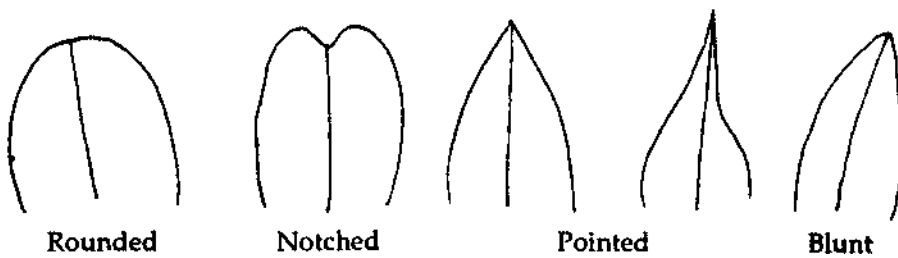
Four whorled leaves



**Leaf edge (margin)**

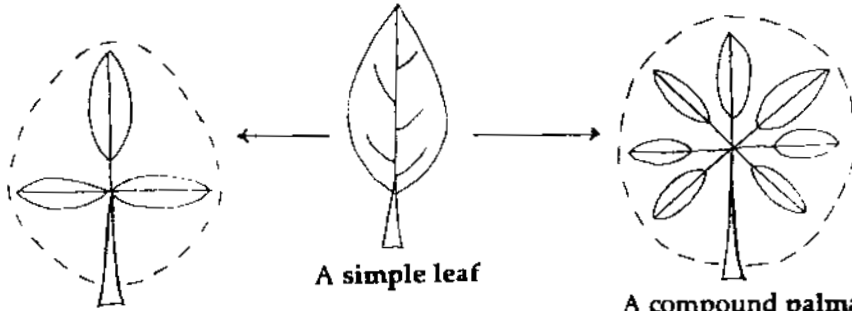


**Leaf tip (apex)**



Leaves may be simple or compound.

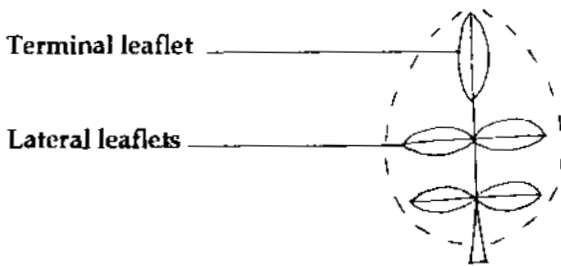
A compound leaf is a leaf whose blade is divided into smaller leaflets.



A compound trifoliolate leaf  
Three leaflets, e.g. *Rhus*

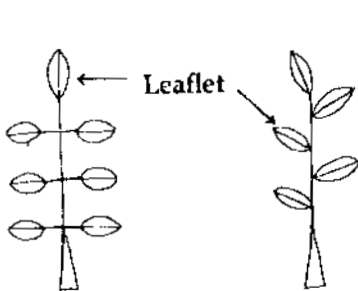
A compound palmate leaf (digitate)  
Many leaflets spread like fingers of the hand, e.g. *Adansonia*

A compound pinnate leaf



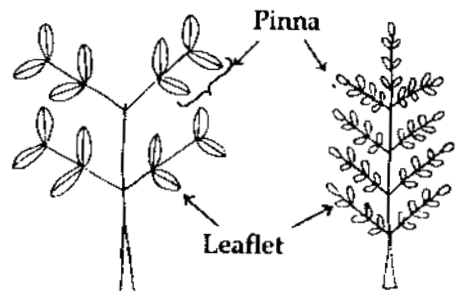
Five or more leaflets arise on either side of the leaf stalk, resembling a bird's feather (Latin *pinna*: wing)

Pinnate compound leaves are of several types. Those with very small leaflets have "feathery leaves".



Compound pinnate leaves

Once-compound leaves, e.g. *Markhamia*



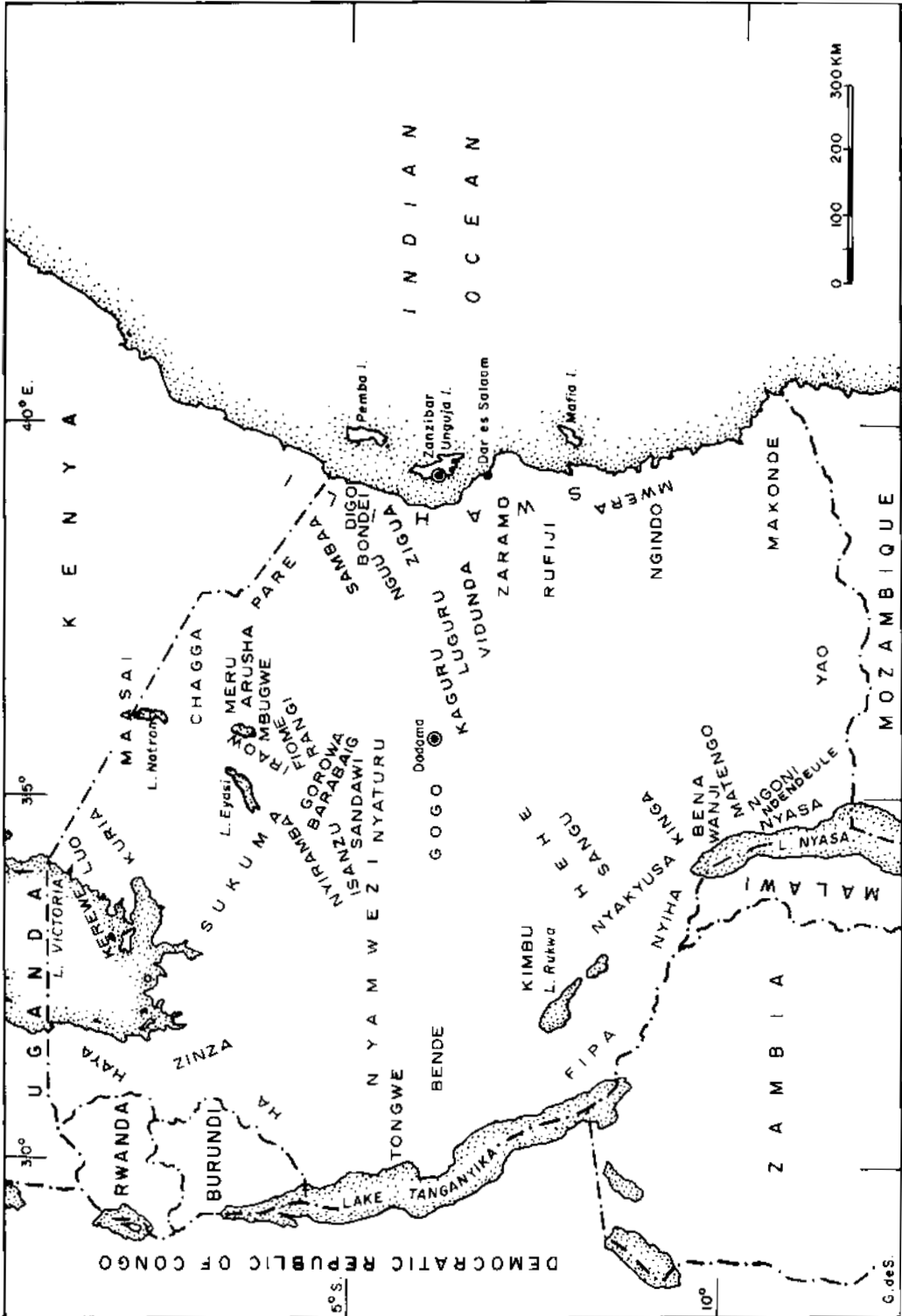
Two pairs of pinnae

Four pairs of pinnae

Twice compound leaves (bipinnate), e.g. *Acacia* spp.

PART I

## **LOCAL NAMES**



Map 4. The main ethnic groups of Tanzania

## Local names

### Arusha

Emotoo	<i>Azanza garckeana</i>
Emusigiloi	<i>Rhus longipes</i>
Engirusha	<i>Opilia amentacea</i>
Engokiki	<i>Ormocarpum kirkii</i>
Engumi	<i>Vangueria infausta</i> subsp. <i>rotundata</i>
Engumi	<i>Vangueria</i> <i>madagascariensis</i>
Engumi	<i>Vangueria volkensii</i>
Eravande	<i>Lannea schweinfurthii</i> var. <i>stuhlmannii</i>
Loshoro	<i>Vangueria infausta</i> subsp. <i>rotundata</i>
Loshoro	<i>Vangueria</i> <i>madagascariensis</i>
Masera	<i>Adansonia digitata</i>
Mesera	<i>Adansonia digitata</i>
Oldadai	<i>Abutilon mauritianum</i>
Oldaoboi	<i>Kigelia africana</i>
Olkilili	<i>Ficus stuhlmannii</i>
Olkloriti	<i>Acacia nilotica</i>
Olmadanyi	<i>Vangueria infausta</i> subsp. <i>rotundata</i>
Olmadanyi	<i>Vangueria</i> <i>madagascariensis</i>
Olmadanyi	<i>Vangueria volkensii</i>
Olmang'wai	<i>Sclerocarya birrea</i> subsp. <i>caffra</i>
Olmangulai	<i>Grewia villosa</i>
Olmangulai- oloingoni	<i>Grewia platyclada</i>
Olmamambrai	<i>Tamarindus indica</i>
Olmkoma	<i>Grewia similis</i>
Olngaboli	<i>Ficus sycomorus</i>
Olngoswa	<i>Balanites aegyptiaca</i>
Oloilali	<i>Ziziphus mucronata</i> subsp. <i>mucronata</i>

Olpiroo	<i>Phoenix reclinata</i>
Oluisuki	<i>Zanthoxylum chalybeum</i> var. <i>chalybeum</i>
Orimigomi	<i>Pappea capensis</i>
Ormisigiyoi	<i>Rhus natalensis</i>
Oseki	<i>Cordia monoica</i>
Osilalei	<i>Commiphora africana</i>
Ositeti	<i>Grewia mollis</i>

### Barabaig

Aantsi	<i>Ficus sycomorus</i>
Babaxchet	<i>Vangueria infausta</i> subsp. <i>rotundata</i>
Babaxchet	<i>Vangueria</i> <i>madagascariensis</i>
Barangu	<i>Vangueria infausta</i> subsp. <i>rotundata</i>
Barangu	<i>Vangueria</i> <i>madagascariensis</i>
Ganyamda	<i>Balanites aegyptiaca</i>
Geta-da-qwal	<i>Syzygium guineense</i>
Getakhubay	<i>Osyris lanceolata</i>
Hawi	<i>Balanites aegyptiaca</i>
Maanyangu	<i>Ximenia caffra</i>
Mahhahhari	<i>Dovyalis abyssinica</i>
Malharimo	<i>Vangueria infausta</i> subsp. <i>rotundata</i>
Malharimog	<i>Vangueria infausta</i> subsp. <i>rotundata</i>
Malharimog	<i>Vangueria</i> <i>madagascariensis</i>
Millan	<i>Phoenix reclinata</i>
Naamo	<i>Commiphora africana</i>
Qach	<i>Carissa edulis</i>
Segedid	<i>Myrsine africana</i>
Sirong	<i>Rhus longipes</i>

**Barabaig (contd)**

Sonari	<i>Syzygium guineense</i>
Udageshade	<i>Abutilon mauritanium</i>
Wapkan	<i>Zanthoxylum chalybeum</i> var. <i>chalybeum</i>
Yudek	<i>Acacia senegal</i>

**Bena**

Findokoli	<i>Tapiphyllum burnettii</i>
Ki'tononganga	<i>Acacia senegal</i>
Kikande	<i>Habenaria walleri</i>
Kikande	<i>Satyrium macrophyllum</i>
Kikande	<i>Satyrium neglectum</i> var. <i>neglectum</i>
Lidunula	<i>Osyris lanceolata</i>
Lidzadzi	<i>Rhus vulgaris</i>
Lifilafila	<i>Garcinia kingäensis</i>
Likolovega	<i>Commelina africana</i>
Lilinga	<i>Lannea humilis</i>
Lilungulungu	<i>Zanthoxylum chalybeum</i> var. <i>chalybeum</i>
Lingulukila,	<i>Achyranthes aspera</i>
Linyominyomi	<i>Leonotis nepetifolia</i>
Linyowa	<i>Strychnos cocculoides</i>
Lisapi	<i>Cucumis dipsaceus</i>
Lisuka	<i>Emilia coccinea</i>
Litangadasi	<i>Strychnos pungens</i>
Livangala	<i>Ensete ventricosum</i>
Lombo	<i>Nymphaea lotus</i>
Lukalifya	<i>Caylusea abyssinica</i>
Mbigili	<i>Oxygonum sinuatum</i>
Mbwegele	<i>Sclerocarya birrea</i> subsp. <i>caffra</i>
Mdoda	<i>Rumex abyssinicus</i>
Mdoda	<i>Rumex usambarensis</i>
Mduma	<i>Garcinia smeathmannii</i>
Mdunula	<i>Osyris lanceolata</i>
Mdzombe	<i>Ficus sur</i>
Mfilafila	<i>Garcinia kingäensis</i>
Mfudu	<i>Vitex doniana</i>
Mfumbi	<i>Kigelia africana</i>
Mfwifwi	<i>Psorospermum febrifugum</i>
Mgola	<i>Flacourtia indica</i>
Mguhu	<i>Uapaca kirkiana</i>
Mkalifya	<i>Caylusea abyssinica</i>
Mkole	<i>Grewia bicolor</i>
Mng'ulung'ulu	<i>Strychnos innocua</i>
Mpelemehe	<i>Grewia mollis</i>
Mpingipingi	<i>Ximenia americana</i>
Mpingipingi	<i>Ximenia caffra</i>
Mpugopugo	<i>Garcinia livingstonei</i>
Msasati	<i>Vitex mombassae</i>

Msaula	<i>Parinari curatellifolia</i> subsp. <i>curatellifolia</i>
Msawulwa	<i>Parinari curatellifolia</i> subsp. <i>curatellifolia</i>
Mtono	<i>Commiphora africana</i>
Mtowo	<i>Azanza garckeana</i>
Muhanjahanja	<i>Senna singueana</i>
Musaulwa	<i>Parinari curatellifolia</i> subsp. <i>curatellifolia</i>
Muwewe	<i>Multidentia crassa</i>
Mvanga ng'oma	<i>Balanites rotundifolia</i>
Ndyavadimi	<i>Acalypha bipartita</i>
Ndyavadimi	<i>Acalypha fruticosa</i>
Ng'owo	<i>Eriosema burkei</i> var. <i>burkei</i>
Ngulukila	<i>Achyranthes aspera</i>
Nyahedja	<i>Bidens schimperi</i>
Nyahedza	<i>Bidens schimperi</i>
Nyalenge	<i>Oxygonum sinuatum</i>
Nyamachebele	<i>Satyrium macrophyllum</i>
Nyamachebele	<i>Satyrium neglectum</i> var. <i>neglectum</i>
Nyamasebele	<i>Satyrium macrophyllum</i>
Nyausako	<i>Cleome hirta</i>
Nyava	<i>Dactyloctenium aegyptium</i>
Nyava	<i>Dactyloctenium giganteum</i>
Tambalanjoka	<i>Coccinia adoensis</i>

**Bende**

Bunkundu	<i>Strychnos innocua</i>
Kagobole	<i>Ziziphus mucronata</i> subsp. <i>mucronata</i>
Kajibajiba	<i>Syzygium owariense</i>
Kashira-nguruwe	<i>Pseudospondias</i> <i>microcarpa</i>
Kasiamongo	<i>Syzygium owariense</i>
Kilindila	<i>Aerva leucura</i>
Kuti	<i>Pouteria adolfi-friedericii</i> subsp. <i>australis</i>
Mbula	<i>Parinari curatellifolia</i> subsp. <i>curatellifolia</i>
Mfila	<i>Annona senegalensis</i>
Mfulu-legea	<i>Vitex madiensis</i> subsp. <i>milanjiensis</i>
Mfumbe	<i>Piliostigma thonningii</i>
Mfungu	<i>Aerva leucura</i>
Mhugambu	<i>Lantana trifolia</i>
Mkole	<i>Grewia bicolor</i>
Mkole-dume	<i>Grewia hexamita</i>
Mkusu	<i>Uapaca kirkiana</i>
Mnsakansaka	<i>Piliostigma thonningii</i>
Msantu	<i>Ximenia americana</i>



Msantu	<i>Ximenia caffra</i>
Msekela	<i>Antidesma venosum</i>
Mselala	<i>Antidesma venosum</i>
Msepa	<i>Parkia filicoidea</i>
Mshishi	<i>Tamarindus indica</i>
Msinde	<i>Diospyros mespiliformis</i>
Msisi	<i>Tamarindus indica</i>
Msunga	<i>Flacourtia indica</i>
Mtobo	<i>Azanza garckeana</i>
Mugogolo	<i>Multidentia crassa</i>
Mulalambo	<i>Syzygium guineense</i>
Mulambo	<i>Syzygium guineense</i>
Muzingilizi	<i>Sorindeia</i> <i>madagascariensis</i>
Mwenzu	<i>Aerva leucura</i>
Mweza	<i>Aerva leucura</i>
Nsanda	<i>Bidens pilosa</i>
Siponda	<i>Commiphora africana</i>
Tambwe	<i>Ensete ventricosum</i>
Tebwa	<i>Celosia schweinfurthiana</i>

### Bondei

Buuzu	<i>Amaranthus spinosus</i>
Bwache	<i>Amaranthus spinosus</i>
Bwache-katonge	<i>Amaranthus spinosus</i>
Danga-danga	<i>Portulaca oleracea</i>
Funga-msanga	<i>Celosia trigyna</i>
Fyofyokoe	<i>Abutilon angulatum</i>
Fyofyokoe	<i>Abutilon mauritianum</i>
Fyofyokoe	<i>Triumfetta cordifolia</i> var. <i>tomentosa</i>
Hombo-kisogo	<i>Rourea orientalis</i>
Hombo-kiumbu	<i>Ormocarpum kirkii</i>
Kibaazi-mzitu	<i>Eriosema ukingense</i>
Kibwabwa	<i>Nicandra physaloides</i>
Kibwando	<i>Corchorus fascicularis</i>
Kibwando	<i>Corchorus tridens</i>
Kibwando	<i>Corchorus trilocularis</i>
Kisogo	<i>Rourea orientalis</i>
Kisugu	<i>Platostoma africanum</i>
Kiteguzi	<i>Dracaena mannii</i>
Komanguku	<i>Senna occidentalis</i>
Langa	<i>Tacca leontopetaloides</i>
Lumaka	<i>Hibiscus acetosella</i>
Mamata	<i>Pupalia lappacea</i> var. <i>velutina</i>
Mbigii	<i>Tribulus terrestris</i>
Mbokwe	<i>Annona senegalensis</i>
Mbuyu	<i>Adansonia digitata</i>
Mdudu	<i>Thylachium africanum</i>
Mfulwe	<i>Acalypha ornata</i>
Mfunu	<i>Sterculia africana</i>

Mgama	<i>Mimusops kummel</i>
Mgama	<i>Mimusops somaliensis</i>
Mgambo	<i>Mimusops bagshawei</i>
Mgambo	<i>Mimusops kummel</i>
Mgambo	<i>Mimusops obtusifolia</i>
Mgobe	<i>Vitex doniana</i>
Mgobe	<i>Vitex ferruginea</i>
Mgobe	<i>Vitex mombassae</i>
Mhetele	<i>Dialium orientale</i>
Mhuuga	<i>Lantana trifolia</i>
Mkaafuu	<i>Pouzolzia mixta</i>
Mkanye	<i>Allanblackia stuhlmanii</i>
Mkanye	<i>Allanblackia ulugurensis</i>
Mkonde	<i>Myrianthus arboreus</i>
Mkonga	<i>Balanites wilsoniana</i>
Mkwakwa	<i>Strychnos innocua</i>
Mkwanga	<i>Zanha africana</i>
Mkwazu	<i>Tamarindus indica</i>
Mkwingwina	<i>Sorindeia</i> <i>madagascariensis</i>
Mlegea	<i>Gelia africana</i>
Mlenda	<i>Ceratotheca sesamoides</i>
Mlungulungu	<i>Zanthoxylum chalybeum</i> var. <i>chalybeum</i>
Mnangu	<i>Grewia similis</i>
Mng'ongo	<i>Sclerocarya birrea</i> subsp. <i>caffra</i>
Mnyembeuwe	<i>Erythrococca kirkii</i>
Msamaka	<i>Aframomum albiflorum</i>
Msamaka	<i>Aframomum angustifolium</i>
Msamaka	<i>Cola scheffleri</i>
Mshaa	<i>Rubus apetalus</i>
Mshaa	<i>Rubus rigidus</i>
Msosokolwe	<i>Triumfetta cordifolia</i> var. <i>tomentosa</i>
Mtambakuzimu	<i>Deinbollia kilimandscharica</i> var. <i>kilimandscharica</i>
Mtonga	<i>Strychnos innocua</i>
Mtonga	<i>Strychnos spinosa</i> subsp. <i>lokua</i>
Mtonkwe	<i>Annona senegalensis</i>
Mugobe	<i>Vitex ferruginea</i>
Mvilu	<i>Vangueria infausta</i> subsp. <i>rotundata</i>
Mviu	<i>Vangueria infausta</i> subsp. <i>rotundata</i>
Mvuma	<i>Borassus aethiopicum</i>
Mwanga	<i>Tacca leontopetaloides</i>
Mwiza	<i>Bridelia micrantha</i>
Ndiga	<i>Dioscorea dumetorum</i>
Njujui	<i>Solanum anguivii</i>
Njujui	<i>Solanum schumannianum</i>

**Bondei (contd)**

Nkongo	<i>Commelina imberbis</i>
Nkongo	<i>Commelina latifolia</i>
Nywanywa	<i>Rumex abyssinicus</i>
Nywanywa	<i>Rumex usambarensis</i>
Pupu	<i>Laportea ovalifolia</i>
Sambae	<i>Lobelia fervens</i> subsp. <i>fervens</i>
Sesemlanda	<i>Trichodesma zeylanicum</i>
Sosokolwe	<i>Triumfetta cordifolia</i> var. <i>tomentosa</i>
Tako-da-hasani	<i>Portulaca oleracea</i>
Tambuu	<i>Piper guineense</i>
Tambwe	<i>Ensete ventricosum</i>
Tebwa	<i>Aerva lanata</i>
Tikini	<i>Asystasia gangetica</i>
Tikini	<i>Asystasia mysorensis</i>
Tonge	<i>Talinum portulacifolium</i>
Tugu	<i>Dioscorea dumetorum</i>
Twanguo	<i>Bidens pilosa</i>
Ukakaka	<i>Rubia cordifolia</i>
Unkobo	<i>Justicia heterocarpa</i>
Utambaa-ngoswei	<i>Hewittia sublobata</i>
Zuma	<i>Myrsine africana</i>

**Chagga**

Efurie	<i>Lantana ukambensis</i>
Efurie	<i>Lippia kituiensis</i>
Ichawele	<i>Annona senegalensis</i>
Ikengera	<i>Commelina africana</i>
Ikengera	<i>Commelina benghalensis</i>
Ikengera	<i>Commelina imberbis</i>
Imbar'a	<i>Bidens pilosa</i>
Iratune	<i>Aloe nutii</i>
Isale	<i>Dracaena mannii</i>
Isangaruhi	<i>Ensete ventricosum</i>
Ishishina	<i>Lannea schweinfurthii</i> var. <i>stuhlmannii</i>
Iwasha	<i>Trichodesma zeylanicum</i>
Iwero	<i>Rubus apetalus</i>
Iwero	<i>Rubus rigidus</i>
Kaworo	<i>Vangueria apiculata</i>
Kaworo	<i>Vangueria infausta</i> subsp. <i>rotundata</i>
Kaworo	<i>Vangueria</i> <i>madagascariensis</i>
Kaworo	<i>Vangueria volkensii</i>
Kichangoru	<i>Rubia cordifolia</i>
Kitariche	<i>Rubia cordifolia</i>
Kiviroe	<i>Vangueria apiculata</i>
Kiweriweri	<i>Rumex abyssinicus</i>
Kiweriweri	<i>Rumex usambarensis</i>

Kiwiru	<i>Landolphia kilimanjarica</i>
Kiya	<i>Dioscorea odoratissima</i>
Kiyana kya mburu	<i>Amaranthus spinosus</i>
Lama	<i>Ximenia americana</i>
Machame	<i>Carissa edulis</i>
Mang'we	<i>Sclerocarya birrea</i> subsp. <i>caffra</i>
Mango	<i>Sclerocarya birrea</i> subsp. <i>caffra</i>
Manka	<i>Carissa edulis</i>
Marie	<i>Bridelia micrantha</i>
Masdi	<i>Syzygium guineense</i>
Mbachanga	<i>Cordyla africana</i>
Mberegese	<i>Osyris lanceolata</i>
Mbiinu	<i>Oxygonum sinuatum</i>
Mbindiyo	<i>Trichilia emetica</i>
Mbowe	<i>Vangueria infausta</i> subsp. <i>rotundata</i>
Mchengo	<i>Trichilia emetica</i>
Mchungu	<i>Sonchus luxurians</i>
Mdara	<i>Oncoba spinosa</i>
Mdowo	<i>Vangueria apiculata</i>
Mdulu-ndugu	<i>Englerophytum natalense</i>
Mgoda	<i>Sorindeia</i> <i>madagascariensis</i>
Mgweda	<i>Sorindeia</i> <i>madagascariensis</i>
Mkadi	<i>Diospyros mespiliformis</i>
Mkakayi	<i>Tamarindus indica</i>
Mkole	<i>Commelina africana</i>
Mkondikondo	<i>Vangueria apiculata</i>
Mkongoni	<i>Trichilia emetica</i>
Mkuare	<i>Diospyros mespiliformis</i>
Mkuu	<i>Adansonia digitata</i>
Mkuu	<i>Ficus sansibarica</i>
Mkuu	<i>Ficus sur</i>
Mkuu	<i>Ficus sycomorus</i>
Mlela	<i>Grewia similis</i>
Mlenda	<i>Malva parviflora</i>
Mmango	<i>Dovyalis abyssinica</i>
Mmasai	<i>Syzygium guineense</i>
Mmbindio	<i>Trichilia emetica</i>
Mndaraho	<i>Sorindeia</i> <i>madagascariensis</i>
Mng'wang'wa	<i>Sorindeia</i> <i>madagascariensis</i>
Mohoromo	<i>Balanites aegyptiaca</i>
Mokiki	<i>Momordica foetida</i>
Monde	<i>Bridelia micrantha</i>
Moya	<i>Tamarindus indica</i>
Mpachama	<i>Cordyla africana</i>
Mporori	<i>Cussonia spicata</i>

Mpungulu	<i>Rhus natalensis</i>	Kitazi	<i>Ormocarpum kirkii</i>
Mpungulu	<i>Rhus vulgaris</i>	Kitoria	<i>Landolphia kirkii</i>
Mrisirisi	<i>Annona senegalensis</i>	Kungala	<i>Hibiscus calyphyllus</i>
Mroma	<i>Cordyla africana</i>	Libugu	<i>Landolphia kirkii</i>
Mrowe	<i>Celosia trigyna</i>	Madungatundu	<i>Flacourtia indica</i>
Mrua	<i>Trilepisium</i> <i>madagascariense</i>	Makindu	<i>Phoenix reclinata</i>
Msambochi	<i>Flacourtia indica</i>	Mbara	<i>Diospyros mespiliformis</i>
Msanbachi	<i>Flacourtia indica</i>	Mbokwe	<i>Annona senegalensis</i>
Msinde	<i>Diospyros mespiliformis</i>	Mbooya	<i>Ancylobotrys petersiana</i>
Mtomoko	<i>Annona senegalensis</i>	Mbuyu	<i>Adansonia digitata</i>
Mtutu,	<i>Trichilia emetica</i>	Mbwananyahi	<i>Rhus natalensis</i>
Mwaru	<i>Bridelia micrantha</i>	Mbwananyahi	<i>Rhus vulgaris</i>
Mwavai	<i>Trichilia emetica</i>	Mchindu	<i>Phoenix reclinata</i>
Ndawiro	<i>Vangueria apiculata</i>	Mdungu	<i>Zanthoxylum chalybeum</i> var. <i>chalybeum</i>
Ndawiro	<i>Vangueria infausta</i> subsp. <i>rotundata</i>	Mfudukoma	<i>Vitex mombassae</i>
Ndawiro	<i>Vangueria</i> <i>madagascariensis</i>	Mfungatanzu	<i>Garcinia livingstonei</i>
Ndawiro	<i>Vangueria volkensii</i>	Mgorodo	<i>Ziziphus mucronata</i> subsp. <i>mucronata</i>
Ndowo	<i>Vangueria infausta</i> subsp. <i>rotundata</i>	Mgwanyahi	<i>Rhus natalensis</i>
Ndowo	<i>Vangueria</i> <i>madagascariensis</i>	Mjirambiri	<i>Synaptolepis kirkii</i>
Ndowo	<i>Vangueria volkensii</i>	Mkoma	<i>Hyphaene compressa</i>
Ngapillo	<i>Englerophytum natalense</i>	Mkoma lume	<i>Hyphaene compressa</i>
Ngapilo	<i>Englerophytum natalense</i>	Mkoma lume	<i>Hyphaene coriacea</i>
Ngetsi	<i>Embelia schimperi</i>	Mkonga	<i>Balanites rotundifolia</i>
Ngolowo	<i>Vigna pubescens</i>	Mkonga	<i>Balanites wilsoniana</i>
Ngombo	<i>Cardamine trichocarpa</i>	Mkulu	<i>Diospyros mespiliformis</i>
Ngomighaa	<i>Sorindeia</i> <i>madagascariensis</i>	Mkunguma	<i>Sorindeia</i> <i>madagascariensis</i>
Nyungu	<i>Rhus vulgaris</i>	Mkuta-manena	<i>Phyllanthus engleri</i>
Sale	<i>Dracaena afromontana</i>	Mkwadzu	<i>Tamarindus indica</i>
Ukiko	<i>Drymaria cordata</i>	Mkwaju	<i>Tamarindus indica</i>
<b>Digo</b>		Mkwakwa	<i>Strychnos innocua</i>
Chikura	<i>Antidesma venosum</i>	Mng'ongo	<i>Sclerocarya birrea</i> subsp. <i>caffra</i>
Chimvuno	<i>Hygrophila auriculata</i>	Mngongo	<i>Sclerocarya birrea</i> subsp. <i>caffra</i>
Chitadzi	<i>Ormocarpum kirkii</i>	Mnyondoiya	<i>Flacourtia indica</i>
Chivwa kuku	<i>Aerva lanata</i>	Mpira	<i>Landolphia kirkii</i>
Duruma	<i>Flacourtia indica</i>	Mpwakapwaka	<i>Chytranthus obliquinervis</i>
Dzadza	<i>Commelina africana</i>	Mrungurungu	<i>Zanthoxylum chalybeum</i> var. <i>chalybeum</i>
Dzadza	<i>Commelina benghalensis</i>	Msezi	<i>Manilkara sulcata</i>
Dzova	<i>Borassus aethiopum</i>	Mtonga	<i>Strychnos innocua</i>
Fudumadzi	<i>Vitex mombassae</i>	Mtonga	<i>Strychnos spinosa</i> subsp. <i>lokua</i>
Futsure	<i>Asystasia gangetica</i>	Mtsekesho	<i>Piliostigma thonningii</i>
Futswe	<i>Asystasia gangetica</i>	Mtserere	<i>Hoslundia opposita</i>
Kihuro	<i>Antidesma venosum</i>	Mtundakula	<i>Ximenia</i> <i>americana</i>
Kikwata	<i>Acacia senegal</i>	Mtute	<i>Ormocarpum kirkii</i>
Kisambwe	<i>Garcinia livingstonei</i>		
Kisogo	<i>Rourea orientalis</i>		

**Digo (contd)**

Mudhungu	<i>Zanthoxylum chalybeum</i> var. <i>chalybeum</i>
Mudzala	<i>Uvaria acuminata</i>
Mudzala	<i>Uvaria lucida</i> subsp. <i>lucida</i>
Mugiaki	<i>Syzygium guineense</i>
Mugugune	<i>Ziziphus mucronata</i> subsp. <i>mucronata</i>
Muhonga	<i>Strychnos</i> <i>madagascariensis</i>
Mumbweni	<i>Uvaria acuminata</i>
Mung'ambo	<i>Manilkara sansibarensis</i>
Munjirembiri	<i>Synaptolepis kirkii</i>
Munua-nyoka	<i>Adenia gummifera</i>
Mupwanga	<i>Dracaena mannii</i>
Musikiro	<i>Strychnos</i> <i>madagascariensis</i>
Mutseketse	<i>Piliostigma thonningii</i>
Muvuma	<i>Vangueria apiculata</i>
Muzanira-kuzimu	<i>Synaptolepis kirkii</i>
Muziahi	<i>Syzygium cordatum</i>
Muziahi	<i>Syzygium guineense</i>
Muziyahe	<i>Syzygium guineense</i>
Mviru	<i>Vangueria infausta</i> subsp. <i>rotundata</i>
Mvumo	<i>Borassus aethiopum</i>
Mwalavi	<i>Hibiscus surattensis</i>
Mwambangoma	<i>Balanites aegyptiaca</i>
Mwawawu	<i>Hibiscus surattensis</i>
Mzangatchango	<i>Antidesma venosum</i>
Mzezi	<i>Manilkara sulcata</i>
Mzihae	<i>Syzygium cordatum</i>
Ngolokolo	<i>Borassus aethiopum</i>
Nzezi	<i>Manilkara sulcata</i>
Tako-la-hasani	<i>Portulaca oleracea</i>
Tala-kushe	<i>Asystasia gangetica</i>
Tebwe	<i>Aerva lanata</i>
Toro	<i>Nymphaea lotus</i>
Vibooya	<i>Ancylobotrys petersiana</i>
Vitoria	<i>Ancylobotrys petersiana</i>

**English**

African arrowroot	<i>Tacca leontopetaloides</i>
African bitter yam	<i>Dioscorea dumetorum</i>
African bread fruit	<i>Treculia africana</i>
African canarium	<i>Canarium</i> <i>schweinfurthii</i>
African ebony	<i>Diospyros</i> <i>mespiliformis</i>
African fan palm	<i>Borassus aethiopum</i>
African mangosteen	<i>Garcinia livingstonei</i>

African sandalwood	<i>Osyris lanceolata</i>
African star chestnut	<i>Sterculia africana</i>
African tragacanth	<i>Sterculia tragacantha</i>
Arrow-poison plant	<i>Acokanthera schimperi</i>
Arrow-poison tree	<i>Acokanthera</i> <i>oppositifolia</i>
Ashanti pepper	<i>Piper guineense</i>
Babul	<i>Acacia nilotica</i>
Baobab	<i>Adansonia digitata</i>
Bastard dwaba-berry	<i>Friesodielsia obovata</i>
Bastard fig	<i>Trilepisium</i> <i>madagascariense</i>
Bird plum	<i>Berchemia discolor</i>
Black plum	<i>Vitex doniana</i>
Black plum	<i>Vitex payos</i> var. <i>payos</i>
Blackjack	<i>Bidens pilosa</i>
Blue commelina	<i>Commelina</i> <i>benghalensis</i>
Blue lotus of Egypt	<i>Nymphaea nouchali</i> var. <i>caerulea</i>
Borassus palm	<i>Borassus aethiopum</i>
Border plant	<i>Alternanthera tenella</i> var. <i>bettzickiana</i>
Brown ivory	<i>Berchemia discolor</i>
Buffalo thorn	<i>Ziziphus mucronata</i> subsp. <i>mucronata</i>
Cabbage tree	<i>Cussonia spicata</i>
Cactus	<i>Opuntia vulgaris</i>
Caltrops	<i>Tribulus terrestris</i>
Camel's foot tree	<i>Piliostigma thonningii</i>
Cape mahogany	<i>Trichilia emetica</i>
Cape myrtle	<i>Myrsine africana</i>
Careless weed	<i>Amaranthus spinosus</i>
Catch thorn	<i>Ziziphus abyssinica</i>
Ceylon borage	<i>Trichodesma</i> <i>zeylanicum</i>
Chinese date	<i>Ziziphus mauritiana</i>
Chocolate berry	<i>Vitex payos</i> var. <i>payos</i>
Christmas berry	<i>Psorospermum</i> <i>febrifugum</i>
Cider tree	<i>Sclerocarya birrea</i> subsp. <i>caffra</i>
Cluster yam	<i>Dioscorea dumetorum</i>
Common poison bush	<i>Acokanthera schimperi</i>
Common purselane	<i>Portulaca oleracea</i>
Common wild medlar	<i>Vangueria</i> <i>madagascariensis</i>
Cork-wood tree	<i>Ricinodendron</i> <i>heudelotii</i> subsp. <i>africanum</i>
Corky bark strychnos	<i>Strychnos cocculoides</i>

Crooked false medlar	<i>Vangueriopsis lanciflora</i>	Ivy gourd	<i>Coccinia grandis</i>
Crow-foot grass	<i>Dactyloctenium aegyptium</i>	Jackal berry	<i>Diospyros mespiliformis</i>
Debeb palm	<i>Borassus aethiopum</i>	Joseph's coat	<i>Alternanthera tenella</i> var. <i>bettzickiana</i>
Desert date	<i>Balanites aegyptiaca</i>	Jujube	<i>Ziziphus mauritiana</i>
Donkey berry	<i>Grewia bicolor</i>	Kei apple	<i>Dovyalis caffra</i>
Doum palm	<i>Hyphaene compressa</i>	Knobwood	<i>Zanthoxylum chalybeum</i> var. <i>chalybeum</i>
Doum palm	<i>Hyphaene coriacea</i>	Large caterpillar pod	<i>Ormocarpum trichocarpum</i>
Doum palm	<i>Hyphaene petersiana</i>	Large cluster pear	<i>Uvaria lucida</i> subsp. <i>lucida</i>
Dull-leaved strychnos	<i>Strychnos innocua</i>	Large sourplum	<i>Ximenia caffra</i>
Dune myrtle	<i>Eugenia capensis</i> subsp. <i>nyassensis</i>	Large-flowered yellow grewia	<i>Grewia hexamita</i>
Dwarf medlar	<i>Pygmaeothamnus zeyheri</i>	Large-leaved star chestnut	<i>Sterculia quinqueloba</i>
East African cotton tree	<i>Bombax rhodognaphalon</i> var. <i>tomentosum</i>	Large-leaved sterculia	<i>Sterculia quinqueloba</i>
East African sandalwood	<i>Osyris lanceolata</i>	Long-leaved dragon tree	<i>Dracaena mannii</i>
Egyptian plane tree	<i>Sterculia quinqueloba</i>	Maasai stinging nettle	<i>Urtica massaica</i>
Egyptian thorn	<i>Acacia nilotica</i>	Mallow	<i>Malva parviflora</i>
Elephant toothbrush	<i>Cussonia spicata</i>	Mallow	<i>Malva verticillata</i>
False fig	<i>Trilepisium madagascariense</i>	Mastic tree	<i>Pistacia aethiopica</i>
False marula	<i>Lannea schweinfurthii</i> var. <i>stuhlmannii</i>	Milk apple	<i>Dictyophleba lucida</i>
False medlar	<i>Vangueria infausta</i> subsp. <i>rotundata</i>	Milk berry	<i>Manilkara mochisia</i>
False sandalwood	<i>Ximenia americana</i>	Mobola plum	<i>Parinari curatellifolia</i> subsp. <i>curatellifolia</i>
Fan palm	<i>Hyphaene petersiana</i>	Monkey fingers	<i>Friesodielsia obovata</i>
Fig	<i>Ficus sansibarica</i>	Monkey orange	<i>Strychnos cocculoides</i>
Fig	<i>Ficus vallis-choudae</i>	Monkey rope	<i>Adenia gummifera</i>
Fish-poison bean	<i>Tylosema fassoglense</i>	Monkeybread	<i>Piliostigma thonningii</i>
Forest mahogany	<i>Trichilia dregeana</i>	Marula	<i>Sclerocarya birrea</i> subsp. <i>caffra</i>
Forest milkberry	<i>Manilkara discolor</i>	Marula plum	<i>Sclerocarya birrea</i> subsp. <i>caffra</i>
Forest mobola plum	<i>Parinari excelsa</i>	Mottled-bark canthium	<i>Canthium burtii</i>
Geb	<i>Ziziphus mauritiana</i>	Multidentia	<i>Multidentia fanshawei</i>
Giant aroid	<i>Typhonodorum lindleyanum</i>	Mustard tree	<i>Salvadora persica</i>
Giant yellow mulberry	<i>Myrianthus holstii</i>	Myrianthus	<i>Myrianthus holstii</i>
Glossy flat-bean	<i>Dalbergia nitidula</i>	Myrsine	<i>Myrsine africana</i>
Governor's plum	<i>Flacourtia indica</i>	Natal mahogany	<i>Trichilia emetica</i>
Granite garcinia	<i>Garcinia buchananii</i>	Natal milk plum	<i>Englerophytum natalense</i>
Grey-leaved cordia	<i>Cordia sinensis</i>	Northern African dog-rose	<i>Xylothea tettensis</i> var. <i>kirkii</i>
Grey-leaved saucer berry	<i>Cordia sinensis</i>	Northern dwaba-berry	<i>Friesodielsia obovata</i>
Gum arabic tree	<i>Acacia nilotica</i>		
Gum arabic tree	<i>Acacia senegal</i>		
Indian jujube	<i>Ziziphus mauritiana</i>		
Indian plum	<i>Flacourtia indica</i>		
Indian plum	<i>Ziziphus mauritiana</i>		

**English (contd)**

Northern forest garcinia	<i>Garcinia kingäensis</i>	Soap berry	<i>Deinbollia borbonica</i>
Northern wild myrtle	<i>Eugenia capensis</i> subsp. <i>nyassensis</i>	Soap berry	<i>Deinbollia kilimandscharica</i> var. <i>kilimandscharica</i>
Old man's gold	<i>Abutilon mauritianum</i>	Soft-leaved commiphora	<i>Commiphora</i> <i>mossambicensis</i>
Orange-milk tree	<i>Harungana</i> <i>madagascariensis</i>	Sorrel	<i>Rumex usambarensis</i>
Palmyra palm	<i>Borassus aethiopicum</i>	Southern ilala palm	<i>Hyphaene petersiana</i>
Parasol tree	<i>Sterculia tragacantha</i>	Spineless monkey orange	<i>Strychnos</i> <i>madagascariensis</i>
Pink diospyros	<i>Diospyros kirkii</i>	Spiny amaranth	<i>Amaranthus spinosus</i>
Poison-arrow tree	<i>Acokanthera schimperi</i>	Spiny monkey orange	<i>Strychnos spinosa</i> subsp. <i>lokua</i>
Poison-grub commiphora	<i>Commiphora africana</i>	Spiny-leaved monkey orange	<i>Strychnos pungens</i>
Poor man's gold	<i>Abutilon mauritianum</i>	Sprawling bauhinia	<i>Tylosema fassoglense</i>
Prickly amaranth	<i>Amaranthus spinosus</i>	Stem fruit	<i>Englerophytum</i> <i>magalimontanum</i>
Prickly pear	<i>Opuntia vulgaris</i>	Stinking weed	<i>Senna occidentalis</i>
Puncture vine	<i>Tribulus terrestris</i>	Sudan gum arabic	<i>Acacia senegal</i>
Purplewood dalbergia	<i>Dalbergia nitidula</i>	Sycamore fig	<i>Ficus sycomorus</i>
Purslane	<i>Portulaca oleracea</i>	Tall sterculia	<i>Sterculia</i> <i>appendiculata</i>
River litchi	<i>Lecaniodiscus</i> <i>fraxinifolius</i> subsp. <i>vaughanii</i>	Tallow nut	<i>Ximenia americana</i>
Rough chaff flower	<i>Achyranthes aspera</i>	Tamarind	<i>Tamarindus indica</i>
Round-fruited red milkwood	<i>Mimusops obtusifolia</i>	Tangle-flowered wild medlar	<i>Vangueria apiculata</i>
Round-leaved goosefoot	<i>Chenopodium</i> <i>opulifolium</i>	Tassel berry	<i>Antidesma venosum</i>
Rubber vine	<i>Landolphia kirkii</i>	Teasel gourd	<i>Cucumis dipsaceus</i>
Rubber vine	<i>Landolphia parvifolia</i>	Thicket combretum	<i>Combretum padoides</i>
Sage brush	<i>Lantana trifolia</i>	Thorn pear	<i>Scolopia zeyheri</i>
Sage brush	<i>Lantana ukambensis</i>	Three-leaved yam	<i>Dioscorea dumetorum</i>
Sandpaper tree	<i>Cordia monoica</i>	Three-thorned acacia	<i>Acacia senegal</i>
Sausage tree	<i>Kigelia africana</i>	Tick tree	<i>Sterculia africana</i>
Scarlet gourd	<i>Coccinia grandis</i>	Toothbrush bush	<i>Salvadora persica</i>
Scented-pod acacia	<i>Acacia nilotica</i>	Toothbrush tree	<i>Salvadora persica</i>
Sea purslane	<i>Sesuvium</i> <i>portulacastrum</i>	Tree hibiscus	<i>Alzantia garckeana</i>
Sedge plant	<i>Lippia kituiensis</i>	Tuck-berry	<i>Lantana camara</i>
Senegal date	<i>Phoenix reclinata</i>	Uapaca	<i>Uapaca kirkiana</i>
Sesame bush	<i>Sesamothamnus</i> <i>busseanus</i>	Velvet-fruited zanha	<i>Zanha africana</i>
Shakama plum	<i>Hexalobus</i> <i>monopetalus</i>	Waterberry	<i>Syzygium owariense</i>
Simple-spined carissa	<i>Carissa edulis</i>	Water lettuce	<i>Pistia stratiotes</i>
Small caterpillar pod	<i>Ormocarpum kirkii</i>	Water lily	<i>Nymphaea nouchali</i> var. <i>caerulea</i>
Small sourplum	<i>Ximenia americana</i>	Water pear	<i>Syzygium guineense</i>
Small-fruited waterberry	<i>Syzygium masukuense</i> subsp. <i>masukuense</i>	Waterberry tree	<i>Syzygium cordatum</i>
Smelly-berry vitex	<i>Vitex mombassae</i>	Waterberry	<i>Syzygium guineense</i>
Snot apple	<i>Azanza garckeana</i>	White lotus	<i>Nymphaea lotus</i>
Snowberry tree	<i>Flueggea virosa</i>	Wild almond	<i>Berchemia discolor</i>
		Wild banana	<i>Ensete ventricosum</i>
		Wild cardamom	<i>Aframomum</i> <i>albiflorum</i>

Wild cardamom	<i>Aframomum angustifolium</i>
Wild coffee	<i>Coffea mufindiensis</i>
Wild custard apple	<i>Annona senegalensis</i>
Wild date palm	<i>Phoenix reclinata</i>
Wild fig	<i>Ficus sur</i>
Wild grape	<i>Cissus cornifolia</i>
Wild grape	<i>Lannea rivae</i>
Wild grenadilla	<i>Adenia gummifera</i>
Wild jackfruit	<i>Treculia africana</i>
Wild kapok tree	<i>Bombax rhodognaphalon</i> var. <i>tomentosum</i>
Wild loquat	<i>Uapaca kirkiana</i>
Wild mango	<i>Cordyla africana</i>
Wild medlar	<i>Vangueria infausta</i> subsp. <i>rotundata</i>
Wild medlar	<i>Vangueria madagascariensis</i>
Wild medlar	<i>Vangueria volkensii</i>
Wild plum	<i>Ximenia americana</i>
Wild simsim	<i>Sesamum calycinum</i> var. <i>angustifolium</i>
Wild sorghum	<i>Sorghum purpureosericeum</i>
Wild tea	<i>Lippia kituiensis</i>
Wild vine	<i>Cyphostemma bullatum</i>
Wild vine	<i>Cyphostemma njejerre</i>
Wild yam	<i>Dioscorea sansibarensis</i>
Winter cassia	<i>Senna singueana</i>
Winter lotus	<i>Nymphaea lotus</i>
Y-thorned carissa	<i>Carissa bispinosa</i>

**Fiome**

Ahntsi	<i>Opuntia vulgaris</i>
Amafughun	<i>Strychnos spinosa</i> subsp. <i>lokua</i>
Baghalmo-lambi	<i>Cordia sinensis</i>
Booami	<i>Fadogia ancylantha</i>
Booami	<i>Fadogia elskensii</i> var. <i>elskensii</i>
Galapi	<i>Piliostigma thonningii</i>
Kuyu	<i>Ficus sycomorus</i>
Lomo	<i>Grewia villosa</i>
Maendahakhai	<i>Phyllanthus engleri</i>
Mjirya	<i>Balanites aegyptiaca</i>
Morungi	<i>Zanthoxylum chalybeum</i> var. <i>chalybeum</i>

**Fipa**

Binika	<i>Habenaria epipactidea</i>
Kiputu	<i>Vitex doniana</i>
Kiputu	<i>Vitex ferruginea</i>
Kiputu	<i>Vitex fischeri</i>
Kiputu	<i>Vitex madiensis</i> subsp. <i>milanjiensis</i>
Kiputu	<i>Vitex mombassae</i>
Kiputu	<i>Vitex payos</i> var. <i>payos</i>
Kivuzi	<i>Ficus sycomorus</i>
Mbululu	<i>Alsodeiopsis schumannii</i>
Mchinka	<i>Vitex doniana</i>
Mchinka	<i>Vitex mombassae</i>
Mfulu	<i>Vitex mombassae</i>
Mfumbe	<i>Piliostigma thonningii</i>
Mfuru	<i>Vitex doniana</i>
Mkaisya	<i>Osyris lanceolata</i>
Mkiinka	<i>Vitex mombassae</i>
Mkinka	<i>Vitex mombassae</i>
Mkungulanga	<i>Sterculia quinqueloba</i>
Mlalambo	<i>Syzygium guineense</i>
Mlangali	<i>Bridelia micrantha</i>
Mpelemusi	<i>Sterculia quinqueloba</i>
Msada	<i>Vangueria madagascariensis</i>
Msaguye	<i>Sterculia quinqueloba</i>
Msanda	<i>Canthium oligocarpum</i> subsp. <i>oligocarpum</i>
Msanda	<i>Vangueria infausta</i> subsp. <i>rotundata</i>
Msangula	<i>Rhus natalensis</i>
Msindamboga	<i>Piliostigma thonningii</i>
Msu	<i>Syzygium cordatum</i>
Msu	<i>Syzygium guineense</i>
Msuuku	<i>Carissa edulis</i>
Mtonga	<i>Strychnos spinosa</i> subsp. <i>lokua</i>
Mufita	<i>Vitex doniana</i>
Munyamaji	<i>Bridelia micrantha</i>
Musu	<i>Syzygium cordatum</i>
Musu	<i>Syzygium guineense</i>
Mwanga	<i>Flacourtia indica</i>
Mwengele	<i>Pouteria adolfi-friedericii</i> subsp. <i>australis</i>
Mwikalatulo	<i>Pappea capensis</i>
Mwula	<i>Parinari curatellifolia</i> subsp. <i>curatellifolia</i>
Mwunza	<i>Pappea capensis</i>
Nakalondo	<i>Fadogia elskensii</i> var. <i>elskensii</i>
Nakalondo	<i>Fadogia stenophylla</i>
Nakifumbe	<i>Piliostigma thonningii</i>

**Fipa (contd)**

Nzungwa	<i>Kigelia africana</i>
Popwe	<i>Zanthoxylum chalybeum</i> var. <i>chalybeum</i>
Tochi	<i>Ensete ventricosum</i>
Unku	<i>Ficus sur</i>
Yunga	<i>Syzygium owariense</i>

**Gogo**

Gole	<i>Adenia racemosa</i>
Ihoma-ng'ombe	<i>Hygrophila auriculata</i>
Ilendi-lya- mhonjela	<i>Sesamum angolense</i>
Ilimi-lya-ng'ombe	<i>Trichodesma zeylanicum</i>
Itembwe	<i>Aloe nutii</i>
Kidingulio	<i>Aloe nutii</i>
Kisalasala	<i>Momordica foetida</i>
Kisesetya	<i>Grewia similis</i>
Lyungulyungu	<i>Coccinia grandis</i>
Mbahuza mtwe	<i>Canthium burtii</i>
Mbwanhubwanhu	<i>Canthium burtii</i>
Mbwejele	<i>Sclerocarya birrea</i> subsp. <i>caffra</i>
Mdawi	<i>Cordia monoica</i>
Mdawi	<i>Cordia sinensis</i>
Mdawi-sogwe	<i>Cordia sinensis</i>
Mduguyu	<i>Balanites aegyptiaca</i>
Mfuko	<i>Acacia nilotica</i>
Mfuku	<i>Acacia nilotica</i>
Mfulu	<i>Vitex doniana</i>
Mfulu	<i>Vitex ferruginea</i>
Mfulu	<i>Vitex payos</i> var. <i>payos</i>
Mfungulo	<i>Chenopodium opulifolium</i>
Mgandu	<i>Berchemia discolor</i>
Mgukwe	<i>Grewia hexamita</i>
Mgwelu	<i>Grewia fallax</i>
Mgwelu	<i>Grewia hexamita</i>
Mhafuta	<i>Grewia hexamita</i>
Mhangalale	<i>Bidens pilosa</i>
Mhilile	<i>Cleome hirta</i>
Mhunungu	<i>Zanthoxylum chalybeum</i> var. <i>chalybeum</i>
Mjiha	<i>Dalbergia nitidula</i>
Mjingu	<i>Ximenia caffra</i>
Mkole	<i>Grewia bicolor</i>
Mkole	<i>Grewia mollis</i>
Mkonze	<i>Manilkara mochisia</i>
Mkuju	<i>Ficus vallis-choudae</i>
Mkunghuni	<i>Salvadora persica</i>
Mkunungu	<i>Zanthoxylum chalybeum</i> var. <i>chalybeum</i>
Mkuyu	<i>Ficus sycomorus</i>

Mkuyu	<i>Ficus vallis-choudae</i>
Mkwata	<i>Cordyla africana</i>
Mkwata	<i>Cordyla densiflora</i>
Mlala	<i>Hyphaene compressa</i>
Mlala	<i>Hyphaene coriacea</i>
Mlungulungu	<i>Zanthoxylum chalybeum</i> var. <i>chalybeum</i>
Mluze	<i>Sterculia africana</i>
Mlyang'ungu	<i>Sesamothamnus</i> <i>busseanus</i>
Mmumbulu	<i>Manilkara obovata</i>
Mnangwe	<i>Ziziphus mucronata</i> subsp. <i>mucronata</i>
Mnghanangha	<i>Lannea humilis</i>
Mnhulwa	<i>Strychnos innocua</i>
Mnhulwa	<i>Strychnos</i> <i>madagascariensis</i>
Mnyangwe	<i>Ziziphus mucronata</i> subsp. <i>mucronata</i>
Mnyangwe-mwaha	<i>Ziziphus mucronata</i> subsp. <i>mucronata</i>
Mnzuyuyu	<i>Douyalis abyssinica</i>
Mpakapaka	<i>Canthium burtii</i>
Mpakapaka	<i>Feretia apodanthera</i> subsp. <i>tanzaniensis</i>
Mpela	<i>Adansonia digitata</i>
Mpelemehe	<i>Grewia platyclada</i>
Mrumba	<i>Ficus sycomorus</i>
Msabi	<i>Lannea fulva</i>
Msada	<i>Vangueria infausta</i> subsp. <i>rotundata</i>
Msada	<i>Vangueria</i> <i>madagascariensis</i>
Msakasaka	<i>Maerua decumbens</i>
Msechela	<i>Psydrax parviflora</i> subsp. <i>rubrocostata</i>
Msele	<i>Delonix elata</i>
Msenha	<i>Cordia monoica</i>
Msilale	<i>Commiphora africana</i>
Msisi	<i>Tamarindus indica</i>
Msomvugo	<i>Commiphora africana</i>
Mswaga	<i>Senna singueana</i>
Mtafuta	<i>Grewia bicolor</i>
Mtafuta	<i>Grewia similis</i>
Mtori	<i>Pappea capensis</i>
Mtoyo	<i>Azanza garckeana</i>
Mtulu	<i>Opilia amentacea</i>
Mtundwe	<i>Ximenia americana</i>
Mtundwe	<i>Ximenia caffra</i>
Muanga	<i>Pappea capensis</i>
Mubefu	<i>Bussea massaiensis</i>
Mufuku	<i>Acacia nilotica</i>



Mugama	<i>Mimusops kummel</i>	Furudou	<i>Strychnos innocua</i>
Muhulo	<i>Syzygium cordatum</i>	Galapi	<i>Ptilostigma thonningii</i>
Muhulo	<i>Syzygium guineense</i>	Getakhubay	<i>Pappea capensis</i>
Muhulo	<i>Syzygium sclerophyllum</i>	Ghal-landi	<i>Ziziphus mucronata</i> subsp. <i>mucronata</i>
Muhumba	<i>Senna singueana</i>	Ghalmi	<i>Bidens pilosa</i>
Muhuu	<i>Syzygium cordatum</i>	Gulgurchandi	<i>Sclerocarya birrea</i> subsp. <i>caffra</i>
Muhuu	<i>Syzygium guineense</i>	Hanarmo	<i>Cordia sinensis</i>
Muhuu	<i>Syzygium sclerophyllum</i>	Hawi	<i>Balanites aegyptiaca</i>
Mulala	<i>Hyphaene petersiana</i>	Ijiraombe	<i>Syzygium cordatum</i>
Mulumba	<i>Ficus glumosa</i> var. <i>glaberrina</i>	Indakhakha	<i>Phyllanthus engleri</i>
Mulumba	<i>Ficus ingens</i>	Intsanti	<i>Phoenix reclinata</i>
Muluze	<i>Sterculia africana</i>	Itiwi	<i>Lannea fulva</i>
Muluze	<i>Sterculia mhosya</i>	Khkokhoi	<i>Strychnos spinosa</i> subsp. <i>lokua</i>
Muluze	<i>Sterculia quinqueloba</i>	Kwantzi	<i>Achyranthes aspera</i>
Mulyanhungu	<i>Sesamothamnus</i> <i>busseanus</i>	Lomo	<i>Grewia bicolor</i>
Mumbulu	<i>Manilkara obovata</i>	Lomo	<i>Grewia mollis</i>
Muwaha	<i>Lantana camara</i>	Lomo-peh	<i>Grewia platyclada</i>
Muwinganzoka	<i>Senna occidentalis</i>	Lomodu-aawak	<i>Grewia fallax</i>
Muwumbu	<i>Lannea rivae</i>	Maanyangu	<i>Ximenia caffra</i>
Muwumbu	<i>Lannea schweinfurthii</i> var. <i>stuhlmannii</i>	Maayangumo	<i>Ximenia caffra</i>
Muwumbu	<i>Maerua decumbens</i>	Mahheli	<i>Myrsine africana</i>
Muwurubu	<i>Lannea fulva</i>	Mathar	<i>Hoslundia opposita</i>
Mwambangoma	<i>Balanites aegyptiaca</i>	Matlarimo	<i>Hoslundia opposita</i>
Mwimachigulu	<i>Thylachium africanum</i>	Matsalmo	<i>Hoslundia opposita</i>
Myembe-mwitu	<i>Trichilia emetica</i>	Mithingiti	<i>Tamarindus indica</i>
Mzasa	<i>Acacia senegal</i>	Mnughumo	<i>Zanha africana</i>
Mzuyuyu	<i>Dovyalis macrocalyx</i>	Morungi	<i>Zanthoxylum chalybeum</i> var. <i>chalybeum</i>
Njelula	<i>Duosperma crenatum</i>	Msaki	<i>Salvadora persica</i>
Nyembemwitu	<i>Trichilia emetica</i>	Msugwe	<i>Sorindeia</i> <i>madagascariensis</i>
Utumbu	<i>Cucumis dipsaceus</i>	Mummui	<i>Dovyalis abyssinica</i>
<b>Gorowa</b>		Natsiayi	<i>Ormocarpum kirkii</i>
Aambalangw	<i>Rhus longipes</i>	Niimo	<i>Commiphora africana</i>
Aantsi	<i>Ficus sycomorus</i>	Nunuhay	<i>Achyranthes aspera</i>
Aarmo-desu	<i>Delonix elata</i>	Oroondi	<i>Momordica foetida</i>
Amafa-aa	<i>Parinari curatellifolia</i> subsp. <i>curatellifolia</i>	Orrolmo	<i>Vitex doniana</i>
Awartu	<i>Syzygium cordatum</i>	Saski	<i>Grewia similis</i>
Bagharimo	<i>Cordia monoica</i>	Siginyanyi	<i>Osyris lanceolata</i>
Baryomodi	<i>Acacia nilotica</i>	Tarantu	<i>Ximenia americana</i>
Da-aahugmo	<i>Psorospermum febrifugum</i>	Thaki	<i>Trichodesma zeylanicum</i>
Dakaumo	<i>Adansonia digitata</i>	Thati	<i>Hyphaene petersiana</i>
Dalaagi	<i>Senna singueana</i>	Thogi	<i>Azanza garckeana</i>
Datei	<i>Rhus longipes</i>	Titwi	<i>Carissa edulis</i>
Dati	<i>Kigelia africana</i>	Tlaghay	<i>Azanza garckeana</i>
Datlaii	<i>Rhus vulgaris</i>	Tlambau	<i>Vitex mombassae</i>
Datlii	<i>Rhus longipes</i>	Tsalmi	<i>Lannea fulva</i>
Firaakwi	<i>Grewia platyclada</i>	Tsapenai	<i>Flacourtia indica</i>
Fraaki	<i>Canthium lactescens</i>		

**Ha**

Buliga-kubwa	<i>Dioscorea schimperiana</i>
Bulyankende	<i>Monanthes poggei</i>
Ingege	<i>Lannea rivae</i>
Intabali	<i>Lannea rivae</i>
Intulakigina	<i>Lannea rivae</i>
Itiguligwa	<i>Dioscorea odoratissima</i>
Ituguligwa	<i>Dioscorea quartiniana</i> var. <i>quartiniana</i>
Ituguligwa	<i>Dioscorea schimperiana</i>
Itungulu	<i>Aframomum</i> <i>angustifolium</i>
Luzu	<i>Synsepalum ceraciferum</i>
Mabungo madogo	<i>Dictyophleba lucida</i>
Mbogonte	<i>Syzygium guineense</i>
Mgugunwa	<i>Vangueria apiculata</i>
Mgusu	<i>Uapaca kirkiana</i>
Mgwiza	<i>Pseudospondias</i> <i>microcarpa</i>
Mhandehande	<i>Uapaca nitida</i>
Mkavu	<i>Salacia leptoclada</i>
Mnyongayonga	<i>Trichilia dregeana</i>
Msivia	<i>Syzygium cordatum</i>
Mtandaruka	<i>Trichilia emetica</i>
Umubhungo	<i>Saba comorensis</i>
Umubhungo	<i>Salacia leptoclada</i>
Umufe	<i>Myrianthus arboreus</i>
Umugugunwa	<i>Vangueria apiculata</i>
Umugusu	<i>Uapaca kirkiana</i>
Umuhandehande	<i>Uapaca nitida</i>
Umuhongo	<i>Strychnos</i> <i>madagascariensis</i>
Umuhongo kome	<i>Strychnos innocua</i>
Umukakili	<i>Zanha africana</i>
Umukanda	<i>Annona senegalensis</i>
Umukeri	<i>Rhus vulgaris</i>
Umunazi	<i>Parinari curatellifolia</i> subsp. <i>curatellifolia</i>
Umunyinya	<i>Osyris lanceolata</i>
Umupapa	<i>Vitex madiensis</i> subsp. <i>milanjiensis</i>
Umusalasi	<i>Garcinia buchananii</i>
Umusalasi	<i>Garcinia smeathmannii</i>
Umushamgumu	<i>Grewia mollis</i>
Umushindwi	<i>Anisophyllea boehmii</i>
Umushindwi	<i>Anisophyllea pomifera</i>
Umutobho	<i>Uapaca sansibarica</i>
Umuyviru	<i>Vitex madiensis</i> subsp. <i>milanjiensis</i>
Umuyonza	<i>Carissa edulis</i>
Umuziaziga	<i>Antidesma venosum</i>
Uvyiru	<i>Vitex madiensis</i> subsp. <i>milanjiensis</i>

Entare yeirungo	<i>Zanthoxylum chalybeum</i> var. <i>chalybeum</i>
Makindu	<i>Phoenix reclinata</i>
Mbafu	<i>Canarium schweinfurthii</i>
Mbungu	<i>Treculia africana</i>
Mchwezi	<i>Syzygium guineense</i>
Mgugunwa	<i>Vangueria volkensii</i>
Mkomakoma	<i>Grewia bicolor</i>
Mkunya	<i>Manilkara mochisia</i>
Mkunya	<i>Manilkara obovata</i>
Mkunya	<i>Manilkara sansibarensis</i>
Moyonzaki	<i>Carissa edulis</i>
Msagara	<i>Rhus natalensis</i>
Msali	<i>Mimusops bagshawei</i>
Msamina	<i>Oldfieldia dactylophylla</i>
Msangati	<i>Canthium lactescens</i>
Mshamako	<i>Bridelia micrantha</i>
Mshangati	<i>Psyrax parviflora</i> subsp. <i>rubrocostata</i>
Mshumako	<i>Bridelia micrantha</i>
Mtabagira	<i>Canthium oligocarpum</i> subsp. <i>oligocarpum</i>
Mtindambogo	<i>Piliostigma thonningii</i>
Mubafu	<i>Canarium schweinfurthii</i>
Muchwesi	<i>Syzygium guineense</i>
Mugege	<i>Syzygium cordatum</i>
Muhunge	<i>Raphia farinifera</i>
Mukuaya	<i>Manilkara obovata</i>
Mukuwe	<i>Bridelia micrantha</i>
Mulamula	<i>Dracaena mannii</i>
Munanzi	<i>Parinari curatellifolia</i> subsp. <i>curatellifolia</i>
Munazi	<i>Parinari curatellifolia</i> subsp. <i>curatellifolia</i>
Mushamako	<i>Bridelia micrantha</i>
Musivya	<i>Antidesma venosum</i>
Mutendere	<i>Dracaena mannii</i>
Muyanza	<i>Carissa edulis</i>
Muyonza	<i>Carissa edulis</i>
Muziru	<i>Pseudospondias</i> <i>microcarpa</i>
Mzungute	<i>Kigelia africana</i>
Omubolu	<i>Pseudospondias</i> <i>microcarpa</i>
Omufuru	<i>Vitex ferruginea</i>
Omukanaga	<i>Scolopia rhamniphylla</i>
Omukangali	<i>Dovyalis macrocalyx</i>
Omukanse	<i>Vitex ferruginea</i>
Omukuwe	<i>Bridelia micrantha</i>
Omunyinya	<i>Osyris lanceolata</i>
Omusha mako	<i>Bridelia micrantha</i>

Omushaasha	<i>Aframomum angustifolium</i>	Kitimbwi kidala	<i>Ormocarpum kirkii</i>
Omusheshe	<i>Rhus natalensis</i>	Kitimbwi kigosi	<i>Ormocarpum trichocarpum</i>
Omutura	<i>Solanum schumannianum</i>	Kitokoli	<i>Fadogia ancylantha</i>
Umondo	<i>Raphia farinifera</i>	Kitokoli	<i>Fadogia cienkowskii</i> var. <i>cienkowskii</i>
Umubalu	<i>Pseudospondias microcarpa</i>	Kitokoli	<i>Fadogia elskensii</i> var. <i>elskensis</i>
Umukoma	<i>Grewia similis</i>	Kitokoli	<i>Fadogia homblei</i>
Umusagara	<i>Rhus vulgaris</i>	Kitokoli	<i>Fadogia stenophylla</i>
Umusivya	<i>Antidesma venosum</i>	Kitokoli	<i>Fadogia tetraquerta</i> var. <i>grandiflora</i>
Umutoketoke	<i>Antidesma venosum</i>	Kitokoli	<i>Fadogia triphylla</i> var. <i>gorgii</i>
<b>Hehe</b>		Kitokoli	<i>Leptactina benguelensis</i>
Chambata	<i>Ceratotheca sesamoides</i>	Kitokoli	<i>Pygmaeothamnus zeyheri</i>
Chamilang'uku	<i>Amaranthus spinosus</i>	Kitokoli	<i>Tapiphyllum cinerascens</i> var. <i>cinerascens</i>
Chung'ungu	<i>Sesamothamnus busseanus</i>	Kitokoli	<i>Tapiphyllum discolor</i>
Fitokoli	<i>Tapiphyllum burnettii</i>	Kitokoli	<i>Tapiphyllum obtusifolium</i>
Ilolompya	<i>Mollugo cerviana</i>	Kivengi	<i>Eugenia capensis</i> subsp. <i>nyassensis</i>
Isanyanga	<i>Hygrophila auriculata</i>	Kivengi	<i>Eugenia malangensis</i>
Kaganza ka mwana	<i>Aerva lanata</i>	Lichamilang'uku	<i>Amaranthus spinosus</i>
Kahawa-msitu	<i>Coffea mufindiensis</i>	Lidung'o	<i>Rubus apetalus</i>
Kibogaboga.	<i>Mollugo cerviana</i>	Lidung'o	<i>Rubus rigidus</i>
Kihogolo	<i>Hyphaene compressa</i>	Lifweni	<i>Aerva leucura</i>
Kihomolwa	<i>Lycium europaeum</i>	Lifweni	<i>Amaranthus spinosus</i>
Kikande	<i>Satyrium macrophyllum</i>	Lifweni likomi	<i>Celosia trigyna</i>
Kilya-vahunzi	<i>Cyphostemma njegerre</i>	Lihana	<i>Triumfetta cordifolia</i> var. <i>tomentosa</i>
Kimulikwi kidala	<i>Corchorus tridens</i>	Likidindi	<i>Opuntia vulgaris</i>
Kimulikwi kigosi	<i>Corchorus pseudocapsularis</i>	Likolowoga	<i>Commelina africana</i>
Kimulikwi-jike	<i>Corchorus tridens</i>	Likolowoga	<i>Commelina benghalensis</i>
Kimulkwi	<i>Corchorus pseudocapsularis</i>	Likombe	<i>Corchorus trilocularis</i>
Kindokoli	<i>Fadogia ancylantha</i>	Likweta	<i>Hyphaene compressa</i>
Kindokoli	<i>Fadogia cienkowskii</i> var. <i>cienkowskii</i>	Lilendi	<i>Sesamum angolense</i>
Kindokoli	<i>Fadogia elskensii</i> var. <i>elskensis</i>	Lilendi mtali	<i>Sesamum calycinum</i> var. <i>angustifolium</i>
Kindokoli	<i>Fadogia homblei</i>	Lilimbili	<i>Ensete ventricosum</i>
Kindokoli	<i>Fadogia stenophylla</i>	Limwapembe	<i>Satyrium neglectum</i> var. <i>neglectum</i>
Kindokoli	<i>Fadogia tetraquerta</i> var. <i>grandiflora</i>	Linyimbili	<i>Rumex usambarensis</i>
Kindokoli	<i>Fadogia triphylla</i> var. <i>gorgii</i>	Lipembapemba	<i>Rumex abyssinicus</i>
Kindokoli	<i>Leptactina benguelensis</i>	Lisanzauki	<i>Leonotis nepetifolia</i>
Kindokoli	<i>Pygmaeothamnus zeyheri</i>	Litambalanzoka	<i>Momordica rostrata</i>
Kindokoli	<i>Tapiphyllum burnettii</i>	Litembwetembwe	<i>Aloe nutii</i>
Kindokoli	<i>Tapiphyllum cinerascens</i> var. <i>cinerascens</i>	Livanivani	<i>Bidens pilosa</i>
Kindokoli	<i>Tapiphyllum discolor</i>	Liwungowungo	<i>Landolphia kilimanjarica</i>
Kindokoli	<i>Tapiphyllum obtusifolium</i>	Liwungowungo	<i>Landolphia kirkii</i>
		Liwungowungo	<i>Landolphia parvifolia</i>
		Liyenzi	<i>Rourea orientalis</i>

**Hehe (contd)**

Lizwana	<i>Saba comorensis</i>	Mgola	<i>Scolopia stolzii</i>
Lubehe	<i>Nymphaea lotus</i>	Mgola	<i>Scolopia theifolia</i>
Lugeni	<i>Achyranthes aspera</i>	Mgola	<i>Scolopia zeyheri</i>
Lugeni	<i>Laportea ovalifolia</i>	Mguhu	<i>Uapaca kirkiana</i>
Luhongole	<i>Lantana camara</i>	Mgulumo	<i>Lannea fulva</i>
Luhongole	<i>Lantana trifolia</i>	Mhamamala	<i>Canthium oligocarpum</i> subsp. <i>oligocarpum</i>
Luhongole	<i>Lantana ukambensis</i>	Mhang'ana	<i>Hibiscus diversifolius</i>
Luhongole	<i>Lippia kituiensis</i>	Mhilili	<i>Cleome hirta</i>
Lukalifya	<i>Caylusea abyssinica</i>	Mhomang'ambako	<i>Canthium oligocarpum</i> subsp. <i>oligocarpum</i>
Lukokonzia	<i>Opilia amentacea</i>	Mhomanga	<i>Canthium oligocarpum</i> subsp. <i>oligocarpum</i>
Lulyamindi	<i>Pupalia lappacea</i> var. <i>velutina</i>	Mhungulu	<i>Pappea capensis</i>
Lumwino	<i>Rubus apetalus</i>	Mingi	<i>Ximenia americana</i>
Lupebeta	<i>Lantana camara</i>	Mkaapu	<i>Grewia fallax</i>
Lutini	<i>Erythrococca kirkii</i>	Mkahawa-musitu	<i>Coffea mufindiensis</i>
Mbaya	<i>Strychnos innocua</i>	Mkalifya	<i>Caylusea abyssinica</i>
Mbaya	<i>Strychnos pungens</i>	Mkanzaula	<i>Parinari excelsa</i>
Mbigili	<i>Tribulus terrestris</i>	Mkingiligiti	<i>Phyllanthus engleri</i>
Mbugavugoo	<i>Eugenia malangensis</i>	Mkoga	<i>Vitex payos</i> var. <i>payos</i>
Mbwegele	<i>Sclerocarya birrea</i> subsp. <i>caffra</i>	Mkole	<i>Grewia bicolor</i>
Mbwewe	<i>Multidentia crassa</i>	Mkole	<i>Grewia hexamita</i>
Mdawi	<i>Cordia sinensis</i>	Mkole	<i>Grewia mollis</i>
Mdegege	<i>Multidentia fanshawei</i>	Mkole	<i>Grewia platyclada</i>
Mditsi	<i>Dovyalis abyssinica</i>	Mkole	<i>Grewia similis</i>
Mduguya	<i>Balanites aegyptiaca</i>	Mkombalwiko	<i>Piliostigma thonningii</i>
Mduguya	<i>Friesodielsia obovata</i>	Mkondo	<i>Adansonia digitata</i>
Mduma	<i>Garcinia buchananii</i>	Mkongela	<i>Sesamum angolense</i>
Mdung'o	<i>Rubus apetalus</i>	Mkumba	<i>Rothmannia engleriana</i>
Mdunula	<i>Osyris lanceolata</i>	Mkung'uni	<i>Salvadora persica</i>
Mfilafila	<i>Garcinia buchananii</i>	Mkusu	<i>Uapaca kirkiana</i>
Mfilafila	<i>Garcinia smeathmannii</i>	Mkwaliti	<i>Myrianthus holstii</i>
Mfilafila	<i>Trilepisium</i> <i>madagascariense</i>	Mkwaliti	<i>Syzygium sclerophyllum</i>
Mfiwi	<i>Hexalobus monopetalus</i>	Mkwata	<i>Cordyla africana</i>
Mftsa	<i>Myrianthus holstii</i>	Mkwata	<i>Cordyla densiflora</i>
Mfudu	<i>Vitex ferruginea</i>	Mkwelangedege	<i>Sterculia quinqueloba</i>
Mfudululenga	<i>Vitex mombassae</i>	Mlala	<i>Hyphaene coriacea</i>
Mfulu	<i>Vitex payos</i> var. <i>payos</i>	Mlenda mtali	<i>Sesamum calycinum</i> var. <i>angustifolium</i>
Mfumbi	<i>Kigelia africana</i>	Mlenda mtali	<i>Sesamum angolense</i>
Mfumbwe	<i>Carissa edulis</i>	Mlinga	<i>Lannea humilis</i>
Mfutsa	<i>Myrianthus arboreus</i>	Mlingalinga	<i>Lannea humilis</i>
Mfutsa	<i>Myrianthus holstii</i>	Mlyangola	<i>Deinbollia borbonica</i>
Mfyuwi	<i>Hexalobus monopetalus</i>	Mlyangola	<i>Deinbollia</i> <i>kilimandscharica</i> var. <i>kilimandscharica</i>
Mgambata	<i>Ceratothera sesamoides</i>	Mlyasungura	<i>Hoslundia opposita</i>
Mgandu	<i>Berchemia discolor</i>	Mnanyeza	<i>Feretia apodanthera</i> subsp. <i>tanzaniensis</i>
Mgola	<i>Dovyalis abyssinica</i>	Mnyali	<i>Tamarindus indica</i>
Mgola	<i>Dovyalis macrocalyx</i>	Mnyonzi	<i>Cussonia spicata</i>
Mgola	<i>Dovyalis xanthocarpa</i>		
Mgola	<i>Flacourtia indica</i>		
Mgola	<i>Scolopia rhamniphylla</i>		

Mnywewa	<i>Strychnos cocculoides</i>	Muhehefu	<i>Rhus vulgaris</i>
Mnzuyuyu	<i>Dovyalis macrocalyx</i>	Munyali	<i>Tamarindus indica</i>
Mpacha	<i>Coffea mufindiensis</i>	Muungo	<i>Saba comorensis</i>
Mpalang'anga,	<i>Bridelia micrantha</i>	Muvalambe	<i>Alsodeiopsis schumannii</i>
Mpelemehe	<i>Grewia bicolor</i>	Muvengi	<i>Syzygium cordatum</i>
Mpelemehe	<i>Grewia mollis</i>	Muvengi	<i>Syzygium guineense</i>
Mpelemehe	<i>Grewia platyclada</i>	Muvengi	<i>Syzygium masukuense</i> subsp. <i>masukuense</i>
Mpepete	<i>Garcinia livingstonei</i>	Muvengi	<i>Syzygium sclerophyllum</i>
Mpilipili	<i>Sorindeia</i> <i>madagascariensis</i>	Muvengi lulenga	<i>Syzygium cordatum</i>
Mpukopuko	<i>Garcinia livingstonei</i>	Muvengi lutanana	<i>Syzygium guineense</i>
Mpumba	<i>Rothmannia engleriana</i>	Muvulambe	<i>Alsodeiopsis schumannii</i>
Msada	<i>Vangueria infausta</i> subsp. <i>rotundata</i>	Muwewe	<i>Multidentia crassa</i>
Msadasada	<i>Multidentia fanshawei</i>	Muwulagavega	<i>Acacia nilotica</i>
Msambalawe	<i>Vangueria apiculata</i>	Muwumbu	<i>Lannea rivae</i>
Msambalawe	<i>Vangueria infausta</i> subsp. <i>rotundata</i>	Mvalambi	<i>Myrianthus holstii</i>
Msambalawe	<i>Vangueria</i> <i>madagascariensis</i>	Mvambandusi	<i>Balanites rotundifolia</i>
Msambalawe	<i>Vangueria volkensii</i>	Mvambandusi	<i>Carissa edulis</i>
Msambalawe		Mvambangoma	<i>Piliostigma thonningii</i>
lulenga	<i>Vangueriopsis lanciflora</i>	Mwesa	<i>Bridelia micrantha</i>
Msasati	<i>Vitex mombassae</i>	Mzuyuyu	<i>Dovyalis xanthocarpa</i>
Msaula	<i>Parinari curatellifolia</i> subsp. <i>curatellifolia</i>	Nandalamwani	<i>Dolichos trilobus</i>
Msaula	<i>Parinari excelsa</i>	Ngorowoga	<i>Commelina benghalensis</i>
Mseele	<i>Delonix elata</i>	Nyakaganza ka mwana	<i>Aerva lanata</i>
Mseni	<i>Cordia monoica</i>	Nyakamage	<i>Cleome monophylla</i>
Msesetya	<i>Grewia bicolor</i>	Nyakapulikilo	<i>Convolvulus farinosus</i>
Msombe	<i>Ficus glumosa</i> var. <i>glaberrina</i>	Nyakapulikilo	<i>Ipomoea cairica</i> var. <i>cairica</i>
Msombe	<i>Ficus ingens</i>	Nyakapulikilo	<i>Ipomoea pres-caprae</i>
Msombe	<i>Ficus sur</i>	Nyakibiki	<i>Acanthopale laxiflora</i>
Msombe	<i>Ficus sycomorus</i>	Nyakibiki	<i>Erythrococca kirkii</i>
Msowowi	<i>Cordia monoica</i>	Nyakigoma	<i>Acanthopale laxiflora</i>
Msungu	<i>Acokanthera schimperi</i>	Nyakisesetya	<i>Grewia similis</i>
Mtangadasi	<i>Strychnos pungens</i>	Nyakisumbi	<i>Polygonum pulchrum</i>
Mtangadasi	<i>Strychnos spinosa</i> subsp. <i>lokua</i>	Nyalufungulo	<i>Abutilon angulatum</i>
Mtema	<i>Bauhinia kаланtha</i>	Nyalufungulo	<i>Chenopodium opulifolium</i>
Mtowo	<i>Azanza garckeana</i>	Nyaluhanga	<i>Corchorus fascicularis</i>
Mtundwa	<i>Ximenia caffra</i>	Nyalulimi	<i>Heliotropium</i> <i>zeylanicum</i>
Mtundwahavi	<i>Ximenia americana</i>	Nyaluvafya	<i>Laportea ovalifolia</i>
Mtunumbi	<i>Rhus natalensis</i>	Nyaluvafya	<i>Tragia insuarvis</i>
Mtwaki	<i>Pouzolzia mixta</i>	Nyamabumu	<i>Abutilon angulatum</i>
Mtweve	<i>Aframomum</i> <i>angustifolium</i>	Nyamabumu	<i>Abutilon longicuspe</i>
Mufutsa	<i>Myrianthus holstii</i>	Nyamabumu	<i>Abutilon mauritianum</i>
Mugama	<i>Mimusops kummel</i>	Nyamaganga	<i>Senna occidentalis</i>
Muhanza	<i>Senna singueana</i>	Nyamayingiya	<i>Pistia stratiotes</i>
		Nyambede	<i>Cucumis aculeatus</i>
		Nyambede	<i>Cucumis figarei</i>
		Nyambigili	<i>Oxygonum sinuatum</i>
		Nyamkole	<i>Grewia bicolor</i>
		Nyamkole	<i>Grewia similis</i>

**Hehe (contd)**

Nyamtitu	<i>Dicliptera laxata</i>
Nyamtulo	<i>Erythrococca kirkii</i>
Nyamtulo	<i>Opilia amentacea</i>
Nyanandala	<i>Dolichos trilobus</i>
Nyanandala	<i>Vigna pubescens</i>
Nyandanga	<i>Kedrostis leloja</i>
Nyang'oleko	<i>Adenia racemosa</i>
Nyangasi	<i>Crotalaria natalitia</i> var. <i>natalitia</i>
Nyangelula.	<i>Duosperma crenatum</i>
Nyangogo	<i>Hygrophila auriculata</i>
Nyangomba	<i>Sesuvium portulacastrum</i>
Nyangulunga	<i>Oldenlandia corymbosa</i> var. <i>corymbosa</i>
Nyapali	<i>Convolvulus farinosus</i>
Nyasalasala	<i>Momordica foetida</i>
Nyasongwe	<i>Nicandra physaloides</i>
Nyatwanga	<i>Bidens schimperii</i>
Nyausako	<i>Cleome hirta</i>
Nyautitili	<i>Acalypha bipartita</i>
Nyautitili	<i>Acalypha fruticosa</i>
Nyava	<i>Dactyloctenium aegyptium</i>
Nyawolo	<i>Justicia pinguior</i>
Nyayambo	<i>Coccinia adoensis</i>
Somwambisi	<i>Cyathula orthacantha</i>

**Iraqw**

Aantsi	<i>Ficus sycomorus</i>
Aare-desu	<i>Delonix elata</i>
Amafa-aa	<i>Parinari curatellifolia</i> subsp. <i>curatellifolia</i>
Ambalaki	<i>Rhus longipes</i>
Ambalaki	<i>Rhus longipes</i>
Amu	<i>Grewia villosa</i>
Backchandi	<i>Commiphora africana</i>
Bagalimo,	<i>Cordia sinensis</i>
Bagalmo	<i>Cordia monoica</i>
Baryomodi	<i>Acacia nilotica</i>
Da-aaslsmo	<i>Psorospermum febrifugum</i>
Datei	<i>Rhus natalensis</i>
Datlaii	<i>Rhus vulgaris</i>
Dawo	<i>Abutilon mauritianum</i>
Erakwtu	<i>Vangueria</i> <i>madagascariensis</i>
Funidang	<i>Cordia sinensis</i>
Furudou	<i>Grewia similis</i>
Galapi	<i>Piliostigma thonningii</i>
Gendaryandi	<i>Adansonia digitata</i>
Hararmo	<i>Cordia sinensis</i>
Hawi	<i>Balanites aegyptiaca</i>

Hiiti	<i>Mimusops kummel</i>
Hotlimo	<i>Balanites aegyptiaca</i>
Indakhakha	<i>Phyllanthus engleri</i>
Intiwi	<i>Commiphora</i> <i>mossambicensis</i>
Intsalmo	<i>Bridelia micrantha</i>
Irakwtu	<i>Vangueria</i> <i>madagascariensis</i>
Isalmo	<i>Bridelia micrantha</i>
Kantzi	<i>Acacia nilotica</i>
Kipaa-atu	<i>Osyris lanceolata</i>
Kipatina	<i>Osyris lanceolata</i>
Lagaang-aawak	<i>Grewia bicolor</i>
Lagagir-daat	<i>Grewia mollis</i>
Lagangwi	<i>Grewia fallax</i>
Maanyangu	<i>Ximения caffra</i>
Mahhahamo	<i>Dovyalis abyssinica</i>
Maneneh	<i>Cussonia spicata</i>
Mangafi	<i>Kigelia africana</i>
Mgombaryandi	<i>Grewia similis</i>
Mstunga	<i>Rhus natalensis</i>
Muhuhuoi	<i>Cyathula orthacantha</i>
Mumuhai	<i>Pupalia lappacea</i> var. <i>velutina</i>
Mutuhu	<i>Ximения americana</i>
Natsiimo	<i>Ormocarpum kirkii</i>
Niimo	<i>Commiphora africana</i>
Nuguhway	<i>Hoslundia opposita</i>
Orbochandi	<i>Lannea schweinfurthii</i> var. <i>stuhlmannii</i>
Oroondi	<i>Momordica foetida</i>
Pohi-aawak	<i>Cussonia spicata</i>
Pombosimo	<i>Ficus stuhlmannii</i>
Quach	<i>Carissa edulis</i>
Sansuli	<i>Dracaena mannii</i>
Saski	<i>Grewia similis</i>
Sirongi	<i>Rhus natalensis</i>
Sokhaimo	<i>Flacourtia indica</i>
Taewi	<i>Trichilia emetica</i>
Tahhamanto	<i>Ximения americana</i>
Tambaragi	<i>Lannea schweinfurthii</i> var. <i>stuhlmannii</i>
Tarantu	<i>Ximения americana</i>
Thanthi	<i>Hyphaene petersiana</i>
Thiaanthii	<i>Phoenix reclinata</i>
Thigi	<i>Lannea schweinfurthii</i> var. <i>stuhlmannii</i>
Thigii	<i>Lannea schweinfurthii</i> var. <i>stuhlmannii</i>
Thobi	<i>Malva parviflora</i>
Tiita	<i>Ficus stuhlmannii</i>
Titio	<i>Carissa edulis</i>

Tlambau	<i>Vitex mombassae</i>
Tlambi	<i>Deinbollia borbonica</i>
Tlambi	<i>Deinbollia kilimandscharicavar. kilimandscharica</i>
Tlerghw	<i>Canthium lactescens</i>
Tsagayand	<i>Acacia nilotica</i>
Uduboguta	<i>Grewia platyclada</i>
Ufani	<i>Lippia kituiensis</i>
Xaslaamo	<i>Lantana camara</i>
Yudek	<i>Acacia senegal</i>

### Isanzu

Mbulagankuku	<i>Rhus vulgaris</i>
Mfulu	<i>Vitex doniana</i>
Msalati	<i>Vitex mombassae</i>
Mtundwi	<i>Ximenia caffra</i>
Mudugunga	<i>Balanites aegyptiaca</i>
Mukuma	<i>Grewia similis</i>
Mukungulusuli	<i>Vangueria infausta</i> subsp. <i>rotundata</i>
Mulunzi	<i>Kigelia africana</i>
Mungongampembe	<i>Syzygium cordatum</i>
Muyuyu	<i>Zanha africana</i>
Muzuhu	<i>Commiphora africana</i>

### Kaguru

Mbwegele	<i>Sclerocarya birrea</i> subsp. <i>caffra</i>
Mbwimbwi	<i>Talinum portulacifolium</i>
Mfuzua	<i>Myrianthus holstii</i>
Mgola	<i>Dovyalis xanthocarpa</i>
Mgolemazi	<i>Trichilia emetica</i>
Mkówekowe	<i>Garcinia kingäensis</i>
Mkwata	<i>Cordyla densiflora</i>
Moza	<i>Sterculia africana</i>
Mseseza	<i>Grewia similis</i>
Mugama	<i>Mimusops kummel</i>
Muhembeti	<i>Sterculia quinqueloba</i>
Muhumba	<i>Senna singueana</i>
Mzuyuyu	<i>Dovyalis xanthocarpa</i>

### Kerewe

Issassa	<i>Syzygium guineense</i>
Issassa	<i>Syzygium sclerophyllum</i>
Mfitanda	<i>Vangueria madagascariensis</i>
Mkanga onza	<i>Carissa edulis</i>
Mkangayonza	<i>Carissa edulis</i>
Mkome	<i>Psydrax parviflora</i> subsp. <i>rubrocostata</i>

Mnyamaji	<i>Lannea humilis</i>
Mseaka	<i>Ximenia caffra</i>
Msebeye	<i>Oncoba spinosa</i>
Msungwa	<i>Vitex mombassae</i>
Mtokitoki	<i>Antidesma venosum</i>
Muebe	<i>Psydrax parviflora</i> subsp. <i>rubrocostata</i>
Mufitanda	<i>Vangueria infausta</i> subsp. <i>rotundata</i>
Muhasi	<i>Parinari curatellifolia</i> subsp. <i>curatellifolia</i>
Mukoronto	<i>Vitex doniana</i>
Munazi	<i>Parinari curatellifolia</i> subsp. <i>curatellifolia</i>
Murangarara	<i>Lannea fulva</i>
Musheshe	<i>Rhus natalensis</i>
Ntokitoki	<i>Antidesma venosum</i>

### Kimbu

Kasasalya	<i>Momordica foetida</i>
Mduvi	<i>Oncoba spinosa</i>
Mnumbulu	<i>Englerophytum natalense</i>
Msavala	<i>Sterculia quinqueloba</i>
Msuungwi	<i>Vitex mombassae</i>
Mugambo	<i>Manilkara discolor</i>
Mutogo	<i>Azanza garckeana</i>

### Kinga

Chikande	<i>Habenaria walleri</i>
Chikande	<i>Satyrium neglectum</i> var. <i>neglectum</i>
Imivengi	<i>Syzygium cordatum</i>
Kikande	<i>Habenaria epipactidea</i>
Kisongwe	<i>Garcinia kingäensis</i>
Mabagala	<i>Myrianthus holstii</i>

### Kuria

Bagharimo	<i>Cordia monoica</i>
Maitanyoka	<i>Senna occidentalis</i>
Michame	<i>Acacia nilotica</i>
Mkomakoma	<i>Grewia mollis</i>
Momange	<i>Pappea capensis</i>
Msangura	<i>Rhus natalensis</i>
Msarakanga	<i>Ziziphus mucronata</i> subsp. <i>mucronata</i>
Msege	<i>Strychnos innocua</i>
Mtegeti	<i>Saba comorensis</i>
Muitinina	<i>Pseudospondias microcarpa</i>

**Kuria (contd)**

Mumendo	<i>Lannea schweinfurthii</i> var. <i>stuhlmannii</i>
Munyore	<i>Carissa edulis</i>
Mushenhu	<i>Cordia monoica</i>
Mushiro	<i>Pseudospondias</i> <i>microcarpa</i>
Omongwe	<i>Sclerocarya birrea</i> subsp. <i>caffra</i>
Omosaruwa	<i>Lannea schweinfurthii</i> var. <i>stuhlmannii</i>
Rinyore	<i>Carissa edulis</i>

**Luguru**

Bwasi	<i>Achyranthes aspera</i>
Ezeya	<i>Treculia africana</i>
Gobeni	<i>Aframomum</i> <i>angustifolium</i>
Gole	<i>Adenia gummifera</i>
Hunduhundu	<i>Cucumis dipsaceus</i>
Kigonzo	<i>Dioscorea odoratissima</i>
Kologwe	<i>Commiphora africana</i>
Kongokowe	<i>Aloe nutii</i>
Koza	<i>Ensete ventricosum</i>
Malagala-mkole	<i>Ziziphus mucronata</i> subsp. <i>mucronata</i>
Mangwe	<i>Bidens schimperi</i>
Mbalawala	<i>Tylosema fassoglense</i>
Mbangwe	<i>Bidens schimperi</i>
Mbungo	<i>Saba comorensis</i>
Mdai	<i>Tamarindus indica</i>
Mdaula	<i>Zanha africana</i>
Mdewerere	<i>Myrianthus arboreus</i>
Mdewerere	<i>Myrianthus holstii</i>
Mduru-mweupe	<i>Lepisanthes senegalensis</i>
Mfulu	<i>Vitex ferruginea</i>
Mfune	<i>Sterculia appendiculata</i>
Mfuru	<i>Vitex doniana</i>
Mfuru	<i>Vitex ferruginea</i>
Mfuru	<i>Vitex payos</i> var. <i>payos</i>
Mfuza	<i>Myrianthus arboreus</i>
Mfyonzefyonze	<i>Leptactina benguelensis</i>
Mgolemazi	<i>Trichilia emetica</i>
Mgombogombo	<i>Pouteria alnifolia</i>
Mgora	<i>Flacourtia indica</i>
Mgude	<i>Sterculia appendiculata</i>
Mgura	<i>Flacourtia indica</i>
Mgwata	<i>Cordyla africana</i>
Mhembeti	<i>Sterculia quinqueloba</i>
Mhengere	<i>Dialium holtzii</i>
Mhilihili	<i>Sorindeia</i> <i>madagascariensis</i>

Mhumba	<i>Senna singueana</i>
Mhunungu	<i>Zanthoxylum chalybeum</i> var. <i>chalybeum</i>
Mjagengo	<i>Trichilia emetica</i>
Mjaya	<i>Treculia africana</i>
Mkani	<i>Allanblackia stuhlmanii</i>
Mkani	<i>Allanblackia ulugurensis</i>
Mkenene	<i>Polyceratocarpus scheffleri</i>
Mkoga	<i>Vitex doniana</i>
Mkoko	<i>Diospyros mespiliformis</i>
Mkole	<i>Grewia goetzeana</i>
Mkonero-wa-nyikani	<i>Cussonia spicata</i>
Mkongo	<i>Balanites aegyptiaca</i>
Mkululu	<i>Diospyros mespiliformis</i>
Mkumbulu	<i>Synsepalum ceraciferum</i>
Mkumbulu	<i>Synsepalum msolo</i>
Mkungunolo	<i>Ricinodendron heudelotii</i> subsp. <i>africanum</i>
Mkungwina	<i>Sorindeia</i> <i>madagascariensis</i>
Mkuyu	<i>Ficus sur</i>
Mkuyu	<i>Ficus vallis-choudae</i>
Mkwayaga	<i>Myrianthus arboreus</i>
Mkwayaga	<i>Myrianthus holstii</i>
Mlagala	<i>Ziziphus mucronata</i> subsp. <i>mucronata</i>
Mlemeleme	<i>Englerophytum</i> <i>magalismontanum</i>
Mlenda	<i>Sesamum angolense</i>
Mlende	<i>Opilia amentacea</i>
Mlowelowe	<i>Myrianthus arboreus</i>
Mlowelowe	<i>Myrianthus holstii</i>
Mmoyomoyo	<i>Deinbollia borbonica</i>
Mmoyomoyo	<i>Deinbollia kilimandscharica</i> var. <i>kilimandscharica</i>
Mngalangala	<i>Balanites wilsoniana</i>
Moza	<i>Sterculia africana</i>
Mpela	<i>Adansonia digitata</i>
Mpitimbi	<i>Vitex payos</i> var. <i>payos</i>
Mpupu	<i>Laportea ovalifolia</i>
Msada	<i>Psydrax parviflora</i> subsp. <i>rubrocostata</i>
Msada	<i>Vangueria infausta</i> subsp. <i>rotundata</i>
Msalazi	<i>Syzygium guineense</i>
Msambia	<i>Synsepalum ceraciferum</i>
Msambwa	<i>Synsepalum brevipes</i>
Msambwa	<i>Synsepalum msolo</i>
Msanyanzale	<i>Synsepalum msolo</i>
Msekaseka	<i>Xylothea tettensis</i> var. <i>kirkii</i>



Msindanguruwe	<i>Diospyros mespiliformis</i>
Msinde	<i>Diospyros mespiliformis</i>
Msofu	<i>Uvaria acuminata</i>
Msofu	<i>Uvaria kirkii</i>
Msona	<i>Scolopia zeyheri</i>
Msukulilo	<i>Trichilia emetica</i>
Msumba	<i>Bridelia micrantha</i>
Mtakule	<i>Ficus sur</i>
Mtengotengo	<i>Trichilia emetica</i>
Mtitu	<i>Diospyros mespiliformis</i>
Muenene	<i>Polyceratocarpus scheffleri</i>
Muhembeti	<i>Sterculia quinqueloba</i>
Muhingilo	<i>Lannea schweinfurthii</i> var. <i>stuhmannii</i>
Muula	<i>Parinari excelsa</i>
Mwegea	<i>Kigelia africana</i>
Mwiza	<i>Bridelia micrantha</i>
Myegea	<i>Kigelia africana</i>
Mzindanguruwe	<i>Lecaniodiscus fraxinifolius</i> subsp. <i>vaughanii</i>
Mzugo	<i>Trilepisium</i> <i>madagascariense</i>
Ngoni	<i>Vitex payos</i> var. <i>payos</i>
Nyahumbu	<i>Berchemia discolor</i>
Nyaweza	<i>Bidens pilosa</i>
Nyaweza	<i>Bidens schimperii</i>
Songoro-malidadi	<i>Celosia argentea</i>
Songoro-malidadi	<i>Celosia schweinfurthiana</i>
Songoro-malidadi	<i>Celosia trigyna</i>
Sunga	<i>Emilia coccinea</i>
Sunga	<i>Sonchus luxurians</i>

## Luo

Anduong'o	<i>Hygrophila auriculata</i>
Anyulo	<i>Sesamum calycinum</i> var. <i>angustifolium</i>
Kenu	<i>Sesamum calycinum</i> var. <i>angustifolium</i>
Nyamnina	<i>Guizotia scabra</i>
Olalwait	<i>Mimulus bagshawei</i>
Olukenu	<i>Sesamum calycinum</i> var. <i>angustifolium</i>
Onina	<i>Guizotia scabra</i>
Onyulo	<i>Sesamum calycinum</i> var. <i>angustifolium</i>
Riangata	<i>Lecaniodiscus fraxinifolius</i> subsp. <i>vaughanii</i>
Yunga	<i>Nymphaea lotus</i>

## Maasai

Echunge	<i>Oxygonum sinuatum</i>
Ediati-ormwaate	<i>Aerva lanata</i>
Eirii	<i>Grewia similis</i>
Eleturot	<i>Aerva lanata</i>
Elkoroshi	<i>Trichilia emetica</i>
Emangulai	<i>Grewia villosa</i>
Emankulai	<i>Grewia villosa</i>
Embaingu	<i>Flueggea virosa</i>
Embokwe	<i>Dactyloctenium aegyptium</i>
Emoloo	<i>Azanza garckeana</i>
Emorogi	<i>Dovyalis abyssinica</i>
Empokui	<i>Dactyloctenium aegyptium</i>
Emungushi	<i>Rhus vulgaris</i>
Endamejoi	<i>Urtica massaica</i>
Enderemet	<i>Sesamum angolense</i>
Enderkesi	<i>Acacia senegal</i>
Endugai	<i>Strychnos innocua</i>
Endungui	<i>Lannea alata</i>
Eng'alayioi-naju	<i>Cucumis dipsaceus</i>
Engaboli	<i>Ficus sansibarica</i>
Engaboli	<i>Ficus sur</i>
Engaboli	<i>Ficus sycomorus</i>
Engai-pulsan	<i>Senna singueana</i>
Engaiyagut	<i>Portulaca oleracea</i>
Engamai	<i>Ximenia americana</i>
Engarachi	<i>Rhus vulgaris</i>
Engirushai	<i>Opilia amentacea</i>
Engokia	<i>Lycium europaeum</i>
Engumi	<i>Vangueria apiculata</i>
Engumi	<i>Vangueria infausta</i> subsp. <i>rotundata</i>
Engumi	<i>Vangueria</i> <i>madagascariensis</i>
Engumi	<i>Vangueria volkensii</i>
Engumi-etari	<i>Vangueria infausta</i> subsp. <i>rotundata</i>
Engumieker	<i>Vangueria apiculata</i>
Enkaiserariai	<i>Coccinia grandis</i>
Enkaisijoi	<i>Oxygonum sinuatum</i>
Enkaisijoi	<i>Rumex usambarensis</i>
Enkaiswishoi	<i>Rumex usambarensis</i>
Enkaiteteyiai	<i>Commelina benghalensis</i>
Enkampa	<i>Dactyloctenium aegyptium</i>
Enkamposhi	<i>Momordica rostrata</i>
Enkoshopini	<i>Dovyalis macrocalyx</i>
Enkosida	<i>Asystasia gangetica</i>
Enkurma-onkayioik	<i>Lantana trifolia</i>
Enongeperen	<i>Garcinia livingstonei</i>
Entameijoi	<i>Urtica massaica</i>
Erkunyi	<i>Hydnora abyssinica</i>
Eseki	<i>Cordia monoica</i>

**Maasai (contd)**

Esekilianjoi	<i>Ormocarpum kirkii</i>	Oldarpoi	<i>Kigelia africana</i>
Esikilianjoi	<i>Ormocarpum trichocarpum</i>	Oldelemet	<i>Sesamum calycinum</i> var. <i>angustifolium</i>
Esinkarua	<i>Tylosema fassoglense</i>	Olderkesi	<i>Acacia senegal</i>
Esitete	<i>Grewia bicolor</i>	Oldimaroi	<i>Cussonia spicata</i>
Eswaili	<i>Senna occidentalis</i>	Oldimigomi	<i>Pappea capensis</i>
Gosida	<i>Asystasia gangetica</i>	Oldongurgurwo	<i>Flacourtia indica</i>
Ilama	<i>Ximenia americana</i>	Oldongururwo	<i>Flacourtia indica</i>
Ilgum	<i>Vangueria apiculata</i>	Oldorko	<i>Cordia sinensis</i>
Ilmang'ua	<i>Sclerocarya birrea</i> subsp. <i>caffra</i>	Oldurgo	<i>Cordia sinensis</i>
Ilmankula	<i>Grewia villosa</i>	Oleleloi	<i>Scolopia theifolia</i>
Ilmisigiyo	<i>Rhus natalensis</i>	Olemoran	<i>Hoslundia opposita</i>
Ilmisigiyo	<i>Rhus vulgaris</i>	Olemwadeni	<i>Malva parviflora</i>
Ilokwa	<i>Balanites aegyptiaca</i>	Olenaran	<i>Hoslundia opposita</i>
Ilsagararam	<i>Piliostigma thonningii</i>	Oleragai	<i>Lepisanthes senegalensis</i>
Ilseki	<i>Cordia monoica</i>	Oleragi	<i>Syzygium guineense</i>
Iltorel	<i>Pistacia aethiopica</i>	Olerubat	<i>Achyranthes aspera</i>
Inderepenji	<i>Bidens pilosa</i>	Oleylalei	<i>Ziziphus mucronata</i> subsp. <i>mucronata</i>
Ingoomba	<i>Cardamine trichocarpa</i>	Olgangboli	<i>Ficus sycomorus</i>
Intameijo	<i>Urtica massaica</i>	Olgumi	<i>Vangueria apiculata</i>
Interkes	<i>Acacia senegal</i>	Olgumi	<i>Vangueria infausta</i> subsp. <i>rotundata</i>
Iremito	<i>Salvadora persica</i>	Olgumi	<i>Vangueria madagascariensis</i>
Isek	<i>Cordia monoica</i>	Olgumi	<i>Vangueria volkensii</i>
Isinon	<i>Lippia kituiensis</i>	Oljumaro	<i>Cussonia spicata</i>
Lama	<i>Ximenia americana</i>	Olkiage	<i>Maerua decumbens</i>
Lama	<i>Ximenia caffra</i>	Olkifulwa	<i>Garcinia livingstonei</i>
Lasamarai	<i>Pistacia aethiopica</i>	Olkirenyi	<i>Mimusops kummel</i>
Leliat	<i>Mimusops bagshawei</i>	Olkiroriti	<i>Acacia nilotica</i>
Ilmorok	<i>Dovyalis abyssinica</i>	Olkolili	<i>Ficus stuhlmannii</i>
Lukurman-oonkayio	<i>Lantana trifolia</i>	Olkumi	<i>Canthium lactescens</i>
Masamburai	<i>Tamarindus indica</i>	Olkwai	<i>Balanites rotundifolia</i>
Msigwe	<i>Rhus vulgaris</i>	Olmadanyi	<i>Vangueria infausta</i> subsp. <i>rotundata</i>
Ndegegeya	<i>Coccinia grandis</i>	Olmadanyi	<i>Vangueria madagascariensis</i>
Ngayakuji	<i>Rubus apetalus</i>	Olmadanyi	<i>Vangueria volkensii</i>
Norkipiren	<i>Garcinia buchananii</i>	Olmagirigiriani	<i>Lantana trifolia</i>
Oladarrara	<i>Scolopia theifolia</i>	Olmang'uai	<i>Sclerocarya birrea</i> subsp. <i>caffra</i>
Olaimurunyai	<i>Dovyalis macrocalyx</i>	Olmangisai	<i>Sclerocarya birrea</i> subsp. <i>caffra</i>
Olairagai	<i>Syzygium guineense</i>	Olmangulai	<i>Ficus sycomorus</i>
Olama	<i>Ximenia americana</i>	Olmangulai	<i>Grewia villosa</i>
Olamai	<i>Ximenia americana</i>	Olmangulai-oloing'oni	<i>Grewia platyclada</i>
Olamposhi	<i>Coccinia grandis</i>	Olmankulai	<i>Grewia villosa</i>
Olamposhi	<i>Momordica rostrata</i>	Olmaringi	<i>Dovyalis abyssinica</i>
Olamuriaki	<i>Carissa edulis</i>	Olmarambrai	<i>Tamarindus indica</i>
Olvida	<i>Acacia senegal</i>	Olmarambrai	<i>Tamarindus indica</i>
Olboldoli	<i>Oncoba spinosa</i>	Olmarambrai	<i>Tamarindus indica</i>
Oldaboi	<i>Kigelia africana</i>	Olmarambrai	<i>Tamarindus indica</i>
Oldadai	<i>Abutilon mauritianum</i>	Olmarambrai	<i>Tamarindus indica</i>
Oldangudwa,	<i>Pistacia aethiopica</i>	Olmarambrai	<i>Tamarindus indica</i>
Oldarboi	<i>Kigelia africana</i>	Olmarambrai	<i>Tamarindus indica</i>

Olmatakuroi	<i>Parinari curatellifolia</i> subsp. <i>curatellifolia</i>
Olmatawayu	<i>Azanza garckeana</i>
Olmbasa	<i>Urtica massaica</i>
Olmesera	<i>Adansonia digitata</i>
Olmesigie	<i>Rhus natalensis</i>
Olmisigiyoioi	<i>Rhus vulgaris</i>
Olmisigiyoioi	<i>Rhus natalensis</i>
Olmorijoi	<i>Acokanthera schimperi</i>
Olmorogi	<i>Dovyalis abyssinica</i>
Olmorokwet	<i>Hyphaene compressa</i>
Olmorokwet	<i>Hyphaene coriacea</i>
Olmotoo	<i>Azanza garckeana</i>
Olmunishui	<i>Acacia senegal</i>
Olnanboli	<i>Ficus sycomorus</i>
Olng'oswa	<i>Balanites aegyptiaca</i>
Olngoswa	<i>Balanites rotundifolia</i>
Olnyal	<i>Urtica massaica</i>
Oloibarebare	<i>Dioscorea dumetorum</i>
Oloilale	<i>Ziziphus mucronata</i> subsp. <i>mucronata</i>
Oloilalei	<i>Ziziphus abyssinica</i>
Oloilalei	<i>Ziziphus mauritiana</i>
Oloilalei	<i>Ziziphus mucronata</i> subsp. <i>mucronata</i>
Oloiragai	<i>Syzygium cordatum</i>
Oloireroi	<i>Flacourtia indica</i>
Oloishimi	<i>Commiphora africana</i>
Oloisijoi	<i>Tamarindus indica</i>
Oloisuki	<i>Zanthoxylum chalybeum</i> var. <i>chalybeum</i>
Olokwai	<i>Balanites aegyptiaca</i>
Ololofot	<i>Cordia sinensis</i>
Ololgot	<i>Cordia sinensis</i>
Olongoronok	<i>Pistacia aethiopica</i>
Oloyesyayi	<i>Osyris lanceolata</i>
Olperetini	<i>Ziziphus mucronata</i> subsp. <i>mucronata</i>
Olpiroo	<i>Phoenix reclinata</i>
Olpuri	<i>Vitex mombassae</i>
Olremit	<i>Salvadora persica</i>
Olsagararami	<i>Piliostigma thonningii</i>
Olsanangururi	<i>Oncoba spinosa</i>
Olsegetit	<i>Myrsine africana</i>
Olsesyani	<i>Osyris lanceolata</i>
Olsinoni	<i>Lippia kituiensis</i>
Olsiteti	<i>Grewia bicolor</i>
Oltiaska	<i>Cordia monoica</i>
Oltukai	<i>Phoenix reclinata</i>
Olyamliyak	<i>Carissa bispinosa</i>
Olyamliyak	<i>Carissa edulis</i>
Olyamliyak	<i>Carissa tetramera</i>

Oremit	<i>Salvadora persica</i>
Ormisigiyoioi	<i>Rhus natalensis</i>
Ormisigiyoioi	<i>Rhus vulgaris</i>
Orng'aboli	<i>Ficus sycomorus</i>
Orng'alayoi-loo- sirkon	<i>Cucumis dipsaceus</i>
Ortarboi	<i>Kigelia africana</i>
Os sangararam	<i>Piliostigma thonningii</i>
Osaragi	<i>Balanites aegyptiaca</i>
Oseki	<i>Cordia monoica</i>
Osiminde	<i>Grewia bicolor</i>
Osinoni	<i>Lippia kituiensis</i>
Ositeti	<i>Grewia bicolor</i>
Ositeti	<i>Grewia mollis</i>
Porori aja	<i>Dactyloctenium aegyptium</i>
Sajagi	<i>Grewia similis</i>
Shaiti	<i>Acalypha fruticosa</i>
Umududu	<i>Thylachium africanum</i>

## Makonde

Mpegele	<i>Syzygium guineense</i>
Muongo	<i>Sclerocarya birrea</i> subsp. <i>caffra</i>
Navele	<i>Zanthoxylum chalybeum</i> var. <i>chalybeum</i>
Ndebela	<i>Ficus ingens</i>
Ndola	<i>Ficus ingens</i>
Nguluka	<i>Syzygium guineense</i>
Ntwanguo	<i>Bidens pilosa</i>
Undola	<i>Ficus sansibarica</i>

## Matengo

Chanima	<i>Habenaria walleri</i>
Chichala	<i>Habenaria epipactidea</i>
Chikande	<i>Satyrium neglectum</i> var. <i>neglectum</i>
Chimanyi	<i>Zanha africana</i>
Chitembe	<i>Piliostigma thonningii</i>
Chitimbe	<i>Piliostigma thonningii</i>
Fudwe	<i>Vitex doniana</i>
Hekela	<i>Uapaca kirkiana</i>
Ihugu	<i>Syzygium owariense</i>
Inyule	<i>Bidens pilosa</i>
Inzihuluumbi	<i>Eriosema burkei</i> var. <i>burkei</i>
Inzihuluumbi	<i>Eriosema ukingense</i>
Jitimbo	<i>Piliostigma thonningii</i>
Kanakalayi	<i>Myrsine africana</i>
Kibundu	<i>Landolphia parvifolia</i>
Kibungu	<i>Landolphia kirkii</i>
Kihibihibi	<i>Psorospermum febrifugum</i>

**Matengo (contd)**

Kihivahivi	<i>Psorospermum febrifugum</i>
Kikande chanima	<i>Habenaria epipactidea</i>
Kikande chichala	<i>Habenaria epipactidea</i>
Kikande jike	<i>Habenaria epipactidea</i>
Kikande maka	<i>Habenaria epipactidea</i>
Kikande mgosi	<i>Habenaria epipactidea</i>
Kikande-mangonji- matali	<i>Satyrium neglectum</i> var. <i>neglectum</i>
Kilangati	<i>Osyris lanceolata</i>
Kimbalapala	<i>Flueggea virosa</i>
Kisosoki	<i>Bidens pilosa</i>
Libonongo	<i>Celosia trigyna</i>
Libungu	<i>Landolphia kirkii</i>
Libungu	<i>Landolphia parvifolia</i>
Lidelele-mgunda	<i>Sesamum calycinum</i> var. <i>angustifolium</i>
Lidonga kikumba	<i>Strychnos spinosa</i> subsp. <i>lokua</i>
Lidongansanga	<i>Strychnos cocculoides</i>
Limbua	<i>Strychnos spinosa</i> subsp. <i>lokua</i>
Linambatata	<i>Ipomoea eriocarpa</i>
Lindiame	<i>Achyranthes aspera</i>
Lindikiti	<i>Vangueria infausta</i> subsp. <i>rotundata</i>
Lindikiti	<i>Vangueria</i> <i>madagascariensis</i>
Linyolo	<i>Drymaria cordata</i>
Lipekepeke	<i>Hibiscus ludwigii</i>
Litimatimba	<i>Isoglossa lactea</i>
Litongawai	<i>Strychnos cocculoides</i>
Lugulanguha	<i>Strychnos innocua</i>
Lukolowa	<i>Commelina imberbis</i>
Maboya	<i>Pygmaeothamnus zeyheri</i>
Madonga	<i>Strychnos innocua</i>
Madunguli	<i>Fadogia elskensii</i> var. <i>elskensii</i>
Mahusa	<i>Myrianthus holstii</i>
Mandikiti	<i>Multidentia crassa</i>
Mandopi	<i>Annona senegalensis</i>
Manduguli	<i>Fadogia ancylantha</i>
Mandungu	<i>Pygmaeothamnus zeyheri</i>
Mandunguli	<i>Fadogia ancylantha</i>
Mangurungundu	<i>Strychnos innocua</i>
Manjorosa	<i>Habenaria epipactidea</i>
Manyonyoli	<i>Bidens pilosa</i>
Mapendo	<i>Canthium lactescens</i>
Mapendo	<i>Vangueria infausta</i> subsp. <i>rotundata</i>
Masada	<i>Vangueria infausta</i> subsp. <i>rotundata</i>

Matungula	<i>Aframomum</i> <i>angustifolium</i>
Maya	<i>Treulia africana</i>
Mayenda	<i>Bridelia micrantha</i>
Mbilipili	<i>Flacourtia indica</i>
Mbonani	<i>Sesamum calycinum</i> var. <i>angustifolium</i>
Mbora	<i>Parinari curatellifolia</i> subsp. <i>curatellifolia</i>
Mbula	<i>Parinari curatellifolia</i> subsp. <i>curatellifolia</i>
Mbungu	<i>Saba comorensis</i>
Mbuni	<i>Parinari curatellifolia</i> subsp. <i>curatellifolia</i>
Mbura	<i>Parinari curatellifolia</i> subsp. <i>curatellifolia</i>
Mbuwa	<i>Syzygium owariense</i>
Mbwegele	<i>Sclerocarya birrea</i> subsp. <i>caffra</i>
Mchendeka	<i>Polygonum salicifolium</i>
Mdonga	<i>Strychnos cocculoides</i>
Mdonga	<i>Strychnos innocua</i>
Mdonga	<i>Strychnos spinosa</i> subsp. <i>lokua</i>
Mfudu	<i>Vitex doniana</i>
Mholoholo	<i>Garcinia buchananii</i>
Mhugu	<i>Syzygium cordatum</i>
Mhuku	<i>Uapaca nitida</i>
Mhungu	<i>Syzygium owariense</i>
Mhunsa	<i>Myrianthus arboreus</i>
Milola	<i>Ficus sur</i>
Mjaya	<i>Treulia africana</i>
Mkaranga mti	<i>Bombax rhodognaphalon</i> var. <i>tomentosum</i>
Mkenekene	<i>Rhus vulgaris</i>
Mkenikeni	<i>Rhus longipes</i>
Mkawasi	<i>Syzygium guineense</i>
Mkwachu	<i>Manilkara mochisia</i>
Mlenda-mgunda	<i>Sesamum calycinum</i> var. <i>angustifolium</i>
Mng'unga	<i>Flacourtia indica</i>
Mngulaka	<i>Diospyros kirkii</i>
Mnyenda	<i>Bridelia micrantha</i>
Mnyonyo	<i>Syzygium cordatum</i>
Mpeti	<i>Dioscorea cochlaeri-</i> <i>apiculata</i>
Mpeti	<i>Dioscorea dumetorum</i>
Mpingipingi	<i>Ximenia caffra</i>
Mpiripiri	<i>Ziziphus abyssinica</i>
Mpitimbi	<i>Vitex doniana</i>
Mptimbwi	<i>Vitex doniana</i>
Mpumba	<i>Rothmannia engleriana</i>

Msada	<i>Vitex mombassae</i>
Msendeka	<i>Polygonum salicifolium</i>
Msigisi	<i>Sorindeia madagascariensis</i>
Msuku	<i>Uapaca kirkiana</i>
Mtakalu	<i>Uapaca nitida</i>
Mtatanku	<i>Uapaca sansibarica</i>
Mtondoko	<i>Sclerocarya birrea</i> subsp. <i>caffra</i>
Mtongawali	<i>Strychnos cocculoides</i>
Mtopetope	<i>Annona senegalensis</i>
Muhusa	<i>Myrianthus holstii</i>
Muhuwahuwi	<i>Syzygium owariense</i>
Mungulungu	<i>Strychnos spinosa</i> subsp. <i>lokua</i>
Mvenge	<i>Syzygium cordatum</i>
Mwaya	<i>Treculia africana</i>
Myenda	<i>Bridelia micrantha</i>
Mzio	<i>Syzygium cordatum</i>
Ndelamwana	<i>Lannea schweinfurthii</i> var. <i>stuhlmannii</i>
Ndeweile	<i>Celosia trigyna</i>
Ndilia	<i>Commelina africana</i>
Nhungu	<i>Syzygium owariense</i>
Njerenje	<i>Berchemia discolor</i>
Nkolo	<i>Syzygium guineense</i>
Nsakala	<i>Diospyros kirkii</i>
Nsakala-wa- mwana	<i>Diospyros mespiliformis</i>
Nsoku	<i>Vitex mombassae</i>
Ntongotongo-lya- huluka	<i>Synaptolepis alternifolia</i>
Nungunungu	<i>Bidens pilosa</i>
Nzukumbi	<i>Synaptolepis alternifolia</i>
Orokutuno	<i>Syzygium cordatum</i>
Titimbo	<i>Piliostigma thonningii</i>
Ufuru	<i>Ziziphus abyssinica</i>
Ukwezu	<i>Tamarindus indica</i>
Utongonya	<i>Rubus apetalus</i>
Utongonya	<i>Rubus steudneri</i>
Vikoko ndumbila	<i>Fadogia cienkowskii</i> var. <i>cienkowskii</i>
Vikoko-ndumbila	<i>Fadogia homblei</i>
<b>Mbugwe</b>	
Barabonyoda	<i>Acacia nilotica</i>
Letakaiko	<i>Trichilia emetica</i>
Mochocho	<i>Cordia sinensis</i>
Modee	<i>Salvadora persica</i>
Modori	<i>Balanites aegyptiaca</i>
Molongo	<i>Zanthoxylum chalybeum</i> var. <i>chalybeum</i>

Monterere	<i>Delonix elata</i>
Monyangu	<i>Sclerocarya birrea</i> subsp. <i>caffra</i>
Mosinko	<i>Tamarindus indica</i>
Mosofwa	<i>Kigelia africana</i>
Motoasi-mwerema	<i>Cordia monoica</i>
Motoo	<i>Grewia villosa</i>
Musuna-nu-kuu	<i>Grewia bicolor</i>
Mutogo	<i>Azanza garckeana</i>
Muwiye	<i>Adansonia digitata</i>
Muzisunde	<i>Ormocarpum kirkii</i>
Mwangwa	<i>Hyphaene petersiana</i>
Mwerema	<i>Cordia monoica</i>
Mwiwiye	<i>Adansonia digitata</i>
Mwuwiye	<i>Adansonia digitata</i>
Olamai	<i>Ximenia americana</i>
Tarantu	<i>Ximenia</i>
Tundulu	<i>Commiphora africana</i>
<b>Meru</b>	
Ikuu	<i>Ficus vallis-choudae</i>
Imumua	<i>Vangueria madagascariensis</i>
Imumua	<i>Vangueria infausta</i> subsp. <i>rotundata</i>
Imumua	<i>Vangueria madagascariensis</i>
Mukobo	<i>Ensete ventricosum</i>
Omemuta	<i>Psydrax parviflora</i> subsp. <i>rubrocostata</i>
<b>Mwera</b>	
Chigombo	<i>Salvadora persica</i>
Mchemka	<i>Xylothea tettensis</i> var. <i>kirkii</i>
Mfuru	<i>Vitex ferruginea</i>
Mguena	<i>Lepisanthes senegalensis</i>
Mgulungulu	<i>Strychnos innocua</i>
Mguwauwa	<i>Piliostigma thonningii</i>
Mgwena	<i>Lepisanthes senegalensis</i>
Mjale	<i>Sterculia appendiculata</i>
Mkangaula	<i>Ricinodendron heudelotii</i> subsp. <i>africanum</i>
Mkongolo	<i>Carpodiptera africana</i>
Mkungue	<i>Dialium holtzii</i>
Mmera	<i>Balanites wilsoniana</i>
Mmilambutuka	<i>Carpodiptera africana</i>
Mng'akora	<i>Diospyros kirkii</i>
Mng'uma	<i>Bombax rhodognaphalon</i> var. <i>tomentosum</i>

**Mwera (contd)**

Mngeshelo	<i>Uapaca nitida</i>
Mpepeta	<i>Dialium holtzii</i>
Mpindimbi	<i>Vitex doniana</i>
Mpitimbi	<i>Vitex payos</i> var. <i>payos</i>
Mpungamaoka	<i>Deinbollia borbonica</i>
Mpupi	<i>Lannea schweinfurthii</i> var. <i>stuhlmannii</i>
Msofu	<i>Manilkara sulcata</i>
Mtandi	<i>Kigelia africana</i>
Mtaswa	<i>Flacourtia indica</i>
Mtawa	<i>Flacourtia indica</i>
Mtetemu	<i>Dracaena mannii</i>
Mtondo	<i>Cordyla africana</i>
Mtondole	<i>Englerophytum magalimontanum</i>
Mungamaoka	<i>Deinbollia borbonica</i>
Nandele	<i>Talinum portulacifolium</i>
Ng'ewe	<i>Oncoba spinosa</i>
Njaunabonde	<i>Xylothea tettensis</i> var. <i>kirkii</i>
Ntondo	<i>Cordyla africana</i>

**Ndendeule**

Fudwe	<i>Vitex doniana</i>
Kikande chanima	<i>Habenaria epipactidea</i>
Kikande chichala	<i>Habenaria epipactidea</i>
Kikande jike	<i>Habenaria epipactidea</i>
Kikande maka	<i>Habenaria epipactidea</i>
Kikande mgosi	<i>Habenaria epipactidea</i>
Kinywegerere	<i>Bidens pilosa</i>
Lidelele-mgunda	<i>Sesamum calycinum</i> var. <i>angustifolium</i>
Mahuko	<i>Uapaca kirkiana</i>
Makowozi	<i>Syzygium guineense</i>
Mambuha	<i>Strychnos innocua</i>
Mambuha	<i>Strychnos spinosa</i> subsp. <i>lokua</i>
Mandikiti	<i>Multidentia crassa</i>
Manjorosa	<i>Habenaria epipactidea</i>
Matunda	<i>Syzygium guineense</i>
Mavilo makubwa	<i>Vangueria infausta</i> subsp. <i>rotundata</i>
Mbingembinge	<i>Ximenia caffra</i>
Mbonani	<i>Sesamum calycinum</i> var. <i>angustifolium</i>
Mbora	<i>Parinari curatellifolia</i> subsp. <i>curatellifolia</i>
Mbuni	<i>Parinari curatellifolia</i> subsp. <i>curatellifolia</i>
Mbura	<i>Parinari curatellifolia</i> subsp. <i>curatellifolia</i>

Mchendeka	<i>Polygonum salicifolium</i>
Mfudu	<i>Vitex doniana</i>
Mgwilu	<i>Syzygium cordatum</i>
Mhuruhuru	<i>Syzygium guineense</i>
Mkohozi	<i>Syzygium guineense</i>
Mlenda-mgunda	<i>Sesamum calycinum</i> var. <i>angustifolium</i>
Mlombelombe	<i>Annona senegalensis</i>
Mlopelope	<i>Annona senegalensis</i>
Mpingipingi	<i>Ximenia caffra</i>
Mpitimbi	<i>Vitex doniana</i>
Msendeka	<i>Polygonum salicifolium</i>
Umbura	<i>Parinari curatellifolia</i> subsp. <i>curatellifolia</i>

**Ngindo**

Bwala bwaya	<i>Jacquemontia tamnifolia</i>
Kalijenge	<i>Psorospermum febrifugum</i>
Kiaga	<i>Dactyloctenium aegyptium</i>
Kibungo	<i>Landolphia kirkii</i>
Kigoje	<i>Ormocarpum kirkii</i>
Kikochongo	<i>Vigna pubescens</i>
Kiluma	<i>Acacia senegal</i>
King'ala	<i>Nymphaea lotus</i>
Kinjacha	<i>Acacia nilotica</i>
Kipalapala bonde	<i>Flueggea virosa</i>
Kiruma	<i>Acacia senegal</i>
Lukubi wa msitu	<i>Synaptolepis kirkii</i>
Mahanga	<i>Landolphia kirkii</i>
Mahekela	<i>Uapaca nitida</i>
Mbigili ng'ombe	<i>Tribulus terrestris</i>
Mfulu bonde	<i>Vitex doniana</i>
Mjuju	<i>Zanha africana</i>
Mkalakawa-bonde	<i>Diospyros kirkii</i>
Mkelienge	<i>Berchemia discolor</i>
Mkindu	<i>Phoenix reclinata</i>
Mkonjiganga	<i>Uvaria kirkii</i>
Mkunda hobi	<i>Antidesma venosum</i>
Mkundekunde	<i>Senna singueana</i>
Mkungu mwali	<i>Hexalobus monopetalus</i>
Mkunya	<i>Sterculia appendiculata</i>
Mkuyu	<i>Ficus sur</i>
Mkuyu	<i>Ficus sycomorus</i>
Mkwaju	<i>Tamarindus indica</i>
Mkwichimbe	<i>Manilkara discolor</i>
Mlimia mbopo	<i>Xylothea tettensis</i> var. <i>kirkii</i>
Mlungu	<i>Zanthoxylum chalybeum</i> var. <i>chalybeum</i>
Mmula	<i>Parinari curatellifolia</i> subsp. <i>curatellifolia</i>

Mndundu	<i>Cordyla africana</i>	Kikande mgosi	<i>Habenaria epipactidea</i>
Mng'ongo	<i>Sclerocarya birrea</i> subsp. <i>caffra</i>	Kikande-mangonji- matali	<i>Satyrium neglectum</i> var. <i>neglectum</i>
Mnuwili	<i>Balanites aegyptiaca</i>	Kisosoki	<i>Bidens pilosa</i>
Mnuwili-msitu	<i>Balanites wilsoniana</i>	Libonongo	<i>Celosia trigyna</i>
Mpengele	<i>Ziziphus abyssinica</i>	Lidelele-mgunda	<i>Sesamum calycinum</i> var. <i>angustifolium</i>
Mpengele-bonde	<i>Ziziphus mucronata</i> subsp. <i>mucronata</i>	Lungatungu	<i>Dolichos trilobus</i>
Mpilipili	<i>Sorindeia</i> <i>madagascariensis</i>	Madonga	<i>Strychnos spinosa</i> subsp. <i>lokua</i>
Mpingi	<i>Ximenia caffra</i>	Madonga choyo	<i>Strychnos innocua</i>
Mpoloto	<i>Ficus sansibarica</i>	Makohozi	<i>Syzygium guineense</i>
Mpondopondo	<i>Ficus sansibarica</i>	Makowozi	<i>Syzygium guineense</i>
Mpuga mahoka	<i>Deinbollia borbonica</i>	Manjorosa	<i>Habenaria epipactidea</i>
Mpunju	<i>Annona senegalensis</i>	Manyonyoli	<i>Bidens pilosa</i>
Mpwipwi	<i>Lannea schweinfurthii</i> var. <i>stuhlmannii</i>	Mapohora	<i>Tamarindus indica</i>
Msama	<i>Manilkara mochisia</i>	Masuku	<i>Uapaca kirkiana</i>
Msegese	<i>Piliostigma thonningii</i>	Matunda	<i>Syzygium guineense</i>
Msufi pori	<i>Bombax rhodognaphalon</i> var. <i>tomentosum</i>	Mavilo makubwa	<i>Vangueria infausta</i> subsp. <i>rotundata</i>
Mswaki	<i>Salvadora persica</i>	Maya	<i>Treculia africana</i>
Mtaba	<i>Flacourtia indica</i>	Mbingimbingi	<i>Ximenia caffra</i>
Mtandi	<i>Kigelia africana</i>	Mbonani	<i>Sesamum calycinum</i> var. <i>angustifolium</i>
Mtetakana	<i>Flueggea virosa</i>	Mbora	<i>Parinari curatellifolia</i> subsp. <i>curatellifolia</i>
Mtetema	<i>Dracaena mannii</i>	Mbula	<i>Parinari curatellifolia</i> subsp. <i>curatellifolia</i>
Mtiko	<i>Garcinia livingstonei</i>	Mbuni	<i>Parinari curatellifolia</i> subsp. <i>curatellifolia</i>
Mtobo	<i>Azanza garckeana</i>	Mbura	<i>Parinari curatellifolia</i> subsp. <i>curatellifolia</i>
Mtongatonga	<i>Strychnos cocculoides</i>	Mchendeka	<i>Polygonum salicifolium</i>
Mtumbwi	<i>Sterculia africana</i>	Mchenga	<i>Strychnos innocua</i>
Muhamba	<i>Manilkara sulcata</i>	Mfudu	<i>Vitex doniana</i>
Muhekela	<i>Uapaca nitida</i>	Mgwilu	<i>Syzygium cordatum</i>
Muhou	<i>Uvaria acuminata</i>	Mhuani	<i>Uvaria acuminata</i>
Muhukuliro	<i>Trichilia emetica</i>	Milola	<i>Ficus sur</i>
Muhuluhuti	<i>Syzygium guineense</i>	Mkohozi	<i>Syzygium guineense</i>
Mvumo	<i>Borassus aethiopicum</i>	Mlenda-mgunda	<i>Sesamum calycinum</i> var. <i>angustifolium</i>
Nduguyu	<i>Balanites aegyptiaca</i>	Mlombelombe	<i>Annona senegalensis</i>
Nnjunju	<i>Ricinodendron heudelotii</i> subsp. <i>africanum</i>	Mlopelope	<i>Annona senegalensis</i>
Utondo	<i>Tacca leontopetaloides</i>	Mpingipingi	<i>Ximenia caffra</i>
<b>Ngoni</b>		Mpitimbi	<i>Vitex doniana</i>
Bwaka	<i>Ipomoea eriocarpa</i>	Msendeka	<i>Polygonum salicifolium</i>
Chikumba	<i>Strychnos spinosa</i> subsp. <i>lokua</i>	Msuku	<i>Uapaca kirkiana</i>
Delele	<i>Sesamum angolense</i>	Mtalilo	<i>Ipomoea eriocarpa</i>
Fudwe	<i>Vitex doniana</i>	Mtengula	<i>Flueggea virosa</i>
Kikande	<i>Habenaria epipactidea</i>	Mteपुरa	<i>Senna singueana</i>
Kikande chanima	<i>Habenaria epipactidea</i>	Ndeweले	<i>Celosia trigyna</i>
Kikande chichala	<i>Habenaria epipactidea</i>		
Kikande jike	<i>Habenaria epipactidea</i>		
Kikande maka	<i>Habenaria epipactidea</i>		

**Ngoni (contd)**

Nungunungu	<i>Bidens pilosa</i>
Umbura	<i>Parinari curatellifolia</i> subsp. <i>curatellifolia</i>
<b>Nguu</b>	
Mawejameno	<i>Antidesma venosum</i>
Mdulu	<i>Englerophytum natalense</i>
Mfuno	<i>Sterculia appendiculata</i>
Mgagawe	<i>Ziziphus mucronata</i> subsp. <i>mucronata</i>
Mgobwe	<i>Vitex doniana</i>
Mgolimazi	<i>Trichilia emetica</i>
Mgude	<i>Sterculia appendiculata</i>
Mguoguo	<i>Pouteria alnifolia</i>
Mgwejameno	<i>Antidesma venosum</i>
Mhuga	<i>Dalbergia nitidula</i>
Mkolakole	<i>Bridelia micrantha</i>
Mkonde	<i>Myrianthus holstii</i>
Mkonga	<i>Balanites aegyptiaca</i>
Mkumbaku	<i>Carissa edulis</i>
Mkundi	<i>Parkia filicoidea</i>
Mkwazuperere	<i>Dialium holtzii</i>
Mng'ong'o	<i>Sclerocarya birrea</i> subsp. <i>caffra</i>
Mnyohoyo	<i>Synsepalum msolo</i>
Msambia	<i>Synsepalum brevipes</i>
Msambia	<i>Synsepalum msolo</i>
Msungunde	<i>Syzygium cordatum</i>
Mtondoro	<i>Riciodendron heudelotii</i> subsp. <i>africanum</i>
Muguguni	<i>Ziziphus mucronata</i> subsp. <i>mucronata</i>
Mvungwe	<i>Kigelia africana</i>
Mwale	<i>Bombax rhodognaphalon</i> var. <i>tomentosum</i>

**Nyakyusa**

Ingulungulu	<i>Multidentia crassa</i>
Kakuchu	<i>Uapaca sansibarica</i>
Kalemela	<i>Opilia amentacea</i>
Mabangala	<i>Ensete ventricosum</i>
Mbula	<i>Parinari curatellifolia</i> subsp. <i>curatellifolia</i>
Mbula	<i>Parinari excelsa</i>
Mkuhu	<i>Uapaca kirkiana</i>
Mkuju	<i>Ficus vallis-choudae</i>
Mnyamsimbi	<i>Uapaca nitida</i>
Mpegele	<i>Syzygium cordatum</i>
Mpombo	<i>Cussonia spicata</i>
Msaibi	<i>Oncoba spinosa</i>
Msanguti	<i>Trichilia emetica</i>

Msengele	<i>Syzygium guineense</i>
Mskisya	<i>Myrianthus holstii</i>
Msuisya	<i>Myrianthus holstii</i>
Mswiza	<i>Myrianthus holstii</i>
Msyavala	<i>Bombax rhodognaphalon</i> var. <i>tomentosum</i>
Mtulutulu	<i>Ficus sansibarica</i>
Muhu	<i>Syzygium guineense</i>
Mwisya	<i>Bridelia micrantha</i>
Ndabelobe	<i>Englerophytum natalense</i>
Ndobilobe	<i>Synsepalum brevipes</i>
Ndobilobe	<i>Synsepalum msolo</i>
Nguluka	<i>Syzygium sclerophyllum</i>
Nsangisa	<i>Uapaca nitida</i>
Nsangisa	<i>Uapaca sansibarica</i>
Umbula	<i>Parinari curatellifolia</i> subsp. <i>curatellifolia</i>
Unsongwa	<i>Garcinia buchananii</i>

**Nyamwezi**

Googo	<i>Cucumis dipsaceus</i>
Googo	<i>Cucumis figarei</i>
Ibungobugo	<i>Landolphia kilimanjarica</i>
Ibungobungo	<i>Landolphia parvifolia</i>
Ibungobungo	<i>Saba comorensis</i>
Ikumbusya	<i>Cyphostemma bullatum</i>
Ilamata	<i>Cyathula orthacantha</i>
Ilamata	<i>Pupalia lappacea</i> var. <i>velutina</i>
Ilando-ipolu	<i>Ipomoea cairica</i> var. <i>cairica</i>
Ileve	<i>Pistia stratiotes</i>
Itembwe	<i>Aloe nutii</i>
Itugu	<i>Dioscorea cochlaeri-</i> <i>apiculata</i>
Itugu	<i>Dioscorea dumetorum</i>
Itugu	<i>Dioscorea odoratissima</i>
Itugu	<i>Dioscorea quartiniana</i> var. <i>quartiniana</i>
Itugu	<i>Dioscorea schimperiana</i>
Ivungovungo	<i>Landolphia kilimanjarica</i>
Kaala	<i>Corchorus</i> <i>pseudocapsularis</i>
Kaala	<i>Corchorus tridens</i>
Kafinulambasa	<i>Dalbergia nitidula</i>
Kaganza ka mwana	<i>Aerva lanata</i>
Kagowole	<i>Ziziphus abyssinica</i>
Kagowole	<i>Ziziphus mauritiana</i>
Kagowole	<i>Ziziphus mucronata</i> subsp. <i>mucronata</i>
Kaguha	<i>Opilia amentacea</i>
Kakunguni	<i>Cleome hirta</i>



Kala	<i>Corchorus fascicularis</i>	Kilumbu	<i>Dioscorea schimperiana</i>
Kala	<i>Corchorus trilocularis</i>	Kitemba	<i>Bauhinia kаланtha</i>
Kalembo	<i>Ziziphus mucronata</i> subsp. <i>mucronata</i>	Lekalamata	<i>Bidens pilosa</i>
Kambolambola	<i>Fadogia cienkowskii</i> var. <i>cienkowskii</i>	Limbizu	<i>Pseudeminia comosa</i>
Kambolambola	<i>Fadogia homblei</i>	Lugemela	<i>Hygrophila auriculata</i>
Kambolambola	<i>Fadogia stenophylla</i>	Luvisu	<i>Opilia amentacea</i>
Kambolambola	<i>Fadogia tetraquerta</i> var. <i>grandiflora</i>	Lyungu-lya-nzoka	<i>Coccinia grandis</i>
Kambolambola	<i>Fadogia triphylla</i> var. <i>gorgii</i>	Lyungu-lya-nzoka	<i>Momordica rostrata</i>
Kambolambola	<i>Tapiphyllum burnettii</i>	M'milwa	<i>Strychnos cocculoides</i>
Kambolambola	<i>Tapiphyllum cinerascens</i> var. <i>cinerascens</i>	Maleve	<i>Nymphaea lotus</i>
Kambolambola	<i>Tapiphyllum discolor</i>	Maleve	<i>Nymphaea nouchali</i> var. <i>caerulea</i>
Kambolambola	<i>Tapiphyllum obtusifolium</i>	Mavolo-ga-ntumbili	<i>Leptactina benguelensis</i>
Kamfyonyo	<i>Fadogia triphylla</i> var. <i>gorgii</i>	Mavya-ga-ntumbili	<i>Leptactina benguelensis</i>
Kanala	<i>Garcinia livingstonei</i>	Mbetu	<i>Bussea massaiensis</i>
Kapande	<i>Eriosema burkei</i> var. <i>burkei</i>	Mbigili	<i>Oxygonum sinuatum</i>
Kapokole	<i>Amaranthus spinosus</i>	Mbigili	<i>Tribulus terrestris</i>
Kapondolampasa	<i>Dalbergia nitidula</i>	Mbula	<i>Parinari curatellifolia</i> subsp. <i>curatellifolia</i>
Kasasalya	<i>Cucumis aculeatus</i>	Mchekecheke	<i>Crotalaria natalitia</i> var. <i>natalitia</i>
Kasasalya	<i>Cucumis dipsaceus</i>	Mdati	<i>Grewia conocaroides</i>
Kasasalya	<i>Cucumis figarei</i>	Mdimwambuli	<i>Senna singueana</i>
Kasasalya	<i>Momordica foetida</i>	Mdubilo	<i>Acacia nilotica</i>
Kasesanhanga	<i>Asparagus africanus</i>	Mduguyu	<i>Balanites aegyptiaca</i>
Kasesanhanga	<i>Asparagus flagellaris</i>	Mdungwa	<i>Kigelia africana</i>
Kashamongo	<i>Syzygium guineense</i>	Mduvi	<i>Oncoba spinosa</i>
Kasolanhanga	<i>Asparagus africanus</i>	Mfila	<i>Annona senegalensis</i>
Kasolanhanga	<i>Asparagus flagellaris</i>	Mfila	<i>Annona stenophylla</i>
Kasya mongo	<i>Eugenia capensis</i> subsp. <i>nyassensis</i>	Mfulu	<i>Vitex doniana</i>
Kasyamongo	<i>Syzygium cordatum</i>	Mfulu	<i>Vitex ferruginea</i>
Kasyamongo	<i>Syzygium guineense</i>	Mfulu	<i>Vitex payos</i> var. <i>payos</i>
Kasyamongo	<i>Syzygium masukuense</i> subsp. <i>masukuense</i>	Mfulu-genge	<i>Vitex payos</i> var. <i>payos</i>
Kasyamongo	<i>Syzygium owariense</i>	Mfulu-legea	<i>Vitex madiensis</i> subsp. <i>milanjiensis</i>
Katahila	<i>Acacia senegal</i>	Mfulugenge	<i>Vitex ferruginea</i>
Katanga	<i>Cucumis dipsaceus</i>	Mfululegea	<i>Vitex doniana</i>
Katanga	<i>Cucumis figarei</i>	Mfumbeli	<i>Carissa bispinosa</i>
Katatula	<i>Acacia senegal</i>	Mfumbeli	<i>Carissa edulis</i>
Katita	<i>Acacia senegal</i>	Mfunfu	<i>Dalbergia nitidula</i>
Kilindila	<i>Aerva leucura</i>	Mfuzu	<i>Vitex doniana</i>
Kilumbu	<i>Dioscorea cochlaeri-</i> <i>apiculata</i>	Mfuzu	<i>Vitex fischeri</i>
Kilumbu	<i>Dioscorea dumetorum</i>	Mfyomfyo	<i>Leonotis nepetifolia</i>
Kilumbu	<i>Dioscorea odoratissima</i>	Mgelelya	<i>Vangueriopsis lanciflora</i>
Kilumbu	<i>Dioscorea quartiniana</i> var. <i>quartiniana</i>	Mginya	<i>Feretia apodanthera</i> subsp. <i>tanzaniensis</i>
		Mgogondi	<i>Phyllanthus engleri</i>
		Mgubalu	<i>Canthium burttii</i>
		Mgugunu	<i>Ziziphus abyssinica</i>
		Mgugunu	<i>Ziziphus mauritiana</i>
		Mgugunwa	<i>Ziziphus mucronata</i> subsp. <i>mucronata</i>

**Nyamwezi (contd)**

Mgukubi	<i>Vitex mombassae</i>	Mlenda-gwa-wima	<i>Sesamum calycinum</i> var. <i>angustifolium</i>
Mgumbugumbu	<i>Lannea rivae</i>	Mliwanfwengi	<i>Oldfieldia dactylophylla</i>
Mgumo	<i>Ficus stuhlmannii</i>	Mloziloz	<i>Rothmannia engleriana</i>
Mgunga	<i>Acacia nilotica</i>	Mlumba	<i>Ficus glumosa</i> var. <i>glaberrina</i>
Mguwa	<i>Sterculia quinqueloba</i>	Mlumba	<i>Ficus ingens</i>
Mgwatu	<i>Acacia senegal</i>	Mlungulungu	<i>Zanthoxylum chalybeum</i> var. <i>chalybeum</i>
Mhama	<i>Borassus aethiopicum</i>	Mmenge	<i>Manilkara obovata</i>
Mhandagi	<i>Strychnos pungens</i>	Mnembu	<i>Cordia sinensis</i>
Mhozya	<i>Sterculia africana</i>	Mnembwa	<i>Ximenia americana</i>
Mjuguyu	<i>Balanites aegyptiaca</i>	Mnembwa	<i>Ximenia caffra</i>
Mkalanga	<i>Oldfieldia dactylophylla</i>	Mnembwa mudo	<i>Ximenia americana</i>
Mkalya	<i>Zanha africana</i>	Mnemvi	<i>Anisophyllea boehmii</i>
Mkamilila	<i>Raphia farinifera</i>	Mnemvi	<i>Anisophyllea pomifera</i>
Mkamu	<i>Canthium burtii</i>	Mng'ongo	<i>Sclerocarya birrea</i> subsp. <i>caffra</i>
Mkima-dimbya	<i>Acalypha fruticosa</i>	Mnumbulu	<i>Diospyros kirkii</i>
Mkinde	<i>Diospyros mespiliformis</i>	Mnyemvi	<i>Anisophyllea boehmii</i>
Mkoma	<i>Grewia bicolor</i>	Mnyemvi	<i>Anisophyllea pomifera</i>
Mkoma	<i>Grewia fallax</i>	Mnyumbu	<i>Lannea schweinfurthii</i> var. <i>stuhlmannii</i>
Mkoma	<i>Grewia hexamita</i>	Mpangamwaka	<i>Cissus cornifolia</i>
Mkoma	<i>Grewia mollis</i>	Mpela	<i>Adansonia digitata</i>
Mkoma-mkulu	<i>Grewia fallax</i>	Mpelemense	<i>Grewia platyclada</i>
Mkomabubu	<i>Grewia similis</i>	Mpenzwa	<i>Pygmaeothamnus zeyheri</i>
Mkomalendi	<i>Grewia bicolor</i>	Mpugambu	<i>Lantana camara</i>
Mkome	<i>Strychnos pungens</i>	Mpugambu	<i>Lantana trifolia</i>
Mkondokondo	<i>Rothmannia engleriana</i>	Mpugambu	<i>Lantana ukambensis</i>
Mkondwampuli	<i>Ormocarpum kirkii</i>	Mpugambu	<i>Lippia kituiensis</i>
Mkondwampuli	<i>Ormocarpum</i> <i>trichocarpum</i>	Mpuguswa	<i>Flacourtia indica</i>
Mkonola	<i>Annona senegalensis</i>	Mpulu	<i>Vitex doniana</i>
Mkonze	<i>Manilkara mochisia</i>	Mpulu	<i>Vitex fischeri</i>
Mkukumba	<i>Multidentia crassa</i>	Mpundu	<i>Strychnos innocua</i>
Mkulwa	<i>Strychnos innocua</i>	Mpunguswa	<i>Flacourtia indica</i>
Mkungulanga	<i>Sterculia quinqueloba</i>	Mpuru	<i>Vitex doniana</i>
Mkuni	<i>Berchemia discolor</i>	Msada	<i>Vangueria infausta</i> subsp. <i>rotundata</i>
Mkusu	<i>Uapaca kirkiana</i>	Msada	<i>Vangueria</i> <i>madagascariensis</i>
Mkuwa	<i>Hexalobus monopetalus</i>	Msagasi	<i>Commiphora africana</i>
Mkuyu	<i>Ficus glumosa</i> var. <i>glaberrina</i>	Msalasi	<i>Friesodielsia obovata</i>
Mkuyu	<i>Ficus sur</i>	Msalunhunda	<i>Psorospermum febrifugum</i>
Mkuyu	<i>Ficus sycomorus</i>	Msambalawe	<i>Syzygium masukuense</i> subsp. <i>masukuense</i>
Mlala	<i>Hyphaene compressa</i>	Msambila	<i>Senna singueana</i>
Mlala	<i>Phoenix reclinata</i>	Msambisambi	<i>Senna singueana</i>
Mlele	<i>Delonix elata</i>	Msanghwa	<i>Kigelia africana</i>
Mlembu	<i>Cordia monoica</i>	Msekela	<i>Antidesma venosum</i>
Mlembu	<i>Cordia sinensis</i>	Mselya	<i>Lannea fulva</i>
Mlenda-gwa-kala	<i>Corchorus fascicularis</i>	Msinde	<i>Diospyros mespiliformis</i>
Mlenda-gwa-kala	<i>Corchorus tridens</i>		
Mlenda-gwa-kala	<i>Corchorus trilocularis</i>		
Mlenda-gwa-mbata	<i>Ceratotheca sesamoides</i>		
Mlenda-gwa-tyege	<i>Ceratotheca sesamoides</i>		
Mlenda-gwa-wima	<i>Sesamum angolense</i>		

Msingila	<i>Flacourtia indica</i>
Msisi	<i>Tamarindus indica</i>
Msongu	<i>Acokanthera schimperi</i>
Msongwa-nsimba	<i>Canthium burttii</i>
Msungwe	<i>Vitex mombassae</i>
Msungwi	<i>Flacourtia indica</i>
Msungwi	<i>Vitex mombassae</i>
Mtalali	<i>Vitex mombassae</i>
Mtanda-mwaka	<i>Cissus quarrei</i>
Mtandamwaka	<i>Cissus cornifolia</i>
Mtindambogo	<i>Piliostigma thonningii</i>
Mtinje	<i>Lannea humilis</i>
Mtinje	<i>Lannea rivae</i>
Mtonga	<i>Strychnos cocculoides</i>
Mtonto	<i>Commiphora</i> <i>mossambicensis</i>
Mtopetope	<i>Annona senegalensis</i>
Mtopetope	<i>Annona stenophylla</i>
Mtwoo	<i>Azanza garckeana</i>
Mtumbu	<i>Syzygium owariense</i>
Mtundwa	<i>Ximenia americana</i>
Mtundwa	<i>Ximenia caffra</i>
Mubula	<i>Parinari curatellifolia</i> subsp. <i>curatellifolia</i>
Muhama	<i>Borassus aethiopicum</i>
Muhozya	<i>Sterculia africana</i>
Muhozya	<i>Sterculia mhosya</i>
Mukamilila	<i>Raphia farinifera</i>
Mukukumba	<i>Multidentia crassa</i>
Mulala	<i>Hyphaene compressa</i>
Mulala	<i>Hyphaene coriacea</i>
Mulala	<i>Hyphaene petersiana</i>
Muliwanfwengi	<i>Oldfieldia dactylophylla</i>
Mumenge	<i>Manilkara obovata</i>
Mumilwa	<i>Strychnos cocculoides</i>
Mumpundu	<i>Strychnos innocua</i>
Mumundu	<i>Strychnos innocua</i>
Mungelelya	<i>Vangueriopsis lanciflora</i>
Mutwinya	<i>Rothmannia engleriana</i>
Muvambang'oma	<i>Balanites aegyptiaca</i>
Muwula	<i>Parinari curatellifolia</i> subsp. <i>curatellifolia</i>
Muwungowungo	<i>Landolphia parvifolia</i>
Muyogoyogo	<i>Multidentia crassa</i>
Mvila	<i>Ficus ingens</i>
Mvungwa	<i>Kigelia africana</i>
Mwage	<i>Strychnos spinosa</i> subsp. <i>lokua</i>
Mwasya	<i>Syzygium guineense</i>
Mwiegea	<i>Kigelia africana</i>
Myuguyu	<i>Balanites aegyptiaca</i>
Mzambalawe	<i>Syzygium guineense</i>

Nsanda	<i>Bidens pilosa</i>
Nsapa	<i>Dactyloctenium aegyptium</i>
Nsapa	<i>Dactyloctenium giganteum</i>
Nsili zya mwipolu	<i>Vigna pubescens</i>
Nsokolo	<i>Oxygonum sinuatum</i>
Ntungu	<i>Amaranthus spinosus</i>
Numbu	<i>Dioscorea cochlaeri-</i> <i>apiculata</i>
Nzegezege	<i>Crotalaria natalitia</i> var. <i>natalitia</i>
Shyokolo	<i>Oxygonum sinuatum</i>
Tuuti	<i>Ormocarpum kirkii</i>

### Nyasa

Bwaka	<i>Ipomoea eriocarpa</i>
Chitelelu	<i>Ceratotheca sesamoides</i>
Chitimbe	<i>Piliostigma thonningii</i>
Kajambalame	<i>Deinbollia borbonica</i>
Kunjengunjengu	<i>Friesodielsia obovata</i>
Lungwe	<i>Dalbergia nitidula</i>
Mabuyu	<i>Adansonia digitata</i>
Malembe	<i>Adansonia digitata</i>
Masuku	<i>Uapaca kirkiana</i>
Maungu	<i>Landolphia kirkii</i>
Maungu	<i>Landolphia parvifolia</i>
Mawungu	<i>Saba comorensis</i>
Mbula	<i>Parinari curatellifolia</i> subsp. <i>curatellifolia</i>
Mkungumwale	<i>Hexalobus monopetalus</i>
Mtalilo	<i>Ipomoea eriocarpa</i>
Mtoo	<i>Azanza garckeana</i>
Vikoko ndumbila	<i>Fadogia cienkowskii</i> var. <i>cienkowskii</i>
Vikoko ndumbila	<i>Fadogia homblei</i>

### Nyaturu

Irwana	<i>Vitex mombassae</i>
Mdumwa-kiguu	<i>Cordia sinensis</i>
Mfama	<i>Borassus aethiopicum</i>
Mfetru	<i>Bussea massaiensis</i>
Mfughuyu	<i>Balanites aegyptiaca</i>
Mjaghamba	<i>Pappea capensis</i>
Mkindu	<i>Phoenix reclinata</i>
Mkulungundu	<i>Strychnos innocua</i>
Mkulungundu	<i>Strychnos spinosa</i> subsp. <i>lokua</i>
Mkwaju	<i>Tamarindus indica</i>
Mobibi	<i>Dalbergia nitidula</i>
Mofere	<i>Psorospermum febrifugum</i>
Mondoyanjoghu	<i>Syzygium cordatum</i>
Mongoongo	<i>Cordia monoica</i>

**Nyaturu (contd)**

Mpangwe	<i>Bidens pilosa</i>
Msasati	<i>Vitex mombassae</i>
Mtaai	<i>Vitex mombassae</i>
Mubuntuwa	<i>Phyllanthus engleri</i>
Mufuu	<i>Vitex ferruginea</i>
Mufuu	<i>Vitex payos</i> var. <i>payos</i>
Muhinko	<i>Acacia nilotica</i>
Muhuvi	<i>Sclerocarya birrea</i> subsp. <i>caffra</i>
Mujuhu	<i>Commiphora africana</i>
Mujulu	<i>Zanha africana</i>
Mukhantokhanto	<i>Grewia similis</i>
Mukhubo	<i>Acacia senegal</i>
Mukuyu	<i>Ficus sycomorus</i>
Mukwaju	<i>Tamarindus indica</i>
Mulade	<i>Vangueria</i> <i>madagascariensis</i>
Mulade- mujenghuma	<i>Vangueria infausta</i> subsp. <i>rotundata</i>
Mulade- mujenghuma	<i>Vangueria</i> <i>madagascariensis</i>
Mulumba	<i>Ficus stuhlmannii</i>
Mumpembe	<i>Grewia villosa</i>
Mungungu	<i>Kigelia africana</i>
Munianyonyi	<i>Ficus stuhlmannii</i>
Munyingwa- mpembe	<i>Osyris lanceolata</i>
Munyongwa- mpembe	<i>Syzygium cordatum</i>
Mupumba	<i>Rothmannia engleriana</i>
Musagha	<i>Lannea schweinfurthii</i> var. <i>stuhlmannii</i>
Musasarti	<i>Vitex mombassae</i>
Musasu	<i>Piliostigma thonningii</i>
Musinda	<i>Ormocarpum kirkii</i>
Musingisa	<i>Flacourtia indica</i>
Musuna	<i>Grewia mollis</i>
Musuna-nu-kuu	<i>Grewia bicolor</i>
Musundu	<i>Opilia amentacea</i>
Mutonto	<i>Commiphora</i> <i>mossambicensis</i>
Mutrogho	<i>Azanza garckeana</i>
Mutundwe	<i>Ximenia caffra</i>
Mutungulu	<i>Senna singueana</i>
Muvabaahi	<i>Osyris lanceolata</i>

**Nyiha**

Ibula	<i>Parinari curatellifolia</i> subsp. <i>curatellifolia</i>
Igalilonji	<i>Embelia schimperi</i>

Ikusu	<i>Parinari curatellifolia</i> subsp. <i>curatellifolia</i>
Liwisa	<i>Myrianthus arboreus</i>
Liwisa	<i>Myrianthus holstii</i>
Maula	<i>Parinari curatellifolia</i> subsp. <i>curatellifolia</i>
Mkunungu	<i>Vitex doniana</i>
Mkusu-mpareni	<i>Uapaca sansibarica</i>
Msangu	<i>Oncoba spinosa</i>
Munyeraminu	<i>Bridelia micrantha</i>
Munyeraminzi	<i>Bridelia micrantha</i>
Sengamino	<i>Bridelia micrantha</i>

**Nyiramba**

Kishasae	<i>Cucumis aculeatus</i>
Kishasae	<i>Cucumis figarei</i>
Mkungu-lusuli	<i>Vangueria infausta</i> subsp. <i>rotundata</i>
Mkungu-lusili	<i>Vangueria</i> <i>madagascariensis</i>
Mkungu-lusuli	<i>Vangueria</i> <i>madagascariensis</i>
Mpama	<i>Borassus aethiopum</i>
Msasati	<i>Vitex mombassae</i>
Msasi	<i>Vitex mombassae</i>
Mtoghho	<i>Azanza garckeana</i>
Mtundwi	<i>Ximenia caffra</i>
Mubilu	<i>Vangueria</i> <i>madagascariensis</i>
Mudugunga	<i>Balanites aegyptiaca</i>
Mukuma	<i>Grewia similis</i>
Mulunzi	<i>Kigelia africana</i>
Mupulu	<i>Vitex ferruginea</i>

**Pare**

Buruja	<i>Amaranthus spinosus</i>
Ikobito	<i>Asystasia gangetica</i>
Ikobito	<i>Asystasia mysorensis</i>
Ikongo	<i>Tribulus terrestris</i>
Ikongwe	<i>Commelina benghalensis</i>
Ikongwe	<i>Mammea usambarensis</i>
Ikonkho	<i>Tribulus terrestris</i>
Ikungulanyoka	<i>Momordica foetida</i>
Isae	<i>Dracaena mannii</i>
Iteru	<i>Balanites aegyptiaca</i>
Ivasha	<i>Urtica massaica</i>
Ivava	<i>Urtica massaica</i>
Kisambare	<i>Lobelia fervens</i> subsp. <i>fervens</i>
Kisegeju	<i>Cardamine trichocarpa</i>
Kishangalaji	<i>Thylachium africanum</i>

Kizulu	<i>Osyris lanceolata</i>
Kokonida	<i>Lycium europaeum</i>
Kweche	<i>Hyphaene compressa</i>
Kweche	<i>Hyphaene coriacea</i>
Mbiro	<i>Vangueria</i> <i>madagascariensis</i>
Mbwete	<i>Celosia trigyna</i>
Mchofwe	<i>Carissa edulis</i>
Mdaria	<i>Vangueria apiculata</i>
Mdaria	<i>Vangueria infausta</i> subsp. <i>rotundata</i>
Mdaria	<i>Vangueria</i> <i>madagascariensis</i>
Mdaria	<i>Vangueria volkensii</i>
Mdu	<i>Synsepalum brevipes</i>
Mdu	<i>Synsepalum msolo</i>
Mfune	<i>Sterculia appendiculata</i>
Mjongolo	<i>Diospyros mespiliformis</i>
Mkayo	<i>Salvadora persica</i>
Mkisingo	<i>Balanites aegyptiaca</i>
Mkongga	<i>Balanites aegyptiaca</i>
Mkungulungu	<i>Lepisanthes senegalensis</i>
Mkunguma	<i>Sorindeia</i> <i>madagascariensis</i>
Mkuu	<i>Ficus sur</i>
Mlama	<i>Syzygium cordatum</i>
Mlama	<i>Syzygium guineense</i>
Mlenda	<i>Corchorus tridens</i>
Mlenda	<i>Corchorus trilocularis</i>
Mnangu	<i>Grewia similis</i>
Mndujwi	<i>Solanum schumannianum</i>
Mng'ong'o	<i>Sclerocarya birrea</i> subsp. <i>caffra</i>
Mnoja	<i>Sterculia rhynchocarpa</i>
Mpololo	<i>Cordia sinensis</i>
Mpwizopwizo	<i>Pyrostria bibracteata</i>
Mramba	<i>Adansonia digitata</i>
Msambia	<i>Synsepalum brevipes</i>
Msambia	<i>Synsepalum msolo</i>
Msele	<i>Zanthoxylum chalybeum</i> var. <i>chalybeum</i>
Mshasha	<i>Cordia monoica</i>
Mshegheshe	<i>Strychnos spinosa</i> subsp. <i>lokua</i>
Mshunga-mboga	<i>Sonchus luxurians</i>
Msidati	<i>Senna singueana</i>
Msighe	<i>Lannea schweinfurthii</i> var. <i>stuhlmannii</i>
Msindali	<i>Senna singueana</i>
Mtakataka	<i>Azanza garckeana</i>
Mtelia	<i>Rubus apetalus</i>
Muganda	<i>Parinari excelsa</i>

Muikongwe	<i>Mammea usambarensis</i>
Mwira	<i>Bridelia micrantha</i>
Mzamei	<i>Acacia nilotica</i>
Mzulu	<i>Osyris lanceolata</i>
Ndusi	<i>Rubia cordifolia</i>
Ng'holo ya msawo	<i>Hydnora abyssinica</i>
Njujui	<i>Solanum anguivii</i>
Totwe	<i>Landolphia kilimanjarica</i>
Totwe	<i>Landolphia kirkii</i>

## Rangi

Chandu	<i>Lannea fulva</i>
Gigambu	<i>Lantana camara</i>
Ibuibui	<i>Sterculia mhosya</i>
Ibuibui	<i>Sterculia quinqueloba</i>
Ibwebwe	<i>Commiphora africana</i>
Ichoro	<i>Delonix elata</i>
Idaki	<i>Commiphora africana</i>
Ihata	<i>Achyranthes aspera</i>
Ijovya	<i>Commiphora africana</i>
Ikechu	<i>Feretia apodanthera</i> subsp. <i>tanzaniensis</i>
Ikori	<i>Aloe nutii</i>
Ikulula	<i>Achyranthes aspera</i>
Ikuri	<i>Aloe nutii</i>
Ikwandaja	<i>Commiphora</i> <i>mossambicensis</i>
Inyankumbi	<i>Trichodesma zeylanicum</i>
Iperemesu	<i>Grewia platyclada</i>
Iponde	<i>Commiphora africana</i>
Irenda	<i>Sesamum angolense</i>
Isuha	<i>Kigelia africana</i>
Iyarampimbi	<i>Pappea capensis</i>
Kibabibabi	<i>Psorospermum febrifugum</i>
Kibwala	<i>Osyris lanceolata</i>
Kihungawisu	<i>Acacia nilotica</i>
Kihungawiswa	<i>Acacia nilotica</i>
Kijame	<i>Acacia nilotica</i>
Kimbwala	<i>Osyris lanceolata</i>
Kivambang'ombe	<i>Balanites aegyptiaca</i>
Kiviruviru	<i>Canthium burttii</i>
Kiviruviru	<i>Canthium lactescens</i>
Lukwaju	<i>Ziziphus abyssinica</i>
Lukwaju	<i>Ziziphus mucronata</i> subsp. <i>mucronata</i>
Mafaa	<i>Parinari curatellifolia</i> subsp. <i>curatellifolia</i>
Matua	<i>Azanza garckeana</i>
Matwa	<i>Azanza garckeana</i>
Mbajiru	<i>Syzygium guineense</i>
Mbarahasha	<i>Achyranthes aspera</i>

**Rangi (contd)**

Mbula	<i>Parinari curatellifolia</i> subsp. <i>curatellifolia</i>	Msakawa	<i>Lannea schweinfurthii</i> var. <i>stuhlmannii</i>
Mbura	<i>Parinari curatellifolia</i> subsp. <i>curatellifolia</i>	Msambalawe	<i>Tapiphyllum obtusifolium</i>
Mchagai	<i>Azanza garckeana</i>	Msambu	<i>Ficus sycomorus</i>
Mchai	<i>Azanza garckeana</i>	Msambu	<i>Ficus vallis-choudae</i>
Mchumbau	<i>Vitex mombassae</i>	Msasa	<i>Cordia monoica</i>
Mdori	<i>Balanites aegyptiaca</i>	Msasha	<i>Cordia monoica</i>
Mduwau	<i>Grewia bicolor</i>	Msembere	<i>Azanza garckeana</i>
Mduwau	<i>Grewia hexamita</i>	Msisiviri	<i>Delonix elata</i>
Mduwau	<i>Grewia mollis</i>	Msongolamambo	<i>Ormocarpum kirkii</i>
Mgunga	<i>Acacia nilotica</i>	Msongolamambo	<i>Ormocarpum</i> <i>trichocarpum</i>
Mgurufa	<i>Ziziphus mucronata</i> subsp. <i>mucronata</i>	Msuha	<i>Kigelia africana</i>
Mhungawiswa	<i>Acacia nilotica</i>	Msuharu	<i>Syzygium cordatum</i>
Mjengu	<i>Ximenia caffra</i>	Msumbaive	<i>Strychnos spinosa</i> subsp. <i>lokua</i>
Mjijiva	<i>Balanites aegyptiaca</i>	Msusulavana	<i>Sterculia mhosya</i>
Mjijiva	<i>Ziziphus mucronata</i> subsp. <i>mucronata</i>	Mtarima	<i>Lannea fulva</i>
Mjijiwa	<i>Balanites aegyptiaca</i>	Mterera	<i>Delonix elata</i>
Mjingu	<i>Ximenia americana</i>	Mtowo	<i>Azanza garckeana</i>
Mjingu	<i>Ximenia caffra</i>	Mtula	<i>Azanza garckeana</i>
Mjumbau	<i>Vitex mombassae</i>	Mtula-ikufa	<i>Pappea capensis</i>
Mkabaku	<i>Carissa edulis</i>	Mtundukarya	<i>Flacourtia indica</i>
Mkamati	<i>Syzygium guineense</i>	Mtungulu-mwiru	<i>Senna singuana</i>
Mkambaiwe	<i>Strychnos spinosa</i> subsp. <i>lokua</i>	Mtwa	<i>Azanza garckeana</i>
Mkomati	<i>Syzygium guineense</i>	Muangu	<i>Sclerocarya birrea</i> subsp. <i>caffra</i>
Mkunungu	<i>Zanthoxylum chalybeum</i> var. <i>chalybeum</i>	Muchagai	<i>Azanza garckeana</i>
Mkuyu	<i>Ficus glumosa</i> var. <i>glaberrina</i>	Muchumbau	<i>Vitex mombassae</i>
Mkuyu	<i>Ficus sycomorus</i>	Muchunganyama	<i>Lannea fulva</i>
Mkuyu	<i>Ficus vallis-choudae</i>	Mudualo	<i>Antidesma venosum</i>
Mkwaju	<i>Tamarindus indica</i>	Mugalapo	<i>Piliostigma thonningii</i>
Mlungu	<i>Zanthoxylum chalybeum</i> var. <i>chalybeum</i>	Muhunga	<i>Acacia nilotica</i>
Mnangu	<i>Grewia similis</i>	Muhunga	<i>Acacia senegal</i>
Mnembu	<i>Cordia sinensis</i>	Muizi	<i>Rhus natalensis</i>
Mngalapo	<i>Piliostigma thonningii</i>	Muizi	<i>Rhus vulgaris</i>
Mngurufa	<i>Ziziphus mucronata</i> subsp. <i>mucronata</i>	Mukomu	<i>Strychnos innocua</i>
Mnjulu	<i>Zanha africana</i>	Mukomu	<i>Strychnos spinosa</i> subsp. <i>lokua</i>
Mnuhu	<i>Zanha africana</i>	Mukundi	<i>Rhus longipes</i>
Mpelemesu	<i>Grewia platyclada</i>	Mukuyu	<i>Ficus sycomorus</i>
Mpome	<i>Commiphora africana</i>	Mulungu	<i>Zanthoxylum chalybeum</i> var. <i>chalybeum</i>
Mpuru	<i>Vitex doniana</i>	Mumora	<i>Parinari curatellifolia</i> subsp. <i>curatellifolia</i>
Mpuru	<i>Vitex payos</i> var. <i>payos</i>	Mumu	<i>Ficus glumosa</i> var. <i>glaberrina</i>
Msaambu	<i>Ficus vallis-choudae</i>	Mumu	<i>Ficus ingens</i>
Msakasaka	<i>Rhus natalensis</i>	Mumu	<i>Ficus vallis-choudae</i>
Msakasaka	<i>Rhus vulgaris</i>	Mumura	<i>Parinari curatellifolia</i> subsp. <i>curatellifolia</i>
		Mungalinya	<i>Syzygium cordatum</i>

Munni	<i>Ormocarpum kirkii</i>
Murenda	<i>Triumfetta cordifolia</i> var. <i>tomentosa</i>
Muriru	<i>Vangueria infausta</i> subsp. <i>rotundata</i>
Musada	<i>Vangueria infausta</i> subsp. <i>rotundata</i>
Musada	<i>Vangueria</i> <i>madagascariensis</i>
Musede	<i>Multidentia crassa</i>
Musuha	<i>Kigelia africana</i>
Musuharu	<i>Syzygium cordatum</i>
Musuharu	<i>Syzygium guineense</i>
Musuva	<i>Kigelia africana</i>
Muswaru	<i>Syzygium guineense</i>
Mutaritari	<i>Hoslundia opposita</i>
Mutende	<i>Abutilon mauritianum</i>
Mutungu	<i>Thylachium africanum</i>
Mutungulu	<i>Senna singueana</i>
Mutwa	<i>Azanza garckeana</i>
Muuwi	<i>Ormocarpum</i> <i>trichocarpum</i>
Muviru	<i>Vangueria infausta</i> subsp. <i>rotundata</i>
Muviru	<i>Vangueria</i> <i>madagascariensis</i>
Mwave	<i>Ziziphus mucronata</i> subsp. <i>mucronata</i>
Mwiizi	<i>Rhus vulgaris</i>
Mwiwi	<i>Adansonia digitata</i>
Mwuwi	<i>Ormocarpum</i> <i>trichocarpum</i>
Nyijiva	<i>Balanites aegyptiaca</i>
Pumbuji	<i>Bidens pilosa</i>
Uwi	<i>Ormocarpum kirkii</i>

## Rufiji

Mfuma	<i>Bombax rhodognaphalon</i> var. <i>tomentosum</i>
Mjembajemba	<i>Antidesma venosum</i>
Mkonge	<i>Pyrostria bibracteata</i>
Mkuku	<i>Ficus sur</i>
Mnanga	<i>Carpodiptera africana</i>
Msada	<i>Vangueria infausta</i> subsp. <i>rotundata</i>
Msarabo	<i>Syzygium guineense</i>
Mshiri	<i>Grewia goetzeana</i>
Msisingololo	<i>Trilepisium</i> <i>madagascariense</i>
Mtandi	<i>Kigelia africana</i>
Mtawa	<i>Flacourtia indica</i>
Mtopetope	<i>Annona senegalensis</i>

Ngombe	<i>Saba comorensis</i>
Nkobelija	<i>Tapiphyllum burnettii</i>
Nkobelija	<i>Tapiphyllum cinerascens</i> var. <i>cinerascens</i>

## Sambaa

Banko	<i>Maranthes goetzeniana</i>
Bwache	<i>Amaranthus spinosus</i>
Chunga kubwa	<i>Emilia coccinea</i>
Chunga kuu	<i>Emilia coccinea</i>
Danga-danga	<i>Portulaca oleracea</i>
Fiefie	<i>Abutilon angulatum</i>
Fiefie	<i>Abutilon mauritianum</i>
Funga-mizinga	<i>Celosia argentea</i>
Funga-msanga	<i>Celosia trigyna</i>
Fuzu	<i>Maranthes goetzeniana</i>
Fyefye	<i>Abutilon angulatum</i>
Fyefye	<i>Abutilon mauritianum</i>
Fyofyokoe	<i>Triumfetta cordifolia</i> var. <i>tomentosa</i>
Gentamana	<i>Rumex abyssinicus</i>
Gentamana	<i>Rumex usambarensis</i>
Ghoe	<i>Ampelocissus africana</i>
Hombo	<i>Ormocarpum kirkii</i>
Hombo kiumbu	<i>Ormocarpum</i> <i>trichocarpum</i>
Hombo-muungu	<i>Zanthoxylum chalybeum</i> var. <i>chalybeum</i>
Kapugutilo	<i>Chenopodium opulifolium</i>
Kaziti-wanda	<i>Lippia kituiensis</i>
Kibaazi-mzitu	<i>Eriosema ukingense</i>
Kibwabwa	<i>Nicandra physaloides</i>
Kibwando	<i>Corchorus tridens</i>
Kibwando	<i>Corchorus trilocularis</i>
Kidelele	<i>Aerva lanata</i>
Kidwanga	<i>Triumfetta cordifolia</i> var. <i>tomentosa</i>
Kikongoo	<i>Scolopia zeyheri</i>
Kikwandie	<i>Coffea eugenioides</i>
Kikwandie	<i>Coffea mufindiensis</i>
Kimachura	<i>Habenaria epipactidea</i>
Kisogo	<i>Rourea orientalis</i>
Kiteguzi	<i>Dracaena mannii</i>
Kiviruviru	<i>Multidentia sclerocarpa</i>
Kololwe	<i>Hibiscus acetosella</i>
Kololwe	<i>Hibiscus surattensis</i>
Kororwe	<i>Hibiscus ludwigii</i>
Kungu-mti	<i>Adenia gummifera</i>
Kunguiva	<i>Momordica rostrata</i>
Kuti	<i>Pouteria adolfi-friedericii</i> subsp. <i>australis</i>
Kwake	<i>Sonchus luxurians</i>

**Sambaa (contd)**

Kwavi	<i>Synaptolepis alternifolia</i>	Mfune	<i>Sterculia appendiculata</i>
Langa	<i>Tacca leontopetaloides</i>	Mfuru	<i>Vitex ferruginea</i>
Limi-ja-ng'ombe	<i>Emilia coccinea</i>	Mgagawe	<i>Ziziphus mucronata</i> subsp. <i>mucronata</i>
Longe	<i>Dracaena mannii</i>	Mgama	<i>Mimusops kummel</i>
Lufifia	<i>Sterculia tragacantha</i>	Mgama	<i>Mimusops obtusifolia</i>
Lugulashili	<i>Drymaria cordata</i>	Mgama	<i>Mimusops somaliensis</i>
Luhagalanguku	<i>Sorindeia</i> <i>madagascariensis</i>	Mgambo	<i>Manilkara discolor</i>
Lukaka	<i>Rubia cordifolia</i>	Mgambo	<i>Mimusops bagshawei</i>
Lukantamila	<i>Polygonum pulchrum</i>	Mgambo	<i>Mimusops kummel</i>
Lukenda	<i>Adenia gummifera</i>	Mgambo	<i>Mimusops obtusifolia</i>
Lumaka	<i>Hibiscus acetosella</i>	Mgambo	<i>Mimusops somaliensis</i>
Lumaka	<i>Hibiscus ludwigii</i>	Mgelegele	<i>Acacia nilotica</i>
Lumaka	<i>Hibiscus surattensis</i>	Mghambo	<i>Manilkara discolor</i>
Lushemu	<i>Chenopodium opulifolium</i>	Mgobe	<i>Vitex doniana</i>
Lushwe	<i>Momordica foetida</i>	Mgobe	<i>Vitex ferruginea</i>
Luwuga	<i>Maerua decumbens</i>	Mgolimazi	<i>Trichilia emetica</i>
Magamosi	<i>Cordia monoica</i>	Mgonambogo	<i>Piliostigma thonningii</i>
Mamata	<i>Pupalia lappacea</i> var. <i>velutina</i>	Mguguni	<i>Ziziphus mucronata</i> subsp. <i>mucronata</i>
Mbamba	<i>Trichilia dregeana</i>	Mguira	<i>Rubia cordifolia</i>
Mbambangoma	<i>Balanites wilsoniana</i>	Mguoguo	<i>Porteria alnifolia</i>
Mbangwe	<i>Trichilia emetica</i>	Mgwata	<i>Cordyla africana</i>
Mbawa	<i>Tragia insuarvis</i>	Mhetele	<i>Dialium holtzii</i>
Mbigili	<i>Oxygonum sinuatum</i>	Mhetele	<i>Dialium orientale</i>
Mbokwe	<i>Annona senegalensis</i>	Mhombo	<i>Ormocarpum kirkii</i>
Mbonyati-ngoshi	<i>Isoglossa lactea</i>	Mhula	<i>Parinari excelsa</i>
Mbula	<i>Parinari excelsa</i>	Mhumba	<i>Senna singueana</i>
Mbungo	<i>Saba comorensis</i>	Mhunguru	<i>Rhus natalensis</i>
Mbuni	<i>Mammea usambarensis</i>	Mhunguru- mhomba	<i>Rhus natalensis</i>
Mbuswa	<i>Acokanthera oppositifolia</i>	Mhurusha-mbuzi	<i>Hibiscus micranthus</i>
Mbwakabwaka	<i>Deinbollia kilimandscharicavar.</i> <i>kilimandscharica</i>	Mkaafuu	<i>Pouzolzia mixta</i>
Mbwembwe	<i>Bidens pilosa</i>	Mkalakala	<i>Carissa tetramera</i>
Mbwewe	<i>Lecaniodiscus fraxinifolius</i> subsp. <i>vaughanii</i>	Mkame	<i>Polysphaeria parvifolia</i>
Mbwewe	<i>Trichilia emetica</i>	Mkandandogowe	<i>Psorospermum febrifugum</i>
Mdaia	<i>Canthium oligocarpum</i> subsp. <i>oligocarpum</i>	Mkangala	<i>Strychnos</i> <i>madagascariensis</i>
Mdulu	<i>Englerophytum natalense</i>	Mkanyi	<i>Allanblackia stuhlmanii</i>
Mduyuyu	<i>Manilkara sulcata</i>	Mkanyi	<i>Allanblackia ulugurensis</i>
Mfesti	<i>Carpodiptera africana</i>	Mkea-kundi	<i>Diospyros mespiliformis</i>
Mfulu	<i>Vitex ferruginea</i>	Mkenene	<i>Polyceratocarpus scheffleri</i>
Mfulwe	<i>Acalypha bipartita</i>	Mkeyamasha	<i>Oldenlandia corymbosa</i> var. <i>corymbosa</i>
Mfulwe	<i>Acalypha fruticosa</i>	Mkindu	<i>Phoenix reclinata</i>
Mfulwe	<i>Acalypha ornata</i>	Mkole-ng'ombe	<i>Grewia goetzeana</i>
Mfuma	<i>Bombax rhodognaphalon</i> var. <i>tomentosum</i>	Mkole-ngoda	<i>Grewia bicolor</i>
Mfumba	<i>Carissa bispinosa</i>	Mkonde	<i>Myrianthus arboreus</i>
Mfumba	<i>Carissa edulis</i>	Mkonde	<i>Myrianthus holstii</i>
Mfune	<i>Sterculia africana</i>	Mkonde dume	<i>Myrianthus holstii</i>
		Mkonga	<i>Balanites rotundifolia</i>
		Mkonga	<i>Balanites wilsoniana</i>



Mkongo	<i>Commelina benghalensis</i>	Msasami	<i>Cola scheffleri</i>
Mkongola	<i>Scolopia stolzii</i>	Mschihui	<i>Syzygium guineense</i>
Mkongola	<i>Scolopia theifolia</i>	Msegese	<i>Piliostigma thonningii</i>
Mkulukwa	<i>Multidentia fanshawei</i>	Msegesege	<i>Piliostigma thonningii</i>
Mkumbaku	<i>Carissa edulis</i>	Mshaa	<i>Rubus apetalus</i>
Mkundi	<i>Parkia filicoidea</i>	Mshaa	<i>Rubus steudneri</i>
Mkunguma	<i>Deinbollia borbonica</i>	Mshasa	<i>Cordia monoica</i>
Mkunguma	<i>Deinbollia kilimandscharica</i> var. <i>kilimandscharica</i>	Mshida	<i>Dialium holtzii</i>
Mkungwina	<i>Trichilia dregeana</i>	Mshihwi	<i>Syzygium cordatum</i>
Mkuntu	<i>Harungana</i> <i>madagascariensis</i>	Mshihwi	<i>Syzygium guineense</i>
Mkuti	<i>Pouteria adolfi-friedericii</i> subsp. <i>australis</i>	Mshila	<i>Dialium holtzii</i>
Mkuyu	<i>Ficus sur</i>	Mshila	<i>Dialium orientale</i>
Mkuyu	<i>Ficus sycomorus</i>	Mshiwi	<i>Syzygium guineense</i>
Mkuyu	<i>Ficus vallis-choudae</i>	Mshizo	<i>Pyrostria bibracteata</i>
Mkwamba	<i>Flueggea virosa</i>	Mshofu	<i>Annona stenophylla</i>
Mkwanga	<i>Zanha africana</i>	Mshofu	<i>Uvaria acuminata</i>
Mkwazu	<i>Tamarindus indica</i>	Mshofu	<i>Uvaria lucida</i> subsp. <i>lucida</i>
Mkwingwina	<i>Sorindeia</i> <i>madagascariensis</i>	Mshunga-mboga	<i>Sonchus luxurians</i>
Mleko	<i>Uvaria acuminata</i>	Mshunguti	<i>Acokanthera schimperi</i>
Mlenda	<i>Ceratotheca sesamoides</i>	Mshushi	<i>Syzygium sclerophyllum</i>
Mmavimavi	<i>Alsodeiopsis schumannii</i>	Msindo	<i>Acalypha ornata</i>
Mnangu	<i>Grewia similis</i>	Msofu	<i>Uvaria acuminata</i>
Mnavu-zinge	<i>Nicandra physaloides</i>	Msofu	<i>Uvaria kirkii</i>
Mnguoguo	<i>Pouteria alnifolia</i>	Msosokolwe	<i>Triumfetta cordifolia</i> var. <i>tomentosa</i>
Mntindi	<i>Cussonia spicata</i>	Msungu	<i>Acokanthera schimperi</i>
Mnyembeue	<i>Erythrococca kirkii</i>	Msungudi	<i>Syzygium cordatum</i>
Mnywanywa	<i>Rumex abyssinicus</i>	Mswaki	<i>Salvadora persica</i>
Mohoyo	<i>Synsepalum ceraciferum</i>	Mtanga	<i>Strychnos innocua</i>
Monko-ya-nyika	<i>Trichilia emetica</i>	Mtendele	<i>Cussonia spicata</i>
Moza	<i>Sterculia rhynchocarpa</i>	Mtiwampara	<i>Scolopia theifolia</i>
Mpafu	<i>Canarium</i> <i>madagascariense</i>	Mtiwapaa	<i>Dovyalis abyssinica</i>
Mpia-mzitu	<i>Landolphia kilimanjarica</i>	Mtondoro	<i>Ricinodendron heudelotii</i> subsp. <i>africanum</i>
Mpia-mzitu	<i>Landolphia kirkii</i>	Mtonga	<i>Oncoba spinosa</i>
Mpuishi	<i>Guizotia scabra</i>	Mtonga	<i>Strychnos spinosa</i> subsp. <i>lokua</i>
Msaa	<i>Phoenix reclinata</i>	Mtonkwe	<i>Annona senegalensis</i>
Msakula	<i>Tacca leontopetaloides</i>	Mtundui	<i>Ximenia americana</i>
Msamaka	<i>Aframomum albiflorum</i>	Mtundui	<i>Ximenia caffra</i>
Msamaka	<i>Aframomum</i> <i>angustifolium</i>	Mtuntano	<i>Rhus vulgaris</i>
Msamaka	<i>Cola scheffleri</i>	Mtwampara	<i>Scolopia zeyheri</i>
Msambia	<i>Synsepalum msolo</i>	Muela	<i>Acacia nilotica</i>
Msambia-ongwe	<i>Pouteria alnifolia</i>	Mugambo	<i>Manilkara discolor</i>
Msambu	<i>Allanblackia stuhlmanii</i>	Muhanta	<i>Lantana trifolia</i>
Msambu	<i>Allanblackia ulugurensis</i>	Muhembeti	<i>Sterculia quinqueloba</i>
Msangate	<i>Combretum padoides</i>	Muhuba	<i>Syzygium guineense</i>
Msasa-kilasha	<i>Lantana trifolia</i>	Muhula	<i>Syzygium guineense</i>
Msasa-kilasha	<i>Lantana ukambensis</i>	Muila-ngoto	<i>Cyathula orthacantha</i>
		Muinu	<i>Senna occidentalis</i>
		Muiza	<i>Bridelia micrantha</i>

**Sambaa (contd)**

Munozambeyu	<i>Alsodeiopsis schumannii</i>
Muokoyo	<i>Synsepalum ceraciferum</i>
Muozambeyu	<i>Alsodeiopsis schumannii</i>
Mutundi	<i>Cussonia spicata</i>
Muula	<i>Parinari excelsa</i>
Muungu-magoma	<i>Zanthoxylum chalybeum</i> var. <i>chalybeum</i>
Muuwa	<i>Parinari excelsa</i>
Muyohoyo	<i>Synsepalum ceraciferum</i>
Mvilu	<i>Vangueria infausta</i> subsp. <i>rotundata</i>
Mvilu	<i>Vangueria volkensii</i>
Mviu	<i>Vangueria infausta</i> subsp. <i>rotundata</i>
Mviu	<i>Vangueria volkensii</i>
Mvumo	<i>Ficus ingens</i>
Mvumo	<i>Ficus sur</i>
Mvuti	<i>Lantana camara</i>
Mvuti	<i>Lippia kituiensis</i>
Mwale	<i>Bombax rhodognaphalon</i> var. <i>romentosum</i>
Mwanga	<i>Tacca leontopetaloides</i>
Mwawa	<i>Hirtella megacarpa</i>
Mwaza-njama	<i>Ritchiea albersii</i>
Mwengele	<i>Cyphostemma njegerre</i>
Mwevumbulo	<i>Opilia amentacea</i>
Mwitango	<i>Bidens schimperi</i>
Mwiza	<i>Bridelia micrantha</i>
Mwoozu-nyama	<i>Ritchiea albersii</i>
Mzughu	<i>Trilepisium</i> <i>madagascariense</i>
Mzulu	<i>Osyris lanceolata</i>
Ng'anga	<i>Maranthes goetzeniana</i>
Ng'weng'we	<i>Dracaena mannii</i>
Ngera	<i>Embelia schimperi</i>
Ngola moyo	<i>Heliotropium zeylanicum</i>
Ngolimazi	<i>Trichilia dregeana</i>
Ngoma	<i>Pouteria alnifolia</i>
Nguoguo	<i>Pouteria alnifolia</i>
Njujui	<i>Solanum anguivii</i>
Njujui	<i>Solanum schumannianum</i>
Nkongo	<i>Commelina africana</i>
Nkongo	<i>Commelina imberbis</i>
Nkongo	<i>Commelina latifolia</i>
Nshishi	<i>Tamarindus indica</i>
Ntuavuka	<i>Multidentia sclerocarpa</i>
Ntula-vuha	<i>Canthium oligocarpum</i> subsp. <i>oligocarpum</i>
Nywanywa	<i>Rumex abyssinicus</i>
Nywanywa	<i>Rumex usambarensis</i>
Paramoyo	<i>Aerva lanata</i>

Pupu	<i>Laportea ovalifolia</i>
Pwake	<i>Sonchus luxurians</i>
Sambae	<i>Lobelia fervens</i> subsp. <i>fervens</i>
Sambarau	<i>Syzygium guineense</i>
Sangari	<i>Lobelia fervens</i> subsp. <i>fervens</i>
Saza	<i>Celosia trigyna</i>
Sesemlanda	<i>Trichodesma zeylanicum</i>
Shambae	<i>Lobelia fervens</i> subsp. <i>fervens</i>
Shingaazi	<i>Thylachium africanum</i>
Shunga-pwapwa	<i>Sonchus luxurians</i>
Sosokolwe	<i>Triumfetta cordifolia</i> var. <i>tomentosa</i>
Talata	<i>Ipomoea pres-caprae</i>
Tambuu	<i>Piper guineense</i>
Tambwe	<i>Ensete ventricosum</i>
Tebwa	<i>Aerva lanata</i>
Tebwe	<i>Adansonia digitata</i>
Tikini	<i>Asystasia gangetica</i>
Tikini	<i>Asystasia mysorensis</i>
Tonge	<i>Talinum portulacifolium</i>
Tufia	<i>Urtica massaica</i>
Tugu	<i>Dioscorea cochlaeri-</i> <i>apiculata</i>
Tugu	<i>Dioscorea dumetorum</i>
Tugu	<i>Dioscorea odoratissima</i>
Tugu	<i>Dioscorea quartiniana</i> var. <i>quartiniana</i>
Tugu	<i>Dioscorea schimperiana</i>
Ugooto	<i>Landolphia kilimanjarica</i>
Ugoroto	<i>Landolphia kirkii</i>
Ukakaka	<i>Rubia cordifolia</i>
Unkobo	<i>Justicia heterocarpa</i>
Utambaa-ngoshwe	<i>Hewittia sublobata</i>
Vitoria	<i>Ancylobotrys petersiana</i>
Vumo	<i>Borassus aethiopum</i>
Yang'andu	<i>Celosia schweinfurthiana</i>

**Sandawi**

/ʼÁnka	<i>Bussea massaiensis</i>
/ʼiko	<i>Kedrostis leloja</i>
/./Hwaa	<i>Grewia mollis</i>
/./Amaka	<i>Lannea schweinfurthii</i> var. <i>stuhmannii</i>
/./Umphá	<i>Momordica rostrata</i>
/./Wandánda	<i>Ximenia</i> <i>caffra</i>
/ʼaáya	<i>Ximenia americana</i>
/a./da	<i>Aloe nutii</i>
/ank'á	<i>Tamarindus indica</i>

Amamasóó	<i>Hydnora abyssinica</i>	Tlágwa	<i>Sterculia africana</i>
An/.uma	<i>Sclerocarya birrea</i> subsp. <i>caffra</i>	Tlan/.kakaso	<i>Opuntia vulgaris</i>
Angweegwee	<i>Cordia sinensis</i>	Ts'imak'o	<i>Ziziphus mucronata</i> subsp. <i>mucronata</i>
Arange	<i>Delonix elata</i>	Tsampire	<i>Grewia similis</i>
Betabeta	<i>Ceratotheca sesamoides</i>	Tsengeré	<i>Opilia amentacea</i>
Dong	<i>Azania garckeana</i>	X'waa	<i>Grewia mollis</i>
E'kegheke	<i>Strychnos innocua</i>	X'waa	<i>Grewia platyclada</i>
Erenze	<i>Sesamum angolense</i>	Xaxabo	<i>Azanza garckeana</i>
G/.éke	<i>Strychnos innocua</i>	Xaya	<i>Ximenia caffra</i>
G/.omi	<i>Lannea humilis</i>	Xóá	<i>Grewia platyclada</i>
Gele	<i>Adansonia digitata</i>	<b>Sangu</b>	
Gelegela	<i>Senna singueana</i>	Ifufu	<i>Sesamothamnus</i> <i>busseanus</i>
Gheke	<i>Strychnos innocua</i>	Livale	<i>Raphia farinifera</i>
Hangwe	<i>Hyphaena petersiana</i>	Mbajua	<i>Grewia platyclada</i>
Helá	<i>Dactyloctenium aegyptium</i>	Mhanja	<i>Senna singueana</i>
Helá	<i>Dactyloctenium giganteum</i>	Mingi	<i>Ximenia americana</i>
Hlampuka	<i>Peponium vogelii</i>	Mkombalwike	<i>Piliostigma thonningii</i>
Irata	<i>Kigelia africana</i>	Mkondo	<i>Adansonia digitata</i>
Kekeneka	<i>Cleome hirta</i>	Mkwelangedege	<i>Sterculia quinqueloba</i>
Khoa	<i>Grewia platyclada</i>	Mpelemehe	<i>Grewia bicolor</i>
Khotso	<i>Zanthoxylum chalybeum</i> var. <i>chalybeum</i>	Mpelemehe	<i>Grewia mollis</i>
Kóbá	<i>Coccinia grandis</i>	Mpumba	<i>Rothmannia engleriana</i>
Konkór/.intsha	<i>Asparagus africanus</i>	Msinatemo	<i>Dalbergia nitidula</i>
Konkór/.intsha	<i>Asparagus flagellaris</i>	Mswake	<i>Salvadora persica</i>
Kwilili	<i>Lannea fulva</i>	Mtangadas	<i>Strychnos spinosa</i> subsp. <i>lokua</i>
Kwilili	<i>Lannea rivae</i>	Mtanula	<i>Ziziphus abyssinica</i>
Manange	<i>Acacia nilotica</i>	Mtanula	<i>Ziziphus mauritiana</i>
Mtungu	<i>Thylachium africanum</i>	Mtanula	<i>Ziziphus mucronata</i> subsp. <i>mucronata</i>
Muléwa	<i>Salvadora persica</i>	Mtundwamai	<i>Ximenia americana</i>
Mumbu/he	<i>Cucumis aculeatus</i>	Muhela	<i>Piliostigma thonningii</i>
N/.unk'máxáé	<i>Vangueria</i> <i>madagascariensis</i>	Mwingirangedege	<i>Sterculia quinqueloba</i>
N/.uúk	<i>Vangueria infausta</i> subsp. <i>rotundata</i>	Nyasowasa	<i>Heliotropium zeylanicum</i>
Naaso	<i>Vitex payos</i> var. <i>payos</i>	<b>Sukuma</b>	
Nam	<i>Multidentia crassa</i>	Bonani	<i>Corchorus tridens</i>
Namu	<i>Canthium burttii</i>	Bukindu	<i>Phoenix reclinata</i>
Okoo	<i>Berchemia discolor</i>	Bushishi	<i>Tamarindus indica</i>
Ooko	<i>Berchemia discolor</i>	Huhunga	<i>Acalypha ornata</i>
Ráta	<i>Kigelia africana</i>	Igongwe	<i>Emilia coccinea</i>
Sagár	<i>Corchorus trilocularis</i>	Igwata	<i>Acacia senegal</i>
Sákána	<i>Ficus sycomorus</i>	Ihulungula	<i>Uvaria acuminata</i>
Samangwe	<i>Phyllanthus engleri</i>	lendi	<i>Sesamum angolense</i>
Segele	<i>Maerua decumbens</i>	Isoma-ng'ombe	<i>Hygrophila auriculata</i>
Serekuúk	<i>Grewia bicolor</i>	Kambolambola	<i>Tapiphyllum discolor</i>
Sisimpirae	<i>Tapiphyllum cinerascens</i> var. <i>cinerascens</i>	Lubisu	<i>Opilia amentacea</i>
Thokoi	<i>Berchemia discolor</i>	Luwecha	<i>Aerva lanata</i>
Tipa	<i>Cordia monoica</i>		
Tipan	<i>Cordia monoica</i>		

**Sukuma (contd)**

Lyungu-lya-nzoka	<i>Momordica rostrata</i>
Matwigampuli	<i>Opuntia vulgaris</i>
Mbigili	<i>Tribulus terrestris</i>
Mbigiri	<i>Tribulus terrestris</i>
Mbuguswa	<i>Feretia apodanthera</i> subsp. <i>tanzaniensis</i>
Mdagwata	<i>Grewia mollis</i>
Mdubilo	<i>Acacia nilotica</i>
Mfulu	<i>Vitex fisheri</i>
Mgamzabakama	<i>Antidesma venosum</i>
Mgugunu	<i>Ziziphus abyssinica</i>
Mgugunu	<i>Ziziphus mauritiana</i>
Mgugunu	<i>Ziziphus mucronata</i> subsp. <i>mucronata</i>
Mgukubi	<i>Vitex mombassae</i>
Mgumo	<i>Ficus stuhlmannii</i>
Mgwicha	<i>Kigelia africana</i>
Mhoja	<i>Sterculia africana</i>
Mhoja	<i>Sterculia mhosya</i>
Mhunguru	<i>Rhus natalensis</i>
Mkalya	<i>Zanha africana</i>
Mkoma	<i>Grewia bicolor</i>
Mkondokondo	<i>Rothmannia engleriana</i>
Mkonze	<i>Manilkara mochisia</i>
Mkuwa	<i>Hexalobus monopetalus</i>
Mkwata	<i>Acacia senegal</i>
Mnazi	<i>Parinari curatellifolia</i> subsp. <i>curatellifolia</i>
Mpelemese	<i>Grewia platyclada</i>
Mpingi	<i>Ximenia americana</i>
Mpuguswa	<i>Flacourtia indica</i>
Mpulu	<i>Vitex fisheri</i>
Mpulu	<i>Vitex madiensis</i> subsp. <i>milanjiensis</i>
Msambilya	<i>Senna singueana</i>
Msayu	<i>Lannea schweinfurthii</i> var. <i>stuhlmannii</i>
Mshindwi	<i>Anisophyllea boehmii</i>
Mshindwi	<i>Anisophyllea pomifera</i>
Msungwi	<i>Vitex mombassae</i>
Mswake	<i>Salvadora persica</i>
Mtindwa-mbogo	<i>Piliostigma thonningii</i>
Mtundwa	<i>Ximenia americana</i>
Muche	<i>Salvadora persica</i>
Mugamzabakama	<i>Antidesma venosum</i>
Muhama	<i>Borassus aethiopum</i>
Muhoja	<i>Sterculia quinqueloba</i>
Mukoma	<i>Grewia bicolor</i>
Mukonje	<i>Manilkara mochisia</i>
Mwandu	<i>Adansonia digitata</i>
Myuguyugu	<i>Balanites aegyptiaca</i>

Namata	<i>Cyathula orthacantha</i>
Ndagwasa	<i>Grewia similis</i>
Ndati	<i>Grewia conocarpoides</i>
Ndiga	<i>Dioscorea dumetorum</i>
Nembu	<i>Cordia monoica</i>
Ng'ombe-ya-hasi	<i>Hydnora abyssinica</i>
Ng'ongo	<i>Sclerocarya birrea</i> subsp. <i>caffra</i>
Ng'wandu	<i>Adansonia digitata</i>
Ng'watya	<i>Zanha africana</i>
Ngombe-ya-hansi	<i>Hydnora abyssinica</i>
Ngubalu	<i>Canthium burttii</i>
Ngwandu	<i>Adansonia digitata</i>
Ngwicha	<i>Kigelia africana</i>
Nkamu	<i>Canthium burttii</i>
Nkoma	<i>Grewia fallax</i>
Nsalasi	<i>Friesodielsia obovata</i>
Nsaya	<i>Lannea schweinfurthii</i> var. <i>stuhlmannii</i>
Nselya	<i>Lannea fulva</i>
Nshishi	<i>Tamarindus indica</i>
Nsindwi	<i>Anisophyllea pomifera</i>
Ntinje	<i>Lannea rivae</i>
Nungu	<i>Zanthoxylum chalybeum</i> var. <i>chalybeum</i>
Nyuguyu	<i>Balanites aegyptiaca</i>
Nzegezze	<i>Senna occidentalis</i>
Sungute	<i>Trichilia emetica</i>

**Swahili**

Kiazi kikuu	<i>Dioscorea cochlaeri-</i> <i>apiculata</i>
Kiazi kikuu	<i>Dioscorea dumetorum</i>
Kiazi kikuu	<i>Dioscorea odoratissima</i>
Kiazi kikuu	<i>Dioscorea quartiniana</i> var. <i>quartiniana</i>
Kiazi kikuu	<i>Dioscorea schimperiana</i>
Kiazi pori	<i>Ipomoea cairica</i> var. <i>cairica</i>
Kichocho mi	<i>Dioscorea sansibarensis</i>
Kifundo	<i>Rubia cordifolia</i>
Kigongo	<i>Dioscorea dumetorum</i>
Kihari	<i>Lepisanthes senegalensis</i>
Kikopwe	<i>Jacquemontia tamnifolia</i>
Kikwa	<i>Dioscorea dumetorum</i>
Kikwata	<i>Acacia senegal</i>
Kikwayakwaya	<i>Stachytarpheta</i> <i>jamaicensis</i>
Kilemba cha bwana	<i>Emilia coccinea</i>
Kimbugimbugi	<i>Dactyloctenium aegyptium</i>
Kimbugimbugi	<i>Dactyloctenium giganteum</i>

Kinana	<i>Dioscorea dumetorum</i>	Mbura	<i>Parinari curatellifolia</i> subsp. <i>curatellifolia</i>
Kindri	<i>Oxygonum sinuatum</i>	Mbura	<i>Parinari excelsa</i>
Kinonga	<i>Aerva lanata</i>	Mbuyu	<i>Adansonia digitata</i>
Kinonga	<i>Aerva leucura</i>	Mbwanga	<i>Vitex mombassae</i>
Kinwale	<i>Lobelia fervens</i> subsp. <i>fervens</i>	Mbwewe	<i>Lecaniodiscus fraxinifolius</i> subsp. <i>vaughanii</i>
Kisambale	<i>Lobelia fervens</i> subsp. <i>fervens</i>	Mchacha	<i>Acalypha ornata</i>
Kisegeju	<i>Cardamine trichocarpa</i>	Mchachu	<i>Rumex abyssinicus</i>
Kishonanguo	<i>Bidens pilosa</i>	Mchachu	<i>Rumex usambarensis</i>
Kisimamleo	<i>Aloe nutii</i>	Mchakwe	<i>Annona senegalensis</i>
Kisogo	<i>Platostoma africanum</i>	Mchakwe	<i>Psorospermum febrifugum</i>
Kongwa	<i>Commelina africana</i>	Mchambigi	<i>Manilkara sulcata</i>
Kunde mbala.	<i>Dolichos trilobus</i>	Mchamvia	<i>Synsepalum brevipes</i>
Kunde mwitu	<i>Vigna pubescens</i>	Mchamvia	<i>Synsepalum ceraciferum</i>
Majani ya mwaka	<i>Ipomoea pres-caprae</i>	Mchanvia	<i>Garcinia livingstonei</i>
Mandali	<i>Adenia gummifera</i>	Mchapa	<i>Borassus aethiopum</i>
Marejea	<i>Crotalaria natalitia</i> var. <i>natalitia</i>	Mcheji	<i>Manilkara sansibarensis</i>
Mariga	<i>Dioscorea dumetorum</i>	Mcheji	<i>Manilkara sulcata</i>
Masikio tembo	<i>Opuntia vulgaris</i>	Mcheji dume	<i>Manilkara sulcata</i>
Maua	<i>Ricnodendron heudelotii</i> subsp. <i>africanum</i>	Mchekaucha	<i>Xylothea tettensis</i> var. <i>kirkii</i>
Mbalamwezi	<i>Sterculia quinqueloba</i>	Mchekeche	<i>Piliostigma thonningii</i>
Mbamba ngoma	<i>Balanites rotundifolia</i>	Mchekwa	<i>Annona senegalensis</i>
Mbamba ngoma	<i>Pappea capensis</i>	Mchekwa	<i>Bauhinia kаланtha</i>
Mbamba ngoma	<i>Piliostigma thonningii</i>	Mchekwa	<i>Xylothea tettensis</i> var. <i>kirkii</i>
Mbamba	<i>Oxygonum sinuatum</i>	Mchengele	<i>Rhus longipes</i>
Mbambara	<i>Commiphora africana</i>	Mchenza mwitu	<i>Uapaca paludosa</i>
Mbani	<i>Canarium schweinfurthii</i>	Mchenza mwitu	<i>Uapaca sansibarica</i>
Mbaraka	<i>Senna singueana</i>	Mchicha	<i>Alternanthera tenella</i> var. <i>betzickiana</i>
Mbibikiu	<i>Synaptolepis alternifolia</i>	Mchicha	<i>Amaranthus spinosus</i>
Mbibikiu	<i>Synaptolepis kirkii</i>	Mchicha	<i>Asystasia gangetica</i>
Mbigili	<i>Oxygonum sinuatum</i>	Mchicha maua	<i>Alternanthera tenella</i> var. <i>betzickiana</i>
Mbigili	<i>Tribulus terrestris</i>	Mchicha pori	<i>Celosia trigyna</i>
Mbigiri	<i>Oxygonum sinuatum</i>	Mchikichiki	<i>Piliostigma thonningii</i>
Mbigiri	<i>Tribulus terrestris</i>	Mcho	<i>Uvaria kirkii</i>
Mbiha	<i>Abutilon mauritianum</i>	Mchocho dume	<i>Synsepalum msolo</i>
Mboga mwitu	<i>Coccinia grandis</i>	Mchocho jike	<i>Synsepalum brevipes</i>
Mboga wa pwani	<i>Sesuvium portulacastrum</i>	Mchochokoe	<i>Triumfetta cordifolia</i> var. <i>tomentosa</i>
Mbomba	<i>Kigelia africana</i>	Mchochoni	<i>Dioscorea sansibarensis</i>
Mboza	<i>Sterculia africana</i>	Mchofu	<i>Uvaria kirkii</i>
Mbua nono	<i>Antidesma venosum</i>	Mchongoma	<i>Flacourtia indica</i>
Mbula	<i>Parinari curatellifolia</i> subsp. <i>curatellifolia</i>	Mchumvichumvi	<i>Rumex abyssinicus</i>
Mbula	<i>Parinari excelsa</i>	Mchumvichumvi	<i>Rumex usambarensis</i>
Mbungati	<i>Kigelia africana</i>	Mchunga	<i>Sonchus luxurians</i>
Mbungo	<i>Landolphia kilimanjarica</i>	Mchungu	<i>Acokanthera schimperii</i>
Mbungo	<i>Landolphia parvifolia</i>	Mchungu	<i>Balanites aegyptiaca</i>
Mbungo	<i>Saba comorensis</i>	Mdhamwitu	<i>Hoslundia opposita</i>
Mbura	<i>Harungana</i> <i>madagascariensis</i>		

## Swahili (contd)

Mdamudamu	<i>Harungana madagascariensis</i>	Mgege	<i>Vitex ferruginea</i>
Mdara	<i>Oncoba spinosa</i>	Mgege	<i>Vitex mombassae</i>
Mdudu	<i>Ritchiea albersii</i>	Mgiriti	<i>Diospyros mespiliformis</i>
Mdudu	<i>Thylachium africanum</i>	Mgo	<i>Flacourtia indica</i>
Mduyuyu	<i>Englerophytum magalismontanum</i>	Mgomba mwitu	<i>Ensete ventricosum</i>
Mduyuyu	<i>Englerophytum natalense</i>	Mgomba tumbili	<i>Ensete ventricosum</i>
Mfausiku	<i>Delonix elata</i>	Mgombakofi	<i>Typhonodorum lindleyanum</i>
Mfuchwe	<i>Asystasia gangetica</i>	Mgombe	<i>Diospyros mespiliformis</i>
Mfudu	<i>Vitex doniana</i>	Mgovigovi	<i>Flacourtia indica</i>
Mfudu	<i>Vitex ferruginea</i>	Mgovigovi	<i>Scolopia rhamniphylla</i>
Mfudu	<i>Vitex fischeri</i>	Mgovigovi	<i>Scolopia stolzii</i>
Mfudu	<i>Vitex madiensis</i> subsp. <i>milanjiensis</i>	Mgovigovi	<i>Scolopia theifolia</i>
Mfudu	<i>Vitex mombassae</i>	Mgude	<i>Sterculia appendiculata</i>
Mfudu	<i>Vitex payos</i> var. <i>payos</i>	Mgudi	<i>Polysphaeria multiflora</i>
Mfudu maji	<i>Vitex mombassae</i>	Mguguni	<i>Balanites wilsoniana</i>
Mfukufuku	<i>Brexia madagascariensis</i>	Mgulungungulu	<i>Strychnos innocua</i>
Mfukufuku	<i>Grewia bicolor</i>	Mgunga	<i>Acacia nilotica</i>
Mfulu	<i>Vitex ferruginea</i>	Mgunga	<i>Acacia senegal</i>
Mfune	<i>Sterculia appendiculata</i>	Mguoguo	<i>Pouteria alnifolia</i>
Mfungu waume	<i>Synaptolepis kirkii</i>	Mguvi	<i>Manilkara sansibarensis</i>
Mfupapo	<i>Pyrostria bibracteata</i>	Mgwata	<i>Cordia africana</i>
Mfupapu	<i>Lannea schweinfurthii</i> var. <i>stuhmannii</i>	Mgwede	<i>Encephalartos hildebrandtii</i>
Mfurahisha		Mgweni	<i>Uvaria acuminata</i>
mkundu	<i>Opuntia vulgaris</i>	Mhacha	<i>Acalypha bipartita</i>
Mfuru	<i>Vitex doniana</i>	Mhacha	<i>Acalypha fruticosa</i>
Mfurugudu	<i>Brexia madagascariensis</i>	Mhilihili	<i>Sorindeia madagascariensis</i>
Mfuta	<i>Sesamum calycinum</i> var. <i>angustifolium</i>	Mjafari	<i>Zanthoxylum chalybeum</i> var. <i>chalybeum</i>
Mfuu	<i>Vitex doniana</i>	Mjamanda	<i>Abutilon mauritianum</i>
Mfuu	<i>Vitex ferruginea</i>	Mjoho	<i>Diospyros mespiliformis</i>
Mfuu	<i>Vitex fischeri</i>	Mjunju	<i>Balanites aegyptiaca</i>
Mfuu	<i>Vitex madiensis</i> subsp. <i>milanjiensis</i>	Mkahawa mwitu	<i>Coffea eugenioides</i>
Mfuu	<i>Vitex payos</i> var. <i>payos</i>	Mkahawa mwitu	<i>Coffea mufindiensis</i>
Mgama	<i>Manilkara obovata</i>	Mkalya	<i>Zanha africana</i>
Mgama	<i>Mimusops bagshawei</i>	Mkamasi	<i>Cordia sinensis</i>
Mgama	<i>Mimusops kummel</i>	Mkandi	<i>Dactyloctenium giganteum</i>
Mgama	<i>Mimusops somaliensis</i>	Mkangaa	<i>Eugenia capensis</i> subsp. <i>nyassensis</i>
Mgambo	<i>Manilkara dawei</i>	Mkange	<i>Allanblackia stuhlmanii</i>
Mgambo	<i>Manilkara discolor</i>	Mkange	<i>Allanblackia ulugurensis</i>
Mgambo	<i>Manilkara obovata</i>	Mkanja	<i>Polysphaeria parvifolia</i>
Mgambo	<i>Manilkara sansibarensis</i>	Mkaracha	<i>Antidesma venosum</i>
Mgambo	<i>Mimusops bagshawei</i>	Mkarafuu mwitu	<i>Syzygium cordatum</i>
Mgambo	<i>Mimusops kummel</i>	Mkarakara	<i>Bridelia micrantha</i>
Mgambo kapu	<i>Mimusops obtusifolia</i>	Mkaranga mti	<i>Bombax rhodognaphalon</i> var. <i>tomentosum</i>
Mganda simba	<i>Uvaria acuminata</i>	Mkaranga mwitu	<i>Alsodeiopsis schumannii</i>
Mganda simba	<i>Uvaria lucida</i> subsp. <i>lucida</i>	Mkarati	<i>Bridelia micrantha</i>
		Mkatu	<i>Synaptolepis alternifolia</i>

Mkatu	<i>Synaptolepis kirkii</i>	Mkungu wazimu	<i>Inhambanella henriquesii</i>
Mkekundu	<i>Harungana</i> <i>madagascariensis</i>	Mkungwina	<i>Trichilia dregeana</i>
Mkengeti	<i>Adenia gummiifera</i>	Mkungwina	<i>Trichilia emetica</i>
Mkichikichi	<i>Piliostigma thonningii</i>	Mkunungu	<i>Zanthoxylum chalybeum</i> var. <i>chalybeum</i>
Mkikoma	<i>Carpodiptera africana</i>	Mkurufu	<i>Brexia madagascariensis</i>
Mkilimu	<i>Deinbollia borbonica</i>	Mkusu	<i>Uapaca kirkiana</i>
Mkimbo	<i>Allanblackia stuhlmanii</i>	Mkuu hafungwa	<i>Adansonia digitata</i>
Mkimbo	<i>Allanblackia ulugurensis</i>	Mkuu hapingwa	<i>Adansonia digitata</i>
Mkindu	<i>Phoenix reclinata</i>	Mkuvufu	<i>Brexia madagascariensis</i>
Mkingili	<i>Flacourtia indica</i>	Mkuyu	<i>Ficus glumosa</i> var. <i>glaberrina</i>
Mkoche	<i>Hyphaene compressa</i>	Mkuyu	<i>Ficus sansibarica</i>
Mkoche	<i>Hyphaene coriacea</i>	Mkuyu	<i>Ficus sur</i>
Mkoche	<i>Hyphaene petersiana</i>	Mkuyu	<i>Ficus sycomorus</i>
Mkole	<i>Grewia bicolor</i>	Mkuyu	<i>Ficus vallis-choudae</i>
Mkole	<i>Grewia conocarpoides</i>	Mkwaju	<i>Tamarindus indica</i>
Mkole	<i>Grewia fallax</i>	Mkwakwa	<i>Strychnos innocua</i>
Mkole	<i>Grewia goetzeana</i>	Mkwakwa	<i>Strychnos</i> <i>madagascariensis</i>
Mkole	<i>Grewia hexamita</i>	Mkwakwa	<i>Strychnos spinosa</i> subsp. <i>lokua</i>
Mkole	<i>Grewia mollis</i>	Mkwamba	<i>Flueggea virosa</i>
Mkole	<i>Grewia platyclada</i>	Mkwanga	<i>Encephalartos</i> <i>hildebrandtii</i>
Mkole	<i>Grewia similis</i>	Mkwanga	<i>Zanha africana</i>
Mkole	<i>Grewia trichocarpa</i>	Mkwema	<i>Xylothea tettensis</i> var. <i>kirkii</i>
Mkole	<i>Grewia villosa</i>	Mkwera nyani	<i>Sterculia quinqueloba</i>
Mkoma	<i>Hyphaene compressa</i>	Mlakasa	<i>Ipomoea pres-caprae</i>
Mkoma	<i>Hyphaene coriacea</i>	Mlakungu	<i>Sorindeia</i> <i>madagascariensis</i>
Mkone	<i>Grewia bicolor</i>	Mlala	<i>Hyphaene compressa</i>
Mkonechacha	<i>Hirtella megacarpa</i>	Mlala	<i>Hyphaene coriacea</i>
Mkonga	<i>Balanites rotundifolia</i>	Mlala	<i>Hyphaene petersiana</i>
Mkonga	<i>Balanites wilsoniana</i>	Mlama mwitu	<i>Rhus vulgaris</i>
Mkonge	<i>Pyrostria bibracteata</i>	Mlangu	<i>Tacca leontopetaloides</i>
Mkongoro	<i>Carpodiptera africana</i>	Mlangwe	<i>Lepisanthes senegalensis</i>
Mkono chuma	<i>Rhus natalensis</i>	Mlanyuni	<i>Hoslundia opposita</i>
Mkono chuma	<i>Rhus vulgaris</i>	Mlapaa	<i>Polysphaeria parvifolia</i>
Mkorobosho	<i>Grewia villosa</i>	Mlati	<i>Syzygium cordatum</i>
Mkororo	<i>Commiphora africana</i>	Mlenda	<i>Corchorus fascicularis</i>
Mkuju	<i>Ficus sur</i>	Mlenda	<i>Corchorus</i> <i>pseudocapsularis</i>
Mkuku mbuzi	<i>Garcinia livingstonei</i>	Mlenda	<i>Corchorus tridens</i>
Mkulu	<i>Berchemia discolor</i>	Mlenda	<i>Corchorus trilocularis</i>
Mkumba	<i>Rhus natalensis</i>	Mlenda	<i>Malva parviflora</i>
Mkuna chuma	<i>Rhus natalensis</i>	Mlenda	<i>Sesamum angolense</i>
Mkunazi	<i>Ziziphus mauritiana</i>	Mlenda mbata	<i>Ceratotheca sesamoides</i>
Mkunazi mwitu	<i>Ziziphus mucronata</i> subsp. <i>mucronata</i>	Mlenda mwitu	<i>Sesamum calycinum</i> var. <i>angustifolium</i>
Mkunazi pori	<i>Ziziphus mauritiana</i>	Mlimbo	<i>Landolphia kirkii</i>
Mkunde	<i>Parkia filicoidea</i>		
Mkundekunde	<i>Senna singueana</i>		
Mkunguma	<i>Deinbollia borbonica</i>		
Mkunguma	<i>Deinbollia kilimandscharica</i> var. <i>kilimandscharica</i>		
Mkunguma	<i>Sorindeia</i> <i>madagascariensis</i>		

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Mlshangwe	<i>Rhus vulgaris</i>	Mpira	<i>Landolphia kirkii</i>
Mlopa	<i>Parkia filicoidea</i>	Mpira	<i>Saba comorensis</i>
Mlungwana	<i>Landolphia kirkii</i>	Mpo	<i>Landolphia kirkii</i>
Mmeru sukari	<i>Landolphia kirkii</i>	Mponda	<i>Commiphora africana</i>
Mnago	<i>Berchemia discolor</i>	Mponda	<i>Commiphora</i>
Mnago	<i>Manilkara mochisia</i>		<i>mossambicensis</i>
Mnanyakanda	<i>Lecaniodiscus fraxinifolius</i>	Mpovupovu	<i>Commelina benghalensis</i>
	subsp. <i>vaughanii</i>	Mpumbuti	<i>Brexia madagascariensis</i>
Mnasa nguo	<i>Pupalia lappacea</i> var.	Mpungate	<i>Opuntia vulgaris</i>
	<i>velutina</i>	Mpupu	<i>Laportea ovalifolia</i>
Mnduwe	<i>Azanza garckeana</i>	Mpupu	<i>Urtica massaica</i>
Mng'ong'o	<i>Sclerocarya birrea</i> subsp.	Mpwewe	<i>Diospyros mespiliformis</i>
	<i>caffra</i>	Mpyo	<i>Landolphia kirkii</i>
Mngonengone	<i>Harungana</i>	Mranaa	<i>Kigelia africana</i>
	<i>madagascariensis</i>	Mrigi	<i>Polysphaeria parvifolia</i>
Mnguvi	<i>Mimusops obtusifolia</i>	Mrinja kondo	<i>Rhus vulgaris</i>
Mnuka uvundo	<i>Senna occidentalis</i>	Mripuripu	<i>Xylotheca tettensis</i> var.
Mnyaa	<i>Hyphaene compressa</i>		<i>kirkii</i>
Mnyaa	<i>Hyphaene coriacea</i>	Mroma	<i>Cordyla africana</i>
Mnya mate	<i>Cordia sinensis</i>	Msaga	<i>Antidesma venosum</i>
Mnyambo	<i>Hydnora abyssinica</i>	Msambali	<i>Lobelia fervens</i> subsp.
Mnyumbo	<i>Lannea schweinfurthii</i> var.		<i>fervens</i>
	<i>stuhlmannii</i>	Msambia	<i>Synsepalum brevipes</i>
Mongo	<i>Sclerocarya birrea</i> subsp.	Msambia	<i>Synsepalum msolo</i>
	<i>caffra</i>	Msambu	<i>Allanblackia stuhlmanii</i>
Mouma	<i>Uapaca sansibarica</i>	Msambu	<i>Allanblackia ulugurensis</i>
Moyo	<i>Landolphia kirkii</i>	Msamvia	<i>Synsepalum brevipes</i>
Moza	<i>Sterculia africana</i>	Msamvia	<i>Synsepalum msolo</i>
Moza	<i>Sterculia mhosya</i>	Msandali	<i>Osyris lanceolata</i>
Mpafu	<i>Canarium</i>	Msapa	<i>Manilkara mochisia</i>
	<i>madagascariense</i>	Msapo	<i>Encephalartos</i>
Mpafu	<i>Canarium schweinfurthii</i>		<i>hildebrandtii</i>
Mpakasi	<i>Sorindeia</i>	Msasa	<i>Cordia monoica</i>
	<i>madagascariensis</i>	Msasa mlanda	<i>Trichodesma zeylanicum</i>
Mpapa	<i>Strychnos spinosa</i> subsp.	Msasuzi	<i>Antidesma venosum</i>
	<i>lokua</i>	Msegese	<i>Piliostigma thonningii</i>
Mpekecho	<i>Garcinia kingaensis</i>	Msekwasakwa	<i>Xylotheca tettensis</i> var.
Mpekechu	<i>Dialium holtzii</i>		<i>kirkii</i>
Mpekechu	<i>Dialium orientale</i>	Mshambo	<i>Allanblackia stuhlmanii</i>
Mpekechu	<i>Garcinia livingstonei</i>	Mshambo	<i>Allanblackia ulugurensis</i>
Mpekechu	<i>Garcinia smeathmannii</i>	Mshonzi	<i>Manilkara sansibarensis</i>
Mpeketo	<i>Garcinia livingstonei</i>	Mshubili	<i>Aloe nutii</i>
Mpepeteta	<i>Dialium holtzii</i>	Msiki	<i>Carpolobia goetzii</i>
Mpepeteta	<i>Dialium orientale</i>	Msikundazi	<i>Inhambanella henriquesii</i>
Mpera mwitu	<i>Strychnos cocculoides</i>	Msindi	<i>Diospyros mespiliformis</i>
Mpilipili	<i>Sorindeia</i>	Msisimizi	<i>Antidesma venosum</i>
	<i>madagascariensis</i>	Msofu	<i>Uvaria kirkii</i>
Mpilipili doria	<i>Sorindeia</i>	Msogo	<i>Rourea orientalis</i>
	<i>madagascariensis</i>	Msuaga	<i>Antidesma venosum</i>
Mpingi	<i>Ximenia americana</i>	Msubili	<i>Aloe nutii</i>
Mpingi	<i>Ximenia caffra</i>	Msufi mwitu	<i>Bombax rhodognaphalon</i>
			var. <i>tomentosum</i>



Msunguti	<i>Acokanthera oppositifolia</i>	Mtumbu	<i>Garcinia smeathmannii</i>
Msunguti	<i>Acokanthera schimperi</i>	Mtundakula	<i>Ximenia americana</i>
Mswaki	<i>Salvadora persica</i>	Mtundu	<i>Lannea schweinfurthii</i> var. <i>stuhlmannii</i>
Mtakaa	<i>Sterculia africana</i>	Mtunguja	<i>Solanum schumannianum</i>
Mtalala	<i>Uapaca nitida</i>	Mtunguma	<i>Sorindeia</i> <i>madagascariensis</i>
Mtalala	<i>Uapaca sansibarica</i>	Mtunguru	<i>Aframomum albiflorum</i>
Mtalali	<i>Vitex ferruginea</i>	Mtunguru	<i>Aframomum</i> <i>angustifolium</i>
Mtalawanda	<i>Manilkara mochisia</i>	Mtunguru	<i>Thylachium africanum</i>
Mtama mwitu	<i>Sorghum purpureo-</i> <i>sericeum</i>	Mtunu	<i>Harungana</i> <i>madagascariensis</i>
Mtambuu mwitu	<i>Piper guineense</i>	Mturituri	<i>Commiphora africana</i>
Mtanda mboo	<i>Carissa edulis</i>	Mtutu	<i>Bridelia micrantha</i>
Mtanda mboo	<i>Carissa tetramera</i>	Muaa	<i>Hyphaene compressa</i>
Mtango mwitu	<i>Cucumis aculeatus</i>	Muawa	<i>Ricinodendron heudelotii</i> subsp. <i>africanum</i>
Mtango mwitu	<i>Cucumis dipsaceus</i>	Mumbu	<i>Lannea schweinfurthii</i> var. <i>stuhlmannii</i>
Mtapa	<i>Borassus aethiopum</i>	Mumbwe	<i>Cordyla africana</i>
Mteja	<i>Flueggea virosa</i>	Muumbu	<i>Lannea schweinfurthii</i> var. <i>stuhlmannii</i>
Mteremtere	<i>Hoslundia opposita</i>	Muuyu	<i>Adansonia digitata</i>
Mteweji	<i>Manilkara sulcata</i>	Mvepe	<i>Lantana trifolia</i>
Mti chuma	<i>Manilkara sansibarensis</i>	Mviru	<i>Vangueria apiculata</i>
Mti sumu	<i>Kigelia africana</i>	Mviru	<i>Vangueria infausta</i> subsp. <i>rotundata</i>
Mtigonzi	<i>Cordyla africana</i>	Mviru	<i>Vangueria</i> <i>madagascariensis</i>
Mtikini	<i>Asystasia gangetica</i>	Mviru	<i>Vangueria volkensii</i>
Mtikiza	<i>Sorindeia</i> <i>madagascariensis</i>	Mvoo	<i>Cordyla africana</i>
Mtimagoa	<i>Antidesma venosum</i>	Mvuma	<i>Borassus aethiopum</i>
Mtimaji	<i>Trichilia dregeana</i>	Mvumba	<i>Vitex mombassae</i>
Mtimaji	<i>Trichilia emetica</i>	Mvunja kondo	<i>Rhus natalensis</i>
Mtindapo	<i>Carpolobia goetzii</i>	Mvuti	<i>Lantana camara</i>
Mtishangwe	<i>Rhus natalensis</i>	Mvuti	<i>Lippia kituiensis</i>
Mtomoko mwitu	<i>Annona senegalensis</i>	Mwacha	<i>Uvaria acuminata</i>
Mtonga	<i>Strychnos cocculoides</i>	Mwaka	<i>Allanblackia stuhlmannii</i>
Mtonga	<i>Strychnos innocua</i>	Mwaka	<i>Allanblackia ulugurensis</i>
Mtonga	<i>Strychnos</i> <i>madagascariensis</i>	Mwakamwaka	<i>Deinbollia borbonica</i>
Mtonga	<i>Strychnos pungens</i>	Mwale	<i>Raphia farinifera</i>
Mtonga	<i>Strychnos spinosa</i> subsp. <i>lokua</i>	Mwanga	<i>Tacca leontopetaloides</i>
Mtongonya	<i>Typhonodorum</i> <i>lindleyanum</i>	Mwangajo	<i>Ficus sur</i>
Mtopetope	<i>Annona senegalensis</i>	Mwangamaima	<i>Carpodiptera africana</i>
Mtopetope	<i>Annona stenophylla</i>	Mwatata	<i>Azanza garckeana</i>
Mtoria	<i>Ancylobotrys petersiana</i>	Mwawa	<i>Hirtella megacarpa</i>
Mtoto	<i>Uapaca sansibarica</i>	Mwinamia ziwa	<i>Antidesma venosum</i>
Mtotozi	<i>Garcinia livingstonei</i>	Mwingajini	<i>Senna bicapsularis</i>
Mtowe	<i>Ancylobotrys petersiana</i>	Mwingajini	<i>Senna occidentalis</i>
Mtuguu	<i>Aframomum albiflorum</i>	Mwinika nguu	<i>Asparagus africanus</i>
Mtuguu	<i>Aframomum</i> <i>angustifolium</i>	Mwinika nguu	<i>Asparagus flagellaris</i>
Mtula	<i>Solanum schumannianum</i>		
Mtumbi	<i>Garcinia livingstonei</i>		

**Swahili (contd)**

Myamayau	<i>Syzygium cordatum</i>
Myungiyungi	<i>Nymphaea lotus</i>
Myungiyungi	<i>Nymphaea nouchali</i> var. <i>caerulea</i>
Mzabibu mwitu	<i>Ampelocissus africana</i>
Mzabibu mwitu	<i>Cissus quarrei</i>
Mzabibu mwitu	<i>Cyphostemma njejerre</i>
Mzambarau mwitu	<i>Syzygium cordatum</i>
Mzambarau mwitu	<i>Syzygium guineense</i>
Mzambarau mwitu	<i>Syzygium masukuense</i> subsp. <i>masukuense</i>
Mzambarau ziwa	<i>Syzygium cordatum</i>
Mzambarau ziwa	<i>Syzygium owariense</i>
Mziwaziwa	<i>Antidesma venosum</i>
Mzuari	<i>Syzygium cordatum</i>
Mzuari	<i>Syzygium guineense</i>
Mzukizuki	<i>Carpolobia goetzii</i>
Ndiga	<i>Dioscorea dumetorum</i>
Pulule	<i>Achyranthes aspera</i>
Tako la hasani	<i>Portulaca oleracea</i>
Tunda nyoka	<i>Momordica rostrata</i>
Tungulu	<i>Aframomum</i> <i>angustifolium</i>
Tungunyu	<i>Dioscorea sansibarensis</i>
Tunguru	<i>Aframomum albiflorum</i>
Tunguru	<i>Aframomum</i> <i>angustifolium</i>
Ukakaka	<i>Rubia cordifolia</i>
Ulimi wa ngombe	<i>Emilia coccinea</i>
Utonge	<i>Rubus apetalus</i>
Utonge	<i>Rubus rigidus</i>

**Tongwe**

Buhono	<i>Pseudospondias</i> <i>microcarpa</i>
Bulindiye	<i>Dracaena mannii</i>
Bulonje	<i>Dracaena mannii</i>
Igandamakungu	<i>Salacia leptoclada</i>
Igongo	<i>Sclerocarya birrea</i> subsp. <i>caffra</i>
Ihambwa	<i>Ficus vallis-choudae</i>
Ikongwa	<i>Diospyros kirkii</i>
Ikubila	<i>Ficus sur</i>
Ikuku	<i>Ficus glumosa</i> var. <i>glaberrina</i>
Ikuku	<i>Ficus sycomorus</i>
Ikusu	<i>Uapaca kirkiana</i>
Ilende-lya-kenyamwami	<i>Piper guineense</i>
Ilombo	<i>Saba comorensis</i>
Ipela	<i>Sesamum angolense</i>

Ipempu	<i>Sonchus luxurians</i>
Isakama	<i>Myrianthus arboreus</i>
Isakama	<i>Myrianthus holstii</i>
Iseha	<i>Parkia filicoidea</i>
Kabuga	<i>Tacca leontopetaloides</i>
Kabulampako	<i>Vitex ferruginea</i>
Kabunditoke	<i>Ensete ventricosum</i>
Kafulujege	<i>Lecaniodiscus fraxinifolius</i> subsp. <i>vaughanii</i>
Kafulujegeya	<i>Vitex madiensis</i> subsp. <i>milanjiensis</i>
Kagobole	<i>Ziziphus abyssinica</i>
Kagobole	<i>Ziziphus mucronata</i> subsp. <i>mucronata</i>
Kakomakoma	<i>Pistia stratiotes</i>
Kakonda	<i>Hibiscus surattensis</i>
Kakubabolo	<i>Sterculia tragacantha</i>
Kakusufinya	<i>Uapaca sansibarica</i>
Kalasa	<i>Bidens pilosa</i>
Kamembe	<i>Bridelia micrantha</i>
Kamoko	<i>Trichilia dregeana</i>
Kamoko	<i>Trichilia emetica</i>
Kampakampaka	<i>Trichilia dregeana</i>
Kangululungulu	<i>Psorospermum febrifugum</i>
Kankundu	<i>Strychnos innocua</i>
Kaposo	<i>Oncoba spinosa</i>
Kasolyo	<i>Garcinia buchananii</i>
Katikamonga	<i>Asystasia gangetica</i>
Katimba	<i>Dictyophleba lucida</i>
Katwa	<i>Oncoba spinosa</i>
Libufu	<i>Landolphia kirkii</i>
Libwaje	<i>Strychnos cocculoides</i>
Lifumbu	<i>Strychnos cocculoides</i>
Lifungwa	<i>Kigelia africana</i>
Lindiga	<i>Dioscorea cochlaeri-</i> <i>apiculata</i>
Lindiga	<i>Dioscorea dumetorum</i>
Lufila	<i>Annona senegalensis</i>
Lufulu	<i>Vitex doniana</i>
Lujongololo	<i>Monanthotaxis poggei</i>
Lukungwisa	<i>Asparagus africanus</i>
Lukungwisa	<i>Asparagus flagellaris</i>
Lulobe	<i>Uapaca nitida</i>
Lumpepete	<i>Commelina imberbis</i>
Lungogolo	<i>Multidentia crassa</i>
Lunkukuma	<i>Grewia platyclada</i>
Lunsonyosyo	<i>Ipomoea cairica</i> var. <i>cairica</i>
Lusanda	<i>Phoenix reclinata</i>
Lusangabale	<i>Syzygium guineense</i>
Lusantu	<i>Ximenia americana</i>
Lushete	<i>Acalypha ornata</i>

Lusindwi	<i>Anisophyllea boehmii</i>
Lusisi	<i>Tamarindus indica</i>
Lusungunimba	<i>Flacourtia indica</i>
Mambamlele	<i>Trichodesma zeylanicum</i>
Mbunisigo	<i>Pyrostria bibracteata</i>
Mfungu	<i>Celosia trigyna</i>
Mkubukubu	<i>Sterculia tragacantha</i>
Mlale	<i>Pouteria alnifolia</i>
Mlangale	<i>Englerophytum magalimontanum</i>
Mlenda	<i>Sesamum angolense</i>
Mlonje	<i>Mimusops kummel</i>
Mlyansekesi	<i>Synsepalum ceraciferum</i>
Msabasaba	<i>Syzygium cordatum</i>
Msabasaba	<i>Syzygium guineense</i>
Msakafya	<i>Synsepalum ceraciferum</i>
Msakanasaka	<i>Piliostigma thonningii</i>
Msankafya	<i>Synsepalum ceraciferum</i>
Msolosolo	<i>Englerophytum natalense</i>
Mtimpu	<i>Antidesma venosum</i>
Mtipo	<i>Antidesma venosum</i>
Mtobo	<i>Azanza garckeana</i>
Mtunu	<i>Harungana madagascariensis</i>
Mtwentwe	<i>Englerophytum magalimontanum</i>
Mubula	<i>Parinari curatellifolia subsp. curatellifolia</i>
Mubula	<i>Parinari excelsa</i>
Mulale	<i>Pouteria alnifolia</i>
Mwale	<i>Pouteria adolfi-friedericii subsp. australis</i>
Ngwenaja kulutambo	<i>Achyranthes aspera</i>
Ntembe	<i>Dioscorea cochlaeri- apiculata</i>
Ntunfululu	<i>Solanum anguivii</i>
Sigonfi	<i>Canarium schweinfurthii</i>
Sitobaga	<i>Ricinodendron heudelotii subsp. africanum</i>
<b>Vidunda</b>	
Mdai	<i>Tamarindus indica</i>
Mkoga	<i>Vitex doniana</i>
Mkoga	<i>Vitex payos</i> var. <i>payos</i>
Mkoko	<i>Diospyros mespiliformis</i>
Mkokokivu	<i>Diospyros kirkii</i>
Mkole-bwabwa	<i>Grewia goetzeana</i>
Mkulwi	<i>Diospyros mespiliformis</i>
Mnyanza	<i>Lecaniodiscus fraxinifolius subsp. vaughanii</i>
Msada	<i>Vangueria infausta</i> subsp. <i>rotundata</i>

Msada	<i>Vangueria volkensii</i>
Msurupi	<i>Sorindeia madagascariensis</i>
Muyanza	<i>Lecaniodiscus fraxinifolius subsp. vaughanii</i>

## Wanji

Chikande	<i>Satyrium macrophyllum</i>
Chikande	<i>Satyrium neglectum</i> var. <i>neglectum</i>
Kikande	<i>Habenaria walleri</i>
Libangala	<i>Myrianthus holstii</i>
Lidoni	<i>Rubus apetalus</i>
Lidoni	<i>Rubus rigidus</i>
Lidunula	<i>Osyris lanceolata</i>
Limpombo	<i>Cussonia spicata</i>
Lisekelu	<i>Rhus vulgaris</i>
Lisekeru-dume	<i>Rhus longipes</i>
Litungu	<i>Scolopia theifolia</i>
Litungu	<i>Scolopia zeyheri</i>
Sing'ani	<i>Eugenia capensis</i> subsp. <i>nyassensis</i>

## Yao

Lukolowa	<i>Commelina imberbis</i>
Mkawatama	<i>Combretum padoides</i>
Mkuyamani	<i>Sesamum angolense</i>
Mkwachu	<i>Manilkara mochisia</i>
Mngulungulu	<i>Strychnos innocua</i>
Njerenje	<i>Berchemia discolor</i>
Ntongotongo lya huluka	<i>Synaptolepis alternifolia</i>
Nzukumbi	<i>Synaptolepis alternifolia</i>
Unhungu	<i>Dalbergia nitidula</i>

## Zaramo

Kiga-nungu	<i>Synaptolepis alternifolia</i>
Kisogo	<i>Rourea orientalis</i>
Kunde-mbala	<i>Vigna pubescens</i>
Mbigili	<i>Tribulus terrestris</i>
Mbula	<i>Parinari curatellifolia subsp. curatellifolia</i>
Mcheju	<i>Manilkara sulcata</i>
Mchofu	<i>Uvaria lucida</i> subsp. <i>lucida</i>
Mdudu	<i>Thylachium africanum</i>
Membwa	<i>Ximenia americana</i>
Mfuru	<i>Vitex doniana</i>
Mfuru	<i>Vitex ferruginea</i>
Mgama	<i>Mimusops obtusifolia</i>
Mgegewa	<i>Ziziphus mucronata subsp. mucronata</i>

**Zaramo (contd)**

Mgelezi	<i>Synsepalum brevipes</i>
Mgelezi	<i>Synsepalum msolo</i>
Mhingi	<i>Ximenia americana</i>
Mhombo	<i>Rourea orientalis</i>
Mkarangatanga	<i>Bridelia micrantha</i>
Mkekwa	<i>Xylotheca tettensis</i> var. <i>kirkii</i>
Mkole mweupe	<i>Grewia bicolor</i>
Mkole mweupe	<i>Grewia similis</i>
Mkonge	<i>Pyrostria bibracteata</i>
Mkuyu	<i>Ficus sycomorus</i>
Mkwesu	<i>Tamarindus indica</i>
Mlanga	<i>Carpodiptera africana</i>
Mlenda	<i>Sesamum angolense</i>
Mmoyomoyo	<i>Deinbollia borbonica</i>
Mnamata	<i>Pupalia lappacea</i> var. <i>velutina</i>
Mng'ongo	<i>Sclerocarya birrea</i> subsp. <i>caffra</i>
Mnungu	<i>Zanthoxylum chalybeum</i> var. <i>chalybeum</i>
Mnyembelezuwa	<i>Antidesma venosum</i>
Mnywanywa	<i>Xylotheca tettensis</i> var. <i>kirkii</i>
Moza	<i>Sterculia quinqueloba</i>
Mpilipili	<i>Sorindeia</i> <i>madagascariensis</i>
Mpingi	<i>Ximenia americana</i>
Mpiwipwi	<i>Lannea schweinfurthii</i> var. <i>stuhlmannii</i>
Mpombo	<i>Sesamum angolense</i>
Msada	<i>Vangueria infausta</i> subsp. <i>rotundata</i>
Mseka	<i>Xylotheca tettensis</i> var. <i>kirkii</i>
Msekaseka	<i>Xylotheca tettensis</i> var. <i>kirkii</i>
Msekwasekwa	<i>Xylotheca tettensis</i> var. <i>kirkii</i>
Msofu	<i>Uvaria acuminata</i>
Msofu	<i>Uvaria lucida</i> subsp. <i>lucida</i>
Mswere	<i>Grewia bicolor</i>
Mtalala	<i>Uapaca sansibarica</i>
Mtalala mwekundu	<i>Uapaca nitida</i>
Mtalala mweupe	<i>Syzygium cordatum</i>
Mtawa	<i>Flacourtia indica</i>
Mtonga	<i>Strychnos spinosa</i> subsp. <i>lokua</i>
Mtopetope	<i>Annona senegalensis</i>
Mtunda	<i>Manilkara sansibarensis</i>

Muhingi	<i>Ximenia americana</i>
Muhingi	<i>Ximenia caffra</i>
Mukambaku	<i>Carissa edulis</i>
Myigeya	<i>Kigelia africana</i>
Mzarabo	<i>Syzygium guineense</i>
Mzati	<i>Syzygium cordatum</i>
Mzati	<i>Syzygium sclerophyllum</i>
Mzukizuki.	<i>Carpolobia goetzii</i>
Ndiga	<i>Dioscorea cochlaeri-</i> <i>apiculata</i>
Ndiga	<i>Dioscorea odoratissima</i>
Ndiga	<i>Dioscorea quartiniana</i> var. <i>quartiniana</i>
Nyakahamba	<i>Balanites wilsoniana</i>
Nyembelezuwa	<i>Antidesma venosum</i>
Popoma	<i>Balanites wilsoniana</i>
Topetope	<i>Annona senegalensis</i>

**Zigua**

Bwache	<i>Amaranthus spinosus</i>
Chambula	<i>Sorindeia</i> <i>madagascariensis</i>
Chantende	<i>Pistia stratiotes</i>
Danga-danga	<i>Portulaca oleracea</i>
Funfu	<i>Celosia schweinfurthiana</i>
Gole	<i>Adenia racemosa</i>
Ikongo	<i>Tribulus terrestris</i>
Kalonge	<i>Dracaena mannii</i>
Kibwando	<i>Corchorus fascicularis</i>
Kirumbu	<i>Ormocarpum kirkii</i>
Kisogo	<i>Ormocarpum kirkii</i>
Kisogo	<i>Rourea orientalis</i>
Kiumbu	<i>Ormocarpum kirkii</i>
Mamata	<i>Pupalia lappacea</i> var. <i>velutina</i>
Mbigili	<i>Oxygonum sinuatum</i>
Mboza	<i>Sterculia africana</i>
Mbungo	<i>Saba comorensis</i>
Mdudu	<i>Thylachium africanum</i>
Mdulu	<i>Englerophytum natalense</i>
Mfulwe	<i>Acalypha ornata</i>
Mfune	<i>Sterculia appendiculata</i>
Mfuru	<i>Vitex ferruginea</i>
Mgagawe	<i>Ziziphus mucronata</i> subsp. <i>mucronata</i>
Mgama	<i>Mimusops kummel</i>
Mgambo	<i>Mimusops bagshawei</i>
Mgambo	<i>Mimusops kummel</i>
Mgeja	<i>Dalbergia nitidula</i>
Mgobe	<i>Vitex doniana</i>
Mgobe	<i>Vitex ferruginea</i>
Mgobe	<i>Vitex mombassae</i>

Mgobe	<i>Vitex payos</i> var. <i>payos</i>	Mshofu	<i>Annona stenophylla</i>
Mgola	<i>Flacourtia indica</i>	Mshofu	<i>Uvaria acuminata</i>
Mgolimazi	<i>Trichilia emetica</i>	Mshofu	<i>Uvaria lucida</i> subsp. <i>lucida</i>
Mgona-nkolongo	<i>Combretum padooides</i>	Msindo	<i>Acalypha ornata</i>
Mgude	<i>Sterculia appendiculata</i>	Msofu	<i>Uvaria acuminata</i>
Mgungankundu	<i>Acacia nilotica</i>	Msofu-simba	<i>Uvaria kirkii</i>
Mgwejamen	<i>Antidesma venosum</i>	Msosokolwe	<i>Triumfetta cordifolia</i> var. <i>tomentosa</i>
Mhangana	<i>Hibiscus diversifolius</i>	Msumbu-bwiti	<i>Allanblackia stuhlmanii</i>
Mharata-nyani	<i>Sterculia appendiculata</i>	Msumbu-bwiti	<i>Allanblackia ulugurensis</i>
Mhelahela	<i>Psorospermum febrifugum</i>	Msungu	<i>Acokanthera oppositifolia</i>
Mhembeti	<i>Sterculia quinqueloba</i>	Msungwi	<i>Sorindeia</i> <i>madagascariensis</i>
Mhingi	<i>Ximenia caffra</i>	Mswaki	<i>Salvadora persica</i>
Mhugu	<i>Uapaca nitida</i>	Mtabwe	<i>Ensete ventricosum</i>
Mhukwi	<i>Diospyros mespiliformis</i>	Mtomoko	<i>Annona senegalensis</i>
Mhumba	<i>Senna singueana</i>	Mtonga	<i>Strychnos innocua</i>
Mhungu	<i>Uapaca kirkiana</i>	Mtonkwe	<i>Annona senegalensis</i>
Mkalakala	<i>Carissa tetramera</i>	Mtundwi	<i>Ximenia americana</i>
Mkarato	<i>Dovyalis xanthocarpa</i>	Mtundwi	<i>Ximenia caffra</i>
Mkonde	<i>Myrianthus arboreus</i>	Mtwatwa	<i>Ricinodendron heudelotii</i> subsp. <i>africanum</i>
Mkonde	<i>Myrianthus holstii</i>	Mugobe	<i>Vitex ferruginea</i>
Mkonga	<i>Balanites rotundifolia</i>	Mula	<i>Parinari excelsa</i>
Mkonko	<i>Hyphaene compressa</i>	Mumbu	<i>Lannea fulva</i>
Mkonko	<i>Hyphaene coriacea</i>	Mumbu	<i>Lannea schweinfurthii</i> var. <i>stuhlmannii</i>
Mkulwe	<i>Diospyros mespiliformis</i>	Muungu-goma	<i>Zanthoxylum chalybeum</i> var. <i>chalybeum</i>
Mkulwi	<i>Diospyros mespiliformis</i>	Muvenge	<i>Syzygium guineense</i>
Mkumbaku	<i>Carissa bispinosa</i>	Muwambangoma	<i>Balanites aegyptiaca</i>
Mkundi	<i>Parkia filicoidea</i>	Muwenge	<i>Syzygium guineense</i>
Mkwakwa	<i>Strychnos innocua</i>	Mvilu	<i>Vangueria infausta</i> subsp. <i>rotundata</i>
Mkwakwa	<i>Strychnos spinosa</i> subsp. <i>lokua</i>	Mviru	<i>Vangueria infausta</i> subsp. <i>rotundata</i>
Mkwanga	<i>Zanha africana</i>	Mviru-mbago	<i>Vangueria apiculata</i>
Mkwazu	<i>Tamarindus indica</i>	Mviu	<i>Vangueria infausta</i> subsp. <i>rotundata</i>
Mkwingwina	<i>Sorindeia</i> <i>madagascariensis</i>	Mvungwe	<i>Kigelia africana</i>
Mmoyomoyo	<i>Deinbollia borbonica</i>	Mvuti	<i>Lippia kituiensis</i>
Mmoyomoyo	<i>Deinbollia kilimandscharica</i> var. <i>kilimandscharica</i>	Mwali	<i>Bombax rhodognaphalon</i> var. <i>tomentosum</i>
Mnenge	<i>Pappea capensis</i>	Mwanga	<i>Tacca leontopetaloides</i>
Mng'ongo	<i>Sclerocarya birrea</i> subsp. <i>caffra</i>	Mwevumbulo	<i>Opilia amentacea</i>
Mnyembeuwe	<i>Erythrococca kirkii</i>	Mweza	<i>Bridelia micrantha</i>
Mnyohoyo	<i>Synsepalum ceraciferum</i>	Mwiza	<i>Bridelia micrantha</i>
Mnyohoyo	<i>Synsepalum msolo</i>	Ndiga	<i>Dioscorea cochlaeri-</i> <i>apiculata</i>
Monko-ya-nyika	<i>Trichilia emetica</i>	Ndiga	<i>Dioscorea dumetorum</i>
Mpafu	<i>Canarium</i> <i>madagascariense</i>	Ndiga	<i>Dioscorea odoratissima</i>
Msambia	<i>Synsepalum msolo</i>		
Msambu-mzazi	<i>Allanblackia stuhlmanii</i>		
Msegese	<i>Piliostigma thonningii</i>		
Msezi	<i>Manilkara sulcata</i>		
Msezi-mbago	<i>Manilkara sulcata</i>		
Mshaa	<i>Rubus rigidus</i>		

**Zigua (contd)**

Ndiga	<i>Dioscorea quartiniana</i> var. <i>quartiniana</i>
Ndiga	<i>Dioscorea schimperiana</i>
Njujui	<i>Solanum anguivii</i>
Njujui	<i>Solanum schumannianum</i>
Nkongo	<i>Commelina imberbis</i>
Nkongo	<i>Commelina latifolia</i>
Nkunde	<i>Vigna pubescens</i>
Nywanywa	<i>Rumex abyssinicus</i>
Nywanywa	<i>Rumex usambarensis</i>
Pupu	<i>Laportea ovalifolia</i>
Samaka	<i>Aframomum</i> <i>angustifolium</i>
Tambuu	<i>Piper guineense</i>
Tambwe	<i>Ensete ventricosum</i>
Tikini	<i>Asystasia gangetica</i>
Tikini	<i>Asystasia mysorensis</i>
Tongotongo	<i>Cyphostemma njegerre</i>
Tunguru	<i>Aframomum albiflorum</i>
Ukakaka	<i>Rubia cordifolia</i>
Utorojo	<i>Landolphia kirkii</i>

**Zinza**

Bwara	<i>Acacia senegal</i>
Kehwa	<i>Hygrophila auriculata</i>
Mawezi	<i>Commiphora africana</i>
Mbamba mzumera	<i>Ziziphus mucronata</i> subsp. <i>mucronata</i>
Mchindu	<i>Phoenix reclinata</i>
Mgango	<i>Canthium burtii</i>
Mgege	<i>Syzygium guineense</i>
Mgege	<i>Syzygium owariense</i>
Mgongo	<i>Psudrax parviflora</i> subsp. <i>rubrocostata</i>
Mhendambogo	<i>Uapaca nitida</i>
Mhondobogo	<i>Lannea humilis</i>
Mhunda	<i>Vitex fischeri</i>
Mkakata	<i>Vitex mombassae</i>
Mkarati	<i>Synsepalum brevipes</i>
Mkarati	<i>Synsepalum msolo</i>
Mkomakoma	<i>Grewia bicolor</i>
Mkomambuzi	<i>Psudrax parviflora</i> subsp. <i>rubrocostata</i>
Mkome	<i>Strychnos innocua</i>
Mkonyo	<i>Annona senegalensis</i>
Mkorogomwa	<i>Sterculia africana</i>
Mkoroto	<i>Dovyalis abyssinica</i>
Mkoroto	<i>Dovyalis macrocalyx</i>
Mkot	<i>Acacia senegal</i>
Mkwata	<i>Strychnos innocua</i>

Mkwata mzumula	<i>Ziziphus mucronata</i> subsp. <i>mucronata</i>
Mnyabwita	<i>Vangueria infausta</i> subsp. <i>rotundata</i>
Mnyamendi	<i>Lannea schweinfurthii</i> var. <i>stuhlmannii</i>
Mnyamenzi	<i>Lannea humilis</i>
Mribwampara	<i>Lannea schweinfurthii</i> var. <i>stuhlmannii</i>
Mruguhu	<i>Balanites aegyptiaca</i>
Msamiko	<i>Bridelia micrantha</i>
Msangura	<i>Syzygium guineense</i>
Msaro	<i>Lepisanthes senegalensis</i>
Mseka	<i>Ximenia caffra</i>
Msense	<i>Rhus natalensis</i>
Mshangule	<i>Psudrax parviflora</i> subsp. <i>rubrocostata</i>
Msindaga	<i>Piliostigma thonningii</i>
Msisa	<i>Tamarindus indica</i>
Msuguswa	<i>Oncoba spinosa</i>
Msungu	<i>Acokanthera schimperi</i>
Msungusu	<i>Flacourtia indica</i>
Msungwa	<i>Vitex mombassae</i>
Mtandaruka	<i>Trichilia emetica</i>
Mtombofa	<i>Vitex payos</i> var. <i>payos</i>
Mtukizai	<i>Eugenia capensis</i> subsp. <i>nyassensis</i>
Mubungu	<i>Saba comorensis</i>
Mugomba	<i>Pseudospondias</i> <i>microcarpa</i>
Mugusugusu	<i>Uapaca sansibarica</i>
Muharangundo	<i>Rothmannia engleriana</i>
Muhembeti	<i>Sterculia quinqueloba</i>
Muhondobogo	<i>Lannea schweinfurthii</i> var. <i>stuhlmannii</i>
Mukwatanzumula	<i>Ziziphus mucronata</i> subsp. <i>mucronata</i>
Muliwa-mpamgo	<i>Pappea capensis</i>
Munazi	<i>Parinari curatellifolia</i> subsp. <i>curatellifolia</i>
Munyabitwa	<i>Multidentia crassa</i>
Murangalala	<i>Lannea fulva</i>
Museno	<i>Cordia monoica</i>
Muvuru	<i>Vitex doniana</i>
Mzeze	<i>Syzygium cordatum</i>
Mzingute	<i>Kigelia africana</i>
Omubungo	<i>Saba comorensis</i>
Ruhanya	<i>Dracaena mannii</i>
Sagwia	<i>Sterculia africana</i>

PART II

## **THE SPECIES**

***Abutilon angulatum*****Malvaceae**

Indigenous

LOCAL NAMES: **Bondei:** Fyofyokoe; **Hehe:** Nyalufungulo, Nyamabumu; **Sambaa:** Fiefie, Fyefye.

DESCRIPTION: A woody herb to 1.5 m, young stems purple-red-grey-green becoming brown, tough and sometimes 3-angled with age, the branches very spreading, semi-erect. LEAVES: Oval to heart shaped, grey-green and hairy both sides, paler below, to 14 cm x 12 cm but **lowest leaves up to 15 cm across**, the edge irregularly shallow toothed. FLOWERS: **Bright orange-yellow**, from a long open **flower head**, many flowers on **jointed stalks** from very reduced upper leaves, each flower to 8 cm across, the 5 lobes joined at the base, maroon at the centre, central stigma and stamens yellow, the sepals form a **green furry cup with 5 short triangular lobes**. FRUIT: A yellow hairy cylinder about 15 mm across with **very many papery dark brown fruit sections containing seed (mericarps) held in the calyx**.

ECOLOGY: The species grows in a variety of habitats. Common in disturbed ground, open or closed woodland, riverine forest or grassland, 100–2,700 m.

DISTRIBUTION: In Tanzania the species is found in many areas, e.g. Tanga, Kilimanjaro, Iringa and Singida. It is also reported from other countries of Eastern, Central and Southern Africa.

USES:

**Food:**

Young leaves and flowers are used as a vegetable. Leaves and flowers are cooked, edible oil or pounded groundnuts added and then eaten with *ugali* or rice. The Hehe only use the flowers after drying and in a mixture with other dry vegetables.

**Medicinal:** Roots are boiled and the liquid drunk twice a day to treat cough. It can also be used to ease labour pains.

**Commercial:** Marketed.

**Other:** The plant is used as an ornamental, fibre from stem bark is used as string and the flowers are a source of bee forage.

SEASON: Collected during the rainy season.

STORAGE: Stored after drying in the sun and usually mixed with other dry vegetables.

MANAGEMENT: Collected from the wild, not cultivated or protected by local people, but can easily be propagated from seed.

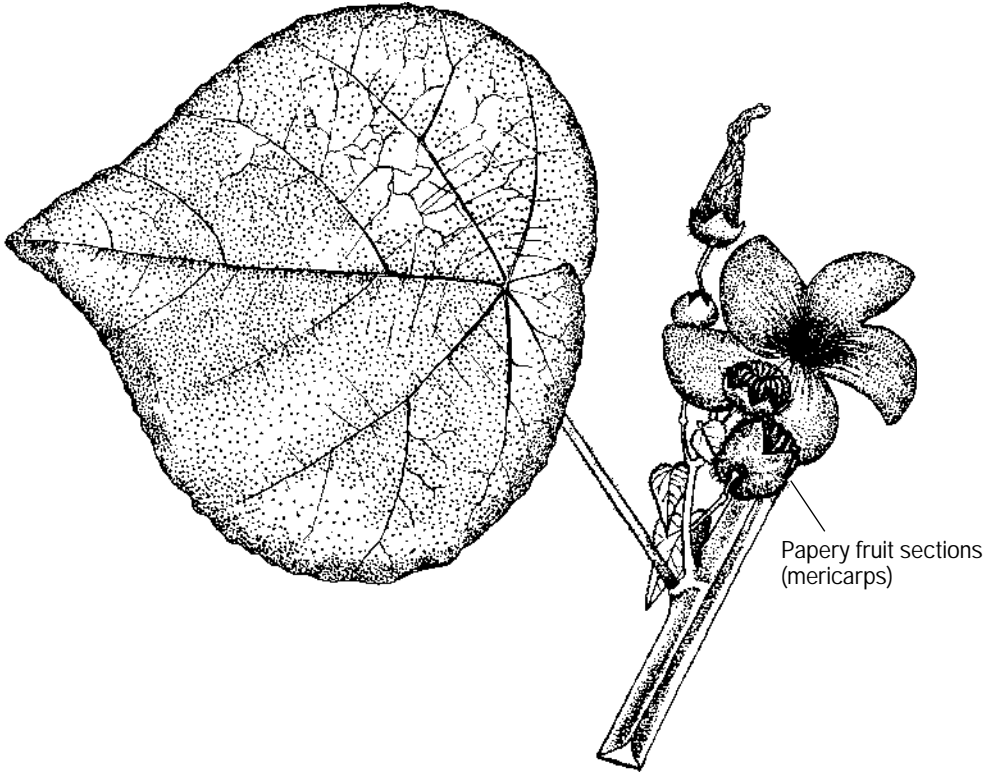
STATUS: Common within the area of distribution.

REMARKS: The species is an invasive weed and is only eaten by the Hehe.



*Abutilon angulatum*

Malvaceae



*Abutilon longicuspe*

## Malvaceae

Indigenous

LOCAL NAMES: **Hehe:** Nyamabumu.

DESCRIPTION: A perennial shrub 1.5–5 m, the stems with dense grey hairs. LEAVES: **Simple, almost circular, stalked, up to 20 cm long x 18 cm across**, the tip long pointed, the base heart shaped, edge round or sharp toothed, the lower leaf covered with star-shaped hairs so feels softly velvety. FLOWERS: Large, **terminal, pyramid-like heads** of flowers appear with very many stalked flowers, each 2.5 cm across, **pale blue-mauve-white with a darker centre**, 5 asymmetric petals about 1 cm long surround the central **stamen column which has a wide base and downward-directed simple hairs**. Flower stalks are jointed just below the flowers which usually only open in the late afternoon. FRUIT: A short cylinder or round disc of 12–25 **rather loose dry carpels**, each with 1–3 seeds without a stiff hairy point.

ECOLOGY: Frequently found in woodland, forests and grasslands, often in secondary, riverine and valley-bottom vegetation.

DISTRIBUTION: It grows in all parts of Tanzania, e.g. found around Lushoto, Kilimanjaro, Arusha, Sumbawanga and Iringa. Found in many parts of East Africa; north to Eritrea and Sudan.

USES:

**Food:**

Flowers are used as a vegetable. They are chopped, cleaned and cooked. Pounded groundnuts, onions and tomatoes are added and then it is eaten with *ugali* or rice.

**Commercial:** Not marketed.

**Other:** Ornamental, fodder and a source of bee forage. The stem fibre is used locally for string.

SEASON: Collected during the rainy season, usually from January to May.

STORAGE: Not stored.

MANAGEMENT: Collected from the wild, not cultivated or protected by local people, but can be propagated by seed.

STATUS: Common and easily accessible within its area of distribution.

REMARKS: The species is an invasive weed.

*Abutilon longicuspe*

Malvaceae



***Abutilon mauritianum*****Malvaceae**

Indigenous

LOCAL NAMES: **Arusha:** Oldadai; **Barabaig:** Udageshade; **Bondei:** Fyofyokoe; **English:** Old man's gold, Poor man's gold; **Hehe:** Nyamabumu; **Iraqw:** Dawo; **Maasai:** Oldadai; **Rangi:** Mutende; **Sambaa:** Fiefie, Fyefye; **Swahili:** Mbiha, Mjamanda.

DESCRIPTION: A woody herb or shrubby perennial, 0.5–2.5 m, covered with fine **grey hairs, some short, some long and spreading**. LEAVES: Wide-oval to 18 cm long, **tip long pointed**, the edge round to sharply toothed, the base heart shaped to a stalk about as long as the leaf. Smooth above but grey-green below, with short hairs, very soft to the touch. Straight bristles (stipules) at the base of the stalk. FLOWERS: **Bright yellow, solitary** on long stalks beside leaves, petals to 14 mm long, the 5 sepals tubular at the base but their **lobes longer than the tube**. FRUIT: **Black** and round, about 3 cm across, with 20 or more hairy spreading black carpels, each **13 mm long, with a spiky point on the outer rim**.

ECOLOGY: Found at forest edges, in wooded grasslands, coastal bushland or thickets on coral outcrops, 0–2,000 m.

DISTRIBUTION: Widespread in Tanzania, e.g. on Zanzibar and around Tanga, Lushoto, Moshi, Arusha, Iringa, Bukoba and Mwanza. Also found in Malawi, Mozambique, Uganda and Kenya, north to Ethiopia and into West Africa.

USES:

**Food:**

Leaves and flowers are eaten as a vegetable (only flowers among the Hehe). Tender leaves and flowers are cooked, edible oil, groundnut paste or coconut milk added and then served with *ugali* or rice.

**Medicinal:**

- Leaves are crushed and the infusion used as treatment for diarrhoea.
- Roots and bark are boiled and the liquid drunk to treat diarrhoea, stomach-ache, coughs and colds.

**Commercial:** Not marketed.

**Other:** Ornamental, fodder and a source of bee forage. Fibre from the stem bark is used for string.

SEASON: Leaves and flowers are collected during the rainy season.

STORAGE: Not stored.

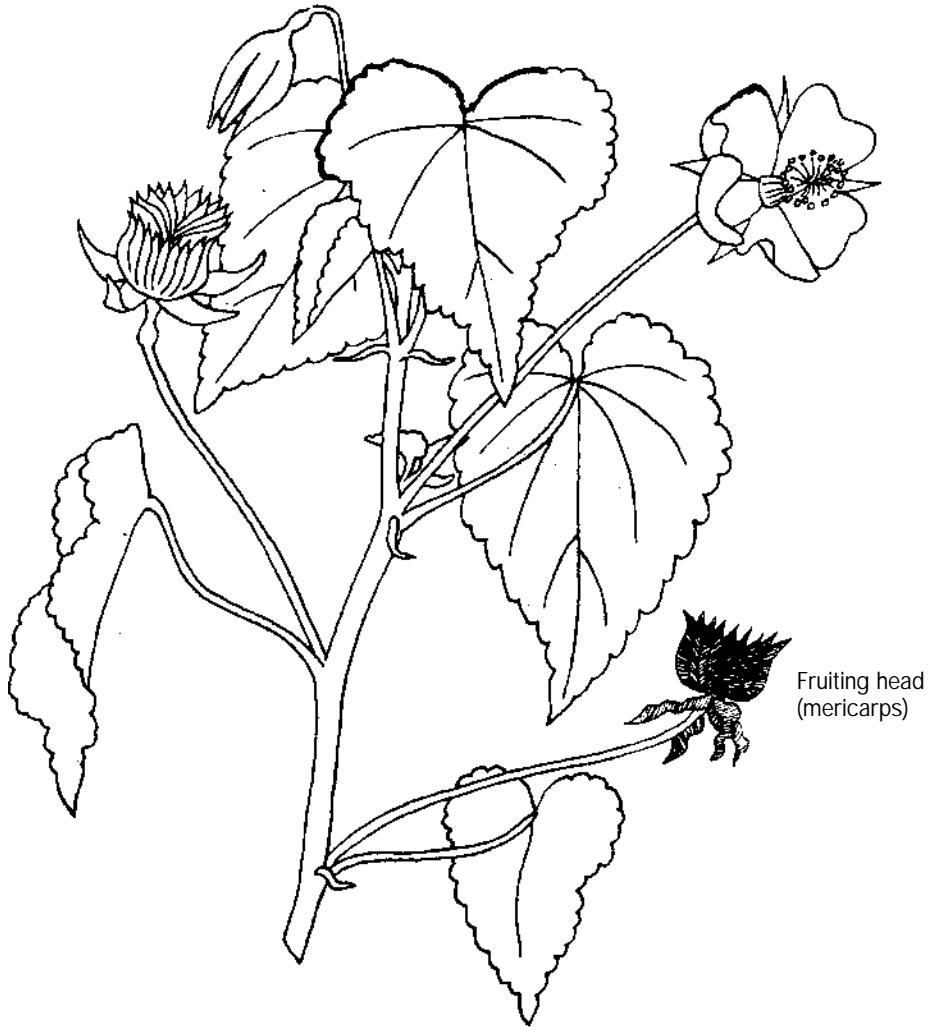
MANAGEMENT: Collected only from the wild, but can be propagated by seed.

STATUS: Common.

REMARKS: The species is a notorious weed.

*Abutilon mauritianum*

Malvaceae



***Acacia nilotica*****Mimosaceae**

Indigenous

**LOCAL NAMES:** **Arusha:** Olkloriti; **English:** Babul, Egyptian thorn, Gum arabic tree, Scented-pod acacia, **Gogo:** Mfuko, Mfuku, Mufuku; **Gorowa:** Baryomodi; **Hehe:** Muwulagavega; **Iraqw:** Baryomodi, Kantzi, Tsagayand; **Kuria:** Michame; **Maasai:** Olkiroriti; **Mbugwe:** Barabonyoda; **Ngindo:** Kinjacha; **Nyamwezi:** Mdubilo, Mgunga; **Nyaturu:** Muhinko; **Pare:** Mzameli; **Rangi:** Kihungawisu, Kihungawiswa, Kijame, Mgunga, Mhungawiswa, Muhunga; **Sambaa:** Mgelegele, Muela; **Sandawi:** Manange; **Sukuma:** Mdubilo; **Swahili:** Mgunga; **Zigua:** Mgungankundu.

**DESCRIPTION:** Usually a small tree to 6 m. Often branched from the base, crown rounded. **BARK:** Brown-black, rough, fissured, young shoots red-brown, hairy. **THORNS:** **Greyish, to 10 cm, straight, usually shorter.** **LEAVES:** Compound grey-green, new growth in dry season, 2–11 pinnate with few to many leaflets, small glands visible along leaf stalks. **FLOWERS:** Fragrant, **round heads, bright yellow.** **FRUIT:** Straight or curved pods, **17 cm long, to 2 cm wide.**

**ECOLOGY:** Common in arid and semi-arid areas of Africa. It grows on a variety of soils from coastal sandy ones to black cotton, 0–1,800 m.

**DISTRIBUTION:** Found in many areas of Tanzania, e.g. in Dodoma, Shinyanga, Iringa and Arusha. Also found in Sudan, Ethiopia southwards to South Africa, Angola, Namibia and also in India.

**USES:**

**Food:**

- The inner bark (phloem strands) and the thick fruit pulp are boiled in water, sugar added and then drunk as tea (Maasai).
- The bark is cooked with meat soup and eaten in order to strengthen the body and as a stimulant (Maasai).

**Medicinal:**

- Inner bark is chewed and the resulting juice is swallowed to treat sore throat and coughs.
- Leaves boiled in tea or coffee taken without sugar and milk as a treatment for chest pains and pneumonia.
- Boiled roots are used to treat indigestion or other stomach troubles. Bark and roots are boiled with any soup and drunk to treat anaemia, STDs, asthma, pneumonia and as an aphrodisiac (Maasai, Gogo, Nyamwezi).

**Commercial:** The bark is sold in local markets.

**Other:** The wood is hard and used for timber, poles, fuelwood, pestles, tool handles, toothbrushes and carvings. The plant is also used as an avenue tree and for live fence, as a source of bee forage, nitrogen fixation, shelterbelts, shade, soil conservation, tannin, dye and gum.

***Acacia nilotica* (contd)****Mimosaceae**

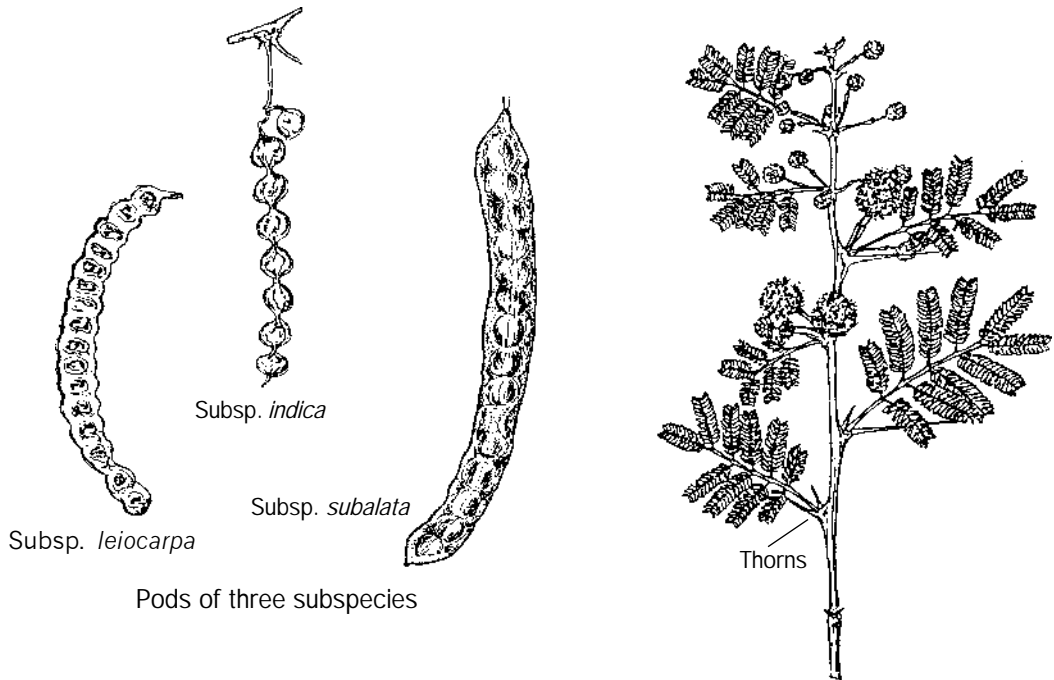
SEASON: Bark and fruit collected during the dry season, i.e. April–July.

STORAGE: Fruit and bark can be stored for several months.

MANAGEMENT: Collected from the wild, not cultivated, but can easily be propagated by seed.

STATUS: Common.

REMARKS: This species is very variable with several subspecies and varieties. Four subspecies are known from Tanzania: subsp. *indica* found in the Shinyanga, Mwanza and Mara Regions, subsp. *kraussiana*, found in Dodoma, Rukwa and Ruvuma Regions, subsp. *leiocarpa* found in Tanga and Morogoro Regions, and subsp. *subalata* found in most parts of Tanzania.



Pods of three subspecies



*Acacia senegal*

## Mimosaceae

Indigenous

LOCAL NAMES: **Barabaig**: Yudek; **Bena**: Ki'tononganga; **Digo**: Kikwata; **English**: Gum arabic tree, Sudan gum arabic, Three-thorned acacia; **Gogo**: Mzasa; **Iraqw**: Yudek; **Maasai**: Enderkesi, Interkes (plural), Olbida, Olderkesi, Olmunishui; **Ngindo**: Kiluma, Kiruma; **Nyamwezi**: Katahila, Katatula, Katita, Mgwatu; **Nyaturu**: Mukhubo; **Rangi**: Muhunga; **Sukuma**: Igwata, Mkwata; **Swahili**: Kikwata, Mgunga; **Zinza**: Bwara, Mkot.

DESCRIPTION: A shrub or tree to 12 m, with a rounded crown and many low branches before maturity. BARK: Waxy, smooth, then **peeling yellow and papery from red-brown stem underneath**. A sticky yellow resin flows from cuts in the bark. Thorns in **threes, the central one hooked downwards, the lateral ones curved up; brown to black**. LEAVES: Bipinnate, usually hairy, only 3–6 pairs of leaflets, on a stalk to 7 cm, leaflets grey-green, small and narrow. FLOWERS: **Creamy spikes**, one or more, 2–8 cm long, fragrant, usually develop before the rainy season; buds red. FRUIT: **Pods, variable, thin and flat, pointed at both ends, oblong, about 10 cm long to 3 cm across, soft, grey-yellow becoming papery brown, veins clear, with 3–6 flat seeds**.

ECOLOGY: It is commonly found in wooded grassland, deciduous bushland and dry scrub with scattered trees in medium-altitude areas, up to 1,900 m; rainfall 500–1,000 mm. It grows on a wide range of soils, but most often on black-cotton soil.

DISTRIBUTION: Found in dry areas of Africa. In Tanzania it is found, for example, in Dodoma, Iringa, Kilimanjaro and Arusha Regions.

USES:

**Food:**

The resin of the tree is collected and eaten daily during famine periods and in emergency. It has a bitter taste.

**Medicinal:** The stem or root bark is boiled and the liquid is used for treatment of diarrhoea, STDs and stomach disorders (Maasai).

**Other:** Poles used for construction and the wood produces excellent charcoal. The leaves are used for fodder. Bark is boiled to produce a thick black dye which is smeared on mats to make them waterproof. Fibres from the bark are used for string. The tree is also useful for firewood and is a source of bee forage.

SEASON: The resin is collected during the dry season.

STORAGE: Not stored.

MANAGEMENT: Gum arabic is collected from the wild and the tree is not protected or cultivated by the local people. Only maturing trees from 5 to 15 years old pro-

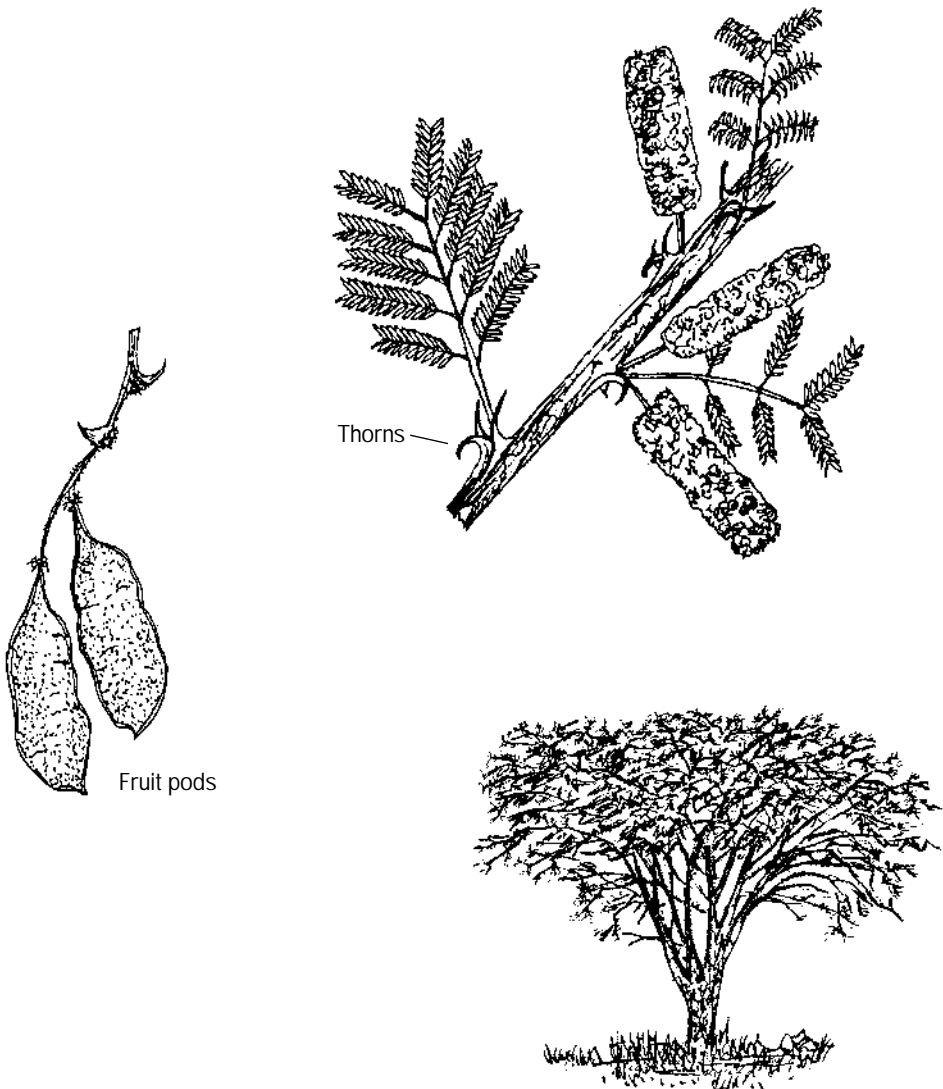


***Acacia senegal* (contd)****Mimosaceae**

duce reasonable amounts of resin. Gum production is excellent when growing in poor soils. Can be intercropped (e.g. with sorghum, millet). The plant can easily be propagated by seed.

STATUS: Common within its area of distribution.

REMARKS: Gum arabic is a valuable additive in the food and pharmaceutical industries. This is the *Acacia* species that produces the best-quality gum. Two varieties occur in Tanzania: var. *kerensis* which occurs in Kilimanjaro, Shinyanga, Mwanza and Mara Regions, and var. *senegal* which occurs in most regions of Tanzania.



*Acalypha bipartita*

## Euphorbiaceae

Indigenous

LOCAL NAMES: **Bena:** Ndyavadimi; **Hehe:** Nyautitili; **Sambaa:** Mfulwe; **Swahili:** Mhacha.

DESCRIPTION: A scrambling **hairy** shrub which may become a dense bush to 3 m, the **stems more or less 4-sided**. LEAVES: Numerous, thin and **oval to 10 cm** long, tip pointed, **edge toothed, on a stalk usually to 4 cm**. A pair of **thread-like stipules** can be seen beside younger leaves. FLOWERS: Spikes to 14 cm long next to leaves. Tiny green-white male flowers clustered along the end of the spike. A characteristic **pair of semi-circular leafy bracts** about 1 cm across grows on stalks about 3 cm from the base of the spike. These bracts contain 1–3 female flowers. FRUIT: Small fruit capsules develop within the bracts and contain a few rounded grey-brown seeds, 2 mm in diameter.

ECOLOGY: Forest undergrowth, forest edges and associated grasslands and bushlands, sometimes riverine, extending into wooded grassland but mainly in grazing areas. Thrives in valleys with adequate moisture. It occurs naturally in medium-altitude areas, 1,000–1,500 m; rainfall 900–1,500 mm. It prefers yellowish sandy loams but tolerates a wide range of soil types.

DISTRIBUTION: Found in Shinyanga, Mwanza and Mara Regions of Tanzania. Widespread in the eastern part of the Congo basin and in Rwanda, Burundi and Sudan.

Uses:

**Food:**

Young leaves and shoots have a bland or slightly bitter taste and are eaten as a vegetable. The leaves are collected, chopped and added to cooking beans or peas and the mixture served with a staple (Hehe, Sambaa).

**Other:** The stems are used to make baskets for winnowing and in construction of granaries. The plant is also used for fodder.

**Commercial:** Sometimes sold in local markets (Sambaa).

SEASON: Tender leaves are usually collected during the rainy season. In riverine locations it is collected year round.

STORAGE: Not stored.

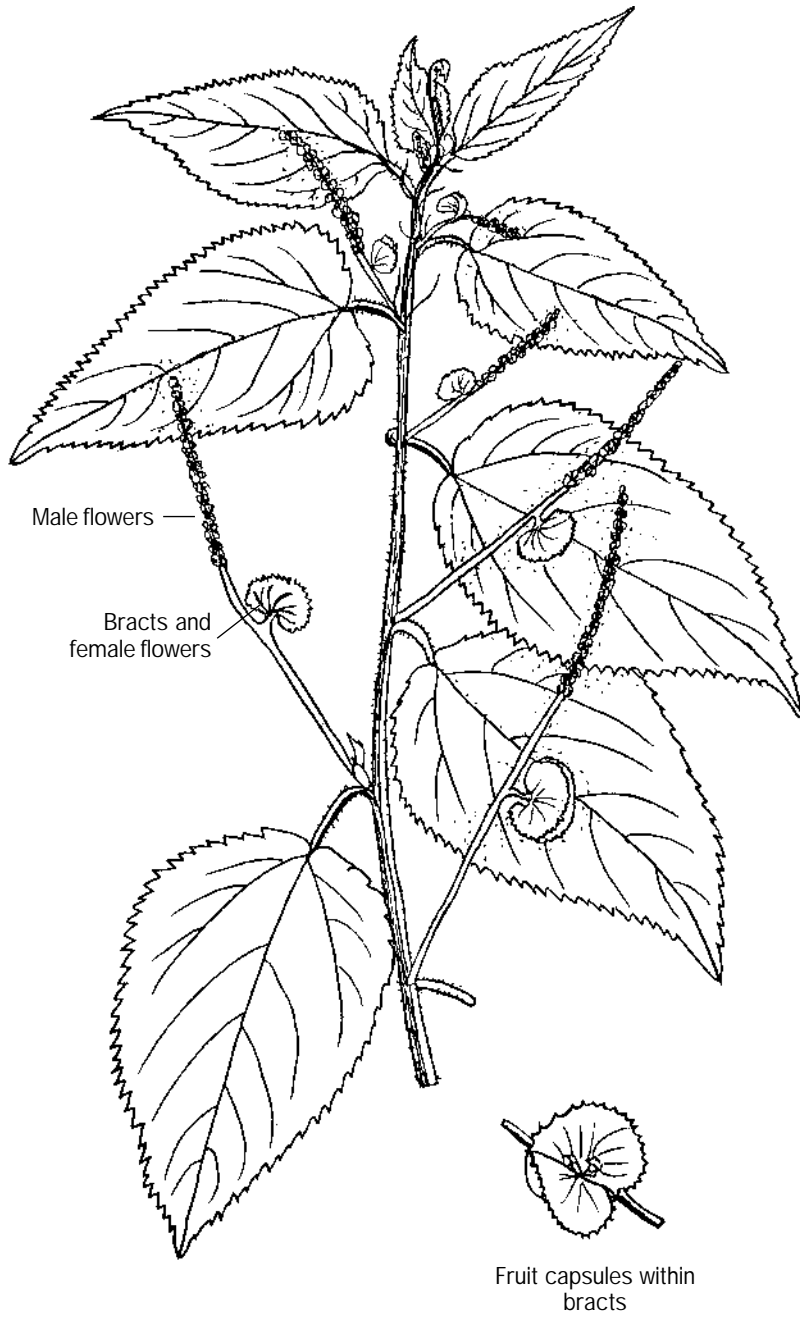
MANAGEMENT: Collected from the wild and not cultivated or protected by the local people.

STATUS: Common and easily accessible within its area of distribution.

REMARKS: The species is an invasive weed.

*Acalypha bipartita*

Euphorbiaceae



*Acalypha fruticosa*

## Euphorbiaceae

Indigenous

LOCAL NAMES: **Bena:** Ndyavadimi; **Hehe:** Nyautitili; **Maasai:** Shaiti; **Nyamwezi:** Mkima-dimbya; **Sambaa:** Mfulwe; **Swahili:** Mhacha.

DESCRIPTION: An erect stiff shrub, sometimes hairy, to 3.5 m, often with **yellow resinous glands on the lower leaf surface** which give off an unpleasant smell when crushed (**no stinging hairs or white latex**). LEAVES: **Simple, ovate** and alternate, 1–8 cm long, the tip long or short but usually blunt, **edges round toothed**, grey-green below, the leaf stalk shorter than the blade (**strap-shaped stipules**). FLOWERS: Tiny **male and female flowers**, yellow-green to reddish, in **hanging catkin-like spikes**, usually male above and female below, or on separate plants, small sepals but an **enlarged bract surrounds the female flowers and fruit**, 4 mm x 8 mm, wavy edged and ribbed. FRUIT: Tiny capsules, 2–3 mm, contain the seed.

ECOLOGY: Common in moist spots within dry areas, e.g. at woodland edges in lowland as an undershrub, in bushland thicket near the coast and on overgrazed land, 0–1,800 m.

DISTRIBUTION: Found in many parts of Tanzania and widely distributed in East Africa.

USES:

**Food:** The leaves are collected, chopped and boiled and served with a staple or mixed with other vegetables such as beans or peas. Sometimes pounded simsim or groundnuts are added to make it more palatable.

**Medicinal:** The roots are washed and boiled and the liquid is drunk to treat cholera, STDs, stomach problems and whooping cough (Sambaa). The liquid can also be applied to eyes to treat conjunctivitis. A decoction of roots is taken hot to relieve fever and colds. Stems and roots used to treat toothache.

**Other:** Stems and leaves are used as fodder. Stems are also used for weaving granaries and local doors or as withies.

SEASON: Leaves are collected during the rainy season between December and May.

STORAGE: Not stored.

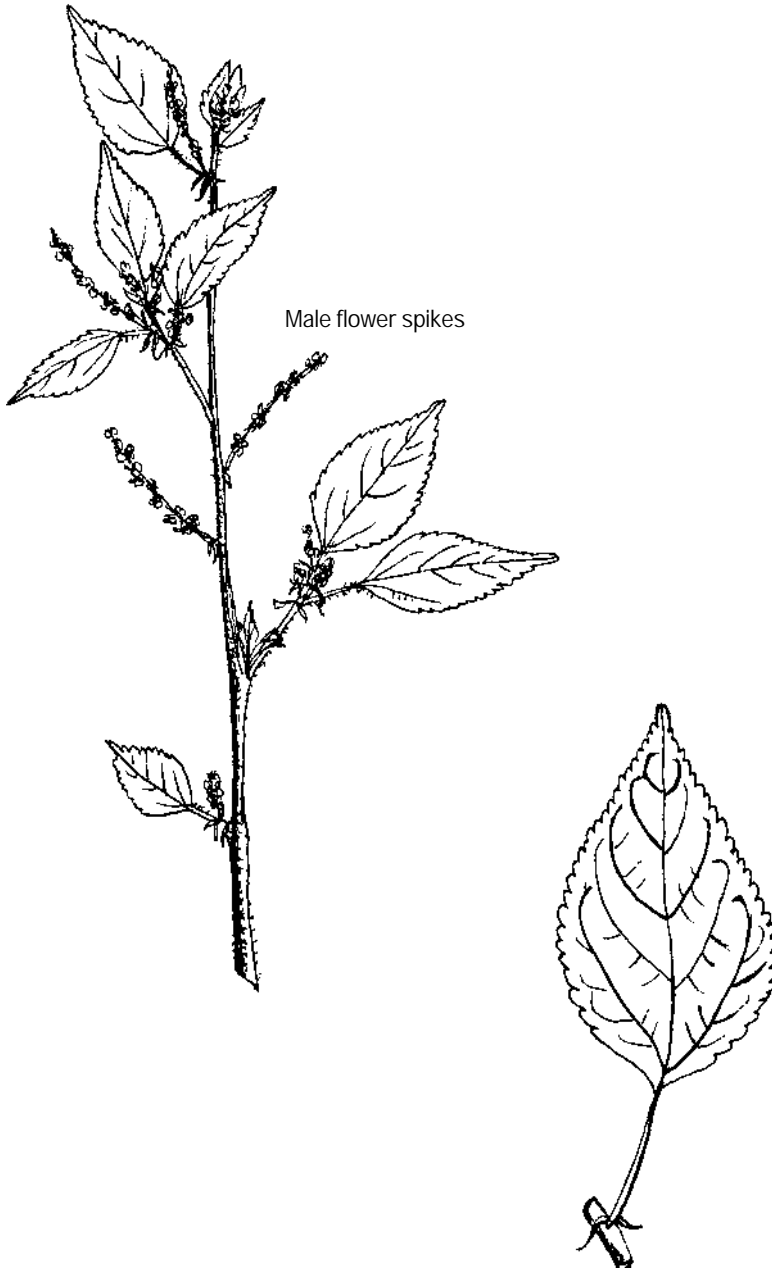
MANAGEMENT: Collected from the wild and not cultivated or protected by the local people.

STATUS: Common within its area of distribution.

REMARKS: A very variable species with at least three varieties in Tanzania: var. *fruticosa* found in lake, northern and coastal parts of Tanzania; var. *villosa* found around Lake Victoria, Tanga, Mbeya and on Zanzibar; and var. *eglandulosa* which is common in most parts of Tanzania except central and southern parts. An invasive weed in some parts of Tanzania.

*Acalypha fruticosa*

**Euphorbiaceae**



***Acalypha ornata*****Euphorbiaceae**

Indigenous

LOCAL NAMES: **Bondei:** Mfulwe; **Sambaa:** Mfulwe, Msindo; **Sukuma:** Huhunga; **Swahili:** Mchacha; **Tongwe:** Lushete; **Zigua:** Mfulwe, Msindo.

DESCRIPTION: A woody herb or large well-branched shrub, 1–3 m. LEAVES: Rather thin, oval, 5–16 cm long, tip long pointed, edges well toothed, a few hairs along midrib and veins, 5-nerved from the base which is rounded to a stalk 3–10 cm. Long and thin stipule pairs fall early. FLOWERS: Male and female separate. **Female flowers red, in solitary terminal spikes, 17 cm long x 3 cm across when full grown, 1–3 flowers grow within a large decorative bract. Male spikes to 15 cm, single, growing beside leaves, covered with tiny cream flowers in very small bracts.** FRUIT: A small 3-lobed capsule, 3–4 mm, splitting to set free rounded purple-grey seeds.

ECOLOGY: A small plant of forest undergrowth and edges, wooded grassland, deciduous woodland and thicket, often riverine or in rocky places, secondary regrowth and disturbed land, 0–2,000 m.

DISTRIBUTION: Throughout Tanzania; Uganda, Kenya; from Nigeria eastwards to Eritrea and southwards to Angola; Botswana, Zimbabwe and Mozambique.

USES:

**Food:**

Leaves are collected, chopped and cooked. Pounded groundnuts or coconut milk, onions and tomatoes can be added to improve the taste. It is eaten with *ugali* or rice.

**Medicinal:** The plant is used to treat leprosy: Roots are boiled and the liquid drunk twice a day and some of the liquid is used for a steam bath (Sukuma, Nyamwezi). The liquid of boiled roots can also be drunk to relieve menstrual pain.

**Commercial:** Not marketed.

**Other:** The plant is used as an ornamental and for fodder.

SEASON: The leaves are collected during the rainy season.

STORAGE: Not stored.

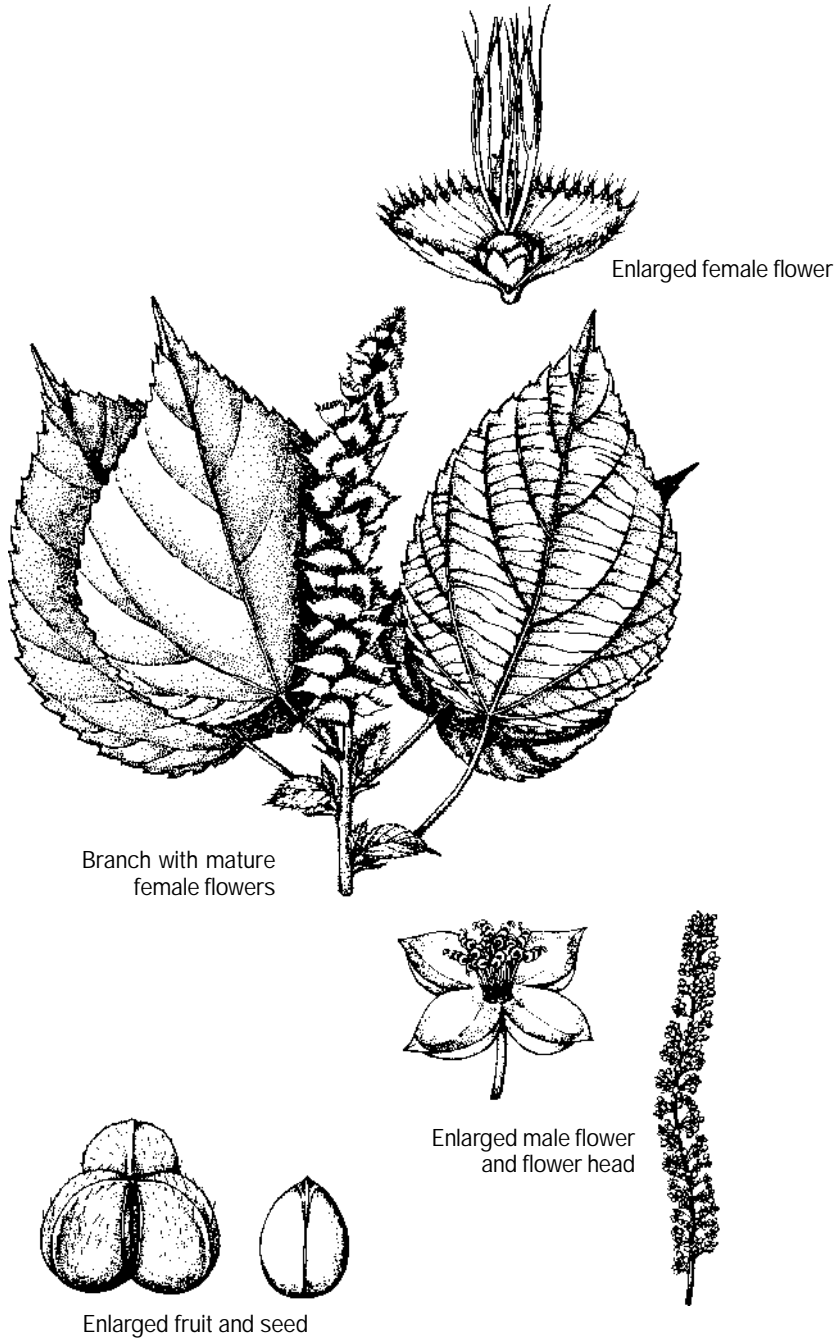
MANAGEMENT: Collected from the wild not cultivated, but can be propagated by seed and cuttings.

STATUS: Common.

REMARKS: Three varieties occur in Tanzania: var. *aspera*, var. *pubescens* and var. *sicular* which are all common in most parts of the country.

*Acalypha ornata*

Euphorbiaceae



*Acanthopale laxiflora*

## Acanthaceae

Indigenous

LOCAL NAMES: **Hehe:** Nyakibiki, Nyakigoma.

DESCRIPTION: A weak **shrub**, small tree, sometimes a climber, to 2 m, with woody stems. LEAVES: Opposite, **long-oval, over 10 cm long, narrowing gradually at both tip and base** into a short stalk about 2.5 cm, almost winged, leaf edge slightly toothed, dark green above, paler below with hairs on the clear veins. FLOWERS: Like white bells, about 3 cm long, streaked pink-purple in the throat, which is also **hairy**, the 5 triangular lobes shorter than the tube; **4 fertile stamens** within, the flowers in dense axillary spikes at each node surrounded by narrow green **sepals and bracts**. FRUIT: A **club-shaped capsule, not flattened**, pale brown, about 1.5 cm, smooth, several bunched together in axils, containing 4 seeds.

ECOLOGY: An undershrub, locally common in wet, mountain rainforests up to 2,100 m. Also found on farmland.

DISTRIBUTION: Recorded in forests of the Uluguru mountains, around Arusha, West Usambara mountains and Mount Kilimanjaro. Also in Kibale Forest in Uganda.

USES:

**Food:**

Leaves are used as a vegetable. Young leaves are chopped, washed and cooked, coconut milk or groundnut paste added and then eaten with *ugali* or rice.

**Commercial:** Not marketed.

**Other:** The plant is a favourite ornamental and also used for fodder. The fruit are eaten by monkeys.

SEASON: Leaves are collected from December to April, i.e. during the rainy season.

STORAGE: Not stored.

MANAGEMENT: Collected from the wild, not cultivated or protected by local people, but can be propagated by seed.

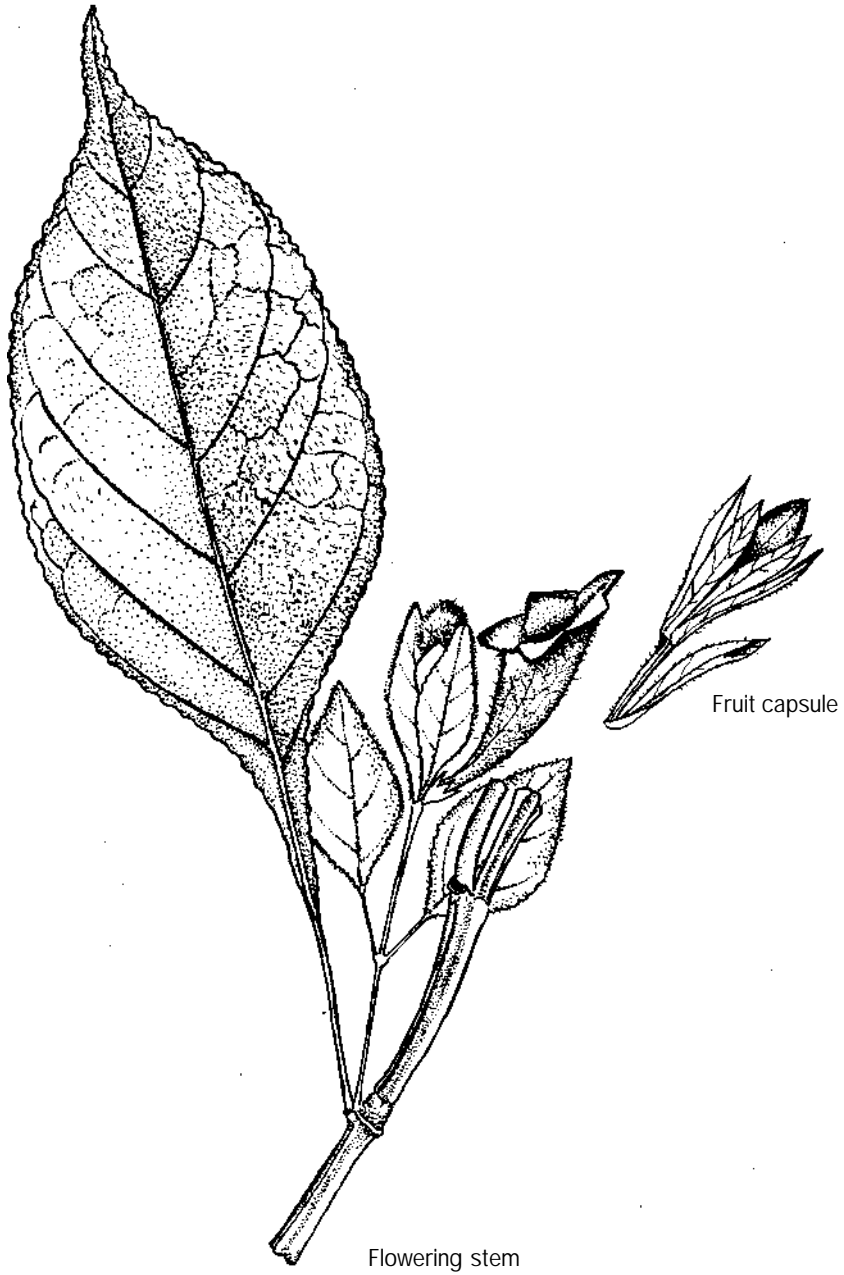
STATUS: Common within its area of distribution.

REMARKS: A notorious weed.



*Acanthopale laxiflora*

Acanthaceae



*Achyranthes aspera*

## Amaranthaceae

Indigenous

LOCAL NAMES: **Bena:** Lingulukila, Ngulukila; **English:** Rough chaff flower; **Gorowa:** Kwantzi, Nunuhay; **Hehe:** Lugeni; **Luguru:** Bwasi; **Maasai:** Olerubat; **Matengo:** Lindiame; **Rangi:** Ihata, Ikulula, Mbarahasha; **Swahili:** Pulule; **Tongwe:** Ngwena ja kulutambo.

DESCRIPTION: A much-branched herb or weak-stemmed shrub to 2 m, annual or perennial, the stem erect or scrambling. LEAVES: Simple and **opposite**, usually long-oval up to 15 cm, **very variable**, often softly hairy on one or both surfaces. FLOWERS: All year round, only 3–7 mm, borne singly along **terminal or axillary spikes** which appear **silvery green to pink-red** when open; no petals but **shiny sepals and bracteoles**. **Older flowers and fruit point downwards**. FRUIT: Small capsules, containing only a few seeds, and surrounding **bracteoles with shiny edges** catch on to animal hair and human clothing—a dispersal mechanism.

ECOLOGY: It is mainly found in secondary regrowth, at forest edges, in thickets, open grassland, along forest trails, seasonal swamps and dried-up watercourses, up to 3,000 m; rainfall 700–1,300 mm.

DISTRIBUTION: Found practically throughout the tropical and warmer regions of the world, and widespread in Tanzania.

USES:

**Food:**

The leaves are collected, chopped and boiled and may be served with a staple or mixed with other vegetables to add bulk. Pounded simsim, groundnuts or sunflower are added in order to make it more palatable.

**Medicinal:**

- Leaves are pounded, soaked in water, boiled and the liquid drunk to treat STDs and also to treat colds in children (Sambaa).
- Roots are boiled in water, put in a pot and used for washing the face or the whole body.
- Fresh roots can be chewed during business negotiations (Gogo). A root decoction is used to treat constipation in children. The pounded root is steeped in hot water and the extract drunk cold as a treatment for STDs as well as an antidote for a variety of ingested poisons.
- Leaf powder (with salt) is applied on cuts made with a razor blade in cases of ankle sprain. It is also a remedy for headache (sniffed or put in tea and drunk) and sniffed to stop nosebleed. The ash of burned leaves is applied on boils.

**Other:** The plant is used as fodder for goats and rabbits and is a source of bee forage.

***Achyranthes aspera* (contd)****Amaranthaceae**

SEASON: The leaves are mainly collected during the rainy season but also during the dry season from wetlands (e.g. floodplains).

STORAGE: Not stored.

MANAGEMENT: Collected from the wild and not cultivated or protected by the local people.

STATUS: Common within its area of distribution.

REMARKS: This species is an indicator of soil fertility in areas where it grows, but also an invasive weed in parts of Tanzania.



***Acokanthera oppositifolia*****Apocynaceae**

Indigenous

LOCAL NAMES: **English:** Arrow-poison tree; **Sambaa:** Mbuswa; **Swahili:** Msunguti; **Zigua:** Msungu.

DESCRIPTION: An attractive evergreen small tree or multi-stemmed shrub, occasionally long and climbing, 2–7 m, all parts producing white latex when cut. BARK: Grey-brown, becoming deeply grooved with age. LEAVES: **Dark shiny green** above, paler below, opposite, tough and **thickly leathery**, margin rolled under, oval to oblong, 5–10 cm, with a **sharp almost spiny point at the tip**, base wide or rounded to a thick, wrinkled stalk to 1 cm, young leaves reddish. FLOWERS: Attractive and sweet scented, white inside, pink outside, in dense bunches beside leaves, the **tube about 1 cm**, the **5 lobes overlapping left and shorter than the tube**. FRUIT: **Ovoid berry red-purple and fleshy up to 3 cm long**, edible when really ripe, sweet but bitter, poisonous when young.

ECOLOGY: Occurs in a variety of habitats: rocky hillsides, coastal bush, open woodland, termite mounds, dry forest and forest margins, riverine forest or woodland, 1,500–2,100 m.

DISTRIBUTION: Widespread in East Africa and south to South Africa. Found in Tanzania, e.g. in Tanga, Arusha, Iringa and Kilimanjaro Regions.

USES:

**Food:**

The pulp of ripe fruit is sweet and edible. Unripe fruit, leaves, bark and roots are all poisonous.

**Other:** Roots, bark and leaves are cooked until a thick extract is obtained which is used as an arrow poison, which must be handled with care. It is commonly used by the Pare, Iraqw, Zigua, Kaguru and Sandawi. Usually produced by the Pare, Sandawi and Kaguru and sold to other tribes.

SEASON: Fruit are collected during April–July.

STORAGE: Not stored.

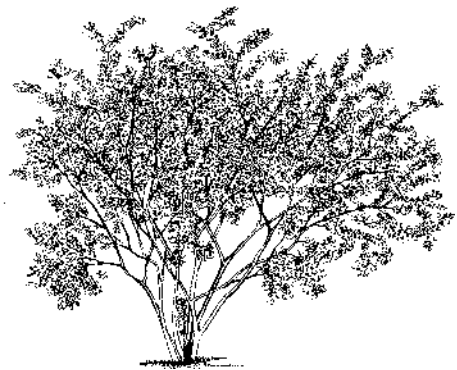
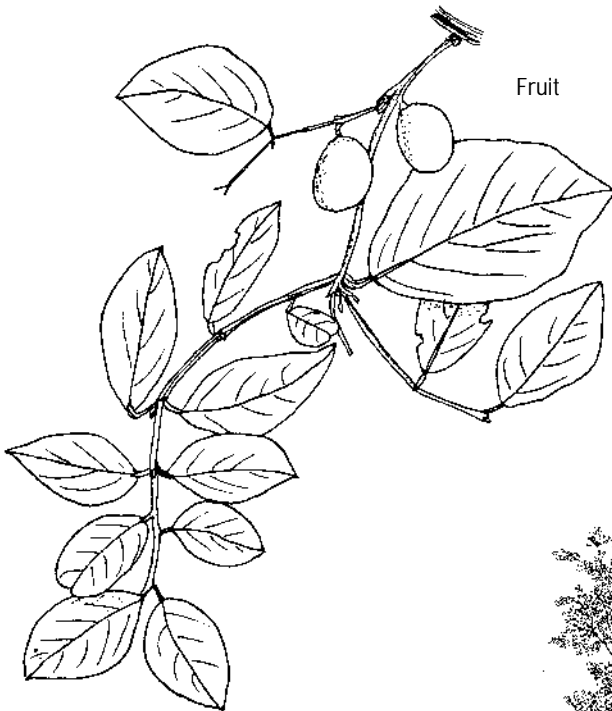
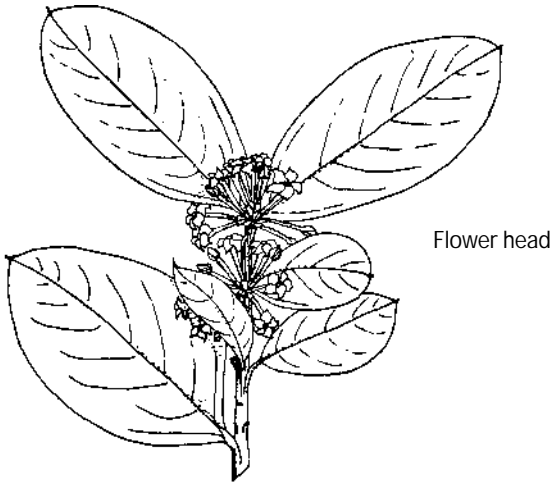
MANAGEMENT: Collected from the wild, not cultivated; can be propagated from seed.

STATUS: Common.

REMARKS: A tree that is known to be poisonous.

*Acokanthera oppositifolia*

Apocynaceae



*Acokanthera schimperi*

## Apocynaceae

Indigenous

LOCAL NAMES: **English:** Arrow-poison plant, Common poison bush, Poison-arrow tree; **Hehe:** Msungu; **Maasai:** Olmorijoi; **Nyamwezi:** Msongu; **Sambaa:** Mshunguti, Msungu; **Swahili:** Mchungu, Msunguti; **Zinza:** Msungu.

DESCRIPTION: A shrub or small **rounded tree**, with **short bole** to 5 m, sometimes 10 m. **BARK:** Dark brown, fissured with age, young twigs flattened. **LEAVES:** Opposite, dark shiny green above, **stiff and leathery, oval to rounded, 4–7 cm, the tip pointed and sharp.** **FLOWERS:** Appearing with early rains, in dense, **fragrant clusters**, almost stalkless, **white-pink, tubular.** **FRUIT:** **Oval berries to 2 cm, red, becoming purple when ripe**, edible.

ECOLOGY: A tree of dry woodland, thickets and grasslands, often at the margin of dry forest or forest remnants. Prefers rich well-drained forest soil, but also grows on black-cotton and poor soils in dry sites, 1,100–2,300 m.

DISTRIBUTION: In Tanzania it is found, e.g. in Iringa, Mbeya, Mara, Arusha and Morogoro Regions. Also known from Kenya, Uganda, Malawi, Zambia, Mozambique and southwards to South Africa.

USES:

**Food:**

Ripe fresh fruit are edible and have a rather sweetish bitter taste.

**Medicinal:** Roots are used as medicine for STDs. Roots are pounded and soaked in hot water and the infusion is drunk, but only in very small quantities as the plant is poisonous.

**Other:** Roots, bark and leaves are used for making arrow poison by boiling them into a thick paste and smearing the extract on spears and arrows. The makers of arrow poison include Pare, Sambaa, Zigua and Nguu, but the poison is occasionally sold to other tribes.

SEASON: Fruit are collected from April to July.

STORAGE: Fruit are not stored.

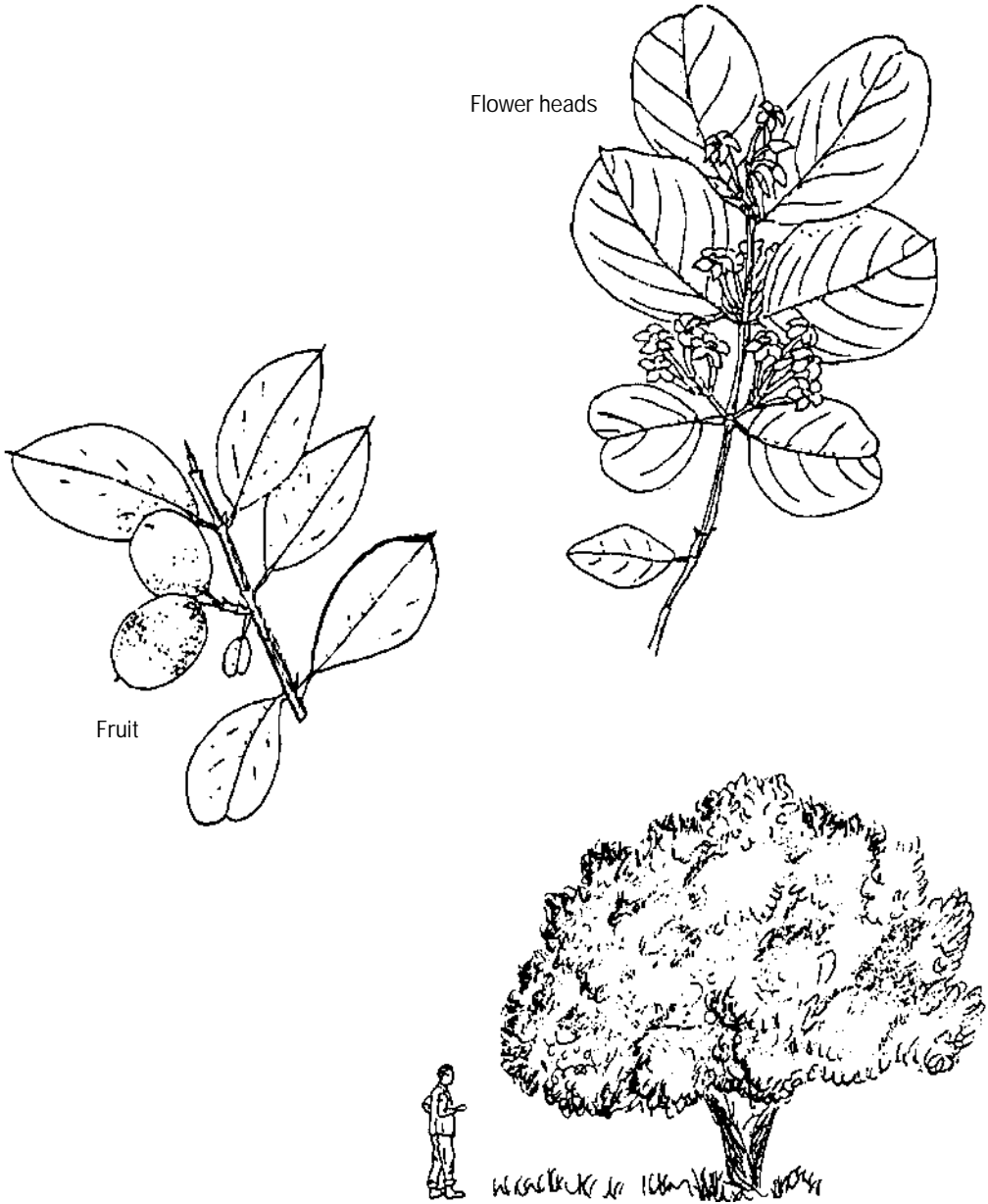
MANAGEMENT: Collected from the wild, not cultivated; can be propagated from seed.

STATUS: Common in its area of distribution.

REMARKS: Known as a poisonous tree.

*Acokanthera schimperi*

Apocynaceae



*Adansonia digitata*

## Bombacaceae

Indigenous

LOCAL NAMES: **Arusha:** Masera, Mesera; **Bondei:** Mbuyu; **Chagga:** Mkuu; **Digo:** Mbuyu; **English:** Baobab; **Gogo:** Mpela; **Gorowa:** Dakaumo; **Hehe:** Mkondo; **Iraqw:** Gendaryandi; **Luguru:** Mpela; **Maasai:** Olmesera; **Mbugwe:** Muwiye, Mwiwiye, Mwuwiye; **Nyamwezi:** Mpela; **Nyasa:** Mabuyu, Malembe; **Pare:** Mramba; **Rangi:** Mwiwi; **Sambaa:** Tebwe; **Sandawi:** Gele; **Sangu:** Mkondo; **Sukuma:** Mwandu, Ngwandu, Ng'wandu; **Swahili:** Mbuyu, Mkuu hafungwa, Mkuu hapingwa, Muuyu.

DESCRIPTION: A large deciduous tree, the trunk diameter may reach 8 m and the tree is often 20 m high. Bare up to 9 months, the stiff bare branches resemble roots ("upside-down tree"). The trunk is sometimes hollow. LEAVES: Mature leaves with **up to 9 lobes arranged like the fingers of a hand**. FLOWERS: **Large and white** opening at night; the unpleasant-smelling nectar attracts pollinating fruit bats. FRUIT: Hairy, yellow-brown, **very big capsules hang on long stalks** on the bare tree. About 100 seeds lie in white-pink dry pulp.

ECOLOGY: Coastal woodlands, bushlands and wooded grasslands, sometimes a riverine tree. Grows in well-drained soils, 0–1,300 m.

DISTRIBUTION: Widespread in Tanzania and generally in tropical Africa south of the Sahara and also in Madagascar.

USES:

**Food:**

- The leaves and/or flowers are collected, chopped and boiled, sometimes pounded groundnuts added, and served with a staple.
- The fruit pulp, which is obtained after breaking the hard shell, is eaten as a snack by herdsmen and many people in Tanzania.
- The fruit pulp is soaked in water, pounded, filtered and cooked with porridge (Gogo). The filtered juice of the fruit pulp, with some sugar added, can be drunk hot or cold. Or the sweetened juice is frozen in small polythene packets and used as an iced lollipop where refrigeration is available.
- Seeds are cooked and eaten whole or roasted, pounded and added to vegetables, like sunflower seed.

**Medicinal:**

- Leaves are pounded, soaked in water and the infusion used as a remedy for stomach-ache, fever, diarrhoea, filariasis, intestinal worms, wounds, asthma, eye and ear diseases, and also as an expectorant, astringent and diuretic.
- The bark is used for treating menstrual problems, diarrhoea, scorpion bites, coughs, diabetes, anaemia; also an antidote to a variety of ingested poisons.
- Roots are used to treat fatigue.

**Commercial:** The fruit and fruit pulp are sold in township markets.

**Other:** The bark is used for fibre and the tree for shade and planted as an



***Adansonia digitata* (contd)****Bombacaceae**

avenue. The fibre is used for making ropes, baskets, carpets, mats, strings for musical instruments, cloths, hats, snares and brooms. The bark produces a red dye. The tree is used for fodder and religious ceremonies and is a source of bee forage. Oil from seeds can be used in making soap, and the fruit cases as ladles, ashtrays and earrings. The trunks are used for making canoes.

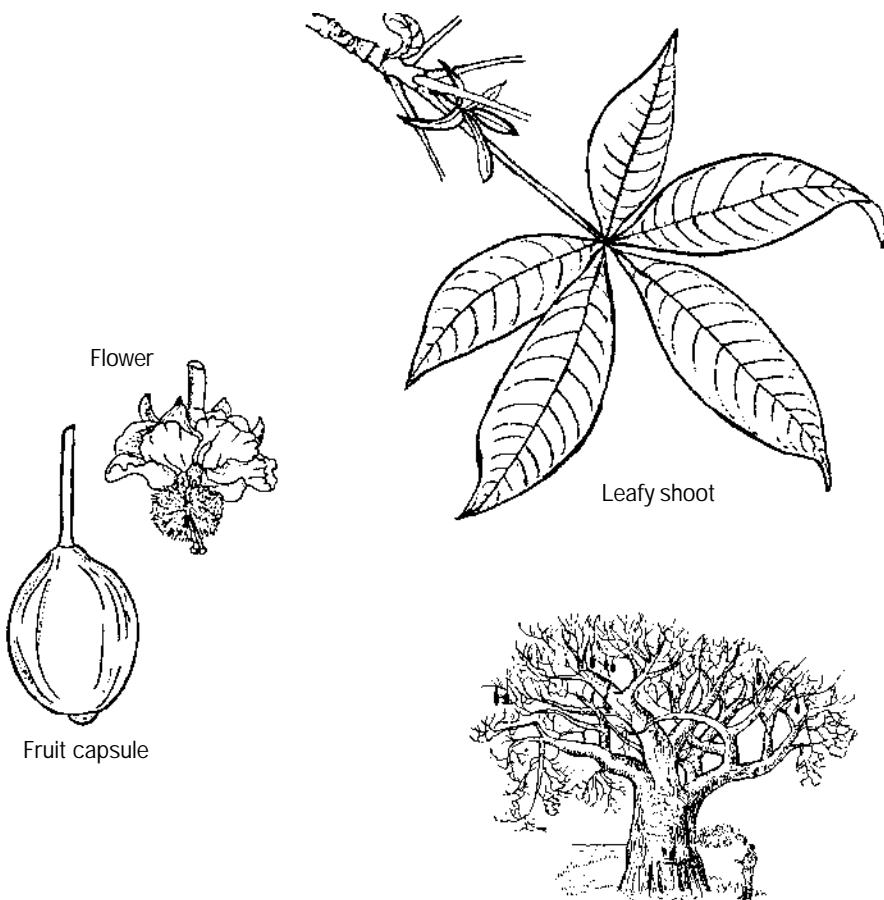
**SEASON:** Leaves are collected during the rains and the fruit during the dry season.

**STORAGE:** Leaves are not stored, while the fruit or fruit pulp can be stored for about a year.

**MANAGEMENT:** Collected from the wild and often protected by local people in homesteads and farms. Easily propagated from seeds.

**STATUS:** Common within its area of distribution.

**REMARKS:** One of the largest and longest living trees in the world (about 3,000 years). One large baobab was used by the German colonial administration as a lock-up cell for prisoners in Kondoa, Tanzania.



*Adenia gummifera*

## Passifloraceae

Indigenous

LOCAL NAMES: **Digo:** Munua-nyoka; **English:** Monkey rope, Wild grenadilla; **Luguru:** Gole; **Sambaa:** Kungu-mti, Lukenda; **Swahili:** Mandali, Mkengeti.

DESCRIPTION: A **woody climber and scrambler**, 5–30 cm, with a tuberous stem up to 10 cm thick at the base, hairless, the grey-green stems sometimes powdery white. LEAVES: **Alternate, simple or shallowly 3-lobed**, rounded to kidney shaped, with 3 clear veins from the base, 2.5–11 cm long, lobes often rounded, tip notched, edge wavy, on stalks to 11 cm. FLOWERS: Axillary on **loose drooping heads**, male and female on separate plants, **green-yellow, the slender stalks to 12 cm ending in weak tendrils**, sterile tendrils to 20 cm, tip split into 3. Male **flowers bell-like** with 5 narrow petal lobes, up to 35, female flowers 2–6, similar but shorter petals. FRUIT: 1–4 together, **oval, hanging down, yellow-orange-brown to 4 cm long**, somewhat 3-angled, the shell **leathery to woody**, smooth, pitted or rough, containing 30–40 flat white pitted seeds.

ECOLOGY: Dry and moist forest, and bushland; 1–500 m.

DISTRIBUTION: Most lowland parts of Tanzania; Uganda, Kenya; from southern Ethiopia to South Africa, west to the Congo basin and also on the Seychelles.

USES:

**Food:**

Leaves are used as a vegetable. Young leaves are chopped and cooked alone or mixed with other vegetables such as amaranth or spinach. Coconut juice or pounded groundnuts may be added and the dish eaten with *ugali* or rice.

**Medicinal:** A decoction of the roots is taken as a remedy for malaria, diarrhoea, leprosy and STDs. The decoction is also taken with milk to treat anaemia. Roots are chewed to treat snakebite.

**Commercial:** Not marketed.

**Other:** The whole plant is pounded and used as fish poison. Burning roots are used to smoke out bees. The stem, when heated, produces an exudate which is used to glue knives on to their handles.

SEASON: Leaves are collected during the rainy season, December–April.

STORAGE: Not stored.

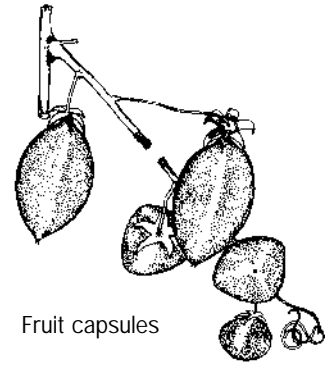
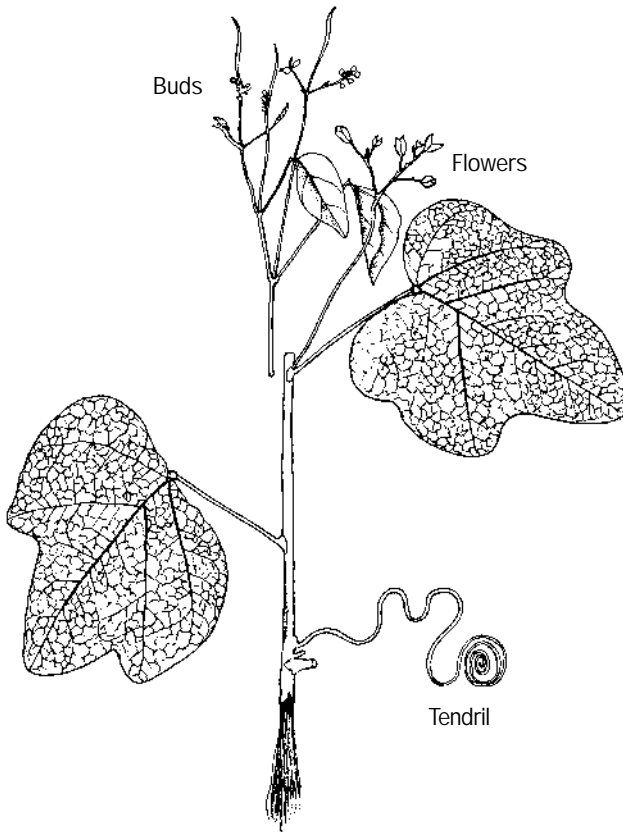
MANAGEMENT: Collected from the wild and not cultivated or protected by the local people. The plant can be propagated by seed and cuttings.

STATUS: Common.

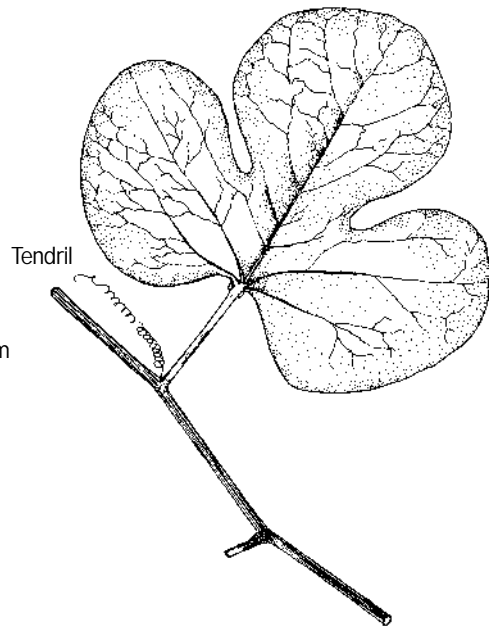
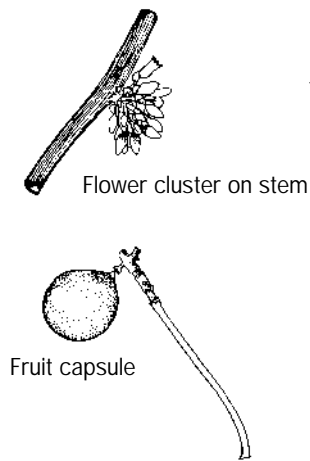
REMARKS: *A. racemosa* (**Gogo:** Gole; **Hehe:** Nyang'oleko; **Zigua:** Gole) has similar uses to *A. gummifera*. Its tubers are used as a remedy for chickenpox. The flexible stems are used as string. The plant is also used for fodder and ornamental purposes.

*Adenia gummifera*

Passifloraceae



*A. racemosa*



*Aerva lanata*

## Amaranthaceae

Indigenous

LOCAL NAMES: **Bondei:** Tebwa; **Digo:** Chivwa kuku, Tebwe; **Hehe:** Kaganza ka mwana, Nyakaganza ka mwana; **Maasai:** Ediati-ormwaate, Eleturot; **Nyamwezi:** Kaganza ka mwana; **Sambaa:** Kidelele, Paramoyo, Tebwa; **Sukuma:** Luwecha; **Swahili:** Kinonga.

DESCRIPTION: A trailing or erect woody herb or shrub to 1 m with rather few branches, quite distinctive due to the white woolly hairs. LEAVES: Usually alternate, sometimes opposite on the lower part of the stem, **stalkless**, spoon shaped, long-oval or wider at the tip, **covered with grey-white hairs**, to 2 cm long. FLOWERS: **Tiny yellow-white flowers** grow on axillary, **stalkless spikes**, usually **1–3 together**, only 8 mm long, the tiny flowers have no sepals but stiff papery sepals, bracts have **dense woolly hairs**. FRUIT: Tiny, 1-seeded capsules.

ECOLOGY: This plant grows in a great variety of habitats, from cultivated and disturbed ground to open woodland, bushland, grassland, swamp and forest edges, on open lava scree, boulder-covered hillsides or coastal sands, 0–2,000 m.

DISTRIBUTION: A common plant in all parts of Tanzania, from the coast to the highlands. Widespread in the drier parts of both tropics and subtropics, common throughout eastern Africa; extending from Sierra Leone to Egypt, south to South Africa, eastwards through the Arabian peninsula into Asia, the Philippines and New Guinea.

USES:

**Food:**

Leaves are eaten as a vegetable. They are collected, chopped and boiled alone or mixed with other vegetables such as *mnavu* (*Solanum nigrum*), peas or *mgagani* (*Cleome gynandra*) and served with a staple such as *ugali*, rice or bananas. Sometimes tomatoes, onions, coconut juice or pounded nuts of *Telfairia pedata* (oyster nut; Swahili: *kweme*) or groundnut paste may be added to make the sauce more palatable (Bondei, Digo, Hehe, Sambaa, Zigua).

**Medicinal:**

- The leaves are crushed and the juice is applied to sore eyes.
- Roots are used for treating snakebite and constipation (Bondei, Zigua).

**Commercial:** Usually not marketed.

**Other:** Used for ornamental purposes and fodder.

SEASON: Leaves are collected during the rainy season.

STORAGE: Not stored.

MANAGEMENT: Collected from the wild and not cultivated or protected by local people. Propagated easily from seed.

*Aerva lanata* (contd)

**Amaranthaceae**

STATUS: Common within its area of distribution.

REMARKS: A notorious weed on farms.



Flowering shoot



Enlarged flower head

*Aerva leucura*

## Amaranthaceae

Indigenous

LOCAL NAMES: **Bende:** Kilindila, Mfungu, Mwenza, Mweza; **Hehe:** Lifweni; **Nyamwezi:** Kilindila; **Swahili:** Kinonga.

DESCRIPTION: A perennial **woolly herb**, often woody at the base, erect or low and spreading, slender stem simple or branched, all densely white hairy. LEAVES: **Alternate**, long-oval, varying in size along the stem, **up to 10 cm x 3 cm**, narrowed at the base to a stalk about 1 cm, all more or less hairy. FLOWERS: Tiny, without petals, of several types, **petals about 2 mm**, flowers in **separated groups along the spikes, mostly about 4 cm long, both terminal and beside leaves**, all white hairy and **stalked**. FRUIT: Round, flattened capsules containing shiny black seeds.

ECOLOGY: Found in a variety of habitats from disturbed ground to deciduous bushland, woodland and forest edges, rocky places, open streamsides, 600–1,700 m.

DISTRIBUTION: Widespread in Tanzania, e.g. Tabora, Rukwa and Dodoma Regions. Also found in Uganda, Kenya; south to Namibia, Zimbabwe, Malawi, Botswana and South Africa.

USES:

**Food:**

Leaves are used as a vegetable. Young leaves are chopped and boiled alone or mixed with other vegetables such as peas or pumpkin leaves and served with *ugali*. Sometimes tomatoes, onions, edible oil or a paste of groundnuts are added in order to improve palatability. These leaves are only used seasonally before cultivated vegetables are in good supply on farms. It is a substitute for other preferred vegetables.

**Medicinal:**

- Roots are used for treating snakebite.
- Pounded leaves are mixed with porridge and drunk in order to curtail lactation in women who have lost their babies (Bende, Nyamwezi).

**Commercial:** Not marketed.

**Other:** The plant is used as an ornamental and for fodder.

SEASON: Leaves are collected at the beginning of the rainy season (Bende, Nyamwezi).

STORAGE: Not stored.

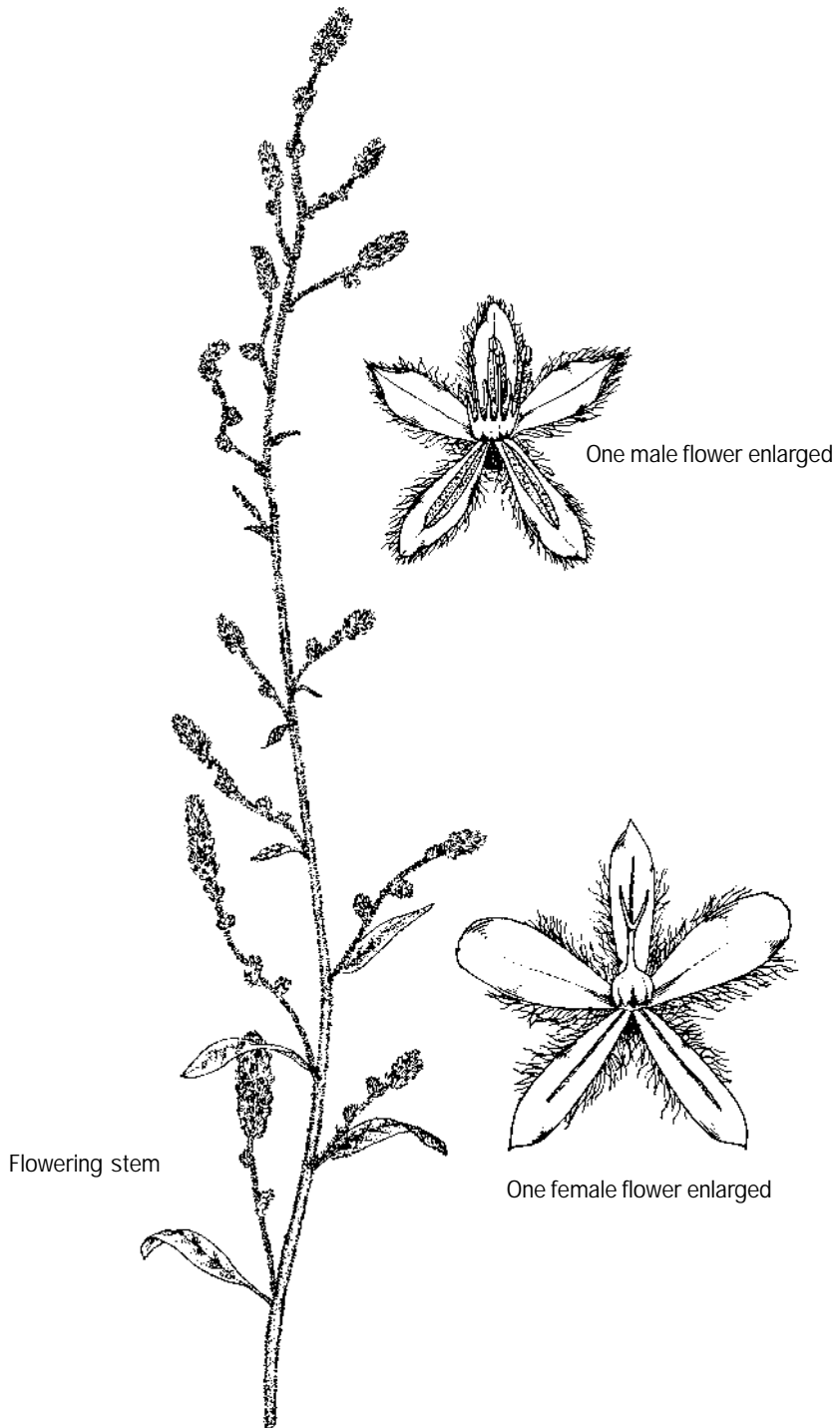
MANAGEMENT: Collected from the wild and not cultivated or protected by local people.

STATUS: Very common within its area of distribution.

REMARKS: An invasive weed in areas where it occurs.

*Aerva leucura*

**Amaranthaceae**



*Aframomum angustifolium*

## Zingiberaceae

Indigenous

LOCAL NAMES: **Bondei:** Msamaka; **English:** Wild cardamom; **Ha:** Itungulu; **Haya:** Omushaasha; **Hehe:** Mtweve; **Luguru:** Gobeni; **Matengo:** Matungula; **Sambaa:** Msamaka; **Swahili:** Mtuguu, Mtunguru, Tungulu, Tunguru; **Zigua:** Samaka.

DESCRIPTION: A herb, **1.5–4 m, growing in dense stands**, with erect leafy shoots, the “stem” consisting of long tubular, sheathing leaf bases. Leaves arise in two ranks from underground rhizomes (often fleshy, aromatic, or rich in oils; one member of the family is ginger). In this species the rhizomes, up to 15 mm across, are extensive and covered with stiff red-brown scales to 7 cm long. LEAVES: Leaf blades slightly pleated, about 40 cm x 12 cm, **tip suddenly narrowed to a point**, leaf base slightly asymmetrical. A small outgrowth where the blade grows out from the leaf sheath, **the ligule, is tough, rounded, 4–10 mm long**. FLOWERS: **Thick flower stalks, 30–70 cm, emerge from the base of the leafy shoot; 4–10 large flowers** grow in a head of overlapping bracts about 6 cm across. The unusual flowers are very striking, **red-maroon-yellow-pink**. A boat-shaped calyx, 3–4 cm, splits on one side. Each flower has a hooded or concave red-maroon petal, 4 cm x 2 cm, 2 narrow pale pink lateral petals, and a **yellow-orange lower lip (labellum), about 7 cm long x 4 cm across, which curls under**. A central filament ends in a triangular lobe and bears 2 anther lobes of the **single fertile stamen**. A thin style passes between these lobes to end in a trumpet-shaped stigma. FRUIT: A tough orange-red-black berry with a smooth fleshy wall, round to oval, 7–9 cm including the calyx beak, 3 cm across. Oval dark brown seeds, hard and smooth, surrounded by masses of white sweet-acid pulp inside 3 membranes.

ECOLOGY: Common in moist areas in forest undergrowth, in riverine vegetation or at swamp edges. Does well at medium altitudes, 1,000–1,700 m; rainfall 900–2,200 mm. Adaptable to various soil types, but does well in sandy clay loams and sandy loams.

DISTRIBUTION: Widespread in tropical Africa from the Sudan south to Mozambique and Madagascar. In Tanzania it is common in moist areas at suitable altitudes.

USES:

**Food:**

The ripe fruit are collected and the sugary pulp eaten frequently as a snack. It is sweet and liked by all, but particularly by children. Crushed seeds are used as a substitute for pepper (*Zigua*).

**Medicinal:** Crushed seeds are boiled with roots of *Piper capensis* and drunk as an aphrodisiac (Sambaa, Bondei).

**Commercial:** Not marketed.

**Other:** Ornamental.



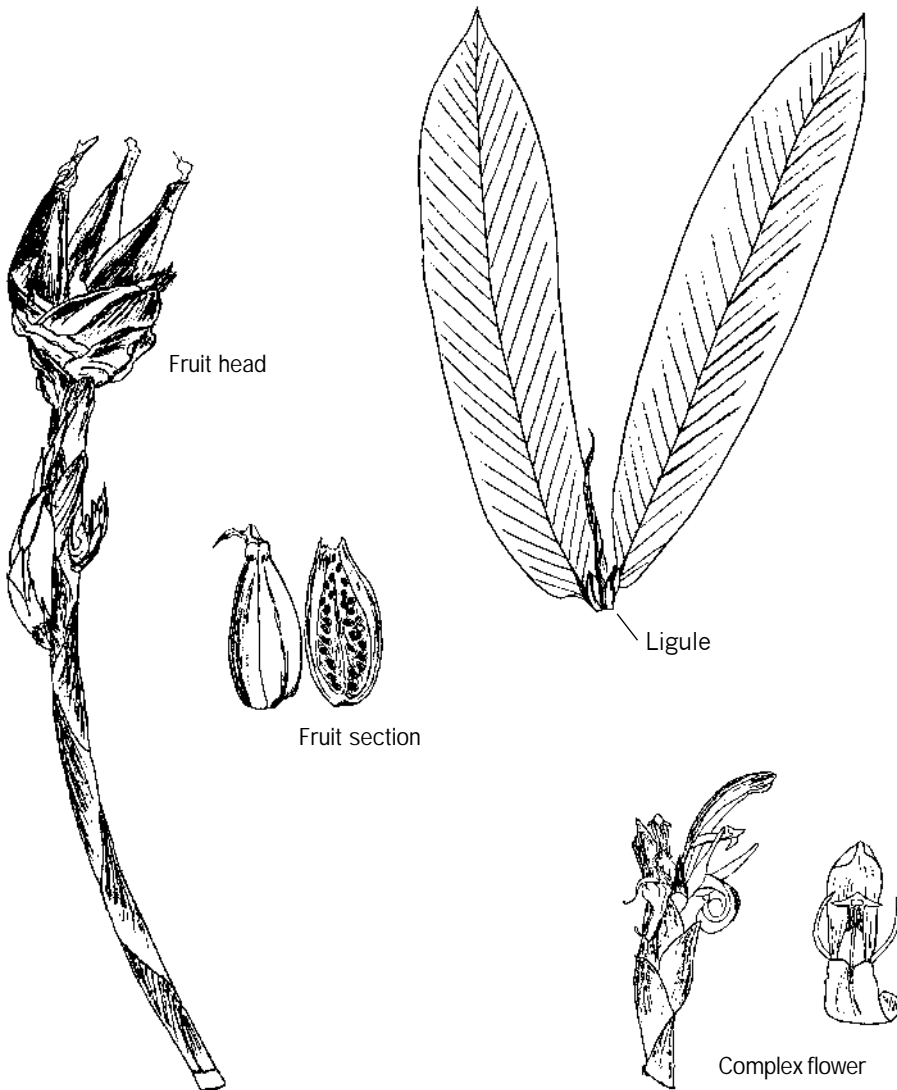
## *Aframomum angustifolium* (contd)      Zingiberaceae

**SEASON:** Ripens throughout the year since it grows in habitats that are always damp.

**STORAGE:** The fruit is not stored, but dried seeds can be stored for medicinal use.

**MANAGEMENT:** Usually collected from the wild and not protected or planted by the local people. Easily propagated from seed.

**STATUS:** Common within its area of distribution.



***Aframomum angustifolium* (contd)      Zingiberaceae**

REMARKS: Drainage of swamps and cutting of riverine forests is a threat to this plant's survival. The dense stands formed by the plant are a favoured habitat for snakes, especially green mamba. Two other related species are used in the same way as *A. angustifolium*. These species are:

1. *A. albiflorum* (**Bondei**: Msamaka; **English**: Wild cardamom; **Sambaa**: Msamaka; **Swahili**: Mtuguu, Mtunguru, Tunguru; **Zigua**: Tunguru) is a herb 1.5–4 m high which is widespread in Tanzania, and also from Sudan southwards to Mozambique and Madagascar.
2. *A. mala*, with the same local names as *A. albiflorum*, is a herb 2–4 m tall. This species is also widespread in Tanzania. It is also found in Kenya and southwestern Sudan.

*Aframomum angustifolium* (contd)

Zingiberaceae

*A. mala*



Leafy shoot and flowers



Fruit capsules

***Allanblackia stuhlmannii***      **Clusiaceae (Guttiferae)**

Indigenous

LOCAL NAMES: **Bondei:** Mkanye; **Luguru:** Mkani; **Sambaa:** Mkanyi, Msambu; **Swahili:** Mkange, Mkimbo, Msambu, Mshambo, Mwaka; **Zigua:** Msumbu-bwiti, Msambu-mzazi.

DESCRIPTION: A tall evergreen tree, 12–36 m, with a clear bole to 9 m, the **drooping branches hollow and ridged**. BARK: Sometimes buttressed, dark grey, smooth or flaking, a **yellow resinous sap if cut**. LEAVES: **Opposite**, dark green and stiff, long oval, 5–19 cm, the **tip pointed, the midrib yellow below**, base narrowed to a stalk about 1.5 cm. FLOWERS: **Male and female flowers** on different trees, both **large and fleshy**, solitary, beside leaves, on **stalks 6–8 cm**, male flowers numerous and clustered at the ends of branches, with 5 unequal pale yellow-red sepals, the outer ones rounded, the 5 rounded petals cream with red at the base, or all red, about **3 cm long, red stamens are in 5 fleshy unequal bundles** about 2 cm long, yellow anthers lie on the inner surface. Female flowers have larger petals, a few reduced stamens, 5 green disc glands, a conical ovary bearing a stigma to 9 mm across. FRUIT: Variable but **large red-brown berries hanging down, 16–34 cm x 15–17 cm** across, oblong to cone-like, the 5 fruit sections contain 12–28 seeds each. Seeds about 4 cm long with a tough skin, angled with a fleshy aril on one corner. One fruit can weigh 2.5–5.8 kg.

ECOLOGY: Rainforests, 500–1,200 m.

DISTRIBUTION: Endemic to Tanzania. Known only from the forests of East and West Usambara, Nguru and Uluguru Mountains and in the eastern parts of Iringa Region.

USES:

**Food:**

Seeds are pounded and cooked to extract an edible fat. Seeds of mature fruit are extracted from the pulp, dried in the sun, pounded and boiled. After cooling, the fat floats to the top, is skimmed off, heated and filtered. This white fat is used for cooking.

**Medicinal:**

- Fresh leaves are chewed to treat coughs.
- The oil from seeds is drunk in small quantities twice a day to treat rheumatism.
- Leaves and roots are used as medicine to treat impotence—they are boiled, honey added and the liquid drunk 3 times a day in a teacup.

**Commercial:** Seeds are sold in markets for oil making.

**Other:** The wood is used for furniture, firewood, boxes, crates, beehives and water containers. The bark and fruit produce a yellow dye. The tree is used for shade, as an ornamental and is a source of bee forage.

*Allanblackia stuhlmannii* (contd)

Clusiaceae

SEASON: Seeds are collected from December to February.

STORAGE: Dried seeds can be stored for several months.

MANAGEMENT: Collected from the wild, not cultivated but usually retained in farmland. It can be propagated using fresh seed.

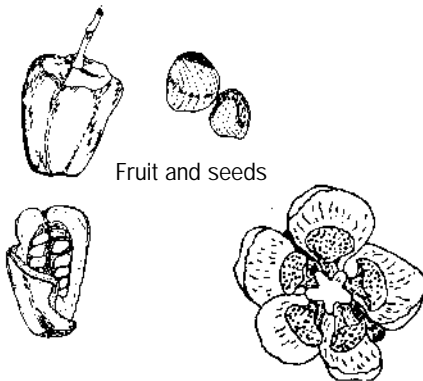
STATUS: Common within its area of distribution. Endemic to Tanzania.



Leaves with seed section



Branch with female flowers



Fruit and seeds

Enlarged female flower



Tree in fruit

***Allanblackia ulugurensis***      **Clusiaceae (Guttiferae)**

Indigenous

LOCAL NAMES: **Bondei:** Mkanye; **Luguru:** Mkani; **Sambaa:** Mkanyi, Msambu; **Swahili:** Mkange, Mkimbo, Msambu, Mshambo, Mwaka; **Zigua:** Msumbu-bwiti.

DESCRIPTION: A tall evergreen tree, rarely shrubby, 15–30 m with spreading open branches, the trunk clear to 7.5 m. BARK: Trunk slightly buttressed, brown-grey to red-brown, finely squared, a sticky yellow sap if cut. LEAVES: Simple, opposite, deep green, **curved upwards from the midrib but edges curled under**, long oblong 8–19 cm long, **very leathery**, vein network clear on both sides when dry, stalk barely 1 cm. FLOWERS: Male and female trees, **the fleshy flowers** clustered at ends of branchlets, beside leaves but on **short stalks up to 1 cm long**. Male flowers red-pink, the 5 sepals red-brown, longer outer ones 1.2 cm across, **5 petals pink-red-purple, about 1 cm diameter**, the 5 stamen bundles split, to 1.4 cm long. FRUIT: **Yellow-brown** (smaller than *A. stuhlmannii*), **conical oblong, 10–13 cm long**, containing fewer seeds than *A. stuhlmannii*, each to 3.6 cm long, irregular in shape, a fleshy aril on one angle.

ECOLOGY: Occurs in the rainforests of Tanzania, 700–2,100 m.

DISTRIBUTION: Endemic to the Uluguru and Nguru Mountains, in Morogoro Region and in Ruaha Valley in Iringa Region.

USES:

**Food:**

Seeds produce edible fat. They are dried in the sun, pounded, boiled and cooled. The suspended fat is skimmed off, heated, filtered and used in cooking.

**Commercial:** Seeds are sold in markets.

**Other:** The wood is used for furniture, crates, boxes and beehives. The tree is used for shade and as an ornamental. The sap produced from the fruit and bark provides a yellow dye.

SEASON: Seeds can be collected during December–February and June–August.

STORAGE: Dried seeds can be stored for several months.

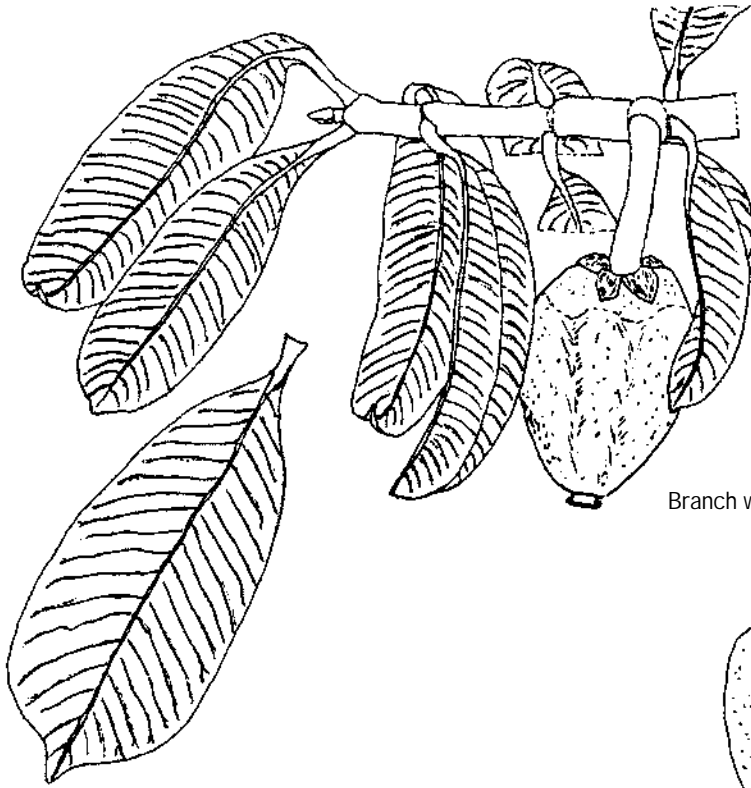
MANAGEMENT: Collected from the wild, not cultivated or protected by the local people, but can be propagated using seed.

STATUS: Endemic to Tanzania. Common within its area of distribution.

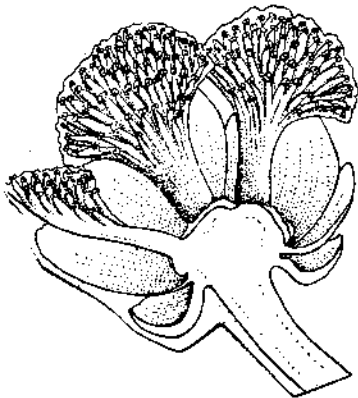
REMARKS: Not easily accessible due to the steep slopes of the mountains where it grows.

*Allanblackia ulugurensis*

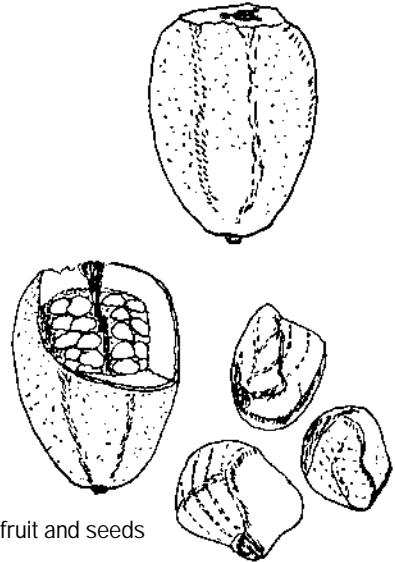
Clusiaceae (Guttiferae)



Branch with young fruit



Section of male flower enlarged



Section of fruit and seeds

*Aloe nutii*

## Aloaceae

Indigenous

LOCAL NAMES: **Chagga:** Iratune; **Gogo:** Itembwe, Kidingulio; **Hehe:** Litembwetembwe; **Luguru:** Kongokowe; **Nyamwezi:** Itembwe; **Rangi:** Ikori, Ikuri; **Sandawi:** /a./da; **Swahili:** Kisimamleo, Mshubili, Msubili.

DESCRIPTION: A herb with a **short thick stem**, to 20 cm long and 3 cm thick, often shortly branched with up to 3 whorls of leaves at the base. LEAVES: Erect, bright green and grass-like, to 50 cm, 8 cm across at the base, somewhat fleshy, the upper surface concave, **white spots below**, the **leaf margins densely crowded with tiny white teeth about 1 mm** long, more at the base. FLOWERS: Arise from an **axillary spike up to 75 cm**, **large cream-orange-brown bracts** wrap around the stem, well spaced below, overlapping at the tip, flowers arise beside each bract on a stalk to 3 cm, **corolla tubular, orange-red-pink, all lobes green tipped, to 4 cm long**, lobes rounded, a somewhat 3-sided cylinder. FRUIT: An **ovoid capsule, pale brown, 2.5 cm long** containing many dark brown seeds.

ECOLOGY: Mountain grasslands, often on rocky slopes, 1,600–2,700 m.

DISTRIBUTION: Western Tanzania and in the Southern Highlands; Malawi, Zambia, the southern part of the Congo basin and eastern Angola.

USES:

**Food:** Flowers are used as a vegetable. Mature flowers are washed and cooked alone or with other vegetables such as peas or pumpkin leaves. Then either cooking oil, coconut milk or groundnut paste is added and the dish eaten with *ugali* or rice.

**Medicinal:**

- The juice of leaves is rubbed on the skin to treat ringworm.
- Roots are used as treatment for kidney problems and as an aphrodisiac. Roots are boiled, honey added and the decoction drunk.
- A decoction from the leaves is drunk to treat diarrhoea. Leaves are also used for heart pains and to treat spleen problems.

**Commercial:** Not marketed.

**Other:** The plant is used as an indoor or outdoor ornamental.

SEASON: Flowers are collected at the end of rainy season, April–June.

STORAGE: Not stored.

MANAGEMENT: Collected from the wild and not cultivated or protected by the local people, but can be propagated by seed and suckers.

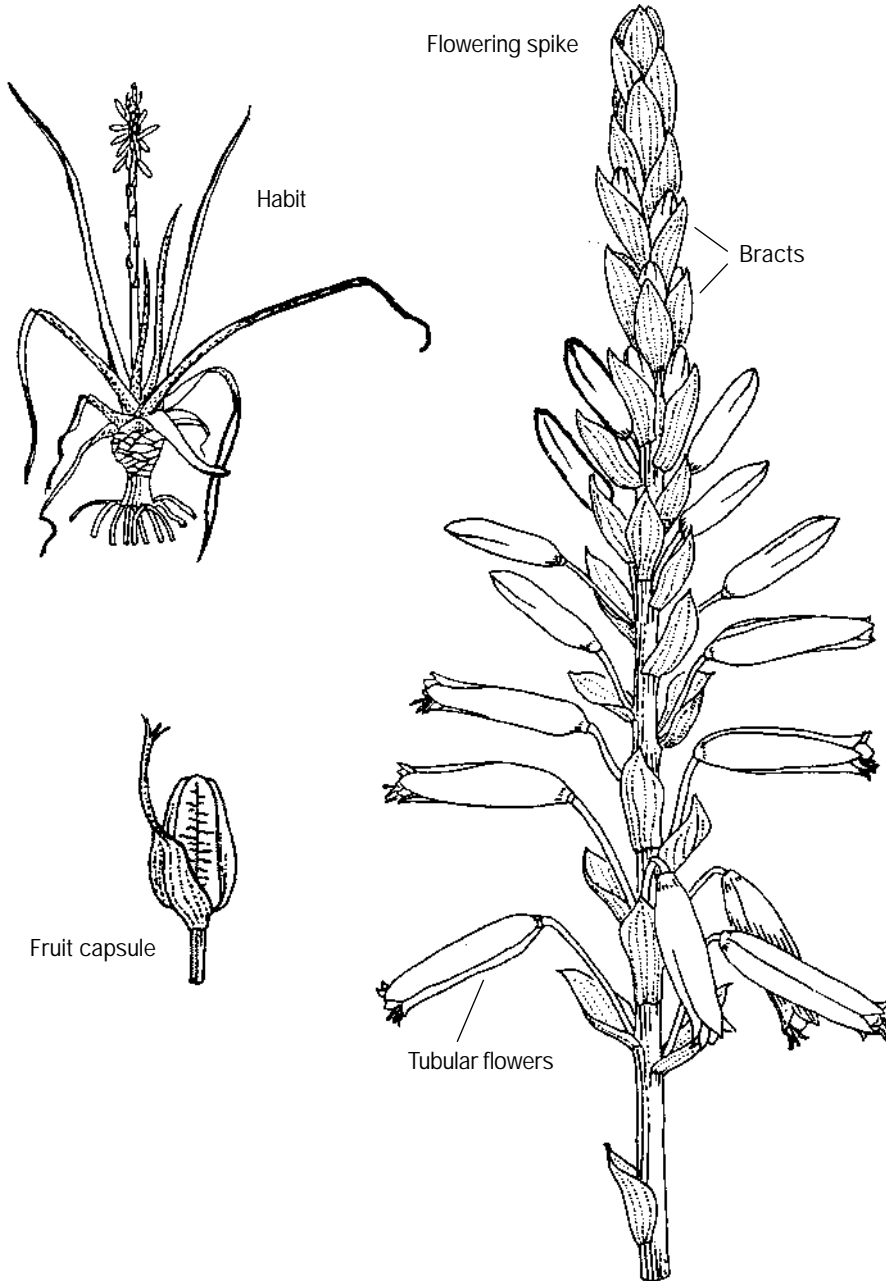
STATUS: Common.

REMARKS: Several other *Aloe* species are edible and are used as ornamentals, in herbal medicine and for demarcation of farm boundaries in semi-arid areas.



*Aloe nutii*

**Aloaceae**



*Alsodeiopsis schumannii*

## Icacinaceae

Indigenous

LOCAL NAMES: **Fipa**: Mbululu; **Hehe**: Muvalambe, Muvulambe; **Sambaa**: Mmavimavi; Munozambeyu, Muozambeyu, **Swahili**: Mkaranga mwitu.

DESCRIPTION: An evergreen shrub or tree to 12 m. The first-year branches are covered with golden brown hairs. LEAVES: Long-oval, 5–12 cm, the **tip long-pointed**, 6–8 pairs lateral veins clear on both sides, membranous, **dark green above but yellow-green on the underside, which is covered with many flat, golden-brown hairs**, base narrowed or rounded to a short stalk. FLOWERS: **Beside leaves in loose, branched heads**, the stalks densely hairy, 5 narrow sepals united at the base, 5 free stamens on **very short filaments**, 5 free **narrow petals, yellow**, a style to 4 mm from the conical hairy ovary. FRUIT: An **oblong drupe, orange-red when ripe, about 2 cm long**, the tip beaked, somewhat hairy, a stalk reaching 2 cm. A woody **stone inside has longitudinal ridges**.

ECOLOGY: Lowland and upland rainforest, 900–2,000 m.

DISTRIBUTION: In Tanzania this species is found in East Usambara, the Uluguru Mountains and the Southern Highlands.

USES:

**Food:**

The fruit are edible and much liked by children. Ripe fruit are picked from the tree and the juicy and sweet pulpy seeds eaten.

**Commercial:** Not marketed.

**Other:** The wood is hard and is used for building poles, firewood, charcoal, pestles, carvings, tool handles and spoons. The tree is suitable for shade and as an ornamental.

SEASON: Fruit in May–July.

STORAGE: Not stored.

MANAGEMENT: Collected from the wild and not cultivated or protected by the local people. It can be propagated by seed.

STATUS: Endemic to Tanzania and common within its area of distribution.

*Alsodeiopsis schumannii*

Icacinaceae



***Alternanthera tenella* var. *betzickiana***      **Amaranthaceae**

Brazil

LOCAL NAMES: **English:** Border plant, Joseph's coat; **Swahili:** Mchicha, Mchicha maua.

DESCRIPTION: An erect, bushy or prostrate **perennial, 4–45 cm**, the **stems red and knobbly, swollen at each node**. Stems and young branches with some long hairs disappearing with maturity, these stems more or less 4-angled, later cylindrical, woody at the base. LEAVES: Opposite, entire, long-oval but variable, **the tip pointed**, narrowed to the base with a slender indistinct stalk, often white hairy, **to 5 cm long, wider at the tip**. In var. *aureus*, **brightly coloured, variegated pink-red or yellow-green**. FLOWERS: **Round clusters of white flowers with silver-white bracts beside leaves, only 6 mm across**, no petals but 5 stiff, papery sepals to 4 mm, sharply pointed, edges toothed. FRUIT: Thin-walled capsules which do not open if dried, 1 seeded, remaining in the flowers, all falling together.

ECOLOGY: In cultivated areas and at roadsides.

DISTRIBUTION: Found in Mwanza, Shinyanga, Tanga and Dar es Salaam Regions; Zanzibar and Pemba Islands. Also recorded in Uganda, Rwanda and Mozambique.

USES:

**Food:**

Tender leaves and shoots are cooked alone or mixed with other vegetables such as cowpeas or amaranth, coconut milk added and served with a staple—rice or *ugali* (Zanzibar).

**Medicinal:** The cooked vegetable is given to anaemic children in order to improve their health (Zanzibar).

**Commercial:** Sold in local markets.

**Other:** The plant is a popular ornamental and border plant in gardens and also used as an ornamental indoors. A good fodder for goats and rabbits.

SEASON: Leaves and shoots are collected during the rainy season, December–June.

STORAGE: Dried leaves can be stored for several months.

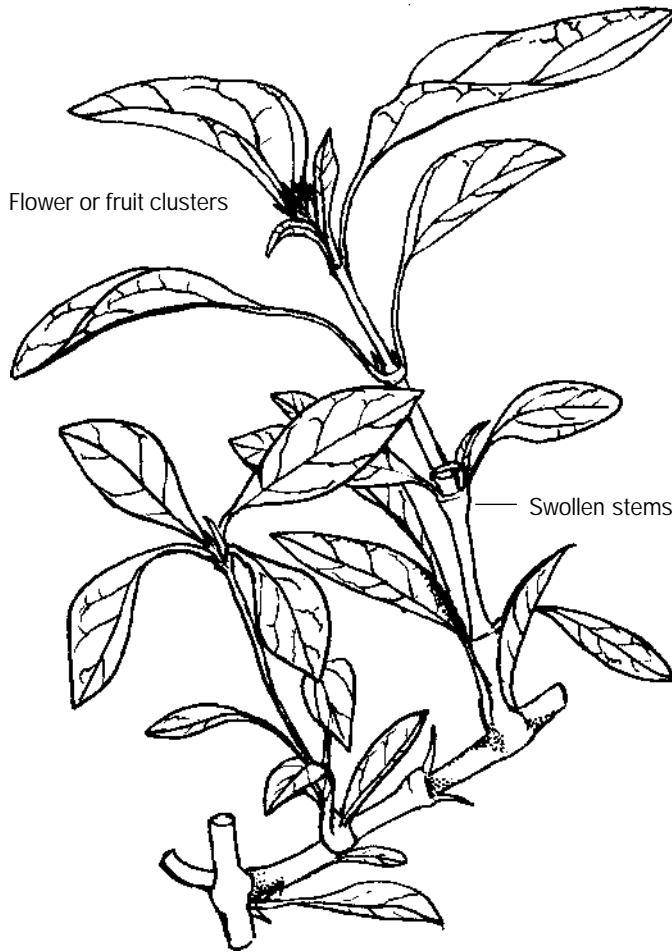
MANAGEMENT: Collected from the wild, but also planted using seeds, suckers and cuttings.

STATUS: Common in abandoned farms in areas where it occurs.

REMARKS: This plant is widely used as an ornamental because of its variegated leaves.

*Alternanthera tenella* var. *betzickiana*

Amaranthaceae



*Amaranthus spinosus*

## Amaranthaceae

Indigenous

LOCAL NAMES: **Bondei:** Buuza, Bwache, Bwache-katonge; **Chagga:** Kiyana kya mburu; **English:** Careless weed, Prickly amaranth, Spiny amaranth; **Hehe:** Chamilang'uku, Lichamilang'uku, Lifweni; **Nyamwezi:** Kapokole, Ntungu; **Pare:** Buruja; **Sambaa:** Bwache; **Swahili:** Mchicha; **Zigua:** Bwache.

DESCRIPTION: An annual herb, usually erect, with few branches, to 1.5 m, easily recognized by the **pairs of green spines at the nodes**, slender or stout, to 2.5 cm long, occurring especially beside the lower leaves. Stems red-purple-green, usually stout and hairless. LEAVES: **Long and oval, 2–12 cm, on long stalks up to 9 cm**, sometimes longer than the blade, the tip **slightly notched with a sharp colourless tip in the notch**, lower surface often darker with some hairs. FLOWERS: **Green, in cylindrical spikes at the end of stems** and branches, to 15 cm long x 1 cm wide, upper parts of the spikes all male. The lower part of the plant has **axillary flower clusters about 1 cm across**, all females. Membranous bracts are wide. FRUIT: A small capsule 1.5 mm across, **breaking open at the base** to set free dark brown shiny seeds.

ECOLOGY: Common on waste ground, roadsides and cultivated land; also occurring in open grassland, swamps and along rivers. It does well in secondary regrowth after cultivation, around cattle enclosures and on urban refuse dumps, 0–1,800 m; rainfall 800–1,300 mm. Prefers red sandy clay loams and yellowish sandy loams.

DISTRIBUTION: Widespread throughout the warm tropical and subtropical regions of the world. Common in all parts of Tanzania.

USES:

**Food:**

- The young shoots and leaves are chopped and fried or steamed with coconut milk or groundnut paste and served as a vegetable. It tastes bitter and is usually eaten in small quantities as a substitute when no other vegetables are available. It is also used in emergency and famine situations.
- Young shoots and leaves also used as a substitute for bicarbonate for softening vegetables.
- Dried leaves are cooked, groundnut paste or coconut milk added and served with a staple.

**Commercial:** The young shoots and leaves are sold in local markets.

**Other:** Leaves are used for fodder.

SEASON: Shoots and leaves are collected during the early rains before the plants mature and develop spines.

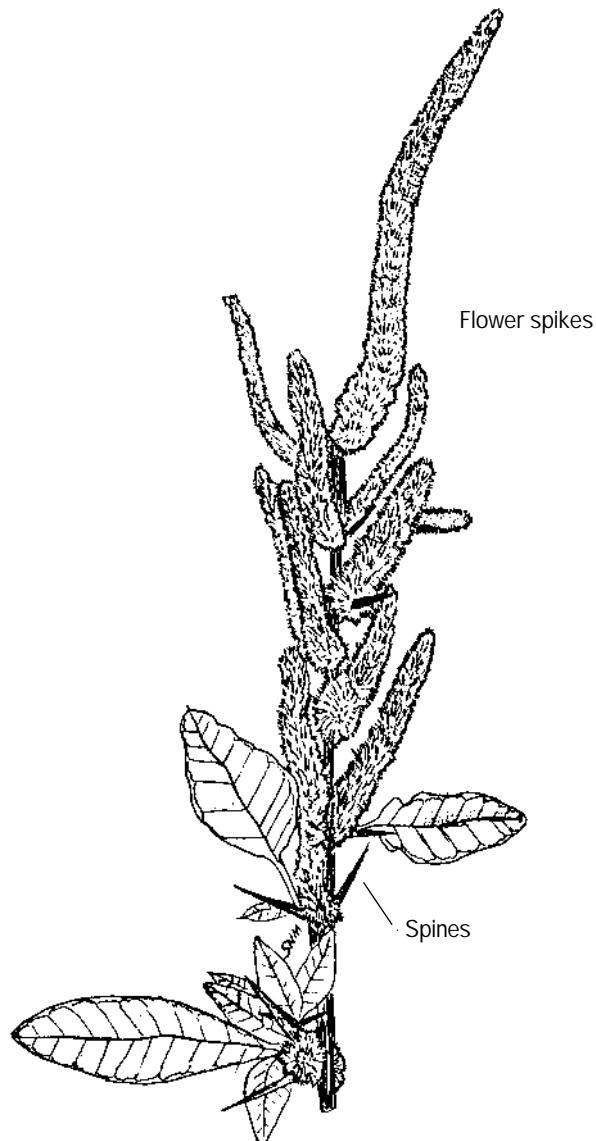
STORAGE: Leaves are dried for storage before or after being steamed.

***Amaranthus spinosus* (contd)****Amaranthaceae**

MANAGEMENT: Usually collected from the wild but sometimes protected by local people around their homesteads.

STATUS: Common within its area of distribution.

REMARKS: It is easily collected while young, i.e. before development of the spines. An important source of vitamins (e.g. A and C). Also rich in minerals, e.g. iron and calcium.



*Ampelocissus africana*

## Vitaceae

Indigenous

LOCAL NAMES: **Sambaa:** Ghoe; **Swahili:** Mzabibu mwitu.

**DESCRIPTION:** A shrubby climber or **extensive liana reaching 9 m. Stems often red, striped**, hairy at first. **A thick root** can reach 1 m and looks like cassava with a red outer skin. **LEAVES:** Large, **alternate, simple**, oval to rounded, **entire or 3–5 lobed**, 5–20 cm long, **base heart shaped**, edge often softly toothed, soft brown and hairy when young, stalk 3–15 cm. **Leafy stipules to 3 mm**, soon fall. **FLOWERS:** Small, in **dense round heads**, 5–10 cm across, the loosely branched stalks to 6 cm. **Branched tendrils grow out of these stalks.** Each flower has 5 petals, 1.5 mm, green-yellow to red-brown. **FRUIT: Round berries about 1 cm in diameter, red-blue-purple-black**, on red stalks, containing many shiny brown seeds in green pulp.

**ECOLOGY:** Seasonally wet grasslands, deciduous thickets, wooded grassland, woodland, riverine forests, old termite mounds and rocky hillsides; also found as a remnant of cleared natural vegetation; 0–2,200 m; rainfall 900–1,500 mm.

**DISTRIBUTION:** Widespread all over Tanzania. In the rest of Africa found from West Africa to the Sudan and south to southern Africa, including Kenya and Uganda.

**USES:**

**Food:**

- The fruit are collected when ripe and the pulp is eaten. It tastes sweet and is rich in vitamin C.

**Medicinal:** Roots are pounded, soaked in water, boiled and drunk to treat intestinal worms and leprosy (Sambaa).

**Other:** The plant can be used for ornamental purposes.

**SEASON:** Fruit are collected between April and August.

**STORAGE:** Not stored.

**MANAGEMENT:** Collected from the wild and not protected or cultivated by local people. It can be propagated by seed and cuttings.

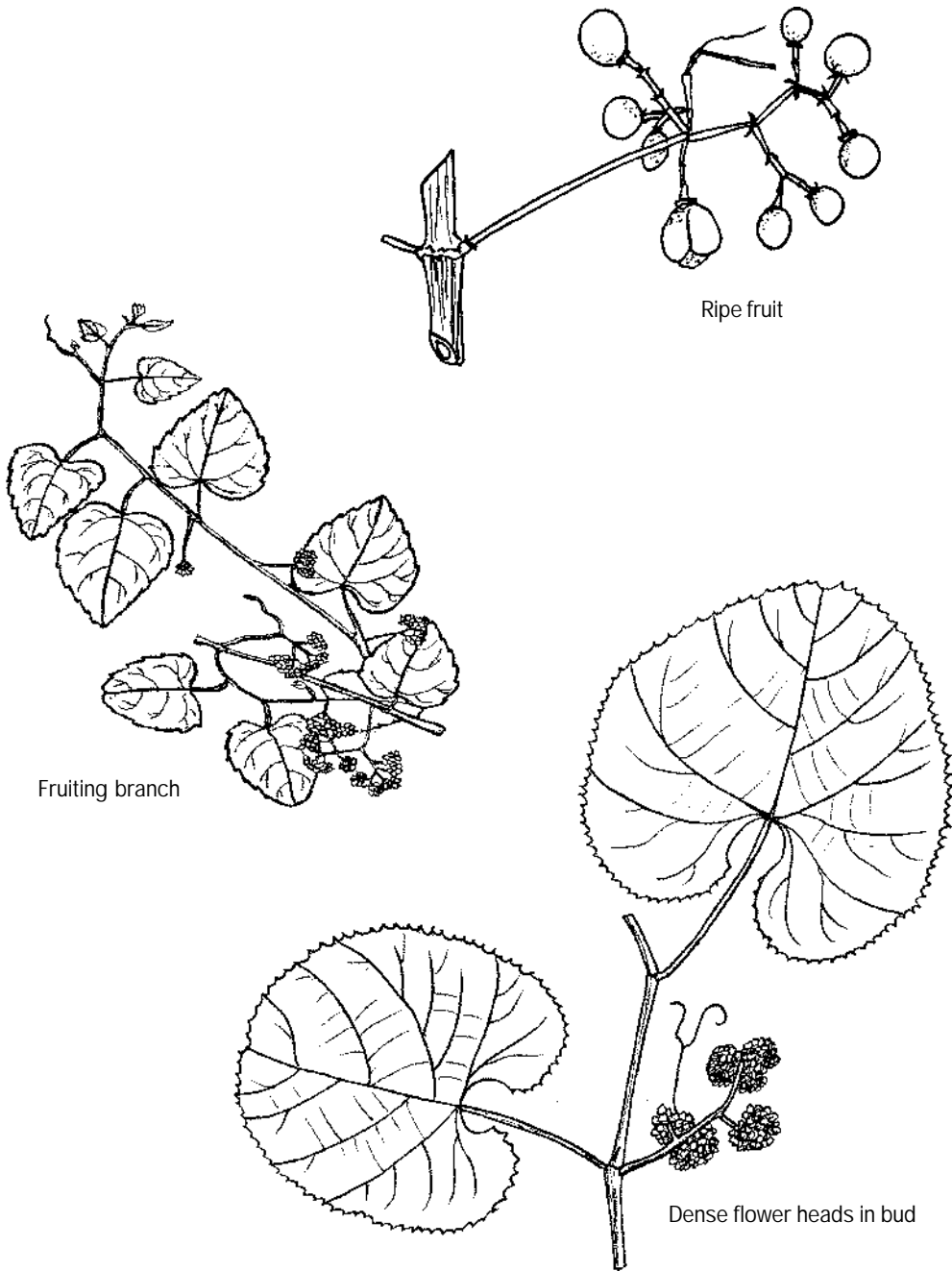
**STATUS:** Common within its area of distribution.

**Remarks:** Two varieties occur in Tanzania: var. *africana* which occurs in all parts of mainland Tanzania, Zanzibar and Pemba Islands, and var. *migeodii* in Lindi Region.



*Ampelocissus africana*

Vitaceae



***Ancylobotrys petersiana***  
**(*Landolphia petersiana*)**

**Apocynaceae**

Indigenous

LOCAL NAMES: **Digo:** Mbooya, Vibooya, Vitoria; **Swahili:** Mtoria, Mtowe; **Sambaa:** Vitoria.

DESCRIPTION: An **evergreen liana**, climbing with tendrils, 2–12 m. Tendrils are present at forks of branches (flower branches in origin which turn into woody hooks). LEAVES: Opposite, simple, long-oval, 5–12 cm to 6 cm wide, tip pointed or blunt, **the base rounded** to a short stalk, some hairs which disappear with age. Secondary veins 5–20 mm apart. FLOWERS: A long **terminal branched head** bears fragrant cream-white-yellow tubular flowers, “star-like”, about 3 cm across, **the 5 narrow pointed lobes 1–2 cm, fringed with hairs**. Flowers open in the evening. A green calyx with brown hairs surrounds the pink tubular bud. FRUIT: Rounded to pear shaped, grey-green at first, ripening **dull yellow-orange, 3–5 cm across** with short soft hairs, containing about 12 seeds, each 1 cm covered in sticky edible pulp.

ECOLOGY: A climber found in open bushland or woodland, coastal evergreen forest, dry forest, 0–400 m.

DISTRIBUTION: Most lowland parts of Tanzania. Common in Pemba, Zanzibar and Mafia Islands. Also found in Kenya and Somalia, and south to Mozambique, Zambia and South Africa.

USES:

**Food:**

- The pulp of ripe fruit is edible. They are collected from the vines or fresh fallen fruit are collected from the ground and eaten raw. The pulp is obtained by cutting the fruit in half. The juicy pulp has a sour taste and only moderate amounts are eaten (Bondei, Zigua, Zaramo).
- The pulp of the fruit is soaked in water, squeezed and filtered. The juice is then sweetened with sugar and drunk after being cooled. Alternatively, the sweetened juice may be packed in small polythene packets, frozen and eaten as an iced lollipop (Bondei, Zaramo).

**Commercial:** Fruit are sold in most rural and urban markets for juice making (Bondei, Digo, Zaramo).

**Other:** The stem produces white latex, which is tapped and used for making balls and birdlime (Bondei, Digo). The stems are flexible and used for ropes.

SEASON: Fruit are collected in April and June and again in November and December (Coastal areas).

STORAGE: Fruit can only be stored for about two weeks.

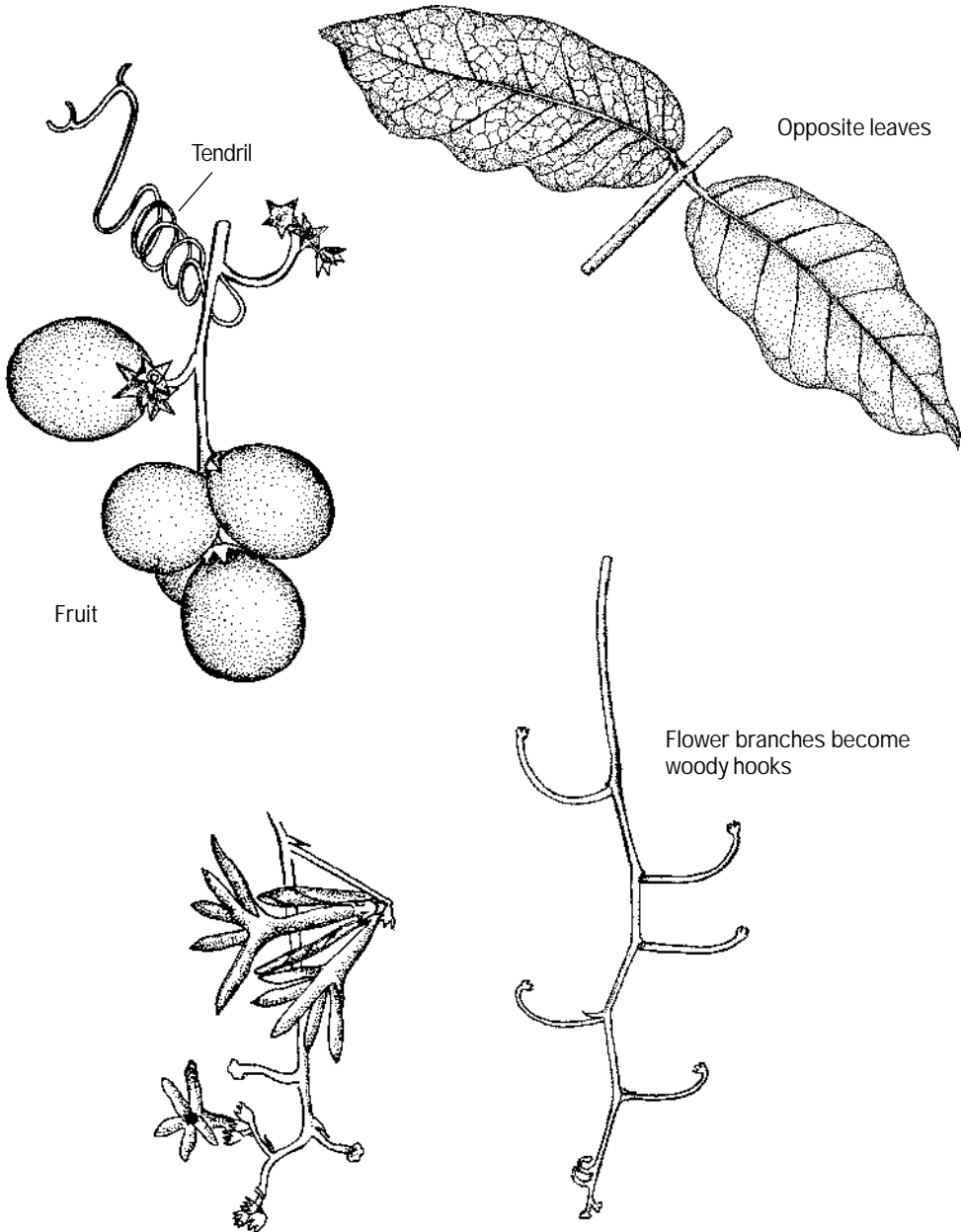
MANAGEMENT: Collected from the wild, but often protected by local people in

*Ancylobotrys petersiana* (contd)

## Apocynaceae

steads and fields. It regenerates easily from root suckers. Can also be propagated from seeds.

STATUS: Common within its area of distribution.



homeAnisophyllea boehmii

*Rhizophoraceae*

Indigenous

LOCAL NAMES: **Ha:** Umushindwi; **Nyamwezi:** Mnemvi, Mnyemvi; **Sukuma:** Mshindwi; **Tongwe:** Lusindwi.

DESCRIPTION: An untidy evergreen or semi-evergreen tree up to 16 m tall with a short, usually crooked, bole. The erect branches form a rounded heavy crown. BARK: Rich red-brown at first, becoming grey-brown, irregularly cracked and flaky. LEAVES: Thin and leathery, finely hairy both sides, **oval, to 9 cm long with very distinctive venation.** FLOWERS: **Cream coloured and small** on woolly stalks, 4–11 cm. FRUIT: **Plum-like, to 3.5 cm long, turning shiny red-yellow when** ripe in March–July. The edible **pale yellow flesh** is tasty and **contains a hard stone around a single seed.**

ECOLOGY: Occurs in miombo woodland and wooded grassland, 900–1,100 m; rainfall 800–1,000 mm. Grows in various soil types from sandy loams to sandy clay loams. Thrives in sandy soils.

DISTRIBUTION: Found in north-west and south-west Tanzania; e.g. in Mwanza, Tabora and Rukwa Regions. Also occurs in the Congo basin and Zambia.

USES:

**Food:**

The ripe fruit are edible. They are picked from the tree or fresh ones collected from the ground and the pulp is eaten while rejecting the seeds. They are sweet and are eaten by herdsmen and farmers to quench thirst and hunger (Bondei, Nyamwezi, Sukuma).

**Commercial:** Fruit are sometimes sold in local markets.

**Other:** The wood is used for firewood, tool handles and poles. The tree is also useful for shade and as an ornamental. Ash from the wood is used as an insecticide for stalk borers.

SEASON: Fruit are collected between April and June.

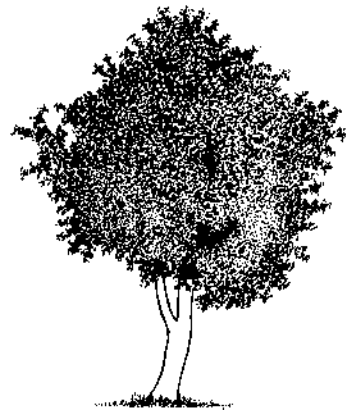
STORAGE: Not stored.

MANAGEMENT: Collected from the wild and not cultivated or protected by the local people. Seeds germinate with difficulty, but it is easily propagated from root suckers.

STATUS: Uncommon within its habitat.

*Anisophyllea boehmii*

Rhizophoraceae



*Anisophyllea pomifera*

## Rhizophoraceae

Indigenous

[Plate 1]

LOCAL NAMES: **Ha:** Umushindwi; **Nyamwezi:** Mnemvi, Mnyemvi; **Sukuma:** Mshindwi, Nsindwi.

DESCRIPTION: An evergreen shrub or small tree. All young parts with few or many yellow-brown curly hairs. LEAVES: Simple, opposite, **leathery, shiny above** with **2–4 strongly marked pale side veins in parallel to the midrib**, dull with some hairs below, leaves on upper branches oval to 6.5 cm long, narrowed to a very short stalk. FLOWERS: Small and rounded, along **several spikes, 5–12 cm long, arising beside smaller leaves** on lower part of branches, petals and sepals rather similar, 5 lobed around many stamens, stalks and buds hairy. FRUIT: **A berry about 4 cm long when dry**, edible tasty flesh around one hard stone within.

ECOLOGY: An associate of *Brachystegia–Isoberlinia* woodland, 1,200–1,600 m.

DISTRIBUTION: Found in the Southern Highlands of Tanzania and in Kigoma Region. Also found in Zambia and Malawi.

USES:

**Food:**

- Ripe fruit are edible. The pulp is sweet and eaten fresh.
- Ripe fruit are soaked in warm water, squeezed and filtered. Then sugar is added to obtain a refreshing drink.

**Commercial:** Sold in local markets (Ha).

**Other:** The wood is used for firewood, charcoal, poles, tool handles and wooden spoons. The leaves are used for enriching the soil. Wood ash is used as white-wash and as an insecticide for stalk borers.

SEASON: The fruit are collected from September to December.

STORAGE: Not stored.

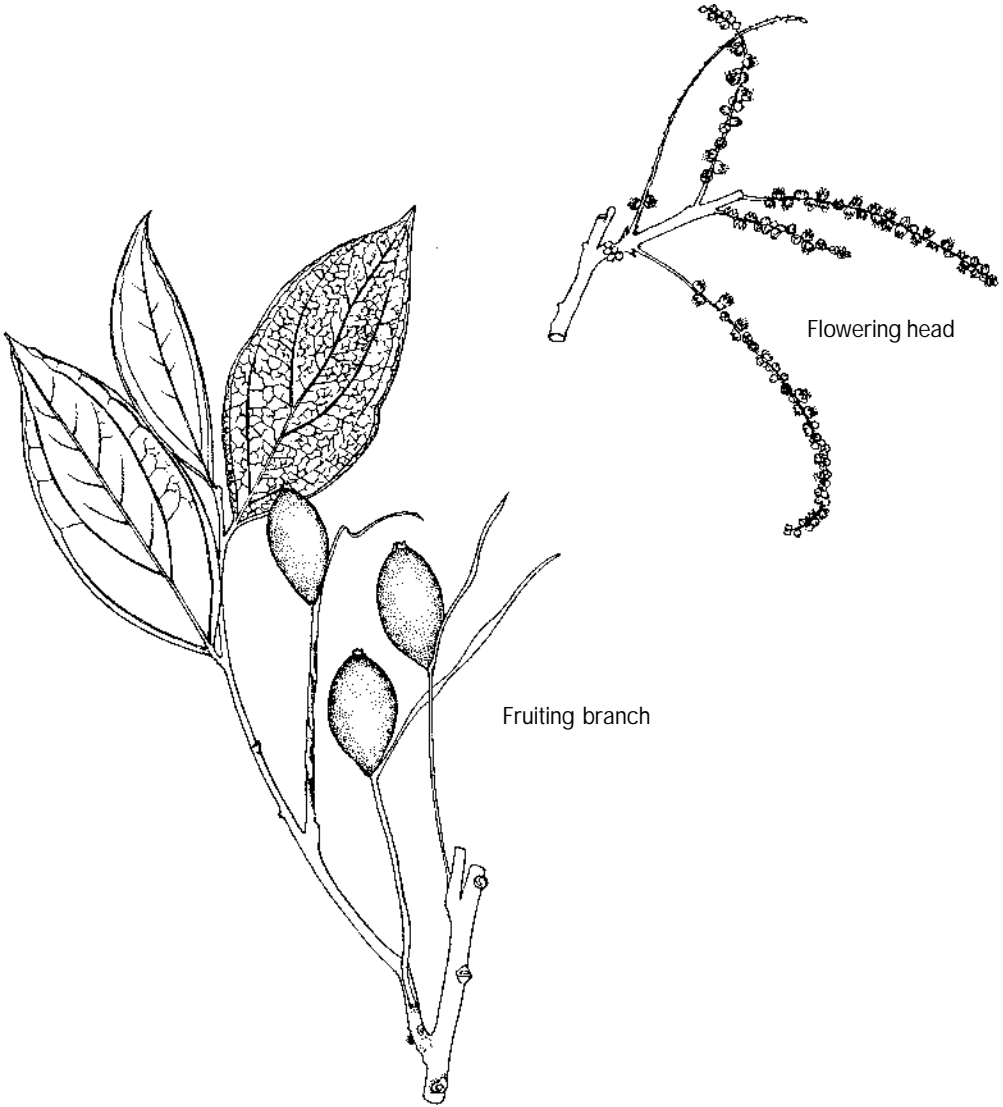
MANAGEMENT: Collected from the wild, not cultivated but normally retained by farmers in their farms. Seeds germinate with difficulty, but the plant is easily propagated from root suckers.

STATUS: Common within its area of distribution.

REMARKS: *A. pomifera* is very similar to *A. boehmii* with the exception of the larger fruit, which are better liked than those of *A. boehmii*.

*Anisophyllea pomifera*

Rhizophoraceae



***Annona senegalensis* (*A. chrysophylla*) Annonaceae**

Indigenous

LOCAL NAMES: **Bende:** Mfila; **Bondei:** Mbokwe, Mtonkwe; **Chagga:** Ichawele, Mrisirisi, Mtomoko; **Digo:** Mbokwe; **English:** Wild custard apple; **Ha:** Umukanda; **Matengo:** Mandopi, Mtopetope; **Ndendeule:** Mlombelombe, Mlopelope; **Ngindo:** Mpunju; **Ngoni:** Mlombelombe, Mlopelope; **Nyamwezi:** Mfila, Mkonola, Mtopetope; **Rufiji:** Mtopetope; **Sambaa:** Mbokwe, Mtonkwe; **Swahili:** Mchakwe, Mchekwa, Mtomoko mwitu, Mtopetope; **Tongwe:** Lufila; **Zaramo:** Mtopetope, Topetope; **Zigua:** Mtomoko, Mtonkwe; **Zinza:** Mkonyo.

DESCRIPTION: A shrubby deciduous tree, usually 2–6 m. **Bark** grey and smooth, thick and folded when old, young stems hairy and orange. **LEAVES:** **Oval and rounded, blue-green, to 18 cm long**, hairy below, a peculiar smell when crushed. **FLOWERS:** **1–3 small flowers hang down below twigs**, yellow-green, **petals and sepals in threes**. **FRUIT:** **Rounded, 2–7 cm, smooth with divisions**. Green when unripe, turning **orange-yellow when ripe** and smelling like pineapple. The sweet pulp surrounding many seeds is edible.

ECOLOGY: Common in open woodlands and grassland savanna, thickets, at forest edges and frequent in places subjected to burning. Mainly found at lower and medium altitudes, 0–1,500 m; rainfall 700–2,000 mm. It grows well in a variety of soils, mostly as an under-storey shrub. Prefers red sandy loam, but tolerates a wide range of soil types.

DISTRIBUTION: Widespread in Tanzania and in other drier parts of the tropics, Senegal to Cameroon, the Congo basin, Sudan and Kenya and extending to Zimbabwe and the northern parts of South Africa; also in Madagascar.

USES:

**Food:**

- The ripe yellow fruit may be harvested from the trees, or more rarely collected from the ground. Eaten immediately after removing the hard coat. Sometimes green but almost mature fruit are collected and stored for some days to ripen. It tastes sweet and has a pleasant pineapple-like odour.

**Medicinal:**

- The bark and the roots are crushed together and applied to snakebite wounds.
- The bark is used against intestinal worms as well as for treatment of dysentery. The bark is also chewed and smeared on fresh wounds.
- Roots are washed, boiled with finger millet flour and used to treat sterility (Nyamwezi). Roots are also used as a treatment for stomach-ache, flatulence, diarrhoea and colds.
- The gum is applied to cuts and wounds to seal them.
- Fruit are used to treat diarrhoea, dysentery and vomiting.

**Commercial:** Reportedly sold in local markets.



*Annona senegalensis* (contd)

## Annonaceae

**Other:** The wood is used for firewood, tool handles, and wooden spoons. The tree is suitable for shade and as an ornamental.

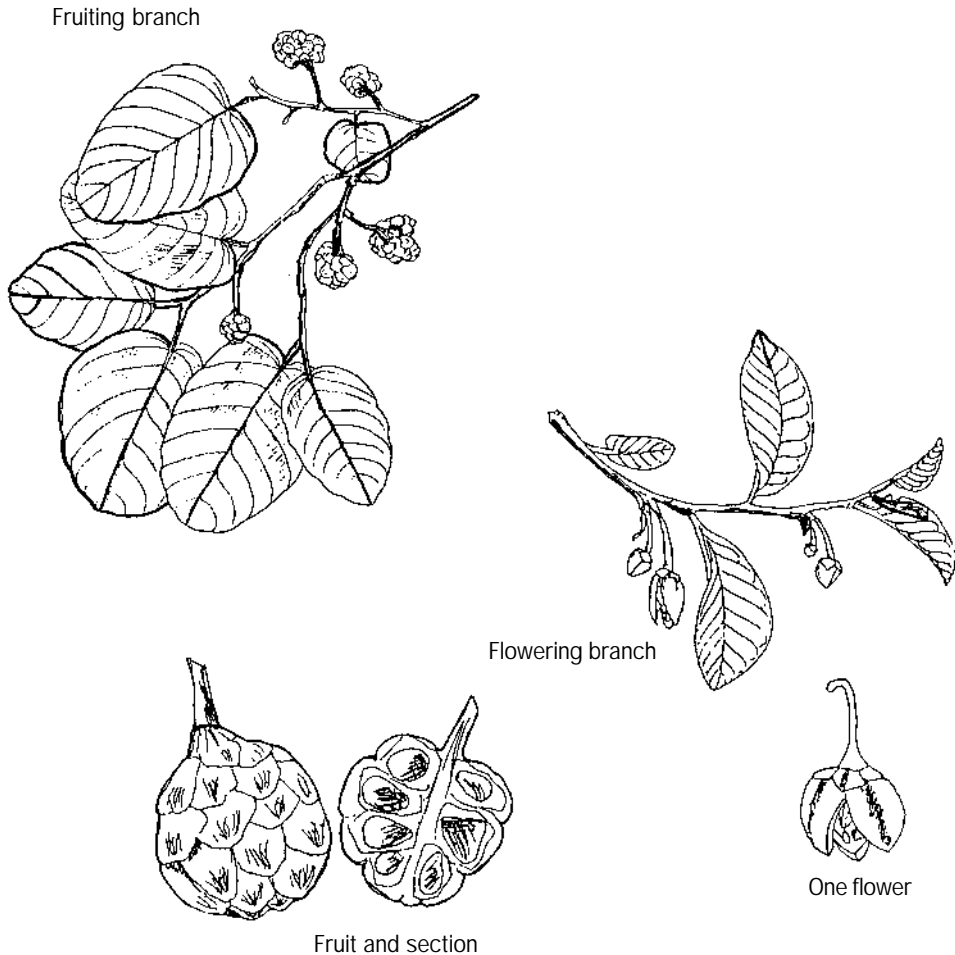
**SEASON:** Fruit are collected from August to December, at the end of late rains.

**STORAGE:** Not stored.

**MANAGEMENT:** Collected from the wild and not protected or cultivated by local people. Seeds are difficult to germinate but the tree easily regenerates by coppice shoots and root suckers.

**STATUS:** Common within its area of distribution.

**REMARKS:** This species has a potential for domestication.



***Annona stenophylla*****Annonaceae**

Indigenous

LOCAL NAMES: **Nyamwezi:** Mfila, Mtopetope; **Sambaa:** Mshofu; **Swahili:** Mtopetope; **Zigua:** Mshofu.

DESCRIPTION: **A low shrub with annual shoots to 1 m arising from underground rhizomes**, the stems simple or branched; branchlets red-brown, hairy at first, sometimes persisting. **LEAVES:** Alternate, **usually very hairy**, the **blade 4–18 cm, wide or narrow, often wider towards the tip**, which is usually rounded, the base narrowed or rounded to a short stalk, the blade bright or blue-green, **paler below with dense hairs**, marked by green-red-purple nerves, a dense network of smaller veins above and below. **FLOWERS:** Usually solitary, above leaves, hanging down **on hairy stalks**, 3 small free sepals, petals fleshy, 3 outer thick petals, **concave, rounded**, about 1 cm, **3 smaller inner petals** all **cream-yellow-brown** inside and **hairy outside**. **FRUIT:** **Orange-yellow when ripe, 2.5–4.5 cm long on a stalk to 4 cm**, the compound fruit contains soft edible pulp full of numerous black, shiny seeds.

ECOLOGY: Usually found growing in *Brachystegia* woodland, on sandy or frequently burnt ground such as *Acacia* grassland. Also found on sandy, grassy slopes at the edge of wetlands, 500–1,600 m.

DISTRIBUTION: Found in western Tanzania, Rukwa, Tabora and Iringa Regions, the Southern Highlands; also found in Zambia, Zimbabwe, Mozambique, Angola and the Congo basin.

USES:

**Food:**

- The pulp of ripe fruit is sweet and eaten fresh. It has a pleasant smell and taste and is much sought after by herdsman and children.
- Ripe fruit are soaked in water, squeezed and filtered for juice.

**Commercial:** Not marketed.

**Other:** Ornamental and a source of bee forage.

SEASON: Ripe fruit are collected from September to January.

STORAGE: Not stored.

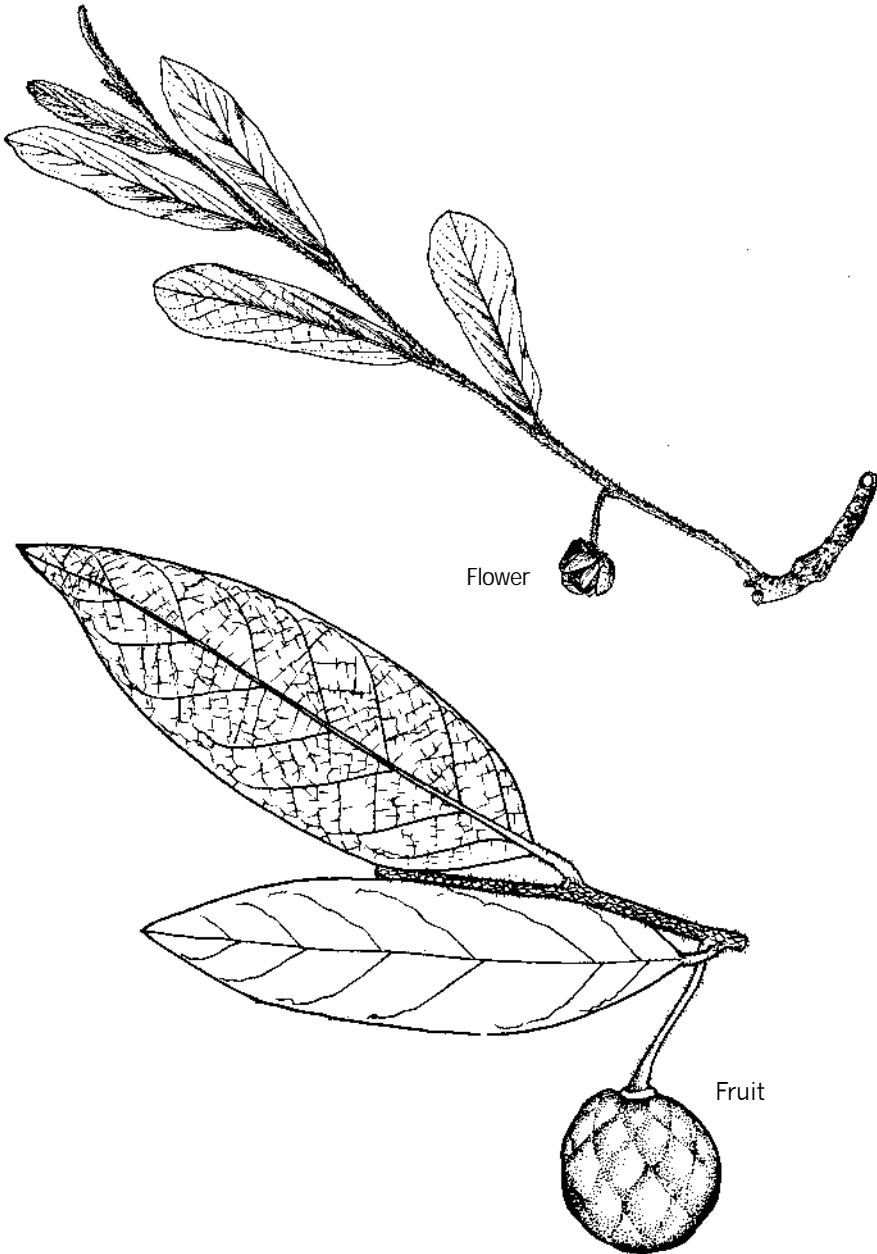
MANAGEMENT: Collected from the wild, not cultivated, but can be propagated by seed.

STATUS: Common within its habitat.

REMARKS: It resembles *A. senegalensis* but all parts of the plant are smaller. The fruit are said to be more tasty than those of *A. senegalensis*.

*Annona stenophylla*

Annonaceae



*Antidesma venosum*

## Euphorbiaceae

Indigenous

LOCAL NAMES: **Bende:** Msekela, Mselala; **Digo:** Chikura, Kihuro, Mzangatchango; **English:** Tassel berry; **Ha:** Umuziaziga; **Haya:** Musivya, Umusivya, Umutoketoke; **Kerewe:** Mtokitoki, Ntokitoki; **Ngindo:** Mkunda hobi; **Nyamwezi:** Msekela; **Nguu:** Mawejameno, Mgwejameno; **Rangi:** Mudualo; **Rufiji:** Mjembajemba; **Sukuma:** Mganzabakama, Muganzabakama; **Swahili:** Mbua nono, Mkaracha, Msaga, Msasuzi, Msisimizi, Msuaga, Mtimagoa, Mwinamia ziwa, Mziwaziwa; **Tongwe:** Mtimpu, Mtipu; **Zaramo:** Mnyembelezuwa, Nyembelezuwa; **Zigua:** Mgwejameno.

DESCRIPTION: A shrub or small tree to 5 m, occasionally reaching 7 m. BARK: Grey or grey-brown, smooth to rough and flaky. LEAVES: Oval to elliptic, usually 2–10 cm, leathery, bright glossy green above, pale green and hairy below, apex tapering to rounded, base rounded; margin entire, very short stalk. FLOWERS: Male and female trees: male flowers dull yellowish, female reddish and not so fluffy, in catkin-like spikes up to 8 cm in length, unpleasantly scented; appear October–January. FRUIT: Small, fleshy, oval, about 6 mm, white when young, becoming bright red and finally shiny purple-black when mature (March–May) on long hanging spikes to 12 cm.

ECOLOGY: Found in miombo woodland, wooded grassland and forest edges, 0–1,200 m; rainfall 700–2,000 mm. Tolerant of various soil types, including sandy soils, sandy loams, sandy clay loams and red loams.

DISTRIBUTION: Found in all parts of Tanzania. Also from West Africa eastwards to Ethiopia and southwards to South Africa.

USES:

**Food:**

The ripe fruit are edible. They are collected from the tree, sorted out in handfuls and chewed. The juice is swallowed and the pulp remnants and seeds rejected. They are sweetish and usually eaten by children, herdsman and farmers in order to quench thirst and hunger (Bondei, Nyamwezi, Zaramo, Zigua).

**Medicinal:**

- The leaves and roots are used for treating snakebite, poisoning, abdominal pains, hookworm and as a business charm (Bondei, Nyamwezi, Sambaa and Zigua).
- Seeds are steeped in water and drunk to treat liver complaints.

**Commercial:** Not marketed.

**Other:** Wood is used for firewood, tool handles and knife sheaths (scabbards).

The plant is also used for shade, fodder and as an ornamental, and is a source of bee forage.

***Antidesma venosum* (contd)****Euphorbiaceae**

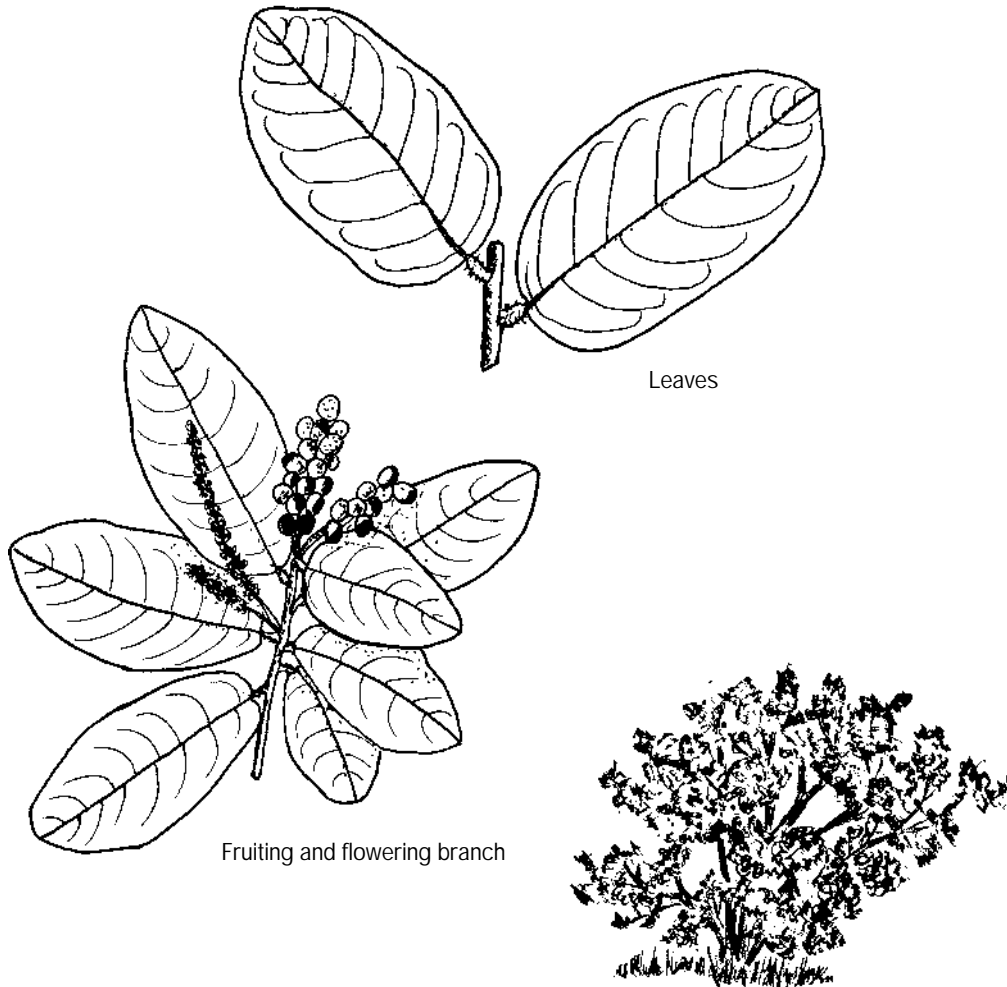
SEASON: Fruit are collected during and after the rainy season.

STORAGE: Not stored.

MANAGEMENT: Collected from the wild and not cultivated or protected by the local people. Easily propagated by seed, and also produces root suckers.

STATUS: Common within its area of distribution.

REMARKS: Roots are believed to be poisonous (Nyamwezi). An invasive weed in fallows.



***Asparagus africanus (A. abyssinicus)* Asparagaceae**

Indigenous

LOCAL NAMES: **Nyamwezi:** Kasesanhanga, Kasolanhanga; **Sandawi:** Konkór/.intsha; **Swahili:** Mwinika nguu; **Tongwe:** Lukungwisa.

DESCRIPTION: A scrambling woody shrub growing from a fibrous rootstock from which shoots arise. Stems smooth or grooved, grey-brown and twisted, larger stems spiny and branches with tiny bristles. Climbing to 3 m and sometimes forming low bushes to 1 m. LEAVES: True leaves are small and scale-like with **clusters of leaf-like needles** growing from their axils. These cladodes (modified branches) **are straight and cylindrical, about 1 cm long. Recurved** spines have brown structures, “spurs”, beside them. FLOWERS: Small, white–pale pink, on **jointed stalks**, in clusters among the cladodes. **Flower parts in threes and spreading.** FRUIT: Small **green berries, ripen red** and fleshy and contain one seed.

ECOLOGY: Frequent at forest edges, in bushy wooded areas and grasslands, often on rocky ground, up to 2,500 m; rainfall 1,000–1,700 mm. Common especially after burning. Thrives in sandy clay loams.

DISTRIBUTION: Found in Sudan, the Congo basin, Ethiopia, south to Zimbabwe and Botswana. Occurs in many areas of Tanzania, e.g. Tabora, Dodoma, Kigoma, Morogoro and Mtwara Regions.

USES:

**Food:**

- Ripe fruit are collected from the plant in handfuls and the juice sucked out while the solid part is discarded. Eaten only by children and used especially in famine periods. It is highly nutritious and therefore important during such times of famine.
- Young shoots are dug out, washed, peeled and chewed by children and herdsmen in order to quench thirst and hunger.

**Medicinal:** Roots are collected, washed, pounded, boiled and the decoction drunk to treat STDs (Bondei, Nyamwezi, Zigua). Seeds swallowed as a prevention for eye diseases (Nyamwezi).

**Commercial:** Not marketed.

**Other:** Used for ornamental purposes and is also a source of bee forage.

SEASON: Fruit collected during the dry spells in June–July and December. Shoots collected during rainy seasons.

STORAGE: Not stored.

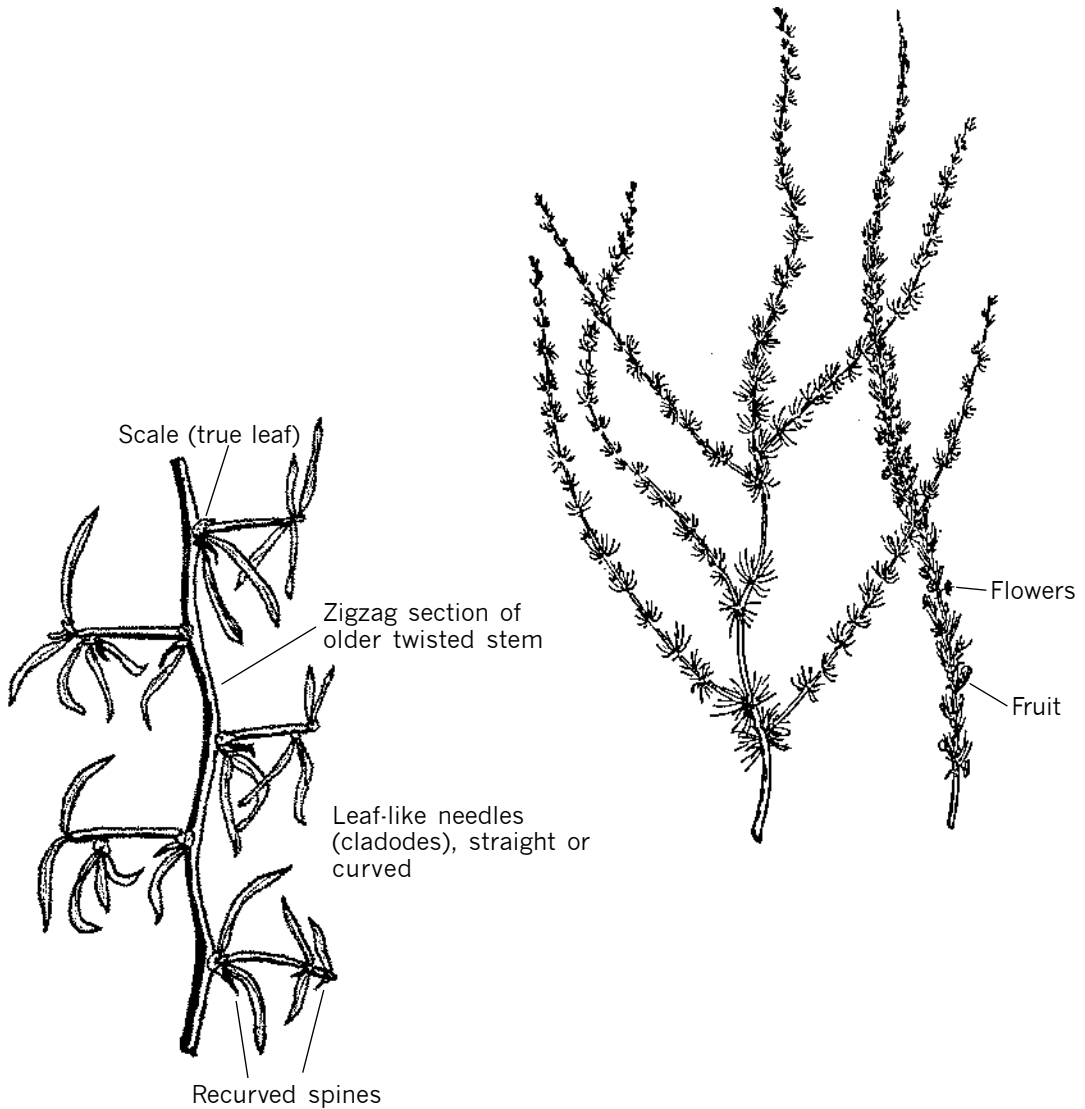
MANAGEMENT: Collected from the wild and not protected or cultivated by local people. It can be propagated by seed and root suckers.

STATUS: It is common, especially after bush fires, within its area of distribution.

*Asparagus africanus* (contd)

## Asparagaceae

REMARKS: Frequently planted as an ornamental. The food uses of this plant are not known by many people even in areas where it occurs commonly. The young shoots which grow out of the woody root crown just below the surface of the soil are eaten (as in the cultivated asparagus species).



***Asparagus flagellaris* (*A. nudicaulis*) Asparagaceae**

Indigenous

LOCAL NAMES: **Nyamwezi:** Kasesanhanga, Kasolanhanga; **Sandawi:** Konkór/.intsha; **Swahili:** Mwinika nguu; **Tongwe:** Lukungwisa.

DESCRIPTION: An erect or scrambling woody perennial shrub to 1 m, with twisted branches bearing **strong spines**, the stems **grey-white and hairless**. **Branchlets** simple but in different planes. LEAVES: Scale-like, leafy needle-like cladodes (modified branches) grow in clusters along stems, with **recurved spines having white spurs** beside them (seen clearly on flowering branches). Stems densely covered with cladode needles as the **2-cm needles** are longer than the internodes. FLOWERS: Fragrant, **white**, **4 mm** across, on jointed stalks, **2 or more together** on flowering stems, with few or no cladodes, very attractive in flower. The 6 flower parts persist around the berry. FRUIT: Small **orange berries**, round or slightly 3-part, contain 1 seed.

ECOLOGY: Occurs in wooded grasslands at low and medium altitude, up to 2,100 m; rainfall 1,000–1,800 mm. Thrives in a variety of soil types.

DISTRIBUTION: From Sudan, Ethiopia, Somalia south to Malawi and Mozambique, including East Africa, Rwanda and parts of the Congo basin. Found in many areas in Tanzania.

USES:

**Food:**

The fleshy orange fruit are collected from the plant, the juice sucked out and the solid part discarded. They have a sweet taste.

**Medicinal:** The roots are crushed and boiled. The liquid is drunk to treat STDs (Sambaa).

**Commercial:** Not marketed.

**Other:** Ornamental.

SEASON: Fruit collected during dry spells in June–July and December. Shoots collected during rainy seasons.

STORAGE: Not stored.

MANAGEMENT: Collected from the wild and not protected or cultivated by local people. Can be propagated by seed and root suckers.

STATUS: Common within its area of distribution.



*Asparagus flagellaris* (*A. nudicaulis*) Asparagaceae



***Asystasia gangetica*****Acanthaceae**

Indigenous

LOCAL NAMES: **Bondei:** Tikini; **Digo:** Futsure, Futswe, Tala-kushe; **Maasai:** Enkosida, Gosida; **Pare:** Ikobito; **Sambaa:** Tikini; **Swahili:** Mchicha, Mfuchwe, Mtikini; **Tongwe:** Katikamonga; **Zigua:** Tikini.

DESCRIPTION: A trailing perennial herb from a woody rootstock, quite small to over 1 m, often rooting at the nodes, the stems square and often hairy. LEAVES: Generally **oval, to 10 cm** long, the **base round to heart shaped**. FLOWERS: Grow on short stalks from **one side of a terminal stalk, each funnel shaped, 2.5 cm** long, **mauve-white with purple markings**, wrinkled at the mouth, 2 upper petal lobes and a 3-lobed lower lip. The **5 sepals are 4.5 mm** and there are four 2-celled stamens. Flowers have a short stalk: bracts and bracteoles narrower than sepals. FRUIT: **Hairy capsules to 3 cm**, flattened from side to side, containing 1–4 seeds.

ECOLOGY: It occurs as a weed in cultivation from low altitudes up to 1,900 m; rainfall 1,200–2,100 mm. Also in disturbed soil in forests, e.g. after being dug up by bush pigs. Tolerates a variety of soils.

DISTRIBUTION: Common in West Africa, the Congo basin, in the Sudan and in East Africa. Found in many parts of Tanzania including Arusha, Kilimanjaro, Tanga, Morogoro, Kigoma and Iringa Regions.

USES:

**Food:**

Leaves and young stems are edible. They are collected, chopped and boiled with a little potash to tenderize them. Eaten together with the staple food when more preferred vegetables are not available. Sometimes mixed with other vegetables such as peas or pumpkin leaves and coconut milk, and pounded oyster nuts (*Telfairia pedata*) or groundnuts may be added.

**Medicinal:** The leaves are collected, washed, pounded and boiled. The decoction is drunk to eradicate intestinal worms (Bondei, Digo).

**Commercial:** Sold in local markets.

**Other:** Ornamental, fodder and a source of bee forage.

SEASON: Leaves and young stems are collected in the early rainy season.

STORAGE: The leaves are sometimes dried for storage before or after being steamed (Zigua, Hehe).

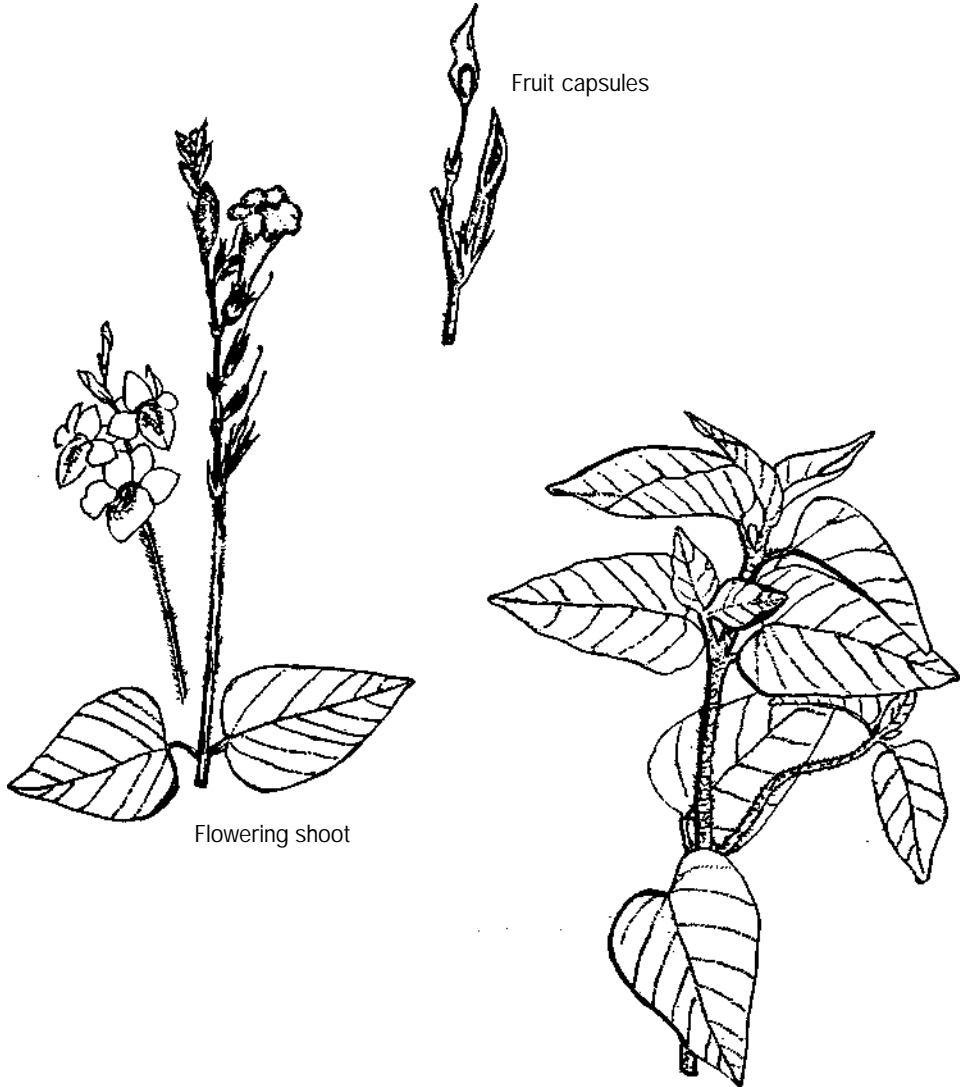
MANAGEMENT: Collected from the wild and not cultivated or protected by local people. Easily propagated by seed.

STATUS: Common within its area of distribution.

REMARKS: A serious weed.

*Asystasia gangetica*

Acanthaceae



***Asystasia mysorensis* (*A. schimperi*)**      **Acanthaceae**

Indigenous

LOCAL NAMES: **Bondei:** Tikini; **Pare:** Ikobito; **Sambaa:** Tikini; **Zigua:** Tikini.

DESCRIPTION: An erect annual plant, or later scrambling on the ground, shortly hairy. LEAVES: In opposite pairs, **oval, the tip often wider**. FLOWERS: In a short terminal spike, each flower **stalkless and almost enclosed in a green bract**. Bracts are **well pointed, longer and wider than the 5 sepals**. The tubular white flower, 1.5 cm, has 5 petal lobes, 2 above and 3 below, the lower centre lobe has green veins, the outer lobes brown ones. The throat may be green spotted. FRUIT: **A capsule about 2 cm long** with tiny glands, containing 1–4 angular or toothed seeds.

ECOLOGY: Occurs at forest edges and thickets and in secondary regrowth after cultivation or other disturbance of the soil. Often a weed in arable land or along paths. Abundant at altitudes up to 2,200 m; rainfall 1,000–2,100 mm. Tolerates a wide range of soil types.

DISTRIBUTION: Found in all parts of Tanzania except Mbeya, Iringa and Songea Regions. Also found in Ethiopia, Somalia, southern Sudan and in the Congo basin.

USES:

**Food:**

- Leaves and young shoots are eaten as a vegetable.
- The leaves are collected, boiled alone or mixed with other vegetables such as cowpeas or *mnavu* (*Solanum nigrum*). The leaves can also be mixed with tomatoes, onions, coconut milk, pounded oyster nuts (*Telfairia pedata*) or groundnuts and served with a staple food—*ugali*, rice, bananas or potatoes (Bondei, Sambaa, Zigua).

**Commercial:** Sold locally.**Other:** Ornamental and fodder.

SEASON: It is mainly collected in the early rainy season since it is one of the first plants to grow after the start of the rains.

STORAGE: Not stored.

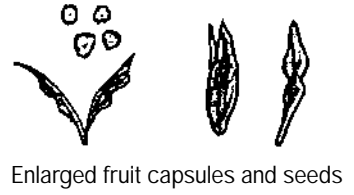
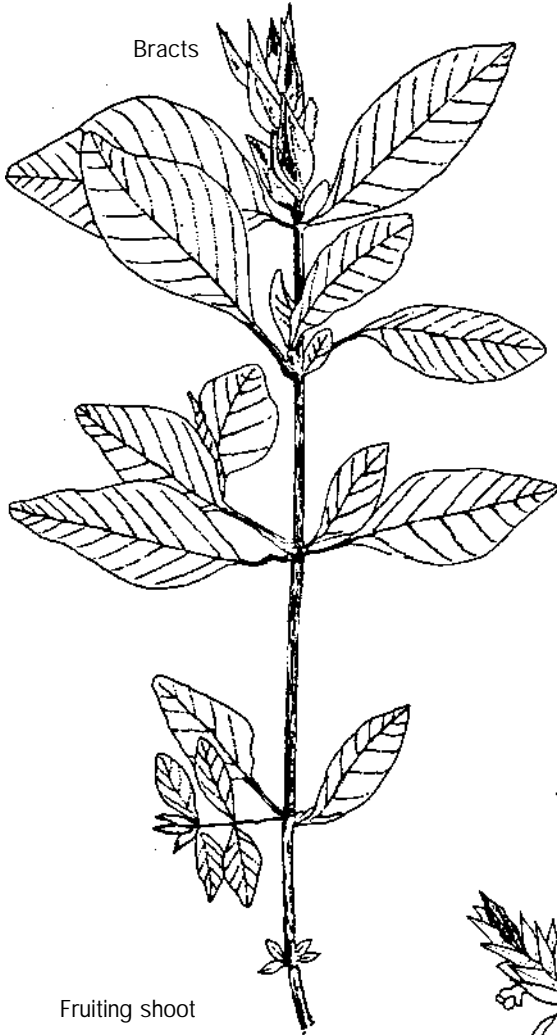
MANAGEMENT: Collected from the wild and not protected or cultivated by local people.

STATUS: Common within its area of distribution.

REMARKS: Regarded as a weed in cultivated areas.

*Asystasia mysorensis* (*A. schimperi*)

Acanthaceae



*Azanza garckeana*

## Malvaceae

Indigenous

LOCAL NAMES: **Arusha:** Emotoo; **Bena:** Mtowo; **Bende:** Mtobo; **English:** Snot apple, Tree hibiscus; **Gogo:** Mtoyo; **Gorowa:** Thogi, Tlaghay; **Hehe:** Mtowo; **Kimbu:** Mutogo; **Maasai:** Emoloo, Olmatawayu, Olmotoo; **Mbugwe:** Mutogo; **Ngindo:** Mtobo; **Nyamwezi:** Mtowo; **Nyasa:** Mtoo; **Nyaturu:** Mutrogho; **Nyiramba:** Mtogho; **Pare:** Mtakataka; **Rangi:** Matua, Matwa, Mchagai, Mchai, Msembere, Mtowo, Mtula, Mtwā, Muchagai, Mutwa; **Sandawi:** Dong, Xaxabo; **Swahili:** Mnduwe, Mwatata; **Tongwe:** Mtobo.

DESCRIPTION: A deciduous tree, 3–8 m, with rounded crown. BARK: Brown rough, branchlets have woolly hairs. LEAVES: Simple, alternate, **distinctively rounded, 8 x 12 cm, long stalks, 3–5 lobes**, rough hairs above, soft below. FLOWERS: Large, showy, single, **yellow, turning red-orange, petals overlap** and do not open. FRUIT: **Rounded and woody, 2–8 cm**, 4–5 parts, yellow-brown and hairy, the whole fruit except the seed eaten for the sweet sticky flesh.

ECOLOGY: Common from low to higher altitudes as a scattered tree in several types of woodland; also on termite mounds.

DISTRIBUTION: Found in Africa, from the Sudan to southern Africa. Common all over Tanzania.

USES:

**Food:**

- The ripe fruit are collected and the thick carpels separated from the fruit and eaten. They are sweet but glutinous and are much favoured by herdsmen (Gogo, Hehe, Nyamwezi, Nyiramba, Nyaturu).
- The dry fruit may be cooked and eaten in large quantities during famine and peak farming periods (Gogo, Hehe).

**Medicinal:** Roots are boiled and drunk to treat infertility and constipation.

**Commercial:** It is sold in local markets in many towns in Tanzania (Bena, Gogo, Hehe, Nyamwezi).

**Other:** The wood is used for timber, firewood, spoons, poles, carvings, combs, bows and tool handles. The tree is also used as an ornamental (Gogo, Hehe, Nyamwezi, Zigua).

SEASON: Fruit are collected during the dry season, usually from May to November.

STORAGE: The fruit are boiled with a little salt, dried in the sun and stored for about four months.

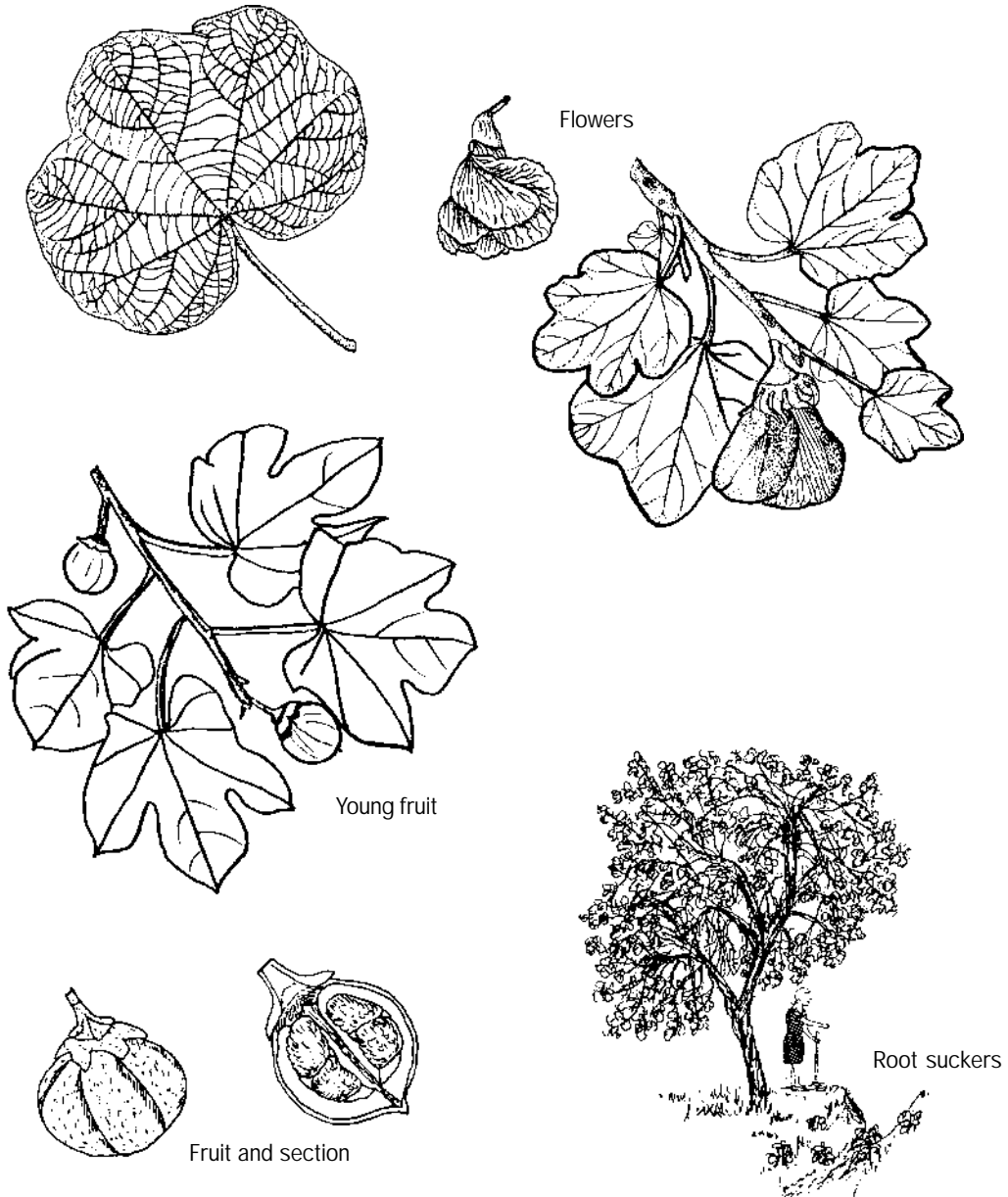
MANAGEMENT: Collected from the wild and not cultivated by local people, but occasionally protected in the farms and around homesteads. Fast growing and easily raised by seed.

*Azanza garckeana* (contd)

Malvaceae

STATUS: Common within its area of distribution.

REMARKS: The only species in the genus *Azanza*. It is attacked by a host of cotton stainers and other bugs, thus not to be grown in cotton-producing areas.



***Balanites aegyptiaca*****Balanitaceae**

Indigenous

LOCAL NAMES: **Arusha:** Olngoswa; **Barabaig:** Ganyamda, Hawi; **Chagga:** Mohoromo; **Digo:** Mwambangoma; **English:** Desert date; **Fiome:** Mjirya; **Gogo:** Mduguyu, Mwambangoma; **Hehe:** Mduguya; **Ngindo:** Mnuwili, Nduguyu; **Gorowa:** Hawi; **Iraqw:** Hawi, Hotlimo; **Isanzu:** Mudugunga; **Luguru:** Mkongo; **Maasai:** Ilokwa (fruit), Olng'oswa, Olokwai, Osaragi; **Mbugwe:** Modori; **Nguu:** Mkonga; **Nyamwezi:** Mduguyu, Mjuguyu, Muvambang'oma, Myuguyu; **Nyaturu:** Mfughuyu; **Nyiramba:** Mudugunga; **Pare:** Iteru, Mkisingo, Mkonga; **Rangi:** Kivambang'ombe, Mdori, Mjijiva, Mjijiwa, Nyijiva; **Sukuma:** Myuguyugu, Nyuguyu; **Swahili:** Mchunju, Mjunju; **Zigua:** Muwambangoma; **Zinza:** Mruguhu.

DESCRIPTION: A medium-sized semi-deciduous tree about 6 m, **rounded crown consisting of a tangled mass of thorny branches**. BARK: Dark, cracked and corky with age. THORNS: To 8 cm, soft at first, then woody. LEAVES: **Distinctive pairs of grey-green leaflets**, ovate. FLOWERS: Fragrant **yellow-green** clusters, 1.5 cm across, 4–5 petals to 1 cm long, with **8–10 long central stamens**. FRUIT: Date-like, **about 5 cm long**, both ends rounded, **yellow when ripe**, a hard pointed seed 4 x 2 cm within surrounded by **yellow-brown, bitter-sweet flesh**, seed easily separated.

ECOLOGY: Occurs from arid and semi-arid areas to sub-humid savanna. Also found in dry wooded grasslands in low and medium-altitudes up to 2,000 m; rainfall 200–800 mm. Prefers valley soils; common in sand, clay, black-cotton, alluvial and stony soils.

DISTRIBUTION: Found in most parts of Africa and in the Middle East. Widespread in dry areas of Tanzania.

USES:

**Food:**

- Fruit are edible. The ripe fallen fruit are collected and the pulp eaten fresh. They have a bitter taste (Gogo, Zigua).
- Cooking oil can be extracted from the seed. Seeds are collected, roasted, pounded and boiled in water, allowed to cool and the oil skimmed off. The oil is used for cooking vegetables such as peas, sweet potatoes or cassava (Zigua).

**Medicinal:**

- A decoction of the roots is used to treat abdominal pains, intestinal worms, diarrhoea and as an antidote for poisoning (Maasai, Zigua).
- Gum from wood is mixed with maize-meal porridge and eaten to treat chest complaints.

**Commercial:** Not marketed.

**Other:** Livestock eat fallen fruit on the ground and browse the leaves. The wood is used for timber, poles, firewood, charcoal, combs, spoons, tool handles,



***Balanites aegyptiaca* (contd)****Balanitaceae**

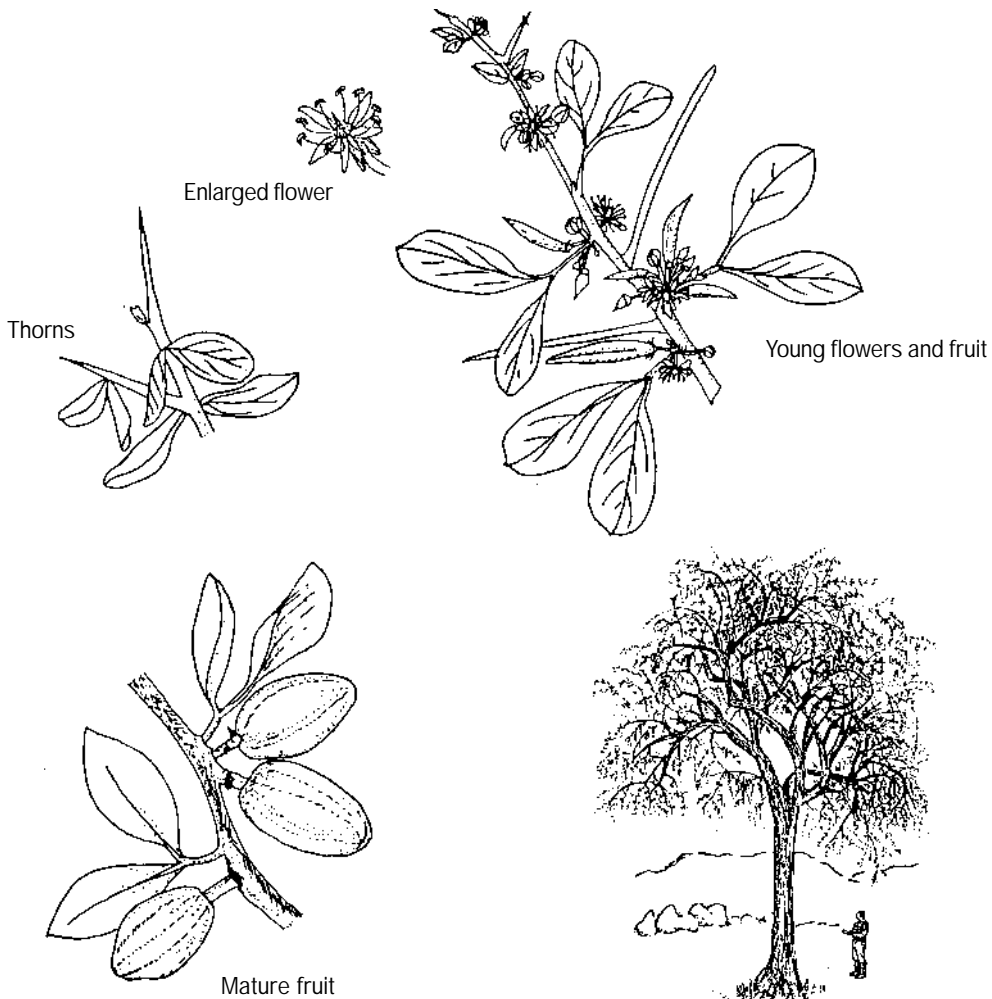
fencing, nails for native drums and carvings. The tree is also an important source of bee forage.

SEASON: Fruit are collected between April and June.

STORAGE: Not stored.

MANAGEMENT: Collected from the wild and often protected by local people in homesteads, fields and at trading centres. Regenerates easily from root suckers and can be propagated by seed.

STATUS: Common within its area of distribution.



***Balanites rotundifolia* (*B. orbicularis*) Balanitaceae**

Indigenous

LOCAL NAMES: **Bena:** Mvanga ng'oma; **Digo:** Mkonga; **Hehe:** Mvambandusi; **Maasai:** Olkwai, Olngoswa; **Sambaa:** Mkonga; **Swahili:** Mbamba ngoma, Mkonga; **Zigua:** Mkonga.

DESCRIPTION: A spiny multi-stemmed evergreen shrub or tree, 2–5 m. BARK: Grey, later rough and furrowed. THORNS: **Unusually dark green, stout, to 3 cm and straight.** LEAVES: Small, in pairs with no stalks, round to heart shaped, grey-green, hairy. FLOWERS: Small, green-yellow, in small bunches **along the thorns.** FRUIT: Oval, hairy, to 2 cm (fruit and seed more rounded and smaller than in *B. aegyptiaca*).

ECOLOGY: Found in very dry wooded savanna and grassland up to 2,000 m. Thrives in a variety of soils.

DISTRIBUTION: Occurs in Africa from Somalia, Ethiopia, Kenya and Uganda west to West Africa. Found in north and north-east Tanzania, e.g. in Kilimanjaro and Tanga Regions.

USES:

**Food:**

The pulp of the fruit is edible and sweet. The ripe reddish brown fruit are either picked from the tree or collected from the ground. They are eaten as a snack, especially by herdsmen (Maasai, Zigua).

**Other:** The wood is used for poles, firewood, charcoal, tool handles, spoons, combs and carvings. Leaves and fruit are eaten by livestock. The tree provides shade and is a source of bee forage.

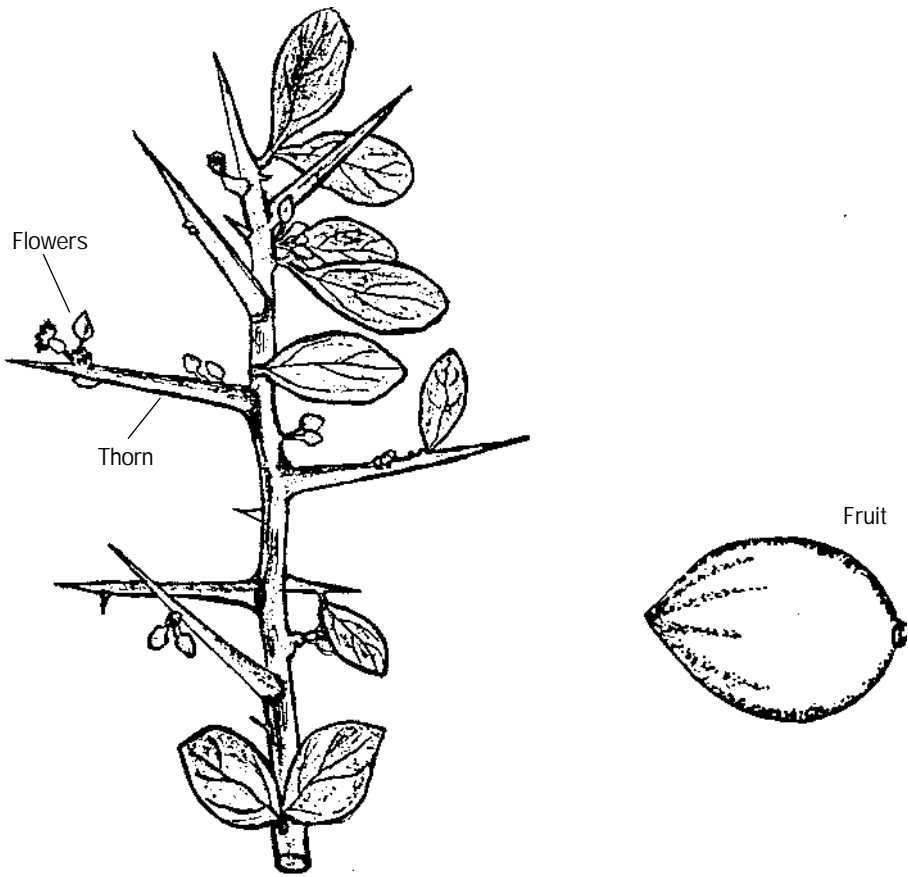
SEASON: Fruit collected September–December.

STORAGE: Not stored.

MANAGEMENT: Fruit are collected from the wild and it is not cultivated or protected by the local people. It can be propagated by seed and root suckers.

STATUS: Uncommon.

*Balanites rotundifolia* (*B. orbicularis*) Balanitaceae



*Balanites wilsoniana*

## Balanitaceae

Indigenous

LOCAL NAMES: **Bondei:** Mkonga; **Digo:** Mkonga; **Luguru:** Mngalangala; **Mwera:** Mmera; **Ngindo:** Mnuwili-msitu; **Sambaa:** Mbambangoma, Mkonga; **Swahili:** Mguguni, Mkonga; **Zaramo:** Nyakahamba, Popoma.

DESCRIPTION: A large semi-deciduous forest tree, the trunk generally 6–12 m high (to 30 m in rainforest), girth to 3 m, crooked or fairly straight with **large ascending branches to a spreading crown**, often densely interlocked. The young trunk may have ring-like markings. The tree has conspicuous **long buttresses, continuing upwards as deep twisted fluting**, sometimes with compound thorns in the hollows. BARK: Yellow to grey-green or light brown, **generally smooth** but rough with age; some flaking. Branchlets with **forked spines**, very hard and sharp, arising above leaf axils and reaching 15 cm in length, **always absent from the flowering branches**. LEAVES: **2 leaflets on a common stalk** to 2.5 cm, each leaflet stalked to 1 cm, **wide oval, to 8.5 cm x 5 cm**, rather thin and fleshy, tip more or less long pointed. New leaf growth bright green. FLOWERS: **Yellow-green, in stalked clusters**, above a leaf axil, growing from side shoots on older branches. Buds round, with 5 sepals, the 5 green petals, 7 mm long, surround a conspicuous central disc of 8–10 stamens. FRUIT: **A drupe**, green, **ripening yellow, 6–10 cm** long, with 5 shallow ribs and an unpleasant smell; the **fibrous coat surrounds the hard inner stone**. The seed kernel is edible and contains oil.

ECOLOGY: A tree of evergreen coastal forest and coastal thickets, 0–400 m; rainfall 1,000–1,800 mm. Tolerates a wide range of soil types, but does best in rich loam soils.

DISTRIBUTION: Widespread in West Africa from Senegal to Cameroon, eastern Africa and south to Zambia and Botswana. In Tanzania this species occurs along the coast from Tanga southwards to Mtwara, e.g. in Banda Forest Reserve and Kisarawe (Pwani Region), Kwamarukanga Forest Reserve (Tanga Region), and Rondo escarpment in Lindi Region.

Uses:

**Food:**

- The fruit are eaten occasionally during the fruiting season.
- Edible oil is extracted from seeds and used for cooking. Seeds are pounded and boiled in water, allowed to cool and the oil skimmed off.

**Commercial:** Not marketed.

**Other:** The oil from the seeds is also used as a lubricant. Wood is used for firewood, charcoal, building poles, carvings, tool handles, spoons, walking sticks, furniture, grain mortars and stools. Leaves and fruit are used for fodder. Also a good source of bee forage.

***Balanites wilsoniana* (contd)****Balanitaceae**

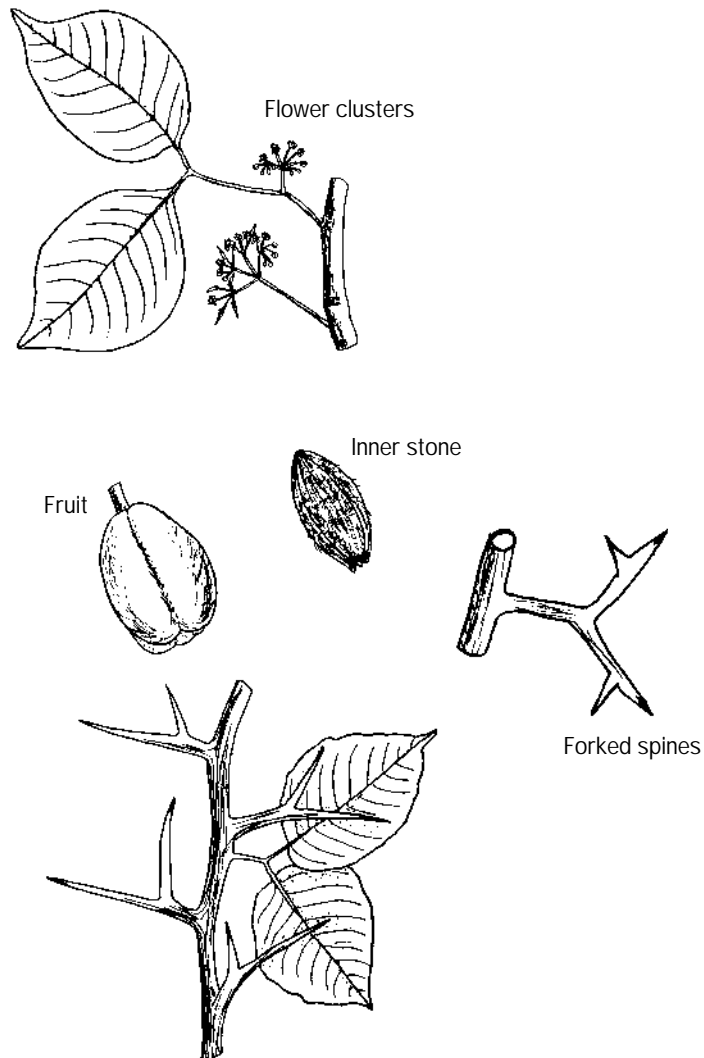
SEASON: Fruit are collected August–October.

STORAGE: Seeds can be stored for months.

MANAGEMENT: Collected from the wild and is not protected. It can be propagated by seed and also produces root suckers.

STATUS: Common.

REMARKS: The fruit pulp is toxic to the snails which carry bilharzia. Decaying fruit smell of acetic acid. Elephants relish the fruit and so disperse the seed.



***Bauhinia kаланtha*****Caesalpinaceae**

Indigenous

LOCAL NAMES: **Hehe:** Mtema; **Nyamwezi:** Kitemba; **Swahili:** Mchekwa.

DESCRIPTION: A shrub to 3 m, very attractive in flower, the branchlets without hairs. LEAVES: Bilobed leaves, unusually **deeply divided** to four-fifths of the depth with a flat boat-shaped **scale-like projection at the bottom of the divide**, 2–4 mm. Whole leaf 1–4.5 cm x 1.5–8 cm across, the lobes rounded at the apex. FLOWERS: **Solitary, yellow, the 5 petals to 3.7 cm long**, 5 narrow sepals outside and 10 fertile stamens around the centre, the stigma rounded, to 3 mm. FRUIT: Thin woody pods about 10 cm long x 1.5 cm across contain dark brown seeds.

ECOLOGY: Found in deciduous thicket and woodland, 600–1,000 m. Mainly found in stony areas.

DISTRIBUTION: Endemic to Tanzania, found only in Dodoma, Iringa and Morogoro Regions.

USES:

**Food:**

Tender leaves are used as a vegetable. Leaves are collected, chopped and cooked alone or with other vegetables such as pumpkin leaves. Then pounded groundnuts are added and the vegetable eaten with *ugali* or rice.

**Commercial:** Not marketed.

**Other:** Ornamental; bark fibre is used for ropes and the wood is good for fuel.

Produces a dye used in basketry.

SEASON: Leaves are collected during the rainy season, November–April.

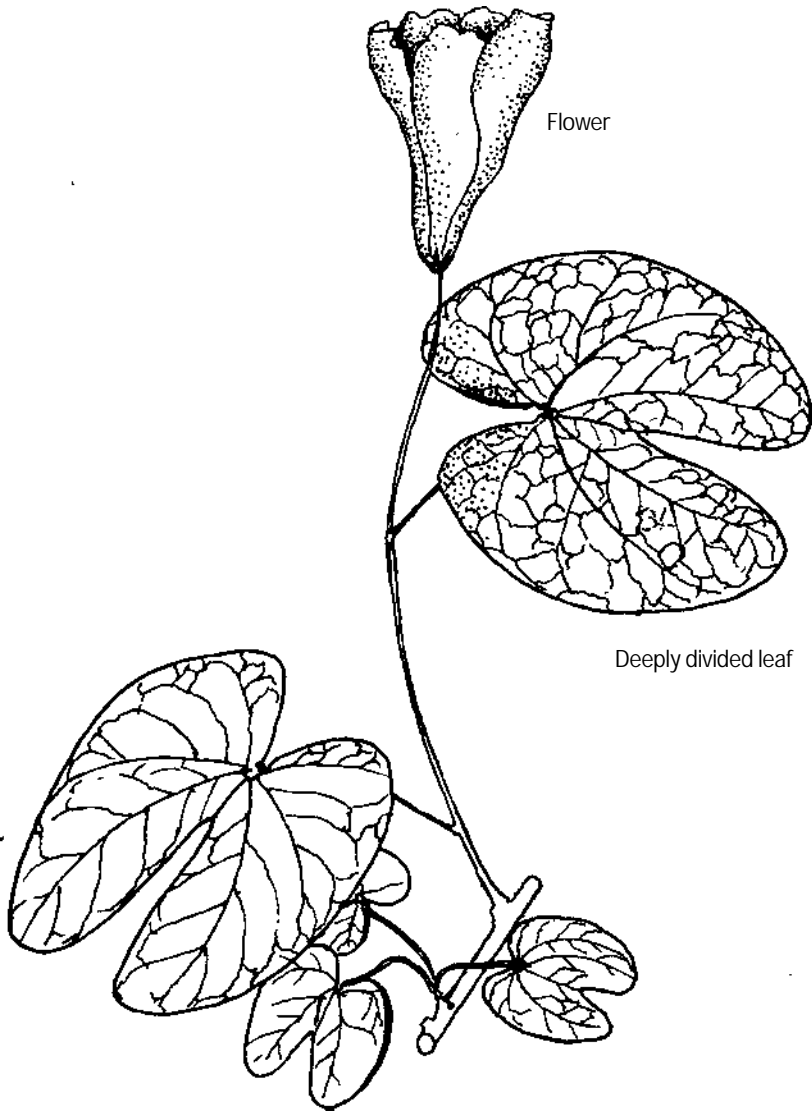
STORAGE: Not stored.

MANAGEMENT: Collected from the wild and not cultivated or protected by local people.

STATUS: Common.

*Bauhinia kalantha*

Caesalpiniaceae



***Berchemia discolor*****Rhamnaceae**

Indigenous

LOCAL NAMES: **English:** Bird plum, Brown ivory, Wild almond; **Gogo:** Mgandu; **Hehe:** Mgandu; **Luguru:** Nyahumbu; **Matengo:** Njerenje; **Ngindo:** Mkelienge; **Nyamwezi:** Mkuni; **Sandawi:** Okoo, Ooko, Thokoi; **Swahili:** Mkulu, Mnago; **Yao:** Njerenje.

DESCRIPTION: A semi-deciduous shrub or tall tree to 18 m with erect spreading branches making a heavy rounded crown. BARK: Grey-black, cracking and scaly, corky spots on young greenish branches. LEAVES: Simple, alternate, **shiny dark green, sticky when young, oval, to 11 cm, lateral nerves making a clear pattern.** FLOWERS: Small yellow-green, stalked, in loose clusters, attracting bees. FRUIT: Date-like, **yellow, about 2 cm long** with 1–2 flat seeds in sweet edible flesh.

ECOLOGY: Found in wooded grassland and open woodland, especially on termite mounds. Also occurs along river valleys. Widely spread in miombo woodlands, 0–2,000 m.

DISTRIBUTION: Widespread in Tanzania, e.g. Tabora, Dodoma and Morogoro Regions; Yemen, Ethiopia, Somalia, south to Angola, Namibia, South Africa and Madagascar.

USES:

**Food:**

- Fruit are edible. The ripe fruit are usually collected from the tree and eaten raw, but fallen fruit which are sound can also be collected and eaten. They are sweet and very much favoured by children, herdsmen and farmers to assuage hunger (Gogo, Hehe, Nyamwezi).
- Ripe fruit can be soaked in water, squeezed and the juice drunk or used for making porridge (Gogo).

**Commercial:** Fruit are occasionally sold in local markets because the trees are not easily accessible.

**Other:** The wood is used for timber, tool handles, pestles, fuel, poles and gunstocks. The ash from burnt wood is used to produce a substitute for white-wash (Nyamwezi). Ash is mixed with water, the liquid filtered and used as a tenderizer for vegetables.

SEASON: Fruit are collected in March–April; in Iringa in November–December.

STORAGE: Not stored.

MANAGEMENT: Collected from the wild and not cultivated, but sometimes retained in farms and homesteads. It can be propagated by seed and root suckers.

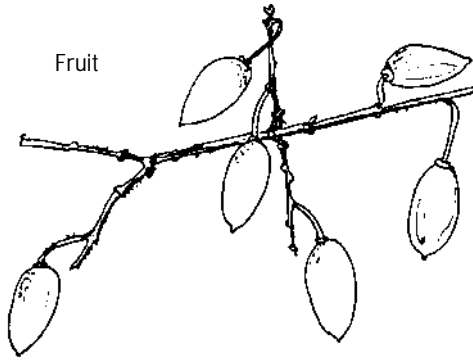
STATUS: Common in its area of distribution.

REMARKS: Fast growing and a suitable species for agroforestry.



*Berchemia discolor*

Rhamnaceae



***Bidens pilosa*****Compositae**

Indigenous

LOCAL NAMES: **Bende:** Nsanda; **Bondei:** Twanguo; **Chagga:** Imbar'a; **English:** Blackjack; **Gogo:** Mhangalale; **Gorowa:** Ghalmi; **Hehe:** Livanivani; **Luguru:** Nyaweza; **Makonde:** Ntwanguo; **Maasai:** Inderepenyi; **Matengo:** Inyule, Kisosoki, Manyonyoli, Nungunungu; **Ndendeule:** Kinywegerere; **Ngoni:** Kisosoki, Manyonyoli, Nungunungu; **Nyamwezi:** Lekalamata, Nsanda; **Nyaturu:** Mpangwe; **Rangi:** Pumbuji; **Sambaa:** Kitojo, Mbwembwe; **Swahili** Kishonanguo; **Tongwe:** Kalasa.

DESCRIPTION: An erect and prolific annual herb, much branched above, to 1 m, but may fruit when quite small, stem 4-angled. LEAVES: Compound, to 8.5 cm long, variable in size and shape, 1–3 ovate toothed leaflets, **lower leaves usually stalked with 3 leaflets**. FLOWERS: In heads 1.2 cm across, the central **disk florets yellow, outer florets with white rays, sometimes absent**. Head tubular, surrounded by 2 rows of softly hairy bracts, only 6 mm long. FRUIT: **Black achenes**, about 1 cm long, **tipped with 2–4 barbed bristles** which catch on fur and clothing, aiding dispersal. They project above the **shorter bracts**.

ECOLOGY: Common on cultivated land, paths and disturbed areas in forests and grasslands, 0–2,100 m.

DISTRIBUTION: Found in all parts of Tanzania. Widespread in tropical Africa.

USES:

**Food:**

The leaves and young shoots are chopped, mixed with other vegetables and boiled. Chopped leaves and young shoots can also be added to beans or peas at the end of cooking. Simsim or groundnut paste may be added. It is eaten occasionally with the staple as a substitute for other more preferred vegetables.

**Medicinal:**

- Leaves are used as medicine to treat stomach-ache and intestinal worms (Pare, Sambaa). Also used to treat wounds and recurrent fevers in children.
- Roots are used to treat constipation and malaria.
- A herbal tea prepared from the leaves is drunk to relieve excessive gas in the stomach.

**Commercial:** Leaves are sold in local markets (Sambaa).

**Other:** The plant is used for fodder and is a source of bee forage.

SEASON: Leaves are collected in the early rainy seasons.

STORAGE: Not stored.

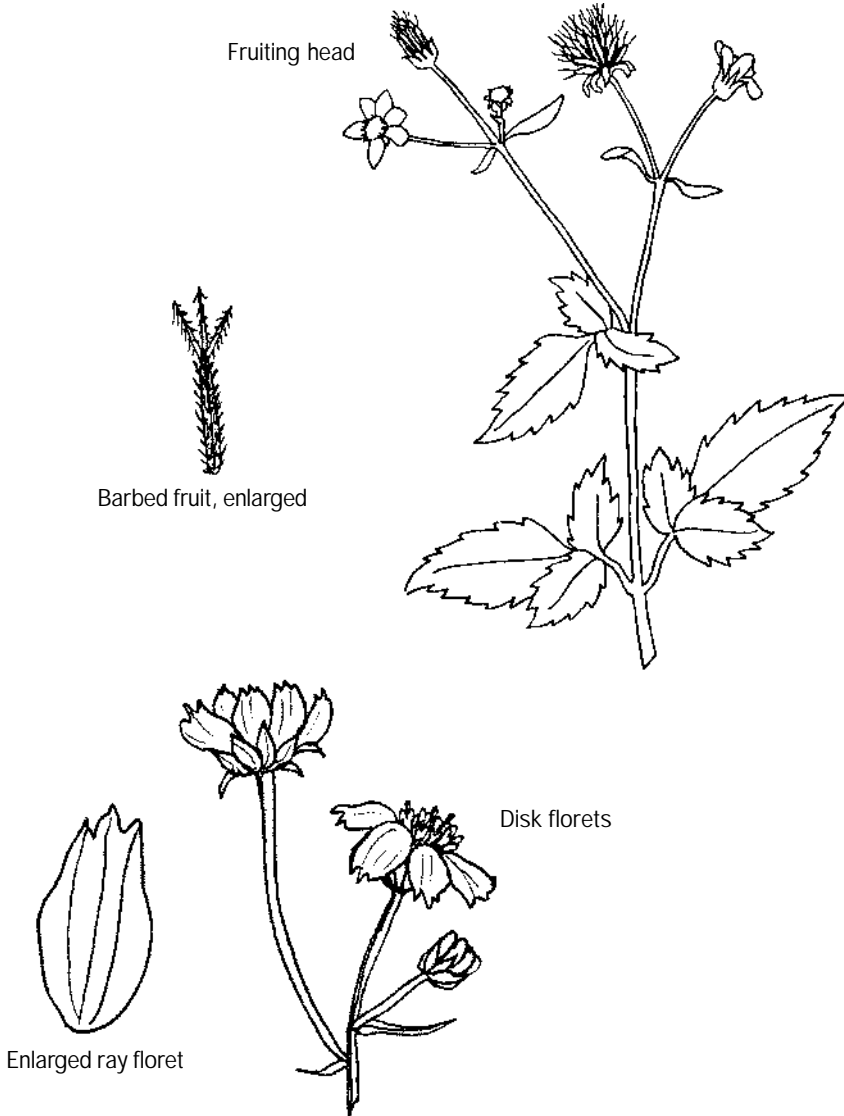
MANAGEMENT: It is not cultivated or protected by local people.

*Bidens pilosa* (contd)

Compositae

STATUS: Common within its area of distribution.

REMARKS: A troublesome weed.



***Bidens schimperi*****Compositae**

Indigenous

LOCAL NAMES: **Bena:** Nyahedja, Nyahedza; **Hehe:** Nyatwanga; **Luguru:** Mangwe, Mbangwe, Nyaweza; **Sambaa:** Mwitango.

DESCRIPTION: An annual herb, much branched, erect or straggling to about 1 m, stems often reddish. LEAVES: Opposite, **pinnately lobed**, deeply indented, often into 3 sections, **usually stalked**. FLOWERS: Conspicuous **bright yellow, terminal** with scattered heads, each one with about **8–10 ray florets, broad and blunt at the tip**, very many central more orange disc florets, the **green bracts around each head with brown tips to 8 mm, in 2 rows**. FRUIT: Small achenes, the pappus of barbed bristles stick to clothing.

ECOLOGY: Common in dry grassland, black-cotton soil, old cultivation, *Brachystegia* woodland in grassy glades, overgrazed or recently burnt soils, 0–2,400 m.

DISTRIBUTION: Widespread in Tanzania; found also in Kenya, Uganda, Somalia, Burundi, Zambia, Mozambique, Zimbabwe.

USES:

**Food:**

Leaves are eaten as a vegetable. They are collected, chopped and cooked alone or mixed with other vegetables such as peas, pumpkin leaves or *mnavu* (*Solanum nigrum*). Coconut milk or groundnut paste, tomatoes and onions may be added in order to make it more palatable (Bena, Hehe).

**Medicinal:** Roots are used as medicine to treat coughs and colds (Bena, Hehe).

**Commercial:** Not marketed.

**Other:** The plant is used as an ornamental, for fodder and is a source of bee forage.

SEASON: Leaves are collected at the beginning of the rainy season, i.e. November–January.

STORAGE: Not stored.

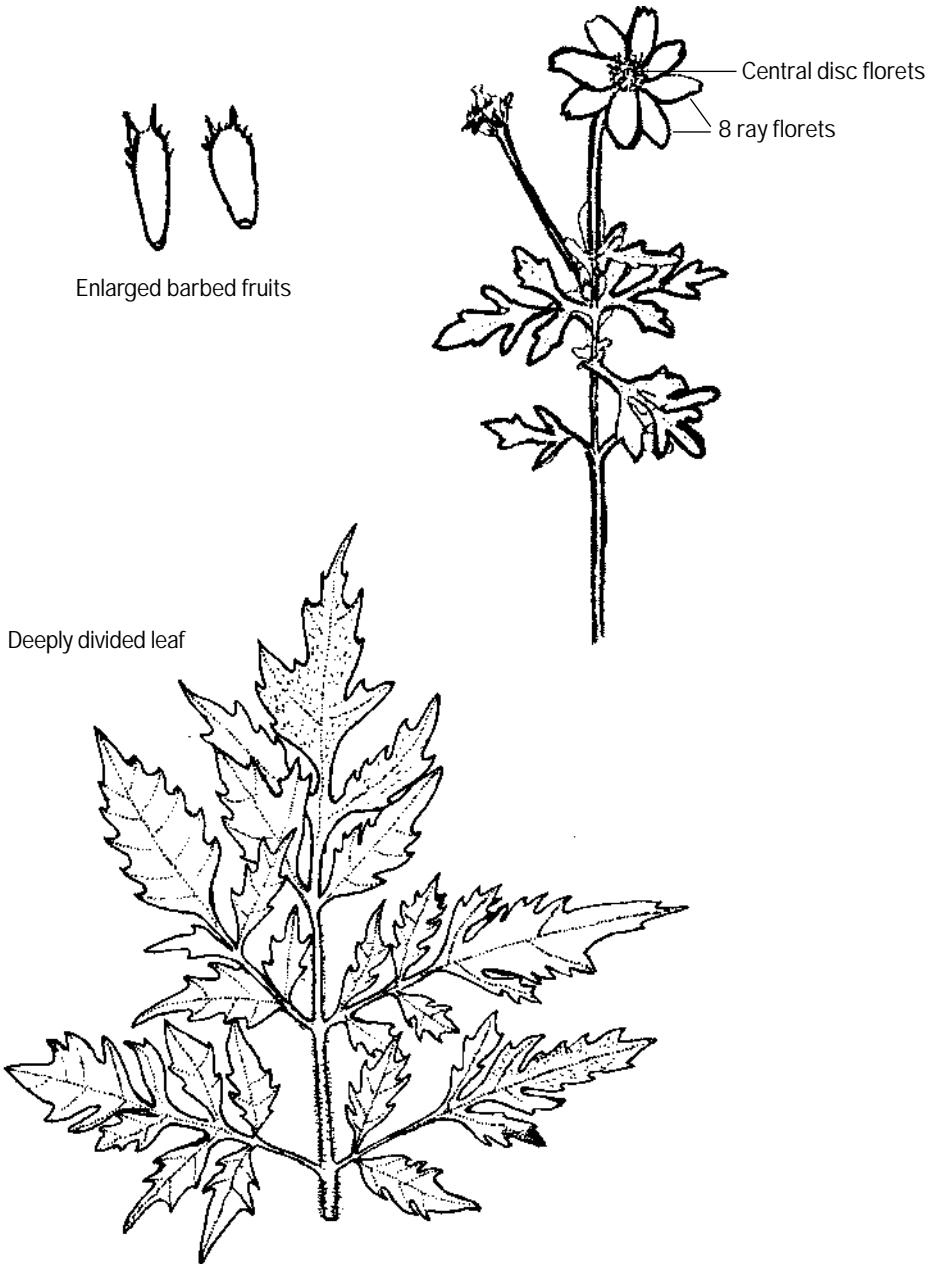
MANAGEMENT: Collected from the wild and not cultivated or protected by the local people.

STATUS: Common in its area of distribution.

REMARKS: A serious weed in all areas where it occurs.

*Bidens schimperi*

Compositae



***Bombax rhodognaphalon* var. *tomentosum* Bombacaceae**

Indigenous

[Plate 1]

LOCAL NAMES: **English:** East African cotton tree, Wild kapok tree; **Matengo:** Mkaranga mti; **Mwera:** Mng'uma; **Ngindo:** Msufi pori; **Nguu:** Mwale; **Nyakyusa:** Msyavala; **Rufiji:** Mfuma; **Sambaa:** Mfuma, Mwale; **Swahili:** Mkaranga mti, Msufi mwitu; **Zigua:** Mwali.

DESCRIPTION: A tall tree to 36 m with a straight bole and medium crown. BARK: **Yellow-green, smooth.** LEAVES: **Compound, with 3–7 leaflets like fingers of a hand,** each to 4 cm long. FLOWERS: 5 petals, pale yellow, red or white, numerous anthers with red stamens; **calyx bell shaped.** FRUIT: Oval brown **woody capsule about 6 x 3 cm,** which **splits open** to set free many seeds in dark red-brown fluffy kapok.

ECOLOGY: Found in woodland and riverine forest, 600–1,100 m.

DISTRIBUTION: In Tanzania it is known from Mbeya Region. Also occurs in Mozambique.

USES:

**Food:**

- Seeds are roasted and eaten like groundnuts.
- Seeds are roasted, pounded and the powder used for cooking with vegetables or meat.

**Medicinal:** The bark is used as medicine to treat diarrhoea (Sambaa). Leaves and roots are also used as a charm against witchcraft.

**Commercial:** Seeds are sold in local markets.

**Other:**

The wood is soft and is used for timber, plywood and pulp. The bark produces fibre and a red dye. Fluffy kapok surrounding the seeds is used to stuff pillows and mattresses. The tree is used for shade and as an avenue tree.

SEASON: Fruit mature from October to December.

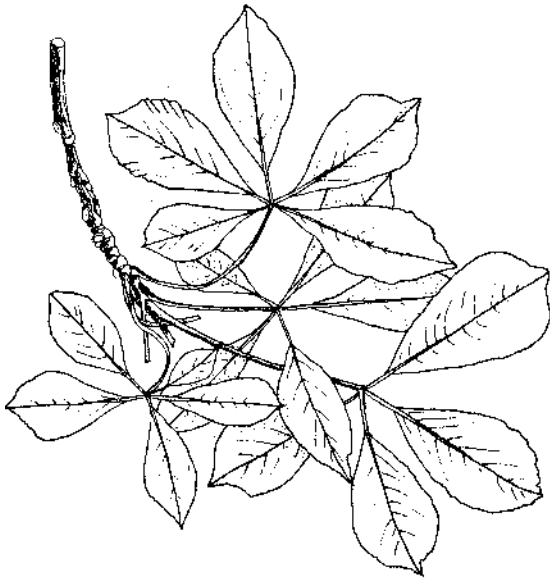
STORAGE: Seeds can be stored for about four months but are susceptible to fungal and insect damage.

MANAGEMENT: Collected from the wild, but also cultivated in some areas of Mbeya and Ruvuma Regions. Generally, female plants are protected by local people. Easily propagated by seed.

STATUS: Natural and domesticated.

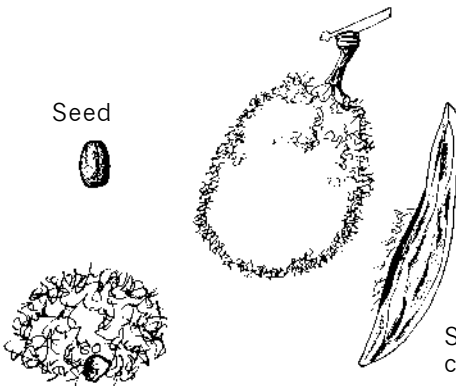
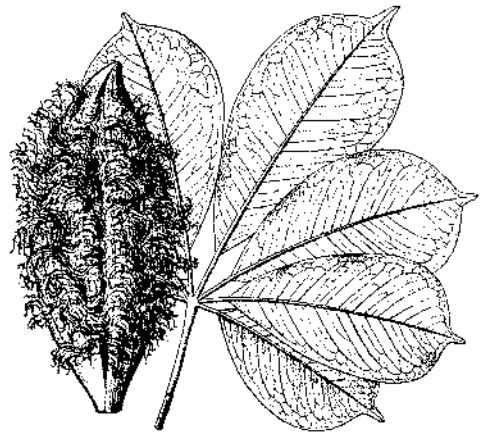
REMARKS: This species has been introduced to other areas of Tanzania, e.g. Ruvuma Region. There is a second variety, var. *rhodognaphalon*, which occurs in lowland rainforests, especially along the coast. Its uses are similar to those of var. *tomentosa*.

*Bombax rhodognaphalon* var. *tomentosum* Bombacaceae



Leafy shoot

Leaf and mature capsule splitting open



Seed

Kapok and seed

Segment of split capsule



***Borassus aethiopum*****Arecaceae (Palmae)**

Indigenous

**[Plate 1]**

LOCAL NAMES: **Bondei:** Mvuma; **Digo:** Dzova, Mvumo, Ngolokolo (fruit); **English:** African fan palm, Borassus palm, Debeb palm, Palmyra palm; **Nyamwezi:** Mhama, Muhama; **Nyaturu:** Mfama; **Nyiramba:** Mpama; **Sambaa:** Vumo; **Sukuma:** Muhama; **Swahili:** Mchapa, Mtapa, Mvuma; **Ngindo:** Mvumo.

DESCRIPTION: A straight tall palm to 20 m with a swollen bole. TRUNK: Smooth grey, **thickened above the middle**, dead leaves remain on the young trunk, old trunks up to 80 cm across. LEAVES: Large, **fan shaped**, to 4 m long x 3 m across, deeply divided into leaflets, thorny at the base. FLOWERS: Male and female on different trees, male producing branched spikes up to 2 m carrying the pollen. FRUIT: Large, in bunches, round, up to **15 cm diameter**, orange-brown, in the enlarged calyx cup, fibrous oily pulp around 3 seeds, each 8 cm brown, woody. (A fruit cluster may weigh 25–50 kg; one ripe fruit weighed 1.3 kg—see illustration.)

ECOLOGY: Found where the water-table is high in wooded savanna grassland. It is usually found in sandy soil and in floodplains in dense stands, 0–1,200 m; rainfall 900–1,400 mm.

DISTRIBUTION: Widespread throughout the less dry areas of tropical Africa. Found in all parts of Tanzania except Arusha and Kilimanjaro.

USES:

**Food:**

- Fruit are edible. The ripe fallen fruit are collected, peeled and the juicy pulp is squeezed in water to form a solution which is added to porridge during cooking to improve the flavour (Nyamwezi, Nyiramba).
- The fruit are collected and the pulp eaten in small amounts as a snack. It is slightly sweet, but with a mild turpentine-like flavour (Nyamwezi, Nyiramba).
- The tip of the trunk is cut and excavated so that a bowl-shaped depression is made where sap accumulates. The sap is then collected and slightly fermented into a refreshing drink.

**Commercial:** Fruit are sold on the roadside and in open markets.

**Other:** Provides good timber for off-ground construction purposes and is also used for beehives. Leaves are used to make mats and baskets.

SEASON: Fruit are collected when they fall in July–December.

STORAGE: Fruit can be stored in the ground for 2–3 months.

MANAGEMENT: Collected from the wild. Generally, female plants are protected by local people. It can be propagated using fresh seed.

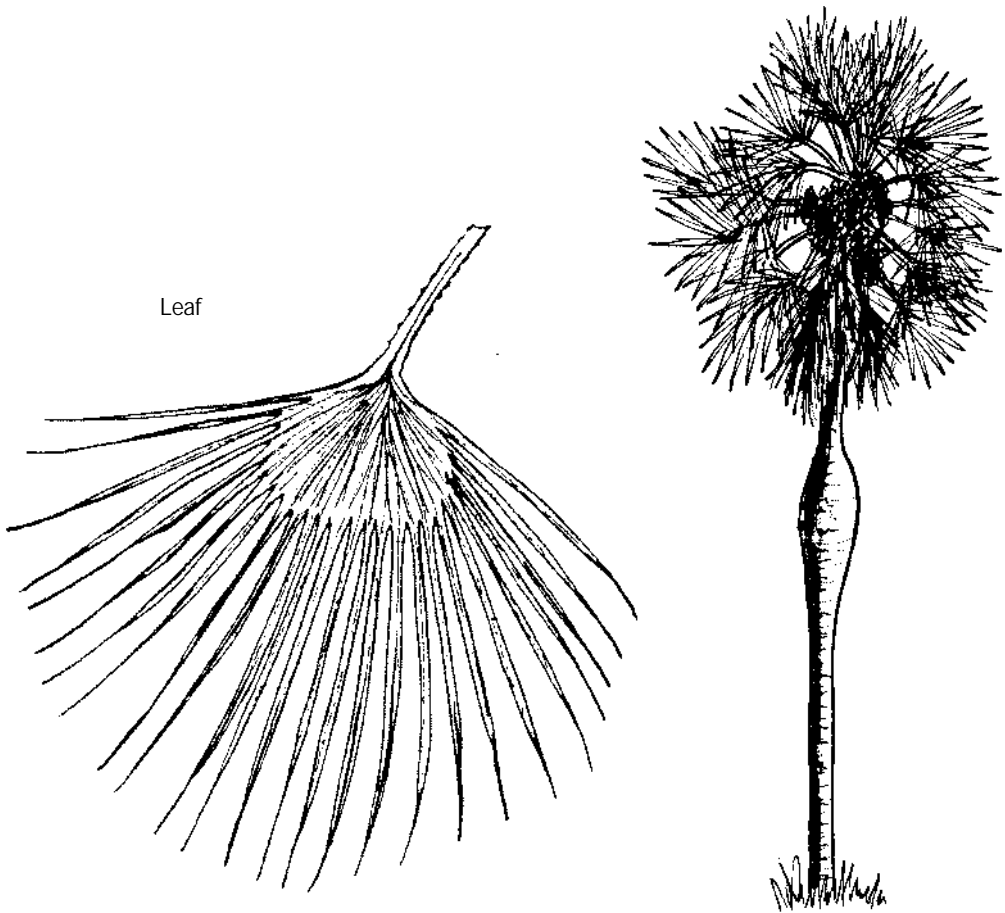
STATUS: Common within its area of distribution.

REMARKS: The tree takes 10–15 years to produce fruit.

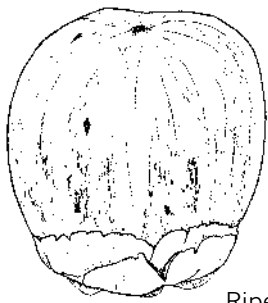


*Borassus aethiopum*

Areaceae (Palmae)



Young fruit (6 sepals, 3 + 3 form a calyx cup)



Ripe fallen fruit (12 cm across, 1 kg)

*Brexia madagascariensis*

## Brexiaceae

Indigenous

LOCAL NAMES: **Swahili:** Mfukufuku, Mfurugudu, Mkurufu, Mkuvufu, Mpumbuti.

DESCRIPTION: A much-branched, dense evergreen shrub or small tree, 2–3 m. BARK: Grey-brown, striated. LEAVES: Alternate, variable in shape, narrow oblong to broad, wider at the tip, **3.5–14 cm long, thick and leathery**, tip rounded or deeply notched, edge wavy, slightly rolled under, base tapering or rounded to a stalk 1–2 cm. FLOWERS: In rather **loose branched clusters, beside leaves**, sometimes on old wood, each flower to 2 cm diameter, the **5 spreading petals pale yellow or green-white, thick and fleshy, curling backwards**, 4–5 stamens arise between the 5 lobes at the central disc with several stiff pointed filaments at the base. FRUIT: **Woody, rather fibrous tapering cylinders about 4–10 cm long, with 5 definite ridges**, said to become soft, pulpy and edible with age. The fruit can float in sea water for many months and the numerous dark seeds within remain viable.

ECOLOGY: Coastal evergreen bushland on coral or coarse, rocky ground, edges of saline water, swamp forest, mangrove swamp, on eroded ridges near the sea, 0–100 m.

DISTRIBUTION: Widespread along the coast, from Tanga southwards to Mtwara and on Zanzibar and Pemba Islands. Found in Mozambique, the Comoro Islands, Madagascar and South Africa.

USES:

**Food:**

Fruit are edible. The pulp of ripe fruit is eaten raw.

**Medicinal:** Roots are boiled and the liquid drunk to treat stomach-ache and yaws.

**Commercial:** Not marketed.

**Other:** The wood is used for poles, charcoal, firewood, yokes, spoons and tool handles.

SEASON: Ripe fruit are available in November and December.

STORAGE: Not stored.

MANAGEMENT: Collected from the wild and not cultivated, but can be propagated using fresh seed.

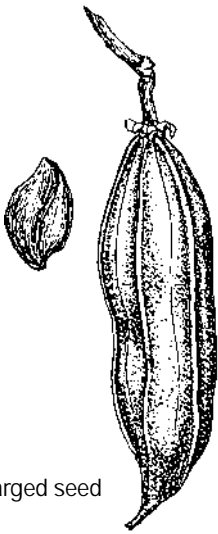
STATUS: Common within its area of distribution.

REMARKS: Only one species occurs in Africa.

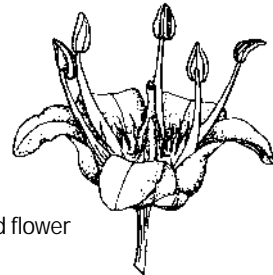
*Brexia madagascariensis*

Brexiaceae

Flowering shoot



Fruit and enlarged seed



Enlarged flower

***Bridelia micrantha*****Euphorbiaceae**

Indigenous

LOCAL NAMES: **Bondei**: Mwiza; **Chagga**: Marie, Monde, Mwaru; **Fipa**: Mlangali, Munyamaji; **Haya**: Mshamako, Mshumako, Mukuwe, Mushamako, Omukuwe, Omusha mako; **Hehe**: Mpalang'anga, Mwesa; **Iraqw**: Intsalmo, Isalmo; **Luguru**: Msumba, Mwiza; **Matengo**: Mayenda, Mnyenda, Myenda; **Nguu**: Mkolakole; **Nyakyusa**: Mwisya; **Nyiha**: Munyeraminu, Munyeraminzi, Sengamino; **Pare**: Mwira; **Sambaa**: Muiza, Mwiza; **Swahili**: Mkarakara, Mkarati, Mtutu; **Tongwe**: Kamembe; **Zaramo**: Mkarangatanga; **Zigua**: Mweza, Mwiza; **Zinza**: Msamiko.

DESCRIPTION: A medium-sized leafy evergreen tree with **dense spreading crown**, to 13 m. BARK: Grey-brown, flaking with age, young stems zigzag, dotted with paler breathing pores. LEAVES: Appear compound but actually alternate along branches, **dark shiny green** above, about 12 cm long, **veins parallel, extending along margin**, leaf stalks slightly hairy. FLOWERS: Small and yellowish, bunched **in leaf axils**, male and female flowers on different trees. FRUIT: Soft, **purple-black, oval, up to 8 mm**, sweet and edible when ripe.

ECOLOGY: Found in forests by rivers, forest edges or open woodland, 0–2,200 m. It does well in a wide variety of climates.

DISTRIBUTION: Found in all parts of Tanzania, including Zanzibar and Pemba Islands. Also widespread in the rest of Africa from Senegal eastwards to Ethiopia and southwards to South Africa; also in Reunion.

USES:

**Food:**

Fruit are edible. Ripe fruit are collected from the tree and eaten. They are much eaten by children and herdsman in order to quench hunger and thirst (Bondei, Pare, Sambaa, Zigua).

**Medicinal:**

- The bark is used as medicine to treat stomach-ache, diarrhoea, dysentery and intestinal worms (Maasai).
- Roots are used to treat allergy, STDs, headache and prolapsed rectum (Sambaa).
- The bark is mixed with soup and given to children as a tonic (Maasai, Pare).
- The leaf sap is used to treat sore eyes.

**Commercial:** Not marketed.

**Other:** The wood is used for timber, poles, firewood, grain mortars, spoons, tool handles and charcoal. Leaves are used for fodder for goats. The tree is used for shade and is a source of bee forage. The bark produces a red dye.

SEASON: Fruit are collected during and at the end of the rainy season.

STORAGE: Not stored.

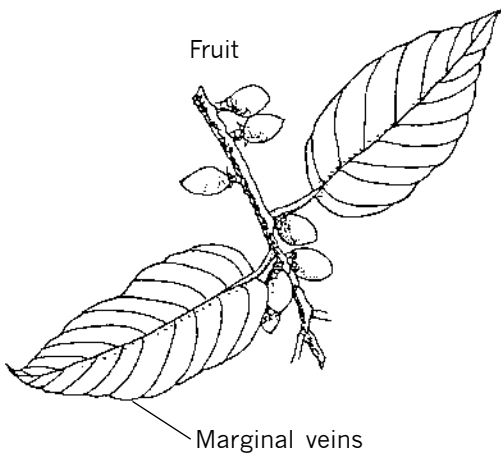
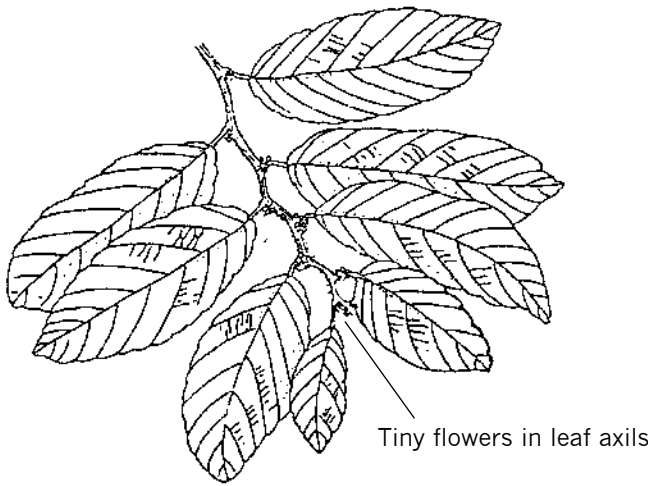
***Bridelia micrantha* (contd)**

**Euphorbiaceae**

MANAGEMENT: Collected from the wild, but also from people’s farms where it is planted as one of the important agroforestry species. Can be propagated by fresh seed and root suckers.

STATUS: Common within its area of distribution.

REMARKS: A popular and fast-growing agroforestry species.



***Bussea massaiensis***  
**(*Peltophorum massaiense*)**

**Caesalpinaceae**

Indigenous

[Plate 1]

LOCAL NAMES: **Gogo:** Mubefu; **Nyamwezi:** Mbetu; **Nyaturu:** Mfetrú; **Sandawi:** /  
 "Ánka.

DESCRIPTION: **A shrub, small- or medium-sized tree with a spreading crown, 2–12 m**, the young shoots and flower stalks typically covered with **spreading rusty brown hairs**. **BARK:** Smooth and grey. **LEAVES:** Usually opposite, with only **2 pairs of pinnate leaves**, each pinna stalk with 5–8 pairs of oval leaflets 1.3–6 cm long, tip notched or rounded, base unequal, with **flattened hairs below** and hairy stalks. **FLOWERS:** **Yellow in dense terminal heads**, the rounded buds and flower stalks covered with coarse rust-brown hairs; 5 sepals open to display 4 + 1 crinkly petals, the 4 longer petals 1–3 cm long; 10 stamens, hairy at the base. **FRUIT:** **Distinctive erect pods, hard, woody and rusty hairy, 7–12 cm long x 2 cm across, with a clear groove down the centre**, splitting into 2 sections which bend back to set free 1–3 seeds.

ECOLOGY: Thickets, deciduous bushland and woodland, 1,100–1,400 m, sometimes a dominant species in thickets.

DISTRIBUTION: Endemic to Tanzania. Found only in Dodoma, Singida and Tabora Regions.

USES:

**Food:**

- Seeds are collected, roasted, a little salt added and eaten like groundnuts.
- Seeds are roasted and pounded. The powder is used in making soup with vegetables or meat.

**Commercial:** Seeds are sold in local markets.

**Other:** The wood is hard and termite resistant so used for building poles, pestles, tool handles and carvings. Leaves and seeds are used as fodder for goats and sheep. The tree has bright yellow flowers and is suitable as an ornamental, for shade and as an avenue tree.

SEASON: Fruit and seeds are collected from May to July.

STORAGE: Seeds can be stored up to two years.

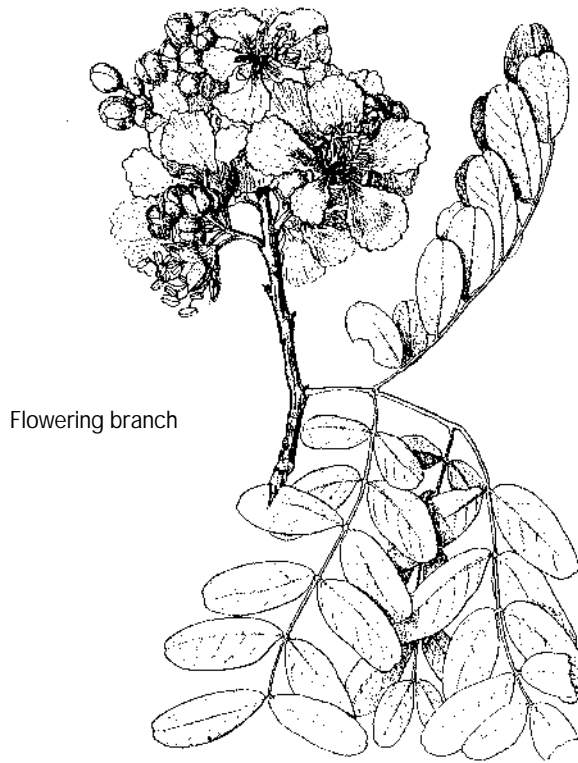
MANAGEMENT: Collected from the wild, but is also retained in farms by the local people. The tree can be propagated by seed.

STATUS: Endemic to Tanzania. Often restricted to small localities within its area of distribution, where it may be abundant.

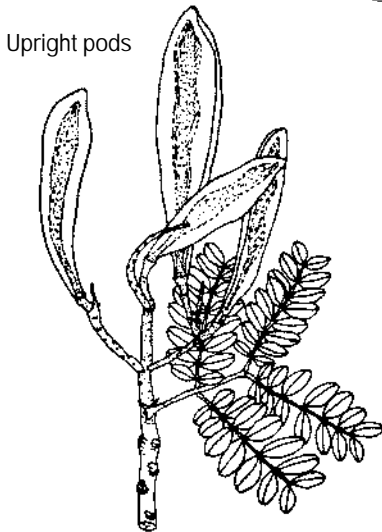
REMARKS: Establishment of this tree outside its habitat requires mycorrhizal inoculation using soil from a natural stand.

*Bussea massaiensis*  
(*Peltophorum massaiense*)

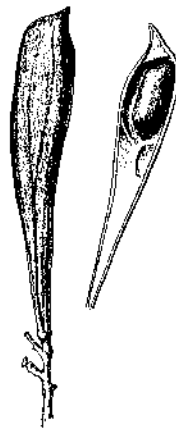
Caesalpinaceae



Flowering branch



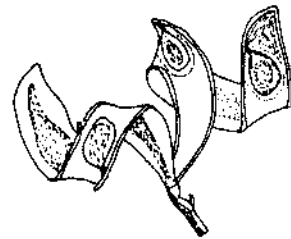
Upright pods



Young fruit pod and section



Seeds



Pods: split and twisted

*Canarium schweinfurthii*

## Burseraceae

Indigenous

LOCAL NAMES: **English:** African canarium; **Haya:** Mbafu, Mubafu; **Swahili:** Mbani, Mpafu; **Tongwe:** Sigonfi.

DESCRIPTION: A massive deciduous tree to 40 m, the **bole often clear to 30 m**. Large branches reach to a spreading **rounded umbrella crown**. In young trees **branches are whorled at right angles to the trunk and curve upwards**. The base may have slight blunt buttresses, and **overground roots may spread out to 10 m from the tree base**. BARK: **Thick and rough**, grey-red-brown, **flaking in pieces up to 30 x 10 cm**. Young branchlets **hairy red-brown**. When cut, the fragrant resin smells of incense. LEAVES: Odd pinnate, tufted at the ends of branches, usually 6–10 pairs of leaflets plus 1, **each with a short stalk**, oval to oblong, stiff, **long pointed to 15 cm**, **base rounded**, about 15 pairs side veins, **vein network dense below**, surface dull green-brown with a few hairs but more hairy below, especially veins. FLOWERS: **Creamy white in axillary sprays to 30 cm long**, **3 petals** and a **3-part calyx, funnel shaped with rust-red hairs inside** and out. FRUIT: **Smooth and oblong, soft and purple when ripe, 2.5–4.0 cm long**. A **3-ridged stone** inside as long as the fruit, eventually splits to release 3 seeds.

ECOLOGY: Common in tropical lowlands and medium-altitude rainforest, thickets and cultivated land, up to 1,600 m; rainfall 900–2,200 mm. Tolerates a wide range of soil types, but prefers sandy clay loams and sandy loams.

DISTRIBUTION: Widely distributed from Senegal east to the Sudan, Ethiopia, and south to Angola and Zambia. In Tanzania it is common around Lake Victoria and Lake Tanganyika.

USES:

**Food:**

- The ripe fruit are harvested and immersed in hot water to soften the rind and flesh and then eaten. Seeds are rejected. They taste similar to olives and are very popular as a snack among herders and children.
- Fruit are collected and depulped. When dry the inner stone is cracked and the seed (kernel) eaten (Haya, Tongwe).

**Medicinal:**

- The leaves are boiled with other herbs and the decoction used to treat coughs.
- The seeds are roasted and pounded and the resulting powder mixed with skin oil or jelly to treat wounds.
- The bark is boiled and the decoction drunk for treatment of hypertension.

**Commercial:** Salted fruit are sold in major markets.

**Other:** The crystallized resin is used as incense that has both cultural and religious significance. The wood is soft and used for timber, firewood, charcoal and veneer. The tree is also used as an ornamental and for shade.



***Canarium schweinfurthii* (contd)****Burseraceae**

SEASON: Fruit are collected from August to December in Kagera.

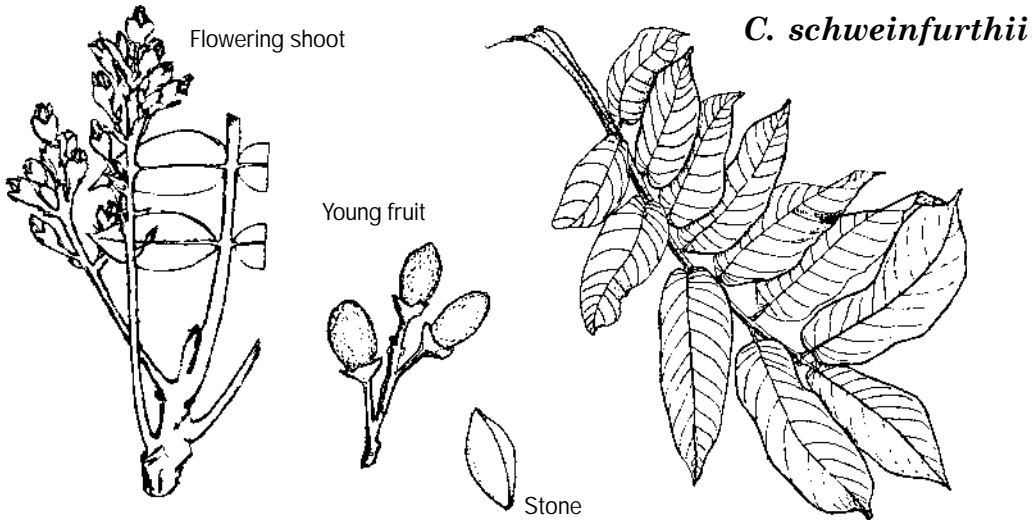
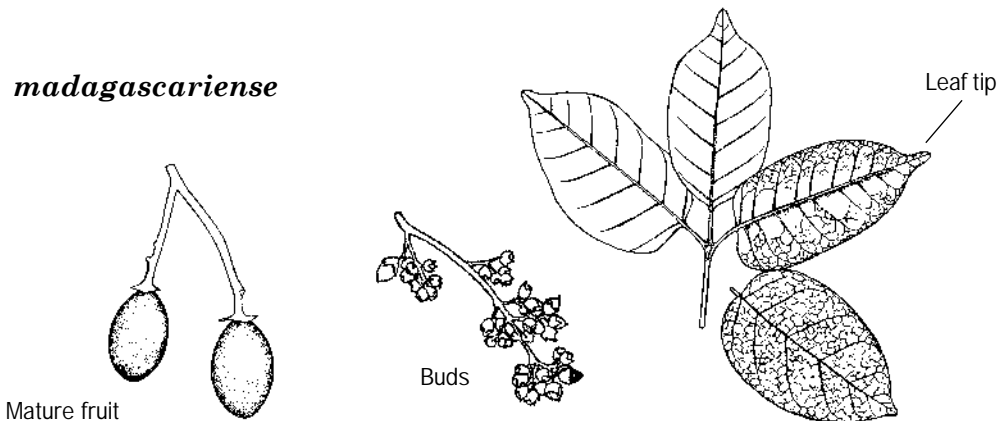
STORAGE: The dry inner stone can be stored for about two years (Haya).

MANAGEMENT: Collected from the wild, but also protected by local people wherever it occurs. Can easily be propagated using fresh seed.

STATUS: Common within its area of distribution.

REMARKS: This is an excellent shade tree and has been planted for reforestation. The wood is suitable for construction work, but should be seasoned with care.

A related species with similar uses is *C. madagascariense* (**Sambaa**: Mpafu; **Swahili**: Mpafu; **Zigua**: Mpafu) which is rare and found along the coast from Tanga southwards to Kilwa. It is a large tree up to 12 m high.

***C. madagascariense***

*Canthium burttii*

## Rubiaceae

Indigenous

LOCAL NAMES: **English:** Mottled-bark canthium; **Gogo:** Mbahuza mtwe, Mbwanhubwanhu, Mpakapaka; **Nyamwezi:** Mgubalu, Mkamu, Msongwan-simba; **Rangi:** Kiviruviru; **Sandawi:** Namu; **Sukuma:** Ngubalu, Nkamu; **Zinza:** Mgango.

DESCRIPTION: A leafy shrub or small tree to 8 m. BARK: Young twigs green, old branches smooth red-grey, darker, rough and peeling with age. LEAVES: In opposite pairs, oval to **almost circular, about 5–10 cm long, the tip well pointed**, the base usually narrowed to a short stalk, the leaf surfaces may have small rough hairs and there are **5–6 pairs of side veins**, rather darker than the leaf. Between young leaves are **a pair of oval pointed stipules**, membranous, to 1 cm, but soon falling. FLOWERS: **Axillary**, growing from the leaf nodes of last season's growth, small **green-yellow**, in clusters of 3–11 on a stalk to 2 cm, sometimes forked. **Each flower tubular, less than 1 cm long**, the style shaped like a match head in the hairy opening of the tube. FRUIT: **Fleshy and oblong, up to 1 cm long, yellow-orange ripening black**, in dense clusters, containing 1 seed.

ECOLOGY: Found on rocky hills of dry woodland areas and in dense vegetation by roadsides, 800–2,000 m.

DISTRIBUTION: Widespread in Tanzania except the coastal areas. Also in the Congo basin, Zambia and South Africa.

USES:

**Food:**

Fruit are edible. Ripe fruit pulp is eaten raw and tastes like chocolate.

**Commercial:** Sold in local markets.

**Other:** Poles, firewood, tool handles, ornamental and is a source of bee forage.

SEASON: Fruit can be collected in February–April.

STORAGE: Not stored.

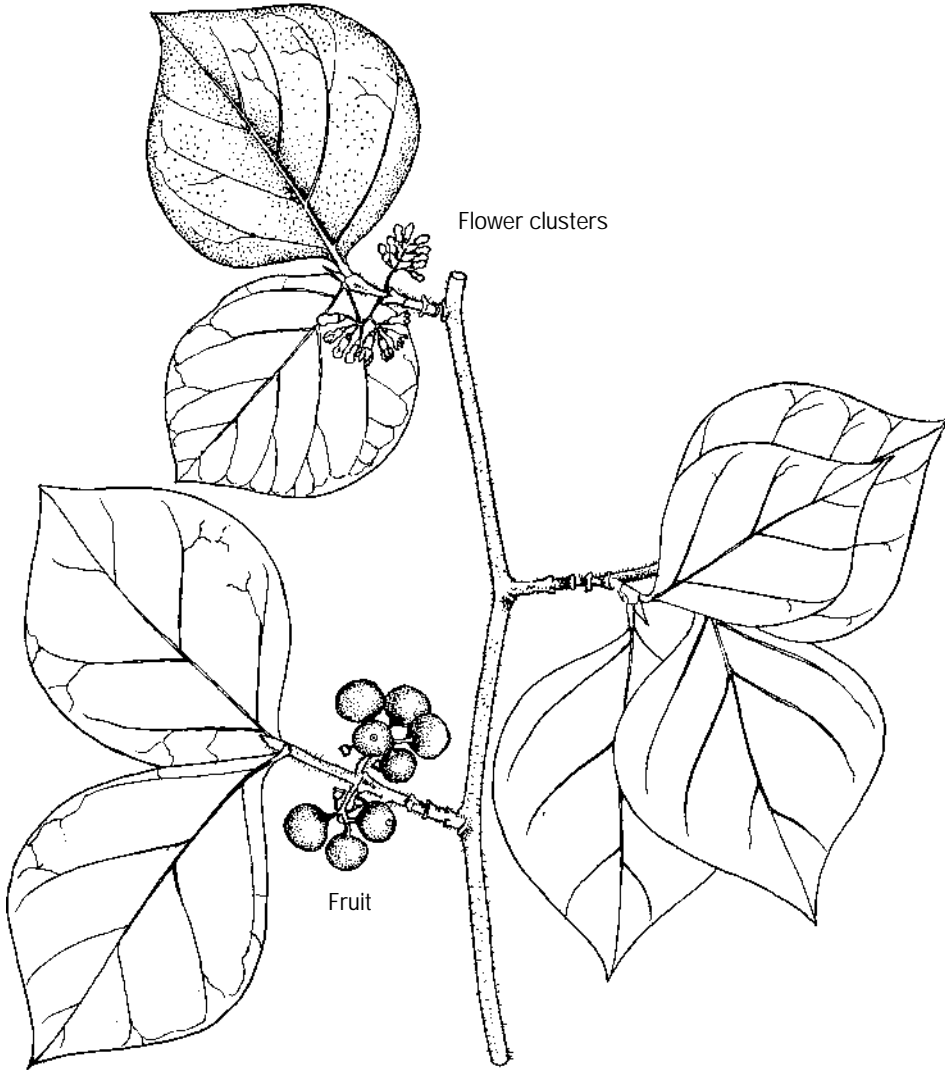
MANAGEMENT: Collected from the wild, not cultivated or protected locally.

STATUS: Common.

REMARKS: A popular fruit for herdsmen and game hunters.

*Canthium burttii*

Rubiaceae



*Canthium lactescens*

## Rubiaceae

Indigenous

LOCAL NAMES: **Gorowa:** Fraaki; **Haya:** Msangati; **Iraqw:** Tlerghw; **Maasai:** Olkumi; **Matengo:** Mapendo; **Rangi:** Kiviruviru.

DESCRIPTION: A shrub or tree, 3–12 m, **the short leafy shoots with only one pair of leaves**, young branches hairy. BARK: Grey–dark grey–red, rough with age. Yellow gum oozes from damaged branches. LEAVES: Well spaced, **dull dark green**, softly leathery, **wide oval, 6–16 cm long, 4–14 cm wide, tip shortly pointed**, hairs on midrib and on 8–10 pairs of lateral veins below, **base broadly rounded to a stalk to 2 cm**. Stipules leathery, triangular to 1 cm. Leaves often turn black when dry. FLOWERS: Sweet smelling, cream-yellow, 5 mm with **5 triangular petal lobes**, up to 50 flowers on one side of **much-branched hanging stalks** to 3 cm, usually from old nodes of the previous season's growth. FRUIT: **Oval, asymmetric, strongly 2-lobed**, apex notched, **fleshy and edible**, yellow turning brown-purple when ripe, **about 1 cm long**, containing 1 seed.

ECOLOGY: Dry savanna grassland, often associated with *Acacia tortilis*, up to 1,500 m; rainfall 1,000–1,300 mm. Thrives in well-drained sandy loams.

DISTRIBUTION: From West Africa to the Sudan, Ethiopia, East Africa and south to Mozambique, Malawi and Zambia. Widespread in Tanzania.

USES:

**Food:**

The small fruit are collected especially by children and herdsmen and eaten raw. They taste sweet but slightly acidic. They are eaten as snacks.

**Medicinal:** Roots are pounded and soaked in warm water. The decoction is drunk twice a day as a purgative.

**Other:** The wood is hard and used for firewood, building poles, withies and tool handles.

SEASON: Fruit are collected from April to June.

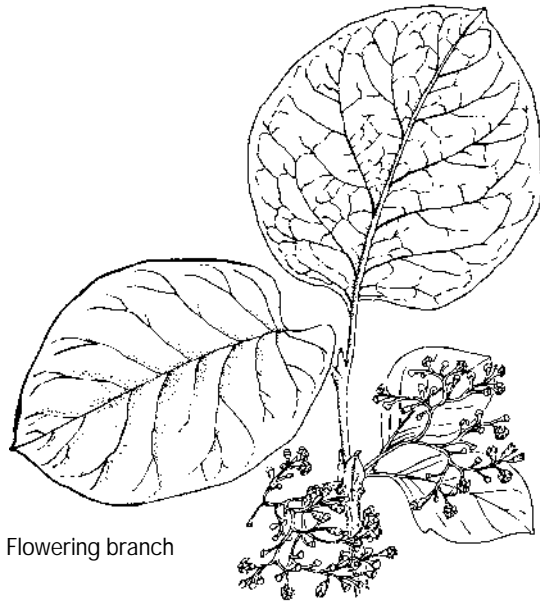
STORAGE: Not stored.

MANAGEMENT: Collected from the wild and not protected or cultivated by local people, but can be propagated by fresh seed.

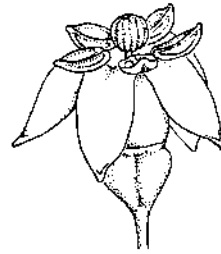
STATUS: Common within its area of distribution.

*Canthium lactescens*

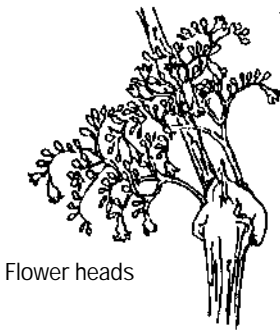
Rubiaceae



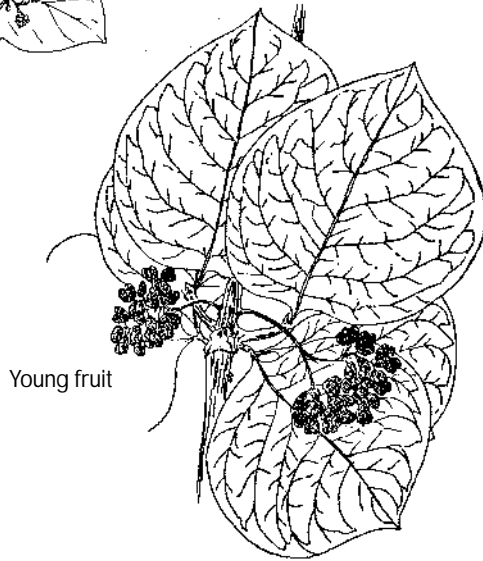
Flowering branch



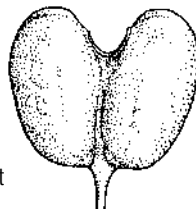
Enlarged flower



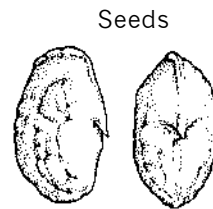
Flower heads



Young fruit



Fruit



Seeds

***Canthium oligocarpum* subsp. *oligocarpum*****Rubiaceae**

Indigenous

LOCAL NAMES: **Fipa**: Msanda; **Haya**: Mtabagira; **Hehe**: Mhamamala, Mhomanga, Mhomang'ambako; **Sambaa**: Mdaia, Ntula-vuha.

DESCRIPTION: A shrub or tree 1.5–20 m, **the trunk, coppice shoots and young branches** armed with thin spines to 2 cm long, arising in twos or threes. BARK: Grey. LEAVES: Opposite or in a whorl of 3–4, **narrow oval, 3–14 cm, the tip long but blunt**, stiff or papery, hairy pits in the axils below, clearly dark above and pale below when dry, on a stalk to 1.5 cm, **sheathing stipules** at the nodes bear a thin tip to 3 mm long. FLOWERS: White-yellow-green, in loose drooping heads to 3 cm long; about 25 small flowers, each tubular, about 9 mm, the style protruding from 5 triangular lobes. FRUIT: In loose bunches, **more or less oblong, tip notched, 2-lobed**, about 2 cm long, containing 2 seeds, green-grey, sometimes with paler marks, flattened.

ECOLOGY: Moist forest, forest edges, valley forest remnants, 1,800–2,600 m.

DISTRIBUTION: Western Tanzania, e.g. around Mpanda and in Mbizi Forest Reserve, Rukwa Region. Also found in Uganda, Kenya, the Congo basin, Rwanda, Burundi, Sudan, Ethiopia.

USES:

**Food:**

Fruit are fleshy and eaten raw as a snack.

**Commercial:** Not marketed.

**Other:** The wood is hard and used for building poles, fuelwood and tool handles. The tree is a source of bee forage.

SEASON: Fruit are collected from April to June.

STORAGE: Not stored.

MANAGEMENT: Collected from the wild and not planted or protected by the local people, but can be propagated by seed.

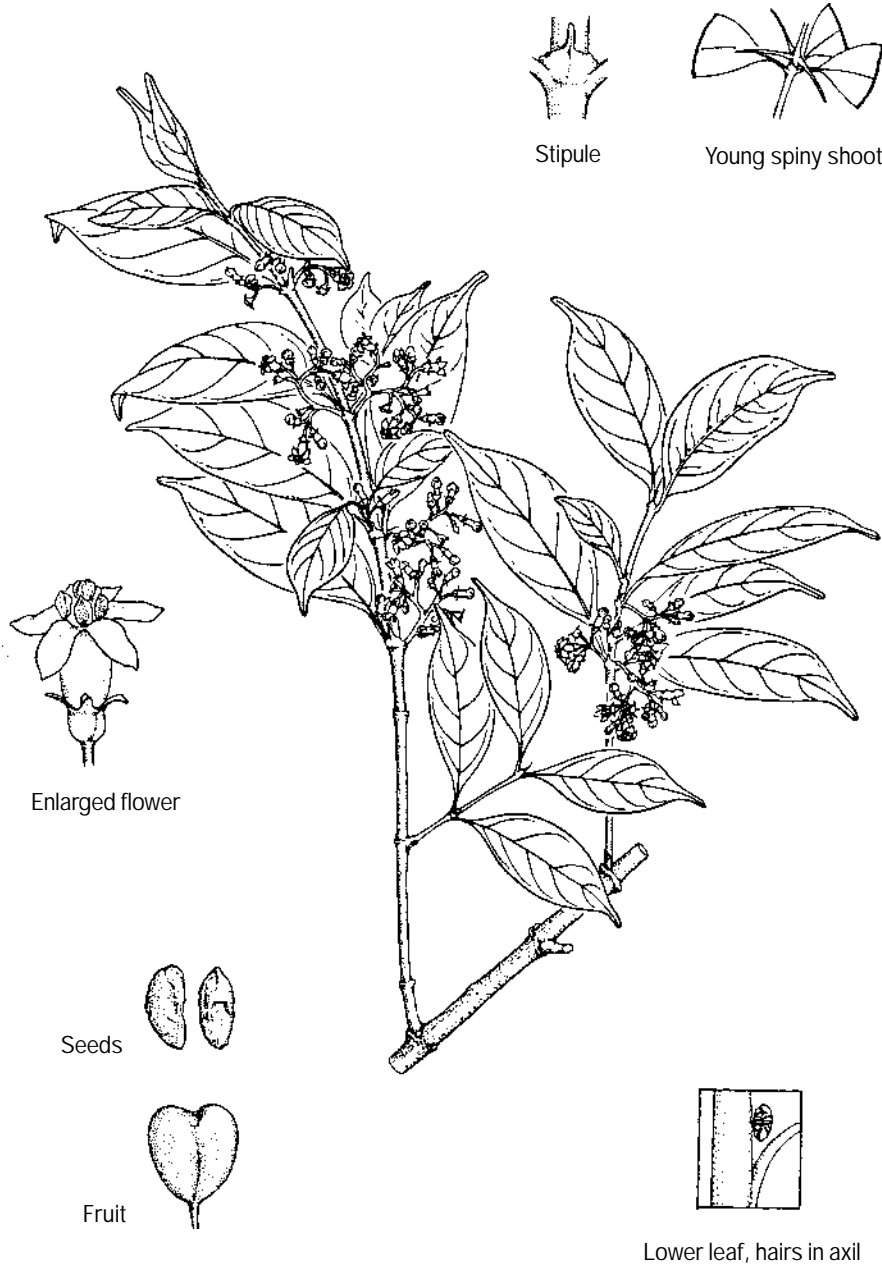
STATUS: Common within its area of distribution.

REMARKS: Two other subspecies occur in Tanzania which are also edible:

1. Subsp. *captum* is found around Lushoto, Iringa and Morogoro, and also in Malawi and Mozambique.
2. Subsp. *intermedium* is found around Kilimanjaro, Same and Morogoro.

*Canthium oligocarpum* subsp. *oligocarpum*

Rubiaceae



***Cardamine trichocarpa* Brassicaceae (Cruciferae)**

Indigenous

LOCAL NAMES: **Chagga:** Ngombo; **Maasai:** Ingoomba; **Pare:** Kisegeju; **Swahili:** Kisegeju.

DESCRIPTION: An annual herb with a taproot; can be well branched and erect, 5–50 cm, leaves spread at the base and along the stems. **LEAVES:** Alternate, **divided and lobed**, up to 5 pairs of leaflets plus a terminal leaflet, each **oval and toothed**, with a leaf stalk. **FLOWERS:** **Numerous and tiny**, green (white-pink) on branched heads, often not opening, 4 sepals 2 mm, 4 smaller petals. **FRUIT:** **Long thin capsules**, to 2.6 cm, tapering and flat, with scattered hairs, **red-brown seeds** in rows each side.

ECOLOGY: Moist ground, clearings, roadsides, farmland, apparently increasingly spreading as a weed, 2,000–3,000 m; rainfall 1,200–1,800 mm. Tolerates a wide range of soil types.

DISTRIBUTION: From West Africa to the Sudan, the Congo basin and in the Central African Republic, Cameroon, Burundi, Ethiopia, Angola and India. Widespread in Tanzania, including Arusha, Tanga, Kilimanjaro and Ruvuma Regions. Also in Kenya and Uganda.

USES:

**Food:**

The leaves are picked, wilted and chopped. They are then boiled and added to bean or pea stew and served with a staple; or served as a vegetable alone with the staple.

**Commercial:** Not marketed.

**Other:** The plant is used as fodder for goats and rabbits.

SEASON: Collected in the early rains.

STORAGE: Not stored.

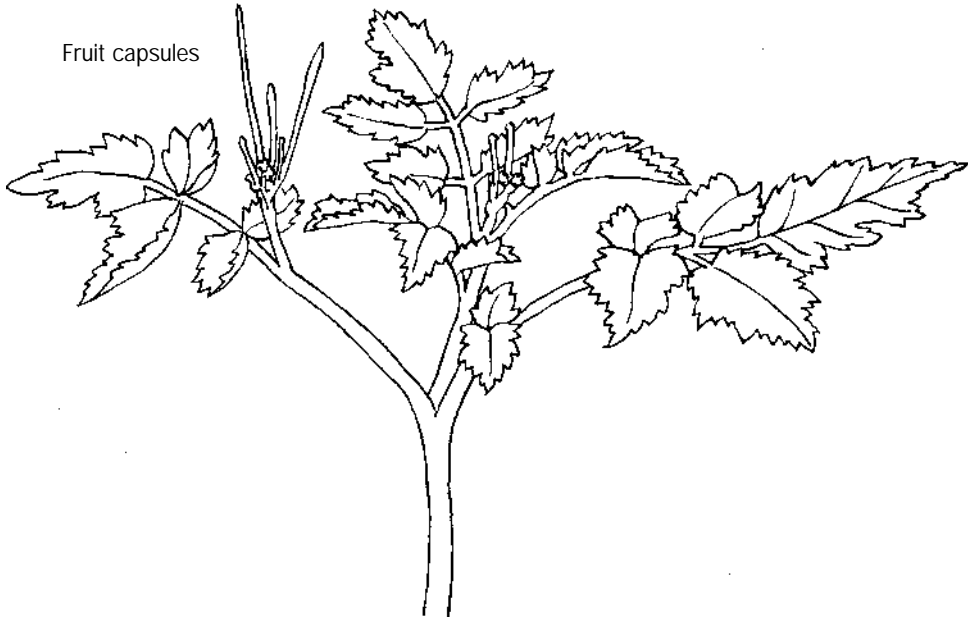
MANAGEMENT: Collected from the wild and not cultivated or protected by the local people.

STATUS: Common within its area of distribution.

REMARKS: A bad weed in rice fields.



*Cardamine trichocarpa* Brassicaceae (Cruciferae)



*Carissa edulis*

## Apocynaceae

Indigenous

LOCAL NAMES: **Barabaig:** Qach; **Chagga:** Machame, Manka; **English:** Simple-spined carissa; **Fipa:** Msuuku; **Gorowa:** Titiwi; **Ha:** Umuyonza; **Haya:** Moyonzaki, Muyanaza, Muyonza; **Hehe:** Mfumbwe, Mvambandusi; **Iraqw:** Quach, Titiyo; **Kerewe:** Mkanga onza, Mkangayonza; **Kuria:** Munyore, Rinyore; **Maasai:** Olamuriaki, Olyamliyak; **Nguu:** Mkumbaku; **Nyamwezi:** Mfumbeli; **Pare:** Mchofwe; **Rangi:** Mkabaku; **Sambaa:** Mfumba. Mkumbaku; **Swahili:** Mtanda mboo; **Zaramo:** Mukambaku.

DESCRIPTION: A spiny shrub or small tree to 5 m, sometimes a climber. BARK: Dark grey, smooth, with **straight woody spines to 5 cm**, often in pairs, rarely branching. Has the milky latex characteristic of all members of this family. LEAVES: **Opposite, leathery, shiny, dark green, to 5 cm, tip pointed, base rounded**, stalk very short. FLOWERS: Fragrant, in **pink-white terminal clusters**, each flower to 2 cm, 5 petal lobes overlap to the right. FRUIT: Rounded **berries, about 1 cm, purple-black when ripe**, sweet and edible, 2–4 seeds.

ECOLOGY: Occurs in savanna woodland, in thickets, forests, disturbed areas and on termite mounds at medium altitudes, 1,100–1,600 m; rainfall 1,000–2,100 mm. Thrives in a variety of soil types.

DISTRIBUTION: Found throughout the drier parts of tropical Africa, and also across Asia. Widespread in Tanzania.

USES:

**Food:**

The fruit are collected directly from the plant when ripe (black or purple) and the pulp is eaten. It is very sweet with a lot of white sap. The seeds are discarded.

**Medicinal:** A decoction of the roots is used to treat malaria in children and also to increase lactation in women.

**Other:** The plant provides firewood, is a source of bee forage and is good as an ornamental.

SEASON: Fruit are collected during the dry season, October–December.

STORAGE: Not stored.

MANAGEMENT: Collected from the wild and usually not protected or cultivated by local people

STATUS: Common within its area of distribution.

REMARKS: Two other *Carissa* species have edible fruit:

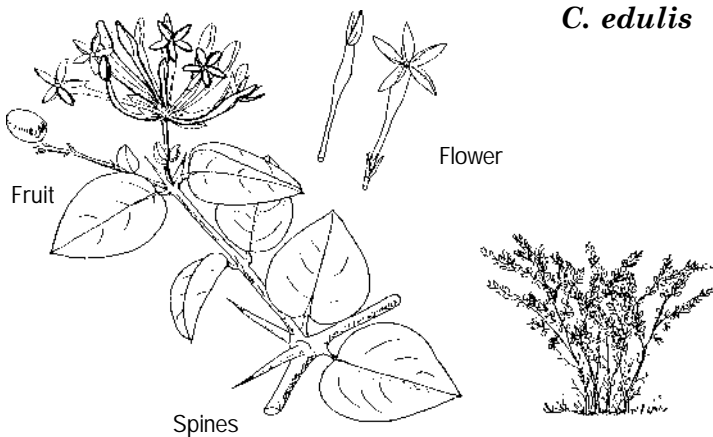
1. *Carissa bispinosa* (**English:** Y-thorned carissa; **Maasai:** Olyamliyak; **Nyamwezi:** Mfumbeli; **Sambaa:** Mfumba; **Zigua:** Mkumbaku) a shrub or tree

*Carissa edulis* (contd)

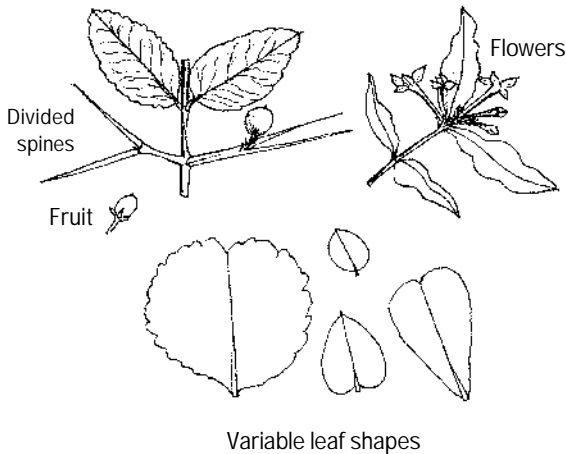
Apocynaceae

to 5 m with thick spines, usually once- or twice-forked but sometimes simple (to 8 cm long). Small flowers, white and star-like, grow in dense heads, 5 tiny petal lobes overlap left. Leaves usually oval-round, small and shiny. Fruit usually red. Widespread in Tanzania, coastal Kenya and southwards to South Africa.

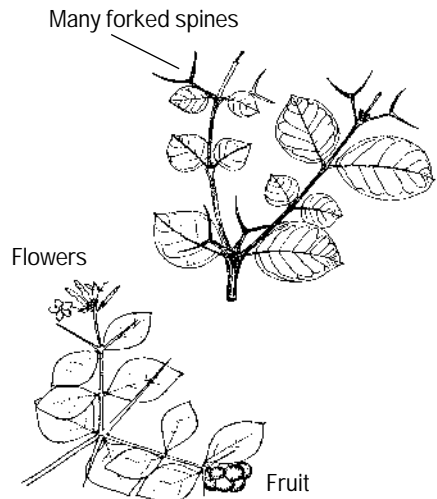
2. *Carissa tetramera* (**Maasai**: Olyamliyak; **Sambaa**: Mkalakala; **Swahili**: Mtanda mboo; **Zigua**: Mkalakala) a shrub or tree to 4 m, with strong spines, usually forked; leaf shape variable but margins often slightly round toothed or finely sharp toothed. The small flowers have only 4 lobes, overlap left, fruit small and black. Found in Tanga, other coastal areas of Tanzania and in Kenya.



*C. tetramera*



*C. bispinosa*



*Carpodiptera africana*

## Tiliaceae

Indigenous

LOCAL NAMES: **Mwera**: Mkongolo, Mmilambutuka; **Rufiji**: Mnanga; **Sambaa**: Mfesti; **Swahili**: Mkikoma, Mkongoro, Mwangamaima; **Zaramo**: Mlanga.

DESCRIPTION: A shrub or tree, commonly 1–5 m but reaching 12 m. BARK: Smooth, silvery grey at first, later grey-brown, long-fissured and rough. LEAVES: Alternate, **large and oval, 5–25 cm, with star-shaped hairs when young, base rounded** to a hairy stalk 1–2 cm, **veins raised below**. FLOWERS: **Small, fragrant, white or pink, in large dense bunches**, from branched axillary hairy stalks, buds rounded with 5 sepals joined to the calyx, 5 petals only 6 mm long. FRUIT: Pale at first then a **dull pink-brown**, tinged red, **very characteristic papery winged capsules**, to 1.5 cm long, each half with a pair of unequal wings spreading sideways to 5 cm, covered with short soft hairs. The capsule breaks open to set free seed.

ECOLOGY: Confined to coastal areas, found in open wooded grassland, dry forest and at forest edges, in dense bushland where it is a colonizer; also recorded on coral limestone, in sandy soils and fringing swamp forest, 0–100 m.

DISTRIBUTION: Found in Tanga, Coast, Lindi and Mtwara Regions, Zanzibar. Also found in Kenya, Mozambique and southwards to South Africa.

USES:

**Food:**

Leaves are used as a vegetable. Tender leaves are collected, cut into pieces, washed and cooked alone or mixed with other vegetables such as peas, coconut milk added and then served with *ugali* or rice.

**Commercial:** Not marketed.

**Other:** Wood is used for poles, tool handles and spoons.

SEASON: Leaves are collected during the rainy season, i.e. December–June.

STORAGE: Not stored.

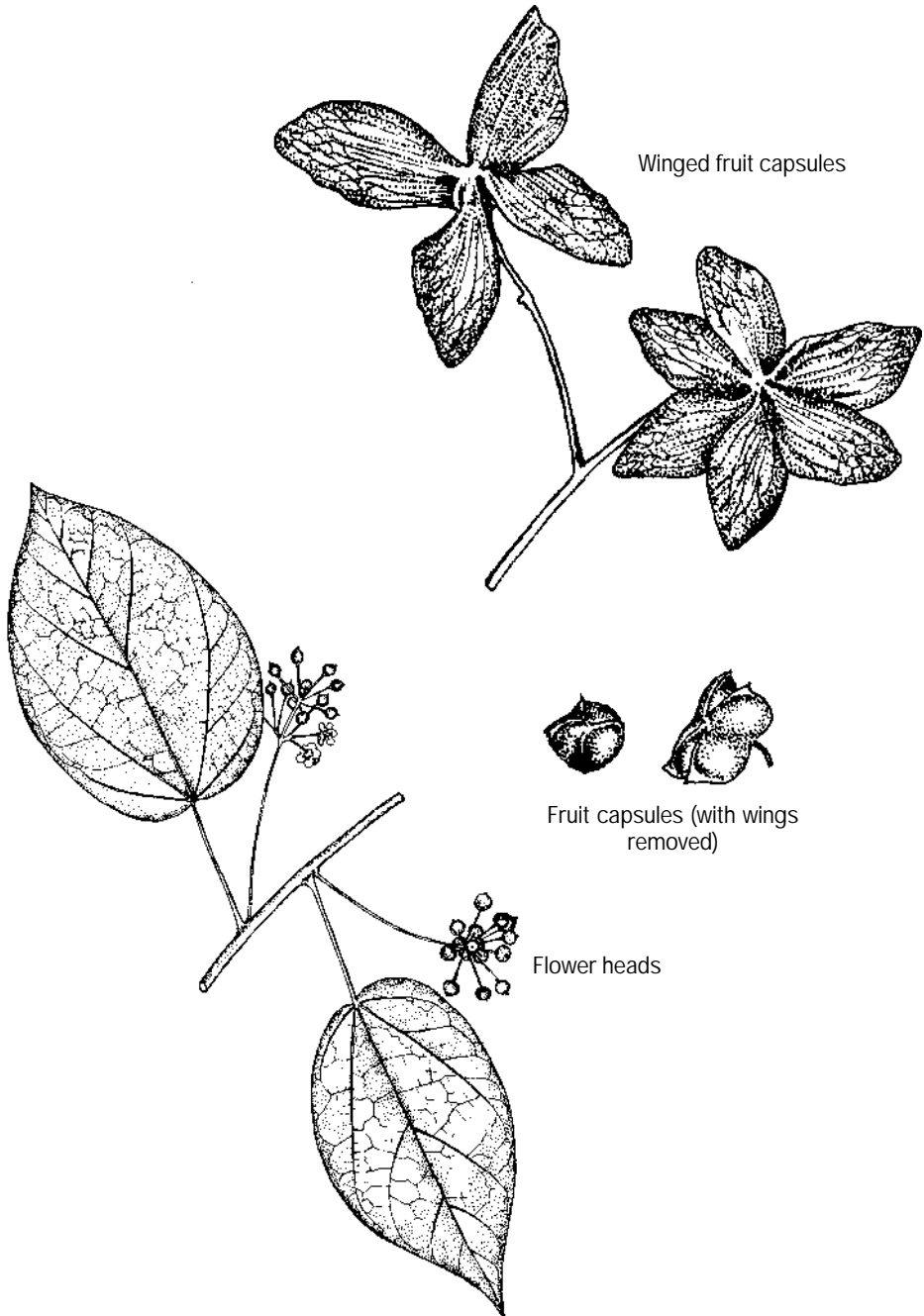
MANAGEMENT: Collected from the wild, not planted or locally protected.

STATUS: Common within its habitat.

REMARKS: Eaten during times of food scarcity.

*Carpodiptera africana*

Tiliaceae



*Carpolobia goetzii*

## Polygalaceae

Indigenous

LOCAL NAMES: **Swahili:** Msiki, Mtindapo, Mzukizuki; **Zaramo:** Mzukizuki.

DESCRIPTION: An evergreen shrub with many slender branches or a small tree, 1–5 m, occasionally a scrambler. **BARK:** Smooth, grey. **LEAVES:** **Alternate**, generally oval, 4–9 cm long, stiff and leathery, shiny green both sides, tip pointed, base usually narrowed to a very short stalk. **FLOWERS:** **Green-white with mauve markings**, a few flowers on slender stalks to 3 cm, beside leaves, buds to 19 mm, red-purple with 5 almost equal sepals, pale green, **corolla tubular, lower 3 lobes white, upper 2 variable**, brown-purple with white edges or white with purple tips, stamens cream-white, stigma green. **FRUIT:** **3-angled, to 1 cm across**, lime green at first, turning pale yellow to **orange and very shiny when ripe**, edible.

ECOLOGY: Found in mixed forest, or bushland, margins of lakes or rivers, evergreen thicket; an under-storey shrub in forest, even in grassland with scattered trees. It may be locally dominant on sandy soils, e.g. in abandoned cultivated areas, 0–1,100 m.

DISTRIBUTION: In Tanzania this species is found in eastern, western and southern areas and has been recorded in Coast, Tanga, Kigoma, Lindi, Mtwara, Dar es Salaam, Kagera and Mwanza Regions. Also found in Kenya, Uganda and the Congo basin.

USES:

**Food:**

Ripe fruit are fleshy, sweet and eaten raw.

**Commercial:** Not marketed.

**Other:** The plant has white, fragrant flowers and is used as an ornamental; it is also a source of bee forage.

SEASON: Fruit are collected from April to June.

STORAGE: Not stored.

MANAGEMENT: Collected from the wild and not cultivated or protected by the local people but can be propagated by seed.

STATUS: Common within its area of distribution.

REMARKS: Much foraged by bees, hence its name Mzukizuki. The fruit are much liked by chimpanzees.

*Carpolobia goetzii*

Polygalaceae



*Caylusea abyssinica*

## Resedaceae

Indigenous

LOCAL NAMES: **Bena:** Lukalifya, Mkalifya; **Hehe:** Lukalifya, Mkalifya.

DESCRIPTION: An erect or short-lived perennial herb, occasionally bushy, to 1 m high, **stems usually with a few rough hairs on the angles**. LEAVES: **Long and thin**, often wavy, 2–8 cm long, rough hairs on nerves and edges. FLOWERS: **Very small and white, 5 mm across, in long dense terminal heads** 5–40 cm, 5 sepals, 5 petals, some deeply divided, bracts at the base, 10–15 stamens as long as petals, about 3 mm. FRUIT: **An open star-like cluster of small woody fruit**, each 4 mm in diameter, containing 7–12 tiny rough seeds, surrounded by the **persistent calyx**, with hairy edges.

ECOLOGY: A weed of secondary grassland, abandoned cultivation, disturbed or waste places and riversides, 1,200–3,000 m.

DISTRIBUTION: In northern, central and southern highlands of Tanzania, e.g. around Moshi, Dodoma, Mbeya and Kondoa. Also found in Uganda, Kenya, Eritrea and Ethiopia.

USES:

**Food:**

Tender leaves and stems are collected, chopped, washed, mixed with other vegetables then cooked; pounded seeds of pumpkin, sunflower or *Cannabis sativa* or groundnut paste added and then eaten with or without a staple (*ugali*).

**Medicinal:** Boiled leaves are used to treat stomach pains and to eliminate intestinal worms.

**Commercial:** Sold in local markets.

**Other:** The plant is used as fodder for goats and rabbits. It is also used as an ornamental.

SEASON: Leaves are mostly collected during the rainy season, December–April, but can be collected throughout the year where moisture in the soil is sufficient for growth.

STORAGE: Not stored.

MANAGEMENT: Usually collected from the wild, but sometimes retained around home-steads. Can be propagated by seed.

STATUS: Common.

REMARKS: *C. abyssinica* is a very popular vegetable in Iringa Region. However, the use of pounded seeds of *Cannabis sativa* as an important cooking ingredient in preparing the *mkalifya* vegetable dish is problematic because *Cannabis sativa* is a prohibited drug plant in Tanzania.



*Caylusea abyssinica*

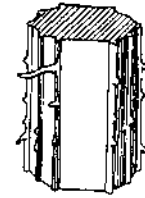
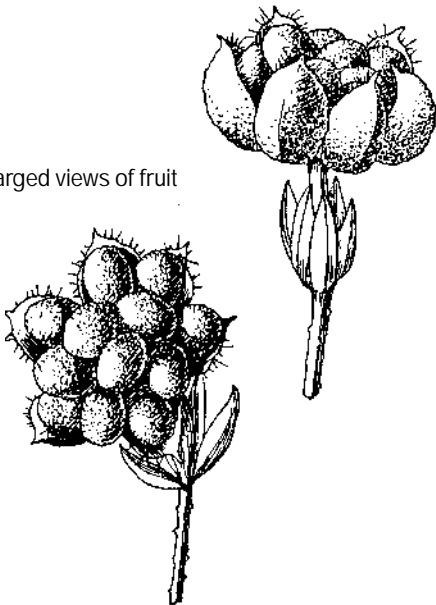
Resedaceae

Enlarged one-sided flower



A single and a divided petal

Enlarged views of fruit



Stem section



*Celosia trigyna*

## Amaranthaceae

Indigenous

LOCAL NAMES: **Bondei:** Funga-msanga; **Chagga:** Mrowe; **Hehe:** Lifweni likomi; **Luguru:** Songoro-malidadi; **Matengo:** Libonongo, Ndewelee; **Ngoni:** Libonongo, Ndewelee; **Pare:** Mbwete; **Sambaa:** Funga-msanga, Saza; **Swahili:** Mchicha pori; **Tongwe:** Mfungu.

DESCRIPTION: An annual herb, erect and simple or branching from the base, from 30 cm to over 1 m, the stems often green-red, striped. LEAVES: **Alternate and simple**, narrow to broad oval, 2–8 cm long x 1–4 cm wide, the edges quite rough and the blade running down into a slender 5 cm stalk. Upper and branch leaves often smaller. Most leaves fall as the fruit matures. FLOWERS: **Each flower tiny**, 2.5 mm, with **pink-white sepals** and **red anthers**, but the **terminal head is 20 cm long**, with **widely spaced clusters** to 2 cm across, male and female flowers together. FRUIT: Tiny ovoid capsules contain shiny black seeds.

ECOLOGY: Widespread at low altitudes as a weed of abandoned or cultivated land, forest clearings, along woodland paths and roadsides, in grassland with short grass, doing well in damp ground by rivers, 0–1,500 m.

DISTRIBUTION: Found throughout tropical Africa; widespread in Tanzania, Kenya, Uganda, Namibia and from the southern part of the Arabian peninsular.

USES:

**Food:**

Leaves are used as vegetables. Tender leaves are mixed with other vegetables (e.g. pumpkin leaves), cooked, coconut milk or cooking oil added and eaten with rice or *ugali*.

**Commercial:** Sold in local markets.

**Other:** The plant is used as fodder for rabbits and as an ornamental.

SEASON: Leaves are collected during the rainy season, i.e. November–June.

STORAGE: Can be dried in the sun and stored for up to six months.

MANAGEMENT: Collected from the wild, not cultivated or protected by local people, but can be propagated by seed.

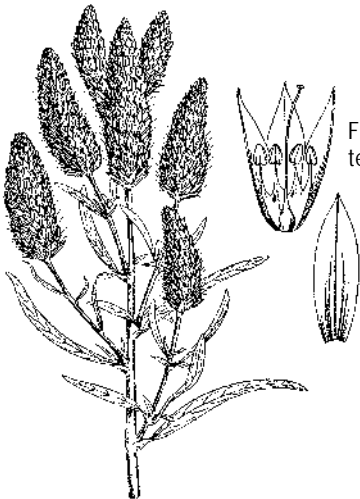
STATUS: Common.

REMARKS: Two other *Celosia* species are also used as vegetables:

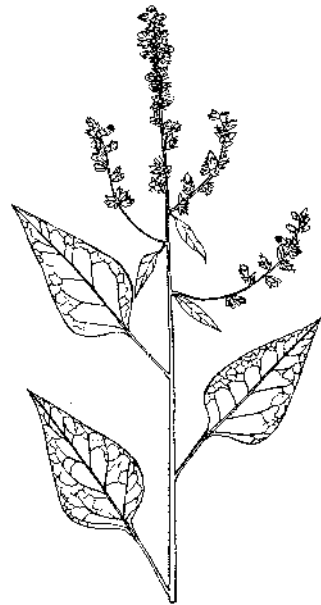
1. *C. argentea* (**Luguru:** Songoro-malidadi; **Sambaa:** Funga-mizinga) is an annual herb, 30–180 cm high, which is widespread in Tanzania, Kenya and Uganda. It is also common throughout tropical Africa, also in Namibia, South Africa, Madagascar, the southern part of the Arabian peninsular, Madeira and Florida in the USA.
2. *C. schweinfurthiana* (**Bendi:** Tebwa; **Luguru:** Songoro-malidadi; **Sambaa:**

***Celosia trigyna* (contd)****Amaranthaceae**

Yang'andu; **Zigua**: Funfu) is a herb up to 15 cm high; sometimes occurs as a climber up to 5 m on other plants. It is very similar in appearance to *C. trigyna*. It is widespread in Tanzania, Kenya and Uganda. It is also found in Angola, Ethiopia, Sudan and in the Congo basin.

***C. argentea***

Flower section and one  
tepal much enlarged

***C. schweinfurthiana***

*Ceratotheca sesamoides*

## Pedaliaceae

Indigenous

LOCAL NAMES: **Bondei**: Mlenda; **Hehe**: Chambata, Mgambata; **Nyamwezi**: Mlenda-gwa-mbata, Mlenda-gwa-tyege; **Nyasa**: Chitelelu; **Sambaa**: Mlenda; **Sandawi**: Betabeta; **Swahili**: Mlenda mbata.

DESCRIPTION: A small hairy annual herb, erect to 90 cm or along the ground. LEAVES: Usually opposite, variable in shape, the **lower leaves triangular-ovate, up to 8 cm long by 4.5 cm across**, tip pointed, toothed or lobed at the base, hairy and glandular below, on a **hairy stalk to 6 cm**, upper leaves much narrower with only a few teeth. FLOWERS: **Pink-lilac-mauve-purple, tubular**, to 4 cm long, **the throat and larger lower lip often cream with darker lines**, all **solitary in leaf axils, almost stalkless**, 5 narrow hairy calyx lobes. FRUIT: A **hairy capsule, oblong, flattened, about 2 cm long with 2 horns**, but not always clear, containing numerous dark seeds.

ECOLOGY: A weed of cultivation and wasteland near villages on sandy soils, 800–1,600 m.

DISTRIBUTION: Common in Tanzania, excluding northern and southern highlands. Found in Uganda and Kenya. It is also found in West Africa, Sudan, Mozambique, Malawi, Zambia and Zimbabwe.

USES:

**Food:**

- Leaves are collected, wilted in the sun, cooked alone or mixed with other vegetables such as peas or amaranth, groundnut paste added and eaten with *ugali* as the staple.
- Leaves are dried in the sun with those of peas or amaranth and pounded. The vegetable powder is then boiled into a thick paste, mixed with groundnut paste and eaten with *ugali*.

**Medicinal:**

- Leaves eaten as a vegetable act as a laxative.
- Leaves are soaked in warm water and used as a lubricant by women during labour in order to hasten childbirth. The resulting slippery liquid is applied on the walls of the birth canal to facilitate passage of the baby.

**Commercial:** Sold in local markets.

**Other:** The plant is used as an ornamental and hair lubricant (leaf powder).

SEASON: Leaves are collected during the rainy season, December–May, but can be collected throughout the year where soil-moisture and fertility conditions are sufficient for growth.

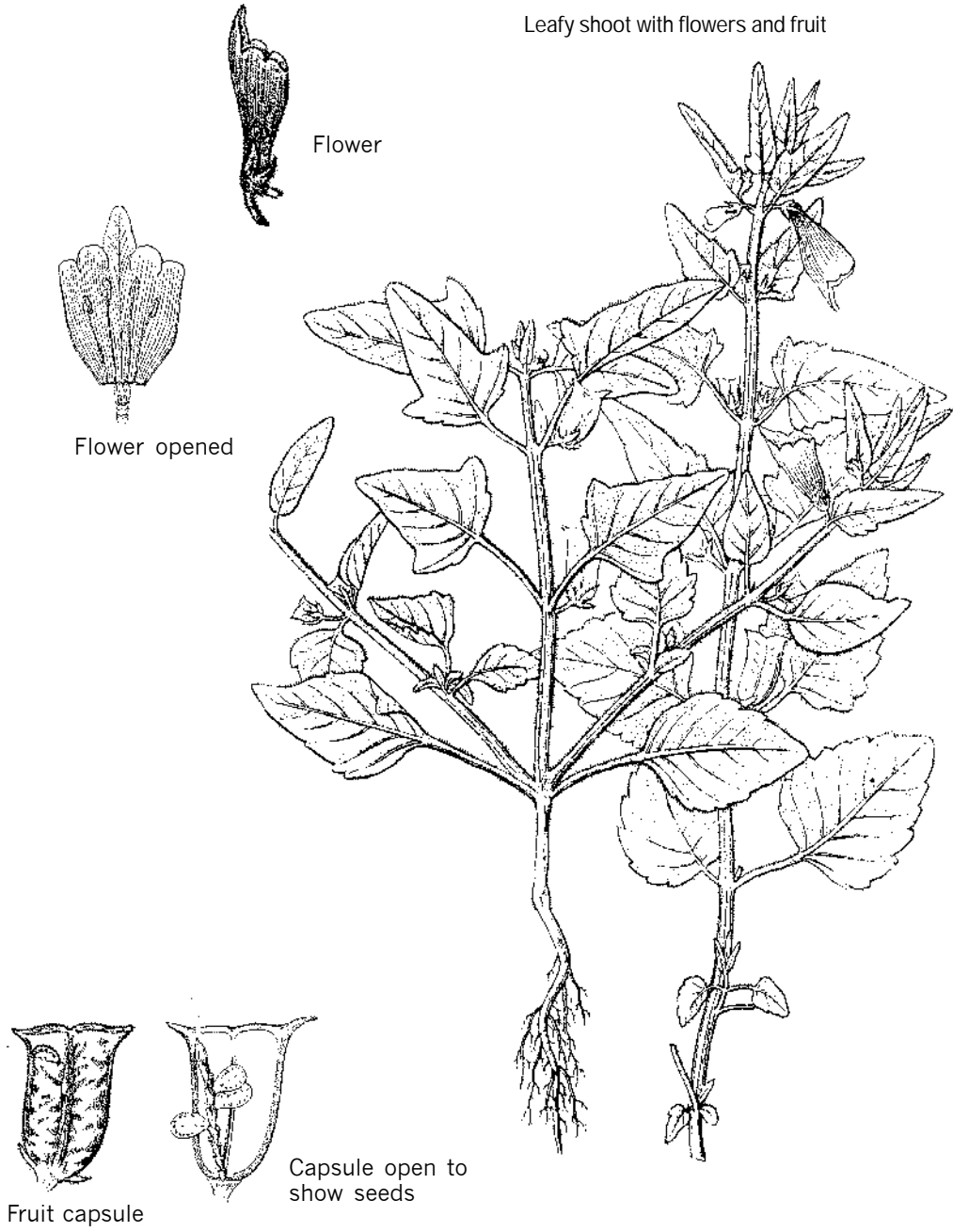
STORAGE: Leaves are dried and stored before or after being pounded.

MANAGEMENT: Collected from the wild, but can be propagated from seed.

STATUS: Common within its habitat.

*Ceratotheca sesamoides*

Pedaliaceae



*Chenopodium opulifolium*

## Chenopodiaceae

Indigenous

LOCAL NAMES: **English:** Round-leaved goosefoot; **Gogo:** Mfungulo; **Hehe:** Nyalufungulo; **Sambaa:** Kapugutilo, Lushemu.

DESCRIPTION: A **grey-mealy** erect annual or short-lived perennial herb, the branches spreading, often woody below, 60–150 cm high. Mealy on all young parts with grey-white swollen hairs. No aromatic smell. LEAVES: The small **alternate, stalked leaves** of the upper stem have rounded lobes, wavy, even-toothed edges, diamond to oval in shape, 1–4 cm long. Lower leaves are larger, nearly as broad as long, to 5 cm. FLOWERS: Tiny flowers, only 1 mm, grow in a **large, dense, rounded terminal head**—normally very **grey-mealy**—which has rounded clusters of grey-green flowers, no leaves. FRUIT: Small capsules contain tiny black seeds. Capsules are surrounded by the dry, enlarged flower parts.

ECOLOGY: A widespread weed of cultivation and around settlements, at roadsides and on waste ground, 800–2,100 m.

DISTRIBUTION: From Europe and the Mediterranean region, eastwards to India. This weed is found throughout eastern Africa, south to Angola. Found in all parts of Tanzania.

USES:

**Food:**

Leaves are cooked in a mixture with other vegetables such as cowpeas, *Bidens* or *Cleome* and eaten with *ugali*, rice or potatoes.

**Medicinal:** The roots are boiled and the decoction drunk as an emetic. Leaves are used in a steam bath to treat fever and colds.

**Commercial:** Not marketed.

**Other:** The plant is used as an ornamental and for fodder.

SEASON: Leaves are collected during the rainy season between December and May.

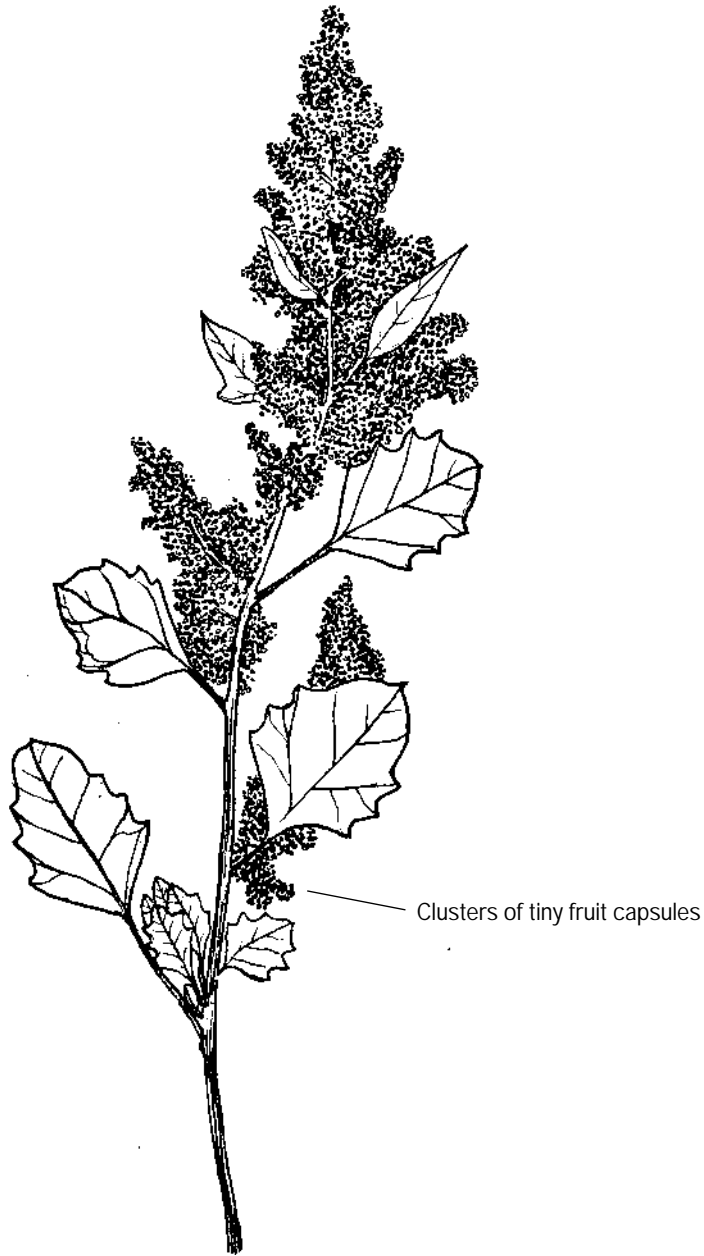
STORAGE: Not stored.

MANAGEMENT: Collected from the wild, not cultivated but can easily be propagated by seed.

STATUS: Common.

*Chenopodium opulifolium*

Chenopodiaceae



*Chytranthus obliquinervis*

## Sapindaceae

Indigenous

LOCAL NAMES: **Digo:** Mpwakapwaka.

**DESCRIPTION:** A tree, usually 2–6 m (15 m) with a **mostly unbranched trunk topped by a crown of very large pinnate leaves**. **BARK:** Grey-brown, smooth or somewhat wrinkled. **LEAVES:** Alternate, with **7–12 pairs of leaflets, opposite or alternate, around a long stalk 35–100 cm, lower leaflets smaller, down to 2 cm long, while the largest upper leaflets reach to 45 cm**, each one oval and wider towards the shortly pointed tip, base narrowed to a swollen stalk about 1 cm, leaflets stiff, the midrib sunken above, a **few simple hairs on the lower veins**. Leaf buds purplish and young leaves the same colour and drooping down. **FLOWERS:** **Small, in clusters along spike-like heads 5–15 cm, which grow out directly from the old wood of the lower trunk or branches near ground level to just below the leaves**. Buds cream, 5 sepals softly hairy, pale green, the 4 petals white-yellow-green, oblong to 5 mm, 8 stamens and a 3-lobed ovary. **FRUIT:** A **3-lobed drupe** which does not split open, softly hairy at first, some longer white hairs.

**ECOLOGY:** Lowland evergreen forest on sand and coral, evergreen rainforest or moist riverine forest, 0–900 m.

**DISTRIBUTION:** Found in the East Usambara mountains in Tanzania and in coastal forests of Kenya.

**USES:**

**Food:**

Fruit are edible. Ripe fruit are collected and eaten raw as a snack.

**Commercial:** Not marketed.

**Other:** The wood is hard and tough and used for firewood, poles, snare traps, pegs and charcoal.

**SEASON:** Fruit are collected from May to June.

**STORAGE:** Not stored.

**MANAGEMENT:** Collected from the wild, not cultivated but can be propagated from seed.

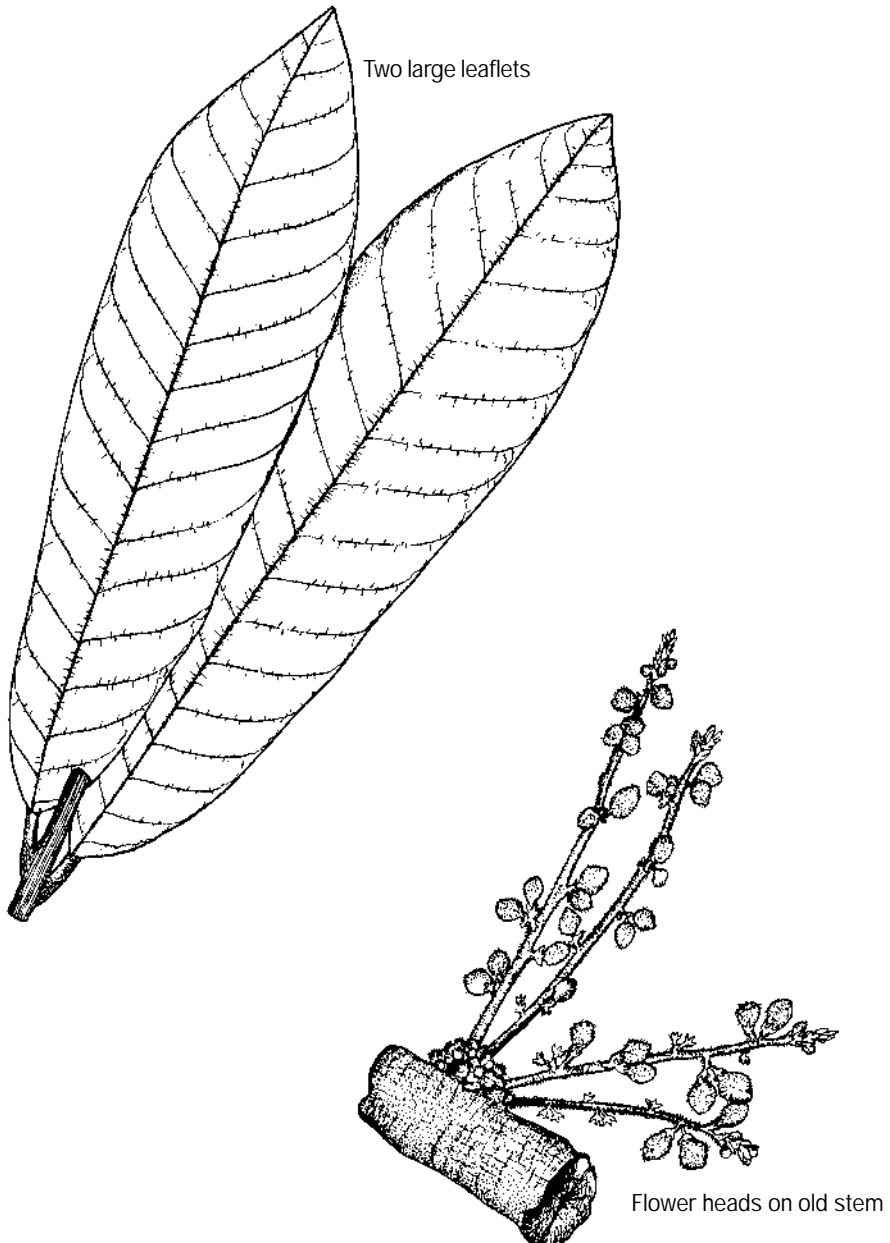
**STATUS:** Listed among rare species in the IUCN Red List of Threatened Plants.

**REMARKS:** The species is endemic to East Africa, found only in the East Usambaras and along the coast in Kenya.



*Chytranthus obliquinervis*

Sapindaceae



*Cissus cornifolia*

## Vitaceae

Indigenous

LOCAL NAMES: **English:** Wild grape; **Nyamwezi:** Mpangamwaka, Mtandamwaka.

DESCRIPTION: An erect shrub to 2 m, or a **scrambler arising from a large swollen, fire-resistant rootstock**, sometimes watery. The thick hairy shoots have very swollen nodes, stems woody at the base, all parts with few to many red-brown hairs. **Tendrils absent.** LEAVES: **Simple**, membranous, **oval to 9 cm long, tip rounded or blunt**, edge toothed, **underside red hairy**, especially on veins, stalk very hairy to 1 cm, small round stipules having a fringed edge. FLOWERS: **Very small**, 4 hooded petals, green-yellow-cream, triangular 2 mm, flowers **appearing well before the leaves in stalked clusters, 2–10 cm across, opposite the leaves**, on a woody stem, **flower buds hairless, conical**, each flower stalk hairless. FRUIT: Red-purple-black, smooth **hairless berries** about 1 cm, juicy when ripe, containing one seed; very many, in stalked bunches.

ECOLOGY: *Brachystegia* woodland, thickets, grasslands, often on granite outcrops, sometimes on black soil, occasionally found in cultivated land, 100–1,500 m. Conspicuous growth is noted after bush fires.

DISTRIBUTION: Widespread in Tanzania, e.g. in Tabora, Kigoma, Shinyanga, Mwanza, Rukwa, Iringa and Lindi Regions; Kenya, Uganda, West Africa, Central Africa and south to Botswana and South Africa.

USES:

**Food:**

Fruit are edible. Ripe fruit, which resemble grapes and are borne in large clusters, are eaten raw by squeezing the fruit into the mouth, swallowing the sweet pulpy seeds and discarding the outer skin.

**Medicinal:**

- The rootstock is used as medicine for stomach-ache.
- Roots are used to treat hernia and bilharzia.

**Commercial:** Not marketed.

**Other:** The plant is used as an ornamental and as a source of bee forage.

SEASON: Fruit are collected during the dry season, September–December.

STORAGE: Not stored.

MANAGEMENT: Collected from the wild, not cultivated but can be propagated by seed and suckers.

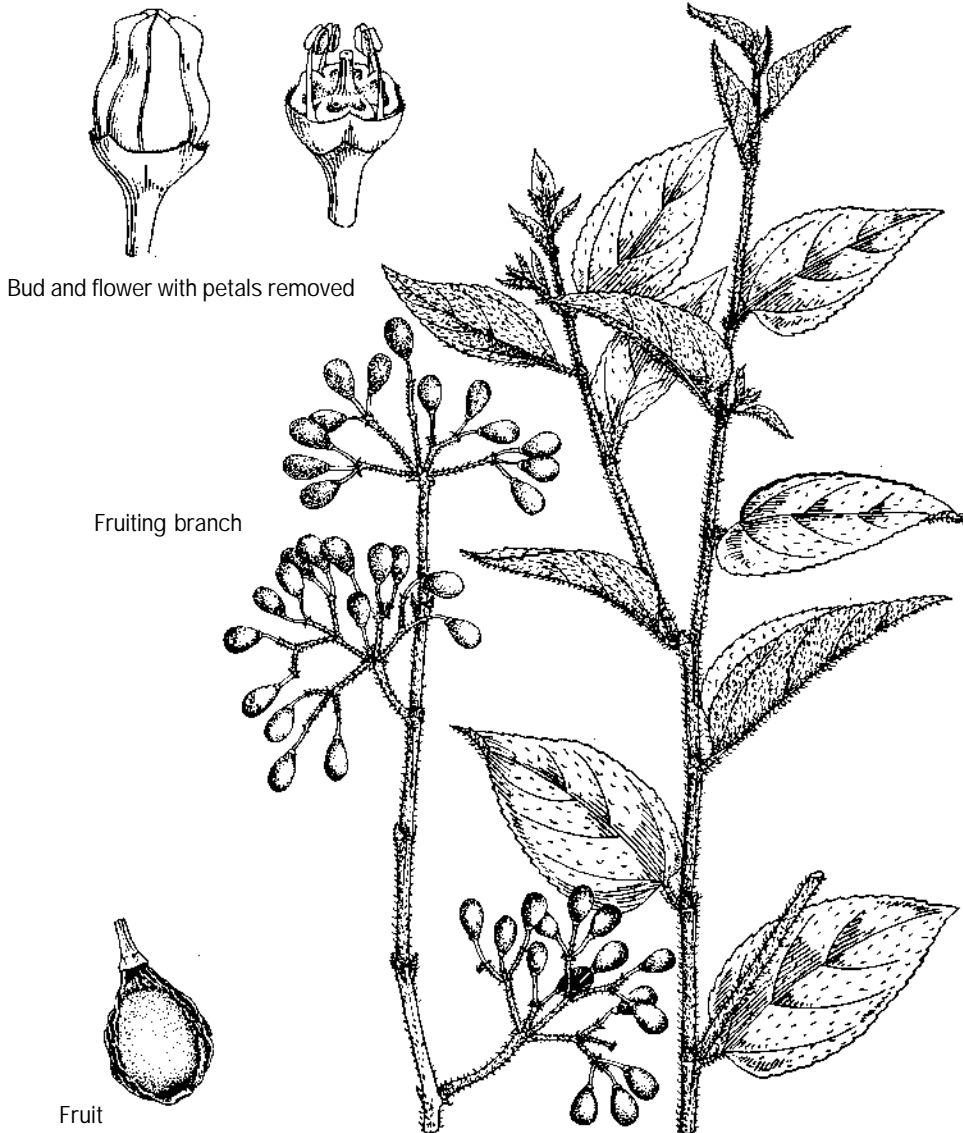
STATUS: Common.

REMARKS: A favourite wild grape for children and herdsmen. *C. quarrei* (**Nyamwezi:** Mtanda-mwaka; **Swahili:** Mzabibu mwitu) is another wild vine which has edible fruit. It is an erect herb or a climber up to 1 m high, found in

*Cissus cornifolia* (contd)

## Vitaceae

Dodoma, Singida, Rukwa and Iringa Regions. It is also found in Zambia and in the Congo basin.



*Cleome hirta*

## Capparidaceae (Capparaceae)

Indigenous

LOCAL NAMES: **Bena:** Nyausako; **Gogo:** Mhilile; **Hehe:** Mhilili, Nyausako; **Nyamwezi:** Kakunguni; **Sandawi:** Kekeneka.

DESCRIPTION: A bushy herb with erect, much-branched stem, to 1.5 m, an annual or short-lived perennial, **stem sticky**, densely covered with glandular hairs and stalked glands, also found on other plant parts. LEAVES: **Alternate, compound, like fingers of a hand** (digitate) with **5–7 narrow leaflets**, each 1–5 cm, sparse to densely hairy on a short stalk. FLOWERS: Pink-purple, to 1.2 cm, on a leafy stem 10–30 cm, crowded towards the tip, with **persistent bracts, narrow and pointed**; 4 petals and **10–12 stamens**, the ovary only **shortly stalked**. FRUIT: A glandular capsule **6–12 cm long**, splitting down the middle to set free many 2-mm ridged seeds.

ECOLOGY: Disturbed areas in dry savanna grassland, particularly along roadsides. A farm weed and common near cattle enclosures; grows in shallow red clay loams, 0–1,800 m; rainfall 600–1,700 mm.

DISTRIBUTION: Widespread in east, central and southern Africa. Found in low and medium altitudes of Tanzania.

USES:

**Food:**

The young shoots are collected, wilted, chopped and cooked alone or with other vegetables such as peas or amaranth and then served with a staple.

**Medicinal:**

- The leaves are eaten to reduce hypertension.
- Roots and leaves are boiled and used as medicine for measles.

**Commercial:** Not marketed.

SEASON: Young shoots are collected in the early rains.

STORAGE: Not stored.

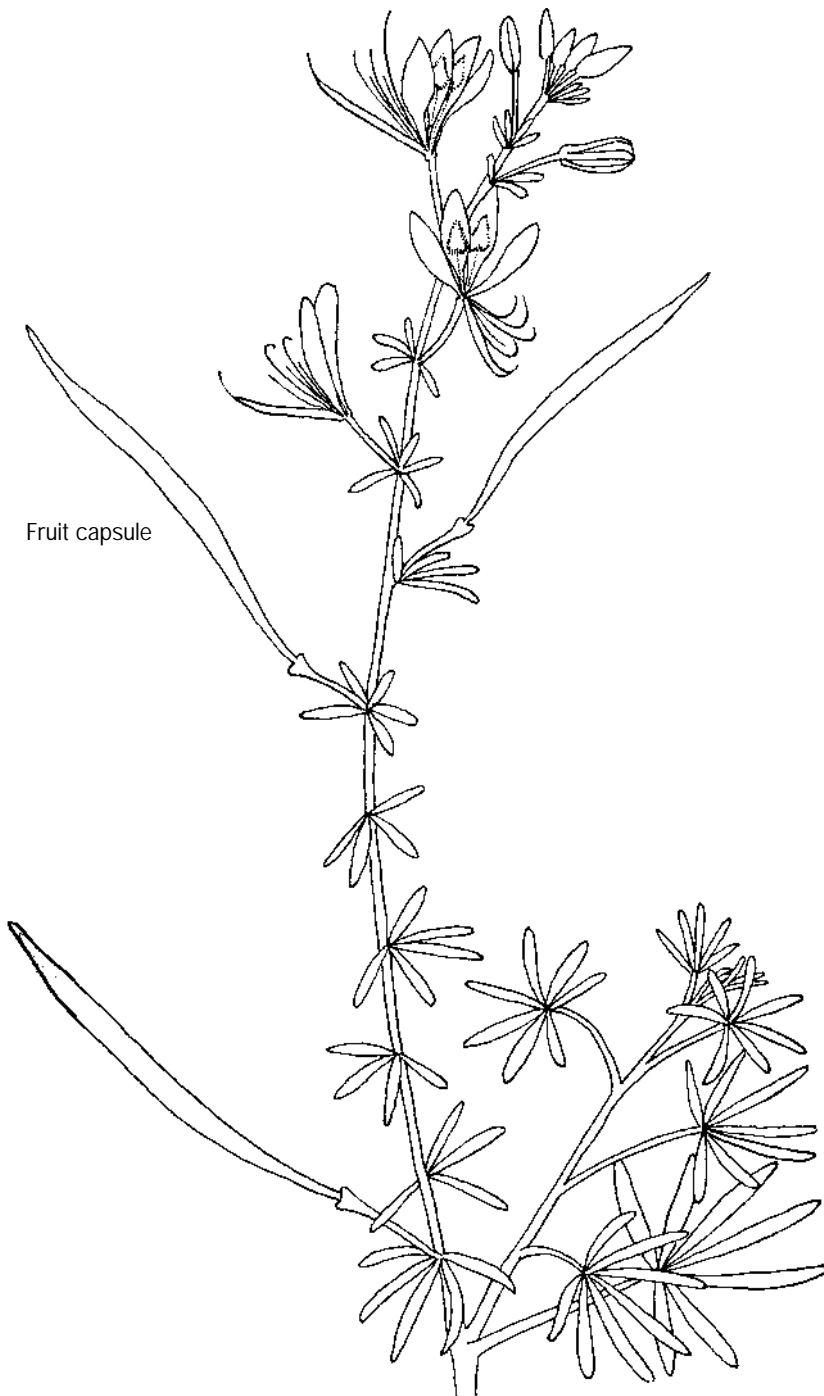
MANAGEMENT: Collected from the wild and not cultivated or protected by local people but can be propagated from seed.

STATUS: Common within its area of distribution.

Remarks: A common weed of farms.

*Cleome hirta*

Capparidaceae (Capparaceae)



***Cleome monophylla* Capparidaceae (Capparaceae)**

Indigenous

LOCAL NAMES: **Hehe**: Nyakamage.

DESCRIPTION: An annual herb, 1 m, erect or spreading, usually fewer branches than *C. hirta* but very variable; stems, fruit and leaves hairy with a mixture of short sticky hairs and longer hairs without glands. LEAVES: Characteristic, **simple, long and narrow, 1.4–7 cm**, hairy both sides, upper leaves crowded, clasping the stem. FLOWERS: On **terminal stalks to 30 cm**, mauve-pink, 4 tiny sepals and 6 stamens. FRUIT: **Narrow spindle-shaped capsule, 3–8 cm**, on a short stalk or none, containing **numerous small flat seeds**.

ECOLOGY: Common in moist *Hyparrhenia* grasslands, deciduous woodland, bushlands, lake shores, and as a weed of cultivation and on disturbed ground. It does well in low- and medium-altitudes, 30–2,100 m; rainfall 700–1,200 mm. Prefers red sandy loams and yellowish sandy sediments, although it tolerates a wide range of soils.

DISTRIBUTION: Occurs in India and Africa. Widespread in Tanzania and other parts of East Africa, Sudan, West Africa and South Africa.

USES:

**Food:**

Leaves are chopped and cooked on their own, or together with beans and peas. As they are slightly toxic, it is advisable to eat them a day after cooking to allow for the toxic enzymes to break down.

SEASON: Collected during the rainy season.

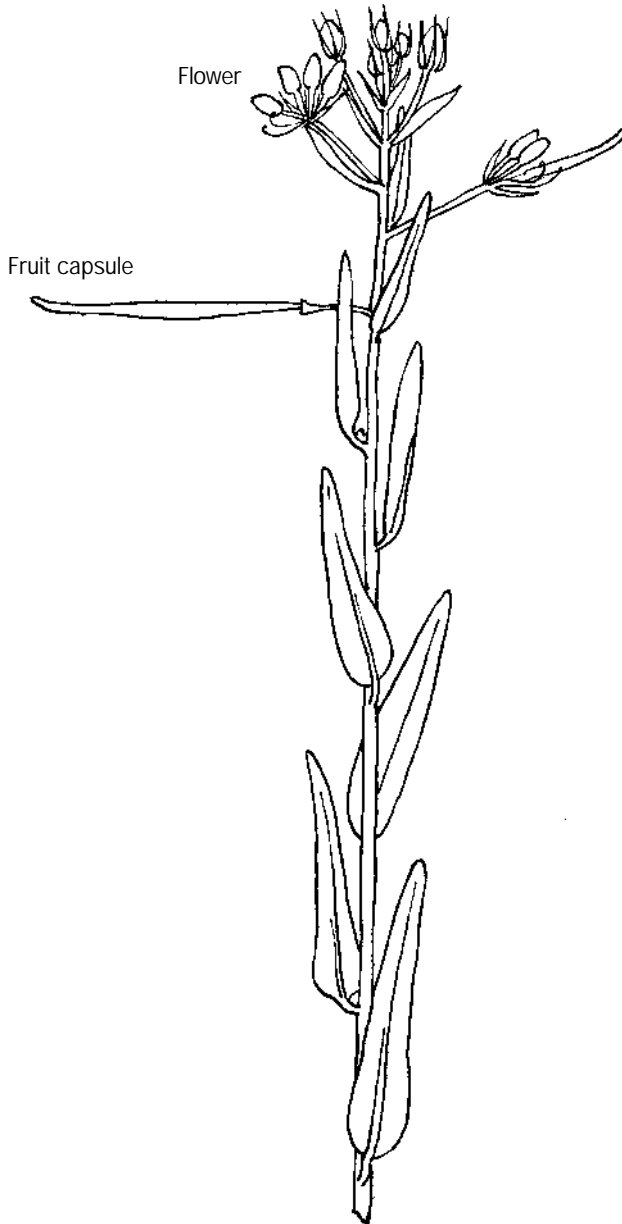
STORAGE: Not stored.

MANAGEMENT: Collected from the wild and not protected or cultivated by local people. It can be propagated by seed.

STATUS: Common.

REMARKS: It has been reported that in Nigeria the finely ground leaf is used for removing irritating particles from the eye.

*Cleome monophylla* Capparidaceae (Capparaceae)



*Coccinia grandis**Cucurbitaceae*

Indigenous

LOCAL NAMES: **English:** Ivy gourd, Scarlet gourd; **Gogo:** Lyungulyungu; **Maasai:** Enkaiserariai, Ndegegeya, Olamposhi; **Nyamwezi:** Lyungu-lya-nzoka; **Swahili:** Mboga mwitu; **Sandawi:** Kóbá.

DESCRIPTION: A perennial climber to 20 m, from a tuberous rootstock, young stems green, angular, dotted white when older, soon becoming woody with thin, grey-brown papery or corky bark. LEAVES: **Broad oval to rounded** in outline, **3–5 lobed, variable, often broader than long, 4–10 cm**, with **glands at the base of the midrib below**, base cordate, roughly warty below, edge sometimes wavy with red glandular teeth. Simple tendrils. FLOWERS: Sexes on different plants, **corolla bell shaped, orange-yellow, petal lobes longer than the tube**. Female flowers 2–3 cm, solitary on stalks about 2 cm. Male flowers smaller, 2 or more, the anthers joined in the flower centre, petal lobes often green veined, red tipped. FRUIT: **Smooth and egg shaped, thin skinned, to 6 cm long, 3.5 cm across, green with white markings, red when ripe, leaving a green area around the stalk**.

ECOLOGY: Secondary regrowth in highlands and at medium altitudes, 0–2,000 m; rainfall 1,000–1,600 mm. Often associated with *Arundinaria alpina*. Tolerates a wide variety of soils.

DISTRIBUTION: Found in the Arabian peninsular, tropical Asia from Pakistan to China, tropical Australia and Fiji. Also introduced in the West Indies and tropical South America. In Africa, found from Senegal to Somalia and in East Africa. Widespread in Tanzania.

USES:

**Food:**

- The ripe red fruit is collected, peeled and cut into small pieces and mixed with porridge.
- Ripe fruit are eaten raw.

**Commercial:** Not marketed.

**Other:** The plant is used for fodder.

SEASON: The fruit are collected in June–August.

STORAGE: Not stored.

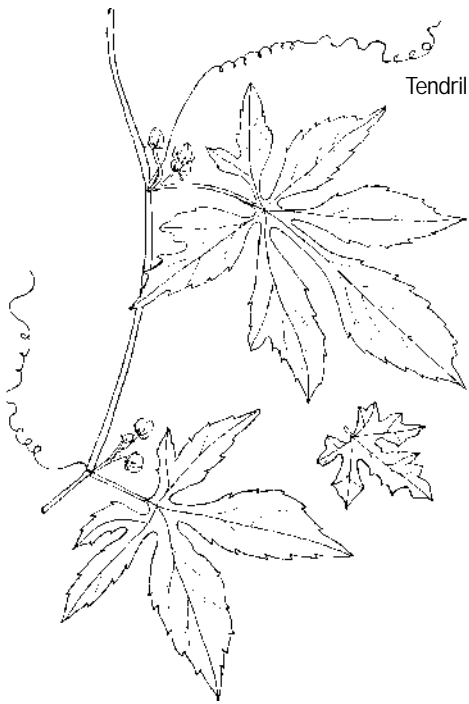
MANAGEMENT: Collected from the wild, but can be propagated by seed.

STATUS: Common within its area of distribution.

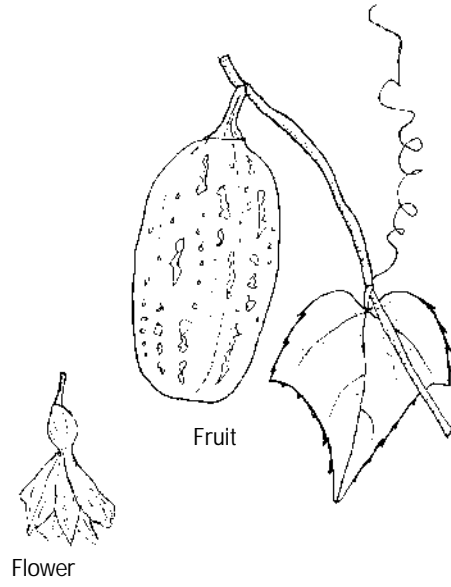
REMARKS: *C. adoensis* (**Bena:** Tambalanjoka; **Hehe:** Nyayambo), a related species, also has edible fruit. It is a creeping or climbing herb up to 3 m, found in most parts of Tanzania, Kenya and Uganda. Also found in Nigeria, eastwards to Ethiopia and south to Malawi, Mozambique, Zambia and South Africa.



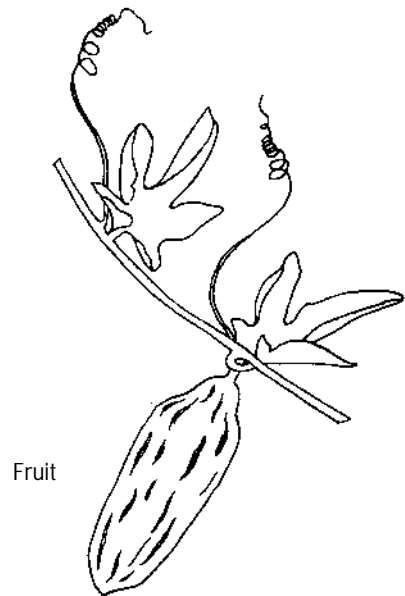
*Coccinia grandis*



*Cucurbitaceae*



*C. adoensis*



*Coffea eugenioides*

## Rubiaceae

Indigenous

LOCAL NAMES: **Sambaa:** Kikwandie; **Swahili:** Mkahawa mwitu.

DESCRIPTION: Usually a shrub, but may become a small tree, 1–4.5 m. BARK: Shiny, light brown. LEAVES: **Opposite**, long oval, 2–12 cm with a **long pointed tip, dull or slightly shiny above**, veins raised both sides, base narrowed to a stalk to 7 mm. Interpetiolar **stipules triangular with a fine tip to 3 mm**. FLOWERS: **Cream-white**, tubular, to 1 cm with 5 pointed lobes 5–12 mm; usually **only 1–2 flowers in a leaf axil, stalks to 6 mm**. FRUIT: A **2-seeded drupe, 8–10 mm long**, with a ripe red soft skin, the **fruit stalk 2–5 cm long**. Seeds yellow-green-brown, to 8 mm long.

ECOLOGY: Found in the under-storey vegetation in forests, 1,000–2,100 m; rainfall 800–2,100 mm. Thrives in sandy clay loams and sandy loams, but tolerates a wide range of soil types.

DISTRIBUTION: In Tanzania, this species is found in Minziro Forest in Kagera Region and Mahali Forest in Rukwa Region. Also occurs in Kenya, Uganda, Sudan and in the Congo basin.

USES:

**Food:**

The ripe red fruit are collected from the shrub and eaten as a snack, mostly by children. Eaten frequently in moderate amounts.

**Beverage:** Seeds are ground and used as coffee.

**Commercial:** It has been sold in local markets.

**Other:** The wood is used for poles, firewood and tool handles. The tree is suitable for shade and as an ornamental.

SEASON: Fruit are collected in June–July and December–January.

STORAGE: Boiled fruit may be dried and stored for use later.

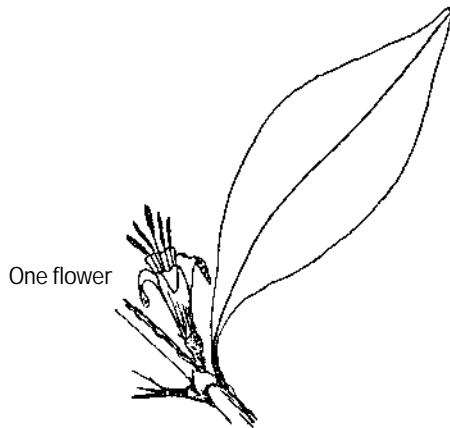
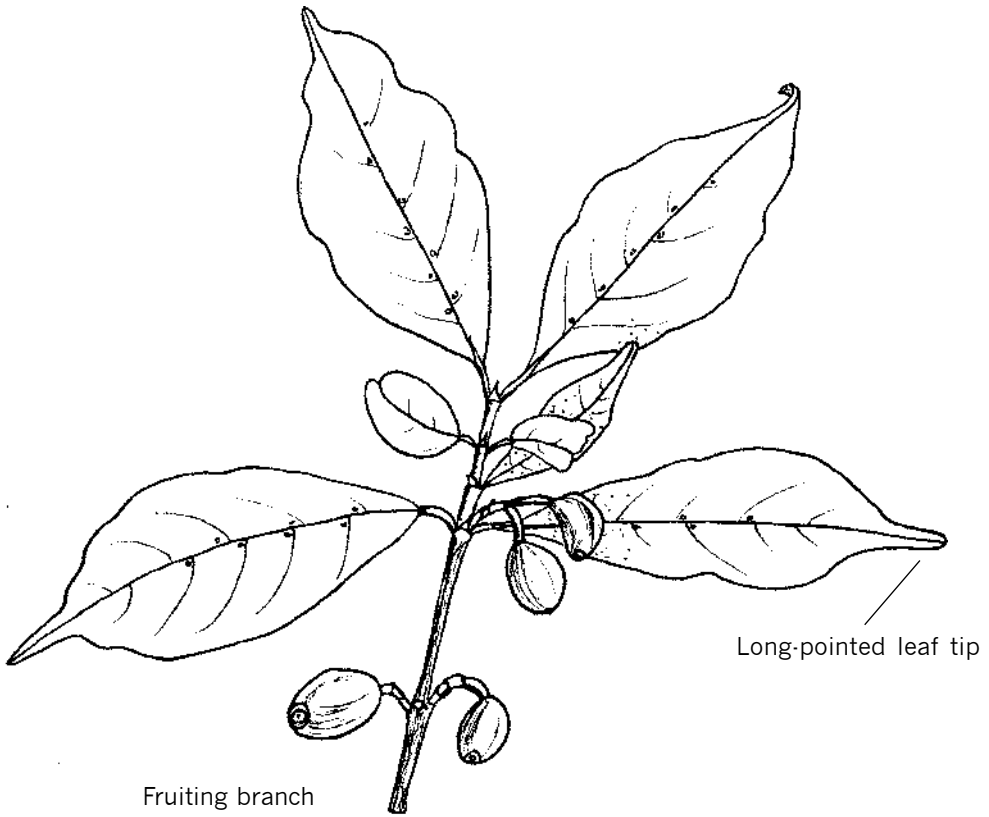
MANAGEMENT: Collected in the wild, but has also been cultivated using nursery seedlings.

STATUS: Common within its area of distribution.

REMARKS: A promising wild coffee which should be developed. This species has been cultivated on trial at Amani Botanic Garden in Tanga Region.

*Coffea eugenioides*

Rubiaceae



*Coffea mufindiensis*

## Rubiaceae

Indigenous

LOCAL NAMES: **English:** Wild coffee; **Hehe:** Kahawa-msitu, Mkahawa-musitu, Mpacha; **Sambaa:** Kikwandie; **Swahili:** Mkahawa mwitu.

DESCRIPTION: An evergreen shrub or small tree 0.5–4.5 m, mature stems evenly hairy (not in lines). BARK: On very young branches hairy, pale grey-brown. LEAVES: Opposite, **narrow oval and small, 2–6 cm, crowded together**, papery to stiff, usually dull above, drying grey-green-brown, edges often wavy or crinkly, side veins clear on both sides, shortly stalked to 5 mm, stipules 2–7 mm, triangular with a fine point. FLOWERS: White, sometimes reddish in bud, tubular to 6 mm, with **5 oblong petals to 1 cm**, 1–2 together, **shortly stalked**, in leaf axils, the **calyx limb 2.5 mm, shorter than the disc**, **2 bracteoles** at the base with **very small lobes**. FRUIT: **Orange-red oval berries to 1 cm long**, sometimes with a few hairs, on stalks 2–8 mm, containing 2 pale brown seeds.

ECOLOGY: Found in moist forest from 1,600 to 2,100 m.

DISTRIBUTION: Endemic to Tanzania; found in central, eastern and southern highlands, e.g. around Mpwapwa, Ulanga and Iringa.

USES:

**Food:**

Berries are collected and eaten raw as a snack, especially by children and herdsmen.

**Beverage:** Seeds are roasted, ground and used for coffee.

**Commercial:** Not marketed.

**Other:** The wood is used for poles, fuelwood, pegs, withies and tool handles.

The tree is suitable for shade, hedges and as an ornamental.

SEASON: Fruit are collected from April to June.

STORAGE: Dried seeds can be stored for more than a year.

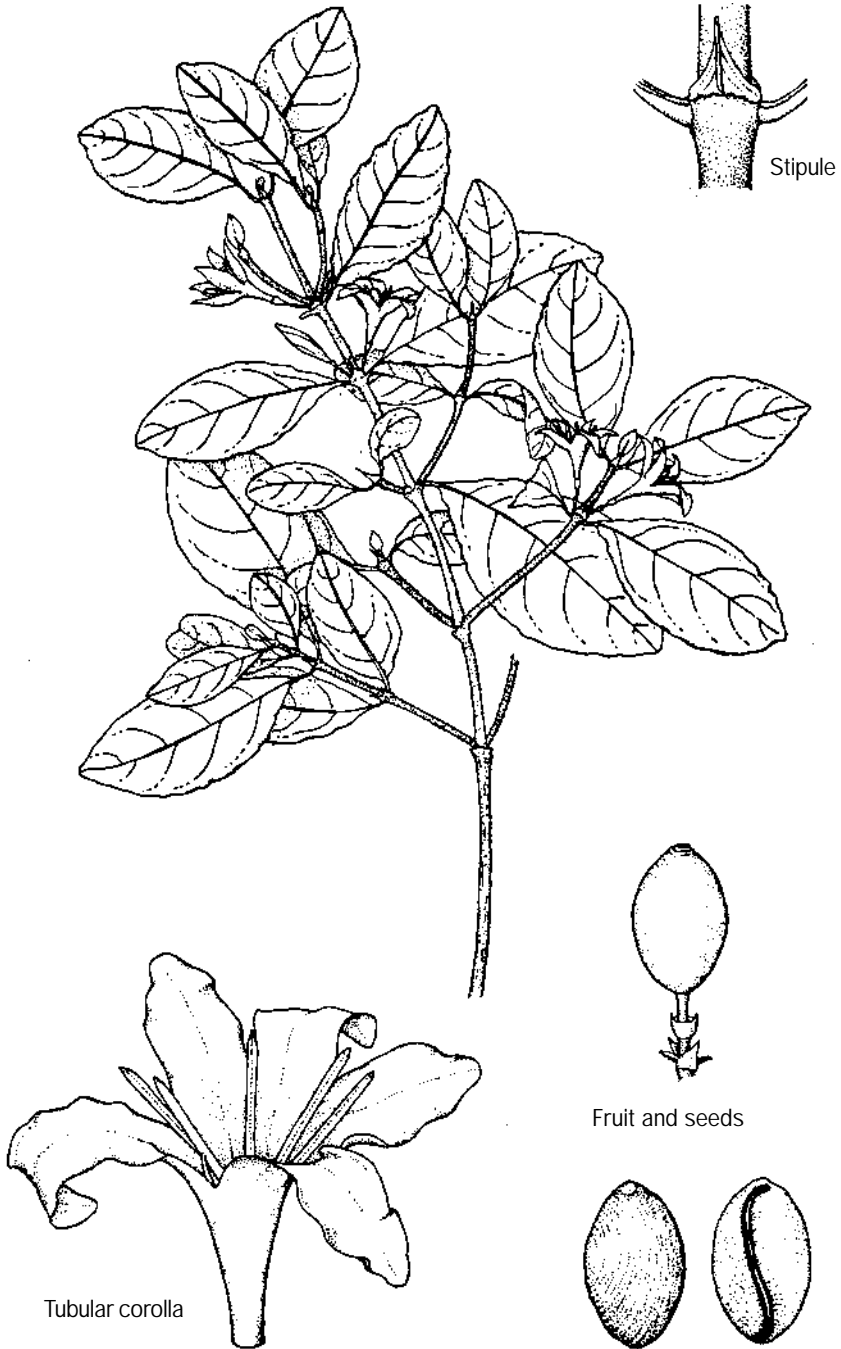
MANAGEMENT: Collected from the wild and not cultivated or protected by the local people. This species can be propagated by seed.

STATUS: Common within its habitat.

REMARKS: This wild coffee has a potential for cultivation and breeding.

*Coffea mufindiensis*

Rubiaceae



*Cola scheffleri*

## Sterculiaceae

Indigenous

LOCAL NAMES: **Bondei**: Msamaka; **Sambaa**: Msamaka, Msasami.

DESCRIPTION: A tall evergreen tree 8–20 m, lightly or much branched to an oblong or pyramid-shaped crown, the trunk to 60 cm across or more. Young shoots red–purple–dull green, covered with dark brown star-shaped hairs. BARK: Grey-brown, patchy, with inconspicuous close longitudinal lines. LEAVES: Alternate or whorled, at the ends of branches, **very variable in shape, simple or 3–4 lobed**, sometimes very large, **7.5–23 cm long x 4–40 cm across**, leaf lobes with **long pointed tips**, the **bases round to heart shaped**, all papery to stiff, shiny green above, **midrib red-purple when young and prominent with raised veins both sides**, about 7–9 primary veins either side of the midrib. **A leaf stalk varying in length from 4 to 10 cm, brown-red-purple and thickened just below the blade** (pulvinus). FLOWERS: Sexes separate, grow in dense clusters on old wood or beside leaves, **no petals but dull pink-brown sepals form softly hairy cups about 2 cm across, 4–8 lobes, shortly stalked**. Inside the cup a **1-cm stalk bears a ring of 5–12 anthers**. FRUIT: **2 free carpels** of the female flowers become **2 orange-brown leathery capsules 6 cm long** (dry), splitting longitudinally to release a few large seeds.

ECOLOGY: Ground-water forests, riverine and in evergreen montane rainforest. Prefers open areas in forests, usually associated with dense undergrowth and soils rich in humus.

DISTRIBUTION: Endemic to the Tanga Region of Tanzania (Amani, Segoma, Longuza and Kwamkoro Forest Reserves).

USES:

**Food:**

Fruit are edible. The pulp of ripe fruit is sweet and eaten raw.

**Commercial:** Not marketed.

**Other:** The tree is used for shade. The seeds contain the alkaloid caffeine and are chewed as a stimulant.

SEASON: Fruit are collected in May and June.

STORAGE: Not stored.

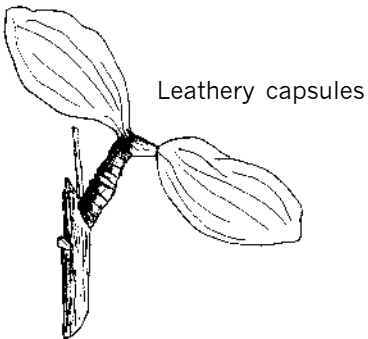
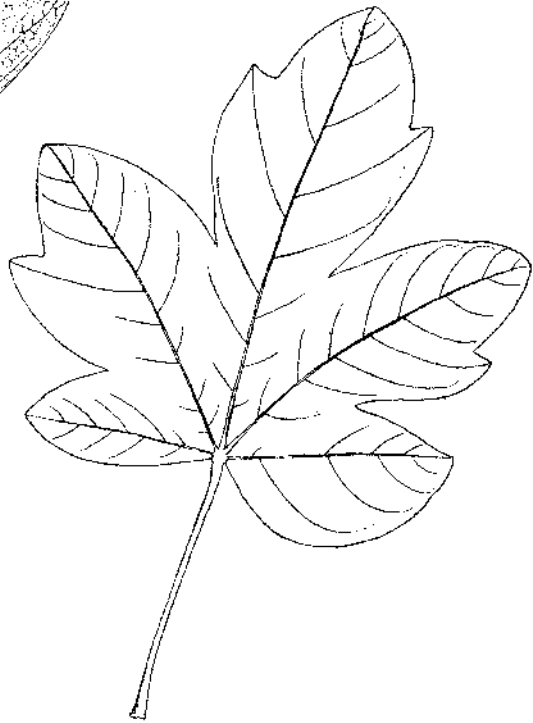
MANAGEMENT: Collected from the wild and not cultivated or protected by the local people. The species can be propagated by seed.

STATUS: Uncommon within its area of distribution.

REMARKS: This species is endemic to the east Usambara Mountains.

*Cola scheffleri*

Sterculiaceae



*Combretum padoides*

## Combretaceae

Indigenous

LOCAL NAMES: **English:** Thicket combretum; **Sambaa:** Msangate; **Yao:** Mkowatama; **Zigua:** Mgona-nkolongo.

DESCRIPTION: A many-stemmed deciduous shrub or small tree, 1–12 m, often using its **long trailing branches to scramble** into tall trees nearby. BARK: Rough, dark brown-grey. LEAVES: Opposite, **long oval 5–10 cm**, rather thin and papery, dull green with yellow veins and conspicuous hairs only on veins below, **tip rather long pointed**, base narrowed to a thin stalk about 1 cm. FLOWERS: **White-cream-yellow, tiny, sweet-scented** and often massed together, usually on **single, simple or branched loose spikes 3–10 cm, from the axils of upper leaves** (which may have fallen). FRUIT: **4-winged, rounded to 2 cm diameter**, very many together, pale yellow-green with golden scales, drying light brown, **wings 7–9 mm wide**, sometimes reddish, on a **stalk to 3 mm**.

ECOLOGY: Riverine, coastal and swamp forests, also deciduous thickets, on rocky hills, along escarpments in mixed woodlands, often forming thickets, 0–1,500 m.

DISTRIBUTION: In most parts of Tanzania except the west, e.g. found in Pare and Uluguru Mountains and around Lushoto and Morogoro; Kenya, the Congo basin, Zambia, Zimbabwe, Malawi, Mozambique and South Africa.

USES:

**Food:**

Tender leaves are collected, chopped up and cooked alone or with other vegetables such as peas or amaranth, pounded simsim or groundnut paste added and then eaten with a staple.

**Medicinal:**

- Leaves are used as a remedy for snakebite and wounds.
- Roots are used to treat hookworm infection.

**Commercial:** Not marketed.

**Other:** The wood is used for poles, fuelwood, tool handles and pegs. The tree is important as a source of bee forage.

SEASON: Leaves are collected from October to December.

STORAGE: Not stored.

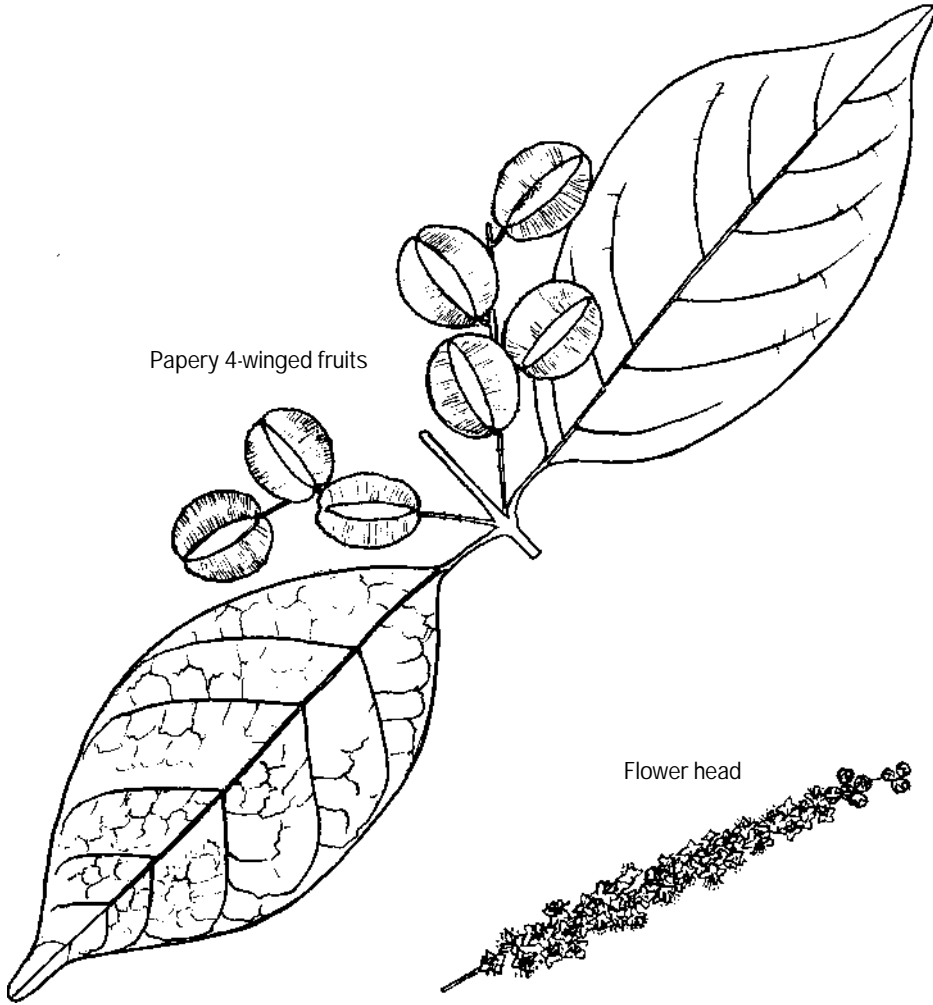
MANAGEMENT: Collected from the wild and not cultivated or protected by the local people.

STATUS: Locally common.



*Combretum padoides*

Combretaceae



*Commelina africana*

## Commelinaceae

Indigenous

LOCAL NAMES: **Bena:** Likolovega; **Chagga:** Ikengera, Mkole; **Digo:** Dzadza, **Hehe:** Likolowoga; **Matengo:** Ndilia; **Sambaa:** Nkongo; **Swahili:** Kongwa.

DESCRIPTION: A very variable small herb growing in open sunny places, **stems trailing along the ground with some erect branches**. Thickened fibrous roots. **LEAVES:** Simple and alternate, entire, the veins all parallel, the base sheathing the stem, up to 8 cm long x 2 cm wide. **FLOWERS:** A folded leafy green spathe 2.5 cm, contains several **yellow flowers** growing singly. The spathe is **free to the base**. Flowers small, about 8 mm, appearing one at a time, soon collapsing, 3 petals, 2 large and 1 small. The spathe may have short white or grey hairs. Sterile stamens “x” shaped. **FRUIT:** A small **capsule** contains the seed, often only 1.

ECOLOGY: Secondary regrowth and disturbed areas, a weed on farms. Thrives in sandy clay loams and sandy loams, up to 1,800 m; rainfall 900–1,900 mm.

DISTRIBUTION: Widespread in West Africa, east to the Sudan and East Africa and south to Mozambique.

USES:

**Food:**

The leaves are collected, chopped and boiled in water or fresh or sour milk. Simsim or groundnut paste is added. It is eaten with the staple and as a substitute for more preferred vegetables.

**Commercial:** Not marketed.

**Other:** Leaves are palatable to livestock, especially pigs and rabbits. A source of bee forage.

SEASON: Leaves are collected in the rainy season.

STORAGE: Not stored.

MANAGEMENT: It is collected from the wild and not cultivated or protected by local people.

STATUS: Common and easily accessible within its area of distribution.

REMARKS: It is reported that in South Africa a root decoction is taken as a treatment for STDs and for menstrual problems. The same preparation is also used for pelvic pain and bladder complaints.

*Commelina africana*

Commelinaceae



***Commelina benghalensis*****Commelinaceae**

Indigenous, cosmopolitan

LOCAL NAMES: **Chagga:** Ikengera; **Digo:** Dzadza, **English:** Blue commelina; **Hehe:** Likolowoga, Ngorowoga; **Maasai:** Enkaiteteyiai; **Pare:** Ikongwe; **Sambaa:** Mkongo; **Swahili:** Mpovupovu.

DESCRIPTION: An annual herb, with long creeping succulent stems and ascending jointed branches, rooting where nodes touch the ground, fibrous roots. LEAVES: Oval and pointed to 7 cm, the **leaf sheath** clasping the stem often has **reddish or purple hairs to 3 mm** long. Leaves are shortly stalked, oblique at the base. FLOWERS: Boat-shaped leafy **spathes are joined at least at the base, the angle there less than 90 degrees**, spathes crowded at the end of shoots on stalks to 15 mm long. This spathe contains a clear liquid around the flower buds. The **fragile deep blue flowers** have 2 large petals and 1 tiny petal, **to 15 mm across**, they stand up in the spathes but fade in a few hours. Stamines 4-lobed. FRUIT: A **5-seeded capsule to 5 mm** long contains ovoid seeds.

ECOLOGY: Common in disturbed areas, at forest edges, in homegardens and secondary regrowth. It does well at medium altitudes, up to 1,600 m; rainfall 1,000–2,100 mm, but can withstand prolonged drought. Thrives in sandy loams, but tolerates a wide range of soil types.

DISTRIBUTION: Widespread in India and Africa. From West Africa to Central and East Africa and south to southern Africa, including Madagascar. Found in most low- and medium-altitude areas of Tanzania.

USES:

**Food:**

Tender leaves and stems are chopped and cooked alone or with other vegetables such as *Bidens pilosa* or *Cleome hirta*. Then it is served with a staple, i.e. *ugali* or rice.

**Medicinal:**

- The sap is used for treatment of eye ailments, sore throat and burns and topical application for thrush in infants.
- Leaves are pounded and soaked in warm water and the solution is drunk to treat diarrhoea.

**Commercial:** Not marketed.

**Other:** Leaves are palatable to livestock, especially pigs and rabbits. Flowers provide bee forage.

SEASON: Leaves are collected during the early flush of the rainy season.

STORAGE: Not stored.

MANAGEMENT: Collected from the wild and not protected or cultivated by local people. A very serious weed.

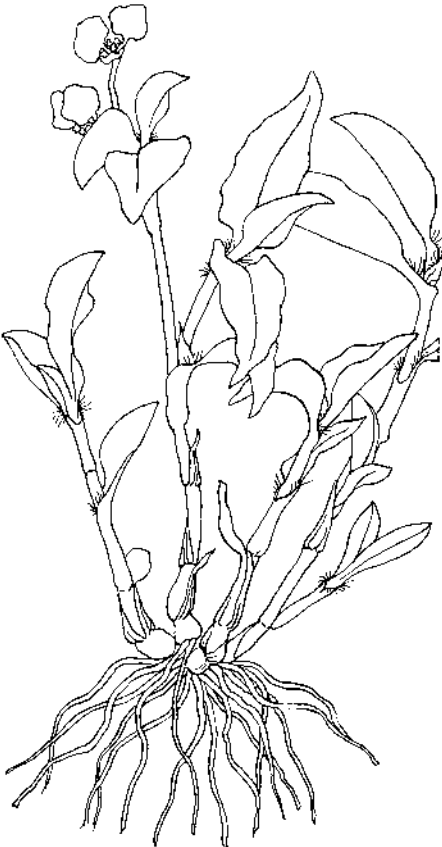
STATUS: Common and easily accessible within its area of distribution.

## *Commelina benghalensis* (contd)      Commelinaceae

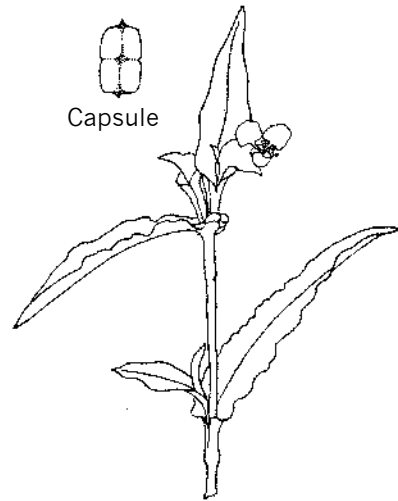
REMARKS: Two other species of *Commelina* are used as a vegetable:

1. *C. imberbis* (**Bondei**: Nkongo; **Chagga**: Ikengera; **Matengo**: Lukolowa; **Sambaa**: Nkongo; **Tongwe**: Lumpepete; **Yao**: Lukolowa; **Zigua**: Nkongo) which is widespread in Tanzania, Kenya and Uganda, is used in the same way as *C. benghalensis*.
2. *C. latifolia* (**Bondei**: Nkongo; **Sambaa**: Nkongo; **Zigua**: Nkongo) is also widespread in Tanzania, Kenya and Uganda.

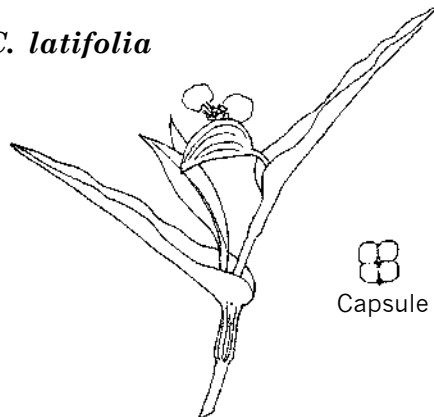
### *C. benghalensis*



### *C. imberbis*



### *C. latifolia*



*Commiphora africana*

## Burseraceae

Indigenous

LOCAL NAMES: **Arusha:** Osilalei; **Barabaig:** Naamo; **Bende:** Siponda; **Bena:** Mtono; **English:** Poison-grub commiphora; **Gogo:** Msilale, Msomvugo; **Gorowa:** Niimo; **Iraqw:** Backchandi, Niimo; **Isanzu:** Muzuhu; **Luguru:** Kologwe; **Maasai:** Oloishimi; **Mbugwe:** Tundulu; **Nyamwezi:** Msagasi; **Nyaturu:** Mujuhu; **Rangi:** Ibwebwe, Idaki, Ijovya, Iponde, Mpome; **Swahili:** Mbambara, Mkororo, Mponda, Mturituri; **Zinza:** Mawezi.

DESCRIPTION: **Usually a spiny shrub**, but may become a tree to 10 m. Deciduous, **bare for many months**. **BARK:** Grey-green, peeling to show green below, when cut a yellowish gum drips out, branchlets thorn tipped. **LEAVES:** Soft, hairy and bright green, compound with **three leaflets**, edge wavy, fragrant when crushed, **central leaflet much longer than the other two**. **FLOWERS:** Small, red, in tight clusters, often on thorns, on the bare tree. **FRUIT:** **Pink-red**, soft, about 1 cm, pointed, stony seed inside.

ECOLOGY: It grows on rocky sites, clay or sand with minimal rainfall, typical of much thorn bush in Tanzania and Kenya, open savanna and desert, 500–1,900 m.

DISTRIBUTION: A shrub found in the driest areas all over Africa.

USES:

**Food:**

Swollen rootstock from young plants are dug up, peeled and chewed raw like cassava. It is eaten by children and herdsman.

**Medicinal:**

- Roots are collected and boiled in water and the decoction drunk as a remedy for fever, leprosy and stomach-ache.
- Bark and roots are boiled and used as steam bath for fevers and colds.
- The bark is chewed or pounded then mixed with tobacco and applied on snakebite. The resin is used for disinfecting wounds.
- Fruit are used for treating typhoid.

**Commercial:** Not marketed.

**Other:** The wood is soft and used for beehives, stools, domestic utensils and wheels for carts. The tree is used as a live fence.

SEASON: Rootstock collected during the rainy season.

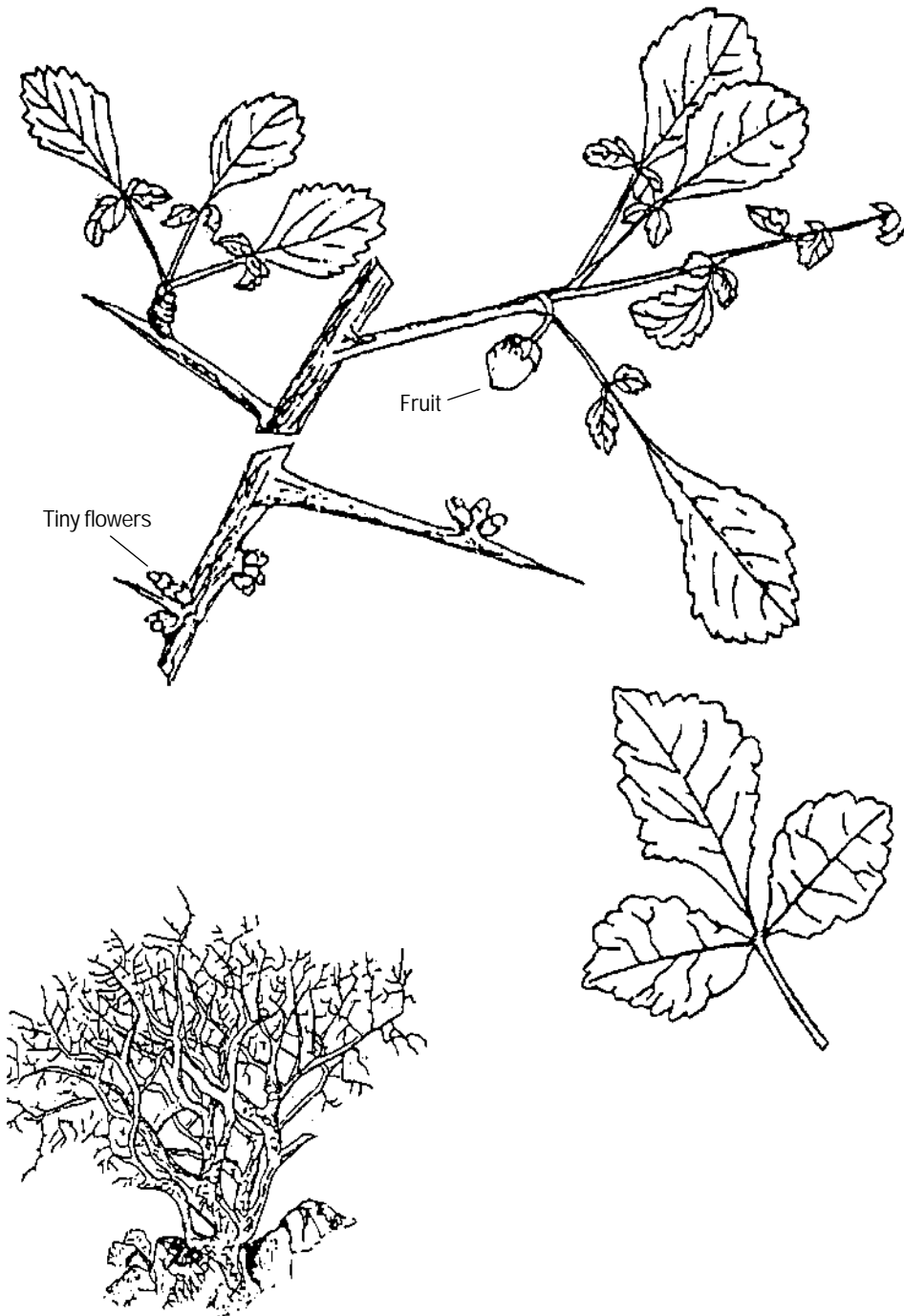
STORAGE: Not stored.

MANAGEMENT: Collected from the wild and not cultivated or protected by the local people. It can be propagated from seed and cuttings.

STATUS: Common and easily available within its habitat.

*Commiphora africana*

Burseraceae



*Commiphora mossambicensis*

## Burseraceae

Indigenous

LOCAL NAMES: **English:** Soft-leaved commiphora; **Iraqw:** Intiwi; **Nyamwezi:** Mtonto; **Nyaturu:** Mutonto; **Rangi:** Ikwandaja; **Swahili:** Mponda.

DESCRIPTION: A much-branched deciduous tree to 10 m, branches stiff and crooked, to a spreading crown up to 6 m. BARK: When **young smooth and grey**, becoming rough, **brown-yellow, bark peeling**, sometimes with spines on the trunk. A **yellow gum** oozes out if cut, becoming a hard clear resin. Leaf bases persist on the bare tree. LEAVES: Usually with 3 leathery leaflets (up to 7), on a hairy stalk about 11 cm, the **leaflets broad oval to rounded, up to 8 cm long, all stalked, shiny above**, dull below, veins clear, sometimes hairy, especially lower midrib, and fine hairy edges to the leaflets. FLOWERS: **Tiny, yellow-green** on axillary stalks, flowering with the first new leaves before they are fully open. **Branched flower stalks to 9 cm**, with many male flowers, buds tiny, round, the female flowers clustered on stalks to 3 cm (the flower stalks sometimes have brown hairs), reflexed bud scales can be prominent. FRUIT: A **single-seeded soft drupe about 1 cm** long when dry, with a pointed tip. The fruit are often **in dense rounded clusters**.

ECOLOGY: Wooded grassland, open woodland, thickets, 400–1,600 m; rainfall 500–800 mm.

DISTRIBUTION: Found in most parts of Tanzania except the Tanga area. Also occurs in Zambia, Malawi, Mozambique, Botswana, Zimbabwe and South Africa.

USES:

**Food:**

Roots are edible. The thick rootstock of young trees are dug out, peeled and eaten by herdsmen to quench thirst and hunger.

**Commercial:** Not marketed.

**Other:** The tree is used as a live fence. The resin is used for sealing trays, and carbon from half-burnt wood for making local gunpowder.

SEASON: Rootstock are collected during the rainy season.

STORAGE: Not stored.

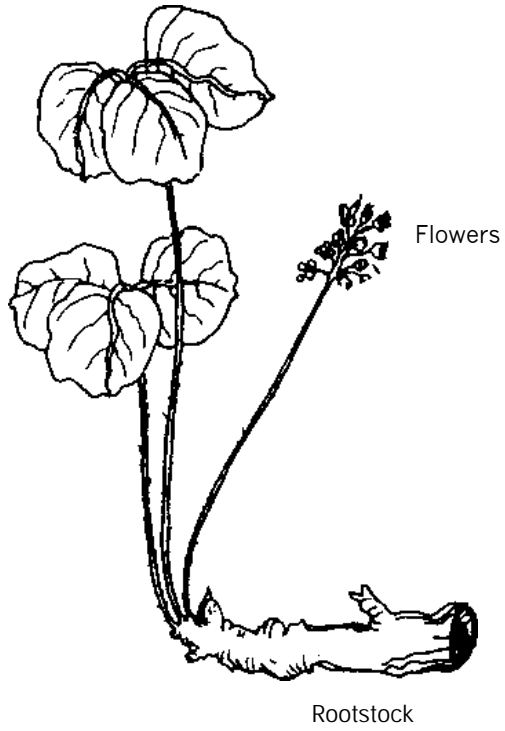
MANAGEMENT: Collected only from the wild, not cultivated.

STATUS: Locally common.



*Commiphora mossambicensis*

Burseraceae



***Convolvulus farinosus*****Convolvulaceae**

Indigenous

LOCAL NAMES: **Hehe:** Nyakapulikilo, Nyapali.

DESCRIPTION: A **perennial herb**, the **stem twining or growing along the ground**, with long silky hairs when young. LEAVES: The simple blade triangular or oval **to 6 cm, shortly hairy**, about 3.5 cm across, the **base deeply notched** to a thin stalk about 4 cm, the edge with shallow round teeth. FLOWERS: **White**, with some pink or purple, the **tube less than 2 cm long**, the 5 short lobes with hairy tips, about 1 cm across, **on a thin stalk about 4 cm**, beside leaves, **1–6 flowers together**, 5 stiff hairy sepals. FRUIT: A **round pale brown capsule, less than 1 cm across**, containing about 4 black seeds.

ECOLOGY: Upland grasslands and in cultivated areas, 1,300–2,600 m.

DISTRIBUTION: In most highland parts of Tanzania including Arusha, Kilimanjaro, Tanga, Iringa and Kagera Regions. Also found in Uganda, Kenya, Ethiopia, Eritrea, southwards to South Africa, Madagascar, the Mascarene Islands; also in the western Mediterranean area.

USES:

**Food:**

Leaves are used as a vegetable. Young leaves are picked, cooked alone or with other vegetables such as amaranth or cowpeas, coconut milk or pounded groundnuts added and then eaten with *ugali* or rice.

**Commercial:** Not marketed.

**Other:** The plant is used as an ornamental and for fodder.

SEASON: Leaves are collected during the rainy season, December–May.

STORAGE: Not stored.

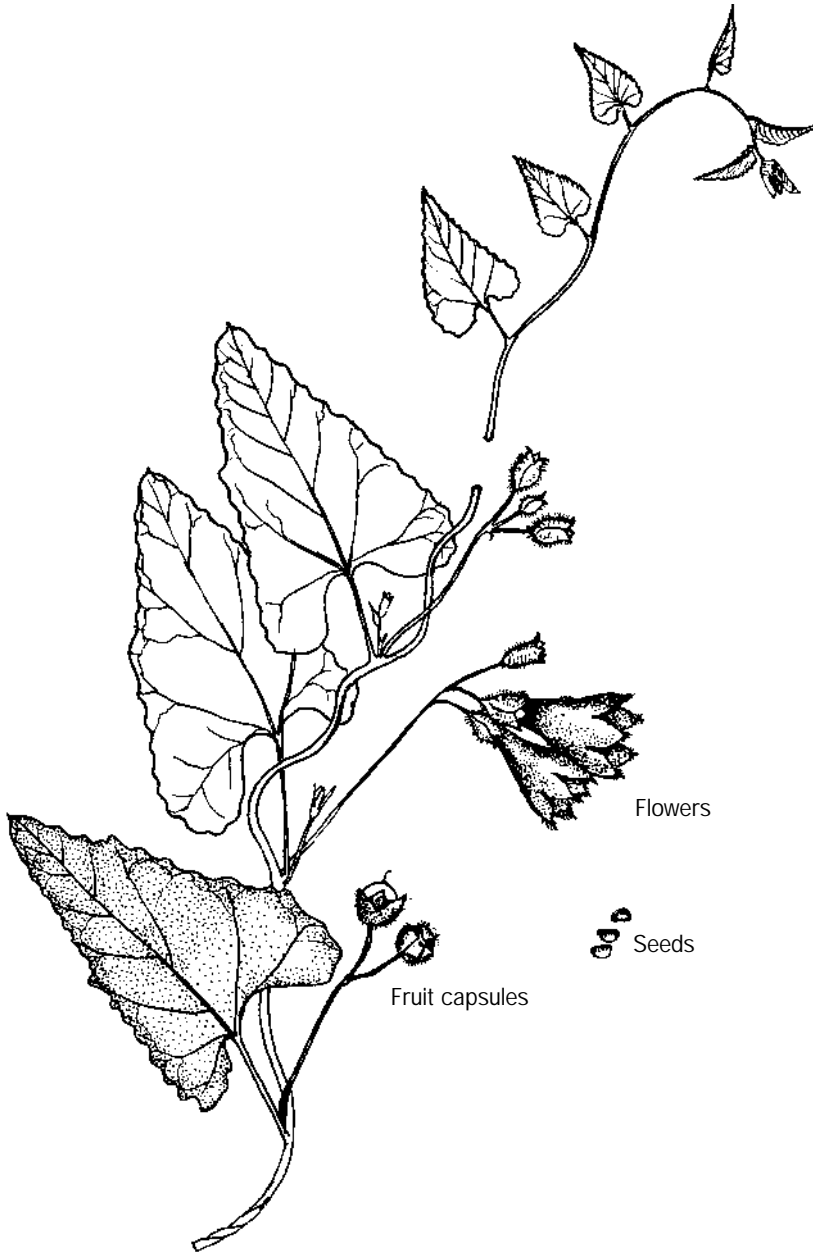
MANAGEMENT: Collected from the wild, not cultivated but can be propagated from seed.

STATUS: Easily accessible within its habitat.

REMARKS: A very troublesome weed in farms.

*Convolvulus farinosus*

Convolvulaceae



*Corchorus tridens*

## Tiliaceae

Indigenous

LOCAL NAMES: **Bondei**: Kibwando; **Hehe**: Kimulikwi-jike, Kimulikwi kidala; **Nyamwezi**: Kaala, Mlenda-gwa-kala; **Pare**: Mlenda; **Sambaa**: Kibwando, **Sukuma**: Bonani; **Swahili**: Mlenda.

DESCRIPTION: An erect or low-growing branched annual herb, about 45 cm, with weak stems, a few or no hairs. Some parts may be red. LEAVES: Long oval, **about 7 cm**, shortly stalked, the edge toothed, fine outgrowths at the base of the blade. FLOWERS: 1–3 tiny **bright yellow** flowers beside leaves, 5 petals, **8–10** stamens, on stalks about 5 mm. FRUIT: Long green-brown **smooth capsules to 4 cm** with **3 “horns” at the tip**, splitting into 3 sections to release small seeds.

ECOLOGY: Secondary regrowth in disturbed areas, thickets, forest edges and as a weed in cultivated areas. It does well in low- and medium-altitude areas up to 1,500 m; rainfall 1,000–1,800 mm. Thrives in moist deep red and brown soils.

DISTRIBUTION: Widespread in Tanzania. From West Africa to the Congo basin, East Africa and the Sudan and south to southern Africa.

USES:

**Food:**

Leaves are collected, chopped and boiled together with other green vegetables to improve their consistency and thicken soups. It is then eaten along with a staple.

**Commercial:** It is sold in local markets.

SEASON: Leaves are collected during the rainy season.

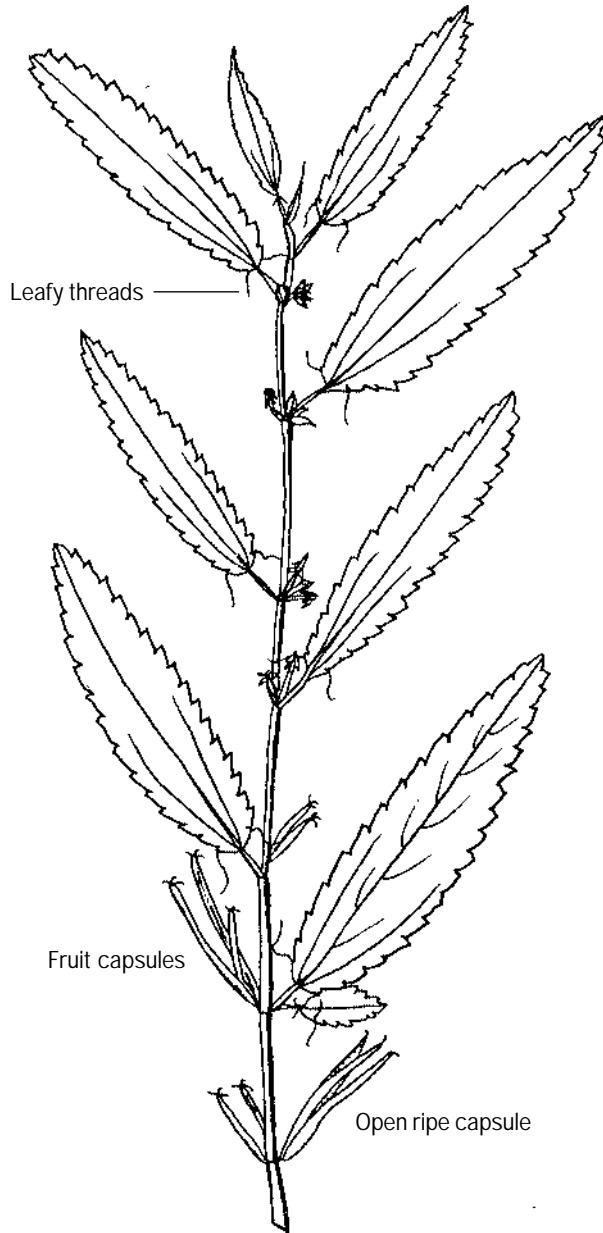
STORAGE: Leaves may be dried in the sun and then stored in a cool dry place for use during the dry season or in famine periods.

MANAGEMENT: Not cultivated but collected from the wild.

STATUS: Common and easily accessible within its area of distribution.

*Corchorus tridens*

Tiliaceae



*Corchorus trilocularis*

## Tiliaceae

Indigenous

LOCAL NAMES: **Bondei:** Kibwando; **Hehe:** Likombe; **Nyamwezi:** Kala, Mlenda-gwa-kala; **Pare:** Mlenda; **Sambaa:** Kibwando; **Sandawi:** Sagár; **Swahili:** Mlenda.

DESCRIPTION: A much-branched herbaceous or woody annual; may have a few bristly hairs, up to 90 cm, sometimes purplish. LEAVES: **Oblong to narrow-oval, to 11.2 cm, the edge sharp- or soft-toothed** with fine bristle-like stipules at the leaf base. FLOWERS: **Yellow, to 8 mm across, a few together in the leaf axil, 30–40 central stamens.** FRUIT: A **smooth capsule to 8.5 cm, only 2.5 mm wide, with a short pointed tip, breaking into 3 or 4 sections** to set free tiny seeds.

ECOLOGY: Common as secondary regrowth after cultivation or in disturbed grassland. It occurs naturally in low- and medium-altitude areas up to 2,100 m; rainfall 1,000–1,800 mm. Thrives in brown clay loams and black-cotton soil.

DISTRIBUTION: Found from West Africa to the Sudan and south to Botswana and Angola. Widespread in Tanzania.

USES:

**Food:**

The leaves are collected, sun dried, chopped, and boiled together with beans, peas, etc., in order to thicken the dish. It is eaten quite frequently with a staple.

**Commercial:** Sold in local markets.

**Other:** Fodder for ruminants.

SEASON: Collected from early in the rains up to middle of the rainy season.

MANAGEMENT: Only collected from the wild. Can be propagated by seed.

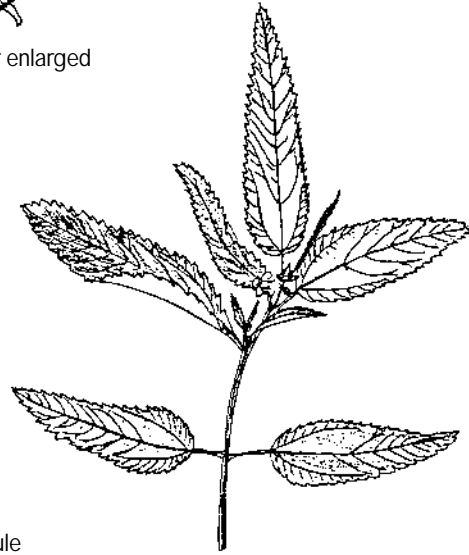
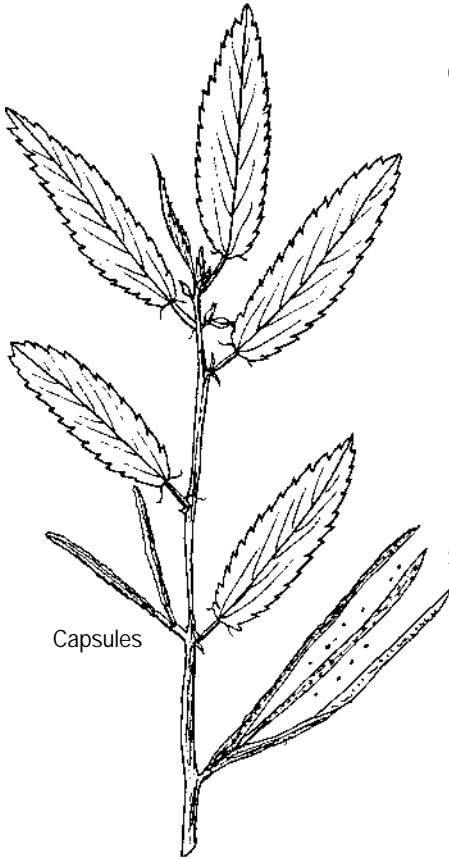
STATUS: Common and easily accessible.

REMARKS: Several other *Corchorus* species found in Tanzania are used as vegetables, including:

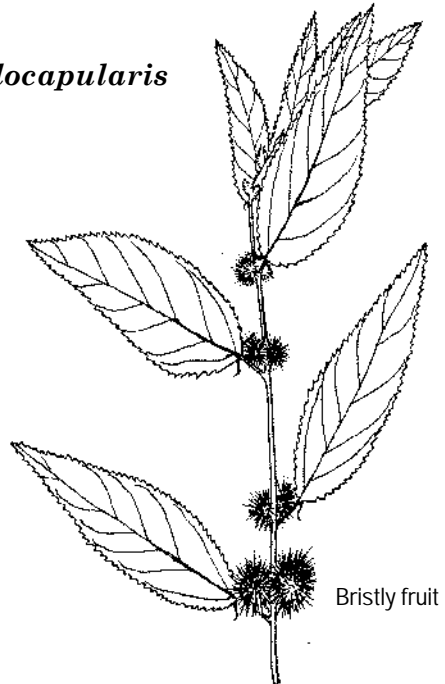
1. *C. fascicularis* (**Bondei:** Kibwando; **Hehe:** Nyaluhanga; **Nyamwezi:** Kala, Mlenda-gwa-kala; **Swahili:** Mlenda; **Zigua:** Kibwando) a sub-erect herb up to 40 cm high with yellow flowers found in Kagera, Kilimanjaro and Pwani Regions.
2. *C. pseudocapsularis* (**Hehe:** Kimulkwi, Kimulikwi kigosi; **Nyamwezi:** Kaala; **Swahili:** Mlenda) an annual herb about 60 cm high with bright yellow flowers. It is found in most Regions of Tanzania including Kilimanjaro, Arusha, Iringa, Morogoro and Dar es Salaam.

*Corchorus trilocularis*

Tiliaceae



*C. pseudocapularis*



*Cordia monoica*

## Boraginaceae

Indigenous

LOCAL NAMES: **Arusha:** Oseki; **English:** Sandpaper tree; **Gogo:** Mdawi, Msenha; **Gorowa:** Bagharimo; **Hehe:** Msena, Msowowi; **Iraqw:** Bagalmo; **Kuria:** Bagharimo, Mushenhu; **Maasai:** Eseki, Ilseki, Isek, Oltiaska, Oseki; **Mbugwe:** Motoasi-mwerema, Mwerema; **Nyamwezi:** Mlembu; **Nyaturu:** Mongoongo; **Pare:** Mshasha; **Rangi:** Msasa, Msasha; **Sambaa:** Magamosi, Mshasa; **Sandawi:** Tipa, Tipan; **Sukuma:** Nembu; **Swahili:** Msasa; **Zinza:** Museno.

DESCRIPTION: A multi-stemmed shrub or tree to 6 m, occasionally reaching 12 m. **BARK:** Blue-grey, thin and fibrous, peeling in strips—resembling *Eucalyptus*. **LEAVES:** Broadly oval to almost round, 5–8 cm, margin slightly toothed, upper surface like sandpaper to touch but softly hairy below with prominent veins, a stalk to 2 cm. **Branchlets, leaf and flower stalks densely covered with rusty hairs.** **FLOWERS:** Pale yellow, sharply fragrant, in dense terminal clusters, each flower tubular, about 1 cm across, calyx hairy and persistent. **FRUIT:** Oval, pointed, yellow-orange and soft when ripe, about 2 cm long, held in a hairy cup-like calyx which loosely covers one-third of the fruit; the single seed lies in jelly-like edible pulp.

ECOLOGY: This *Cordia* species grows from Ethiopia to central and southern Africa. It is found in many habitats from wet or riverine forest to woodland and bush with *Acacia–Euphorbia* or grassland, from the coast to 1,800 m and in all areas of Tanzania except the cool highlands.

DISTRIBUTION: Widespread in Africa from the Congo basin eastwards to Ethiopia, Kenya, Uganda and southwards to South Africa, Angola and Namibia. Also in India, Sri Lanka and Mauritius. Common in most parts of Tanzania, e.g. in Dodoma and Morogoro Regions.

USES:

**Food:**

Fruit are edible. Ripe fruit are collected and eaten raw as a snack. They are sweet and liked by children and herdsmen.

**Medicinal:**

- Leaves are used as medicine to treat eye diseases.
- The leaves and stem bark are used to treat leprosy using a steam bath, and the body can also washed with a decoction made from pounded bark.

**Commercial:** Not marketed.

**Other:** The wood is tough and used for building poles, firewood, bows, withies, walking sticks, clubs and pestles. The leaves are very rough and used as sandpaper. Also used as an ornamental tree and is a source of bee forage.

SEASON: Fruit are collected during the dry season.

STORAGE: Not stored.



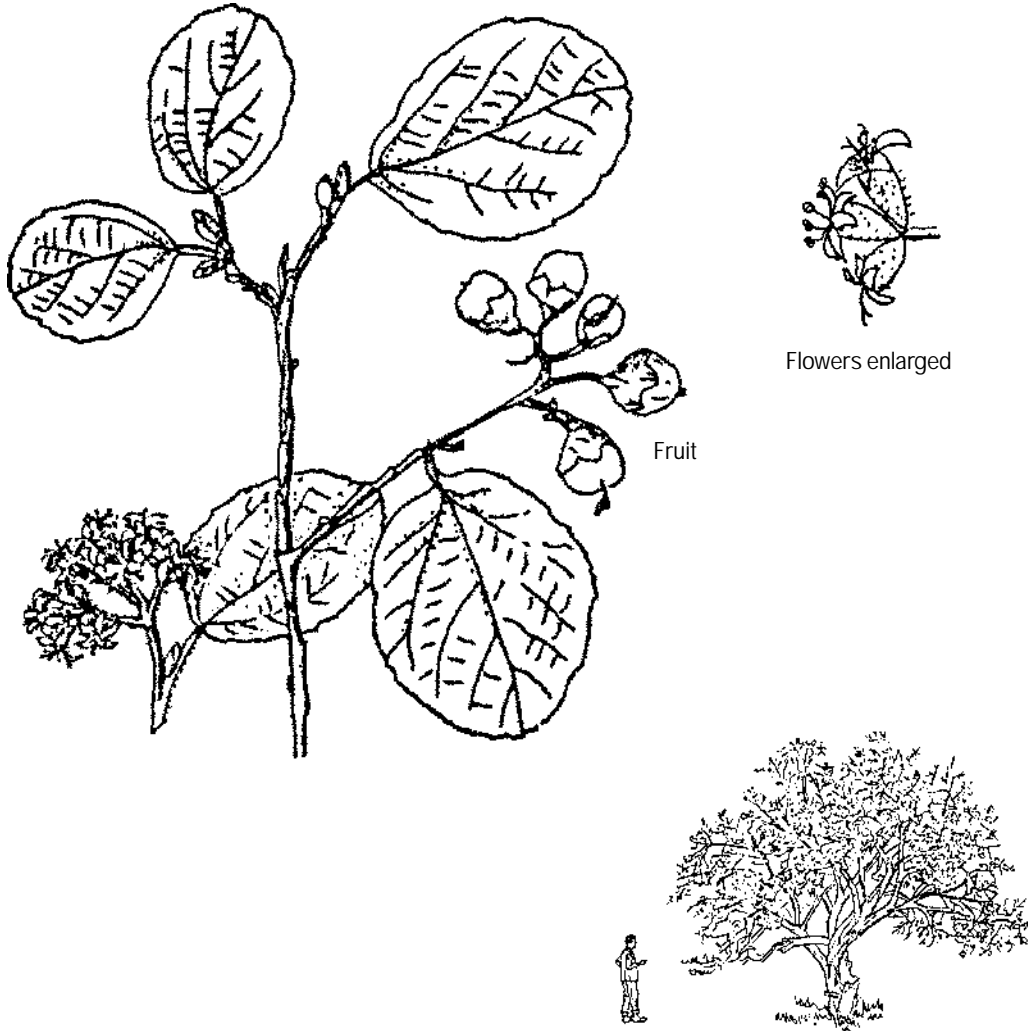
*Cordia monoica* (contd)

## Boraginaceae

MANAGEMENT: Only collected from the wild but can be propagated by seed.

STATUS: Locally common.

REMARKS: Known to be cultivated in Mauritius.



***Cordia sinensis (C. gharaf)*****Boraginaceae**

Indigenous

LOCAL NAMES: **English:** Grey-leaved cordia, Grey-leaved saucer berry; **Fiome:** Baghalmo-lambi; **Gogo:** Mdawi, Mdawi-sogwe; **Gorowa:** Hanarmo; **Hehe:** Mdawi; **Iraqw:** Bagalimo, Funidang, Hararmo; **Maasai:** Oldorko, Oldurgo, Ololfot; **Ololgot:** Mbugwe; **Mbugwe:** Mochochoch; **Nyamwezi:** Mlembu, Mnembu; **Nyaturu:** Mdumwa-kiguu; **Pare:** Mpololo; **Rangi:** Mnembu; **Sandawi:** Angweegwee; **Swahili:** Mkamasi, Mnya mate.

DESCRIPTION: A tangled deciduous shrub or multi-branched tree 3–12 m, often with drooping branches. **BARK:** Young bark smooth, grey-white, later yellow-brown to black, roughly grooved. **LEAVES:** **Grey-green, narrowly oblong** to 9 cm long, feel rough to touch but hairs both sides, tip rounded or notched, on a **stalk about 1 cm. Leaves** more or less opposite. **FLOWERS:** Tubular and small, fragrant, in cream terminal clusters, on hairy, branched stalks. **FRUIT:** Ovoid, to 2 cm, clearly tipped, held in a calyx cup, **orange-red, like egg yolk**, with very sticky **edible pulp** around 1–4 tiny seeds. The calyx has a toothed edge and covers about one-third of the fruit.

ECOLOGY: Scrubland and grasslands in drier areas of the country up to 1,500 m; rainfall 600–1,000 mm. Grows in black and red sandy soils.

DISTRIBUTION: Common in Yemen, India and in Africa from West Africa to Ethiopia and south to Mozambique and Zimbabwe. Also in Israel, Jordan, Pakistan and Sri Lanka. Occurs in all parts of Tanzania.

USES:

**Food:**

The tiny orange-red fruit are sweet and are eaten as a snack, especially by children while grazing animals. Often added to porridge instead of sugar.

**Medicinal:**

- Roots are used to induce abortion. About 3 pieces of root the size of a finger when chewed are said to be sufficient for this. A decoction of the root and bark is used to treat stomach disorders. Roots are boiled and the decoction used for treatment of malaria.
- A decoction of the root and bark is used to treat conjunctivitis in cattle.

**Commercial:** Not marketed.

**Other:** The wood is hard and used for roofing, construction of local houses, tool handles, walking sticks, clubs and fuelwood. The tree is used for shade and as an ornamental and for fodder. Fruit are eaten by monkeys, baboons and birds.

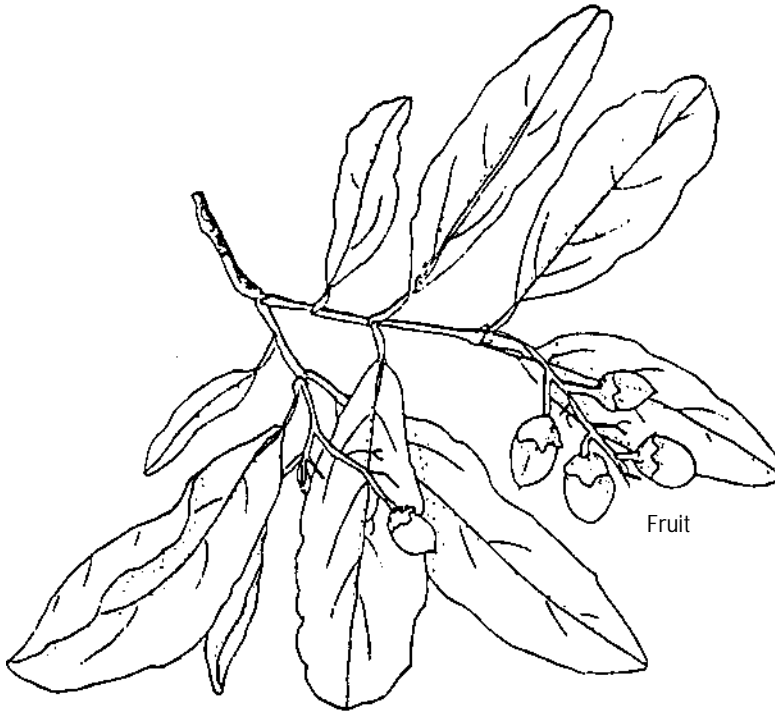
STORAGE: Not stored.

MANAGEMENT: Collected from the wild and not protected by the local people, but can be propagated from seed. However, seeds are very difficult to germinate.

STATUS: Locally common.

*Cordia sinensis* (*C. gharaf*)

Boraginaceae



*Cordyla africana*

## Caesalpinaceae

Indigenous

LOCAL NAMES: **Chagga**: Mbachanga, Mpachama, Mroma; **English**: Wild mango; **Gogo**: Mkwata; **Hehe**: Mkwata; **Luguru**: Mgwata; **Mwera**: Mtondo, Ntondo; **Ngindo**: Mndundu; **Sambaa**: Mgwata; **Swahili**: Mgwata, Mroma, Mtigonzi, Mumbwe, Mvoo.

DESCRIPTION: A large spreading deciduous tree 9–25 m tall with rounded crown. BARK: Greyish brown and rough, thick and grooved. LEAVES: Alternate, compound, with 11–28 pairs of leaflets plus a terminal leaflet, each one oblong to 2.5 cm, dark green with a short **hairy stalk**. Held up to the light, unusual **clear dots and streaks can be seen**. FLOWERS: **Semi-spherical heads of yellow-orange stamens** up to 2.5 cm long on branched stalks. They appear in axillary sprays or at axils with the new leaves in July–October. No petals but sepals, ovary stalked. FRUIT: Unusual pods, **yellow** when ripe, **oblong to spherical**, thin walled, **about 6 cm long**. The 3 flat seeds are contained in fleshy pulp and appear in November–December. The sticky pulp smells like beans.

ECOLOGY: Found in riverine vegetation and in forests with a high ground water-table, swamp forests, at low altitudes in hot dry areas, 0–900 m.

DISTRIBUTION: Widespread in eastern and northern Tanzania, e.g. found in Kilimanjaro, Morogoro and Lindi Regions as well as on Zanzibar; coastal Kenya, Mozambique, Malawi, Zambia, Zimbabwe into South Africa.

USES:

**Food:**

- The fruit are edible. The fleshy pulp of ripe fruit is eaten fresh.
- Mature fruit may be cooked and the pulp eaten, while the seeds are discarded.

**Commercial:** Not marketed.

**Other:** The heartwood is brown and hard and is used for heavy construction, sleepers, bridge timber, wooden spoons, drums and stools. The tree is used for shade and is suitable for avenue planting.

SEASON: Ripe fruit are collected during November and December.

STORAGE: Not stored.

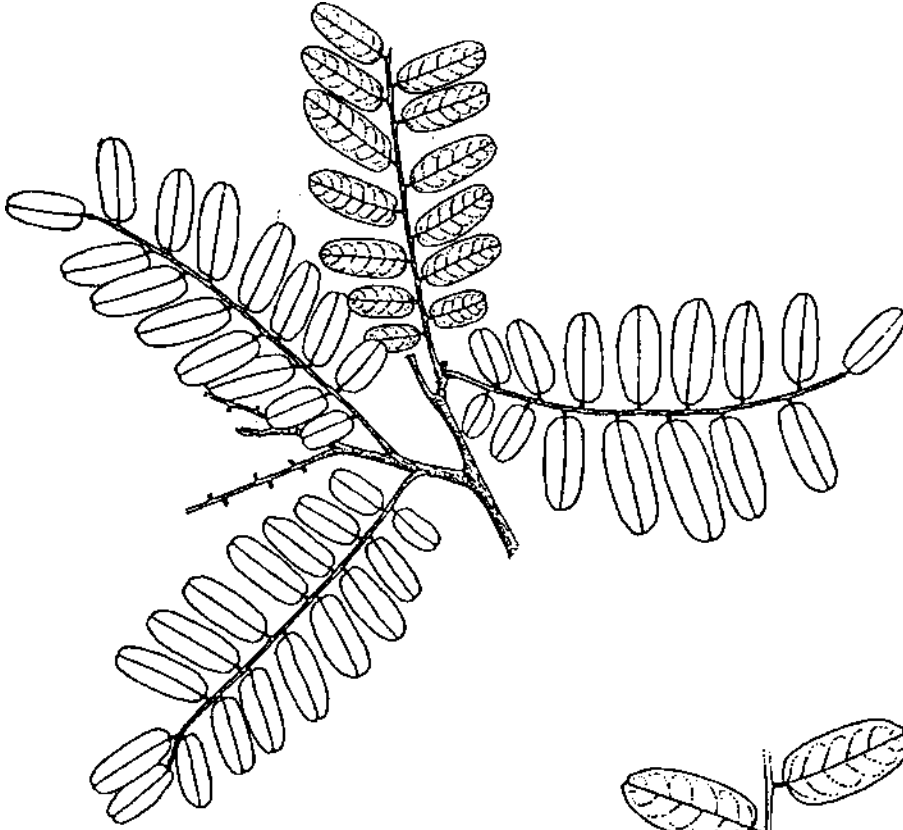
MANAGEMENT: Fruit are usually collected from the wild. The tree can be propagated easily using fresh seeds.

STATUS: Occasional within its area of distribution.

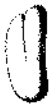
REMARKS: The fruit are known to be rich in vitamin C.

*Cordyla africana*

Caesalpinaceae



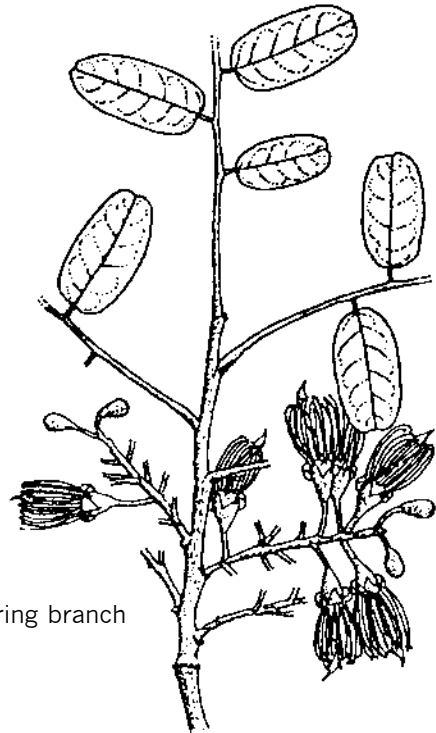
Ripe fruit



Seed



Fruit in section



Flowering branch

*Cordyla densiflora*

## Caesalpinaceae

Indigenous

[Plate 1]

LOCAL NAMES: **Gogo:** Mkwata; **Hehe:** Mkwata; **Kaguru:** Mkwata.

DESCRIPTION: A small or large **deciduous tree, 4–10 m**, the bole often short, much branched to a rounded, bushy spreading crown. BARK: Smooth, pale grey to pale brown. LEAVES: Compound, odd pinnate on a stalk 9–21 cm, the 5–9 pairs of alternate leaflets plus one at the tip, **often small, oval 2–3.5 cm long, tip rounded or notched**, pale grey-green, **no hairs or few, often small curly hairs below, especially along the midrib**, base rounded. FLOWERS: Conspicuous when the cream flowers appear on the bare tree. Flowers in dense, crowded clusters near the ends of leafless branches or on short side branches to 2 cm long. No petals, **a rounded cup-like green calyx** at the base **splits into 3–5 lobes** as the flowers open to reveal 50–60 green-white stamens with pale yellow anthers. FRUIT: Green, **rounded but one-sided, the tip beaked, to 6.5 cm** long when fresh (to 5 cm if dry), on a short stalk, containing **1–6 seeds embedded in pulp, seeds large and thin walled**.

ECOLOGY: Deciduous woodland and dry *Commiphora–Acacia* bushland or savanna with small trees, 800–1,300 m.

DISTRIBUTION: *C. densiflora* is known to occur only Iringa and Dodoma Regions, thus is endemic in Tanzania.

USES:

**Food:**

- The pulp of ripe fruit is juicy and eaten raw as a snack but has an unpleasant odour.
- Mature fruit are collected and eaten after cooking.

**Medicinal:**

- A solution of pounded leaves, hot water and salt is allowed to cool until lukewarm. The solution is then used as an enema to treat severe constipation.
- To treat burns, ground charcoal made from the wood is mixed with sheep fat and smeared on the wound.

**Commercial:** Not marketed.

**Other:** The wood is used to make beehives, drums, stools, grain mortars, poles and pestles. The tree is also used as a live fence.

SEASON: Ripe fruit are collected from October to February.

STORAGE: Not stored.

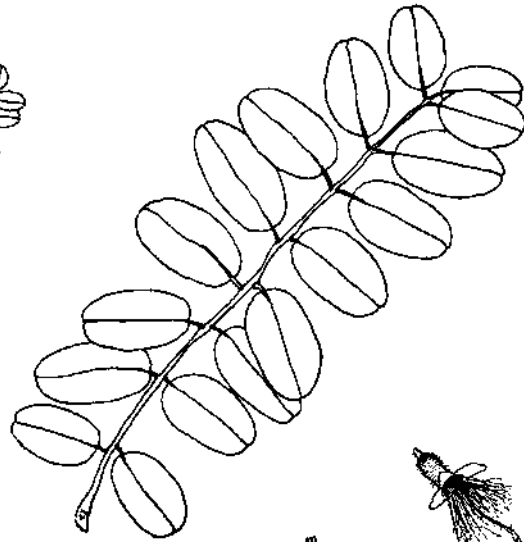
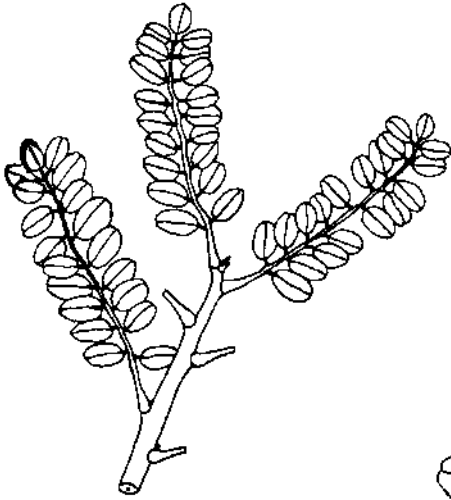
MANAGEMENT: Usually collected from the wild, but can be propagated using seeds and cuttings.

STATUS: Listed among the rare species in the IUCN Red List of Threatened Plants.

REMARKS: Hehe children call it *Miembe dasi*, i.e. “wild mango”.

*Cordyla densiflora*

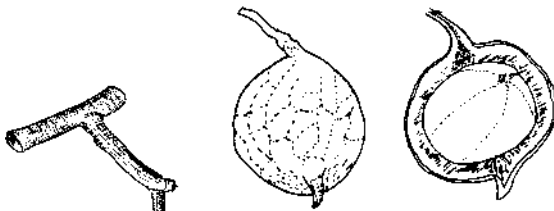
Caesalpinaceae



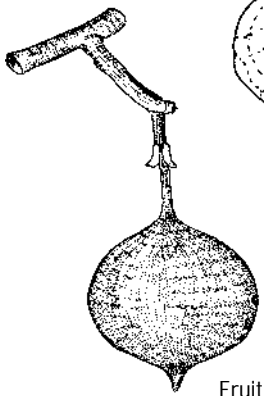
One flower



Flower head



Fruit and section



Fruit



***Crotalaria natalitia* var. *natalitia***      **Papilionaceae**

Indigenous

LOCAL NAMES: **Hehe:** Nyangasi; **Nyamwezi:** Mchekecheke; Nzegenzege; **Swahili:** Marejea.

DESCRIPTION: A **perennial woody herb** or erect shrub, the stiff branches covered with short dense hairs. **LEAVES:** **3–5 leaflets**, often crowded on short shoots, each leaflet narrow oblong or wider at the tip, which has a small point or is blunt, 0.8–4 cm long x 1 cm wide, hairy below, bases narrowed to a long stalk. A pair of **narrow pointed unequal stipules** at the nodes. **FLOWERS:** Yellow, turning orange-red, in short, dense heads, **the standard petal almost circular**, over 1 cm long, red-brown outside, the lower keel well rounded about the middle, to 15 mm long including a beak, **white woolly hairs along the upper edges**. **FRUIT:** **Pod inflated, broadly cylindrical and hairless, 2–4 cm, green mottled dark green and blue-black**, containing 25–40 small dark brown seeds with a tiny white aril.

ECOLOGY: A plant of forest edges, bushland, wooded or open grassland, roadsides, riverine forest, sometimes on cultivated ground, 0–3,000 m.

DISTRIBUTION: In most parts of Tanzania including Zanzibar, but excluding the central areas; Kenya, Uganda, eastern Congo basin, Ethiopia, Mozambique, Malawi, Zimbabwe, south to KwaZulu-Natal.

USES:

**Food:**

- Tender leaves are chopped, washed and cooked with pounded groundnuts or coconut milk and served with a staple (*ugali* or rice).
- Tender leaves are washed, pounded and dried in the sun. The dried vegetable, known as *nsansa* in Nyamwezi, is soaked in hot water, then boiled and pounded groundnuts added. The vegetable is then ready for eating with *ugali* or rice.

**Commercial:** Sold in local markets.

**Other:** The plant is used as an ornamental and for green manure.

SEASON: Leaves are collected during the rainy season, from December to April.

STORAGE: Leaves can be dried, pounded and stored in airtight containers.

MANAGEMENT: Collected from the wild but can easily be propagated using seed.

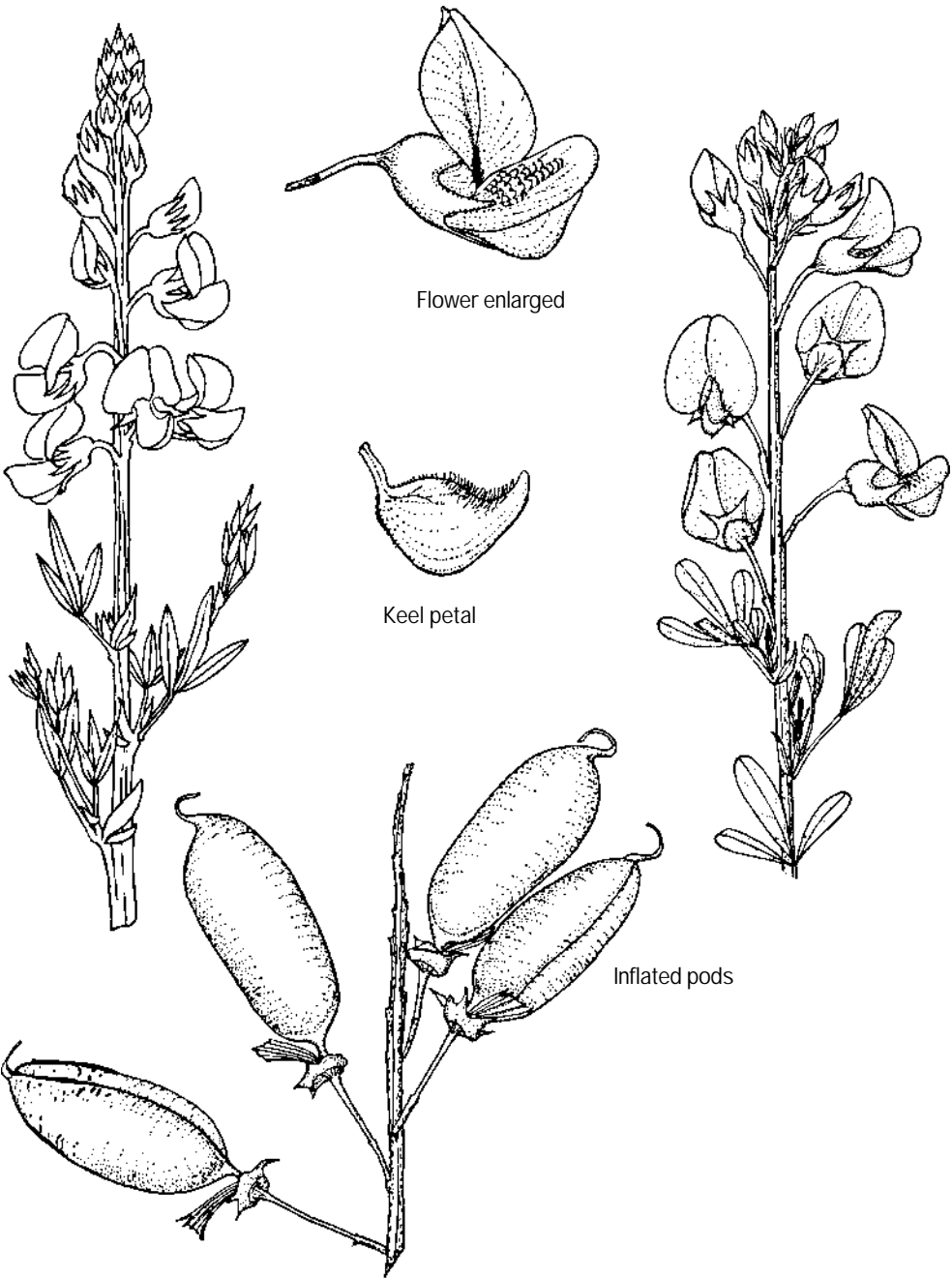
STATUS: Common and easily accessible within its area of distribution.

REMARKS: Many species of *Crotalaria* found in Tanzania are edible, but they need further identification.



*Crotalaria natalitia* var. *natalitia*

Papilionaceae



*Cucumis dipsaceus*

## Cucurbitaceae

Indigenous

LOCAL NAMES: **Bena:** Lisapi; **English:** Teasel gourd; **Gogo:** Utumbu; **Luguru:** Hunduhundu; **Maasai:** Eng'alayioi-naju, Orng'alayoi-loo-sirkon; **Nyamwezi:** Googo, Kasasalya, Katanga; **Swahili:** Mtango mwitu.

DESCRIPTION: An **annual climber** or trailing herb, with grey-green angular stems covered with **bristly spreading hairs, almost prickly**, mostly on the stem ridges. LEAVES: **Simple or with 3 shallow wide lobes, all rounded, kidney to heart shaped** in outline, 18–95 mm long x 27–102 mm wide, the **edge regularly closely toothed**, rough hairy above and on nerves below, a hairy stalk about 10 cm long. FLOWERS: Male and female, both small, yellow-green, tubular, with pale yellow petals and green veins, about 1 cm long. FRUIT: **Oval to 6 cm x 4 cm, pale green turning yellow when ripe, densely covered with soft spines**, each one ending in a clear bristle, many pointed seeds inside the soft fruit pulp.

ECOLOGY: Common in dry bushland, especially in disturbed woodland and wooded grassland, and a weed of cultivation, 400–1,800 m.

DISTRIBUTION: Found in Tanga Region and in northern and western parts of Tanzania as well as in the southern highlands; Uganda, Kenya; sometimes cultivated in other tropical regions.

USES:

**Food:**

- Tender leaves and young shoots are chopped, cooked, coconut milk or groundnut paste added and served with a staple.
- Tender leaves are dried in the sun and then pounded into powder. The powder is then soaked in hot water, boiled and stirred. The vegetable is then ready for eating with a staple.

**Medicinal:**

- Leaves and roots are pounded and used as a poultice to treat wounds.
- The juice from fruit is used as an antidote for poisoning, but it has to be supplemented by drinking fresh milk.

**Commercial:** Sold in local markets.

**Other:** Leaves and fruit are used for fodder.

SEASON: Leaves are collected during the rainy season.

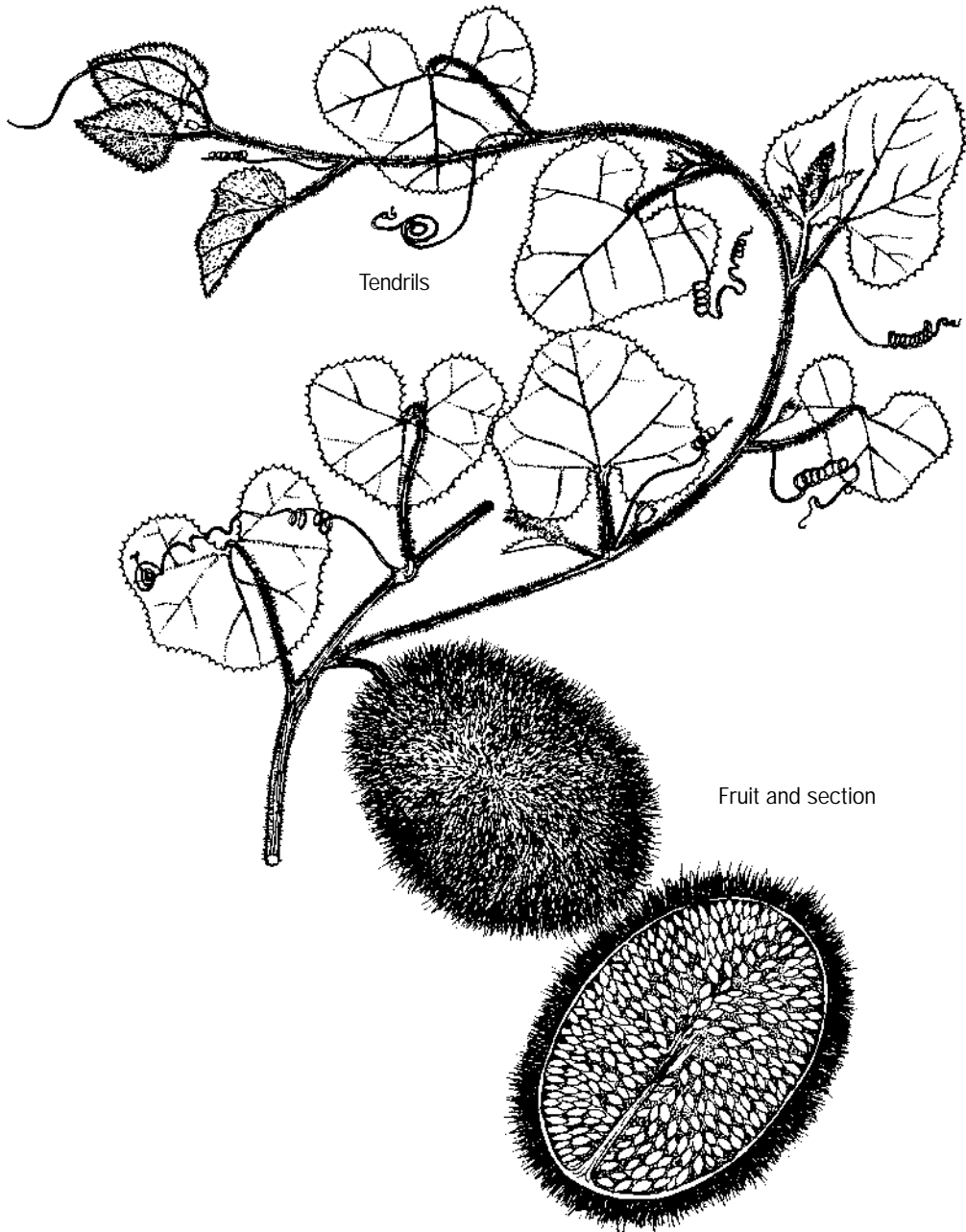
STORAGE: Dried and pounded leaves are stored in airtight containers.

MANAGEMENT: Usually collected from the wild, but can be easily propagated from seed.

STATUS: Common and easily accessible within its habitat.

*Cucumis dipsaceus*

Cucurbitaceae



*Cucumis figarei*

## Cucurbitaceae

Indigenous

LOCAL NAMES: **Hehe**: Nyambede; **Nyamwezi**: Googo, Kasasalya, Katanga; **Nyiramba**: Kishasae.

DESCRIPTION: A perennial climbing or trailing herb to 2 m, the stem with **short soft hairs mixed with a few hooked spines**, old stems thick, with scaly bark at the base. LEAVES: **Simple, 3 lobed**, broad rounded to oval, the base heart shaped, edge wavy and **toothed, all rough to the touch**, a long hairy stalk. Single **tendrils beside leaves**. FLOWERS: Male and female flowers on the same plant, **both single, beside leaves**, a green bell-shaped receptacle tube and **5 yellow petals** joined at the base, female stalk about 4 cm, male stalks very small, flowers 1 cm long. FRUIT: Distinctive **fleshy, oval**, round each end, **over 5 cm**, green and faintly striped, **ripening bright yellow**, on a **thick stalk 3–7 cm**, the skin has hard, **sharp, conical projections** to 2 mm high.

ECOLOGY: Deciduous bushland and grassland, also persisting on cultivated ground. Does well in medium-altitude wooded grasslands, *Acacia* woodland, up to 1,300 m; rainfall 600–1,300 mm.

DISTRIBUTION: Found in Yemen and from West Africa to Somalia and East Africa. Widespread in Tanzania from Mwanza south to Mbeya and from Arusha and Moshi eastwards to Tanga, also in Morogoro, Dodoma and Iringa Regions.

Uses:

**Food:**

- Tender leaves are cooked and served with a staple.
- Tender leaves are dried in the sun, pounded and used as a vegetable paste with pounded groundnuts.
- Young fruit are eaten raw and mature fruit are boiled and eaten.
- Mature fruit are cut into small slices, dried and cooked as a vegetable after adding a paste of pounded groundnuts.

**Commercial:** Sold in local markets.

SEASON: Leaves are collected during the rainy season, while fruit are collected both during the rainy season and for several months thereafter.

STORAGE: Dried leaves and sliced fruit can be stored in a dry place.

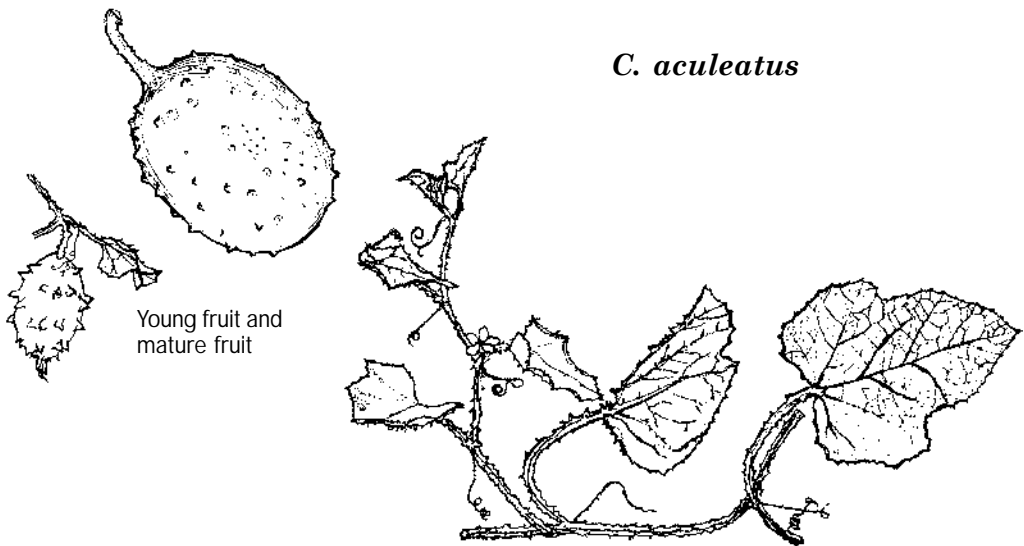
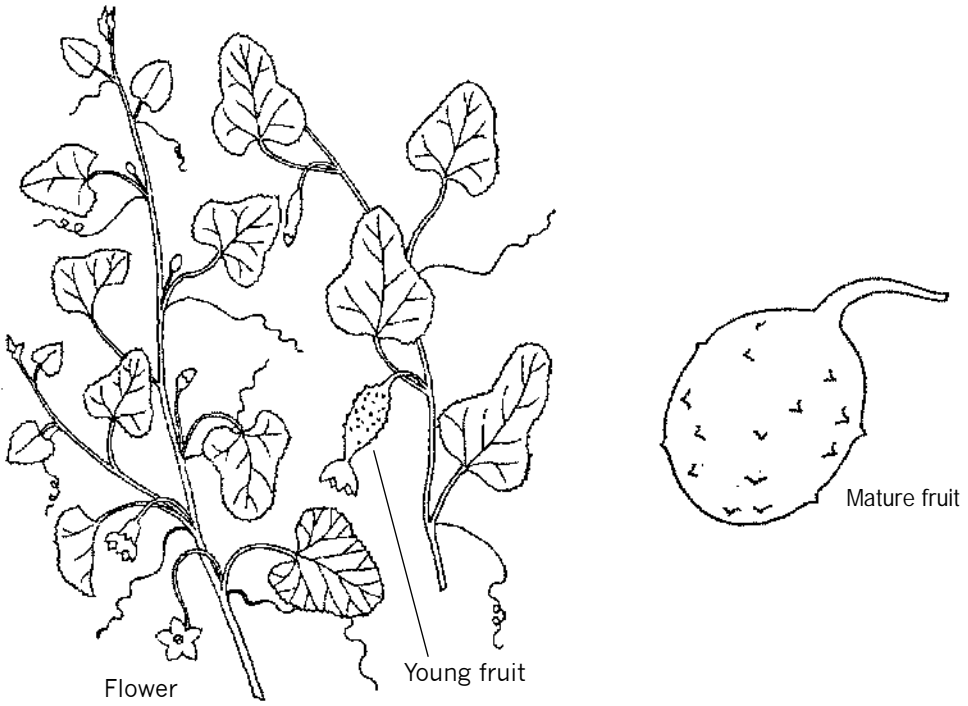
MANAGEMENT: Usually collected from the wild, but sometimes cultivated using seed.

STATUS: Common and easily accessible within its area of distribution.

REMARKS: *C. aculeatus* (**Hehe**: Nyambede; **Nyamwezi**: Kasasalya; **Nyiramba**: Kishasae; **Sandawi**: Mumbu/he; **Swahili**: Mtango mwitu) is also used in the same way as *C. figarei*. It is a creeping or climbing herb to 3 m with prickly stems. It is found in Arusha, Dodoma, Singida and Tabora Regions. Also found in Kenya, Uganda, the Congo basin, Rwanda and southern Ethiopia.

*Cucumis figarei*

Cucurbitaceae



*Cussonia spicata*

## Araliaceae

Indigenous

LOCAL NAMES: **Chagga**: Mporori; **English**: Cabbage tree, Elephant toothbrush; **Hehe**: Mnyonzi; **Iraqw**: Maneneh, Pahi-aawak; **Luguru**: Mkonero-wa-nyikani; **Maasai**: Oldimaroi, Oljumaroi; **Nyakyusa**: Mpombo; **Sambaa**: Mntindi, Mtendele, Mutundi; **Wanji**: Limpombo.

DESCRIPTION: Usually a small evergreen tree to 10 m, but up to 17 m, **a few branches near the top of the thick bole or none, topped by large digitate compound leaves**. Sometimes the long thin unbranched stem ends in a small rounded crown of leaves, the “cabbage”. The roots may be large, swollen and succulent. BARK: Grooved, yellow-grey, rough or corky. LEAVES: **Crowded together in whorls at the top of the trunk or branches**, each cluster to 70 cm across, each leaf at the end of a **stout stalk to 40 cm**, dark to blue-green, lobed and divided, twice compound, smaller stalks winged, the edges entire or with sharp teeth, **leaflets 5–9**, stalked to 5 cm or not, the tips long pointed, 6–35 cm long, rather stiff, base narrowed right to the main stalk, almost hairless. FLOWERS: **Green-yellow**, small, without stalks, closely packed along **8–12 erect thick spikes 5–15 cm long**, like a candelabra; **only about a quarter of the spike bears flowers**. FRUIT: Small fleshy berries, **pale green ripening brown-black**, packed closely along the spikes, almost **angular, 4–6 mm across and 12 mm long**, like cells of a honeycomb.

ECOLOGY: A tree of upland rainforest, upland dry evergreen forest, wooded grassland, 1,400–2,600 m.

DISTRIBUTION: Found in most highland areas of Tanzania; also in Uganda, Kenya, Mozambique, Malawi, Zimbabwe, Zambia, the Comoro Islands and South Africa.

USES:

**Food:**

A thick root from young trees is dug out from the ground, peeled and chewed like cassava in order to assuage hunger and thirst (Kinga, Wanji).

**Medicinal:** Leaves are used to treat snakebite, malaria and constipation.

**Commercial:** Not marketed.

**Other:** Wood is white and soft and is used for making temporary stools and doors, water troughs, beehives and wheels for wheelbarrows. Leaves are used for fodder. The tree is also used for boundary and grave marking, shade and as an ornamental.

SEASON: Tubers are dug out from the ground at any time of the year.

STORAGE: Not stored.

MANAGEMENT: Collected from the wild only, but can easily be propagated from seed and cuttings.

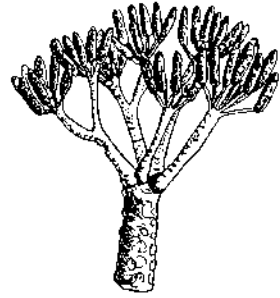
STATUS: Locally common.

*Cussonia spicata*

**Araliaceae**



Leaf and leaflet



Flowering heads, thick spikes



*Cyathula orthacantha*

## Amaranthaceae

Indigenous

LOCAL NAMES: **Hehe**: Somwambisi; **Iraqw**: Muhuhuoi; **Nyamwezi**: Ilamata; **Sambaa**: Muila-ngoto; **Sukuma**: Namata.

DESCRIPTION: An annual herb, sometimes growing along the ground but usually **erect and much branched, to 1.5 m**, the stem and branches coarse, becoming angular, with dense **white hairs when young**, the swollen nodes also hairy. LEAVES: Variable, wide or narrow oval to round, 1–15 cm long and up to 5.5 cm wide, **the tip pointed, base narrowed, often along the stalk** to 2 cm long, few or many white hairs, especially on veins of the lower surface. FLOWERS: White–pale green–red, at the end of branches or terminal on the main stem, each bearing **a spike of stalkless flowers in spherical groups 4–6 cm diameter, the entire head to 10 cm long**, all stalks with white hairs, each tiny flower with 5 stiff papery sepals (no hooks). FRUIT: Tiny one-seeded capsules to 3 mm. Each spherical group falls to the ground as a complete “burr”, about 1.5 cm across, with tiny spines.

ECOLOGY: Found in many habitats, but most common in grassland with *Acacia* scrub on disturbed stony ground, quite often near rivers and waterholes, thrives in sandy loam or alluvium but also on volcanic or heavy black soils, 600–1,400 m.

DISTRIBUTION: Widespread in Tanzania and Kenya, but only found in certain areas of Uganda, extending north to Sudan, Ethiopia and south to Angola, Zambia, Zimbabwe, Botswana and Namibia.

USES:

**Food:**

Leaves are used as vegetable. Tender leaves are cut into pieces, washed, cooked, groundnut paste added and then eaten with *ugali* or rice.

**Medicinal:**

- Roots are pounded and soaked in warm water and drunk 2–3 times a day to treat stomach-ache (Sambaa).
- Leaves are dried and pounded, mixed with pounded castor oil seeds and the powder applied on wounds twice a day.

**Commercial:** Leaves marketed in the rainy season, e.g. at Isimani in Iringa (Hehe).

**Other:** The plant is used for fodder.

SEASON: Leaves are collected during the rainy season, February–May.

STORAGE: Not stored.

MANAGEMENT: Collected from the wild, not cultivated. Can be propagated by seed.

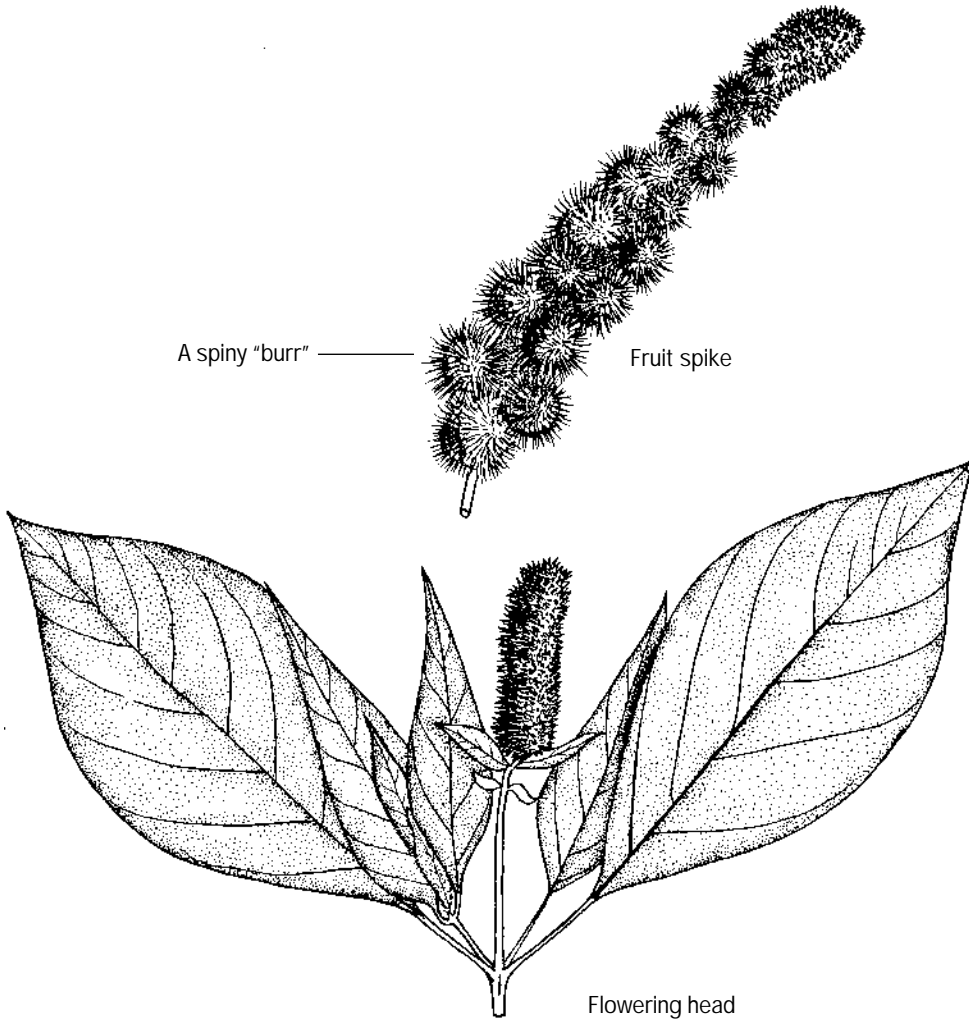
STATUS: Common and easily accessible within its habitat.

REMARKS: A troublesome weed.



*Cyathula orthacantha*

Amaranthaceae



*Cyphostemma njegerre*

## Vitaceae

Indigenous

LOCAL NAMES: **English:** Wild vine; **Hehe:** Kilya-vahunzi; **Sambaa:** Mwengele; **Swahili:** Mzabibu mwitu; **Zigua:** Tongotongo.

DESCRIPTION: A perennial herb, climbing with tendrils, to at least 12 m, the **slender branches, leaf and flower stalks all densely covered with long spreading hairs: white-red-purple** (drying orange). LEAVES: Usually with 3 leaflets, each broad ovate, 3–13 cm long, to 7 cm wide, the 2 lateral stalked leaflets one-sided, leaf tips pointed, main stalks 2–5 cm, both **leaf surfaces white hairy** except for red nerves and margins. FLOWERS: Cream, in loose branched heads, 16–21 cm wide, on stalks 3–6 cm, the tiny hairy buds constricted above the middle, narrow triangular petals only 3–4 mm. FRUIT: **Ovoid red berries 1 cm long** x 6 mm wide, with hairs (some glandular).

ECOLOGY: Found in rainforests at 700–900 m.

DISTRIBUTION: Only found in the Tanga Region, where it has been recorded, e.g. near Amani Botanical Garden. Not known from other parts of Tanzania.

USES:

**Food:**

- Ripe fruit are juicy, sweet and eaten raw as a snack.
- Ripe fruit are soaked in water, squeezed, filtered and drunk as juice.

**Commercial:** Not marketed.

**Other:** The plant is used as an ornamental.

SEASON: Ripe fruit are collected from February to June.

STORAGE: Not stored.

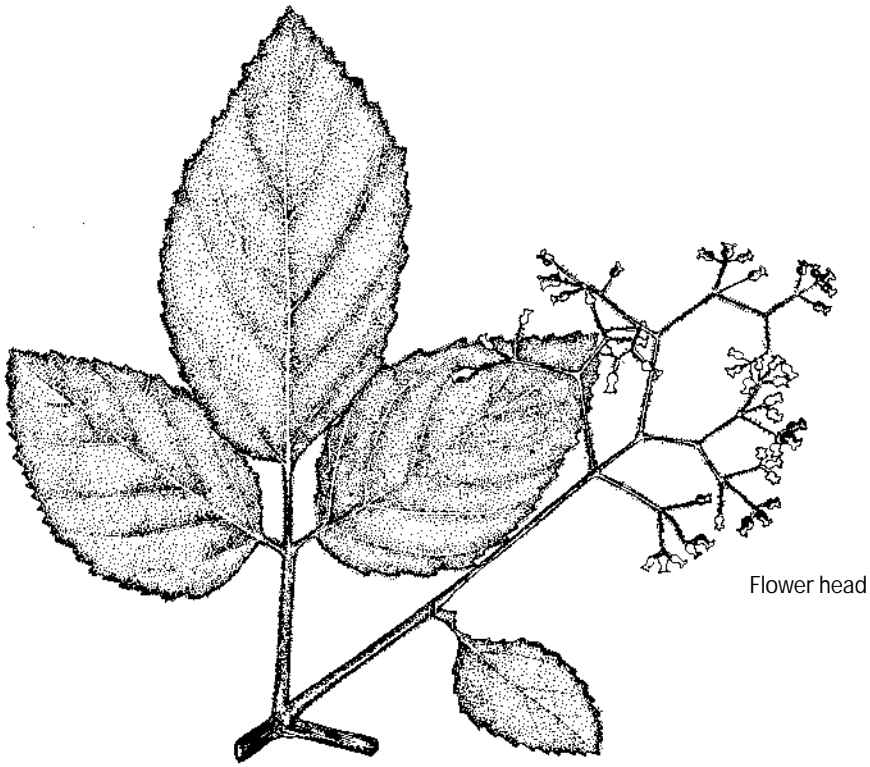
MANAGEMENT: Usually collected from the wild, but is also known to have been cultivated in Europe using seed and cuttings.

STATUS: Locally common in the East Usambara Mountains, but listed on the IUCN Red List of Threatened Plants.

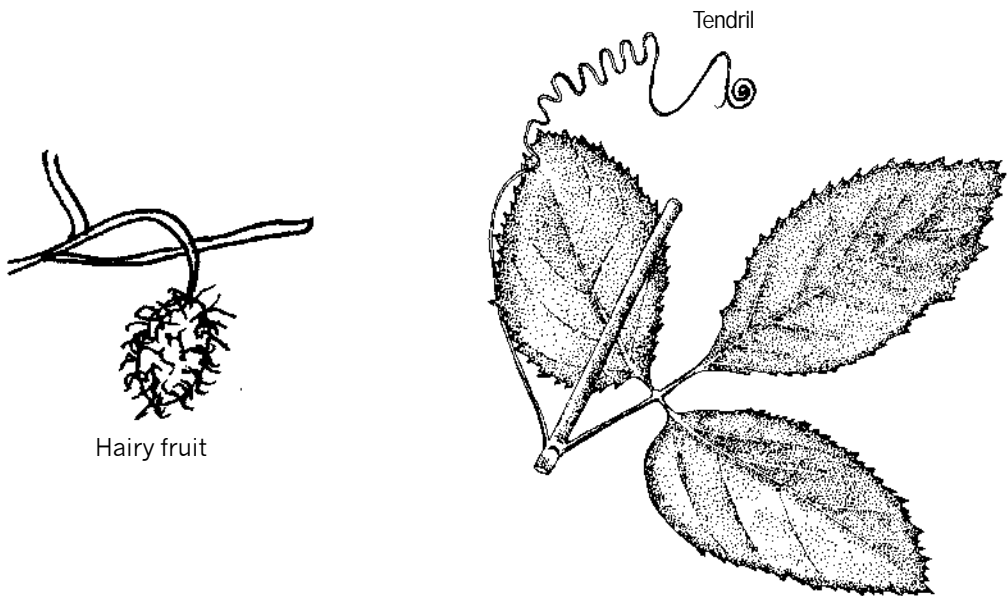
REMARKS: *C. bullata* (**English:** Wild vine; **Nyamwezi:** Ikumbusya) is a climbing herb up to 3 m found only in Tabora region. Its fruit are also edible.

*Cyphostemma njejerre*

Vitaceae



Flower head



Tendril

Hairy fruit

***Dactyloctenium aegyptium***      **Poaceae (Gramineae)**

Indigenous

LOCAL NAMES: **Bena:** Nyava; **English:** Crow-foot grass; **Hehe:** Nyava; **Maasai:** Embokwe, Empokui, Enkampa, Porori aja; **Ngindo:** Kiaga; **Nyamwezi:** Nsapa; **Sandawi:** Helá; **Swahili:** Kimbugimbugi.

DESCRIPTION: An **annual grass**, slender to robust, with spreading stems to **70 cm**, usually bent at the nodes, rooting at lower nodes; can form a mat with short underground stems. LEAVES: Leaf blades flat, soft, bright green, 3–25 cm by 15 mm across, the edges slightly hairy. FLOWERS: The flowers arise on **star-like heads** at the tip of stems, **2–8 spikes usually horizontal, one spike lower than the rest**, each one-sided and **dense, to 6.5 cm long, ending in a bare point**, spikelets in 2 rows, quite flattened, 3–6 mm, with bristles to 4 mm. FRUIT: The grass grain is about 1 mm long, somewhat triangular.

ECOLOGY: A widespread weed of open situations, grassland, open woodland, common by roadsides, on waste ground; a weed of arable land, in shallow soils and can withstand some salinity, 0–2,100 m.

DISTRIBUTION: Widespread in Tanzania as well as in many other parts of Africa and other tropical and warm temperate regions; introduced into America.

USES:

**Food:**

Seeds are used as a famine cereal. The grains are lightly roasted in a hot pot in order to soften them. The grain is then pounded or ground into flour, which is cooked into thin porridge (*uji*), or *ugali* to be eaten with vegetables or meat.

**Commercial:** Not marketed.

**Other:** The plant is used for fodder.

SEASON: Seeds are collected during the dry season, April–June.

STORAGE: Seeds can be stored for several months.

MANAGEMENT: Collected from the wild, not cultivated. Can be propagated by seed.

STATUS: Common and easily accessible within its area of distribution.

REMARKS: An important pasture grass.

*Dactyloctenium aegyptium*

Poaceae (Gramineae)



***Dactyloctenium giganteum***      **Poaceae (Gramineae)**

Indigenous

LOCAL NAMES: **Bena:** Nyava; **Nyamwezi:** Nsapa; **Sandawi:** Helá; **Swahili:** Kimbugimbugi, Mkandi.

DESCRIPTION: A **robust annual grass, usually erect to 1.5 m**, spreading by overground stolons, nodes along the stems marked by a brown ring, rooting from lower nodes. LEAVES: Blades flat, to 45 cm long, about 1 cm across, few hairs but often along the edges, clasping stems at the base. FLOWERS: A “finger-like” flower head with **3–9 spikes, each one 4–11 cm, forming a rather erect brush-like cluster at the tip of the stalk** (rarely spreading horizontal), the **spike bare at the tip**, each flower with a **hair-like process**. FRUIT: Rough, angular grass grains, barely 1 mm, like pale brown “sand”.

ECOLOGY: A common grass of roadsides, old cultivation and other disturbed sites, favouring light sandy soils, 200–2,000 m.

DISTRIBUTION: Almost all parts of Tanzania; Kenya, south to Namibia and South Africa.

USES:

**Food:**

Grains are lightly roasted in order to soften them, then pounded or ground into flour. The flour is used in making *uji*, or *ugali*, which is eaten with vegetables or meat during famine periods.

**Commercial:** Not marketed.

**Other:** The plant is used for fodder.

SEASON: Seeds are collected during the dry season, April–June.

STORAGE: Grains can be stored for several months.

MANAGEMENT: Collected from the wild, not cultivated. Can be propagated by seed.

STATUS: Common within its area of distribution.

REMARKS: An important pasture grass.

*Dactyloctenium giganteum*

Poaceae (Gramineae)



***Dalbergia nitidula*****Papilionaceae**

Indigenous

LOCAL NAMES: **English:** Glossy flat-bean, Purplewood dalbergia; **Gogo:** Mjiha; **Nguu:** Mhuga; **Nyamwezi:** Kafinulambasa, Kapondolampasa, Mfunfu; **Nyasa:** Lungwe; **Nyaturu:** Mobibi; **Sangu:** Msinatemo; **Yao:** Unhungu; **Zigua:** Mgeja.

DESCRIPTION: A deciduous shrub or small tree, 4–12 m, with stiff erect branches to an open crown. BARK: Grey-brown to reddish, rough and fissured, flaking longitudinally, branchlets with dense yellow-brown hairs. LEAVES: Compound, **4–7 pairs leaflets, opposite or nearly so**, plus one at the tip; each leaflet usually 2–3 cm, up to 8 cm, tip round, pointed or notched, **base rounded**, clear veins below and **very hairy**. FLOWERS: White flowers appear before the leaves, in dense **branched heads to 10 cm**, each flower small, pea-shaped (often rounded **balls of dark, needle-like growths** develop instead). FRUIT: **Flat, thin brown pods**, 7 x 1.5 cm, sharply tipped, do not open but rot on the ground to release 1–2 seeds.

ECOLOGY: A tree of deciduous woodlands, including *Brachystegia* woodlands, bushland, thickets and wooded grassland, 300–1,700 m.

DISTRIBUTION: Found in most areas of Tanzania except Arusha and Kilimanjaro. Also found in Uganda, the Congo basin, Rwanda, Burundi, Mozambique, Malawi, Zambia, Zimbabwe, Angola and South Africa.

USES:

**Food:**

Young leaves are chopped, washed, cooked, pounded groundnuts added and then served with a staple.

**Medicinal:**

- Roots are pounded and soaked in warm water. The liquid is gargled to treat toothache. Should not be swallowed since the roots are toxic.
- Leaves are chewed and applied to the site of a snakebite.

**Commercial:** Not marketed.

**Other:** The wood is hard and used for building poles, pegs, fence poles, combs, clubs, tool handles and walking sticks.

SEASON: Leaves are collected during the rainy season.

STORAGE: Not stored.

MANAGEMENT: Collected from the wild and not cultivated or protected by the local people. It can be propagated by seed.

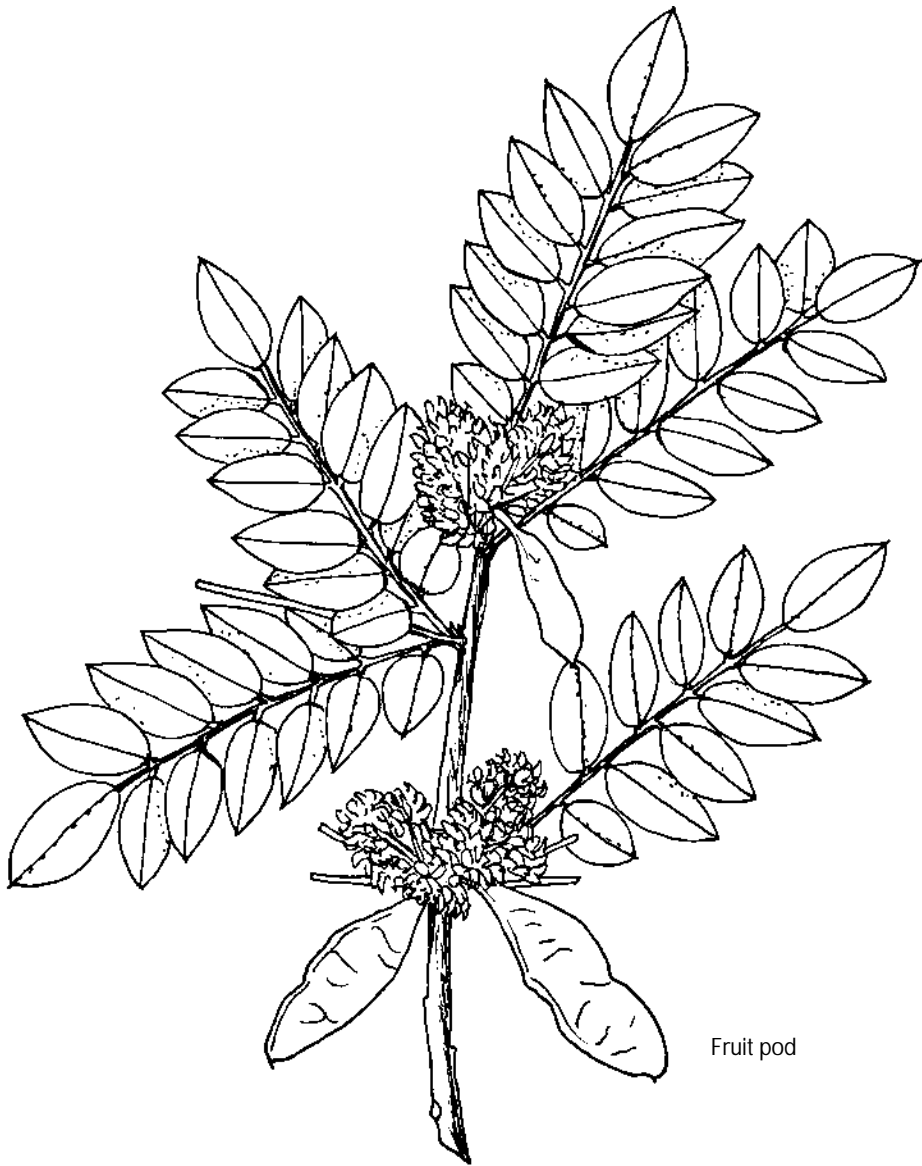
STATUS: Locally common.

REMARKS: The roots are known to be toxic.



*Dalbergia nitidula*

Papilionacea



Flowering and fruiting branch

Fruit pod

*Deinbollia borbonica*

## Sapindaceae

Indigenous

LOCAL NAMES: **English:** Soap berry; **Iraqw:** Tlambi; **Hehe:** Mlyangola; **Luguru:** Mmoyomoyo; **Mwera:** Mpungamaoka, Mungamaoka; **Ngindo:** Mpuga mahoka; **Nyasa:** Kajambalame; **Sambaa:** Mkunguma; **Swahili:** Mkilimu, Mkunguma, Mwakamwaka; **Zaramo:** Mmoyomoyo; **Zigua:** Mmoyomoyo.

DESCRIPTION: A small shrub or tree, 0.5–7 m, with an unbranched trunk bearing a crown of leaves. Young branchlets golden hairy, later brown–black. LEAVES: Compound, **even pinnate**, in **terminal bunches on long stalks 20–42 cm, 6–16 alternate leaflets**, each leaflet oval, **tip rounded**, base larger on one side, on a 4-mm stalk, leaflets about the same on one leaf but vary in length 3.5–17 cm; young leaves with many **golden hairs below**, a few later remaining along veins which are prominent both sides. FLOWERS: **Tiny and white, male and female flowers on different branchlets** growing along **loose terminal branched heads or from leaf axils, 30–60 cm, calyx and flower stalks densely brown hairy** or some silver-cream hairs, white petals to 6 mm, dry red-brown, about 15 stamens with hairy white filaments, pale yellow anthers, green style and stigma. FRUIT: **1–3 yellow-red fruit together, oval-round, about 1 cm long**, densely covered with golden brown hairs at first, along a fruiting stalk to 40 cm. Each edible fruit contains seeds in white mucilaginous flesh.

ECOLOGY: Riverine bush, *Acacia* thorn bush, evergreen coastal thicket, *Commiphora–Acacia* woodland, low evergreen forest on limestone outcrops, 0–1,000 m.

DISTRIBUTION: There are two forms in Tanzania, with forma *subcordata* restricted to evergreen forest, Mombo Forest Reserve, Lushoto District, and forma *glabrata* widely distributed in the northern, eastern and southern parts of the country, including on Zanzibar and Pemba. The species also grows in Kenya, southern Somalia, Malawi, Mozambique, and the Comoro Islands.

USES:

**Food:**

The pulp of ripe fruit is sweet and eaten raw as a snack. Fruit are usually eaten by children and herdsmen.

**Medicinal:** Roots are used for preparation of medicine to treat stomach-ache and boils, especially by the Sambaa.

**Commercial:** Not marketed.

**Other:** The wood is used for firewood, charcoal and to make spoons. The plant is used for shade and ornamental purposes.

SEASON: Fruit are collected from September to December.

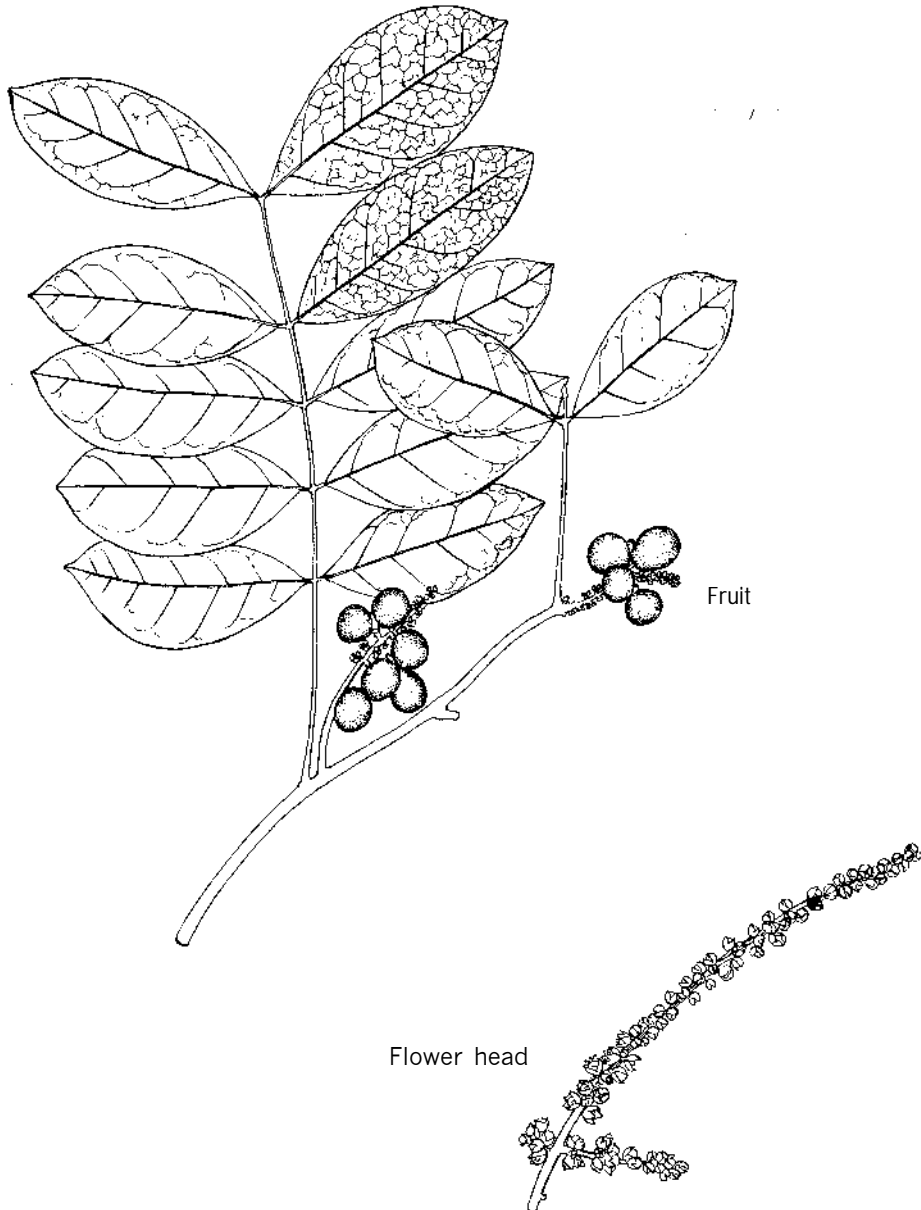
STORAGE: Not stored.

*Deinbollia borbonica* (contd)

## Sapindaceae

MANAGEMENT: Collected from the wild and not cultivated, but can easily be propagated by seed.

STATUS: Occasional within its area of distribution.



**Deinbollia kilimandscharica var. kilimandscharica**      *Sapindaceae*

Indigenous

LOCAL NAMES: **Bondei:** Mtambakuzimu; **English:** Soap berry; **Hehe:** Mlyangola; **Iraqw:** Tlambi; **Luguru:** Mmoyomoyo; **Sambaa:** Mbwakabwaka, Mkunguma; **Swahili:** Mkunguma; **Zigua:** Mmoyomoyo.

DESCRIPTION: A shrub or tree 2–12 m, the single trunk topped by a crown of leaves, generally hairless. BARK: Rough. LEAVES: Compound, even pinnate, with 6–12 pairs of wide oval leaflets, 6–24 cm x 3.5–7 cm, **upper leaflets longest, leaf tip long pointed**, base rounded and unequal, **no hairs** or only a few on veins below. FLOWERS: Small, along terminal heads 30–60 cm, male and female branchlets, cream-white, petals to 5 mm, **calyx without hairs**. FRUIT: 1–3 fruit on a stalk, yellow-red-brown, each 10–14 mm long, edible flesh inside.

ECOLOGY: Evergreen forest, moist or dry riverine forest, and upland rainforest, 1,100–2,300 m.

DISTRIBUTION: Var. *kilimandscharica* is found in northern, north-eastern and coastal highlands of Tanzania. Also in Kenya, Ethiopia and in the eastern part of the Congo basin. Another variety, var. *adusta*, is found in evergreen *Podocarpus–Ocotea* forests, 900–2,000 m in Tanzania and in northern Malawi.

USES:

**Food:**

The fruit are edible. Ripe fruit are collected and eaten raw as a snack.

**Medicinal:** Roots are used as medicine for stomach-ache, intestinal worms and as a purgative.

**Commercial:** Not marketed.

**Other:** The wood is used for firewood, charcoal and spoons. The tree is used as an ornamental and as a source of bee forage.

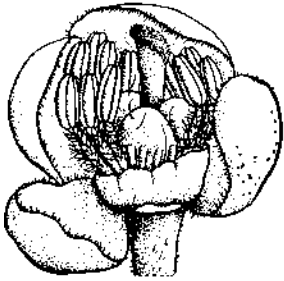
SEASON: Fruit are collected from October to December.

STORAGE: Not stored.

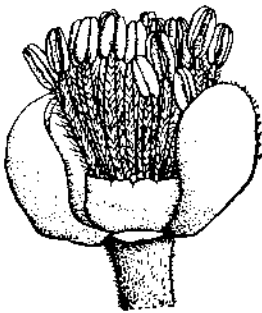
MANAGEMENT: Collected from the wild and not cultivated. Can be propagated by seed.

STATUS: Locally common.

***Deinbollia kilimandscharica* var. *kilimandscharica* (contd)**



Enlarged female flower



Enlarged male flower



Flowering and fruiting branches

***Delonix elata*****Caesalpinaceae**

Indigenous

LOCAL NAMES: **Gogo:** Msele; **Gorowa:** Aarmo-Desu; **Hehe:** Mseele; **Iraqw:** Aare-desu; **Mbugwe:** Monterere; **Nyamwezi:** Mlele; **Rangi:** Ichoro, Msisiviri, Mterera; **Sandawi:** Arange; **Swahili:** Mfausiku.

DESCRIPTION: A deciduous tree, usually 5–7 m, with a rounded spreading crown, branches drooping. BARK: Quite conspicuous, **smooth and shiny, pale yellow to grey-white**, sometimes flaking. LEAVES: Twice compound, to 15 cm, with 2–12 pairs of pinnae, each with 10–25 opposite pairs of leaflets, **long oblong, about 1 cm, dull green** with tiny hairs both sides. FLOWERS: Flat green buds open into showy flowers **near tips of branchlets, only one of a group flowering at a time, 4 white petals over 3 cm long with wavy cut-up edges and one smaller yellow petal, all fading yellow-orange; 10 red stamens to 10 cm hang out of the flower.** FRUIT: Red-brown pods **flat and thin, pointed both ends, about 13–20 cm**, contain smooth olive-brown oblong seeds in horizontal pockets.

ECOLOGY: Found in deciduous thickets and bushland, often in hot dry *Acacia-Commiphora* bush and on rocky slopes or by streams or dry river beds, 400–1,400 m.

DISTRIBUTION: Grows throughout Tanzania except eastern and southern coastal areas. Found, e.g. between Pare and Usambara and around Mwanza, Same, Tabora, Kongwa, Dodoma, Kondoa, and Iringa. Also in Uganda, Kenya, the eastern Congo basin, north into Egypt, Eritrea, the Arabian peninsular and extending to India.

USES:

**Food:**

- The leaves are edible. Tender leaves are collected, chopped, cooked and served with *ugali* (Gogo, Hehe). Edible fat, groundnut paste, tomatoes and onions may be added.
- The seeds are boiled and eaten during famine.

**Medicinal:**

- Roots are ground on a stone with a little water and the paste is put on an abscess to hasten ripening.
- The bark is soaked in warm water and the resulting liquid is drunk for several days to treat bilharzia.
- An infusion from the bark is also used to treat diarrhoea.
- Leaves and twigs are chewed and swallowed to treat mouth ulcers.
- A decoction from boiled roots is used as an antidote for a variety of ingested poisons.

**Commercial:** Not marketed.

**Other:** The wood is used for firewood, tool handles, grain mortars, beer

*Delonix elata* (contd)

## Caesalpinaceae

containers, milk pots, beehives, clogs, wooden spoons and cups. The tree is used for shade and live fences and is a source of bee forage. Leaves are used for fodder.

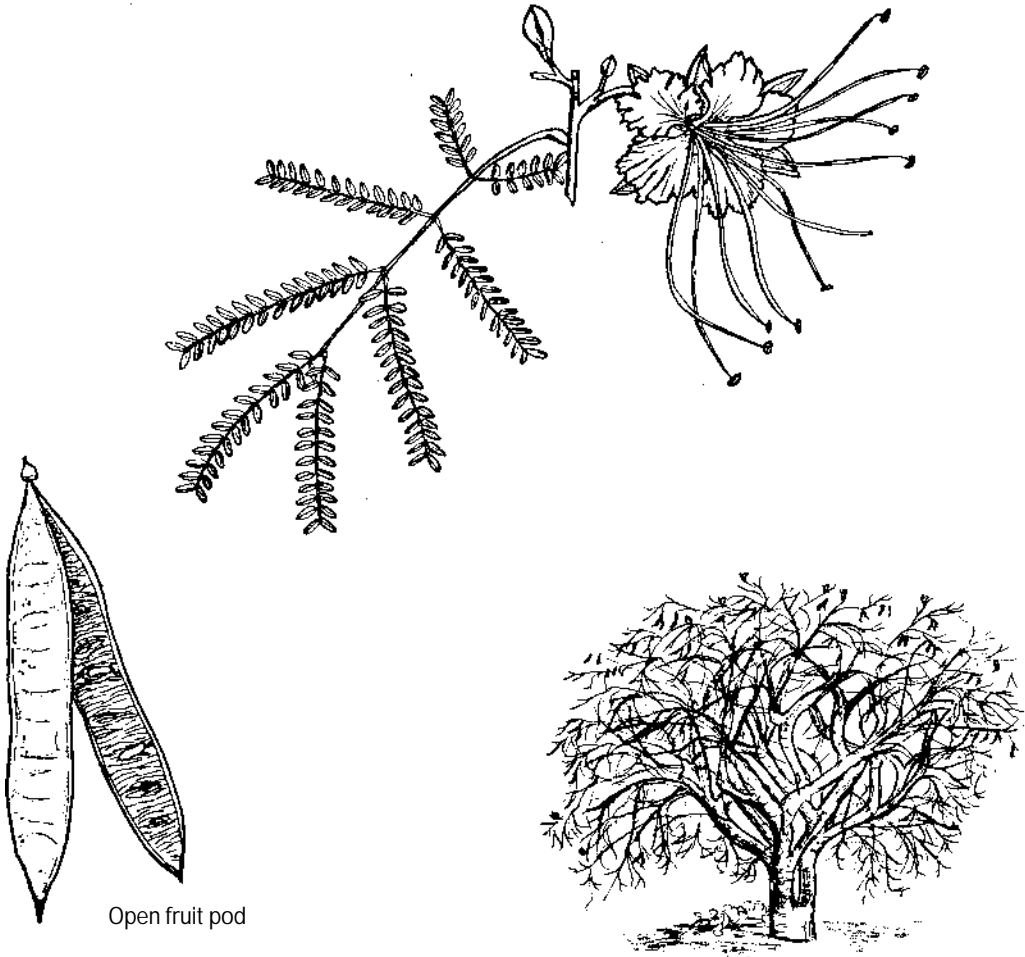
SEASON: Leaves are collected at the beginning of the rainy season in November–December.

STORAGE: Roots to be used for medicine can be stored for half a year or so.

MANAGEMENT: Collected from the wild, but also planted and protected by local people (Gogo, Hehe). Easily propagated by seed.

STATUS: Common and easily accessible within its area of distribution.

REMARKS: A common live-fence tree in most areas in Tanzania.



Open fruit pod

*Dialium holtzii*

## Caesalpinaceae

Indigenous

LOCAL NAMES: **Luguru:** Mhengere; **Mwera:** Mkungue, Mpepeta; **Nguu:** Mkwazuperere; **Sambaa:** Mhetele, Mshida, Mshila; **Swahili:** Mpekechu, Mpepeta.

DESCRIPTION: A multi-stemmed shrub or a **large tree with a spreading crown 12–25 m**, the trunk slightly buttressed at the base. BARK: **Smooth**, grey-brown, young branches rough hairy. LEAVES: Compound, odd pinnate, the **5–15 leaflets more or less equal**, or smaller at the base, often alternate along the stalk, **5–18 cm long**, leaflets oval, **3–7 cm, the tip lengthened but blunt or notched**, blade papery, stiff, few hairs or none, the **vein network raised and clear on both sides**. FLOWERS: Masses of **small rounded flowers, mainly cream** but also yellow-white, on **large branched flowering heads** to 30 cm long and 15 cm across, 5 grey sepals only 2.5 mm, **no petals, 2 stamens**. FRUIT: **Red-brown rounded pods, covered with velvety soft brown hairs, to 1.8 cm long**, dry and brittle, eventually cracking open to set free 1–2 grey-brown seeds which are smooth and shiny, in a thin membrane; around them a **mealy edible pulp which dries orange-red-brown**.

ECOLOGY: Found in lowland evergreen dry forest, riverine and swamp forest, rarely in lowland rainforest, also in woodlands, 0–500 m.

DISTRIBUTION: Found in north-eastern, eastern and southern Tanzania, e.g. on Mafia Island, in Mtibwa Forest Reserve in Morogoro Region, around Pangani and Muheza in Tanga Region and in the Pugu Hills near Dar es Salaam. Also in coastal Kenya and Mozambique.

USES:

**Food:**

- The white soft pulp of the fruit is eaten like chewing gum and has a sour taste similar to tamarind. The hard seeds are discarded.
- Ripe fruit are peeled, soaked in warm water and squeezed. Sugar is added to the thick liquid, which is then filtered. The juice is then ready for drinking before or after being cooled.

**Commercial:** Not marketed.

**Other:** The wood is very hard and heavy and used for firewood, charcoal, tool handles, dhow ribs, firewood and grain mortars.

SEASON: Fruit are collected from June to September.

STORAGE: Dried fruit can be stored for several years.

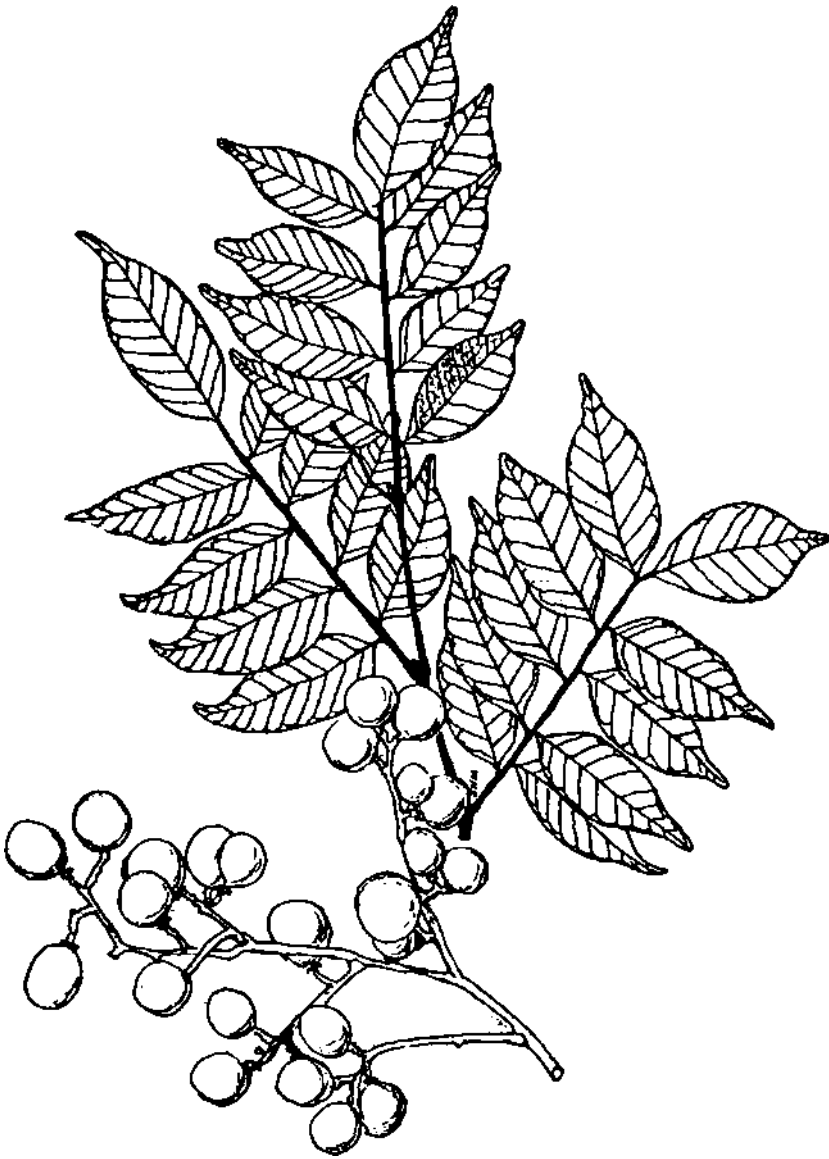
MANAGEMENT: Fruit are collected from the wild and it is not cultivated or protected by the local people. However, the species can be propagated by seed.

STATUS: Common and easily accessible within its area of distribution.



*Dialium holtzii*

Caesalpiniaceae



Fruiting branch

***Dialium orientale*****Caesalpinaceae**

Indigenous

LOCAL NAMES: **Bondei:** Mhetele; **Sambaa:** Mhetele, Mshila; **Swahili:** Mpekechu, Mpepeteta.

DESCRIPTION: A multi-stemmed shrub or tree 6–15 m, the crown flattened or spreading and drooping to the ground. BARK: Smooth, pale grey–white–pink. LEAVES: Compound, odd pinnate with **7–9 small leaflets**, oval, **base wide to rounded**, 1.5–5 cm long, **midrib hairy**, tips rounded to obtuse, not drawn out, on a **stalk to 5 cm long** (much smaller than in *D. holtzii*). FLOWERS: Small, **green-cream-yellow in large dense heads** to 30 cm x 20 cm. FRUIT: **Round reddish pods, 1.3–1.8 cm long**, containing 1–2 seeds in edible dry pulp.

ECOLOGY: Evergreen dry forests, *Brachystegia* woodland, evergreen bushland, clump grassland, coastal riverine vegetation; 0–100 m, often in sandy or alluvial soils.

DISTRIBUTION: This species is endemic in eastern Africa and found only in Tanga Region of Tanzania, in Coast Province in Kenya and in southern Somalia.

USES:

**Food:**

- The soft white fruit pulp is eaten raw as a substitute for tamarind. The seeds are discarded.
- A pleasant juice is prepared by soaking peeled fruit in water and adding sugar.

**Commercial:** Not marketed.

**Other:** The wood is hard and is used for firewood, building poles, charcoal, tool handles, dhow ribs and grain mortars.

SEASON: Ripe fruit are collected from July to October.

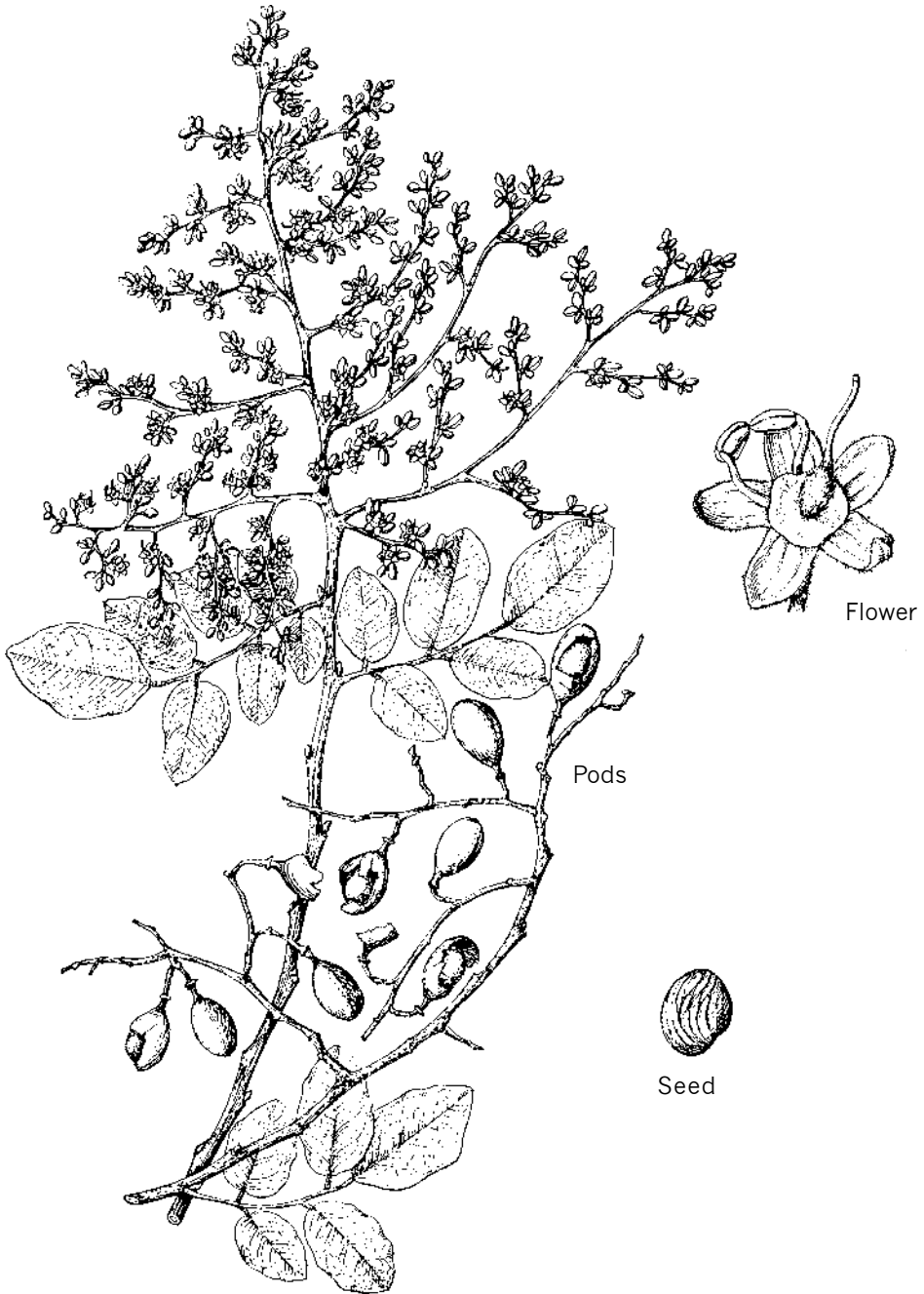
STORAGE: Peeled fruit can be stored for about 2 years.

MANAGEMENT: Fruit are collected from the wild and it is not cultivated or protected by the local people. Propagation can be done using seeds.

STATUS: Locally common.

*Dialium orientale*

Caesalpinaceae



***Dicliptera laxata*****Acanthaceae**

Indigenous

LOCAL NAMES: **Hehe:** Nyamtitu.

DESCRIPTION: A straggling perennial herb or undershrub, 1–5 m. LEAVES: **Opposite, stalked**, long oval, narrowed both ends, dark green. FLOWERS: In **stalked clusters** at a few nodes, surrounded by a “rosette” of **green floral bracts about 1 cm long**, each flower between **2 bracts**, 5 sepals, the tubular flower white or pink, streaked purple, the lips to 1 cm, the **upper lip bent back**, 2 purple anthers, **2-celled**. FRUIT: An **ovoid capsule** about 1 cm long, containing 4 round black seeds.

ECOLOGY: A herb of high forest, often in deep shade, sometimes dominant in the under-storey, riparian forest, occasionally in swamp forest, on steep slopes of well-watered ground, 1,500–2,300 m.

DISTRIBUTION: In the Tanga and Southern Highland areas of Tanzania; uncommon in Uganda, coastal Kenya, Ethiopia.

USES:

**Food:**

Leaves are used as a vegetable. Tender leaves are cooked, coconut milk or pounded groundnuts are added and the dish is eaten with *ugali* or rice.

**Medicinal:** Roots are used to treat stomach-ache and coughs (Hehe).

**Commercial:** Not marketed.

**Other:** The plant is used for fodder.

SEASON: Rainy season, December–April.

STORAGE: After drying the leaves can be stored for up to a year.

MANAGEMENT: Collected from the wild, not cultivated.

STATUS: Common within its area of distribution.

*Dicliptera laxata*

Acanthaceae



***Dictyophleba lucida (Landolphia lucida)***     **Apocynaceae**

Indigenous

LOCAL NAMES: **English:** Milk apple; **Ha:** Mabungo madogo; **Tongwe:** Katimba.

DESCRIPTION: A liana, to 20 m, **with divided tendrils** from between old flower heads or **at forks of branches**, copious white sap when cut, stems hairy. LEAVES: Opposite, stiff, oval and shiny, 7–15 cm long, wider at the tip, which is long and blunt, a few hairs on the midrib below or none, the base well rounded. FLOWERS: Sweetly fragrant in loose **terminal heads to 17 cm** long, **buds dull red, outer surface of petals pink**, tube to 18 mm long, the 5 **narrow cream-white lobes overlapping left before they open**. FRUIT: A small **rounded berry 3–4 cm long, without hairs**, green and purple when young, ripening yellow-orange-red, containing **many seeds** in edible pulp.

ECOLOGY: Found in semi-deciduous mixed forest, wet evergreen forest edges, riverine forest and forest remnants, 1–1,000 m.

DISTRIBUTION: Eastern, coastal and Southern Highlands as well as western areas, e.g. in Gombe Stream Forest Reserve, Lusunguru Forest Reserve, Kakombe Valley and around Kigoma. Also found in coastal Kenya, Burundi and in the Congo basin.

USES:

**Food:**

- The pulp of ripe fruit is edible. Fruit are cut in half and the pulp, which is sweet and rather acidic, is eaten raw.
- Ripe fruit are cut, the pulp soaked in water, squeezed, sugar added and filtered. The juice is drunk before or after being cooled.

**Commercial:** Not marketed.

**Other:** The flexible stems are used for strings.

SEASON: Ripe fruit are collected from February to June.

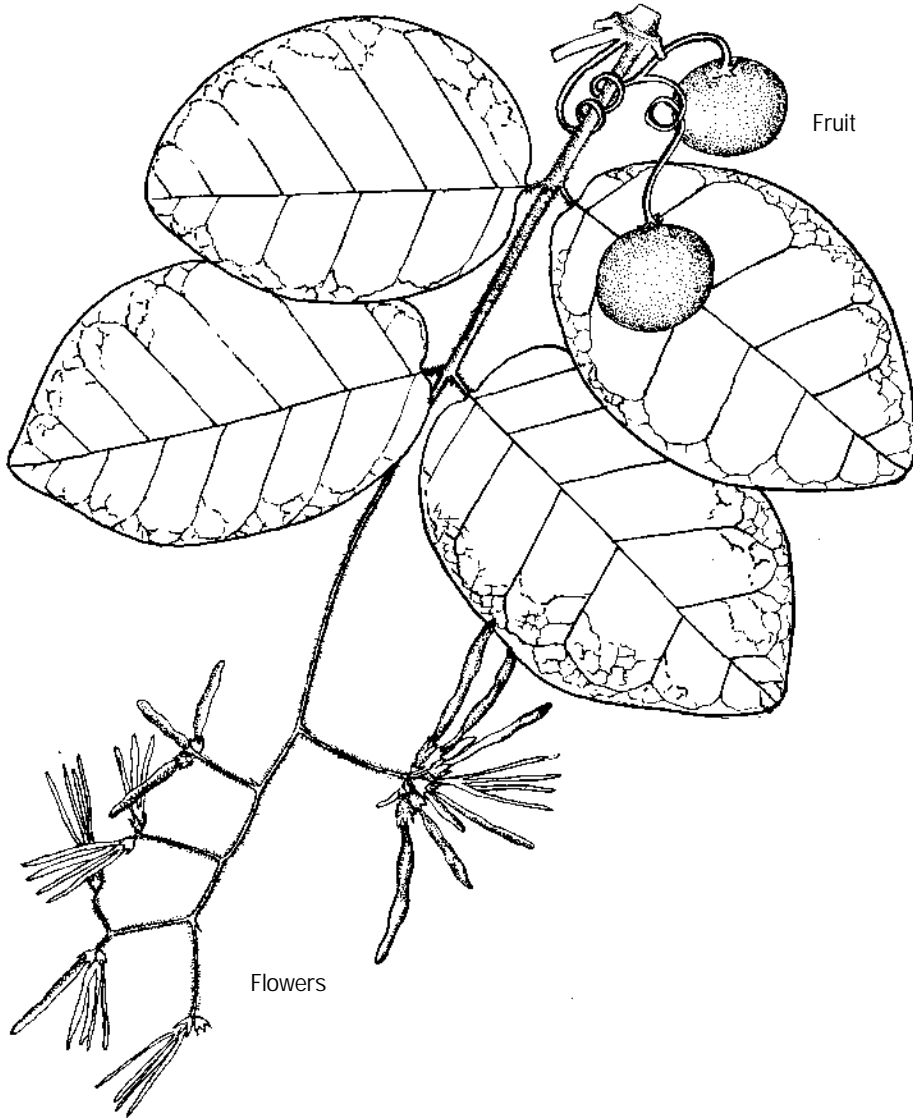
STORAGE: Not stored.

MANAGEMENT: Only collected from the wild, but can be propagated using seeds or cuttings.

STATUS: Locally common.

*Dictyophleba lucida* (*Landolphia lucida*)

Apocynaceae



***Dioscorea dumetorum*****Dioscoreaceae**

Indigenous

LOCAL NAMES: **Bondei:** Ndiga, Tugu; **English:** African bitter yam, Cluster yam, Three-leaved yam; **Maasai:** Oloibarebare; **Matengo:** Mpetu; **Nyamwezi:** Itugu, Kilumbu; **Sambaa:** Tugu; **Sukuma:** Ndiga; **Swahili:** Kiazi kikuu, Kigongo, Kikwa, Kinana, Mariga, Ndiga; **Tongwe:** Lindiga; **Zigua:** Ndiga.

DESCRIPTION: A climbing yam twining up to 10 m in high bush, hairy with many prickles. Underground tubers numerous, with short cylindrical lobes about 2.5 cm across, bearing roots, spreading or descending about 30 cm, **tubers replaced annually**. LEAVES: Compound, **3 leaflets, on a main stalk to 20 cm**, both hairy and prickly, the central leaflet wider and pointed at the tip, laterals unequal-sided, on short stalks, paler below with rather **long hairs flat to the surface**, usually about 12 cm x 8 cm, **3 nerved from just above the base**. FLOWERS: Small male flowers in dense branched bunches of spikelets beside leaves. Female flowers arise from a slender hanging spike 5–10 cm. FRUIT: A sparsely **hairy capsule to 4 cm long**, seeds about 2 cm with one **wing at the base**.

ECOLOGY: It grows on the edges of lowland rainforest, dry evergreen forests, evergreen bushland, and on termite mounds in *Brachystegia* woodland, persisting in plantations, in secondary thickets as well as grasslands, 0–1,700 m.

DISTRIBUTION: This plant is widespread in Tanzania but not found in the northern and central areas. Also in coastal Kenya; much of Uganda, Senegal to Ethiopia and south to Angola, Zimbabwe, Mozambique and South Africa.

USES:

**Food:**

- Tubers, which are produced underground, are eaten as famine food. They are collected, peeled, cut into small pieces and soaked overnight to remove toxic substances before being cooked.
- Alternatively, tubers are peeled and soaked in water for several days. Then they are washed, sliced and dried in the sun. The dried slices are pounded into flour and used for *uji* or *ugali* (Bondei, Zaramo).

**Medicinal:** The powder obtained from dried and pounded roots is soaked in water and used to treat bilharzia.

**Commercial:** Not marketed.

**Other:** The plant is used for ornamental purposes.

SEASON: Tubers are collected soon after the rainy season.

STORAGE: Dried slices can be stored for several weeks.

MANAGEMENT: Collected from the wild and not usually cultivated or protected by the local people. However, it can be propagated using slices of tuber with dormant buds. This is, however, only done during famine periods.

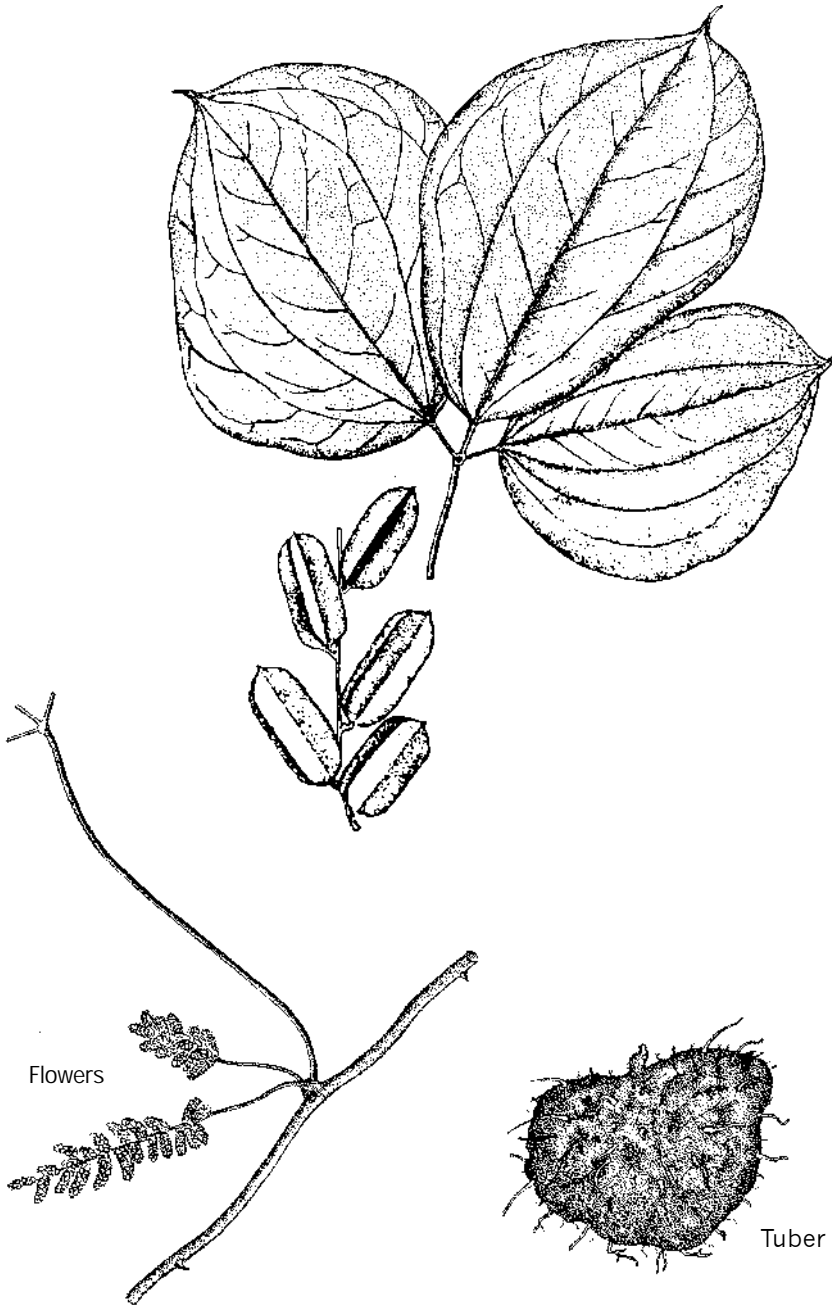


*Dioscorea dumetorum* (contd)

## Dioscoreaceae

STATUS: Common within its area of distribution.

REMARKS: The tubers of this species are known to be toxic.



***Dioscorea odoratissima*****Dioscoreaceae**

Indigenous

LOCAL NAMES: **Chagga:** Kiya; **Ha:** Itiguligwa; **Luguru:** Kigonzo; **Nyamwezi:** Itugu, Kilumbu; **Sambaa:** Tugu; **Swahili:** Kiazi kikuu; **Zaramo:** Ndiga; **Zigua:** Ndiga.

DESCRIPTION: A hairless annual twiner, **stems cylindrical, often spiny**, with some bulbils. Underground **tubers are replaced annually**, to 5 cm diameter, over 6 cm long, descending vertically and protected above by horizontal thorny roots. **LEAVES:** Usually opposite, simple **long oval to widely heart shaped**, some notched at the base, **a long pointed tip**, stalk to 5 cm. **FLOWERS:** About 5 male spikes ascending to 10 cm, **clustered in axils** or at leafless nodes on terminal branches; female flowers on **solitary hanging spikes** to 15 cm. **FRUIT:** A **dull grey-green 3-lobed, rounded capsule**, to 3.8 cm diameter, contains winged seeds.

ECOLOGY: Found in woodlands, thickets, rainforest and riverine forest, 800–1,800 m; rainfall 1,400–2,400 mm. Thrives in humus-rich soils.

DISTRIBUTION: Widespread from Senegal through West Africa and south to Malawi, Zambia and Angola. In Tanzania it is found, for example, in Kigoma, Iringa, Mbeya, Rukwa and Songea Regions.

USES:

**Food:**

- Tubers, which are produced underground, are eaten as famine food. They are collected, peeled, cut into small pieces and soaked overnight before being cooked in order to remove toxic compounds.
- Alternatively, tubers are peeled and soaked in water for several days. Then they are washed, sliced and dried in the sun. The dried slices are pounded into flour and used for porridge or *ugali* (Bondei, Zaramo).
- Tender leaves are mixed with other vegetables, cooked and eaten as a vegetable together with a staple (Luguru).

**Commercial:** Not marketed.

**Other:** Plants are used for ornamental purposes.

SEASON: Tubers are dug up soon after the rainy season.

STORAGE: Dried slices and flour from pounded slices can be stored for several weeks.

MANAGEMENT: Collected from the wild and not protected or cultivated by local people.

STATUS: Uncommon and difficult to access since it occurs in forests. Skill is required to find the tubers.

REMARKS: Care should be taken during preparation because of the toxicity of the tubers. They must be peeled and soaked before cooking.

*Dioscorea odoratissima*

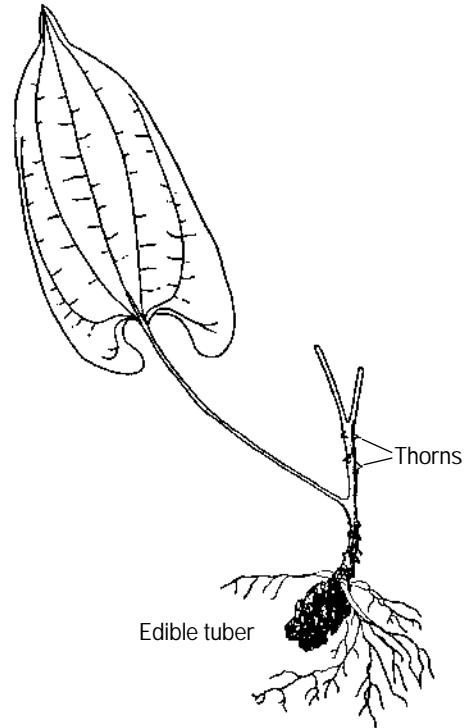
Dioscoreaceae



Variety of leaf shapes



Young fruit



Edible tuber

Thorns

***Dioscorea quartiniana* var. *quartiniana*** Dioscoreaceae

Indigenous

LOCAL NAMES: **Ha:** Ituguligwa; **Nyamwezi:** Itugu, Kilumbu; **Sambaa:** Tugu; **Swahili:** Kiazi kikuu; **Zaramo:** Ndiga; **Zigua:** Ndiga.

DESCRIPTION: **A hairy climber** with stems twining to the left, reaching 6 m into trees, over shrubs or trailing on the ground, often with tiny glandular hairs as well as longer simple hairs (no prickles). **Tubers are replaced annually**, much divided with cylindrical root-bearing **lobes to 2.5 cm diameter, spreading, up to 30 cm long**. LEAVES: Alternate, **compound palmate**, on stalks to 10 cm, usually less, **3–5 leaflets**, very variable in size and shape, reaching 14 cm x 11 cm, often **densely hairy below**, generally oval, wider at the tip. FLOWERS: **Male flowers along 3-cm long hanging catkins**, the flowers overlapping, from upper leaf axils, **2–5 together**. **Female flowers on a single hanging spike to 17 cm**, flowers very close at first, separated with age, **the flowers directed downwards**. FRUIT: 3-part capsule, about 2.5 cm long, without hairs and containing **seeds with a basal wing**.

ECOLOGY: A species found in openings in upland and lowland rainforest, riverine forest and at forest edges, termite mounds, scrub and thickets, often on hillsides and near rock outcrops and grasslands, 100–2,300 m; rainfall 800–1,900 mm. Tolerates a wide range of soil types.

DISTRIBUTION: From Senegal through West Africa to Ethiopia and southern Africa, and also Madagascar. Found in all parts of Tanzania except Dodoma and Singida Regions.

USES:

**Food**

- Tubers are dug out from the ground, cooked and eaten.
- Tubers are peeled and soaked in water for several days. Then they are washed, sliced and dried in the sun. The dried slices are pounded into flour and used for *uji* or *ugali*.

**Commercial:** Sold in local markets.

**Other:** The plant is used for ornamental purposes.

SEASON: Tubers are collected after the rainy season.

STORAGE: The dried flour can be stored.

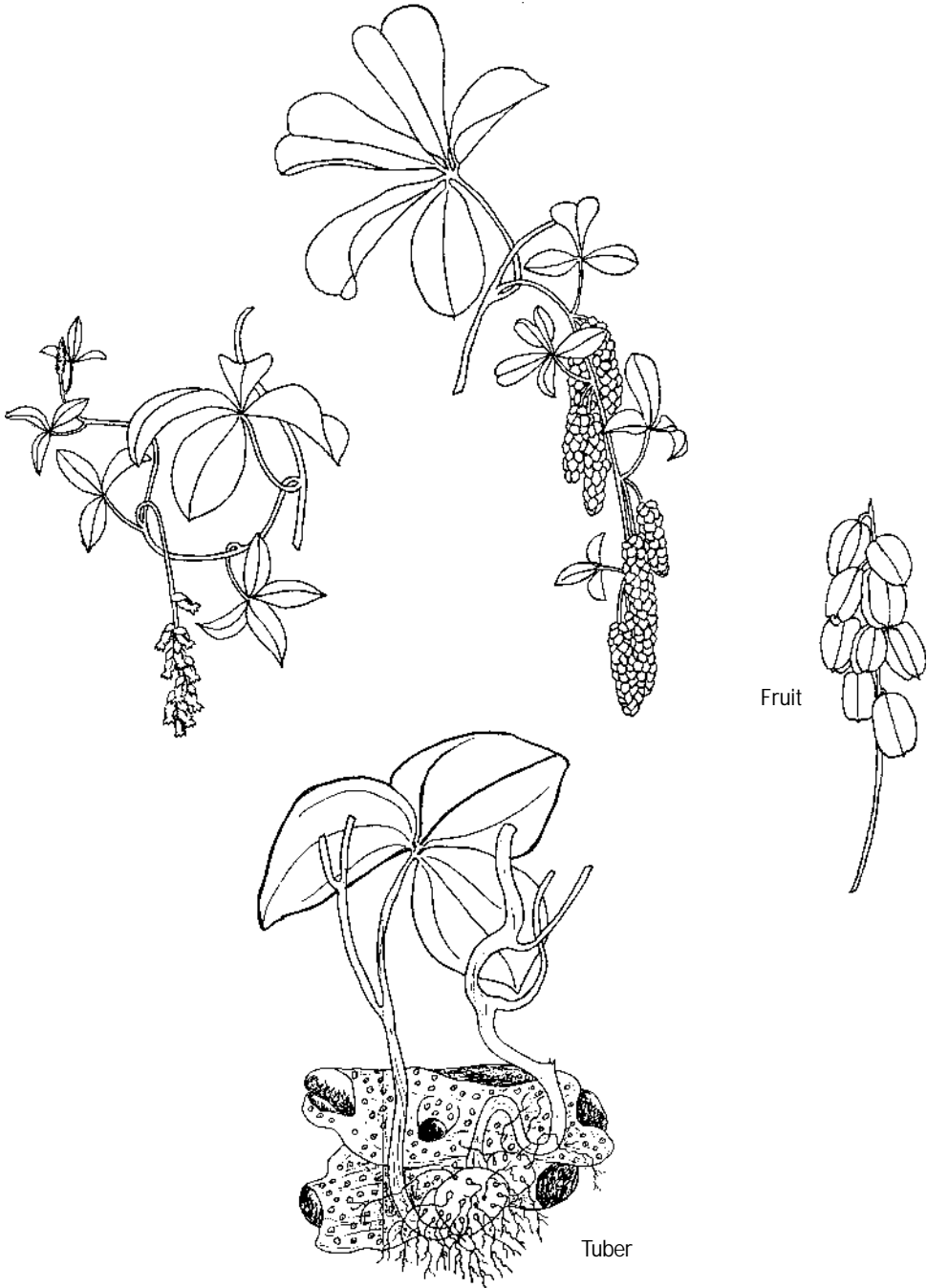
MANAGEMENT: Collected from the wild and not protected or cultivated by local people.

STATUS: Common and easily accessible within its area of distribution.

REMARKS: There are about 13 wild species of *Dioscorea* found in Tanzania, most of which are edible. They include the following:

*Dioscorea quartiniana* var. *quartiniana*

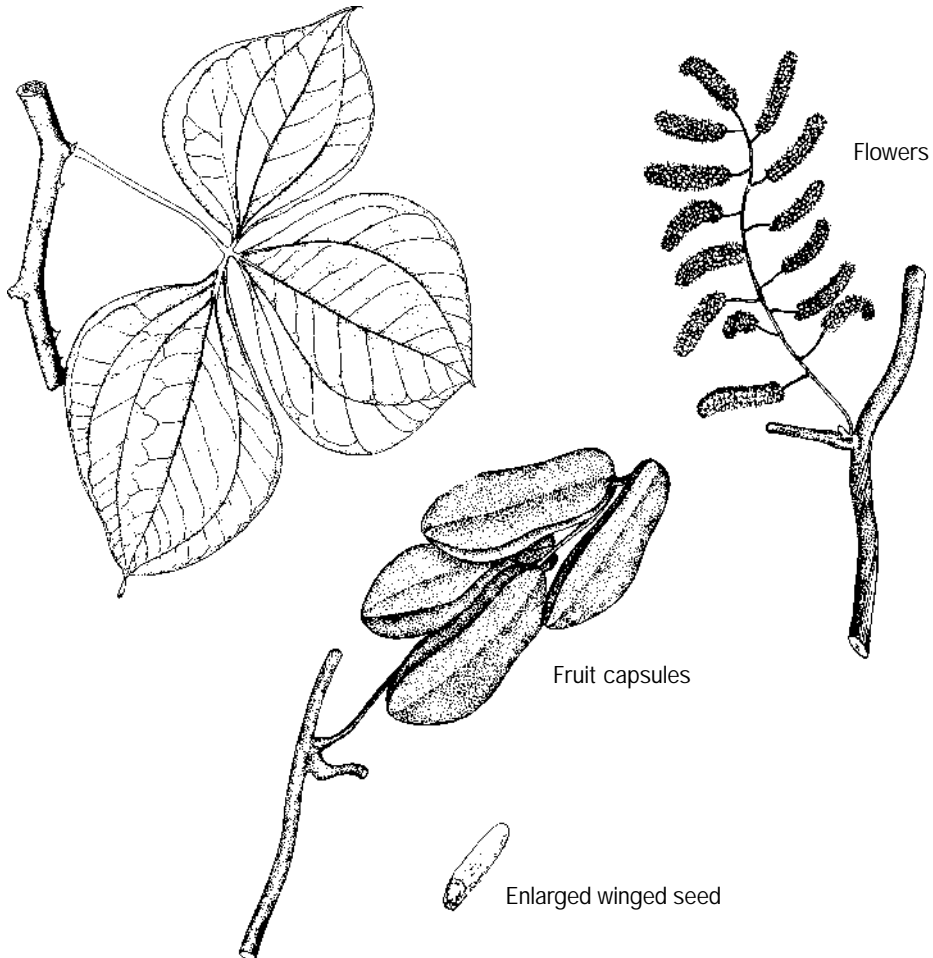
Dioscoreaceae



***Dioscorea quartiniana* var. *quartiniana***      **Dioscoreaceae**  
(contd)

1. *D. cochlaeri-apiculata* (**Matengo:** Mpeta; **Nyamwezi:** Itugu, Kilumbu, Numbu; **Sambaa:** Tugu; **Swahili:** Kiazi kikuu; **Tongwe:** Ntembe, Lindiga; **Zaramo:** Ndiga; **Zigua:** Ndiga) a climbing herb up to 10 m high found in Tabora, Shinyanga, Dodoma, Iringa, Rukwa and Songea Regions;

***D. cochlaeri-apiculata***

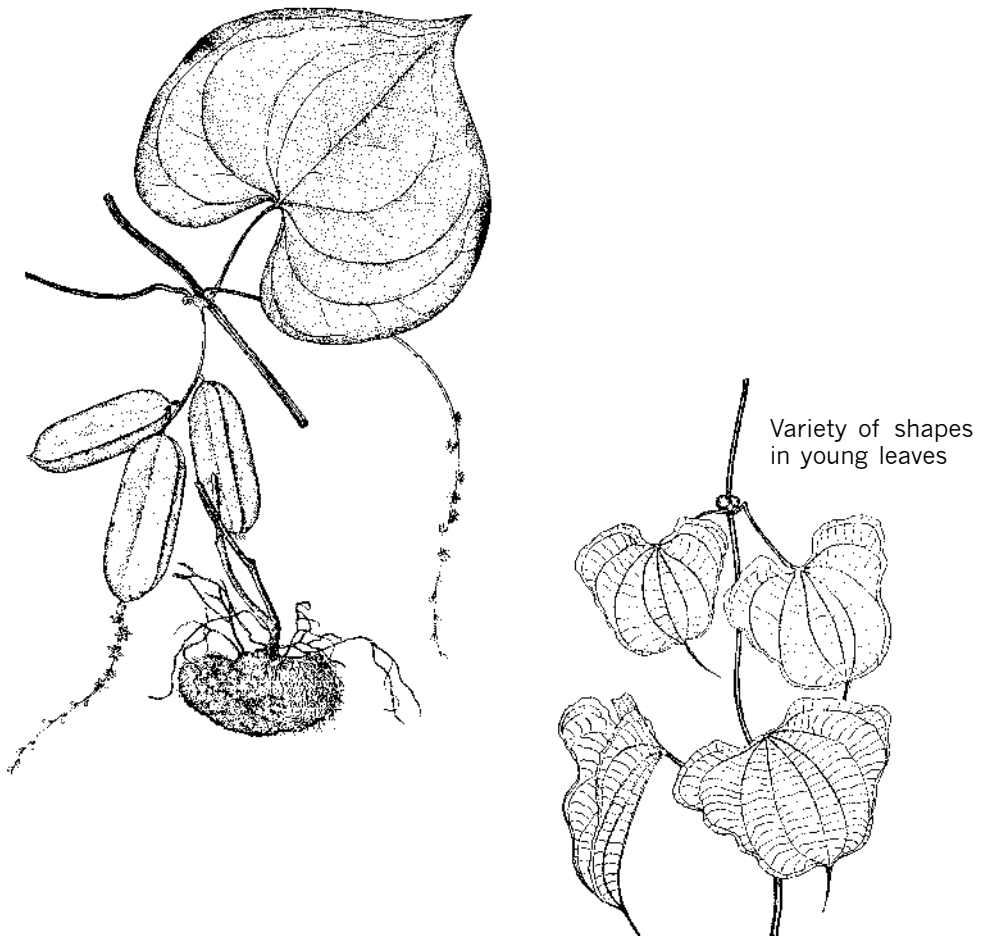


2. *D. schimperiana* (**Ha:** Buliga-kubwa, Ituguligwa; **Nyamwezi:** Itugu, Kilumbu; **Sambaa:** Tugu; **Swahili:** Kiazi kikuu; **Zigua:** Ndiga) a climber up to 8 m high found around Ngara, Iringa, Mufundi, Lushoto, Morogoro and Rungwe. Also found in Kenya, Uganda, Cameroon, east to Ethiopia and southwards to Zimbabwe;

***Dioscorea quartiniana* var. *quartiniana***      **Dioscoreaceae**  
(contd)

3. *D. sansibarensis* (**English:** Wild yam; **Swahili:** Kichocho mi, Mchocho ni, Tungunyu) a herb climbing up to 25 m high on other trees and found in Tanga, Iringa, Songea, Zanzibar and Pemba. It is also found in south-western Uganda, coastal Kenya, from Ivory Coast to Sudan, south to Angola, Zimbabwe, Mozambique and Madagascar.

***D. sansibarensis***



3. *D. longicuspis*, with the same local names as *D. cochlaeri-apiculata*, a climber up to 6 m high found only around Lushoto and Morogoro;

*Diospyros kirkii*

## Ebenaceae

Indigenous

LOCAL NAMES: **English:** Pink diospyros; **Matengo:** Mngulaka, Nsakala; **Mwera:** Mng'akora; **Ngindo:** Mkalakawa-bonde; **Nyamwezi:** Mnumbulu; **Tongwe:** Ikongwa; **Vidunda:** Mkokokivu.

DESCRIPTION: A semi-evergreen tree to 11 m, usually smaller, the spreading branches forming a rounded open crown. **Young branchlets covered with rusty-pink hairs.** BARK: Dark grey-black, very rough, flaking in squares. LEAVES: Thick, leathery, **wide oval**, up to 15 cm x 8 cm across, tip rounded, on a short thick stalk which is **hairy**, as are young leaves **below**. FLOWERS: In flower heads of 1–3 on male or female trees, all covered with woolly pink hairs. FRUIT: **Rounded yellow** when ripe, **3–4 cm across** with 5–6 narrow **calyx lobes tightly pressed half way up to the fruit**. The fruit contains sweet edible flesh around 4 dark brown, angled seeds.

ECOLOGY: Found in woodlands, including miombo, on termite mounds, often on rocky ridges, secondary woodland, open forest and savanna woodland, 1,200–1,500 m.

DISTRIBUTION: Widely distributed in Tanzania with the exception of the northern part, e.g. found in Morogoro, Iringa and Tabora Regions. Also in Zambia, Malawi, Mozambique, Zimbabwe, Angola and the Congo basin.

USES:

**Food:**

Ripe fruit are collected from the tree or from the ground and eaten raw. They are sweet and are much liked by both children and adults.

**Commercial:** Sold in local markets.

**Other:** The wood is used for firewood, tool handles, gunstocks, grain mortars, bedsteads and spoons. The tree is suitable for shade and is a source of bee forage. Fruit are used as fodder for goats.

SEASON: Ripe fruit are collected from April to July.

STORAGE: Not stored.

MANAGEMENT: Ripe fruit are usually collected from the wild. However, it can be propagated using fresh seeds.

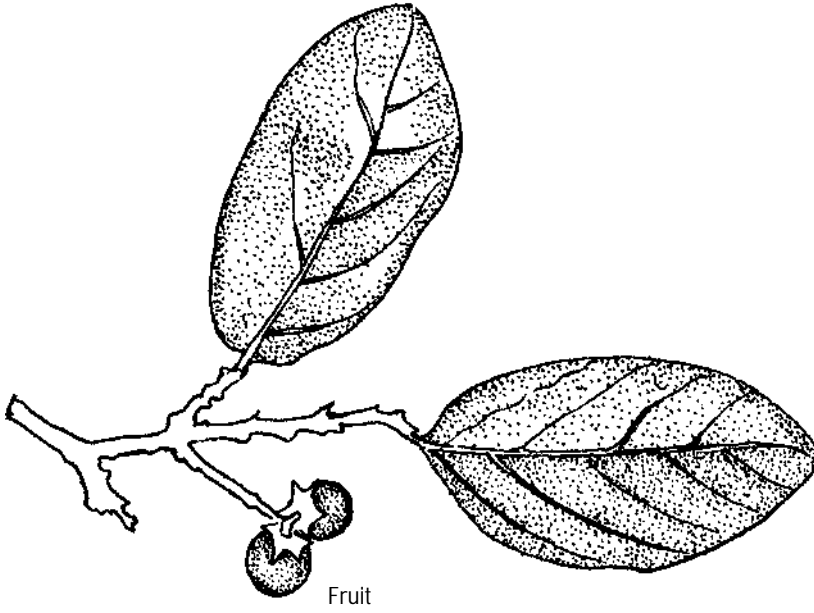
STATUS: Occasional within its area of distribution.

REMARKS: *D. kirkii* can be easily hybridized with *D. mespiliformis*. Hybrids produce smaller but sweeter fruit.



*Diospyros kirkii*

Ebenaceae



*Diospyros mespiliformis*

## Ebenaceae

Indigenous

[Plate 1]

LOCAL NAMES: **Bende:** Msinde; **Chagga:** Mkadi, Mkuare, Msinde; **Digo:** Mbara, Mkulu; **English:** African ebony, Jackal berry; **Luguru:** Mkoko, Mkululu, Msindanguruwe, Msinde, Mtitu; **Matengo:** Nsakala-wa-mwana; **Nyamwezi:** Mkinde, Msinde; **Pare:** Mjongolo; **Swahili:** Mgiriti, Mgombe, Mjoho, Mpweke, Msindi; **Vidunda:** Mkoko, Mkulwi; **Zigua:** Mhukwi, Mkulwe, Mkulwi; **Sambaa:** Mkea-kundi.

DESCRIPTION: A medium- to large-sized tree, to 25 m. There may be a clear bole from a buttressed base to the dense rounded crown. Young parts have silvery hairs. BARK: **Grey-black, rough and squared, grooved.** LEAVES: **Shiny dark green**, alternate, to 14 x 3 cm, **the midrib raised below, edge wavy, tip rounded.** FLOWERS: Fragrant, male clustered, female solitary, cream-white petals, 1 cm. FRUIT: **Rounded, to 2.5 cm, in a calyx cup, the 5 segments curling back**, fruit yellow, later purple, pulp soft and sweet with 4–6 brown, hairy seeds.

ECOLOGY: An evergreen tree common along rivers in dry savanna woodland and in thickets, scrub forest in rocky gullies on hillsides. It occurs naturally in semi-arid areas, 0–1,300 m; rainfall 500–1,300 mm.

DISTRIBUTION: Widespread in tropical Africa from Senegal to Angola, eastwards to Sudan, Ethiopia, Eritrea and Yemen, south to Mozambique, South Africa and Namibia. Occurs in most parts of Tanzania except Kagera, Mwanza, Mara and Shinyanga Regions. It has been cultivated in western Australia.

USES:

**Food:**

The fruit are edible and sweet. They are collected from the ground, washed and eaten fresh, the seeds being discarded. They are nutritious and eaten frequently as a snack.

**Medicinal:**

The bark is used to treat stomach-ache.

**Other:** The bark is used for dyeing mats red. The wood is hard and strong with a fine grain and is used for tool handles, gunstocks, wooden spoons and furniture. It is termite and fungus resistant. The tree is good for shade and as a source of bee forage. Roots are used to ward off evil spells (Makua) after being mixed with those of *Asparagus* and honey.

SEASON: Ripe fruit are available from April to June.

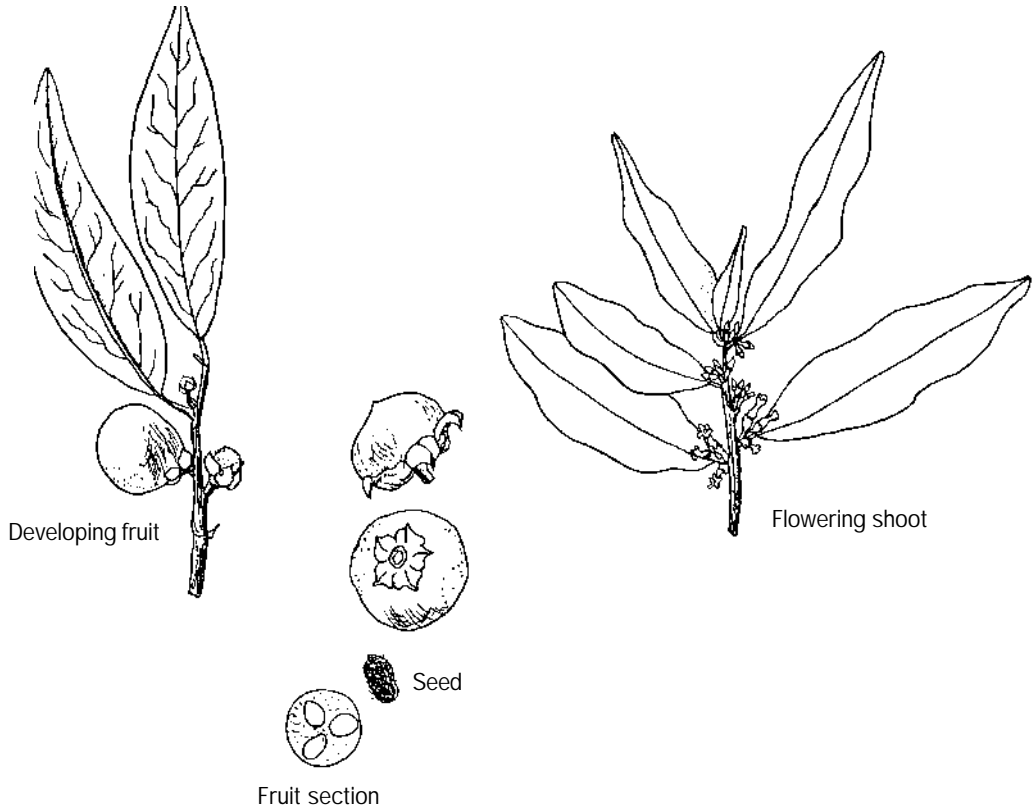
STORAGE: Ripe fruit can be dried in the sun and stored for several weeks.

MANAGEMENT: Collected from the wild and not cultivated, but can be propagated using fresh seed.

***Diospyros mespiliformis* (contd)****Ebenaceae**

STATUS: Common in riverine vegetation and easily accessible.

REMARKS: The fruit of *D. consolatae* and *D. squarrosa* are also edible.



*Dolichos trilobus*

## Papilionaceae

Indigenous

LOCAL NAMES: **Hehe:** Nandalamwani, Nyanandala; **Ngoni:** Lungatungu; **Swahili:** Kunde mbala.

DESCRIPTION: A perennial twiner, to 1 m, with herbaceous hairy stems from a woody rootstock. LEAVES: **3 leaflets**, broad oval to round, laterals often oblique, **1.5–9 cm long**, often **a paler area down the middle of each leaflet**, tips pointed, base rounded, the main stalk 1.3–7 cm, a pair of tiny, persistent, pointed **leafy stipules**, 3–4 mm, and **each leaflet stalked**. FLOWERS: Pea shaped, in groups of 2–3 on 4-cm stalks from leaf axils, the **standard petal about 1 cm, red-mauve-pink with darker markings or veining**, sometimes greenish outside, the tip notched, the 2 wings deep purple-pink, the keel paler, the **narrow bracts up to 1 cm**, the **5 sepals of the calyx form a bell shape**. FRUIT: **Oblong, curved pods to 9 cm long x 1 cm wide**, more or less flattened, a few hairs, containing several brown-red seeds with black markings.

ECOLOGY: Found in grassland, bushland and forest, sometimes in rocky places in evergreen forest, 0–1,200 m.

DISTRIBUTION: Widespread in Tanzania except in the western areas; rare in Kenya, but grows in some parts of Uganda, Ethiopia, to Angola and South Africa, extending to eastern Asia and widespread in West Africa.

USES:

**Food:**

Seeds are edible. The peas are collected and cooked while fresh or after being dried in the sun and eaten with *ugali* or rice. Coconut milk or pounded groundnuts can be added while cooking in order to make the dish more palatable.

**Medicinal:** Tubers are pounded and used as medicine to treat chickenpox.

**Commercial:** Not marketed.

**Other:** The plant is used for fodder and ornamental purposes.

SEASON: Dry season, April–June.

STORAGE: Dried seeds can be stored for several months.

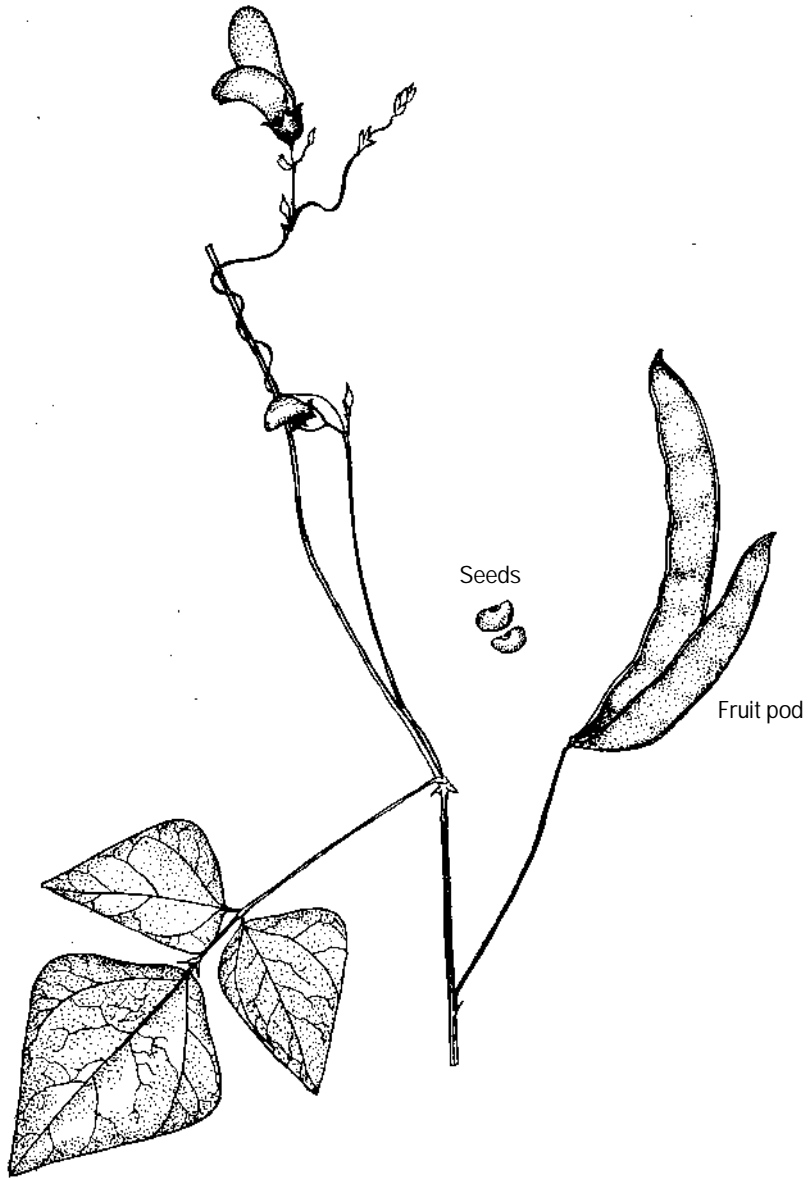
MANAGEMENT: Collected from the wild, not cultivated. However, it can be propagated using fresh seed.

STATUS: Listed among rare species in the IUCN Red List of Threatened Plants.

REMARKS: Many other *Dolichos* spp. are reported to be edible and used medicinally.

*Dolichos trilobus*

Papilionaceae



*Dovyalis abyssinica*

## Flacourtiaceae

Indigenous

LOCAL NAMES: **Barabaig:** Mahhahhari; **Chagga:** Mmango; **Gogo:** Mnzuyuyu; **Gorowa:** Mummui; **Hehe:** Mditsi, Mgola; **Iraqw:** Mahhahamo; **Maasai:** Emorogi, Ilmorok (plural), Olmarogi, Olmorogi; **Sambaa:** Mtiwapaa; **Zinza:** Mkoroto.

DESCRIPTION: A spiny evergreen shrub or tree to 5 m, crown rounded. BARK: Grey, spines to 1.5 cm long. Branchlets with **very clear dotted breathing pores** (lenticels). LEAVES: Shiny, dark green, **oval, to 5 cm, tip blunt, edge unevenly rounded**, stalk and veins reddish. FLOWERS: No petals but 5 yellow-green-white sepals, females single, but male flowers in clusters with many stamens (40–60). FRUIT: A **round berry about 2 cm across**, surrounded by the calyx, green and hairy at first then smooth **orange-yellow pulp** around the seeds.

ECOLOGY: Found in upland rainforest, dry evergreen forests, by river banks, sometimes in more open woodland, along hilly escarpments or even mountain tops, 0–2,700 m.

DISTRIBUTION: Widespread in Tanzania, recorded in most highland areas, e.g. around Lushoto and Rongai, and in Rungwe Mountains; from Eritrea and Somalia to Malawi.

USES:

**Food:**

- Ripe fruit are collected from trees and eaten raw as a snack. They are fleshy, sweet and much favoured by children and herdsman.
- Ripe fruit are also used for jam making.

**Medicinal:**

- The leaves are pounded, soaked in water and the liquid taken to treat indigestion.
- Roots are used for treating indigestion as well as STDs.

**Commercial:** Not marketed.

**Other:** The wood is hard and used for firewood, tool handles, spoons and bedsteads.

SEASON: Ripe fruit are collected from April to June.

STORAGE: Not stored.

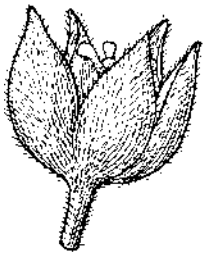
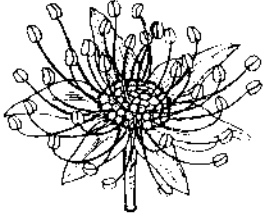
MANAGEMENT: Collected from the wild and not planted or protected by the local people, but the species can be propagated by seed.

STATUS: Locally common and easily accessible within its area of distribution.

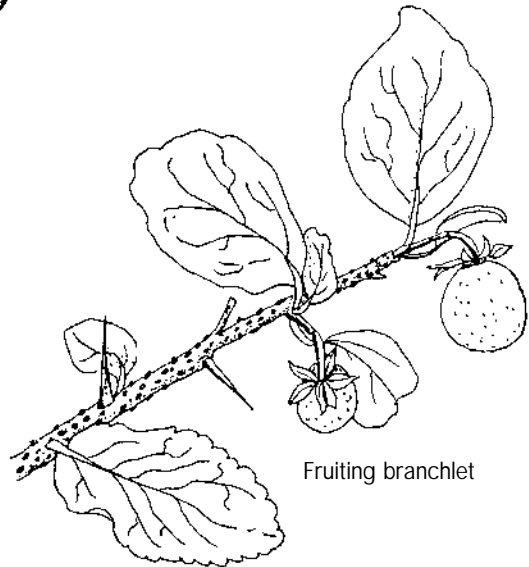
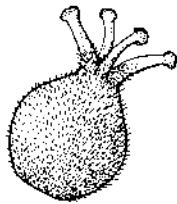
*Dovyalis abyssinica*

Flacourtiaceae

Enlarged male flower



Enlarged female flower



Fruiting branchlet

*Dovyalis macrocalyx**Flacourtiaceae*

Indigenous

LOCAL NAMES: **Gogo:** Mzuyuyu; **Hehe:** Mgola, Mnzuyuyu; **Haya:** Omukangali; **Maasai:** Enkoshopini, Olaimurunyai; **Zinza:** Mkoroto.

DESCRIPTION: A forest shrub or small tree, 3–8 m, much branched, usually spiny and with conspicuous lenticel dots, the slender young branches arching over. BARK: Smooth grey. Branches grey-brown, often dotted with breathing pores (lenticels), **bearing straight spines, single, usually needle-like, 1–6 cm**, beside leaves, sometimes absent. LEAVES: Simple, oval, 4–9 cm, pale green, thin, tip pointed, base broadly rounded to a short stalk (only 3 mm), edge may be minutely toothed, 3–5 nerves clear and raised on both sides. FLOWERS: Yellow-green, no petals. **Male flowers hairy, in clusters, 1–4, beside leaves, with about 20 central stamens. Female flowers shortly stalked, solitary**, beside leaves, 2 clear styles to 3 mm, 6–10 thin lobes of the **calyx sticky, densely covered with stalked glandular hairs, 6 mm, increasing in size with the fruit.** FRUIT: **Orange-red, ovoid, fleshy, to 2 cm long.** hanging down on a stalk to 8 mm, **the persistent green sepals finally reflexed and fringed with glandular hairs**, 2 seeds inside the fruit covered with brownish “wool”.

ECOLOGY: Occurs in thickets in wooded grasslands and in the under-storey of montane rainforest, 0–2,600 m; rainfall 1,100–1,900 mm. Thrives in well-drained deep brown sandy loams and beside rivers.

DISTRIBUTION: Widespread in Tanzania including Zanzibar and Pemba Islands, around the lakes, central, eastern and Southern Highlands; for example, occurs in Iringa, Mwanza, Kagera, Tanga, Pwani and Dodoma Regions. Also in Sudan, Uganda, Kenya, south to Angola, Zimbabwe, Mozambique and Botswana.

USES:

**Food:**

The ripe sweet-tasting yellow-orange fruit are eaten as a snack, especially by children.

**Commercial:** Not marketed.

**Other:** The wood is hard and used for firewood, building poles and tool handles.

Season: Fruit ripen in March–June.

STORAGE: Not stored.

MANAGEMENT: Collected from the wild and not cultivated or protected by local people.

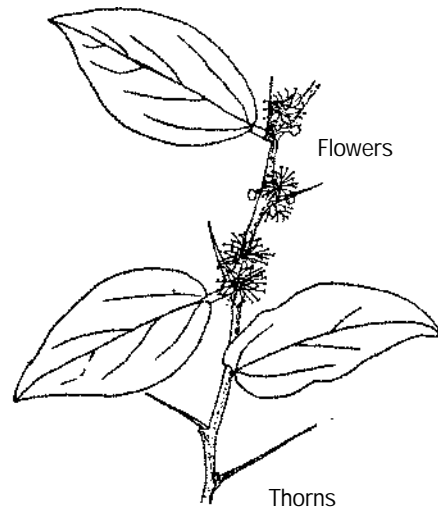
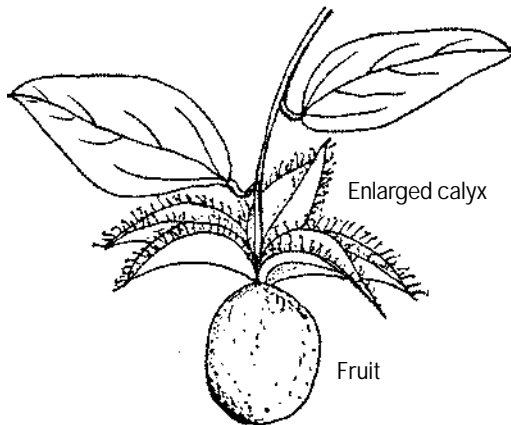
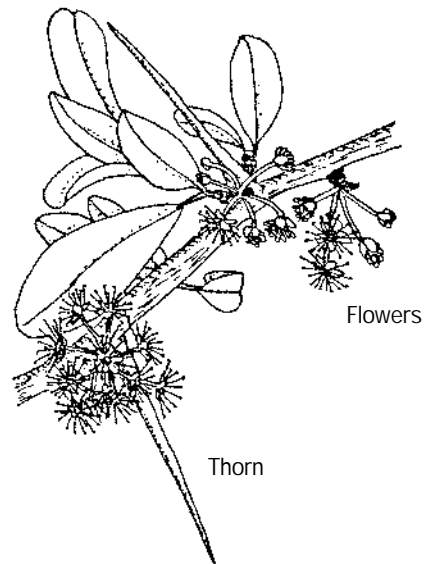
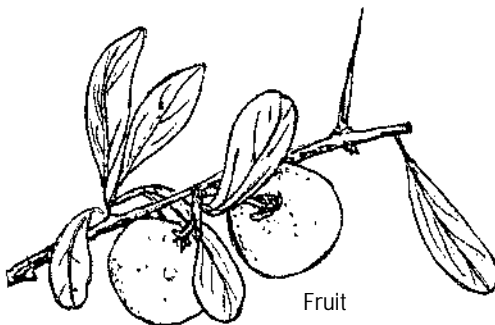
STATUS: Common and easily accessible within its area of distribution.

REMARKS: It is a possible candidate for domestication. There are 5 indigenous and 1 introduced species of *Dovyalis* in Tanzania, including:



*Dovyalis macrocalyx**Flacourtiaceae*

1. *D. caffra* (**English:** Kei apple) the introduced species originating from South Africa and is widely planted as a hedge in highland areas of Tanzania. The fruit are edible and appreciated for making jam;
2. *D. xanthocarpa* (**Hehe:** Mgola, Mzuyuyu; **Kaguru:** Mgola, Mzuyuyu; **Zigua:** Mkarato) a shrub or small tree up to 10 m high found in Arusha, Morogoro, Iringa and Tanga Regions. Similar to other indigenous *Dovyalis*, this species also has edible fruit. *D. xanthocarpa* is endemic to Tanzania.

*D. macrocalyx**D. caffra*

***Dracaena mannii* (*D. usambarensis*) Dracaenaceae**

Indigenous

LOCAL NAMES: **Bondei:** Kiteguzi; **Chagga:** Isale; **Digo:** Mupwanga; **English:** Long-leaved dragon tree; **Haya:** Mulamula, Mutendere; **Iraqw:** Sansuli; **Mwera:** Mtetemu; **Ngindo:** Mtetema; **Pare:** Isae; **Sambaa:** Kiteguzi, Longe, Ng'weng'we; **Tongwe:** Bulindiye, Bulonje; **Zigua:** Kalonge; **Zinza:** Ruhanya.

DESCRIPTION: A palm-like tree to 15 m high with a compact crown, often multi-stemmed. BARK: Grey or whitish, smooth, marked with leaf scars. LEAVES: Narrow, elongated, **spear shaped, 15–26 cm long, 2–5 cm wide, leathery and shiny** dark green, largely arranged towards the end of branchlets. FLOWERS: **Greenish white** in loose branched flowering spikes, up to 25 cm long, sweet scented, open at night, **petal lobes as long as the tube of the flower**. FRUIT: **Red-brown fleshy berries**, up to 2-cm diameter, containing 1–3 seeds. Fruit stalks bright orange.

ECOLOGY: Occurs at forest edges, in open gaps and on river banks in moist forest and swamp forest, 0–1,800 m; rainfall 1,000–2,000 mm. Thrives in a variety of soil types.

DISTRIBUTION: Widespread in Tanzania, e.g. in Arusha, Kilimanjaro, Kagera, Tanga, Iringa and Mbeya. Also found in Kenya, Mozambique, Malawi and Zambia.

USES:

**Food:**

Tender shoots are collected, peeled, chopped and roasted or cooked alone or with beans and served with a staple (*ugali* or rice) during times of food scarcity (Sambaa).

**Medicinal:**

- Leaves are chopped, boiled and the decoction drunk to treat chest pains and mental illness.
- Roots are washed, chopped and soaked in cold water. The infusion is used to treat stomach-ache and STDs.

**Commercial:** Not marketed.

**Other:** The plant is used for fodder, grave and boundary marking, as an ornamental and as a source of bee forage.

SEASON: Shoots are collected throughout the year.

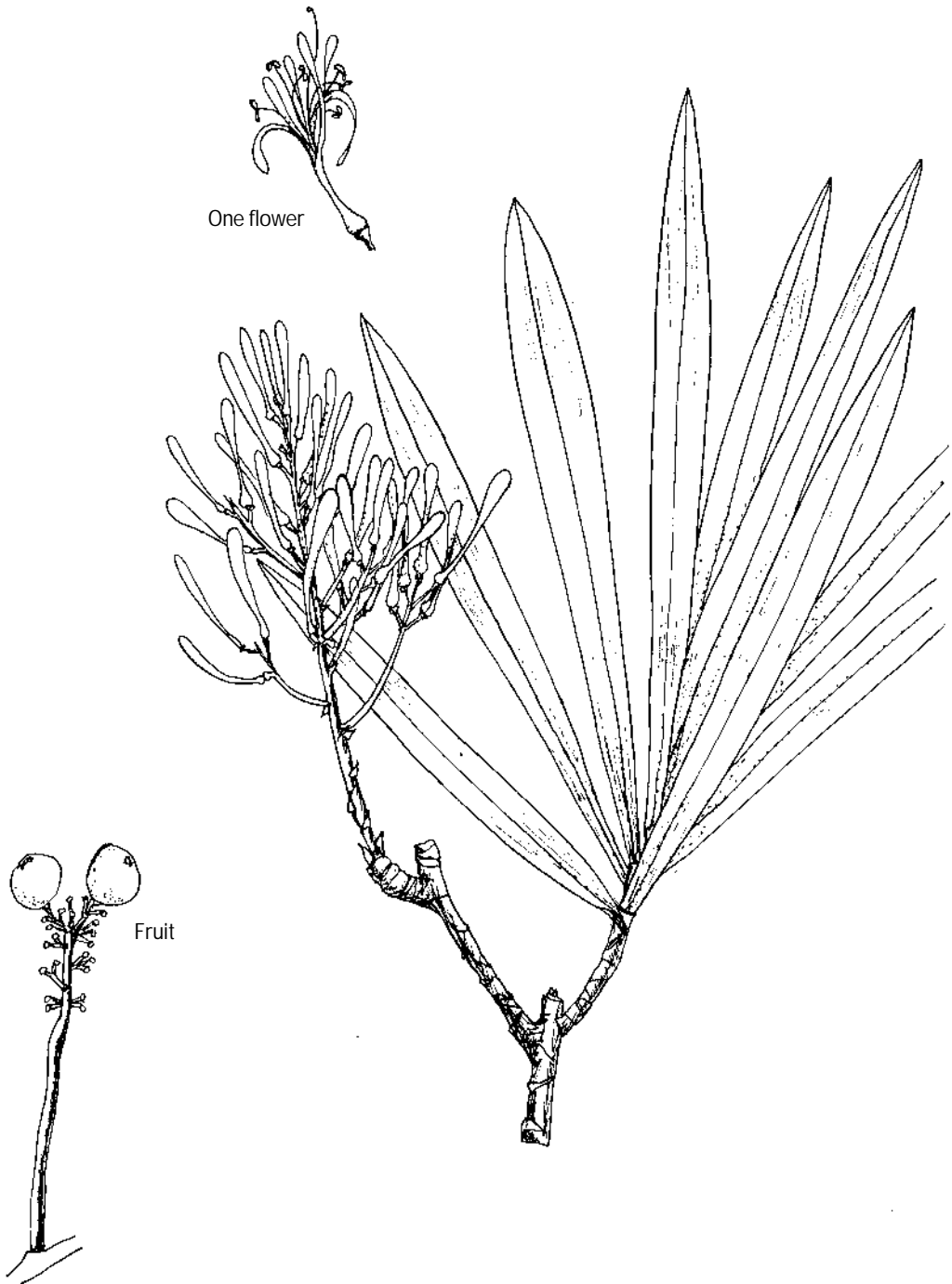
STORAGE: Not stored.

MANAGEMENT: Shoots are usually collected from the wild, but also from planted trees. Propagation is usually by cuttings, occasionally by seed.

STATUS: Locally common.

REMARKS: Another species, *D. afromontana* (**Chagga:** Sale), is used in peace-making ceremonies among the Chagga.

*Dracaena mannii* (*D. usambarensis*) Dracaenaceae



***Drymaria cordata*****Caryophyllaceae**

Indigenous

LOCAL NAMES: **Chagga:** Ukiko; **Matengo:** Linyolo; **Sambaa:** Lugulashili.

DESCRIPTION: A straggling annual herb, usually much branched, soft and hairless, often creeping along the ground rooting at the nodes. LEAVES: **Opposite, small and heart shaped to oval**, thin, over 25 mm long x 22 mm across, tip pointed, veins somewhat parallel from the base, up to 2 each side of midrib, **tiny stipules**. FLOWERS: In **terminal twice-branched heads**, often on long thin stalks, 5 narrow sepals to 5 mm, may be sticky due to glandular hairs, 4–5 bilobed **white petals** and 5 stamens. FRUIT: A dry capsule, which splits to release tiny seeds, the **sticky sepals remain around the fruit**.

ECOLOGY: Forest edges, often in shade, beside pathways in wetter forests, and rain-forest but also in dry evergreen forest and grasslands, 900–2,700 m.

DISTRIBUTION: Widespread in Tanzania. Found, for example, around Mbeya and Lushoto, in Mbizi Forest Reserve (Rukwa Region) and in Ngurdoto Crater (Arusha Region). Also found in Kenya and Uganda.

USES:

**Food:**

Tender leaves and shoots are chopped and cooked alone or with other vegetables such as amaranth or *Bidens* and served with a staple.

**Medicinal:**

- Leaves are dried and pounded. The powder is made into cigarettes which are smoked to treat chest pain.
- The plant is roasted on a hot pan and the resulting fumes inhaled to treat headache.

**Commercial:** Not marketed.

**Other:** The plant is used for fodder and may be suitable for ornamental purposes.

SEASON: Can be collected all year round where it occurs in wet places.

STORAGE: Not stored.

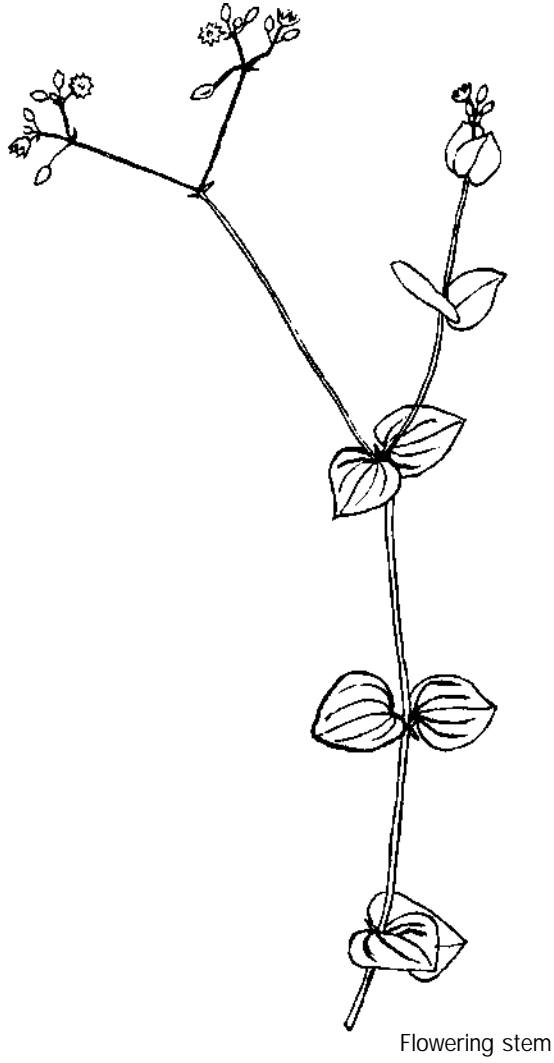
MANAGEMENT: Collected from the wild and is not cultivated or protected by the local people. Can be propagated by seed and wildings.

STATUS: Very common within its habitat.

REMARKS: A well-known troublesome weed of fields in wet places.

*Drymaria cordata*

Caryophyllaceae



*Duosperma crenatum*

## Acanthaceae

Indigenous

LOCAL NAMES: **Gogo:** Njelula; **Hehe:** Nyangelula.

DESCRIPTION: A perennial woody herb or weak shrub with a tangle of branches, sometimes forming a thicket. Erect stems arise from a woody rootstock. LEAVES: **Opposite**, long oval, **under 8 cm, tip pointed**, the **edge shallow toothed, coarse or rounded**, a few rough hairs above, more below, especially along the midrib, base narrowed to a very short stalk, 6–7 pairs of clear parallel veins. FLOWERS: Small, **tubular to 8 mm, clustered in leaf axils, pale green bracts** around the flowers with sepals as long as flower tubes, 5 petal lobes white-yellow (occasionally blue) with dots or lines in the throat, mauve-crimson-purple-brown. FRUIT: A **2-sided capsule, to 8 mm**, flattened, wider at the tip, containing round seeds.

ECOLOGY: A widespread plant, often a dominant shrub under tree cover at forest edges, in forest where there is a high ground water-table or in riverine woodland; also in open bushed grassland, overgrazed land or mixed dry scrub; on sandy, clay or gravelly soils, on steep gullies and dry rocky areas, semi-desert, 900–1,400 m.

DISTRIBUTION: Occurs in most areas of Tanzania, e.g. in Dodoma, Iringa, Morogoro and Singida Regions, but not in the west and around the lakes; also in the dry parts of central and southern Kenya.

USES:

**Food:**

Leaves are used as a vegetable. Young green leaves are collected, chopped and cooked alone or mixed with other vegetables such as peas or amaranth; coconut milk or pounded groundnuts are often added. The vegetable is then served with a staple.

**Medicinal:** Green leaves are picked, soaked in water and the liquid drunk by pregnant women. This is believed to result in an easy and safe delivery.

**Commercial:** Not marketed.

**Other:** The plant is used for fodder and is suitable as an ornamental. Older yellowing leaves that are not edible as a vegetable are still good fodder.

SEASON: Leaves are collected during the rainy season.

STORAGE: Not stored.

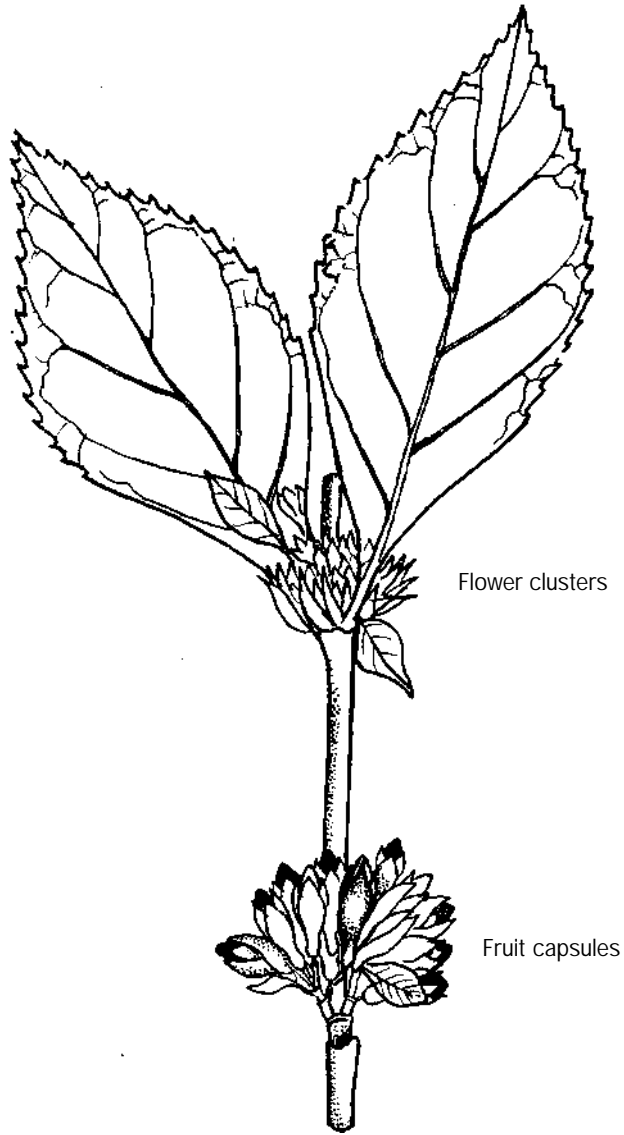
MANAGEMENT: Only collected from the wild, but can be propagated by seed.

STATUS: Locally common.

REMARKS: It is toxic to humans when the leaves are mature and turn yellow.

*Duosperma crenatum*

Acanthaceae



*Embelia schimperi*

## Myrsinaceae

Indigenous

LOCAL NAMES: **Chagga:** Ngetsi; **Nyiha:** Igalilonji; **Sambaa:** Ngera.

DESCRIPTION: A straggly bush or climber. BARK: Smooth red-brown. **Twigs without hairs** but with raised pale dots, the breathing pores. LEAVES: Oval, wide or narrow to **8 cm x 4 cm, tip rounded**, narrowing to the base, a red midrib and stalk to 2 cm. The midrib and **15 or more side veins** raised below. FLOWERS: Green-white-cream and tiny, on a hairy stalk from the leaf axil. FRUIT: Very many on stalks, each rounded, 6 mm across, red when ripe, tipped by the old style, one seed inside.

ECOLOGY: Roadsides, thickets, forest edges in medium- and high-altitude areas, 1,000-3,200 m; rainfall 800-2,000 mm. Grows in a wide range of soil types.

DISTRIBUTION: Widespread in highland areas of Tanzania, e.g. Kilimanjaro, Tanga, Iringa and Mbeya. Also in Kenya, Uganda, Nigeria, Cameroon, the Congo basin, Burundi, Ethiopia, Sudan, Angola, Zambia, Zimbabwe and Malawi.

USES:

**Food:**

The young leaves are collected and eaten raw in small amounts as a snack, mostly by cattle herders. They taste salty.

**Medicinal:**

- Leaves are pounded and the powder is rubbed into swollen breasts of lactating mothers to treat mastitis.
- Alternatively, the powder is soaked in water and the infusion is drunk to treat difficult labour in women or for tapeworm.
- Fruit and roots are boiled and the decoction is drunk to treat intestinal worms.

**Commercial:** Fruit are sold in local markets for medicinal purposes.

**Other:** The plant is used for fodder.

SEASON: Young leaves collected in the early rains.

STORAGE: Not stored.

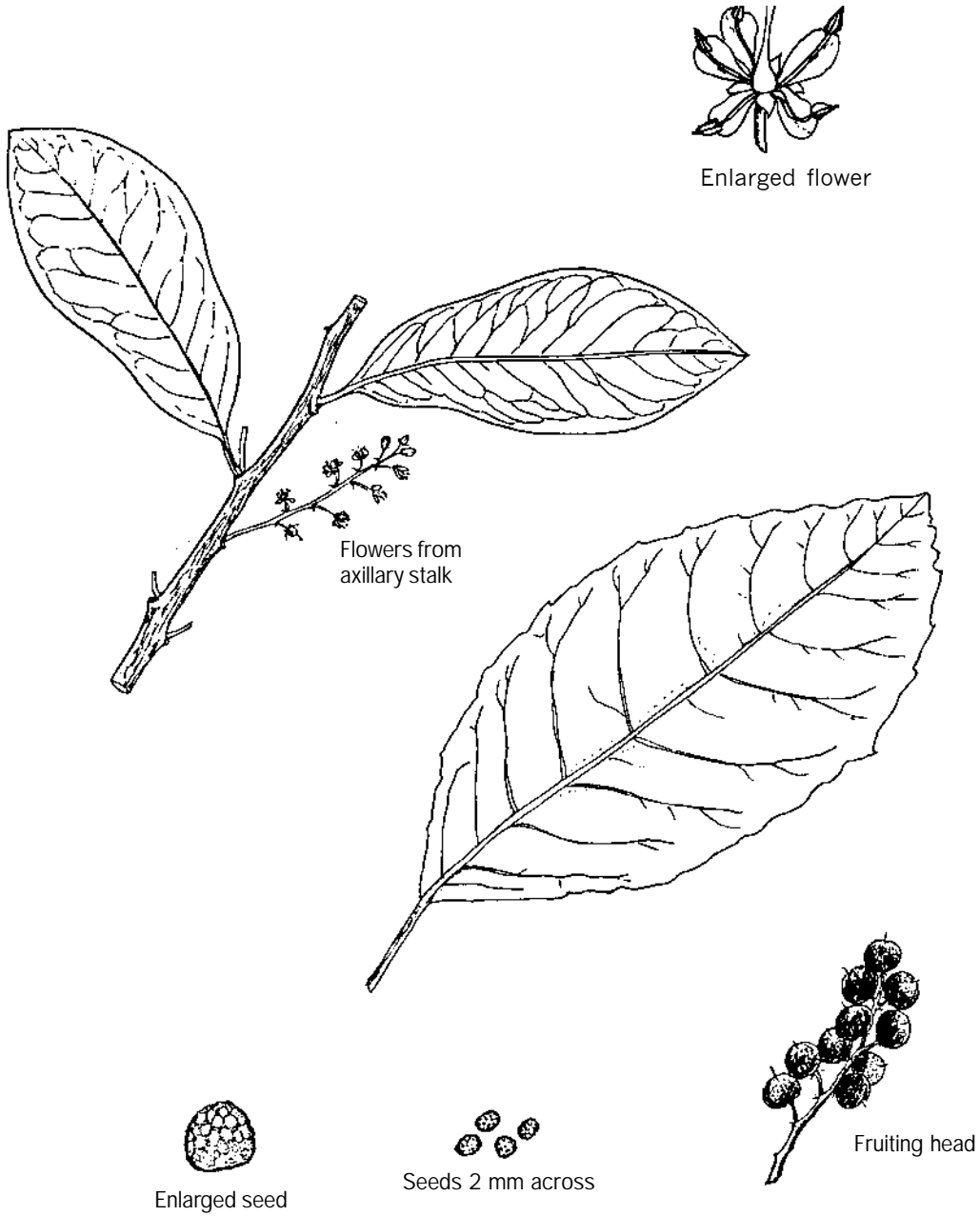
MANAGEMENT: Collected from the wild and not protected or cultivated by local people.

STATUS: Uncommon, but once found, easy to collect in large amounts.



*Embelia schimperi*

Myrsinaceae



*Emilia coccinea*

## Compositae

Indigenous

LOCAL NAMES: **Bena:** Lisuka; **Luguru:** Sunga; **Sambaa:** Chunga kubwa, Chunga kuu, Limi ja ng'ombe; **Sukuma:** Igongwe; **Swahili:** Kilemba cha bwana, Ulimi wa ngombe.

DESCRIPTION: An erect almost **hairless annual herb**, usually 30–60 cm, with showy flower heads. **LEAVES:** Alternate, long oval or oblong, **wider at the base, clasping the stem**, often purple below, edge lightly toothed. **FLOWERS:** In loose terminal heads, **conspicuous bright yellow to orange, tubular florets** (no spreading ray florets) are **twice as long as the green cup-shaped involucre around the heads**, only 6–8 mm, a **single row of phyllaries almost joined together** (see illustration). **FRUIT:** Angular seeds (achenes), minutely hairy, with bristles.

ECOLOGY: A conspicuous weed of roadsides, waste places, abundant in old cultivated land, often common in dry country at low altitudes, 0–2,000 m.

DISTRIBUTION: Common in East and Central Africa, from Kenya and Tanzania west to Cameroon and south to Malawi, Zambia and Zimbabwe. In Tanzania it is common, e.g. in Tanga, Morogoro, Pwani and Lindi Regions.

USES:

**Food:**

Leaves are collected, chopped and cooked alone or with other vegetables such as peas or beans. Coconut milk is added and the dish is then eaten with a staple.

**Medicinal:**

- Green leaves are crushed and used to treat sores, sinusitis and as a poultice for wounds.
- Leaves are mixed with those of *Ipomoea eriocarpa* and soaked in cold water. The resulting infusion is used as eye drops.
- Roots are boiled and the decoction used to treat STDs.

**Commercial:** Sold in local markets.

**Other:** The plant is used for fodder and ornamental purposes.

SEASON: Collected during the rainy season.

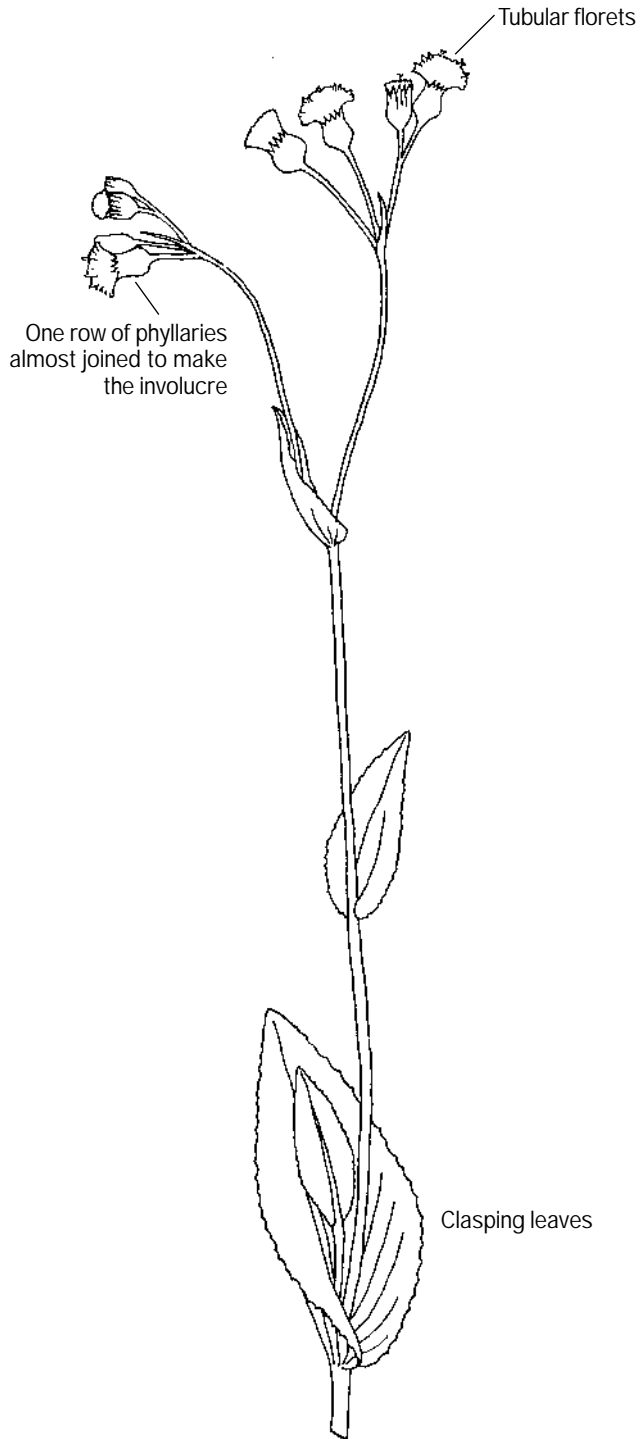
STORAGE: Not stored.

MANAGEMENT: Usually collected from the wild, but can be propagated by seed.

STATUS: Locally common.

*Emilia coccinea*

Compositae



*Encephalartos hildebrandtii*

## Zamiaceae

Indigenous

LOCAL NAMES: **Swahili:** Mgwede, Mkwanga, Msapo.

DESCRIPTION: An evergreen palm-like tree with a **stout unbranched trunk covered with leaf scars, reaching up to 6 m**, more often a shrub with a rosette of many leaves. LEAVES: **Arching, pinnate, dark green shiny to 3 m**, white woolly when very young; the stalk bearing **about 80 pairs of stiff, tough and leathery leaflets, 15–35 cm long, the sharp tip with 2–3 spiny teeth**, and 1–9 on each margin, faint parallel nerves below, leaflets smaller towards the base (see illustration). CONES: Male and female plants bear different cones at the stem apex within the circle of leaves. **Male cones, dull red, cylindrical, 20–50 cm high x 5–9 cm across**, on a stalk about 15 cm, producing pollen (after rain). **Female cones up to 3, dull green yellow, cylindrical 28–60 cm, to 25 cm across**, wider than male cones, also stalked. **Cones ripen brown after pollination by insects, and seeds develop in pairs below the scales, orange-red, smooth and angular with a fleshy outer layer, the inner nut to 3 cm long.**

ECOLOGY: Coastal evergreen bushland, lowland forest and dry montane rainforest on red loams and sandy soil, 0–1,200 m.

DISTRIBUTION: Coastal Tanzania, e.g. recorded in Tanga and Morogoro Regions, and also common in Zanzibar; Kenya and Uganda.

USES:

**Food:**

The lower part of the trunk is peeled and chopped or sliced. The slices are either left in a heap or soaked in water for a week to ferment, then dried in the sun and pounded and sieved into flour. The flour is used to make *uji* or *ugali*.

**Commercial:** Not marketed since it is only used during times of famine.

**Other:** The plant is used for ornamental purposes.

SEASON: Collected at all times during periods of food scarcity.

STORAGE: Dried slices and flour can be stored for several months.

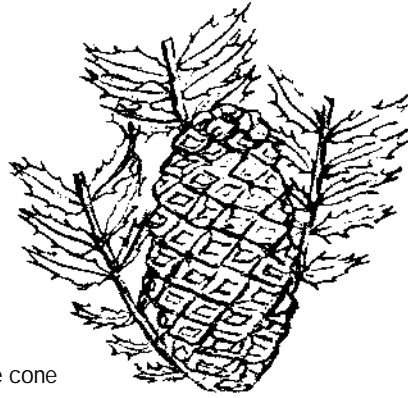
MANAGEMENT: Usually collected from the wild, but can be propagated by seed and suckers.

STATUS: Locally common.

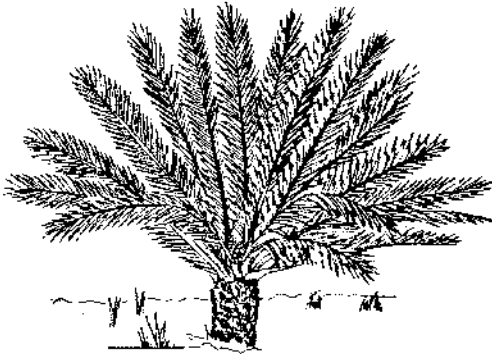
REMARKS: Seeds are also known to be eaten during famine, but now reputed to cause liver cancer. Baboons and chimpanzees eat the seeds.

*Encephalartos hildebrandtii*

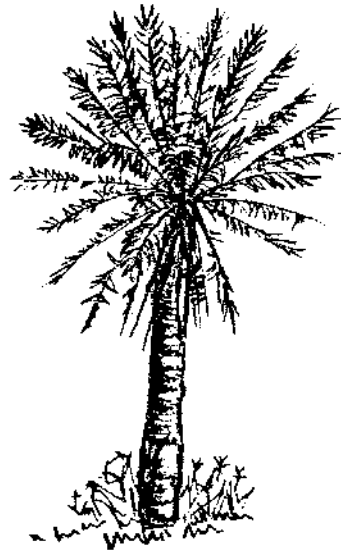
Zamiaceae



Female cone



Young plant with central female cones



Older tree

***Englerophytum magalismontanum***      **Sapotaceae**  
**(*Bequaertiendendron magalismontanum*)**

Indigenous

LOCAL NAMES: **English:** Stem fruit; **Luguru:** Mlembelembe; **Mwera:** Mtondole; **Swahili:** Mduyuyu; **Tongwe:** Mlangale, Mtwentwe.

DESCRIPTION: An evergreen shrub or small tree, but reaching 10 m in forest (up to 35 m), the thin trunk short, often crooked and fluted, a **spreading crown, dark green and dense. Young parts all covered with conspicuous rusty brown hairs.** All parts contain **milky sap.** BARK: Grey, fairly smooth, slightly scaly but covered with **small brown-black raised growths on which flowers** and fruit are borne. LEAVES: Alternate, well spaced in young plants, but later mostly crowded at the ends of branches (**leaf stipules persist**), stiff and **long oval, 4–19 cm long, dark shiny green above, contrasting with pale silvery to golden brown below** (due to silky hairs), midrib clear, tip **rounded or notched**, base variable to a stout stalk reaching 2 cm, numerous parallel side nerves but not well marked. FLOWERS: Strongly scented, tiny, cream-brown-pink in **small clusters, on 1 cm stalks along trunk and branches or in fallen leaf axils**, hairy sepals. FRUIT: Orange-red-maroon, oval to 2.5 cm long, **sharply tipped by the old style** and crowded along the old wood, the tough outer skin encloses red pulp with milky juice and a hard central stone containing 1–2 flat seeds.

ECOLOGY: Found in coastal and inland deciduous woodlands, in riverine vegetation, wooded ravines, especially among rocks in sandy soils, also in anthill thickets, 0–1,500 m.

DISTRIBUTION: Western, eastern and southern Tanzania, including the Southern Highlands; noted in Kigoma, Iringa, Tabora, Rukwa and Lindi Regions. Widespread in Africa from Guinea, the Congo basin, south through Angola, Zambia, Zimbabwe, Malawi, Mozambique to Gauteng, Swaziland and Botswana.

USES:

**Food:**

Ripe fruit are collected from the ground or tree and eaten raw. They are sweet with a high vitamin C content. They can also be used for making wine, brandy, syrup and jelly.

**Medicinal:**

- Roots are pounded and the powder is rubbed on the forehead after scarification to treat headache.
- Fruit and roots are pounded and the powder soaked in cold water. The resulting infusion is used as medicine to treat epilepsy.

**Commercial:** Not marketed.

**Other:** The wood is hard and heavy and is used for building poles, firewood, tool handles and spoons.

## *Englerophytum magalismontanum* (contd) Sapotaceae

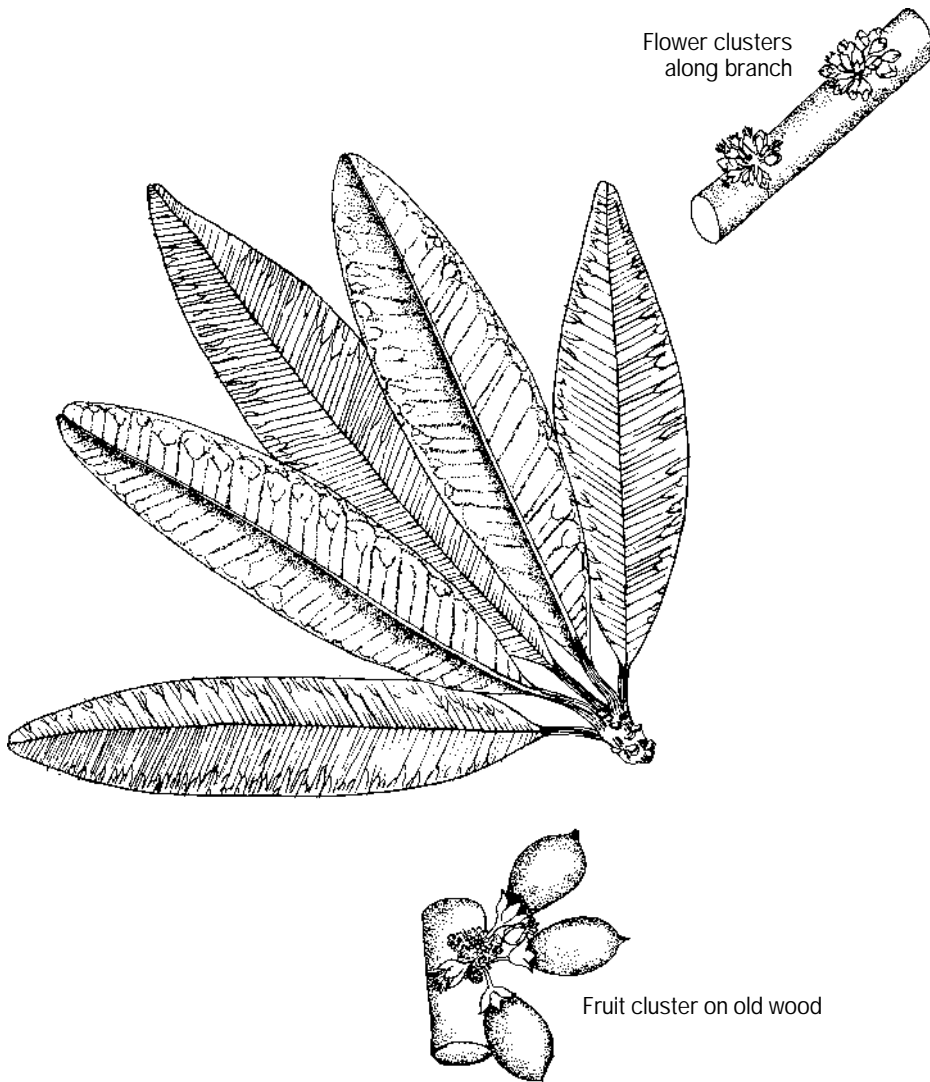
SEASON: Ripe fruit are collected from April to June.

STORAGE: Not stored.

MANAGEMENT: Collected from the wild and not cultivated or protected by the local people. The species can be propagated easily by fresh seed and cuttings.

STATUS: Occasional within its habitat.

REMARKS: A hardy and fast-growing species suitable for agroforestry.



***Englerophytum natalense***  
**(*Bequaertiendendron natalense*)**

**Sapotaceae**

Indigenous

LOCAL NAMES: **Chagga:** Mdulu-ndugu, Ngapillo, Ngapilo; **English:** Natal milk plum; **Kimbu:** Mnumbulu; **Nguu:** Mdulu; **Nyakyusa:** Ndabelobe; **Sambaa:** Mdulu; **Swahili:** Mduyuyu; **Tongwe:** Msolosolo; **Zigua:** Mdulu.

DESCRIPTION: An evergreen tree, **usually 4–12 m** but up to 25 m, with spreading branches which may be rather horizontal, bole may be fluted, all young parts covered with dense brown hairs. BARK: Brown, flaking or scaling with age. LEAVES: Alternate, crowded at ends of branchlets, long oval, 7–12 cm, the thin blade quite stiff, shiny green above but **silver-grey below due to fine lines of hairs**, and some long brown hairs, edge slightly rolled under and wavy, tip pointed or blunt, base narrowed to a rough dark stalk about 1 cm (**no stipules**). **Veins clearly parallel, close.** FLOWERS: Cream, corolla only 6 mm, **1–3 together in axils of current leaves, almost stalkless**, surrounded by **5 hairy brown sepals in one whorl**. FRUIT: An **oval berry to 3.5 cm long, red and smooth** skinned when ripe, a small beak at the tip containing edible pulp surrounding **1 seed**.

ECOLOGY: Found in lowland and upland rainforest, riverine, ravine and coastal forests and in forests with a high ground water-table. Often crowded at forest margins and in clearings, 0–1,800 m.

DISTRIBUTION: In most parts of Tanzania except western areas and the Southern Highlands. Has been recorded, for example, around Morogoro and in West Usambaras. Also found in Uganda, Kenya, south through Malawi, Mozambique, Zimbabwe to South Africa.

USES:

**Food:**

The fruit are edible. The ripe fruit pulp is fleshy and eaten raw. It is sweet and much liked by children.

**Medicinal:** Roots are used as medicine to treat stomach-ache.

**Commercial:** Not marketed.

**Other:** The wood is used for firewood, poles, tool handles, milk pots and spoons.

The tree is used for shade and as an ornamental.

SEASON: Ripe fruit are available from April to June.

STORAGE: Not stored.

MANAGEMENT: Collected from the wild and not cultivated. This species can be propagated by fresh seed.

STATUS: Locally common.

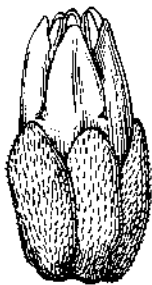


*Englerophytum natalense*  
(*Bequaertiodendron natalense*)

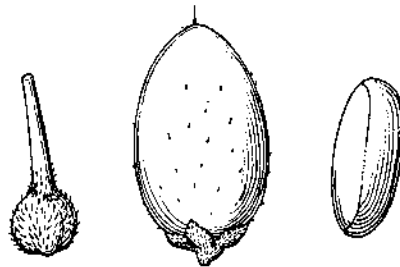
Sapotaceae



Lower leaf surface enlarged  
to show long hairs



Enlarged flower



Ovary, fruit and seed (enlarged)

***Ensete ventricosum (Musa ensete)*****Musaceae**

Indigenous

LOCAL NAMES: **Bena:** Livangala; **Bondei:** Tambwe; **Bende:** Tambwe; **Chagga:** Isangaruhi; **English:** Wild banana; **Fipa:** Tochi; **Hehe:** Lilimbili; **Luguru:** Koza; **Meru:** Mukobo; **Nyakyusa:** Mabangala; **Sambaa:** Tambwe; **Swahili:** Mgomba tumbili, Mgomba mwitu; **Tongwe:** Kabunditoke; **Zigua:** Mtabwe, Tambwe.

DESCRIPTION: **A leafy herb 6–12 m, swollen below**, the false stem formed by the leaf bases. **LEAVES:** **Large leaves** grow in spirals, each one to **6 m long x 1 m wide, bright green** with a **thick pink-red midrib** and a short red stalk. The leaf blades tear with age. **FLOWERS:** In **large hanging heads 2–3 m long**, the white flowers with 1 petal protected by **large dark red bracts**, 5 stamens produce sticky pollen. **FRUIT:** Although the small yellow clusters look like normal bananas they are not edible. Each leathery fruit, about 9 cm long, contains many hard seeds, brown-black, to 2 cm long, with only a thin layer of pulp. **The whole plant dies down after fruiting.**

ECOLOGY: Found in upland forest, often in ravines and on steep slopes, in swamps and on river banks, occasionally also in drier lowland forests, 900–2,300 m; rainfall 800–2,000 mm. Grows in a variety of soil types but does best in loamy soils.

DISTRIBUTION: Widespread in highland areas of East Africa. In Tanzania it is common in Kilimanjaro, Arusha, Iringa, Morogoro and Mbeya Regions. Also found in Ethiopia, Cameroon, south to Angola and South Africa.

USES:

**Food:**

The stem pulp is edible when cooked.

**Medicinal:**

- The stem and leaves are used to treat liver disease and to prevent miscarriages.
- A white powder obtained from the seeds is used to treat wounds. It is applied on the wound twice a day.

**Commercial:** Not marketed.

**Other:** The tree is used as an ornamental and for shade. The seeds are used for making necklaces and in games. The stem is used as fodder for cattle and also produces a brown dye. Leaves are used for weaving and thatching.

SEASON: Stems are collected at any time during famine.

STORAGE: Not stored.

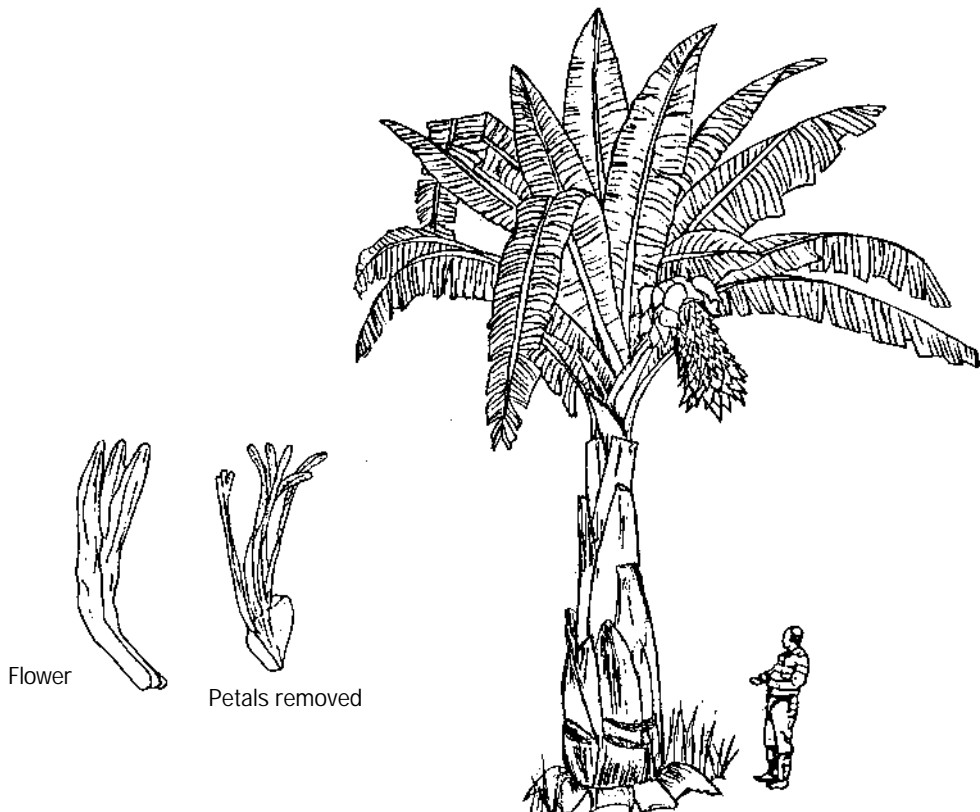
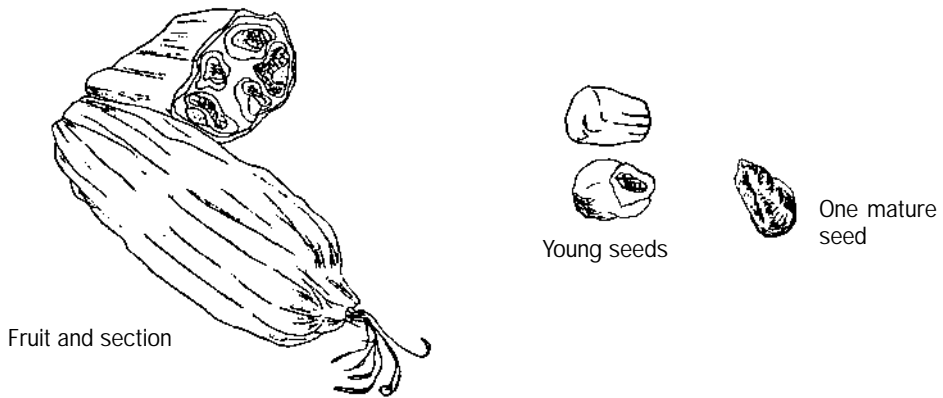
MANAGEMENT: Collected from the wild, but also easily propagated from seed.

STATUS: Locally common.

*Ensete ventricosum* (contd)

Musaceae

REMARKS: The Hehe believe that planting this tree reduces the risk of damage caused by thunder storms.



*Eriosema burkei* var. *burkei*

## Papilionaceae

Indigenous

LOCAL NAMES: **Bena:** Ng'owo; **Matengo:** Inzihuluumbi; **Nyamwezi:** Kapande.

DESCRIPTION: A **short** erect herb, with one or a few branched stems from a large woody rootstock (which **survives bush fires**), the stem flattened, to 28 cm, covered with rusty-brown hairs. LEAVES: **Compound, with 1–3 leaflets**, on a stalk 2–5 cm, with **a pair of narrow hairy stipules at the base**, each leaflet shortly stalked, oval and wider at the rounded tip, hairy and glandular below with raised veins. FLOWERS: Usually appearing when the plant is entirely leafless, on a stalk to 7 cm, topped by a 5-cm section of flowers, **each tiny flower stalk strongly bent downwards**, hairy bracts fall early, the **calyx also hairy with 5 pointed lobes**, the **standard petal hairy, glandular** outside, about 1 cm long, **yellow, marked pink-orange-brown** (the style bent at or below the middle). FRUIT: **Pods crowded at the tip of the stalk, unusually short and rounded to 1.5 cm long**, tip pointed, covered by long rusty brown and glandular hairs, containing 2 seeds, speckled brown-black with a cream aril on the rim.

ECOLOGY: This plant grows in seasonally burnt grassland or grassland with scattered trees, 1,500–1,800.

DISTRIBUTION: Found only in the Southern Highlands, e.g. in Mbeya, Songea and Iringa Regions. Also found in the southern part of the Congo basin, Zimbabwe, Angola and South Africa (Gauteng).

USES:

**Food:**

The root tubers are dug up, washed and chewed raw. They are starchy and chewed like raw cassava but have a strong smell.

**Commercial:** Not marketed.

**Other:** The plant can be used for fodder.

SEASON: Tubers are collected during the rainy season.

STORAGE: Not stored.

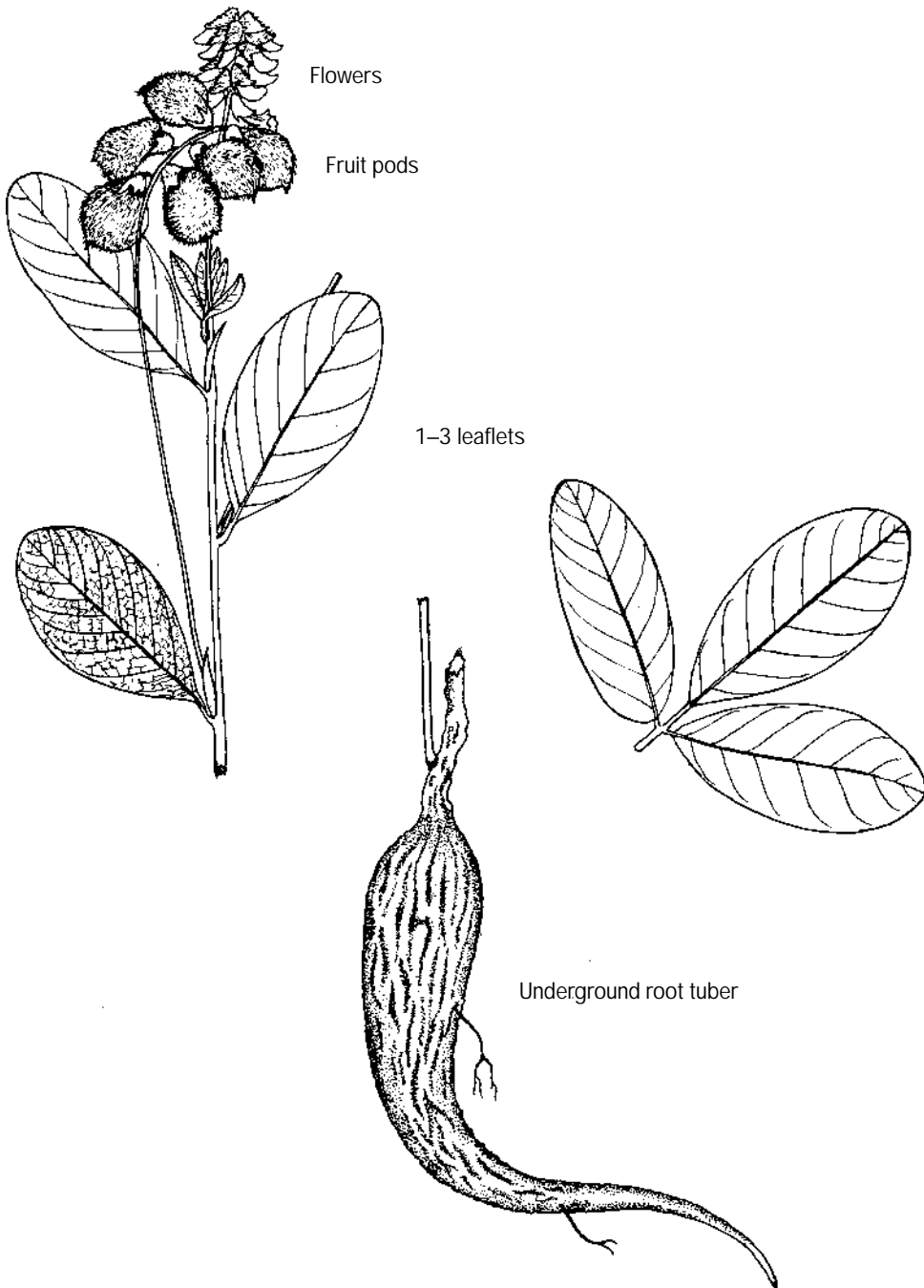
MANAGEMENT: Collected from the wild and not cultivated.

STATUS: Occasional within its area of distribution.

REMARKS: Several *Eriosema* species are edible, including *E. ukingense* (**Bondei:** Kibaazi-mzitu; **Matengo:** Inzihuluumbi; **Sambaa:** Kibaazi-mzitu) which is an erect herb 15–35 cm high found in Iringa and Songea Regions.

*Eriosema burkei* var. *burkei*

Papilionaceae



***Erythrococca kirkii*****Euphorbiaceae**

Indigenous

LOCAL NAMES: **Bondei:** Mnyembeuwe; **Hehe:** Lutini, Nyakibiki, Nyamtulo; **Sambaa:** Mnyembeue; **Zigua:** Mnyembeuwe.

DESCRIPTION: A much-branched straggling or erect herb, often a climbing shrub, 1–3.5 m. BARK: Rough, twigs pale-grey-green, with clear breathing pores. LEAVES: **Long oval, 3–12 cm, tip long but blunt, the edge round toothed**, narrowed to a stalk about 1 cm, 6–8 pairs of looped veins, almost hairless. **Stipules triangular, pointed, persistent.** FLOWERS: No petals, tiny, **green-white in dense stalkless clusters**, male clusters 1–2 cm across, fewer female flowers in a cluster, a 3-part purple ovary, white stigmas. FRUIT: **3-lobed**, each lobe 3–4 mm (sometimes only 1 or 2 develop to maturity), **hairless, yellow-green-red, ripening purple.** They break open to show the orange-red aril around the seed.

ECOLOGY: A plant of forest edges, coastal bushland or thickets, inland mostly along rivers or beside lakes, 0–1,200 m.

DISTRIBUTION: Widespread in Tanzania, Kenya, Mozambique.

USES:

**Food:**

- Leaves are collected, chopped and cooked alone, or pounded groundnuts or coconut milk may be added, thus making a slippery vegetable known locally as *mlenda* which is only eaten with *ugali*.
- Leaves are cooked as a mixture with other vegetables such as *Amaranthus*, *Bidens* or *Galinsoga* and served with a staple (*ugali*, rice or bananas).
- Ripe fruit are eaten raw around Ismani, Iringa Region.

**Commercial:** Sold in local markets.

**Other:** The wood is used for firewood. The leaves are used for fodder. The plant is used for ornamental purposes.

SEASON: Leaves are collected from February to June.

STORAGE: Not stored.

MANAGEMENT: Collected from the wild and not cultivated or protected by the local people. It can be propagated by seed.

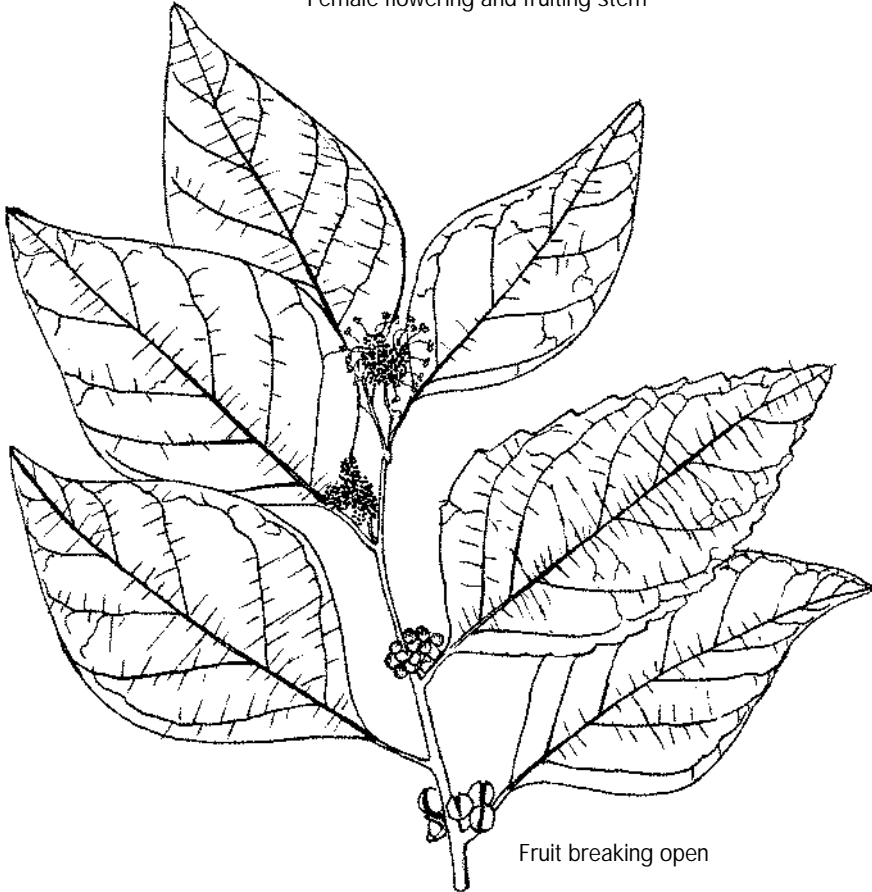
STATUS: Locally common.

REMARKS: A popular wild vegetable plant among the Bondei, Sambaa and Zigua people. Useful since it has green leaves all year round.

*Erythrococca kirkii*

Euphorbiaceae

Female flowering and fruiting stem



Fruit breaking open



Male flower



Female flower

***Eugenia capensis* subsp. *nyassensis***  
**(*E. bukobensis*)**

**Myrtaceae**

Indigenous

LOCAL NAMES: **English:** Dune myrtle, Northern wild myrtle; **Hehe:** Kivengi; **Nyamwezi:** Kasya mongo; **Swahili:** Mkangaa; **Wanji:** Sing'ani; **Zinza:** Mtukizai.

DESCRIPTION: A bushy shrub or tree to 5 m, the branches hanging down. Many stems hairy. BARK: Moderately smooth. LEAVES: **Dull green, more or less opposite**, long oval, 2–7 cm long, the tip drawn out but blunt, shortly stalked. The thin leaves are aromatic when crushed and when held against the light gland dots are visible. FLOWERS: 3–9 together on thin stalks next to leaves, the **4 tiny white petals**, sometimes slightly pink, are fragrant, the flower about 1 cm across with a **central mass of stamens**, the **calyx tube rounded and its 4 lobes shorter than petals**. FRUIT: **Oval to 1.5 cm long**, fleshy yellow-red, **ripening purple-black** (becoming hard brown—like coffee berries), **tipped by the remains of the calyx**, pleasant to taste but acid.

ECOLOGY: An under-storey shrub of forest edges, found in riverine woodland, wooded grassland, thickets (on islands in Lake Victoria), occasionally in mountain forests.

DISTRIBUTION: Found in the western areas of Tanzania, e.g. in Tabora, Kagera, Mwanza and Kigoma Regions. From Tanzania and Uganda south to South Africa and on Madagascar.

USES:

**Food:**

Ripe fruit are fleshy, sweet and eaten raw as a snack. They are much liked by herdsmen and forest workers.

**Commercial:** Not marketed.

**Other:** The wood is white, hard and heavy and is used for firewood, charcoal, poles and spoons.

SEASON: Ripe fruit are collected from June to December.

STORAGE: Not stored.

MANAGEMENT: Collected from the wild and not cultivated or protected by the local people. Can be propagated using fresh seed.

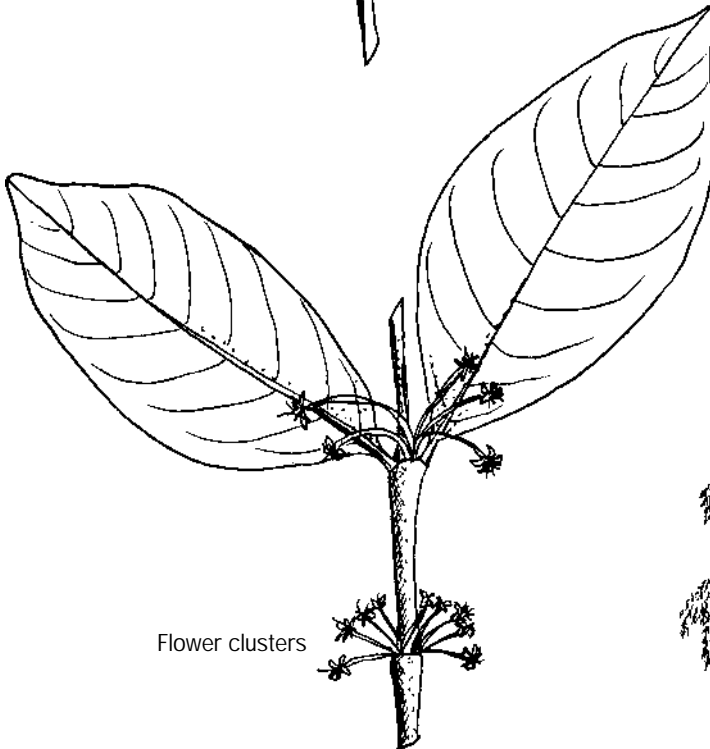
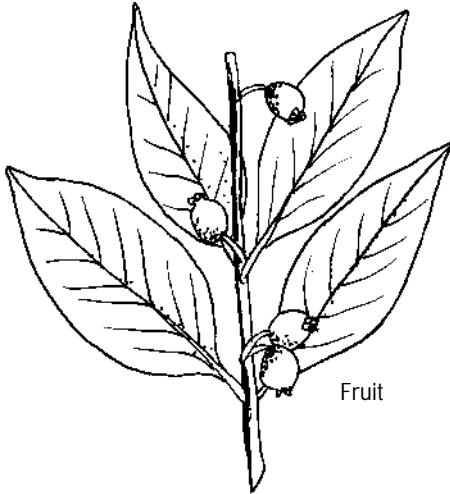
STATUS: Locally common.

REMARKS: *E. malangensis* (**Hehe:** Kivengi, Mbugavugoo) is a woody herb, 30–35 cm high, with alternate leaves and small purple fruit which are edible. It is found in Iringa and Songea Regions. It also occurs in Malawi and southwards to Zimbabwe.



*Eugenia capensis* subsp. *nyassensis*  
(*E. bukobensis*)

Myrtaceae



*Fadogia ancylantha*

## Rubiaceae

Indigenous

LOCAL NAMES: **Fiome:** Booami; **Hehe:** Kindokoli, Kitokoli; **Matengo:** Manduguli, Mandunguli.

DESCRIPTION: A herb or shrub to 1.8 m with several woody stems (rounded or triangular), growing out of a woody rootstock, to 2 cm across. LEAVES: In opposite pairs or **whorls of 3, oval, 3–11 cm, the tip pointed**, base narrowed to a tiny stalk, blade thin, sometimes a few hairs, a pair of hairy stipules have hairy tips to 7 mm. FLOWERS: Green-yellow and tubular, 2–3 together on a stalk about 1 cm, beside leaves, the slender **corolla tube distinctly curved and wider above, to 2.8 cm long**, with 5 triangular lobes, pale-yellow-white inside, **the calyx just a short rim without teeth**. FRUIT: A round 5-lobed berry, about 1.2-cm diameter.

ECOLOGY: Grassland with scattered trees, high grassland, *Acacia* and *Combretum* wooded grassland as well as *Brachystegia* woodland; also in old cultivation, 100–1,900 m.

DISTRIBUTION: Found in most parts of Tanzania but not Tanga Region. Also occurs from Nigeria, the Congo basin, Uganda, Burundi, Rwanda and Sudan south to Malawi, Zambia and Zimbabwe.

USES:

**Food:**

- Ripe fruit are fleshy and eaten raw. They are sweet, have a pleasant smell and are much favoured by children and herdsman.
- Dry leaves are boiled and used as tea (Hehe, Fipa, Rangi).
- The nectar produced by flowers is sweet and sucked by children.

**Medicinal:** Roots are chewed and then used as a toothbrush which helps stop bleeding from the gums.

**Commercial:** Not marketed.

**Other:** The plant is useful as a source of bee forage and ornamental purposes.

SEASON: Ripe fruit are collected from October to January.

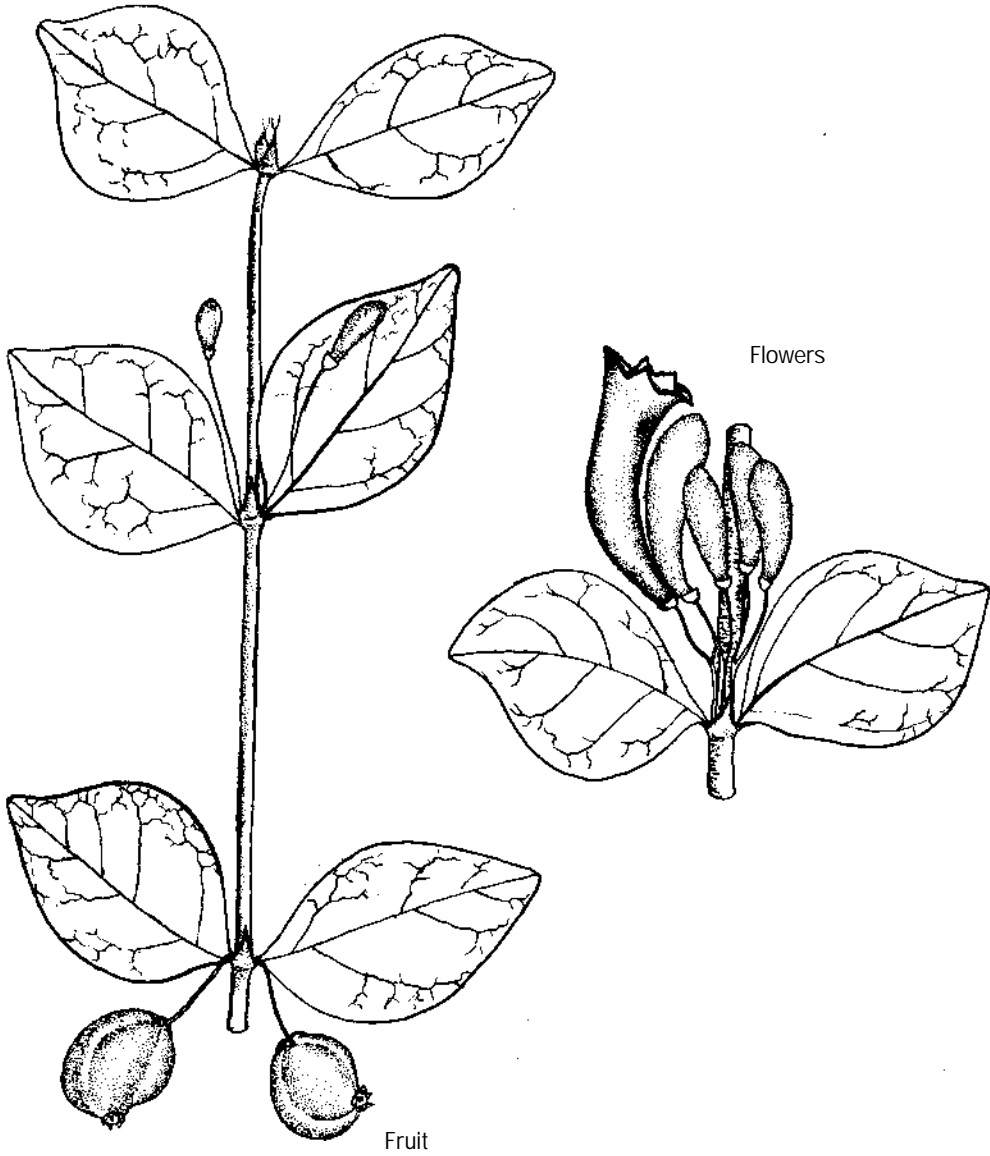
STORAGE: Dried and pounded leaves can be stored for use later as tea.

MANAGEMENT: Collected from the wild and not cultivated. Propagation can be done using fresh seed.

STATUS: Occasional within its area of distribution.

*Fadogia ancylantha*

Rubiaceae



***Fadogia cienkowskii* var. *cienkowskii***      **Rubiaceae**

Indigenous

LOCAL NAMES: **Hehe:** Kindokoli, Kitokoli; **Matengo:** Vikoko ndumbila; **Nyamwezi:** Kambolambola; **Nyasa:** Vikoko ndumbila.

DESCRIPTION: A woody herb or undershrub with few to many unbranched stems reaching 1 m from a woody rhizome, stems usually covered with dense pale rusty hairs. LEAVES: In whorls of 3–4, **blades 2–8 cm long x 4.5 cm wide**, tip usually pointed, **shiny above with few hairs but paler below, a mat of coarse rusty-grey hairs cover additional short white hairs below**, stalks only 1.5 mm, hairy stipules to 9 mm. FLOWERS: **Bright cream-yellow, 2–6 together**, grow from leaf axils on stalks less than 1 cm, buds pointed, hairy, flower tube **to 3.8 mm**, the yellow-green-white stigma protruding beyond the flower lobes. FRUIT: **Shiny, rounded, to 1 cm across**, crowned by old calyx lobes, dark green **ripening black**, containing 1–3 seeds.

ECOLOGY: Grassland, including upland grassland, seasonally wet grassland, regularly burnt grassland, wooded grassland with *Protea*, *Combretum* or *Uapaca* and open *Brachystegia* woodland; also on rocky slopes in bamboo zones on some mountains (Uganda), 1,000–2,100 m.

DISTRIBUTION: Western Tanzania, e.g. recorded from Kigwa Forest Reserve and Sikonge in Tabora Region, and also in Kigoma Region. Also found in Uganda, Kenya, from West Africa to Sudan and Ethiopia, south to Zambia, Malawi, Zimbabwe and Angola.

USES:

**Food:**

- Ripe fruit are fleshy, sweet and eaten raw. They are eaten as a snack by children and herdsmen.
- Green leaves are collected and used for tea.
- The nectar from flowers is sweet and sucked by children.

**Medicinal:** Roots are used for treating infertility.

**Commercial:** Not marketed.

**Other:** The plant is a good source of bee forage and as an ornamental.

SEASON: Ripe fruit are collected from October to April.

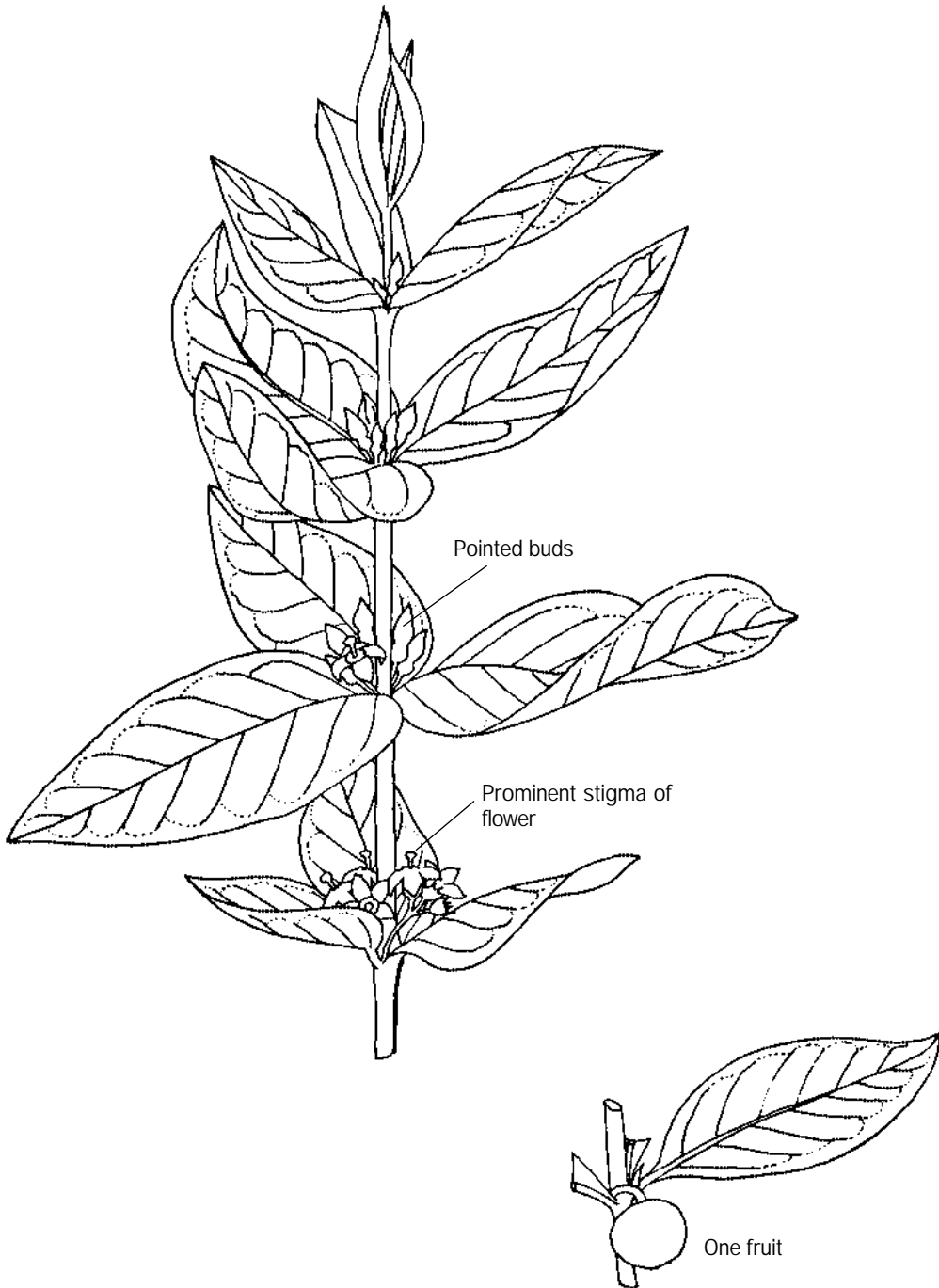
STORAGE: Not stored.

MANAGEMENT: Collected from the wild and not cultivated. It can be propagated by fresh seed.

STATUS: Occasional within its area of distribution.

*Fadogia cienkowskii* var. *cienkowskii*

Rubiaceae



*Fadogia elskensii* var. *elskensii*

## Rubiaceae

Indigenous

LOCAL NAMES: **Fiome:** Booami; **Fipa:** Nakalondo; **Hehe:** Kindokoli, Kitokoli; **Matengo:** Madunguli.

DESCRIPTION: A shrubby herb with **several unbranched stems to 25–90 cm from a woody rootstock**, the upper stems 4-angled, all densely hairy. LEAVES: In whorls of 3–4, oval blades 4–9 cm, tip usually sharp pointed, base rounded to a 2 mm stalk, the upper surface raised between the veins (bullate), the hairs not obscuring the surface, but **below dense woolly, velvety grey-white-brown hairs cover the surface completely. Stipules with a narrowed tip.** FLOWERS: Small, yellow-green-cream in axillary groups, 1–5, shortly stalked, **buds pointed, hairy**, tube 4 mm, 5 petals and sepals. FRUIT: Rounded, shiny, black about 1-cm diameter, containing up to 5 rough seeds.

ECOLOGY: In woodland with *Brachystegia*, *Isoberlinia*, *Uapaca*, *Protea*, grassland including grasslands subject to seasonal burning, 1,000–1,800.

DISTRIBUTION: Widespread in Tanzania except in Tanga Region and central areas of the country, e.g. around Mkimbizi in Iringa. Also in the Congo basin, Burundi and Malawi.

USES:

**Food:**

- Ripe fruit are sweet and eaten raw.
- The nectar from flower tubes is sweet and sucked by children.

**Medicinal:** Roots are boiled with porridge and taken to treat infertility in women.

**Commercial:** Not marketed.

**Other:** The plant is useful as a source of bee forage and as an ornamental.

SEASON: Ripe fruit are collected from October to January.

STORAGE: Not stored.

MANAGEMENT: Collected from the wild and not cultivated. This species can be propagated by seed and cuttings from stem base or rootstock.

STATUS: Locally common.

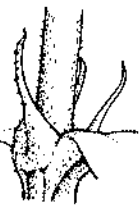
REMARKS: *F. elskensii* var. *ufipaensis*, a woody herb up to 25 cm high, with leaves with short soft hairs, is found in Sumbawanga District and also in the Congo basin. The fruit of this variety are also edible.

*Fadogia elskensii* var. *elskensii*

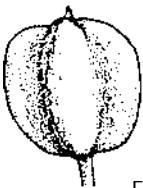
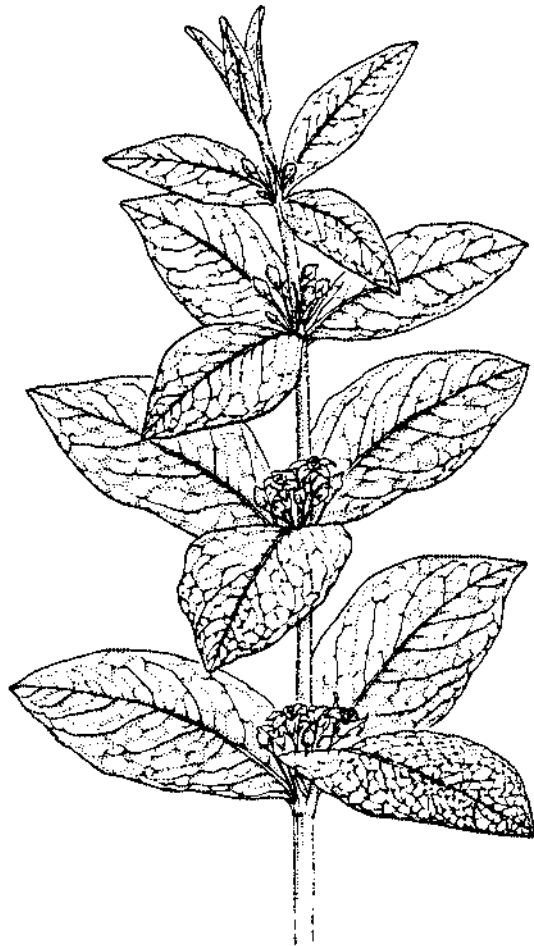
Rubiaceae



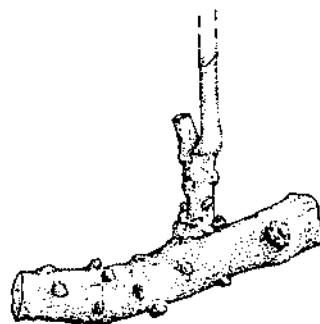
Bud and flower



Stipules



Fruit and seed



*Fadogia homblei*

## Rubiaceae

Indigenous

LOCAL NAMES: **Hehe**: Kindokoli, Kitokoli; **Matengo**: Vikoko-ndumbila; **Nyamwezi**: Kambolambola; **Nyasa**: Vikoko ndumbila.

DESCRIPTION: An erect shrubby herb to 1 m, the 3–4 angled stems often reddish and many arising from a slender underground rhizome. LEAVES: Simple, in whorls of 3–5, the blades long and narrow, 3–12 cm, tapering to a fine point, narrowed at the base to a very short stalk, **green and hairless above but much paler below, drying white because of dense tiny velvety hairs**; a pair of stipules joined in a sheath around the stem have hairy threads at the tip, to 8 mm long. FLOWERS: Small, **pale to bright yellow**, in clusters of 2–5 flowers on a short stalk in leaf axils, **buds clearly pointed as the 5–6 triangular sepal lobes reach 3.5 mm and the corolla tube is only 3–4 mm**, hairy within, the 5 tiny lobes oblong-triangular with a hairy tip. FRUIT: Clusters of fleshy edible black berries, often one-sided, topped by the persistent calyx, containing 2–3 seeds.

ECOLOGY: Grassland, grassland with scattered trees, *Brachystegia* woodland, 1,000–2,100 m.

DISTRIBUTION: Found in western, central and Southern Highlands of Tanzania, e.g. Sao Hill, Iringa. Also in the Congo basin, Mozambique, Malawi, Zambia, Zimbabwe, Angola and South Africa.

USES:

**Food:**

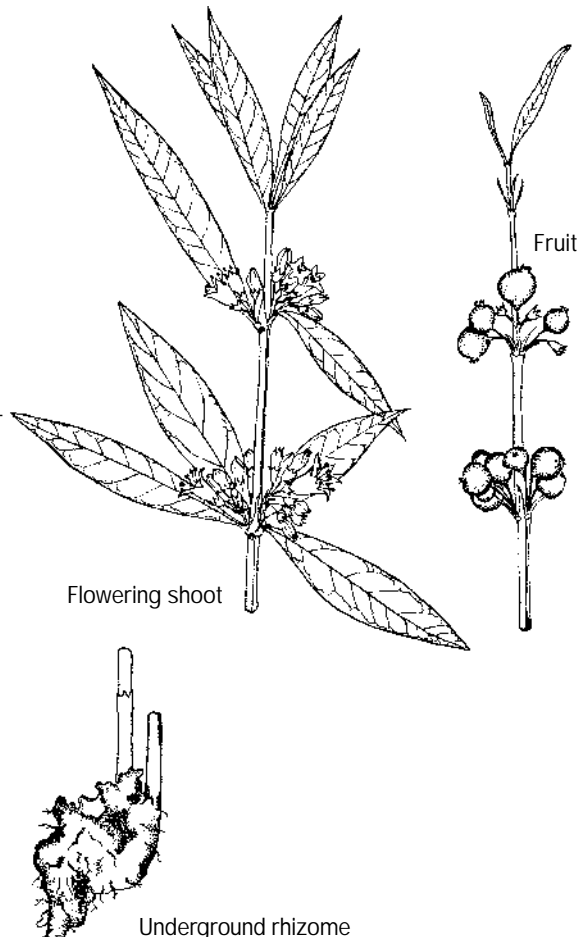
- Ripe fruit are sweet and eaten fresh.
- The nectar from flower tubes is sweet and sucked by children.

**Commercial:** Not marketed.

**Other:** The plant is good as a source of bee forage and as an ornamental.

SEASON: Ripe fruit are collected from October to January.

STORAGE: Not stored.





*Fadogia homblei* (contd)

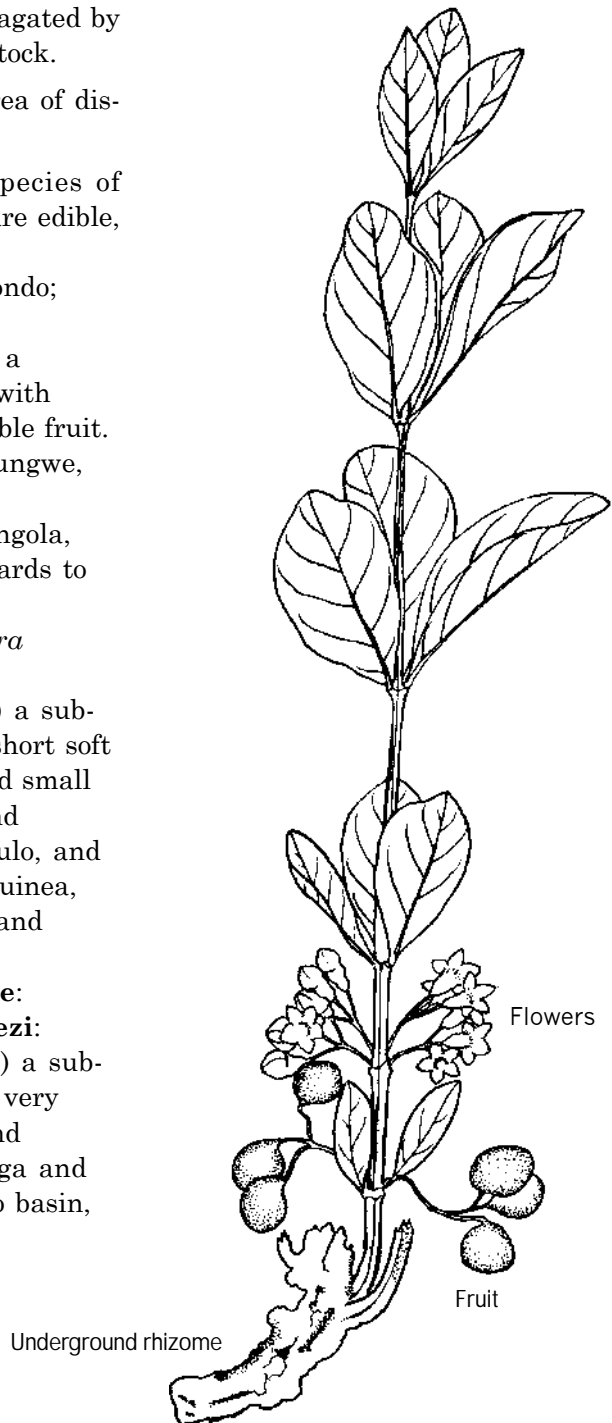
## Rubiaceae

MANAGEMENT: Collected from the wild and not cultivated. It can be propagated by seed, and cuttings from rootstock.

STATUS: Occasional within its area of distribution.

REMARKS: There are some 8 species of *Fadogia* in Tanzania which are edible, including the following:

1. *F. stenophylla* (**Fipa:** Nakalondo; **Hehe:** Kindokoli, Kitokoli; **Nyamwezi:** Kambolambola) a shrubby herb 6–40 cm high with whorled leaves and small edible fruit. It is found around Iringa, Rungwe, Biharamulo, Kibondo and Sumbawanga, and also in Angola, Burundi and Malawi southwards to Zimbabwe;
2. *F. tetraquerta* var. *grandiflora* (**Hehe:** Kindokoli, Kitokoli; **Nyamwezi:** Kambo-lambola) a subshrub 20–120 cm high with short soft hairs on stems and leaves and small edible fruit. It is found around Tabora, Iringa and Biharamulo, and also in Angola, Cameroon, Guinea, Nigeria, Zambia, Zimbabwe and South Africa;
3. *F. triphylla* var. *gorgii* (**Hehe:** Kindokoli, Kitokoli, **Nyamwezi:** Kambo-lambola, Kamfyonfyo) a subshrub up to 45 cm high with very fragrant flowers found around Tabora, Singida, Sumbawanga and Iringa, and also in the Congo basin, Malawi and Zambia.

*F. stenophylla*

***Feretia apodanthera* subsp. *tanzaniensis* Rubiaceae**

Indigenous

LOCAL NAMES: **Gogo:** Mpakapaka; **Hehe:** Mnanyeza; **Nyamwezi:** Mginya; **Rangi:** Ikechu; **Sukuma:** Mbuguswa.

DESCRIPTION: A deciduous shrub or small tree to 6 m, young stems usually without hairs in subspecies *tanzaniensis*. BARK: Smooth, red-grey, splitting to reveal a white underbark. LEAVES: **Opposite**, small, oval blades, 1–5 cm, tip rounded or sharply tipped, some fine hairs or none, base rounded to a stalk to 1 cm, **stipules present between leaf stalks**. FLOWERS: Appear **before or with new leaf growth**, easily recognized as the flowers are striking on the bare tree, one or few flowers together on short shoots, white flushed pink or plain pink, tubular to 2.5 cm long with a **hairy throat**, 5 blunt-tipped lobes, a hairy style in the centre and **a calyx with 5 pointed lobes to 5 mm**. FRUIT: **Round, fleshy berries, pink to bright red or white with purple streaks, to 1.7 cm diameter**, containing several flat pale brown seeds.

ECOLOGY: Bushland, coastal bushland, thickets, often near rivers or on dry hill-sides, forest margins, 0–1,400 m.

DISTRIBUTION: Widely distributed in Tanzania, e.g. in Dodoma and Shinyanga Regions, in Ruaha National Park (Iringa Region) and Mwanihala Forest Reserve (Tabora Region).

USES:

**Food:**

The red fleshy pulp of ripe fruit is eaten raw. Ripe fruit are collected from the tree and eaten as a snack, especially by herdsmen and children, for quenching hunger and thirst.

**Medicinal:**

- Roots are soaked in cold water and the infusion used as a cold bath for babies as a preventive magic charm against various ailments and to assure good health (Nyamwezi).
- Roots are boiled and the infusion drunk to treat stomach-ache.
- The powder obtained from pounded roots is used to treat wounds.

**Commercial:** Not marketed.

**Other:** The tree is used for making live fences.

SEASON: Fruit are available from April to July.

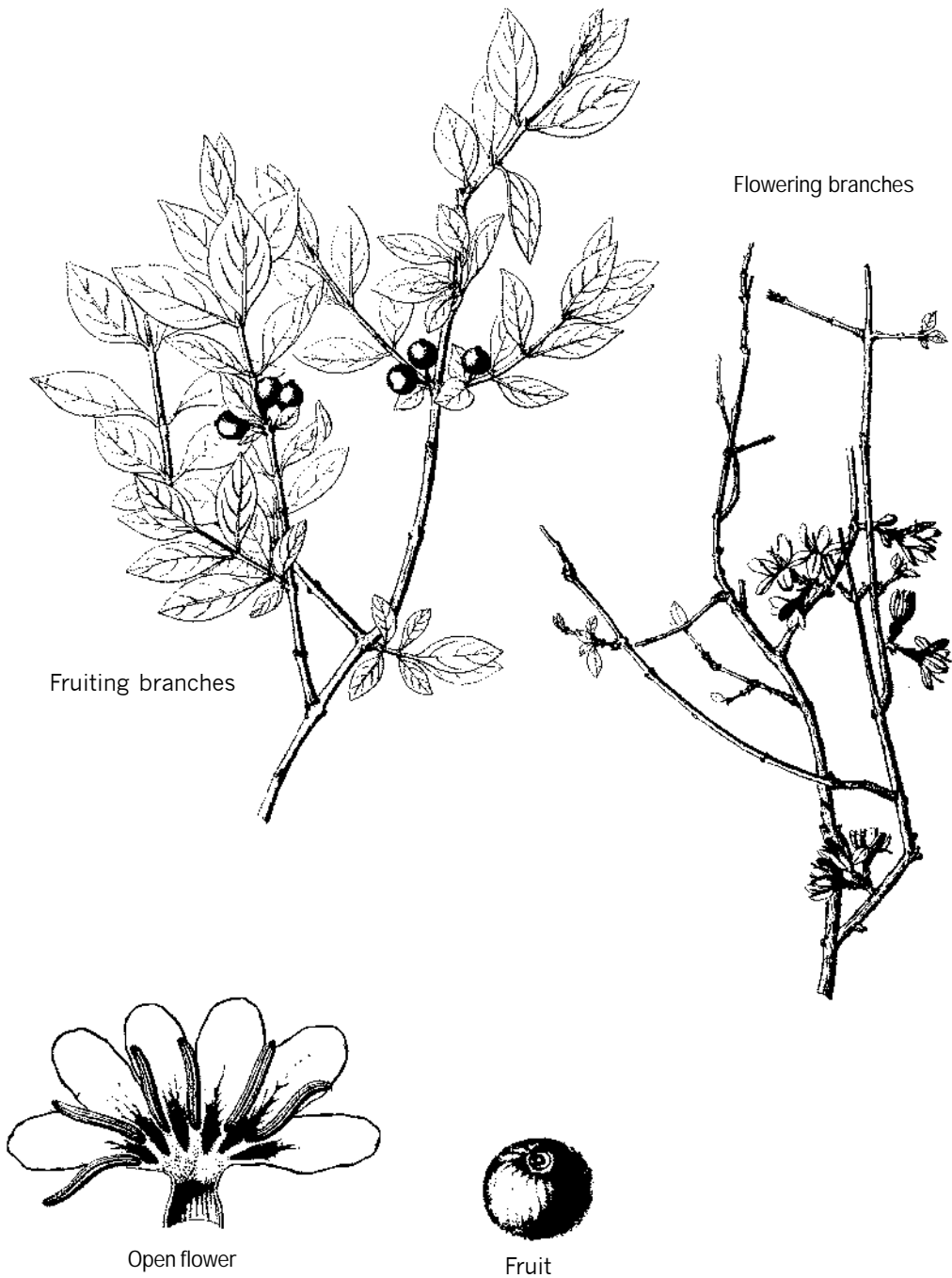
STORAGE: Not stored.

MANAGEMENT: Collected from the wild and not cultivated. It can be propagated by seeds and cuttings.

STATUS: Common and easily accessible within its area of distribution.

REMARKS: The subspecies *tanzaniensis* is only found in Tanzania and has larger fruit than subsp. *keniensis*.

*Feretia apodanthera* subsp. *tanzaniensis* Rubiaceae



*Ficus stuhlmannii*

## Moraceae

Indigenous

LOCAL NAMES: **Arusha:** Olkilili; **Iraqw:** Pombosimo, Tiita; **Maasai:** Olkolili; **Nyamwezi:** Mgumo; **Nyaturu:** Mulumba, Munianyonyi; **Sukuma:** Mgumo.

DESCRIPTION: A medium-sized deciduous fig, often an epiphyte and strangler, to 10 m, with a dense well-formed crown. **BARK:** **Pale grey-white**, clearly ribbed and **fluted**, darker with age and cracking irregularly. Leafy branchlets have white or yellow hairs, older twigs flaking. **LEAVES:** Variable in size, oblong to oval, **large and stiff, 2.5–18 cm long**, leathery dark green, shiny above with **a few hairs, more hairs below**, especially along veins, **base rounded to heart shaped**; 4–7 pairs lateral veins, the basal pair usually reaching the margin below the middle of the blade, net veining clear, a thick leaf stalk to 4 cm long, pale yellow hairy stipules soon fall. **FIGS:** **Rounded, usually less than 1 cm** (1.5–2.2 when fresh), single or in pairs in leaf axils or below, velvet hairy, green at first, turning **pink-purple-red when ripe, almost stalkless**, the fig opening is just a slit.

ECOLOGY: A species of lower montane woodland, up to 1,800 m; rainfall 1,000–1,400 mm. Thrives in a variety of soil types.

DISTRIBUTION: Found in all parts of Tanzania and in Kenya, the Congo basin and south to Malawi, Mozambique, South Africa, Zimbabwe and Botswana.

USES:

**Food:**

The ripe or unripe figs are collected, especially by children, and eaten with the seeds as a snack. The pulp is sweet when ripe but watery when unripe.

**Medicinal:**

- Roots are boiled and the decoction is drunk by mothers to stimulate lactation.
- Roots are also used as a magic charm.

**Commercial:** Not marketed.

**Other:** The tree is used for shade and the bark for fibre. Fruit are also eaten by birds.

SEASON: Usually collected in June–July.

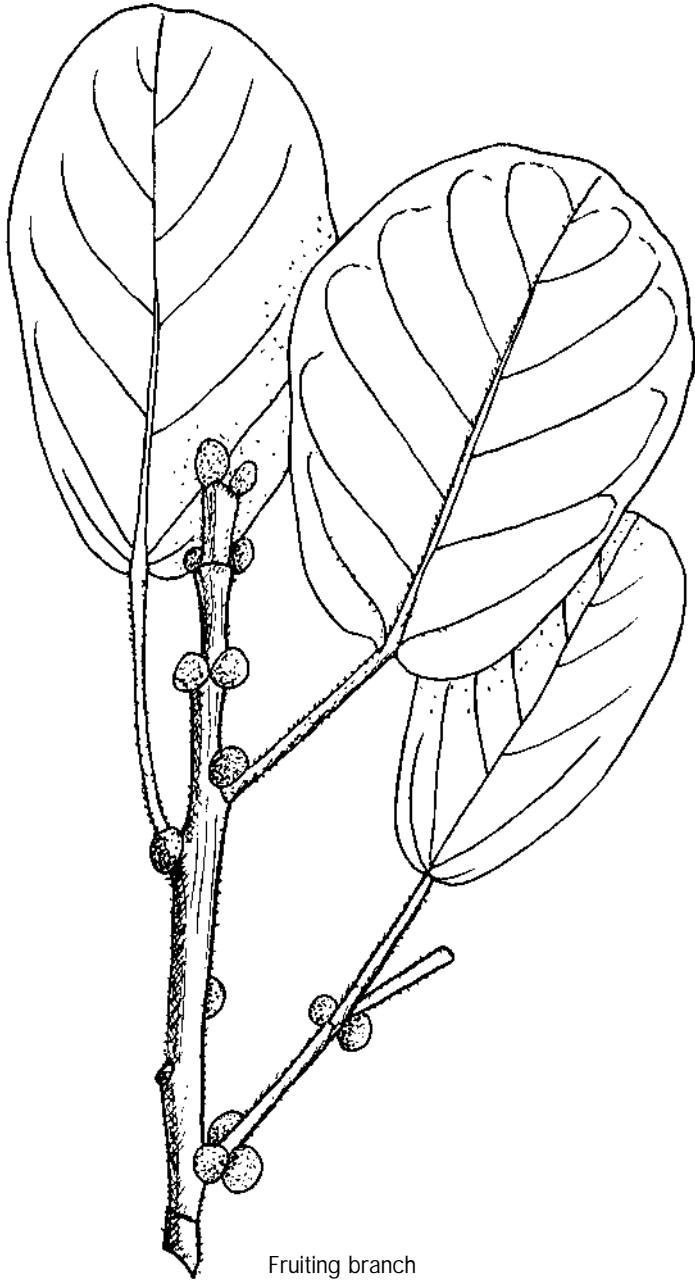
STORAGE: Not stored.

MANAGEMENT: Collected from the wild, but also protected by the local people. Can be propagated by seed and cuttings.

STATUS: Common and easily accessible within its area of distribution.

*Ficus stuhlmannii*

Moraceae



Fruiting branch

***Ficus sur* (*F. capensis*)****Moraceae**

Indigenous

LOCAL NAMES: **Bena:** Mdzombe; **Chagga:** Mkuu; **English:** Wild fig, **Fipa:** Unku; **Hehe:** Msombe; **Luguru:** Mkuyu, Mtakule; **Maasai:** Engaboli; **Matengo:** Milola; **Ngindo:** Mkuyu; **Ngoni:** Milola; **Nyamwezi:** Mkuyu; **Pare:** Mkuu; **Rufiji:** Mkuku; **Sambaa:** Mkuyu, Mvumo; **Swahili:** Mkuju, Mkuyu, Mwangajo; **Tongwe:** Ikubila.

DESCRIPTION: A large deciduous tree to 20 m high with the trunk up to 150 cm in diameter, occasionally buttressed. BARK: Smooth, grey, darker grey-brown with age. LEAVES: Large, **broadly oval**, to 13–20 cm, usually smooth, **edge often widely toothed**, sometimes wavy, veins clear below, stalk grooved and flexible to 6 cm. FIGS: In **heavy clusters, to 70 cm long, on branches from trunk to older wood, figs round, 2–4 cm** across, on stalks, orange-red, often hairy, soft and edible but watery and tasteless, having many seeds and often insects too.

ECOLOGY: Forest, riverine, wooded grassland, often left in cleared places in lowland and medium-altitude areas, up to 2,100 m; rainfall 800–1,800 mm. Thrives best in red sandy clay loams and sandy loams, but tolerates a wide range of soil types.

DISTRIBUTION: Extends from Central Africa to Yemen, and to southern Africa. Widespread in Tanzania, Kenya and Uganda.

USES:

**Food:**

Figs are collected when ripe, cut open, seeds removed and the pulp eaten. They are sweet and very juicy and eaten as a refreshing snack, especially by children.

**Medicinal:**

- The bark is used by the Maasai to treat stomach-ache and diarrhoea in babies. The Digo use the roots to treat coughs.
- Bark is soaked in water and the liquid dripped into the mouth of a woman who is breast-feeding. The rest of the liquid is used to massage the breasts to increase lactation (Hehe).

**Commercial:** Not marketed.

**Other:** This large tree is used for shade. The wood is used for canoes, water pots, beehives, stools and grain mortars, and the latex for making balls and bird lime.

SEASON: Collected at the end of the rainy season.

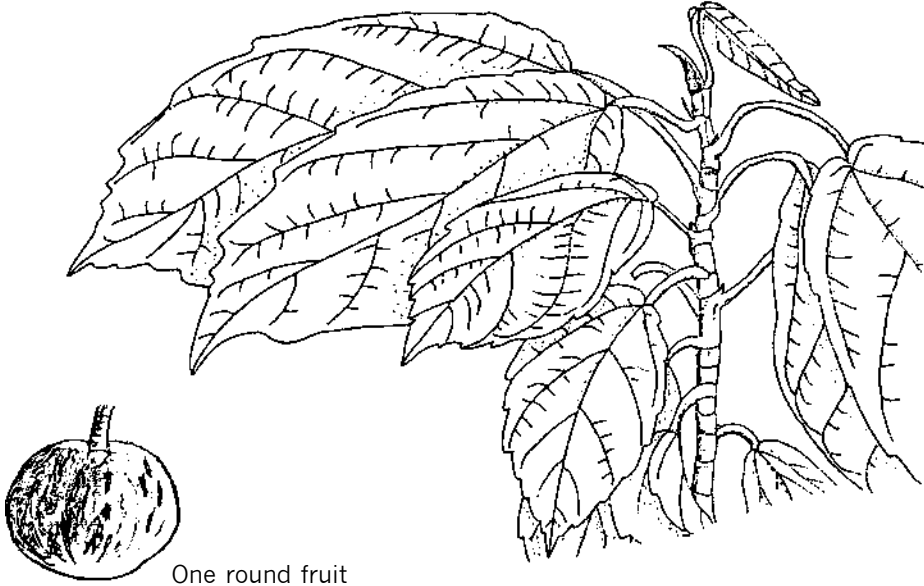
STORAGE: Not stored.

MANAGEMENT: Collected from the wild and not protected or cultivated by local people.

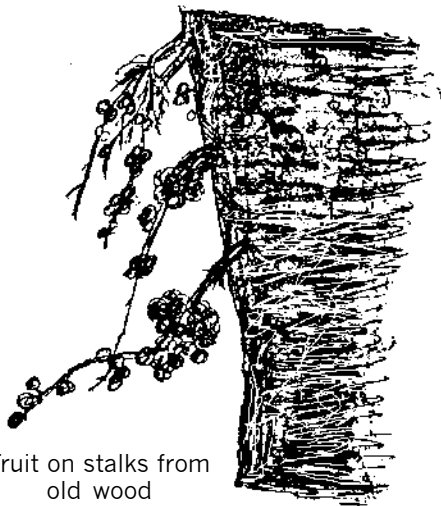
***Ficus sur (F. capensis) (contd)*****Moraceae**

STATUS: Common and easily accessible within its area of distribution.

REMARKS: It is a nutritious fig. The tree is considered to trap moisture, and other moisture-demanding plants are often found regenerating in its shade. It does not compete with agricultural crops.



One round fruit



Fruit on stalks from  
old wood



***Ficus sycomorus*****Moraceae**

Indigenous

LOCAL NAMES: **Arusha:** Olngaboli; **Barabaig:** Aantsi; **Chagga:** Mkuu; **English:** Sycamore fig; **Fiome:** Kuyu; **Fipa:** Kivuzi; **Gogo:** Mkuyu, Mrumba; **Hehe:** Msombe; **Gorowa:** Aantsi; **Iraqw:** Aantsi; **Maasai:** Engaboli, Olnangboli, Olmangulai, Olnanboli, Orng'aboli; **Ngindo:** Mkuyu; **Nyamwezi:** Mkuyu; **Nyaturu:** Mukuyu; **Rangi:** Mkuyu, Msambu, Mukuyu; **Sambaa:** Mkuyu; **Sandawi:** Sákána; **Swahili:** Mkuyu; **Tongwe:** Ikuku; **Zaramo:** Mkuyu.

DESCRIPTION: A large semi-deciduous spreading tree to 25 m, sometimes with stem buttresses and the **base commonly spreading over the ground**. Abundant white latex when cut. BARK: Distinctive **yellow to cream-brown, smooth**, older stems have rectangular scales which fall leaving pale brown patches. LEAVES: Oval to **almost circular**, to 15 cm, upper surface rough to touch, margin wavy, roughly toothed, **base heart shaped**, a **hairy stalk to 3 cm**. FRUIT: In leaf axils in pairs or in dense clusters on main branches and trunk, **each rounded, 1.5–5 cm across, usually about 3 cm when fresh, wider at the tip, densely hairy and yellow-red when ripe**.

Ecology: Widespread on alluvial soils in valleys and riverine in dry areas. Also in wooded grassland, often associated with *Acacia tortilis* and *A. gerrardii*. Does well in medium-altitude areas, up to 2,100 m; rainfall 600–1,800 mm.

DISTRIBUTION: A fig tree that is widespread all over tropical Africa. Common in all parts of Tanzania.

USES:

**Food:**

The sweet ripe orange figs are collected and chewed to suck out the juice and the rest is rejected. It is eaten as a snack.

**Medicinal:** The bark and latex are used to treat diarrhoea, sore throat, chest and glandular complaints.

**Commercial:** Not marketed.

**Other:** This huge tree is used for shade while its wood is used for grain mortars, doors, beehives, canoes, stools and domestic utensils.

SEASON: The figs are collected at the end of the rainy season.

STORAGE: Not stored.

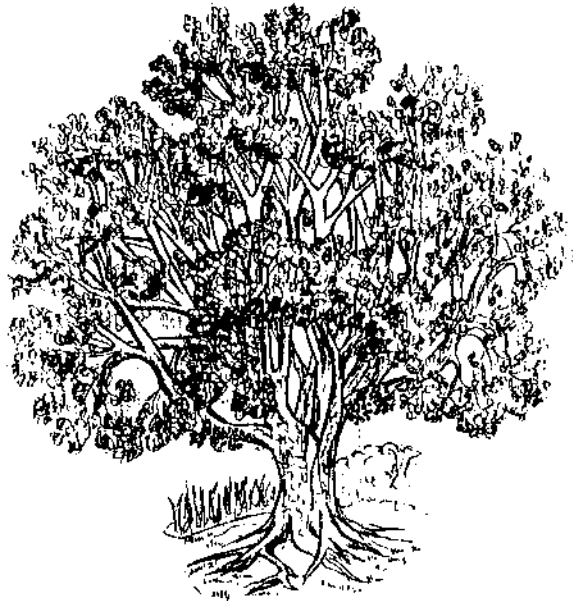
MANAGEMENT: Collected from the wild and not cultivated or protected by the local people.

STATUS: Common and easily accessible within its area of distribution.



*Ficus sycomorus*

Moraceae



*Ficus vallis-choudae*

## Moraceae

Indigenous

LOCAL NAMES: **English:** Fig; **Gogo:** Mkuju, Mkuyu; **Luguru:** Mkuyu; **Meru:** Ikuu; **Nyakyusa:** Mkuju; **Rangi:** Mkuyu, Msaambu, Msambu, Mumu; **Sambaa:** Mkuyu; **Swahili:** Mkuyu; **Tongwe:** Ihambwa.

DESCRIPTION: A huge tree, 6–20 m, with a widely spreading crown, buttresses sometimes present. BARK: Rough, grey to pale brown. Leafy twigs, often white or hairy, **skin flaking when dry**. LEAVES: More or less stiff, dark green, easily recognized, wide oval, the base heart shaped, about **20 cm long and across** (4–24 cm), **the edge widely toothed, mostly wavy**, usually without hairs, **the stalk 2–11 cm**. The 2 main lateral veins from the base reach beyond the middle of the leaf, 3–5 other veins each side of the midrib. FIGS: **Single**, about **3–6 cm across when fresh**, beside or just below leaves, succulent and edible, round to oval, **yellow-orange with orange stripes when ripe**, hairy or not, on a short woody stalk.

ECOLOGY: A riverine tree, also beside lakes and in forests with a high ground water-table, 400–1,800 m.

DISTRIBUTION: In most parts of Tanzania excluding the southern areas and areas near the lakes. Also in Kenya, Uganda, extending to Guinea and Mali, Ethiopia, northern Zambia, Malawi, Mozambique and Zimbabwe.

USES:

**Food:**

Figs are edible. Ripe fruit are fleshy and eaten raw. Fresh fruit are usually collected from the tree and eaten as a snack, especially by children and herdsmen.

**Commercial:** Not marketed.

**Other:** The wood is used for cheap furniture, domestic utensils, beer pots, grain mortars, stools, water containers and beehives, drums, canoes and cattle troughs, shade and fuel.

SEASON: Ripe fruit are available from November to June.

STORAGE: Not stored.

MANAGEMENT: Collected from the wild and not cultivated. However, it can be propagated by seed and cuttings.

STATUS: Locally common.

REMARKS: Several other species of figs are edible, including the following:

1. *F. sansibarica* (**Chagga:** Mkuu; **English:** Fig; **Maasai:** Engaboli; **Makonde:** Undola; **Ngindo:** Mpoloto, Mpondopondo; **Nyakyusa:** Mtulutulu; **Swahili:** Mkuyu) a large tree up to 40 m tall found in Kigoma, Lindi, Mtwara and Iringa Regions and on Zanzibar Island. It is also found in Mozambique, south to Zambia, Zimbabwe and South Africa;

*Ficus vallis-choudae*

Moraceae

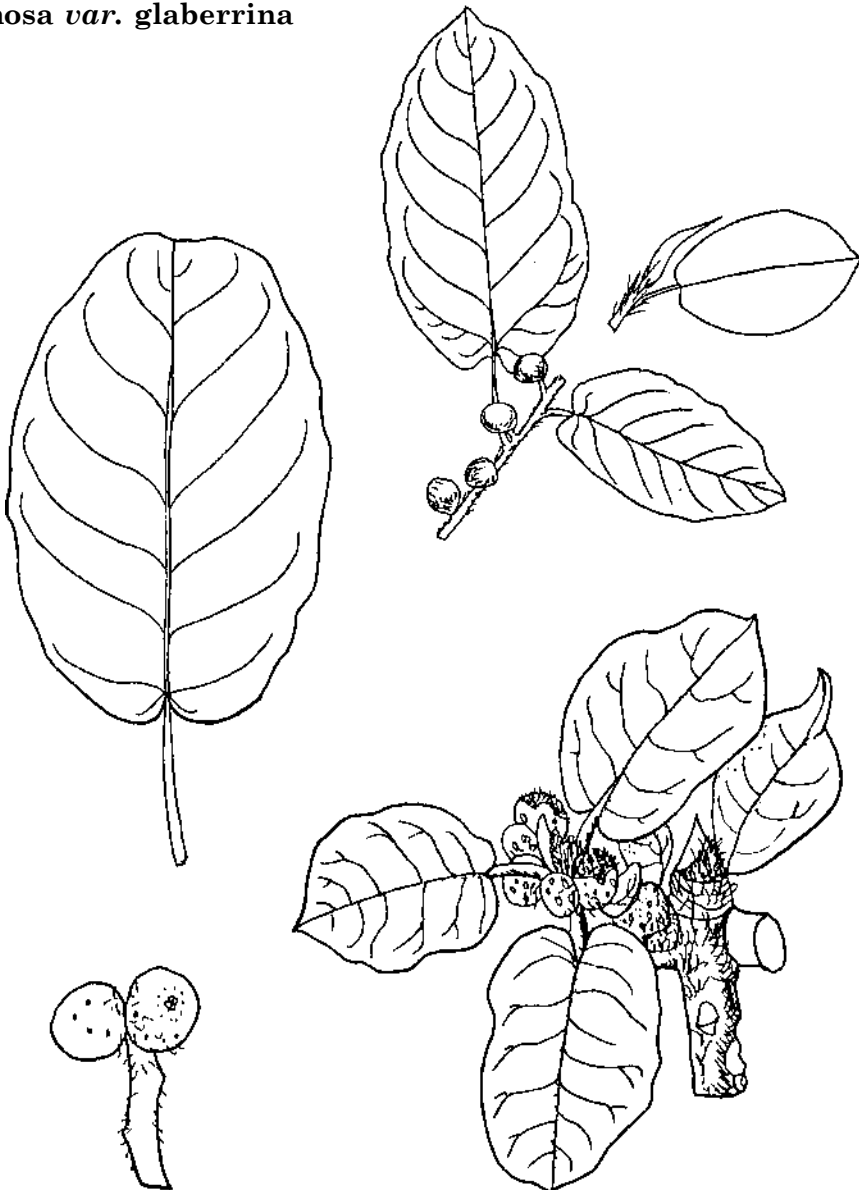


Fruit and section

*Ficus vallis-choudae* (contd)

## Moraceae

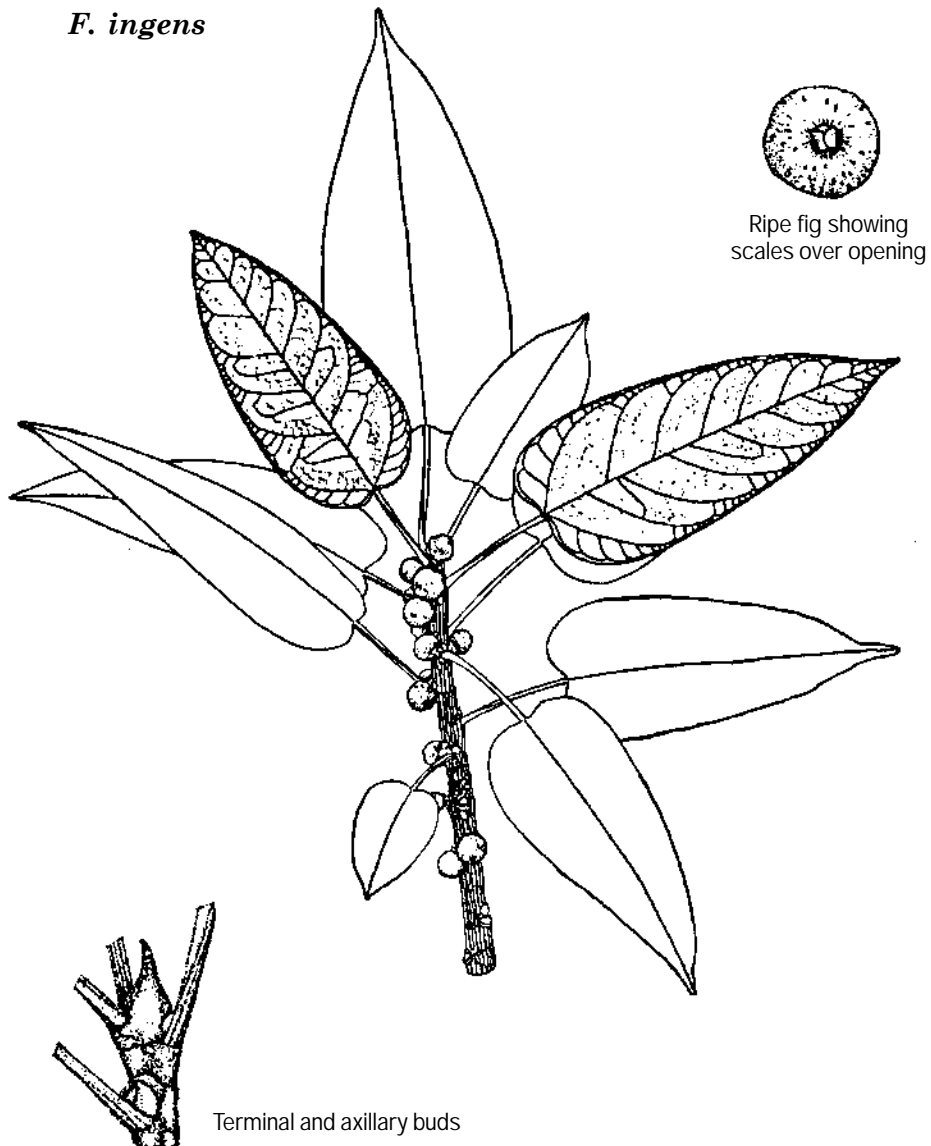
2. *F. glumosa* var. *glaberrima* (**Gogo:** Mulumba; **Hehe:** Msombe; **Nyamwezi:** Mkuyu, Mlumba; **Rangi:** Mkuyu, Mumu; **Swahili:** Mkuyu; **Tongwe:** Ikuku) a tree 10–15 m tall with a dense crown found in all Regions of Tanzania. Also common in Kenya, Uganda, extending to Senegal, Yemen and South Africa;

*F. glumosa* var. *glaberrima*

*Ficus vallis-choudae* (contd)

## Moraceae

3. *F. ingens* (**Gogo:** Mulumba; **Hehe:** Msombe; **Makonde:** Ndebela, Ndola; **Nyamwezi:** Mlumba, Mvila; **Rangi:** Mumu; **Sambaa:** Mvumo) a tree up to 18 m high, also found all over Tanzania and extending to Yemen, Senegal, Angola, Botswana and South Africa.



*Flacourtia indica*

## Flacourtiaceae

Indigenous

LOCAL NAMES: **Bena:** Mgola; **Bende:** Msunga; **Chagga:** Msambochi, Msanbachi; **Digo:** Duruma, Madungatundu, Mnyondoiya, **English:** Governor's plum, Indian plum; **Fipa:** Mwanga; **Gorowa:** Tsapenai; **Hehe:** Mgola; **Iraqw:** Sokhaimo; **Luguru:** Mgora, Mgura; **Maasai:** Oldongurgurwo, Oldongururwo, Oloireroi; **Matengo:** Mbilipili, Mng'unga; **Mwera:** Mtaswa, Mtawa; **Ngindo:** Mtaba; **Nyamwezi:** Mpuguswa, Mpunguswa, Msingila, Msungwi; **Nyaturu:** Musingisa; **Rangi:** Mtundukarya; **Rufiji:** Mtawa; **Sukuma:** Mpuguswa; **Swahili:** Mchongoma, Mgo, Mgovigovi, Mkingili; **Tongwe:** Lusungunimba; **Zaramo:** Mtawa; **Zigua:** Mgola; **Zinza:** Msungusu.

DESCRIPTION: A deciduous **spiny shrub** or small tree, usually 3–5 m; spines on the trunk usually straight, sometimes branched, up to 12 cm long but quite variable. **BARK:** **Rough, pale yellow-grey**, branches may have a yellow powder at first. **LEAVES:** Variable in size, **oval**, to 12 cm, **edge toothed**, 4–7 pairs, veins clear on both surfaces, stalk to 2 cm. **FLOWERS:** Small, cream, fragrant; male flowers with very **many yellow stamens**, female flowers with a divided spreading style. **FRUIT:** **Red-purple-black, round** and juicy but acid, **to 2.5 cm across**, persisting on the tree. They contain up to 10 small hard and flat seeds.

ECOLOGY: Does well in montane woodland and at forest edges, 0–2,400 m; rainfall 1,000–1,800 mm. Thrives in a variety of soil types.

DISTRIBUTION: Found in all parts of Tanzania. Widespread in the rest of tropical and subtropical Africa, Madagascar and the Seychelles; also in Asia.

USES:

**Food:**

- The fruit are collected from the tree and eaten straight away, especially during famine periods, and also as a snack.
- A good jam is made by boiling the fruit with sugar.

**Medicinal:**

- Leaves are used as medicine to treat asthma, as a tonic for anaemia and for treating screw worm in cattle.
- Roots are used to treat indigestion and stomach pains, snakebite and infertility.
- Fresh roots are washed and dried and the bark grated on a rough stone. The resulting powder is soaked in a small amount of salty water to make a paste which is licked for treating sore throat and cough.

**Commercial:** Sold in local markets.

**Other:** The wood is white and tough and used for firewood, charcoal, spoons, bedsteads and building poles.

***Flacourtia indica* (contd)****Flacourtiaceae**

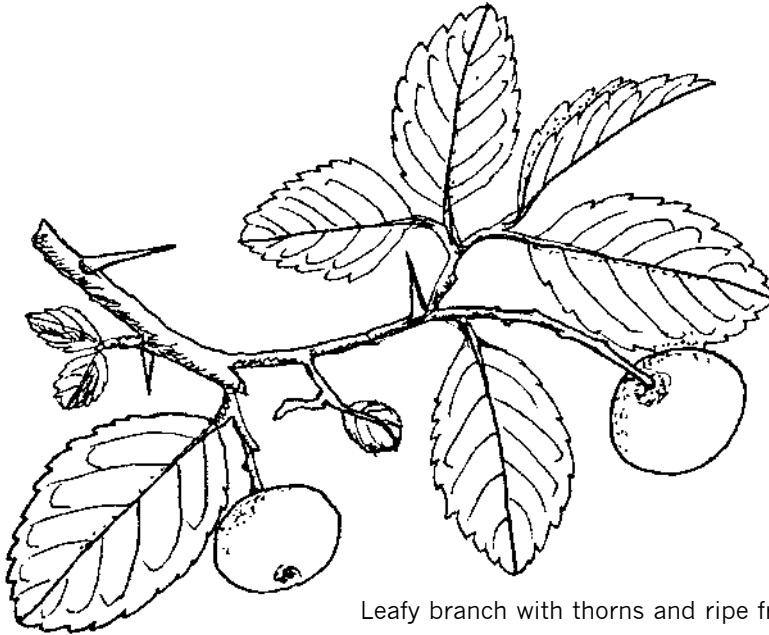
SEASON: Ripe fruit are collected from December to July.

STORAGE: Ripe fruit can be dried in the sun and later soaked in water before being eaten.

MANAGEMENT: Collected from the wild, but sometimes cultivated or retained in farms.  
Can be propagated by seed, but they require scarification (cracking, piercing) first.

STATUS: Common and easily accessible within its area of distribution.

REMARKS: A promising fruit tree suitable for agroforestry.



Leafy branch with thorns and ripe fruit



***Flueggea virosa* (*Securinega virosa*) Euphorbiaceae**

Indigenous

[Plate 2]

LOCAL NAMES: **English:** Snowberry tree; **Maasai:** Embaingu; **Matengo:** Kimbalapala; **Ngindo:** Kipalapala bonde, Mtetakana; **Ngoni:** Mtengula; **Sambaa:** Mkwamba; **Swahili:** Mkwamba, Mteja.

DESCRIPTION: A deciduous much-branched shrub, usually 1–3 m, occasionally a tree to 7 m. **BARK:** Red-brown, smooth, later rough. **Branchlets and leaf stalks purple-red.** **LEAVES:** Simple and alternate, very variable, to 6 cm, **wider at the tip**, which may be notched, **grey below.** **FLOWERS:** Male and female plants. Flowers **small, green-yellow, sweet-scented, in leaf axils**, male flowers in clusters but only 1–5 female flowers. **FRUIT: Small white berries**, only 5 mm across but edible and sweet. Pale **green berries ripen white, 4–5 mm across**, edible and sweet with **5 soft segments** containing tiny seeds, pale brown and shiny.

ECOLOGY: Locally common in a wide variety of plant associations, mainly forest edges and associated bushland, generally in higher rainfall areas, bushland and thicket, extending into dry areas along water courses, sometimes on termite mounds, rocky slopes and common in disturbed places, 0–2,300 m.

DISTRIBUTION: Found in all areas of Tanzania, including Zanzibar and Pemba. Also in Uganda, Kenya and the rest of Africa from Senegal to Somalia, south to Namibia; southern Arabian peninsular, Socotra, Madagascar and east to Japan.

USES:

**Food:**

Ripe fruit are juicy, sweet and eaten raw, usually by children but by everyone during times of food scarcity.

**Medicinal:**

- Roots are boiled and the decoction used for treating bilharzia.
- Leaves are pounded, fermented and used as medicine for malaria. Leaves are also used to treat stomach-ache.
- Fruit are crushed and rubbed into itching skin.

**Commercial:** Not marketed.

**Other:** The wood is hard and used for firewood, withies, toothbrushes, storage pots and pegs. Leaves and fruit are used for fodder. Also eaten by birds.

SEASON: Fruit are available from April to June.

STORAGE: Not stored.

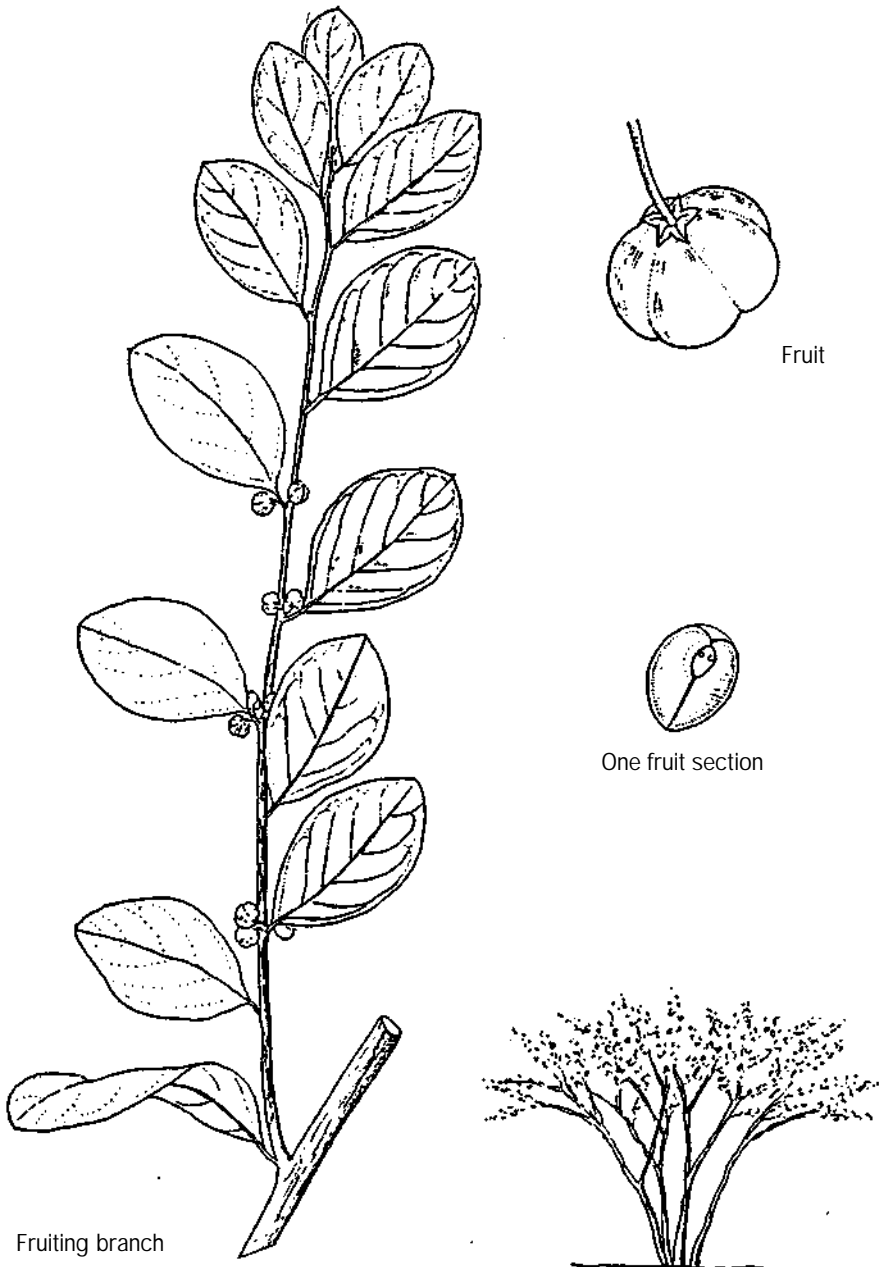
MANAGEMENT: Collected from the wild and not cultivated. Can be propagated by seed.

STATUS: Common and easily accessible within its area of distribution.

REMARKS: A fast-growing hardy shrub suitable for planting in wet land.



*Flueggea virosa* (*Securinega virosa*) Euphorbiaceae



Fruiting branch

Fruit

One fruit section

***Friesodielsia obovata***  
(*Popowia obovata*)

**Annonaceae**

Indigenous

LOCAL NAMES: **English:** Bastard dwaba-berry, Monkey fingers, Northern dwaba-berry; **Hehe:** Mduguya; **Nyamwezi:** Msalasi; **Nyasa:** Kunjengunjengu; **Sukuma:** Nsalasi.

DESCRIPTION: A shrub or small tree 1–5 m, but can be a scrambler or climber, the branches spreading or drooping. BARK: Young branches with soft yellow hairs, later grey-brown becoming dark grey. LEAVES: A clear blue-green, about **5–10 cm long**, paler below, softly hairy when young, alternate, tip rounded, base rounded or lobed, on a short thick stalk, veins pale and clear both sides. FLOWERS: **Single, from a leaf-like bract just above the leaf axil**, deep cream-yellow with 3 outer and 3 inner petals, the latter curved around the stamens. FRUIT: **Bright scarlet-red when ripe, 3–8 together** hanging down like “sausages” or “fingers”, each **cylindrical to 7 cm long**, constricted between seeds, hanging a long time on the tree, an acid-sweet edible flesh around the seeds.

ECOLOGY: Found in open woodlands or grasslands, thickets, especially riverine fringing thickets, on termite mounds, rocky hills, often on sandy or granitic soils, 400–1,200 m.

DISTRIBUTION: Found in Tanzania, the Congo basin, Angola, Botswana, Malawi, Mozambique, Zimbabwe. Widespread in Tanzania, e.g. found in Shinyanga, Tabora, Lindi and Iringa Regions.

USES:

**Food:**

Ripe fruit are sweet but slightly acid and are eaten fresh. The fleshy pulp is swallowed and seeds are either discarded or also swallowed. They are much liked by people of all ages. Juice and jam are made from the fruit.

**Medicinal:** Roots are boiled and the decoction is used for stomach-ache, infertility in women and as an antidote for snakebite (Nyamwezi).

**Commercial:** Sold in local markets.

**Other:** The wood is hard and used for firewood, walking sticks, clubs, tool handles, withies, grain stores (Vihenge—Nyamwezi). Fruit are also eaten by birds.

SEASON: Ripe fruit are available from April to June.

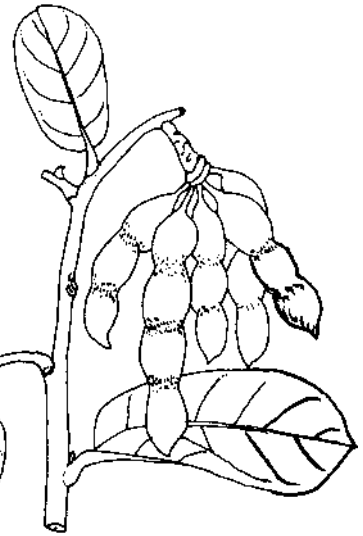
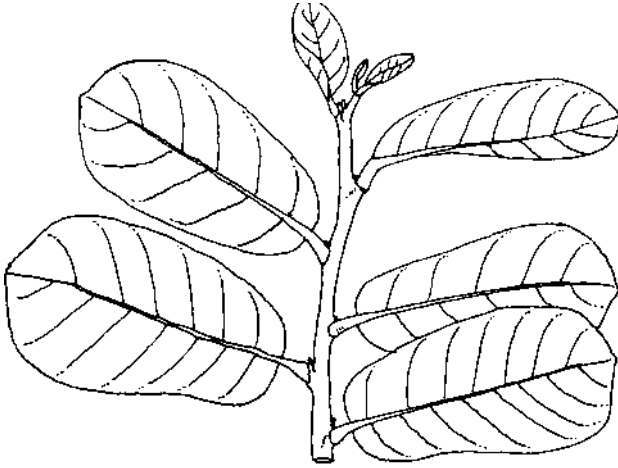
STORAGE: Not usually stored, but occasionally dried in the sun and later soaked in warm water before being eaten.

MANAGEMENT: Collected from the wild and not cultivated. Can be propagated using fresh seed, which must be scarified (cracked or pierced) before sowing.

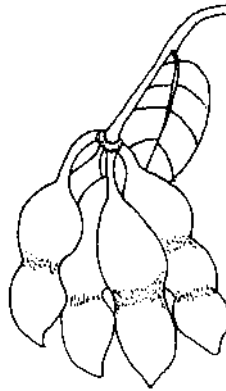
STATUS: Locally common.

*Friesodielsia obovata*  
(*Popowia obovata*)

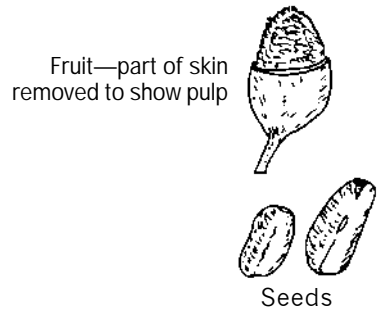
**Annonaceae**



Flower



Fruiting branchlet



Fruit—part of skin removed to show pulp

Seeds

***Garcinia buchananii***  
**(*G. huillensis*)**

**Clusiaceae (Guttiferae)**

Indigenous

[Plate 2]

LOCAL NAMES: **English:** Granite garcinia; **Ha:** Umusalasi; **Hehe:** Mduma, Mfilafila; **Matengo:** Mholoholo; **Maasai:** Norkipiren; **Nyakyusa:** Unsongwa; **Tongwe:** Kasolyo.

DESCRIPTION: A small evergreen under-storey tree, 6–13 m, often densely branched to a thick dark shady crown. **All parts contain a rather sticky yellow sap.** BARK: Smooth, dark grey-brown, later rough and flaking, the underbark a bright red-brown. LEAVES: **Opposite, thick and leathery, shiny dark green above**, paler below, lateral veins thin and fine on both sides, edge rolled under and wavy, oval-oblong, usually 6–12 cm long, **the tip long pointed**, the base narrow to a very short stalk, which may be very pink. Buds often resin covered. FLOWERS: White, yellow or orange, about 1 cm across, female solitary, male in clusters of 2–3, 4 petals and sepals around a sticky orange stigma, “x” shaped when open. FRUIT: **Fleshy berries, yellow-orange when mature**, rounded, to **2.5 cm across**. Edible but very acid pulp surrounds the seed. The outer skin is tough and hard.

ECOLOGY: Occurs in evergreen forest, riverine thickets, densely wooded grassland and in coastal forest on pure sand, 0–1,800 m; rainfall 800–1,800 mm. Thrives well on sandy loams.

DISTRIBUTION: One of the many *Garcinia* species growing from east to southern Africa, Rwanda, Burundi, the Congo basin and Sudan. Widespread in Tanzania and found for example in Tanga, Lindi, Iringa, Morogoro and Rukwa Regions.

USES:

**Food:**

- Fruits are edible. They are collected when ripe, peeled and the pulp eaten like an orange as a snack. They are tasty but somewhat acidic.
- An alcoholic drink is made from the fruit.

**Medicinal:** An infusion from the roots is used as an aphrodisiac and as a lotion for sores.

**Commercial:** Not marketed.

**Other:** The wood is used for firewood, charcoal, tool handles, spoons, milk pots and stools. The sap yields a yellow dye. The tree is used for shade and as an ornamental.

SEASON: Collected in the dry season, April–June in Iringa.

STORAGE: Not stored.

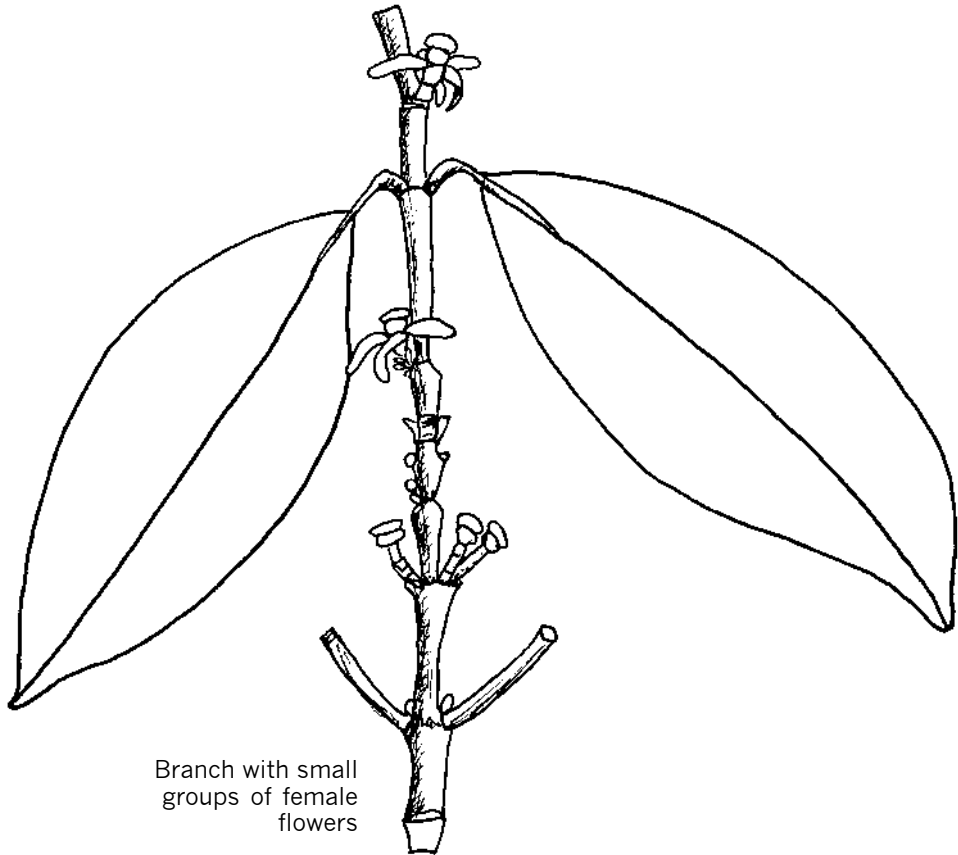
MANAGEMENT: It is collected from the wild and not cultivated or protected by local people. Can be propagated by seed.

*Garcinia buchananii* (contd)

## Clusiaceae

STATUS: Common and easily accessible within its area of distribution.

REMARKS: The species can be grown as a pure fruit orchard or intercropped with coffee. Individual trees are good ornamentals.



Branch with small  
groups of female  
flowers



Flower



Bud

*Garcinia livingstonei*

## Clusiaceae (Guttiferae)

Indigenous

LOCAL NAMES: **Bena:** Mpugopugo; **Digo:** Kisambwe, Mfungatanzu; **English:** African mangosteen; **Hehe:** Mpepete, Mpukopuko; **Maasai:** Enongeperen, Olkifulwa; **Ngindo:** Mtiko; **Nyamwezi:** Kanala; **Swahili:** Mchanvia, Mkuku mbuzi, Mpekechu, Mpeketo, Mtotozi, Mtumbi.

DESCRIPTION: A distinctive evergreen tree or shrub, 2–10 m, with a short bole. The bark exudes drops of yellow to red latex when damaged. **Large erect branches** support a heavy conical crown. In big trees branches arch over in a characteristic way. Branching is often in threes—useful as stirring sticks. **BARK:** Dark grey-black, ridged. **LEAVES:** Stiff and leathery **in pairs or threes**, 4–14 cm, edge usually wavy, **the veins irregular and raised on shiny upper surface**. **FLOWERS:** Cream-green, in small clusters, a sweetish smell, small green buds sticky with resin. **FRUIT:** **Yellow-orange, oval, 2.5 cm** diameter, very many, edible, acid-sweet, up to 5 seeds.

ECOLOGY: This tree is widespread in riverine forest, grassland, thickets and in open woodland in tropical Africa, often under larger trees, 0–1,800 m; rainfall 800–1,800 mm. Prefers sandy loam.

DISTRIBUTION: Found in all parts of Tanzania, e.g. in Tanga, Iringa, Morogoro and Rukwa Regions. Also in Kenya, Uganda, west to Cameroon and south to South Africa.

USES:

**Food:**

- Ripe fruits are fleshy and eaten raw. They have an acid-sweet taste and are much liked by children and herdsmen.
- Fruits are soaked in warm water and squeezed. Then the juice is filtered and sugar added.

**Medicinal:** Roots are soaked in cold water and the infusion is mixed with milk and drunk to treat abdominal pains in pregnant women.

**Commercial:** Not marketed.

**Other:** The wood is hard and used for building poles, tool handles, wooden spoons, stirring sticks, firewood, pegs. The bark yields a yellow dye. The tree is used for shade.

SEASON: Ripe fruits are available from October to December.

STORAGE: Not stored.

MANAGEMENT: Collected from the wild, not cultivated. Can be propagated by fresh seed.

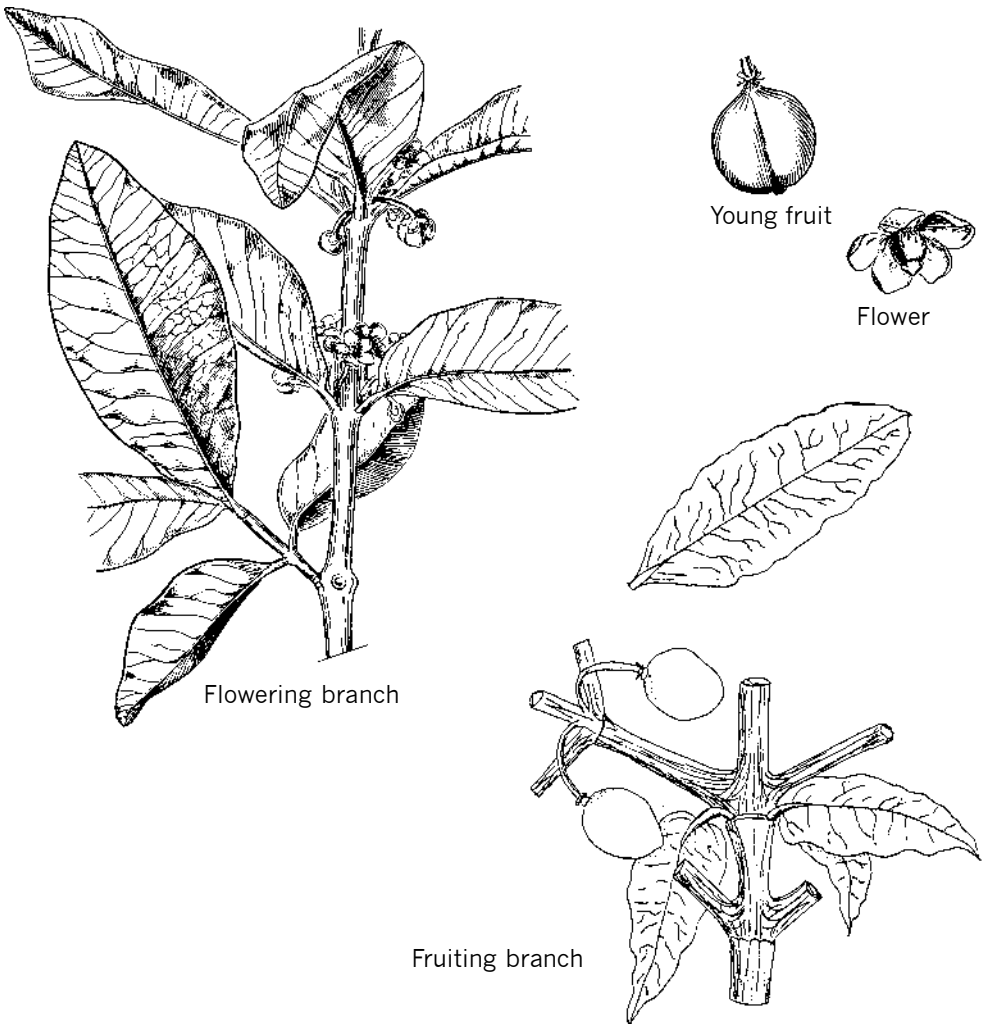
STATUS: Occasional within its area of distribution.

REMARKS: Two other *Garcinia* species with edible fruits are also found in Tanzania:

*Garcinia livingstonei*

## Clusiaceae (Guttiferae)

1. *G. kingäensis* (**Bena**: Lifulafila, Mfulafila; **English**: Northern forest garcinia; **Kaguru**: Mkowekowe; **Kinga**: Kisongwe; **Swahili**: Mpekecho) a shrub or large tree up to 15 m high with twigs that are 4-sided in cross-section and orange yellow fruits. It is found, e.g. in Kagera, Iringa, Morogoro, Dodoma and Mtwara Regions. It also occurs in Malawi, Mozambique, Zambia and South Africa;
2. *G. smeathmannii* (**Bena**: Mduma; **Ha**: Umusalasi; **Hehe**: Mfulafila; **Swahili**: Mpekechu, Mtumbu) a tree up to 30 m high, found, e.g. in Iringa, Mbeya, Kagera and Kigoma Regions. It is also found from Guinea to Cameroon, in Gabon, the Congo basin, Malawi and Zambia.



*Grewia bicolor*

## Tiliaceae

Indigenous

LOCAL NAMES: **Bena:** Mkole; **Bende:** Mkole; **English:** Donkey berry; **Gogo:** Mkole, Mtafuta; **Gorowa:** Lomo; **Haya:** Mkomakoma; **Hehe:** Mkole, Mpelemehe, Msesetya; Nyamkole; **Iraqw:** Lagaang-aawak; **Maasai:** Esitete, Olsiteti, Osiminde, Ositeti; **Mbugwe:** Musuna-nu-kuu; **Nyamwezi:** Mkoma, Mkomalendi; **Nyaturu:** Musuna-nu-kuu; **Rangi:** Mduwau; **Sambaa:** Mkole-ngoda; **Sandawi:** Serekuúk; **Sangu:** Mpelemehe; **Sukuma:** Mkoma, Mukoma; **Swahili:** Mfukufuku, Mkole, Mkone; **Zaramo:** Mkole mweupe, Mswere; **Zinza:** Mkomakoma.

DESCRIPTION: A low shrub or tree, 2–10 m, in dry deciduous woodland, produces suckers and branches from the base of the main trunk. BARK: Smooth when young, dotted with breathing pores; later dark, rough and scaly. LEAVES: Oval to oblong, pointed, 1–8 cm, the edge finely toothed, shiny green above but pale grey-white below, drooping in the heat. FLOWERS: Golden yellow, sweet smelling, small petals bent back over larger sepals. FRUIT: Rounded and soft, 5 mm, orange then black, hairy at first, edible, sweet but sharp on the tongue.

ECOLOGY: Found in Tanzania from the coast to the highlands, on poor soils, although it prefers calcareous soil, e.g. along river courses in Babati and Singida Districts, 800–2,000 m.

DISTRIBUTION: A common tree of the semi-arid tropics in Africa and India. Widely distributed in Tanzania, e.g. in Tabora, Iringa, Shinyanga, Dodoma and Morogoro Regions. Also occurs in Kenya and Uganda.

USES:

**Food:**

- Ripe sweet fruits are picked from the tree and eaten raw as a snack. Only the pulp is eaten and seeds are discarded.
- Ripe fruits are collected, lightly pounded in a grain mortar, soaked in water and squeezed. The juice is filtered and drunk as it is or added to porridge.
- The juice from fruits can be fermented and made into an intoxicating drink.

**Medicinal:**

- Roots are pounded, soaked in cold water and the infusion drunk to treat anaemia, chest pains, snakebite, colds, diarrhoea and infertility in women.
- The bark is chewed and put on wounds as a bandage.

**Commercial:** Not marketed.

**Other:** The wood is hard and used for fuelwood, building poles, withies, walking sticks, clubs, pegs, bows, carrying beams and rakes. The tree is used for bee forage and as an ornamental.

SEASON: Ripe fruits are collected from April to June.

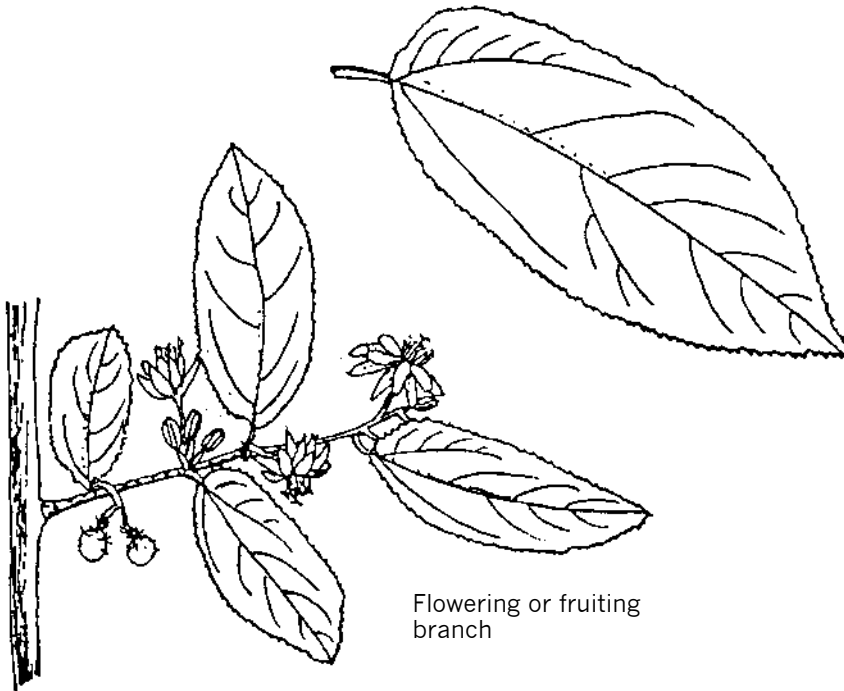


***Grewia bicolor* (contd)****Tiliaceae**

STORAGE: Not stored.

MANAGEMENT: Only collected from the wild. The species can be propagated by fresh seed, which needs scarification (piercing or nicking).

STATUS: Locally common.



*Grewia conocarpoides*

## Tiliaceae

Indigenous

[Plate 2]

LOCAL NAMES: **Nyamwezi:** Mdati; **Sukuma:** Ndati; **Swahili:** Mkole.

DESCRIPTION: A shrub or small tree to 5 m with a dense rounded crown. BARK: Pale grey. LEAVES: Oblong and stiff, **6–9 cm with very tiny shallow teeth along the edges**, mid green above, **grey-white below** due to tiny hairs (*G. bicolor* also white below but has larger teeth on leaf margins), **tip long pointed**, base rounded, one-sided, to a short stalk about 7 mm. FLOWERS: **Green-white, fragrant, quite small**, inner surface of sepals and 5 petal lobes cream-white, pale yellow stamens in the centre. FRUIT: **Fleshy berries, without hairs, single and rounded to 1.7 cm, orange-red** when ripe.

ECOLOGY: A shrub of miombo bushland dominated by *Brachystegia*, on rocky hills at medium altitudes, 800–1,200 m.

DISTRIBUTION: Found only in the Tabora area.

USES:

**Food:**

Ripe fruits are collected from the tree and eaten fresh as a snack, especially by children and herdsman.

**Commercial:** Not marketed.

**Other:** The wood is hard and heavy, used for fuelwood, building poles, walking sticks, clubs, tool handles, withies and bows. The tree is a good source of bee forage and fodder and a good ornamental.

SEASON: Ripe fruits are available from April to June.

STORAGE: Not stored.

MANAGEMENT: Only collected from the wild. Propagation is possible using fresh seed.

STATUS: Common and easily accessible within its area of distribution. Can be propagated by seed.

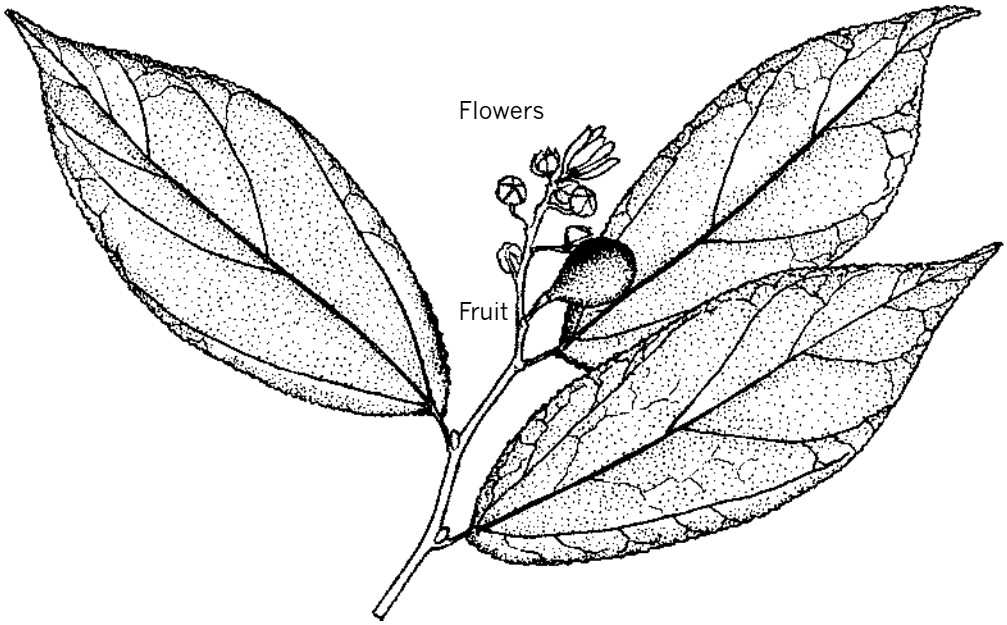
REMARKS: This species is endemic to Tanzania.

Most of the over 40 *Grewia* species found in Tanzania are edible. One is *G. fallax*, and other species are mentioned on the following pages covering *Grewia*..

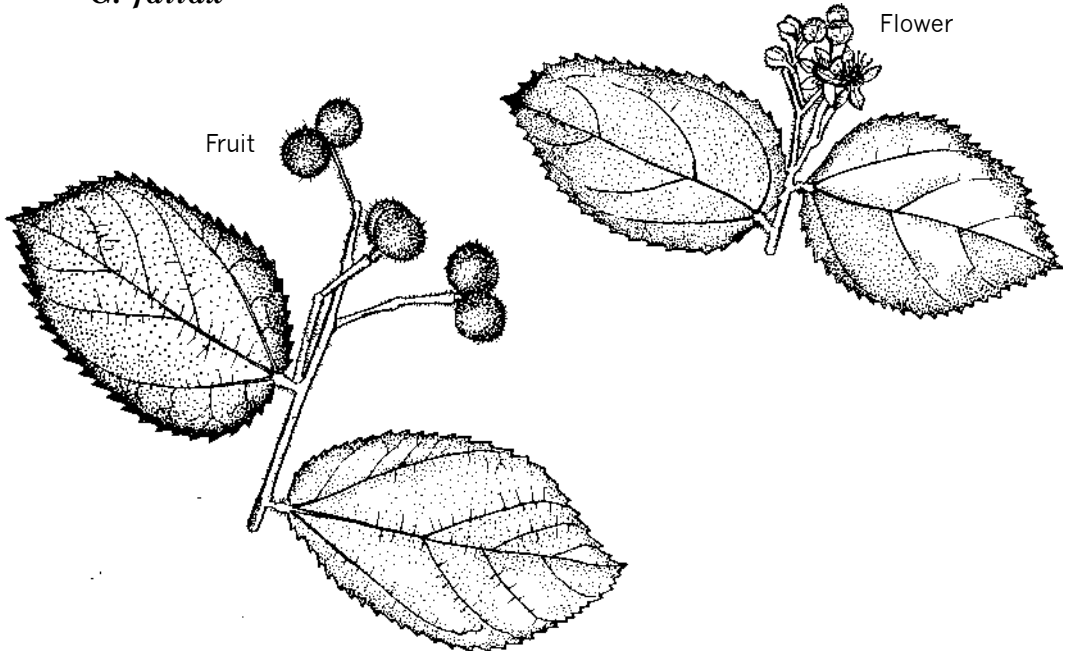
1. *G. fallax* (**Gogo:** Mgwelu; **Gorowa:** Lomodu-aawak; **Hehe:** Mkaapu; **Iraqw:** Lagangwi; **Nyamwezi:** Mkoma, Mkoma-mkulu; **Sukuma:** Nkoma; **Swahili:** Mkole): a shrub 1.5–6 m high with rounded crown. LEAVES: Egg shaped, dark green, 3–13 cm long with toothed margin. FLOWERS: Yellow. FRUIT: Orange, turning black when ripe, 10–16 mm in diameter. It occurs in dry bushland, bushed grassland, *Acacia* woodland and *Brachystegia* woodland, 300–1,500 m. In Tanzania this species has been recorded in Mwanza, Kilimanjaro, Arusha and Dodoma Regions. It is also found in Kenya, Sudan and Somalia.

*Grewia conocarpoides*

Tiliaceae



*G. fallax*



*Grewia mollis*

## Tiliaceae

Indigenous

LOCAL NAMES: **Arusha:** Ositeti; **Bena:** Mpelemehe; **Gogo:** Mkole; **Gorowa:** Lomo; **Ha:** Umushamgumu; **Hehe:** Mkole, Mpelemehe; **Iraqw:** Lagagir-daat; **Kuria:** Mkomakoma; **Maasai:** Ositeti; **Nyamwezi:** Mkoma; **Nyaturu:** Musuna; **Rangi:** Mduwau; **Sandawi:** //Hwaa, X'waa; **Sangu:** Mpelemehe; **Sukuma:** Mdagwata; **Sumbwa:** Mukoma; **Swahili:** Mkole.

DESCRIPTION: A shrub or small tree 1.5–9 m, often multi-stemmed, with spreading hairy branches, twiggy at the tips, often purple on drying. **BARK: Black and rough, thick and flaky, deeply fissured, a yellow-green fibrous undersurface.** **LEAVES: Pale green above but grey-white silky hairs cover the lower surface,** long oval, 4–18 cm x 2–6 cm wide, 3 veins from the base, side veins clear and parallel veins between, **edge clearly toothed,** sometimes double-toothed, tip pointed, sharply stalked. **FLOWERS:** Beside leaves on **1–3 stalks over 1 cm long,** each with 2–3 flowers; the 5 sepals, about 1 cm long, are hairy outside and enclose the hairy central ovary. **FRUIT: 1–2 rounded lobes slightly hairy,** sharply tipped, each **5–7 mm;** black, edible when ripe.

ECOLOGY: One of the *Grewia* species found in moist woodlands of East Africa. Does well in low- and medium-altitude savanna woodlands, wooded grasslands and riverine thickets, up to 1,600 m; rainfall 1,000–1,400 mm. Thrives in a variety of soil types.

DISTRIBUTION: From Senegal in West Africa to the Sudan and East Africa, through the Congo basin, south to Botswana and Mozambique. Widespread in Tanzania; found for example in Tabora, Mwanza, Rukwa and Arusha Regions.

USES:

**Food:**

Ripe, sweet fruits are collected from the trees and eaten fresh as a snack. The hard seed is discarded.

**Medicinal:** Leaves are pounded and soaked in water and the infusion drunk to reduce gas in the stomach. It is also used to treat constipation in domestic animals.

**Commercial:** Not marketed.

**Other:** The leaves can be crushed, mixed with water and used as a shampoo against head lice. The wood is used for walking sticks, building poles and charcoal in many areas.

SEASON: Fruits are collected at the end of the rainy season.

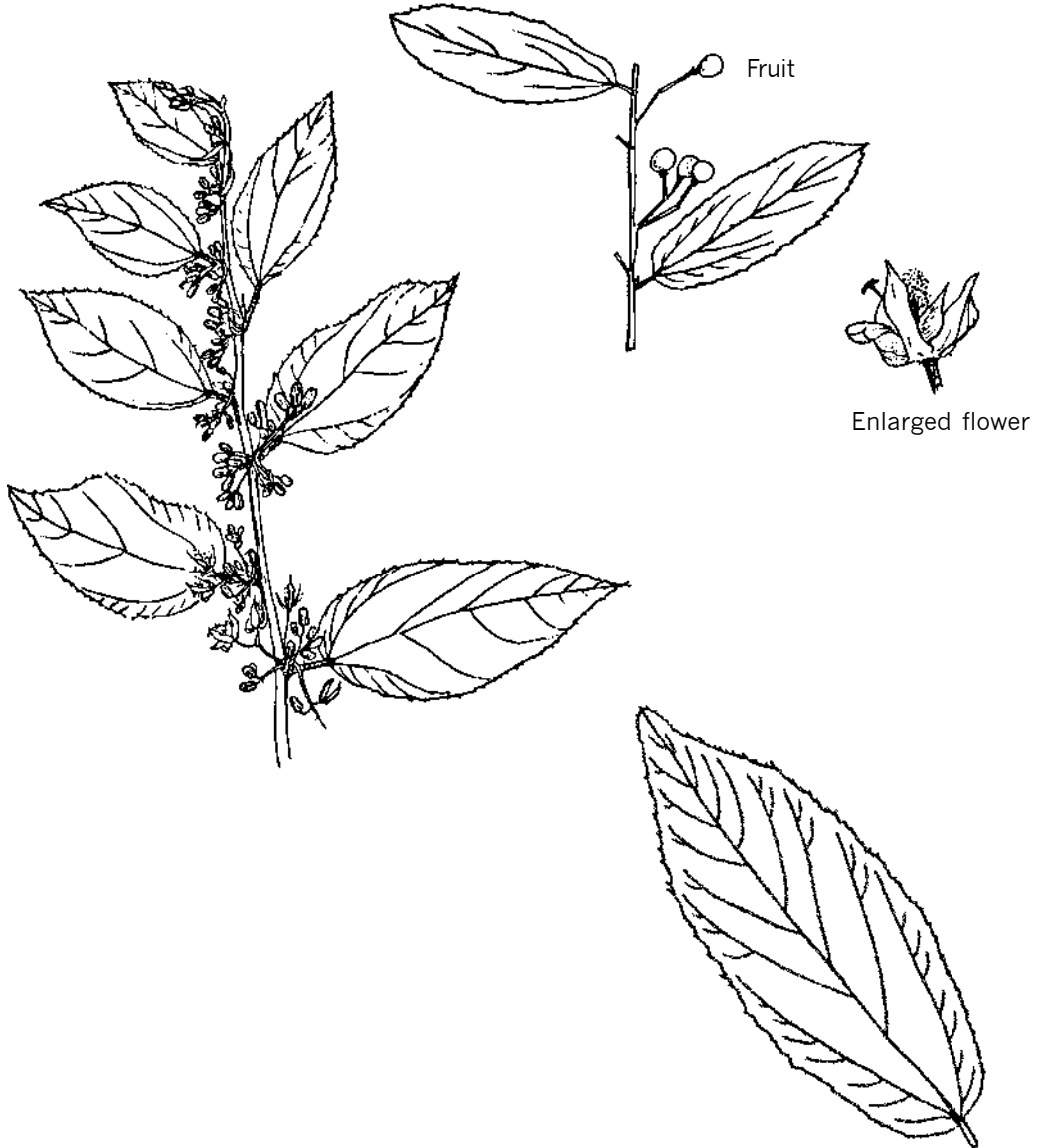
STORAGE: Not stored.

MANAGEMENT: Collected from the wild and not protected or cultivated by local people. Can be propagated by seed.

STATUS: Common and easily accessible within its area of distribution.

*Grewia mollis*

Tiliaceae



*Grewia platyclada*

## Tiliaceae

Indigenous

LOCAL NAMES: **Arusha:** Olmangulai-oloingoni; **Gogo:** Mpelemehe; **Gorowa:** Firaakwi, Lomo-peh; **Hehe:** Mkole, Mpelemehe; **Iraqw:** Uduboguta; **Maasai:** Olmangulai-oloing'oni; **Nyamwezi:** Mpelemense; **Rangi:** Iperemesu, Mpelemesu; **Sandawi:** Khoa, Xóá, X'waa; **Sangu:** Mbajua; **Sukuma:** Mpelemese; **Swahili:** Mkole; **Tongwe:** Lunkukuma.

DESCRIPTION: A **shrub** or small rounded **tree** to 4 m, or a strong **woody climber** to 4–5 m, sometimes forming **thickets**. The looping **angular stems thicken** with age and become **rope-like** hanging between the trees. **BARK:** **Young branchlets and shoots covered with soft brown hairs**, later strongly 3–4 ribbed, dark brown or grey with paler elongated breathing pores. **LEAVES:** More or less oval to 10 cm long, 5 cm across, the edge with **coarse teeth, hairy both sides, only slightly one-sided at the base**, many parallel veins, hairy below. **FLOWERS:** **Bright orange-yellow, star-like, beside leaves**, the 5 petals about the same length as the sepals which are yellow inside, long and narrow, **buds oblong, to 1.5 cm**. **FRUIT:** **Shiny berries, each one to 1 cm across in heads of 4** (but some fail to develop so 1,2,3 often seen).

ECOLOGY: A thicket-forming shrub in degraded bushland, on hillsides, often on stony soil, thickets in gullies, lowland forest, edges and clearings, 800–1,200 m.

DISTRIBUTION: Recorded in several areas of western and central Tanzania, e.g. in Shinyanga, Dodoma, Kigoma and Singida Regions. Also in Uganda, the Congo basin and Mozambique.

USES:

**Food:**

Fruits are edible and can be added to porridge as a substitute for sugar.

**Medicinal:** Roots used to treat menstrual problems, stomach problems during pregnancy and other disorders in women.

**Commercial:** Not marketed.

**Other:** The wood is hard and used for fuelwood, building poles, weaving local doors, withies and walking sticks. The plant is used for fodder.

SEASON: Fruits are collected from April to June.

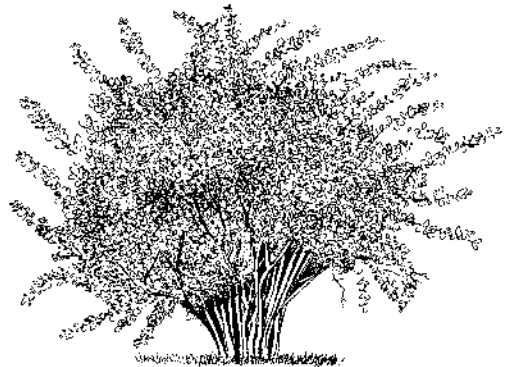
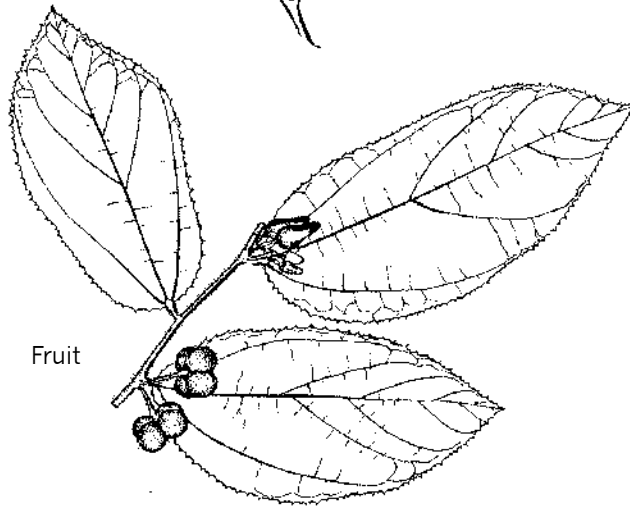
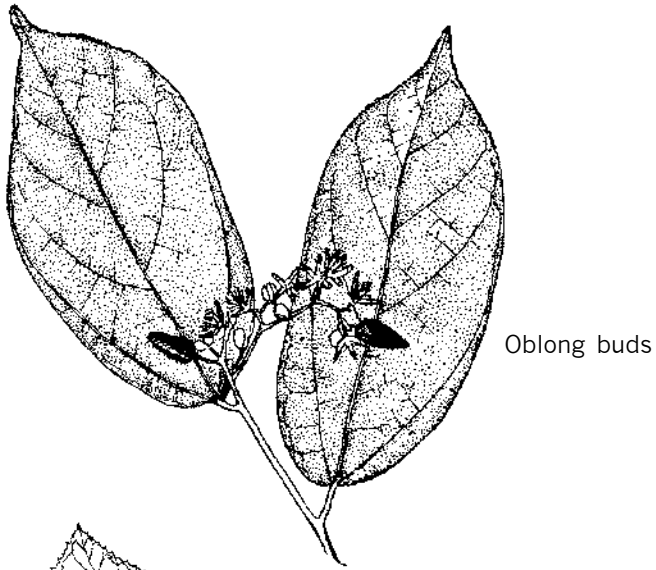
STORAGE: Not stored.

MANAGEMENT: Collected from the wild and not cultivated. Can be propagated by seed.

STATUS: Locally common and easily accessible within its area of distribution.

*Grewia platyclada*

Tiliaceae



*Grewia similis*

## Tiliaceae

Indigenous

[Plate 2]

LOCAL NAMES: **Arusha:** Olmkoma; **Bondei:** Mnangu; **Chagga:** Mlela; **Gogo:** Kisesetya, Mtafuta; **Gorowa:** Saski; **Haya:** Umukoma; **Hehe:** Mkole, Mpelemehe, Nyakisesetya, Nyamkole; **Iraqw:** Furudou, Mgombaryandi, Saski; **Isanzu:** Mukuma; **Kaguru:** Mseseza; **Maasai:** Eirii, Sajagi; **Nyagatwa:** Mbudu; **Nyamwezi:** Mkomabubu; **Nyaturu:** Mukhantokhanto; **Nyir:** Mukuma; **Pare:** Mnangu; **Rangi:** Mnangu; **Sambaa:** Mnangu; **Sandawi:** Tsampure; **Sukuma:** Ndagwasa; **Swahili:** Mkole; **Zaramo:** Mkole mweupe.

DESCRIPTION: A straggling shrub or small tree to 3 m, sometimes a climbing liane with woody knobs on the old stems. LEAVES: Shiny dark green above, **oval to rounded, about 5 cm long** tip and base variable, the **edge finely toothed**, 3 veins from the base prominent below, slightly rough, hairy. FLOWERS: Attractive **mauve-pink** with yellow anthers in the centre, in terminal or axillary **groups of 3–6 flowers**, each star shaped about 3 cm across, 5 petals oblong, **5 sepals pointed, mauve inside and as long or longer than the petals**. Flowers open late in the morning. FRUIT: **Fleshy berries, deeply 4-lobed** although some lobes may not develop, each one about 5–10 mm across, **orange-red** when ripe.

ECOLOGY: A plant of dry evergreen mountain forest and forest edges, riverine thicket, evergreen bushland or bushed grassland, coastal thicket, 100–2,300 m.

DISTRIBUTION: Widespread in Tanzania, e.g. in Arusha, Iringa, Kagera, Morogoro and Tanga Regions. Also in Kenya, Uganda, Sudan, Rwanda and Burundi.

USES:

**Food:**

- Ripe fruits are sweet and eaten raw as a snack. They are picked from the tree in handfuls and eaten in small amounts, especially by children and herdsmen.
- Ripe fruits are collected, soaked in warm water and the juice used to sweeten porridge.

**Medicinal:** The bark is pounded and the powder used to treat wounds, sores and snakebite (Nyamwezi).

**Commercial:** Marketed in local markets (Gogo).

**Other:** The wood is hard and heavy and used for building poles, fuelwood, tool handles, walking sticks, pegs, withies, bows and clubs.

SEASON: Fruits are collected from April to June.

STORAGE: Not stored.

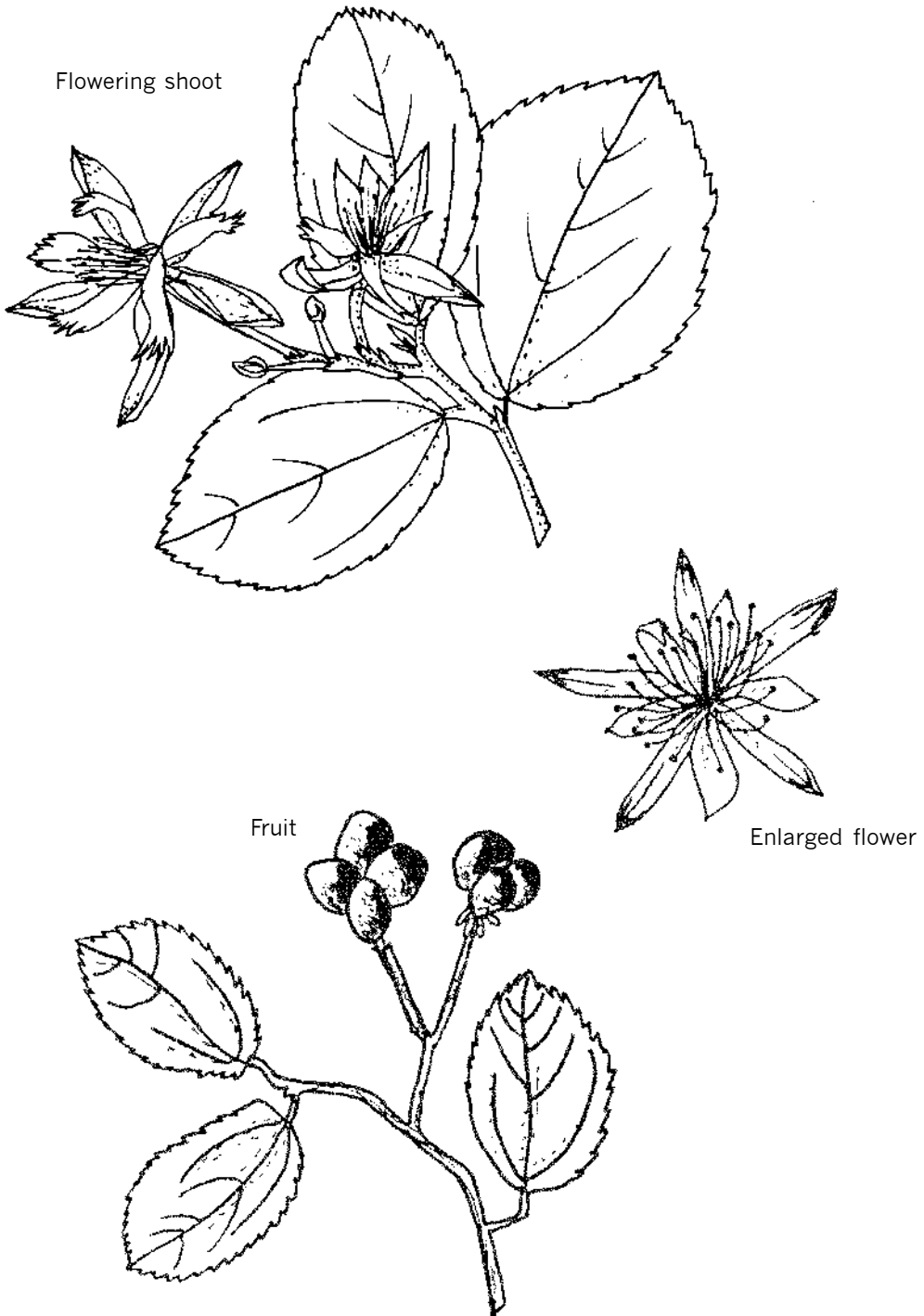
MANAGEMENT: Collected from the wild and not cultivated. The species can be propagated using seeds.

STATUS: Common and easily accessible within its area of distribution.



*Grewia similis*

Tiliaceae



*Grewia trichocarpa*

## Tiliaceae

Indigenous

LOCAL NAMES: **Swahili:** Mkole.

**DESCRIPTION:** A shrub or small spreading tree, 1.5–6 m. **BARK:** Smooth silver-grey to brown, sometimes with vertical bands of brown lenticels. **LEAVES:** Variable in size, 3–11 cm long, generally oval with a **well-pointed tip, the edge with sharp pointed irregular teeth, the base unequal sided**, 3 veins to the base, paler below with a few hairs. **FLOWERS:** A striking plant when covered with **golden-yellow flowers**. They arise **on stalks, 2–3 together** from leaf axils, buds oval, opening with **5 sepals, yellow-green, 6–11 mm, 5 smaller yellow petals within, only 3–7 mm**, the many central stamens have orange stalks, ovary hairy. **FRUIT: Single berries, rounded, slightly hairy, 5–7 mm across, ripening orange, on hairy stalks.**

**ECOLOGY:** Common in wooded grasslands and in *A. tortilis* woodlands. Occurs naturally in lowland and at medium altitude with rainfall 900–1,400 mm. Thrives in a variety of soil types.

**DISTRIBUTION:** Found from Senegal in West Africa, east to the Sudan and Ethiopia and south to Angola and Botswana. In Tanzania this species is common at Samina in Geita District (Mwanza Region), Pugu Forest Reserve in Pwani Region and at Kisesa near Mwanza.

**USES:**

**Food:**

The fruit are edible and taste sweet. Fruit are frequently collected from the tree when ripe and eaten as a snack, especially by children.

**Commercial:** Not marketed.

**Other:** The wood is used for building poles, fuelwood, tool handles and withies. The tree is important as a source of bee forage.

**SEASON:** Ripe fruits are collected from April to June.

**STORAGE:** Not stored.

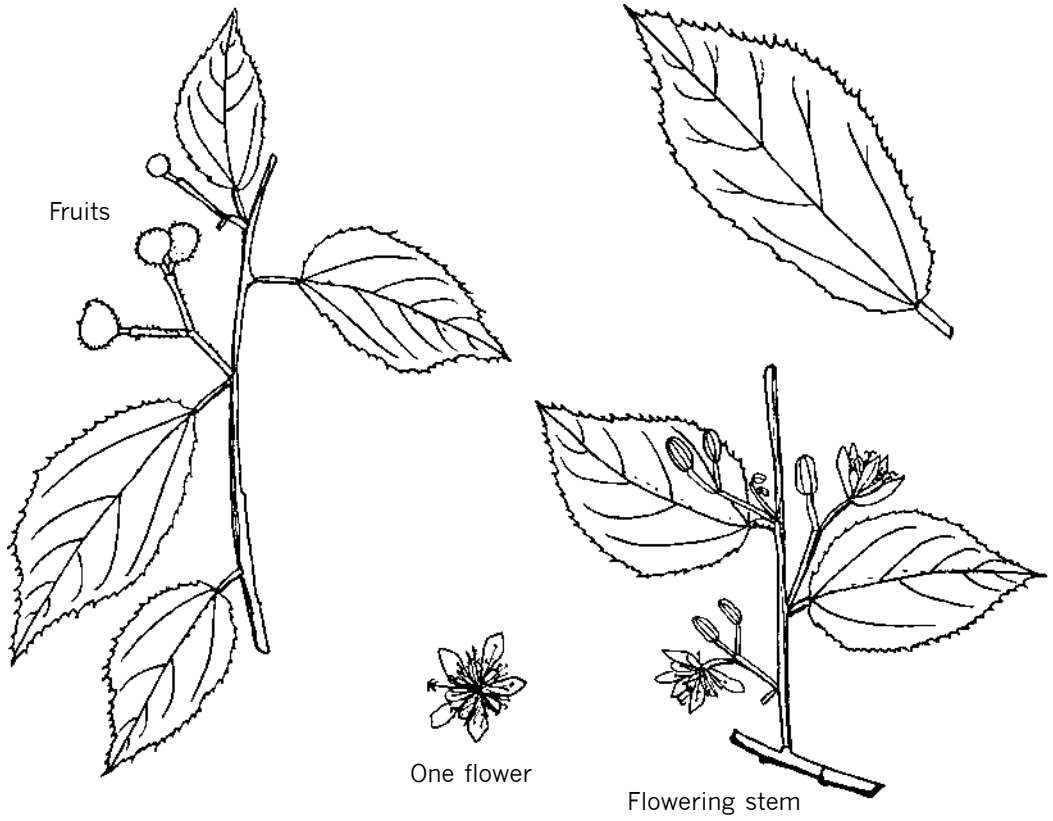
**MANAGEMENT:** Collected from the wild and not cultivated or protected by local people. Can be propagated by seed.

**STATUS:** Common and easily accessible within its area of distribution.

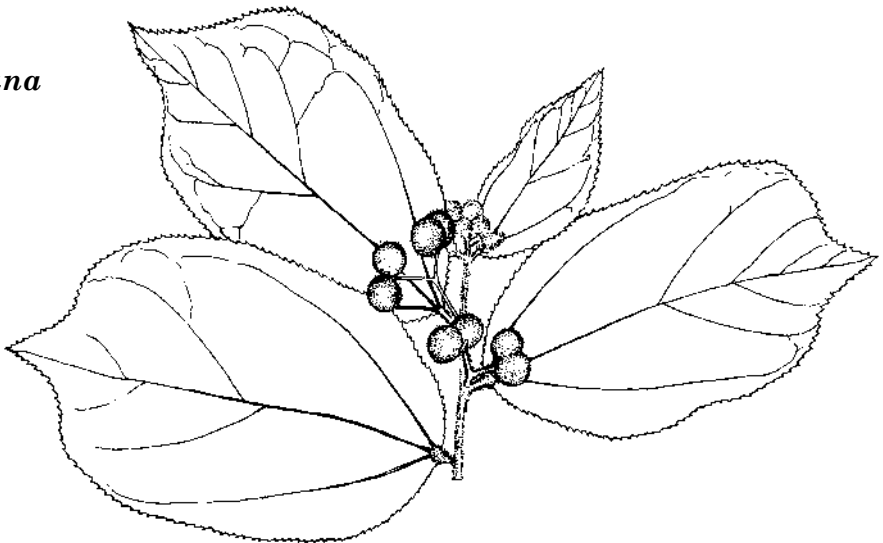
**REMARKS:** Another edible *Grewia* species, and one which is endemic to Tanzania, is *G. goetzeana* (**Luguru:** Mkole; **Rufiji:** Mshiri; **Sambaa:** Mkole-ng'ombe; **Swahili:** Mkole; **Vidunda:** Mkole-bwabwa): a shrub to 2.5 m or a tall tree 10–20 m with large rounded crown and brown flaky bark. **LEAVES:** Large, 4–14 cm long x 2–9 cm wide with toothed margin. **FLOWERS:** Yellow. **FRUITS:** Orange, usually in pairs, rounded, up 1 cm in diameter. Found in open savanna, at forest edges and river banks and in bushland, 0–300 m. Common in the lowlands, e.g. around Kilosa, Morogoro, Lindi and Mombo.

*Grewia trichocarpa*

Tiliaceae



*G. goetzeana*



***Grewia villosa*****Tiliaceae**

Indigenous

LOCAL NAMES: **Arusha:** Olmangulai; **Fiome:** Lomo; **Iraqw:** Amu; **Maasai:** Emangulai, Emankulai, Ilmankula (plural), Olmangulai, Olmankulai; **Mbugwe:** Motoo; **Nyaturu:** Mumpembe; **Swahili:** Mkole, Mkorobosho.

DESCRIPTION: A deciduous shrub about 3 m, with very distinctive leaves; young parts covered with **pale silky hairs**, branches purple-brown. LEAVES: **Almost round, to 12 cm across**, on stalks to 4 cm; paler below and more hairy, **5 veins clearly seen**. FLOWERS: Pink, turning yellow with age, in **small clusters without stalks, opposite leaves**. FRUIT: Usually single, **soft and hairy** when ripe, red-brown, about 1 cm across, 1–2 hard seeds within each nut.

ECOLOGY: It is common in medium-altitude areas in semi-arid bushland characterized by *Acacia tortilis* and *Lannea humilis*, up to 1,200 m; rainfall 900–1,200 mm. Thrives in black-cotton soil and in sedimentary soils.

DISTRIBUTION: From West Africa to the Sudan, Eritrea and Kenya, south to South Africa. In Tanzania it is common, for example in Same and Babati Districts.

USES:

**Food:**

The sweet pulp of the ripe reddish-brown fruit is eaten as a snack, especially by herdsman, while the seeds may be discarded.

**Other:** Yields a good fibre used for making ropes. Small stems used for making granaries.

**Medicinal:** Roots used to treat body pains.

SEASON: Ripe fruits are collected in May–July.

STORAGE: Not stored.

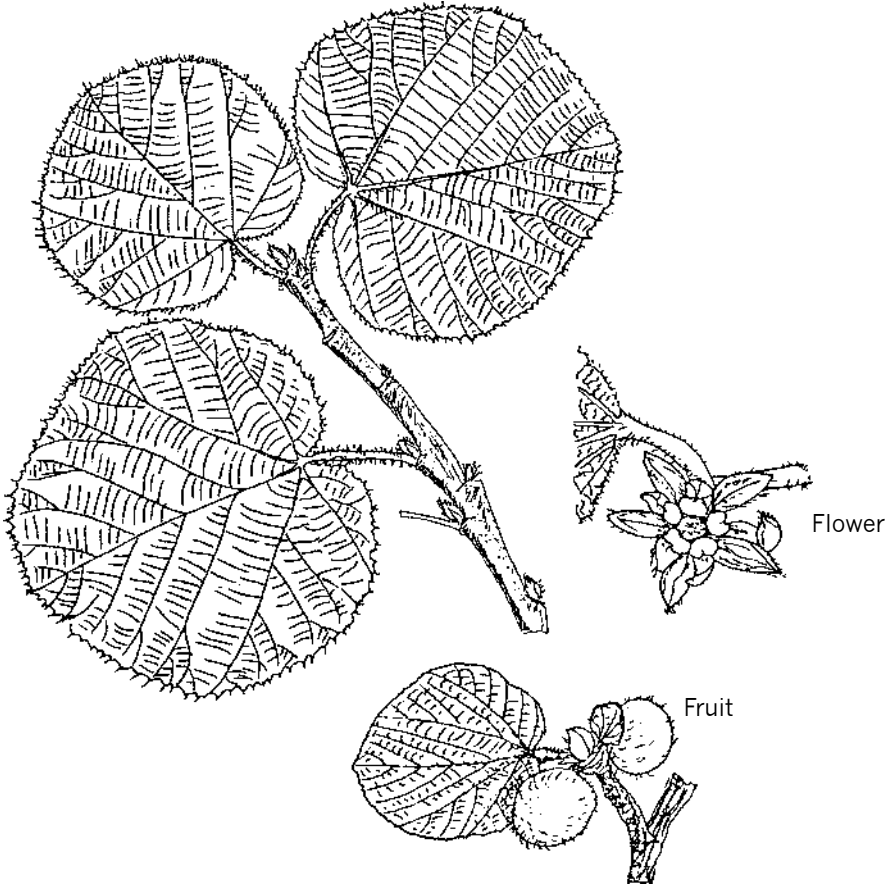
MANAGEMENT: Collected from the wild and not cultivated or protected by local people.

STATUS: Common and easily accessible within its area of distribution.

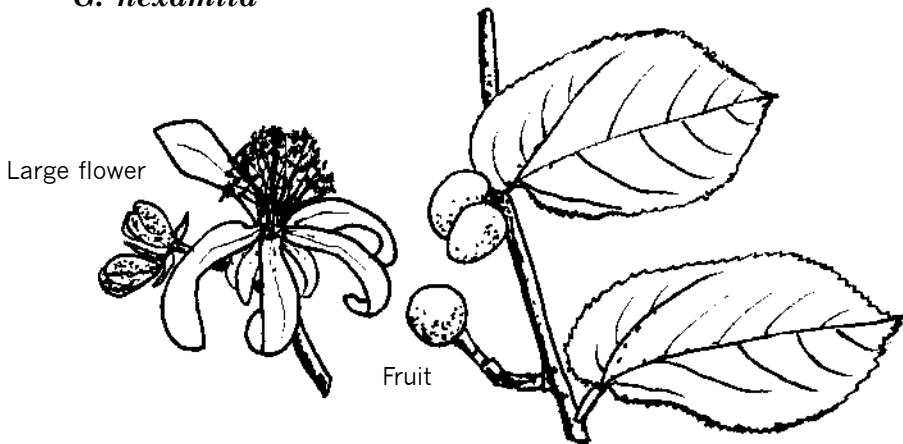
REMARKS: Another edible *Grewia* species is *G. hexamita* (**Bende:** Mkole-dume; **English:** Large-flowered yellow grewia; **Gogo:** Mhafuta, Mgukwe, Mgwelu; **Hehe:** Mkole; **Nyamwezi:** Mkoma; **Rangi:** Mduwau; **Swahili:** Mkole): a shrub or small tree up to 5 m high; stems with woolly red-brown hairs. LEAVES: Up to 10 cm long and 6 cm wide, shiny green above, hairy white beneath; base cordate, strongly asymmetric. FLOWERS: In axillary clusters, large, 4–5 cm in diameter, golden yellow. FRUIT: A drupe, often 2 deeply divided lobes, yellow-brown to red when ripe, up to 2 cm in diameter. It grows in wooded grasslands, bushland, usually on termite mounds, and in river valleys. Has been recorded at Mpwapwa and Matomondo in Dodoma Region, Mombo Forest Reserve near Korogwe (Tanga Region) and in Nyang'olo Hills in Iringa Region. It is also found in South Africa.

*Grewia villosa*

Tiliaceae



*G. hexamita*



***Guizotia scabra*****Compositae**

Indigenous

LOCAL NAMES: **Luo:** Nyamnina, Onina; **Sambaa:** Mpuishi.

DESCRIPTION: An erect, usually perennial herb to 2 m high from a wiry rootstock, variable in form. LEAVES: **Opposite, without stalks**, usually clasping the stem towards the apex, narrow oblong, edge toothed or not, **very rough (scabrid) to the touch**. FLOWERS: **Bright yellow**, in **loosely branched terminal heads**, each flower with one row of outer ray florets, petals with 5–9 veins and 3 teeth, the surrounding green bracts 15 mm, free to the base, very many inner yellow disc florets. FRUIT: Smooth, straight edged, **3–4-angled tiny black achenes**, no hairy pappus.

ECOLOGY: It does well in abandoned fields, disturbed areas and secondary regrowth, often growing profusely and gregariously making it easy to harvest when mature. Common in lowland and medium-altitude areas, up to 1,200 m; rainfall 1,100–1,700 mm. It is a weed that grows in a variety of soils.

DISTRIBUTION: Found from West Africa to the Sudan and Kenya, the Congo basin, and south to South Africa. In Tanzania, this species is found, for example, near Bagamoyo (Pwani Region), in Iringa Region and near Monduli in Arusha Region.

USES:

**Food:**

Tender leaves are collected, chopped and cooked alone or mixed with other green vegetables such as amaranth or peas. Coconut milk, cooking oil, pounded groundnuts or sunflower seeds are added and the vegetable served with *ugali* or rice.

**Commercial:** Not marketed.

SEASON: Seeds are collected late in the first dry season, and leaves in the rainy season.

STORAGE: Not stored.

MANAGEMENT: This is a weed that invades immediately after a major crop, e.g. simsim, has been harvested.

STATUS: Common and easily accessible within its area of distribution.

REMARKS: Germination of seeds is enhanced by seasonal fires.

*Guizotia scabra*

Compositae



## *Habenaria epipactidea* (*H. foliosa*)      Orchidaceae

Indigenous

LOCAL NAMES: **Matengo**: Chichala, Kikande chanima, Kikande chichala, Kikande jike, Kikande maka, Kikande mgosi, Manjorosa; **Sambaa**: Kimachura; **Ngoni**: Kikande chanima, Kikande chichala, Kikande jike, Kikande maka, Kikande mgosi, Manjorosa; **Ndendeule**: Kikande chanima, Kikande chichala, Kikande jike, Kikande maka, Kikande mgosi, Manjorosa.

DESCRIPTION: A terrestrial orchid 30–55 cm tall, the **stout erect stem arising from underground tubers** variously shaped to 6 cm long and 3 cm across, often depressed rounded with the shoot arising on one side, **a dark woolly covering** but grey-white and fleshy inside. LEAVES: **8–15 leaves overlap closely and cover the stem**, the lowest sheath-like, largest 5–12 cm x 2.5 cm wide, smaller leaves at the top of the stem, similar to bracts, pale green. FLOWERS: Sweetly scented on a cylindrical spike 6–16 cm long x 2–5 cm across, **with 7 to many flowers close together**, with narrow pointed bracts shorter than the flowers; flowers curved outwards, **upper sepals pale green, petals and lip cream-lemon yellow or white**, sepals with darker green veins, ovary plus the slender stalk about 2 cm, the dorsal sepal like a hood, **the white petals ovate-circular, a 3-lobed lip with a mid lobe longer, about 1 cm, and reduced, entire side lobes**, the spur 1.7–3 cm. Two very short processes at the base. FRUIT: Elliptic capsules with slits to release tiny seeds.

ECOLOGY: Found in grasslands with short grass, especially where seasonally damp or in rocky gullies, dry bush, 1,100–1,800 m.

DISTRIBUTION: Well distributed in central and northern parts of Tanzania, e.g. around Kondoa, Ngorongoro, Musoma, Mwanza and Shinyanga. Also found in Kenya, Uganda, Angola, Zimbabwe, Namibia, South Africa, Ethiopia, Rwanda and Botswana.

USES:

**Food:**

- Tubers are dug out from the ground, peeled and cooked. They are then eaten like potatoes.
- Tubers are peeled, pounded and baked into mealy cakes which are eaten with tea.

**Commercial:** Tubers are very popular and are sold in local markets as well as other countries such as Malawi, Mozambique and Zambia.

**Other:** The plant is good for ornamental purposes.

SEASON: Tubers are dug out from the ground at the end of the rainy season, i.e. from May to July.

STORAGE: Tubers can be stored in a cool place for several weeks.

MANAGEMENT: Collected from the wild and not cultivated. The plant can be propagated by tubers.



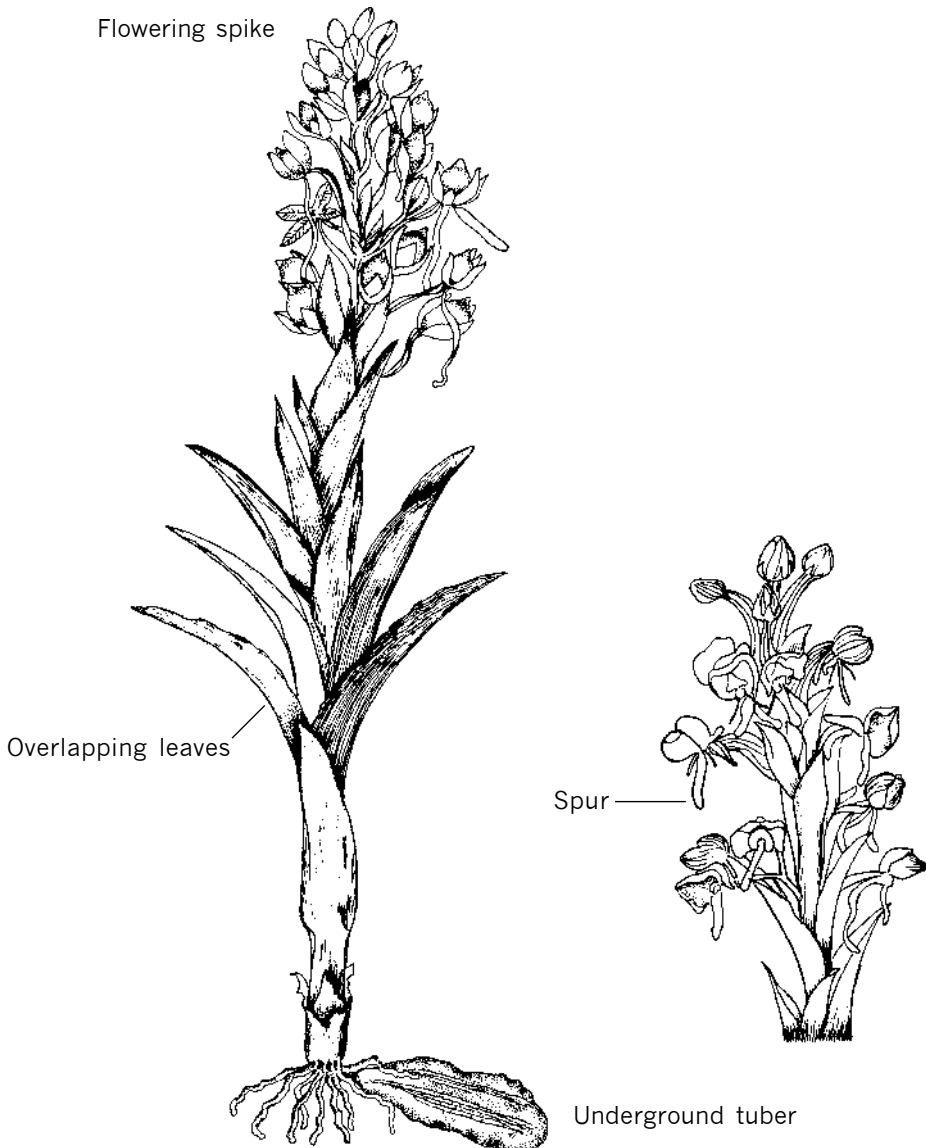
*Habenaria epipactidea* (contd)

## Orchidaceae

STATUS: Locally common but becoming increasingly rare due to over collecting.

Harvesting of orchid tubers destroys the whole plant and is thus an unsustainable harvesting method which should be discouraged. To maintain wild populations, studies on domestication are urgently needed.

REMARKS: A promising crop for cultivation and breeding.



***Habenaria walleri* (*H. soyauxii*)****Orchidaceae**

Indigenous

LOCAL NAMES: **Bena:** Kikande; **Fipa:** Binika; **Kinga:** Chikande, Kikande; **Matengo:** Chanima; **Ngoni:** Kikande; **Wanji:** Kikande.

DESCRIPTION: A terrestrial orchid with stout erect stems 40–80 cm, arising from fleshy, tuberous roots. LEAVES: 7–10 erect leaves, long oval, pointed, the largest 6–14 cm, upper leaves similar to the bracts, all close to the stem. FLOWERS: **Green sepals, other parts white** in a head 8–28 cm, fragrant at night, the upper petal lobe 15–30 mm, two or three times as long and wide as the rest, **a 3-lobed lip with narrow lateral spreading lobes longer than the middle lobe, the swollen spur very long, 13–17 cm**, in bud the green dorsal sepal makes a convex pointed hood over the petals, about 1.5 cm long and 1 cm wide. FRUIT: Oblong or spindle-shaped capsules opening by slits to free tiny seed.

ECOLOGY: Swampy grasslands with scattered *Acacia*, 1,000–2,000 m.

DISTRIBUTION: Found in western and southern areas of Tanzania, including the Southern Highlands. Also in Kenya, Uganda, Nigeria, Cameroon, Sudan, Gabon, the Congo basin, Burundi, Malawi, Zambia.

USES:

**Food:**

- Tubers are dug out from the ground, peeled, cooked and eaten like potatoes.
- Tubers are peeled, washed, pounded and baked into edible cakes.

**Medicinal:** Roots are pounded and soaked in cold water. The resulting liquid is used in the treatment of stomach-ache.

**Commercial:** Sold in both rural and urban markets.

**Other:** The plant may be used for ornamental purposes.

SEASON: Tubers are excavated from May to July.

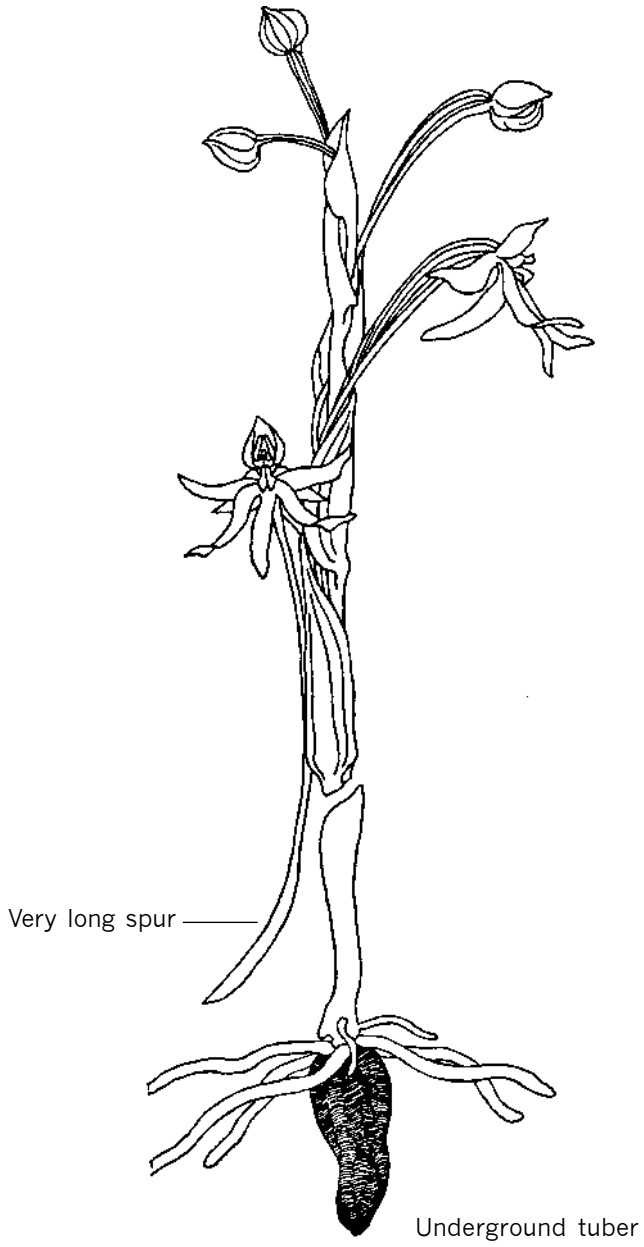
STORAGE: Tubers can be stored in a cool dry place for several weeks.

MANAGEMENT: Collected from the wild and not cultivated. It can be propagated using tubers.

STATUS: Locally common but becoming increasingly rare due to over collecting. Harvesting of orchid tubers destroys the whole plant and is thus an unsustainable harvesting method which should be discouraged. To maintain wild populations, studies on domestication are urgently needed.

*Habenaria walleri* (*H. soyauxii*)

Orchidaceae



***Harungana madagascariensis* Clusiaceae (Guttiferae)**

Indigenous

LOCAL NAMES: **English:** Orange-milk tree; **Sambaa:** Mkuntu; **Swahili:** Mbura, Mdamudamu, Mkekundu, Mngonengone, Mtunu; **Tongwe:** Mtunu.

DESCRIPTION: A pioneer shrub or tree, 3–18 m, usually much branched, but occasionally with a cylindrical trunk to 25 m (Bwindi Forest, Uganda). BARK: Red-brown, scaling, **sap blood red when cut, also from branches and leaves. Branchlets, young leaves and leaf stalks all appear orange-brown** as they are covered with short rusty hairs. LEAVES: Opposite and simple, oval, 6–20 cm long, tip pointed, base rounded, glands visible against the light, **shiny dark green above, rusty brown below.** The youngest leaves at the tips of the branches remain tightly pressed together until quite large, the brown **lower surfaces quite characteristic.** Leaf stalk to 3 cm. FLOWERS: Very small with sweet almond scent, in dense **many-flowered terminal heads, 8–20 cm across, rather flat;** the five tiny white petals have black gland dots. FRUIT: Very small, 3–4 mm, rather dry, green-orange, then **deep red in heavy massed heads 25–30 cm across.**

ECOLOGY: Does well in lowland and upland rainforest and at forest edges, disturbed areas, in thickets, in grasslands and around termite mounds, 0–1,800 m; rainfall 1,100–1,800 mm. Tolerant to various soil types.

DISTRIBUTION: Widespread in tropical Africa, and in Madagascar. Common in many parts of Tanzania, Kenya and Uganda.

USES:

**Food:**

The ripe yellow to orange-brown berries are edible. They are collected in handfuls and eaten as a snack. They taste sweet and are eaten especially by children.

**Medicinal:**

- The bark is used to treat malaria.
- The sap is used in the treatment of scabies and tapeworm.
- The leaves are rubbed on the head to treat headache. Leaves are also used to treat diarrhoea, STDs, sore throats and bleeding. Leaves and bark are used in the treatment of bloody diarrhoea.
- Roots are used to hasten breast development in young women. The bark and roots are boiled and the infusion is taken twice a day to interrupt menses.

**Commercial:** Not marketed.

**Other:** The bark and roots are chewed as a substitute for toothpaste and used as a lipstick. The wood is used for timber, building poles, tool handles, fuelwood, grain mortars and wooden spoons. The bark produces yellow dye. The tree is also important in agroforestry and as a source of bee forage.

SEASON: Collected in August–December

*Harungana madagascariensis* (contd)

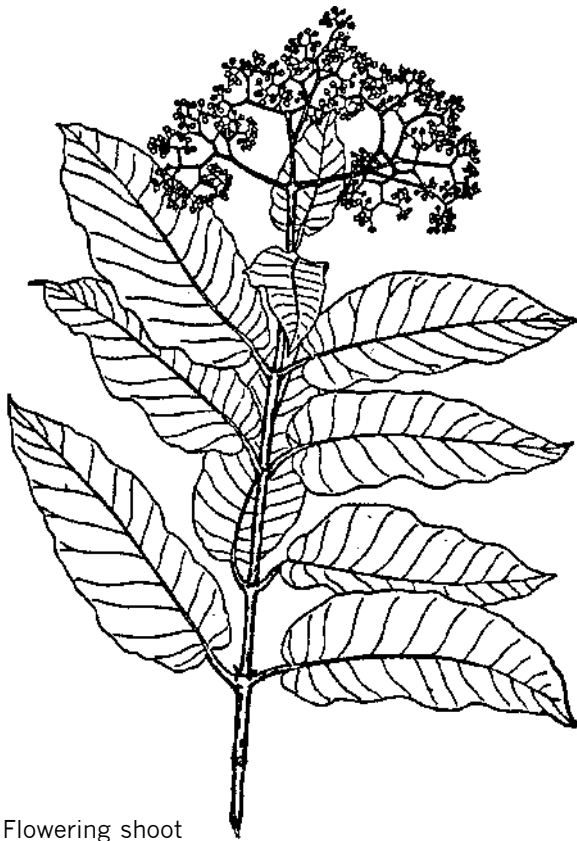
## Clusiaceae

STORAGE: Not stored.

MANAGEMENT: Collected from the wild and not protected or cultivated by local people.  
Can be propagated by seed.

STATUS: Common and easily accessible within its area of distribution.

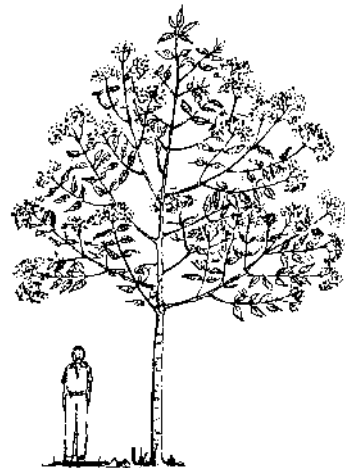
REMARKS: It is easily identified by its orange or blood-red resin which exudes readily from broken leaves and twigs, as well as from a slash in the bark, and the species is often tapped for dye.



Flowering shoot



Flower



***Heliotropium zeylanicum***  
**(*H. subulatum*)**

**Boraginaceae**

Indigenous

LOCAL NAMES: **Hehe:** Nyalulimi lwisenga; **Sambaa:** Ngola moyo; **Sangu:** Nyasowasa.

DESCRIPTION: An erect **perennial herb** to 80 cm, sometimes bent over, spreading from a **long thick rootstock**, the stems branched and woody at the base, covered with few or many hairs. LEAVES: **Long and thin to 9 cm** x 1 cm across, sharply tipped, narrowed at the base to a very short stalk, some **hairs above and below**. FLOWERS: Quite small, yellow-green, along spike-like stalks, flowers opening in turn from the base, sometimes curled up when young, flowers only on one side of the spike, each with a tiny hairy bell-shaped calyx, **tubular white corolla, the 5 lobes yellow-green, triangular with a thread-like tip**. FRUIT: Rounded, only about 2 mm, breaking into 4 nutlets. The stalk lengthens to 30 cm.

ECOLOGY: In very dry bushland, grassland or scattered tree grassland, a weed of roadsides and cultivation, locally common, 0–1,700 m.

DISTRIBUTION: Widespread in Tanzania; Kenya, Uganda, Ethiopia, Somalia, Sudan and much of West Africa, Central and South Africa, Socotra and the Comoro Islands, to India.

USES:

**Food:**

Tender leaves are collected, sorted, chopped and cooked alone or with other vegetables such as *Amaranthus*, *Bidens* or *Galinsoga*. Coconut milk or pounded groundnuts are then added, and the dish is served with a staple.

**Medicinal:** Leaves and roots are pounded and boiled. The decoction is drunk as medicine for postpartum diseases in women.

**Commercial:** Not marketed.

**Other:** The plant is important for fodder and ornamental purposes.

SEASON: Leaves are collected during the rainy season.

STORAGE: Not stored.

MANAGEMENT: Collected from the wild and not cultivated. Can be propagated by seed.

STATUS: Common and easily accessible within its area of distribution.

REMARKS: Recognized as a bad weed of farms.

*Heliotropium zeylanicum*

Boraginaceae



Plant habit



Nutlet containing seed



Carpels ripen to 4 nutlets



One flower, enlarged



***Hewittia sublobata*****Convolvulaceae**

Indigenous

LOCAL NAMES: **Bondei:** Utambaa-ngoswei; **Sambaa:** Utambaa-ngoshwe.

DESCRIPTION: A climbing or prostrate perennial herb with slender stems, 1–2 m, occasionally rooting at the nodes. LEAVES: Variable, **mostly heart shaped**, 3–16 cm long x 1–3 cm across, the base straight to heart shaped, the tip pointed, on **a stalk about 1 cm long, with sparse soft hairs**. FLOWERS: One to several, clustered on a branched stalk to 8 cm beside leaves, each flower funnel shaped, about 2.5 cm long, yellow or white, the centre purple-pink. The simple style has **2 flattened oval stigmas**. **Pointed bracts surround the flower base, to 17 mm**. Green hairy sepals are pointed, the **3 outer sepals oval and enlarge in fruit**, with 2 smaller inner ones. FRUIT: A **1-celled hairy capsule**, about 1 cm across, containing 2–4 seeds.

ECOLOGY: A creeping vine that does well in the medium-altitude areas in grasslands, woodlands, thickets and at forest edges, up to 1,800 m; rainfall 1,100–2,100 mm. Thrives in deep sandy loams with permanent moisture, but tolerates a range of soil types.

DISTRIBUTION: Found throughout tropical Africa and Asia. Introduced to Jamaica and the Americas. Common in East Africa.

USES:

**Food:**

Leaves are collected, chopped, boiled, the water drained and the vegetable mixed with pounded groundnuts or coconut milk and eaten with *ugali* or rice. Alternatively, it is cooked with other vegetables such as *Amaranthus* or *Bidens*, coconut milk or groundnut paste added and served with a staple.

**Commercial:** Not marketed.

**Other:** The plant can be used for ornamental purposes.

SEASON: Collected in the rainy season

STORAGE: Not stored.

MANAGEMENT: Collected from the wild and not protected or cultivated by local people.

Can be propagated by seed and cuttings.

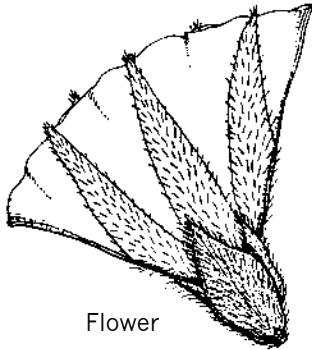
STATUS: Common and easily accessible within its area of distribution.

REMARKS: Considered a bad weed of farms.



*Hewittia sublobata*

Convolvulaceae



Flower



Style and stigma



Fruit capsule



Variety of leaf shapes

*Hexalobus monopetalus*

## Annonaceae

Indigenous

LOCAL NAMES: **English:** Shakama plum; **Hehe:** Mfiwi, Mfyuwi; **Ngindo:** Mkungu mwali; **Nyamwezi:** Mkuwa; **Nyasa:** Mkungumwale; **Sukuma:** Mkuwa.

DESCRIPTION: A semi-deciduous shrub or under-storey tree, 4–8 m, horizontal branching to a rounded crown, often quite dense. BARK: Grey-brown, smooth, becoming flaky with rectangular scales; characteristic short hard leaf bases where the leaves will break off (see illustration). LEAVES: Simple, stiff, **long oval, 3–11 cm, tip broadly rounded**, base more or less rounded to a short stalk, dense hairs on the midrib below, **veins clear above**, olive green above, yellow-green below. FLOWERS: Solitary or in clusters beside leaves, **not stalked**, 6 cream-yellow petals, crinkly, spider-like, **joined at the base**, 2.5 cm long. Characteristic **red-brown buds** only open after leaf fall, April–August, just before rains. FRUIT: 1–3 **cylindrical capsules** (like short fingers), to 3.5 cm, soft and fleshy, narrowed between seeds, **red-black when ripe**. Each section has several brown seeds in edible flesh, March–May.

ECOLOGY: Found in miombo woodland and *Combretum–Terminalia* scrub, 900–1,500 m; rainfall 750–1,300 mm. Grows in various soil types including sandy soils, sandy loams and sandy clay loams.

DISTRIBUTION: Widespread in drier parts of tropical Africa from Sudan to South Africa. In Tanzania, it is found, e.g. in Shinyanga, Kigoma, Tabora, Iringa and Lindi Regions.

USES:

**Food:**

The fruit are edible. Ripe fruit are usually collected from the tree, the pulp eaten and the seeds rejected. Sometimes mature fruit are collected and stored for one or two days to ripen. They are sweet-sour and much favoured by children, herdsman and farmers.

**Commercial:** Not marketed.

**Other:** The wood is used for firewood, poles, tool handles, bows, gunstocks, spoons and carvings.

SEASON: Collected during the rainy season between January and April.

STORAGE: Not stored.

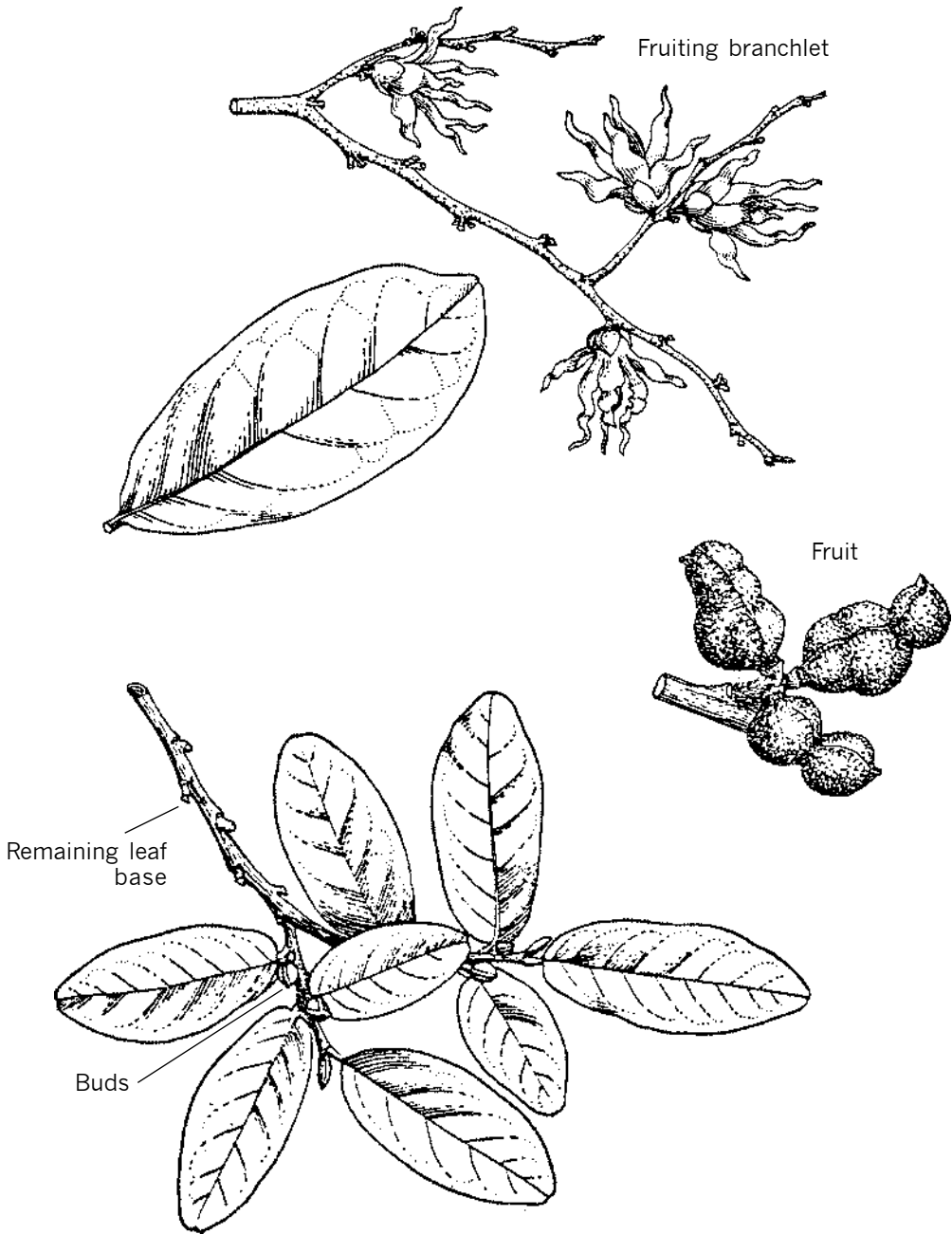
MANAGEMENT: It is collected from the wild and not cultivated or protected by local people. Can be propagated by seed.

STATUS: Uncommon and very scattered in its area of distribution.

REMARKS: Suitable for use in agroforestry.

*Hexalobus monopetalus*

Annonaceae



*Hibiscus acetosella*

## Malvaceae

Tropical West Africa, Angola

LOCAL NAMES: **Bondei:** Lumaka; **Sambaa:** Kololwe, Lumaka.

DESCRIPTION: An attractive Hibiscus with several stems from the base, or a shrub to 2 m with attractive red-purple stems and leaves, lines of small hairs on the stems or hairless. Stems fibrous. LEAVES: Alternate, lower leaves deeply 3-lobed, upper leaves simple, edges wide toothed, tips rather rounded, blunt, all a deep red-purple, 5 veins from the base and clear vein network, on stalks up to 10 cm long. FLOWERS: **Pink-red to wine coloured**, with 5 thin petals, darker in the centre, on stalks less than 1 cm, single in leaf axils. The 8–10 **outer sepals divided into 2 clear lobes, one spoon shaped, one small and narrow**, inner and outer calyx with short and spiny hairs. FRUIT: Capsules to 2 cm long becoming papery and opening to set free 7–8 dry brown seeds.

ECOLOGY: Grows in secondary regrowth after trampling by animals or after cultivation. Occurs mainly in low- and medium-altitude areas.

DISTRIBUTION: From Senegal to East Africa and south to Mozambique. In Tanzania, this species has been recorded in Mbeya, Rukwa, Tanga and Tabora Regions.

USES:

**Food:**

Leaves are collected, chopped and wilted in the sun. Then they are washed, boiled and mixed with beans or peas. Simsim or groundnut paste may also be added and the dish served with a staple. It tastes bitter, has an attractive consistency and is used occasionally to thicken sauces and improve the consistency of a dish. Eaten in small amounts (Nyakyusa).

**Medicinal:** Leaves are crushed and soaked in cold water and the infusion is used for washing babies who have body pains.

**Commercial:** Not marketed.

SEASON: Collected in the rainy seasons.

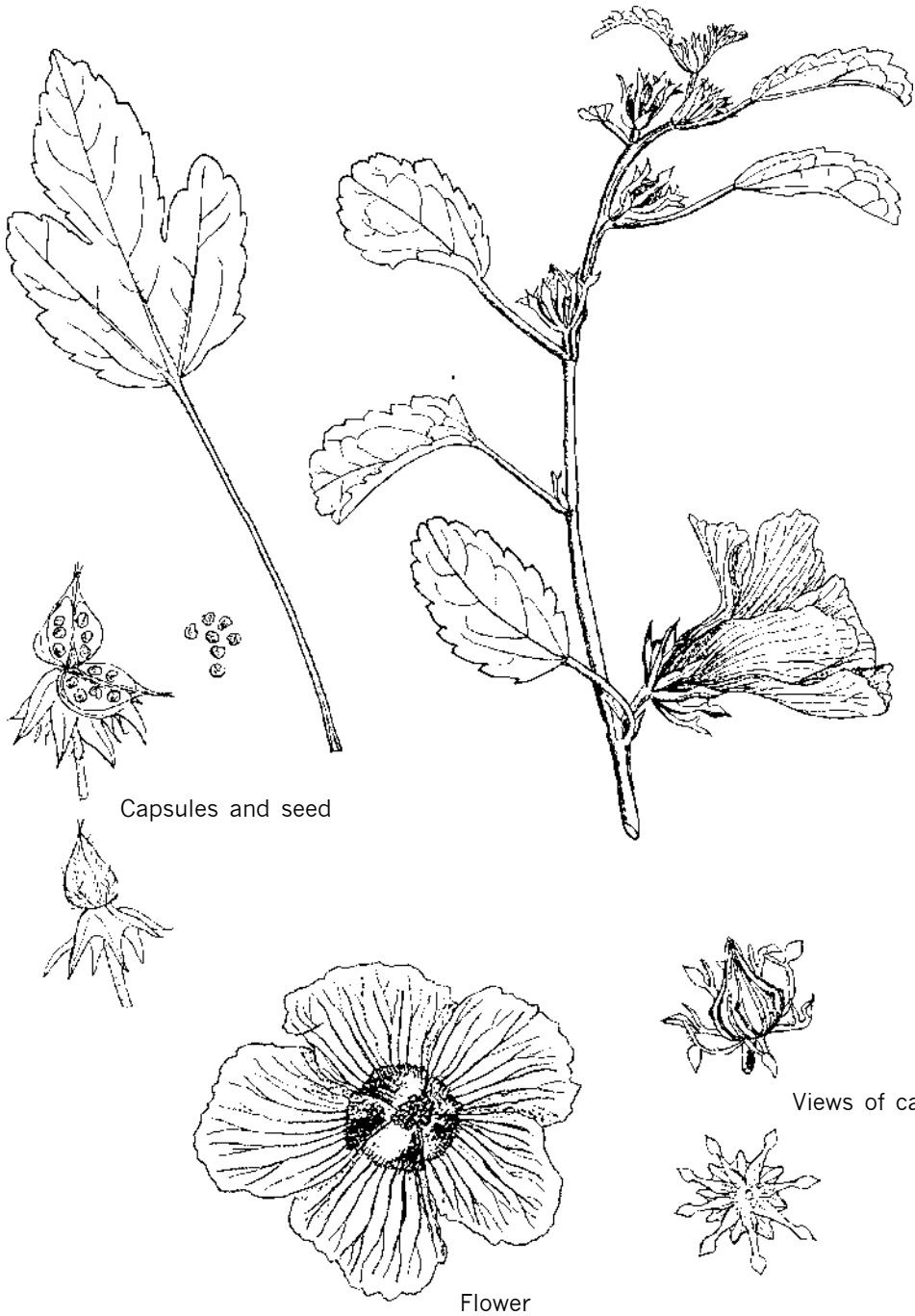
STORAGE: Not stored.

MANAGEMENT: Collected from the wild, as an escape, but also cultivated as a vegetable in homegardens. Seeds are collected and stored for planting next season.

STATUS: Occasional within its area of distribution.

*Hibiscus acetosella*

Malvaceae



*Hibiscus calyphyllus*

## Malvaceae

Indigenous

LOCAL NAMES: **Digo:** Kungala.

DESCRIPTION: A tall perennial herb or undershrub, about 2 m, with long hairs.

LEAVES: Long stalked, rounded to oval, shallowly 3-lobed, the tip well pointed, edge round to sharp toothed, base heart shaped, hairy or not. FLOWERS: Very showy, **solitary** on jointed stalks from leaf axils, about **9 cm across**, **5 yellow petals with a purple-maroon base**, each 5 cm long, the central **stamen column about 4 cm** with 5 stigmas, the 5 outer sepals over 1.5 m wide, narrowed at the base. FRUIT: An ovoid **capsule, densely hairy, 2.5 cm long**, shorter than the calyx and **beaked at the tip**.

ECOLOGY: Thickets, roadsides in forests, riverine forests, at forest edges and in disturbed areas in forests, up to 1,800 m; rainfall 1,100–1,600 mm. Tolerates a variety of soils.

DISTRIBUTION: Widespread in tropical Africa and found in most parts of Tanzania, including Serengeti National Park and around Korogwe (Tanga Region), Karagwe (Kagera Region) and in Morogoro Region.

USES:

**Food:**

The leaves are collected, wilted, chopped and boiled together with other coarse vegetables to improve the consistency and to make the sauce thicker. These are eaten frequently in moderate amounts. Served with a staple.

**Medicinal:**

- Leaves are crushed and used as medicine for sores.
- Roots are boiled and used in a steam bath, and the liquid also drunk as a remedy for pneumonia.

**Commercial:** Not marketed.

**Other:** The plant is used for fibre and ornamental purposes.

SEASON: Leaves are collected in the rainy season when they are still tender.

STORAGE: Not stored.

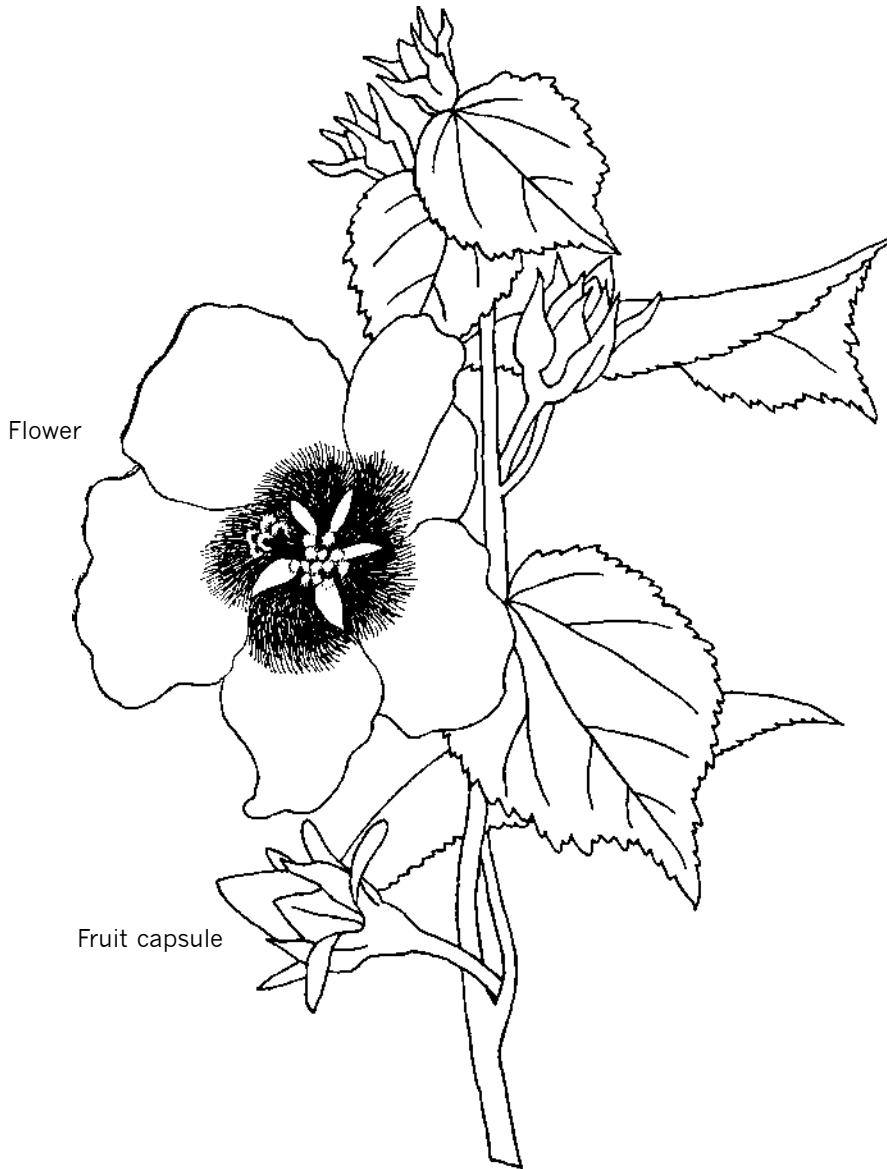
MANAGEMENT: Collected from the wild and not protected or cultivated by local people.

Can be propagated by seed.

STATUS: Common and easily accessible within its area of distribution.

*Hibiscus calyphyllus*

Malvaceae



*Hibiscus diversifolius*

## Malvaceae

Indigenous

LOCAL NAMES: **Hehe**: Mhang'ana; **Zigua**: Mhangana.

DESCRIPTION: A tall **perennial** woody herb to 3 m, sometimes **shrubby**, even a tree to 10 m, the **hairy stalks with short red hard prickles**, occasionally on leaf stalks as well. BARK: Grey-brown, young branches hairy and densely covered with prickles. LEAVES: Broad oval to circular in outline, about 16 cm across, **lower leaves with 3–7 shallow lobes**, base heart shaped, edges unevenly toothed, upper surface with star-shaped hairs, lower surface with longer hairs, on a stalk to 12 cm, **upper leaves usually simple**. FLOWERS: Variable in colour, yellow or purple, centre dark red-purple, to 8 cm across but often drooping and not spreading out, **outer sepals 6 or more, 1 cm long, covered with long hairs**, over 1.5 mm wide. FRUIT: An ovoid capsule to 2 cm, sharply pointed and densely covered with hairs.

ECOLOGY: Riverine areas and swamps in open vegetation, up to 1,800 m; rainfall 1,400–2,100 mm. Thrives in deep clay soils with permanent moisture.

DISTRIBUTION: Widespread in the tropics from West Africa to the Sudan and south to Angola, Botswana and South Africa. Found in northern, eastern and southern highland areas of Tanzania.

USES:

**Food:**

The leaves are eaten though they taste bitter or sour. They are collected, wilted in the sun, chopped and added to cooking beans or peas. Groundnut paste may also be added to thicken the sauce. Eaten together with a staple during the dry season as a substitute for other more preferred vegetables.

**Commercial:** Not marketed.

**Other:** The bark is used for fibre and the plant for ornamental purposes.

SEASON: Collected from swamps in the dry season.

STORAGE: Not stored.

MANAGEMENT: It is collected from the wild but also cultivated and protected in homegardens.

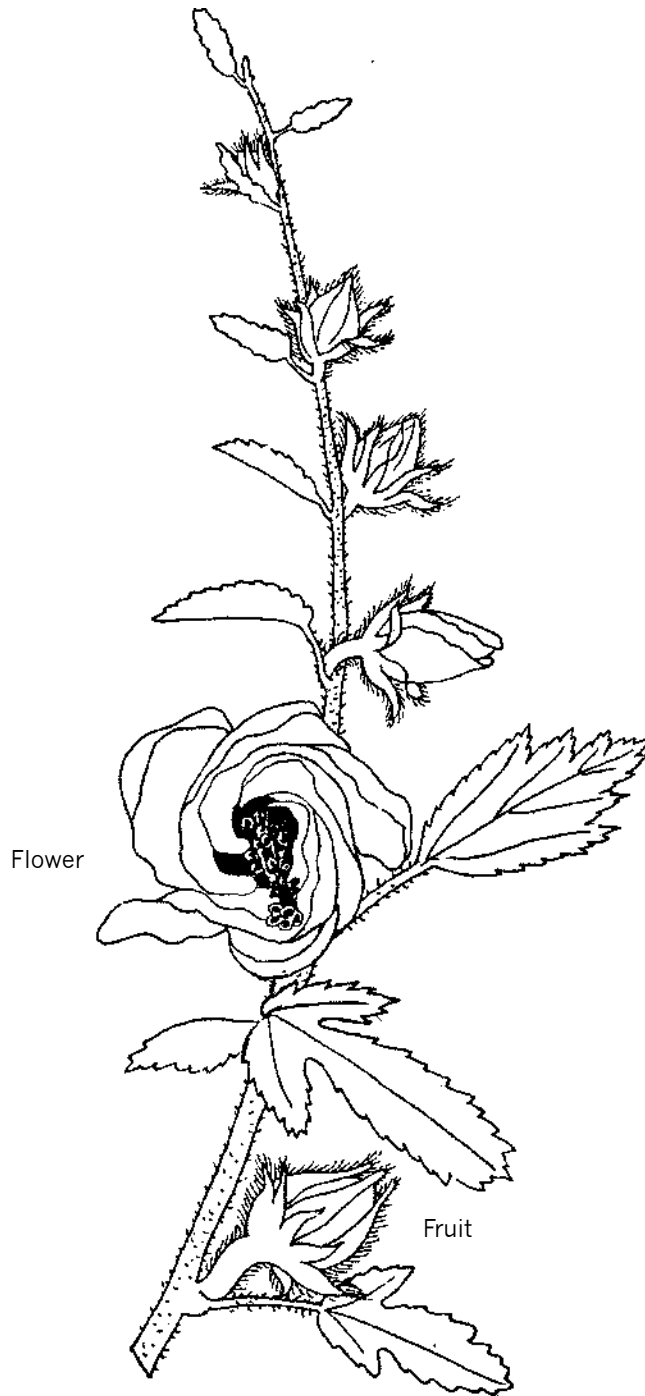
STATUS: Common and easily accessible within its area of distribution.

REMARKS: In Malawi the bark fibres have been used as string to make mats and the flowers cooked as a side dish.



*Hibiscus diversifolius*

Malvaceae



*Hibiscus surattensis**Malvaceae*

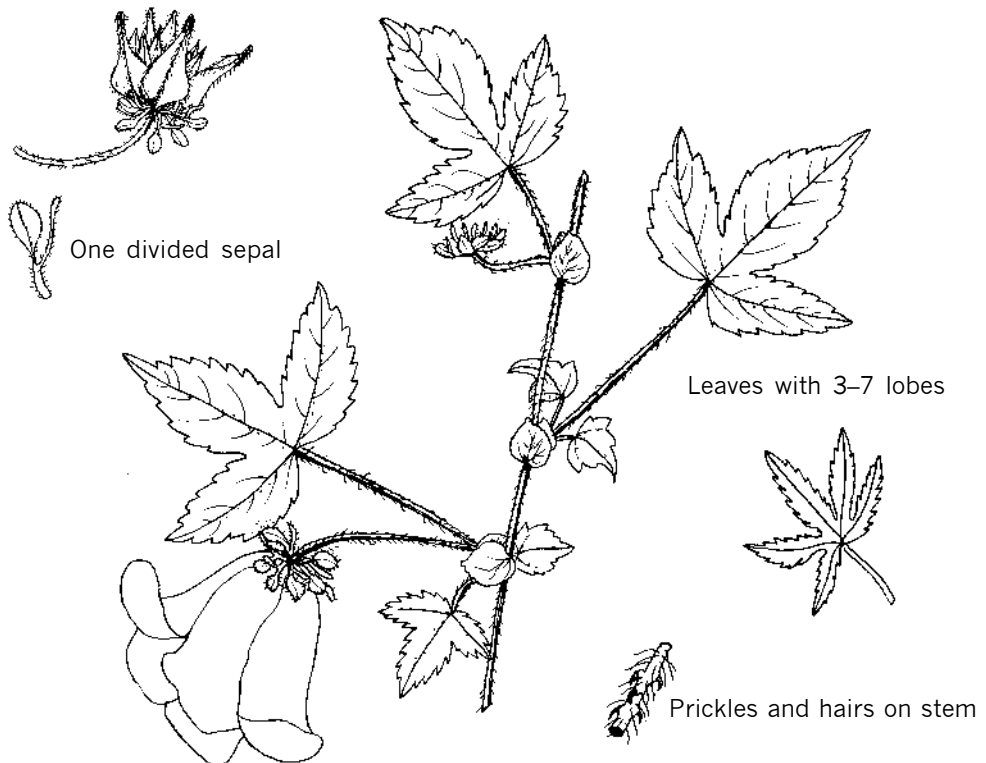
Indigenous

LOCAL NAMES: **Digo:** Mwalavi, Mwawawu; **Sambaa:** Kololwe, Lumaka; **Tongwe:** Kakonda.

DESCRIPTION: A large hairy annual plant, sometimes trailing or climbing to 6 m; all parts, including the **weak stems and leaf stalks, covered with small downward-pointing soft prickles** and hairs. **LEAVES:** Palmate, with 3–7 lobes, edges toothed, prickles on nerves below, on stalks to 8 cm. **Pairs of oval leafy stipules** beside the stalks are characteristic. Leaves often reddish. **FLOWERS:** Very showy **orange-yellow, over 7 cm across**, petals dark red-maroon at the centre. The 6 or more **outer sepals divide into a narrow erect lobe and a broader oval lobe**. The 5 inner sepals lengthen to 2.5 cm in fruit, tip pointed, covered with hairs. **FRUIT:** Ovoid capsules break open to set free downy seeds.

ECOLOGY: Occurs in grassland and at forest edges at low and medium altitudes, up to 1,600 m; rainfall 1,000–1,600 mm. Thrives in a variety of soil types.

DISTRIBUTION: Widespread in the Sudan, the Congo basin, East Africa and south to Angola and Botswana. In Tanzania, it is common, for example around Muheza, Korogwe, Morogoro, Kibaha and Bagamoyo.



***Hibiscus surattensis* (contd)*****Malvaceae*****USES:****Food:**

Leaves are collected, boiled and added to peas or groundnuts. It is used to thicken sauces and eaten in small amounts with the staple.

**Medicinal:**

- Leaves and stems are burnt and the ash rubbed on affected parts of the abdomen to relieve hernia.
- Leaves, stems and flowers are pounded, soaked in cold water and the infusion is used as a bath to stop the itching of chickenpox.

**Commercial:** Not marketed.

**SEASON:** Leaves collected in the early flush of the rainy season.

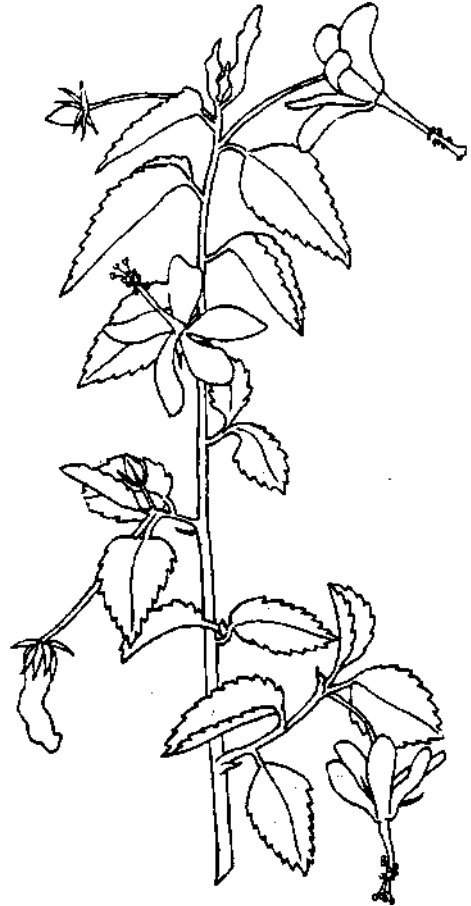
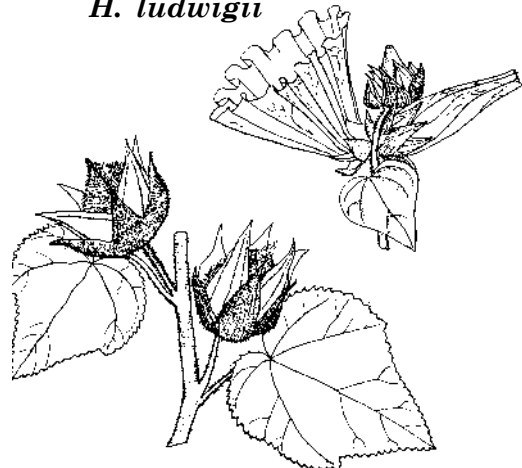
**STORAGE:** Not stored.

**MANAGEMENT:** Collected from the wild and not protected or cultivated by local people.

**STATUS:** It is uncommon and difficult to find.

**REMARKS:** Several other *Hibiscus* species are eaten as vegetables, including the following:

1. *H. micranthus* (**Sambaa:** Mhurushambuzi) a shrub up to 2.5 m high with a hairy stem and leaves, purple flowers. This species is widespread in Tanzania;
2. *H. ludwigii* (**Matengo:** Lipeke-peke; **Sambaa:** Kororwe, Lumaka) a shrub up to 2.5 m high with hairy leaves and large yellow flowers found in Arusha, Kilimanjaro and Mbeya Regions.

***H. micranthus******H. ludwigii***

***Hirtella megacarpa***  
**(*Acioa goetzeana*)**

**Chrysobalanaceae**

Indigenous

LOCAL NAMES: **Sambaa:** Mwawa; **Swahili:** Mkonechacha, Mwawa.

DESCRIPTION: A tall evergreen tree reaching 25 m. Branchlets hairy. LEAVES: Alternate, leathery, **simple**, long oblong to 8 cm, the tip pointed, base narrowed or rounded to a very short stalk, small stipules, both leaf surfaces dull but the upper surface somewhat shiny, the vein network clear below, its midrib with long hairs. FLOWERS: **White**, arise from **much-branched heads about 6–10 cm across**, terminal or in leaf axils, the slender stalks have many narrow bracts, the **calyx tube is expanded above**, about 1 cm with small lobes, **covered with short hairs**, the 5 white oval petals fall early, the **central style hangs out beyond** about 9 stamens, which are over 2 cm long (3 times longer than petals), on one side only. FRUIT: **Green, single and oblong-ovoid**, base narrowed, **3.5 cm long**, the covering hard, brittle and with tiny hairs, containing one red seed. (The related *H. sansibarica* has smaller fruit—less than 3 cm long.)

ECOLOGY: Upland rainforest, 1,300–2,000 m, sometimes in ravines.

DISTRIBUTION: Found in Tanga Region and the Southern Highlands of Tanzania and not known elsewhere. Recorded in Shagayu Forest Reserve near Lushoto, Nyumbanyitu in Iringa District and on the western slopes of the Livingstone Mountains near Ikombe.

USES:

**Food:**

Ripe fruits are collected from the ground and eaten raw as a snack. The edible pulp is sweet and much liked by children and herdsman.

**Commercial:** Not marketed.

**Other:** The wood is used for firewood, charcoal, spoons and mortars. The tree is used for shade and as a source of bee forage.

SEASON: Ripe fruits are collected from April to June.

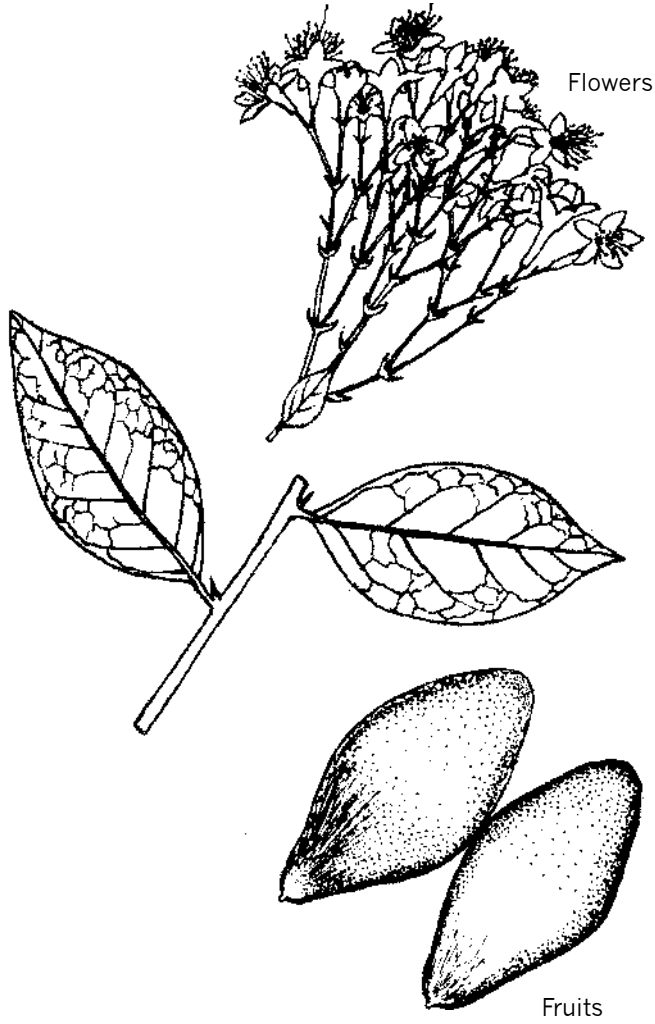
STORAGE: Not stored.

MANAGEMENT: Collected from the wild and not cultivated or protected by the local people. The species can be propagated by seed.

STATUS: Occasional within its area of distribution.

*Hirtella megacarpa*

Chrysobalanaceae



***Hoslundia opposita*****Lamiaceae (Labiatae)**

Indigenous

LOCAL NAMES: **Digo:** Mtserere; **Gorowa:** Mathar, Matlarimo, Matsalmo; **Hehe:** Mlyasungura; **Iraqw:** Nuguhway; **Maasai:** Olemoran, Olenaran; **Rangi:** Mutaritari; **Swahili:** Mdahamwitu, Mlanyuni, Mteremtere.

DESCRIPTION: An erect herb or much-branched bushy shrub to 2 m high, stems 4-angled, young stems hairy. LEAVES: Opposite or 3-whorled, long oval to 12 cm, softly hairy, **white below**, edge wide toothed, tip pointed, narrowed to a short stalk. FLOWERS: **Small, cream-white, 7 mm across, in terminal sprays**, each tubular, only 2 stamens, arching downwards, a large lower petal. The 5-toothed calyx tube green at first, **becomes enlarged and fleshy, orange in colour**. FRUIT: A **rounded ribbed berry, 6 mm across**, containing 4 roughened nutlets, the seeds, within the persistent calyx.

ECOLOGY: Does well from lowlands to highlands, often on termite mounds in wooded grasslands, around thickets, forest edges and in secondary regrowth after forest clearing, 0–2,100 m; rainfall 1,100–1,800 mm. Thrives in a variety of soils.

DISTRIBUTION: Found from Ghana, Nigeria and Cameroon to the Sudan and Ethiopia and south to southern Africa. Occurs in all parts of Tanzania.

USES:

**Food:**

The very sweet fruit ripen to yellow and are collected from the plant and eaten as a snack on the spot or taken home. Eaten in small or moderate amounts—large quantities can cause nausea because of the excessive amount of sugar. Liked especially by children.

**Medicinal:**

- Leaves and roots are boiled and the steam inhaled for fever and mental illness.
- Leaves are pounded and soaked in cold water and used as a cooling bath for babies who have fever. Pounded leaves are also used as a poultice for wounds.
- Roots are boiled and the decoction is drunk as an aphrodisiac and a remedy for colds and coughs.
- Roots are boiled and the decoction drunk to relieve after-birth pains.

**Commercial:** Not marketed.

**Other:** The wood is used for firewood. The plant is used for hedges, boundary marking, fodder and as a source of bee forage.

SEASON: Fruits usually found soon after the rainy season.

STORAGE: Not stored.

MANAGEMENT: Collected from the wild and not protected or cultivated by local people. It can be propagated by seed and cuttings.

STATUS: Common and easily accessible within its area of distribution.

*Hoslundia opposita*

Lamiaceae (Labiatae)



***Hydnora abyssinica (H. johannis)*****Hydnoraceae**

Indigenous

LOCAL NAMES: **Maasai:** Erkunyi; **Pare:** Ng'holo ya msawo; **Sandawi:** Amamasóó; **Sukuma:** Ngombe-ya-hansi, Ng'ombe-ya-hasi; **Swahili:** Mnyambo.

DESCRIPTION: An unmistakable plant, without green chlorophyll or leaves, fleshy and naked looking. Parasitic on the roots of host trees, only seen when the tips of the flowers push out of the ground. An underground stem, or pseudo-rhizome, grows into the host roots and so extracts food. This **rhizome is cylindrical or angular, brown and warty outside, red within.** FLOWERS: Grow out of the rhizome, brown-pink, **to 20 cm tall, with a bad smell.** There are no petals but a wide tubular calyx with **4 thick, fleshy sepal lobes, the inner surface cream above, bright red and bristly below;** 4 stamens grow in a ring around the stigma and rounded ovary. FRUIT: Remain underground, berry-like, containing many very small seeds in a glutinous pulp.

ECOLOGY: Found in grasslands, *Acacia* bushland and woodlands, up to 1,500 m; rainfall 700–1,600 mm. Tolerates a variety of soils. Parasitic on roots, especially on *Acacia gerrardii* and *Lannea humilis*.

DISTRIBUTION: Found in Sudan, Ethiopia southwards to South Africa. In Tanzania, it is found, e.g., in Mwanza, Shinyanga, Kagera, Arusha and Kilimanjaro Regions.

USES:

**Food:**

- The fruits are eaten mainly among Maasai herdsmen as a snack and as a famine food.
- The underground stem is dug out from the ground, roasted in hot ash and eaten.

**Medicinal:** The underground stem is dug out from the ground, cut into pieces and boiled in water. The decoction is drunk to treat stomach-ache, dysentery, sore throat and retained placenta.

**Commercial:** The underground stems (pseudo-rhizomes) are sold in markets for their medicinal value.

**Other:** A fodder for cows.

SEASON: Collected in the dry season.

STORAGE: Not stored.

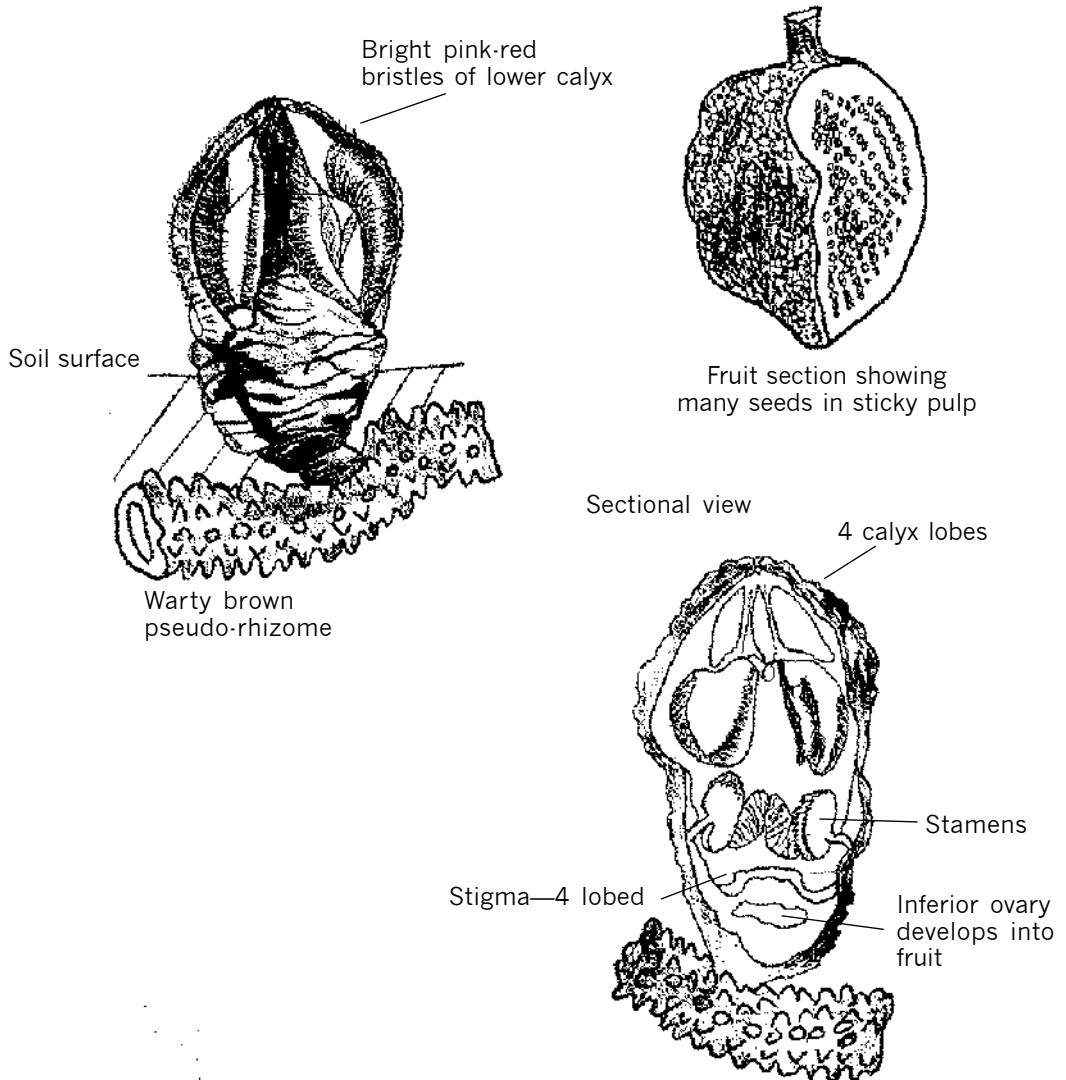
MANAGEMENT: Collected from the wild and not protected or cultivated by the local people. It can be propagated from cuttings of the underground stem.

STATUS: Uncommon and difficult to find because the plant is mainly underground and appears only as a flower and fruit.



*Hydnora abyssinica* (*H. johannis*)

Hydnoraceae



***Hygrophila auriculata***  
**(*Asteracantha longifolia*)**

**Acanthaceae**

Indigenous

LOCAL NAMES: **Digo:** Chimvuno; **Gogo:** Ihoma-ng'ombe; **Hehe:** Isanyanga, Nyangogo; **Luo:** Anduong'o; **Nyamwezi:** Lugemela; **Sukuma:** Isoma-ng'ombe; **Zinza:** Kehwa.

DESCRIPTION: An erect annual herb with few branches, up to 1.2 m, with square stems. LEAVES: Opposite, mostly lanceolate, to 15 cm long and 3 cm across, widest in the middle, only shortly stalked. FLOWERS: Blue-mauve, pink or white, in stalkless clusters in leaf axils, each flower with 4–5 sepals, the corolla tubular, with 2 lips, the upper hooded, the lower lip 3-lobed, 4 stamens, 2 upper ones smaller. Between flowers are small leafy bracts as well as characteristic simple spines, stout, to 4 cm, cream-orange in colour. FRUIT: 2-celled capsules, long and thin, containing disc-shaped seeds with hairy fringes.

ECOLOGY: Does well at edges of seasonal pools or other stagnant water bodies, 900–2,100 m; rainfall 700–1,600 mm. Thrives in yellowish sediments and black-cotton soil.

DISTRIBUTION: From Senegal to Ethiopia and East Africa and south to South Africa. Widespread in Tanzania from Mwanza south to Mtwara and east to Morogoro.

USES:

**Food:**

Young leaves are chopped, cooked alone or with other vegetables such as peas or amaranth. Coconut milk or groundnut paste is added and the dish is served with a staple.

**Medicinal:**

- Leaves and stems are burnt and the smoke used to fumigate the eyes to treat corneal ulcers.
- The whole plant is soaked in water and the infusion used as a cold bath to lower body temperature and as a treatment for headache.

**Commercial:** Not marketed.

**Other:** Eaten by cattle and is a bee forage plant.

SEASON: Collected all year round, but mainly in the rainy season.

STORAGE: Not stored.

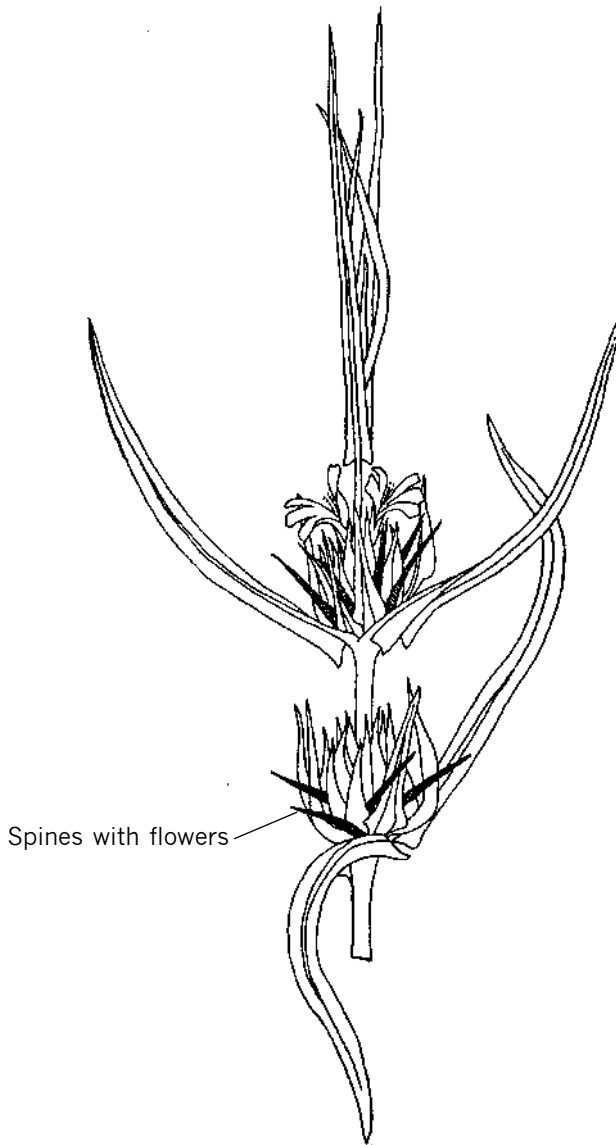
MANAGEMENT: Collected from the wild and not cultivated or protected by local people. Can be propagated by seed.

STATUS: Common in wetter places, absent elsewhere.

REMARKS: It is reported that in the Sudan the plant is grown especially to make local salt, which is extracted from the ash after burning the plant. It is a troublesome weed in cropland.

*Hygrophila auriculata*

Acanthaceae



*Hyphaene compressa*

## Areaceae (Palmae)

Indigenous

LOCAL NAMES: **Digo:** Mkoma, Mkoma lume; **English:** Doum palm; **Gogo:** Mlala; **Hehe:** Kihogolo, Likweta; **Maasai:** Olmorokwet; **Nyamwezi:** Mlala, Mulala; **Pare:** Kweche; **Swahili:** Mkoche, Mkoma, Mlala, Mnyaa, Muaa; **Zigua:** Mkonko.

DESCRIPTION: An unusual **branched palm tree, to 20 m**, each branch crowned with large **fan-shaped leaves**, the tree often surrounded by bushy young growth. BARK: Trunk grey. LEAVES: Have a long spiny stalk supporting the fan of leaflets. FLOWERS: Male and female on separate trees. FRUIT: **Orange to brown**, hanging down in **bunches**, each fruit to about **10 cm long, 2 sides flattened**, edible fibres below the tough shiny skin, one large hard seed.

ECOLOGY: Common in dry areas along river courses and at the coast, 0–1,400 m, often forming pure stands on deep sand or alluvial soils. It requires a high water-table and hot climate for good growth.

DISTRIBUTION: Widespread in lowland arid Africa from Egypt through Ethiopia, Sudan, Somalia and Kenya southwards to Mozambique. In Tanzania, this species is found along the coast from Tanga southwards to Mtwara and in Kilimanjaro and Morogoro Regions.

USES:

**Food:**

- Ripe fruits are collected from the ground or picked from the tree and eaten raw. The pulp is sweet with a pleasant odour and much liked by children and herdsman.
- The kernels are also eaten after breaking the nut.
- The juice from young fruits is sucked like coconut milk.
- A good palm wine is produced from sap obtained by tapping the tip of the main stem.

**Medicinal:** The pulp of the fruit is eaten as a remedy for intestinal worms.

**Commercial:** Not marketed for fruits but sold for medicine in local markets.

**Other:** Leaves are used as fibre for weaving mats, baskets, hats, fans and for thatching houses. The wood is used for firewood and building poles.

SEASON: Fruits are collected during the dry season, i.e. April to July.

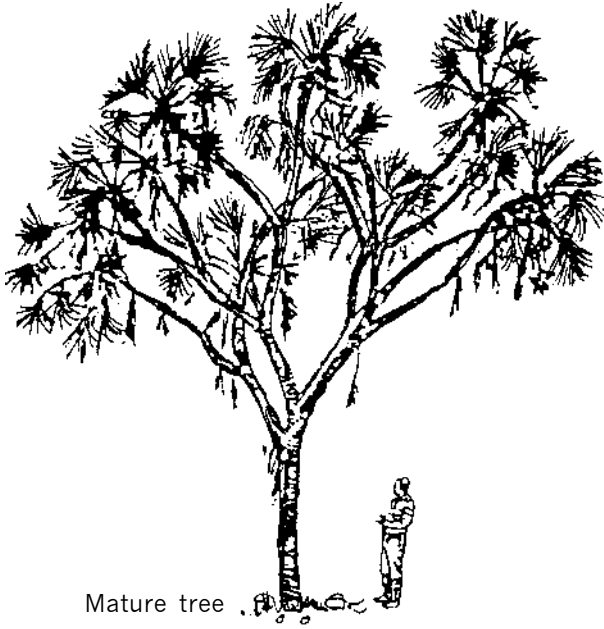
STORAGE: Not stored.

MANAGEMENT: Collected from the wild and not cultivated. It can be propagated by seed.

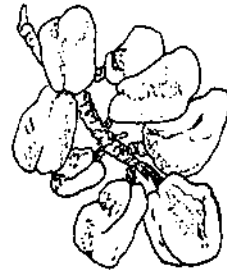
STATUS: Common and easily accessible within its area of distribution.

*Hyphaene compressa*

Areaceae (Palmae)



Mature tree



Bunch of fruit



Fruit



Young plants

***Hyphaene coriacea* (*H. pileata*)      Arecaceae (Palmae)**

Indigenous

[Plate 2]

LOCAL NAMES: **Digo:** Mkoma lume; **English:** Doum palm; **Gogo:** Mlala; **Hehe:** Mlala; **Maasai:** Olmorokwet; **Nyamwezi:** Mulala; **Pare:** Kweche; **Swahili:** Mkoma, Mkoche, Mlala, Mnyaa; **Zigua:** Mkonko.

DESCRIPTION: A **shrubby tree 1.5–5 m** forming thickets, with trunks low along the ground, rarely a well-shaped tree, **stems suckering**, the trunks only branched once or twice making 4 crowns, leaf scars prominent on the trunk, which often has many old leaf bases as well, trunk to 25 cm diameter. LEAVES: **Fan shaped**, 8–15 leaves, **30–80 cm long divided into 15–20 segments**, waxy and scaly, the stalk about 70 cm with black spines to 1 cm at the base. FLOWERS: Male and female trees; male flower stalk to 1 m, arching over, with 15-cm branchlets which bear the tiny 3-mm yellow flowers producing pollen; female flower stalk more upright, to 1 m, with even smaller flowers, the central ovary bright green. FRUIT: Ripe fruit **shiny brown, somewhat bell shaped, up to 6 cm long x 4 cm across** (usually less) with a ridge on one side, not deeply pitted. A spongy fibrous pulp surrounds the seed, edible, tasting sweet and gingery. The fruits are produced in large quantities and take two years to mature, so may be seen on the tree throughout the year hanging in large bunches.

ECOLOGY: Coastal regions, especially in sand dunes and beside creeks, behind mangroves, rarer inland; a pioneer stabilizer in sand dunes, 0–300 m.

DISTRIBUTION: Coastal and western Tanzania, Pemba; coastal Kenya, Somalia to Mozambique, South Africa and Madagascar.

USES:

**Food:**

- The ripe fruit pulp is eaten raw. It tastes sweet and is much liked by children and herdsman.
- Fruit kernels are also edible.
- Young fruits produce sweet juice.
- Palm wine is produced from sap that is tapped from the tip of the main stem.

**Medicinal:** Fruit pulp is used as medicine for stomach-ache.

**Commercial:** Various articles woven from the leaves are sold in local and urban markets.

**Other:** Leaves are used to make mats, hats, fans, baskets and for thatching houses.

SEASON: Fruits are collected during dry season.

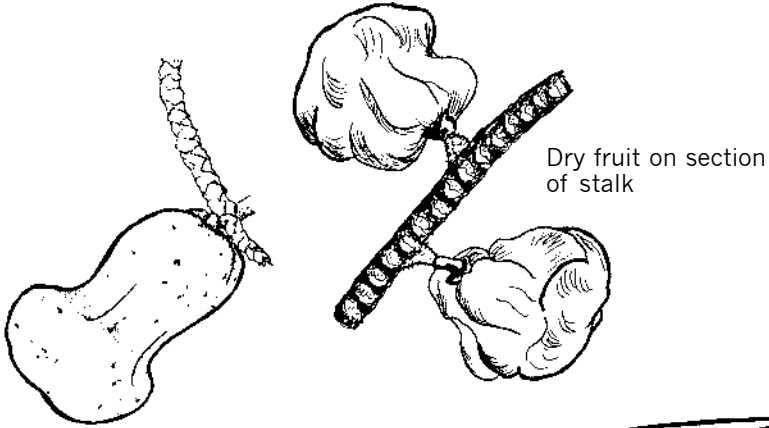
STORAGE: Not stored.

MANAGEMENT: Fruits are usually collected from the wild, but sometimes planted using fresh seeds.

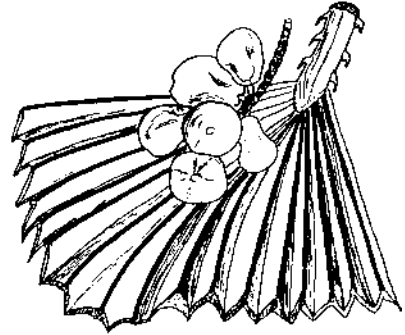
STATUS: Locally common.

*Hyphaene coriacea* (*H. pileata*)

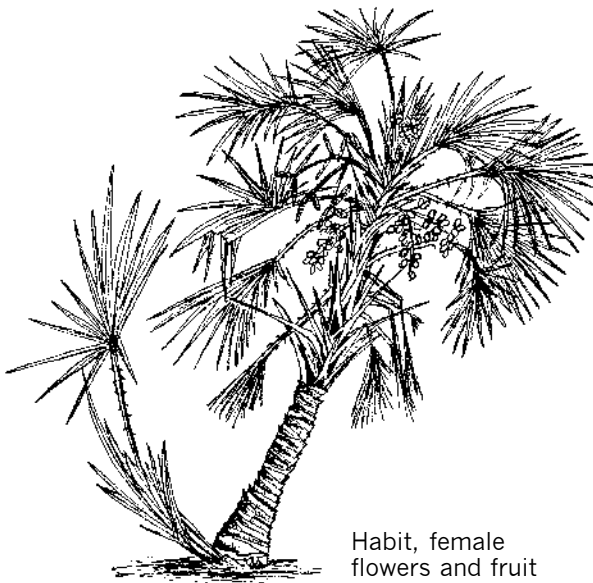
Areaceae (Palmae)



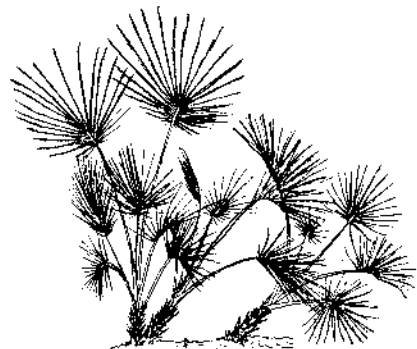
Dry fruit on section of stalk



Structure at base of leaf and young hanging fruit



Habit, female flowers and fruit



Young tree

*Hyphaene petersiana*  
(*H. ventricosa*)

**Areaceae (Palmae)**

Indigenous

[Plate 2]

LOCAL NAMES: **English:** Doum palm, Fan palm, Southern ilala palm; **Gogo:** Mulala; **Gorowa:** Thati; **Iraqw:** Thanthi; **Mbugwe:** Mwangwa; **Nyamwezi:** Mulala; **Sandawi:** Hangwe; **Swahili:** Mkoche, Mlala.

DESCRIPTION: This palm is **usually solitary and unbranched**, but occasionally several stems may grow together, the narrow dark trunks sometimes leaning or curved, 15–20 m. The stem base is raised on a mass of fibrous roots and the trunk usually has a swelling 1–2 m below the crown. **BARK:** Grey-black, clearly marked with **concentric rings**, the scars of old leaf growth. **LEAVES:** 12–16 fan-shaped leaves with about the same number of dead leaves, each with a stalk 1–2 m, including the thorny base, **waxy grey-green**, 20–50 segments joined together about half their length. **FLOWERS:** On male and female trees, **yellow-green** in hanging, hairy brown flower heads arising on sprays between the leaves. **FRUIT:** **Round to pear shaped in large bunches, each one only 5–8 cm long, a shiny red-brown all over**, taking a year to mature, the central stone, 3.5 cm across, easily separated from **a fibrous pulp, spongy and brown to 1 cm thick. The white onion-shaped seed** contains a little milk (when young) and has an unpleasant smell when cut. Ripe fruit may remain 2 years on the tree.

ECOLOGY: Along watercourses in tropical conditions; in East Africa, inland on alkaline soils with a high water-table, elsewhere by the coast. Trees may be numerous on alluvial flats; found also on sandy plains and in many types of woodland.

DISTRIBUTION: In northern, central, eastern and southern Tanzania from Lakes Manyara and Eyasi southwards, throughout the Zambezi region, to northern Gauteng, Angola, Namibia and through the Congo basin to West Africa.

USES:

**Food:**

- Ripe fruit pulp is eaten raw.
- Kernels are also edible.
- Young fruits produce sweet juice.
- Palm wine is produced from sap that is tapped from the tip of the main stem.

**Medicinal:** The pulp from the fruit is used as medicine for intestinal worms and stomach-ache.

**Commercial:** Woven articles are sold in markets.

**Other:** Leaves are used as fibre for making mats, hats, baskets, fans and for thatching houses.

SEASON: Fruits are collected during the rainy season.



*Hyphaene petersiana* (contd)      Arecaceae (Palmae)

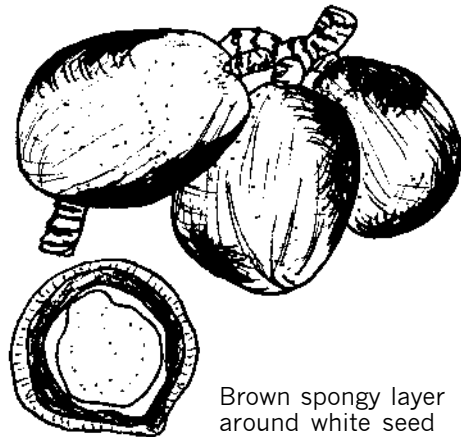
STORAGE: Not stored.

MANAGEMENT: Usually collected from the wild. The plant can be propagated by seed.

STATUS: Common within its habitat.



Shiny brown fruits



Brown spongy layer around white seed

*Inhambanella henriquesii*

## Sapotaceae

Indigenous

LOCAL NAMES: **Swahili:** Mkungu wazimu, Msikundazi.

**DESCRIPTION:** An evergreen tree, usually 12–15 m but up to 40 m, often with small buttresses, **all parts containing milky latex.** **BARK:** Rough, grey, finely scaly. **LEAVES:** The young flush of growth often red, **leaves oval, wider at the round or notched tip, 7–25 cm,** a distinctive dark green above, paler below, base narrowed to **a 5 cm stalk, edge wavy,** a pair of stipules fall early, leaves spirally arranged or crowded at ends of branches, alternate, quite stiff, 3–12 pairs, nerves clear below, **well spaced.** **FLOWERS:** Yellow-cream-white, honey-scented about 1.5 cm diameter, on stalks to 2 cm, few to many flowers clustered in leaf axils, **5–6 free sepals in one whorl,** a tiny corolla tube with 5 corolla lobes, longer than the calyx, to 5 mm, each with 2 small lateral lobes, 5 stamens and 5 petal-like staminodes, **each flower on a stalk about 1 cm.** **FRUIT:** **A round red berry 2–3 cm across,** yellow at first with soft sweet milky flesh enclosing dark shiny seeds.

**ECOLOGY:** Found in lowland rainforest and forest on land with high ground water or rather dry evergreen forest (0–300 m), e.g. in Kilombero Valley, in Morogoro Region, around Bagamoyo and on Pemba Island.

**DISTRIBUTION:** This species is found in coastal areas and along river valleys in Kenya and Tanzania, and along the coast of Mozambique extending up river valleys into Zimbabwe and southern Malawi, south to KwaZulu-Natal.

USES:

**Food:**

Ripe fruits are collected from the ground or picked from the tree and eaten raw. They have a sweet taste and are much liked by children.

**Medicinal:** The bark is soaked in cold water and the infusion is used as medicine to treat stomach-ache.

**Commercial:** Not marketed.

**Other:** The wood is used for timber, tool handles and domestic utensils. The tree is good for shade and amenity.

**SEASON:** Fruits are collected during the rainy season.

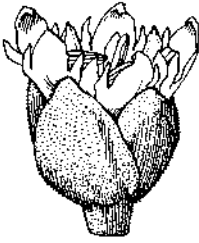
**STORAGE:** Not stored.

**MANAGEMENT:** Collected from the wild and not cultivated. It can be propagated by seed.

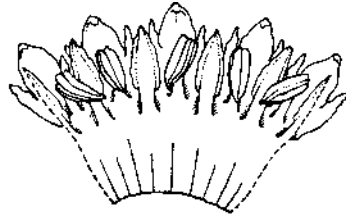
**STATUS:** Occasional within its area of distribution.

*Inhambanella henriquesii*

Sapotaceae



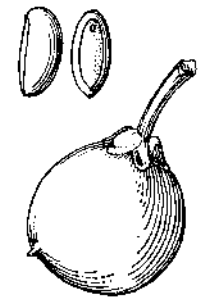
Flower



Flower opened out to show petals, stamens and staminodes



Seeds and fruit



*Ipomoea cairica* var. *cairica*

## Convolvulaceae

Indigenous

LOCAL NAMES: **Hehe:** Nyakapulikilo; **Nyamwezi:** Ilando-ipolu; **Swahili:** Kiazi pori; **Tongwe:** Lunsyonsyo.

DESCRIPTION: A **perennial herb from a tuberous rootstock**, the **stems twining or growing along the ground to 1.8 m**, hairy only at the nodes, stem smooth or rough. **LEAVES:** Palmately **divided to the base into 5–7 lobes** 3–10 cm long and wide on a stalk 2–6 cm, the **lobes variable but narrow to 4 cm**, the outer lobes often split again. **FLOWERS:** **Funnel shaped, purple-red-white with a purple centre**, some purple outside, **4.5–6 cm long**, axillary on a branched stalk with a few flowers, 5 tiny sepals with pale edges, 2 rounded stigmas. **FRUIT:** A **rounded capsule to 1.2 cm across**, papery brown, containing several black hairy seeds.

ECOLOGY: A plant of forest clearings, lake shores, swampy grassland, hedges, waste and cultivated ground, 700–2,000 m.

DISTRIBUTION: Widespread in Tanzania but not found in the southern highlands; Kenya, Uganda, throughout tropical Africa, also from the eastern Mediterranean through Asia to Taiwan.

USES:

**Food:**

Leaves are collected, withered in the sun, then cooked alone or mixed with other vegetables such as amaranth or peas, coconut milk or groundnut paste added and served with a staple.

**Commercial:** Not marketed.

**Other:** The plant is used as fodder for cows, goats and rabbits.

SEASON: Leaves are collected during the rainy season and soon after it.

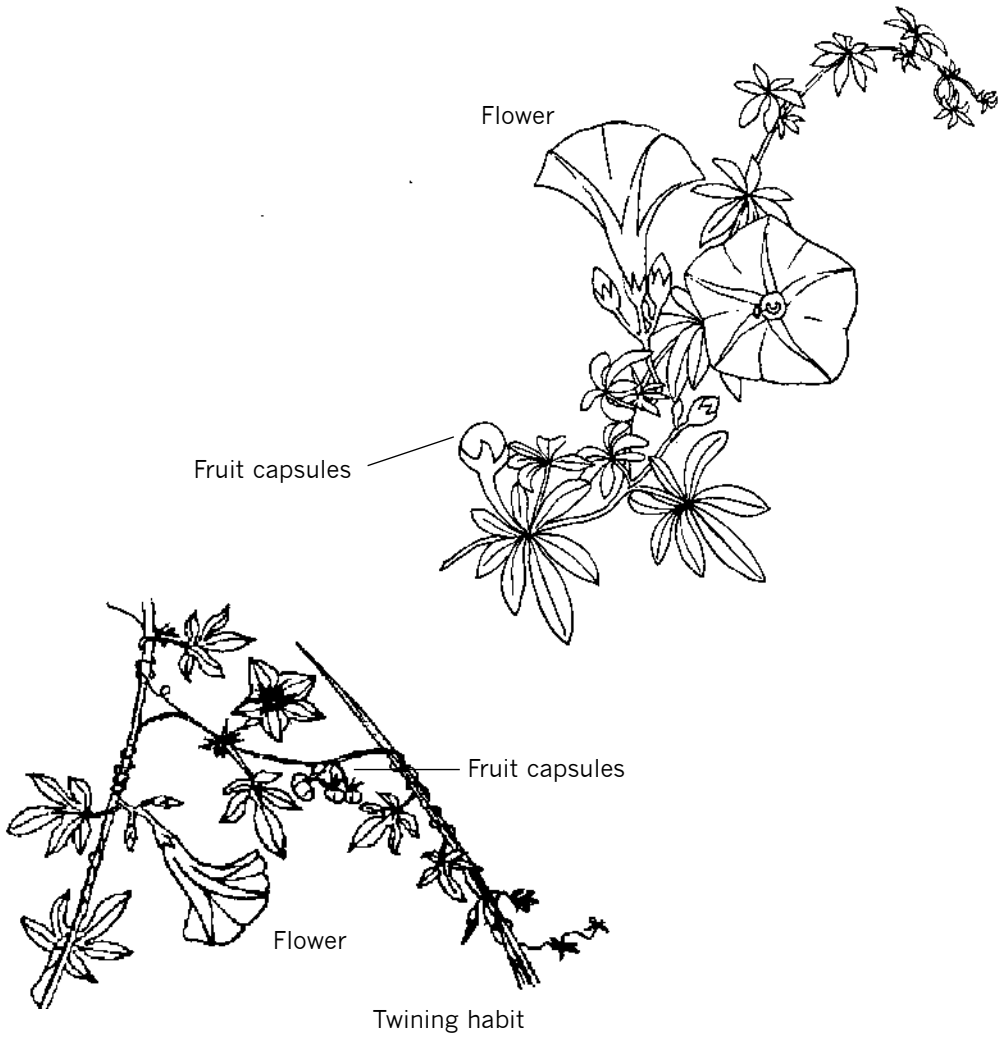
STORAGE: Dried leaves can be stored for several months.

MANAGEMENT: Usually collected from the wild but sometimes cultivated in homegardens using cuttings.

STATUS: Locally common.

*Ipomoea cairica* var. *cairica*

Convolvulaceae



*Ipomoea eriocarpa*

## Convolvulaceae

Indigenous

LOCAL NAMES: **Matengo:** Linambatata; **Ngoni:** Bwaka, Mtalilo; **Nyasa:** Bwaka, Mtalilo.

DESCRIPTION: A small annual twiner or creeper with slender hairy stems. LEAVES: Small, oval to heart shaped or long oblong, 2.5–8 cm, usually **arrow shaped at the base**; on stalks to 4 cm, smooth above, spreading hairs on veins below. FLOWERS: Small, in dense clusters, **mauve, white or pink**, tubular, all with a darker mauve-pink centre, 13 mm across, only 6–9 mm long, 3–5 flowers beside leaves, shortly stalked, **very hairy sepals** and **narrow bracts**. FRUIT: **Hairy, round to 6 mm diameter**, splitting open to set free 2–4 black seeds.

ECOLOGY: Found in grassland, savanna woodland, cultivated ground, often on clay soils, along roads and pathways and a creeper in the adjacent bush; mostly low to medium altitudes, 0–1,400 m.

DISTRIBUTION: All over Tanzania, including Zanzibar and Pemba, except the central and Tanga areas. Also in Kenya, Uganda, the rest of tropical Africa from Egypt to South Africa, Madagascar, into tropical Asia and northern Australia.

USES:

**Food:**

Leaves are collected, withered in the sun then cooked alone or as a mixture with other vegetable such as *Amaranthus*, *Bidens* or *Galinsoga* and served with a staple.

**Commercial:** Not marketed.

**Other:** The plant is used for fodder.

SEASON: Leaves are collected during and soon after the rainy season.

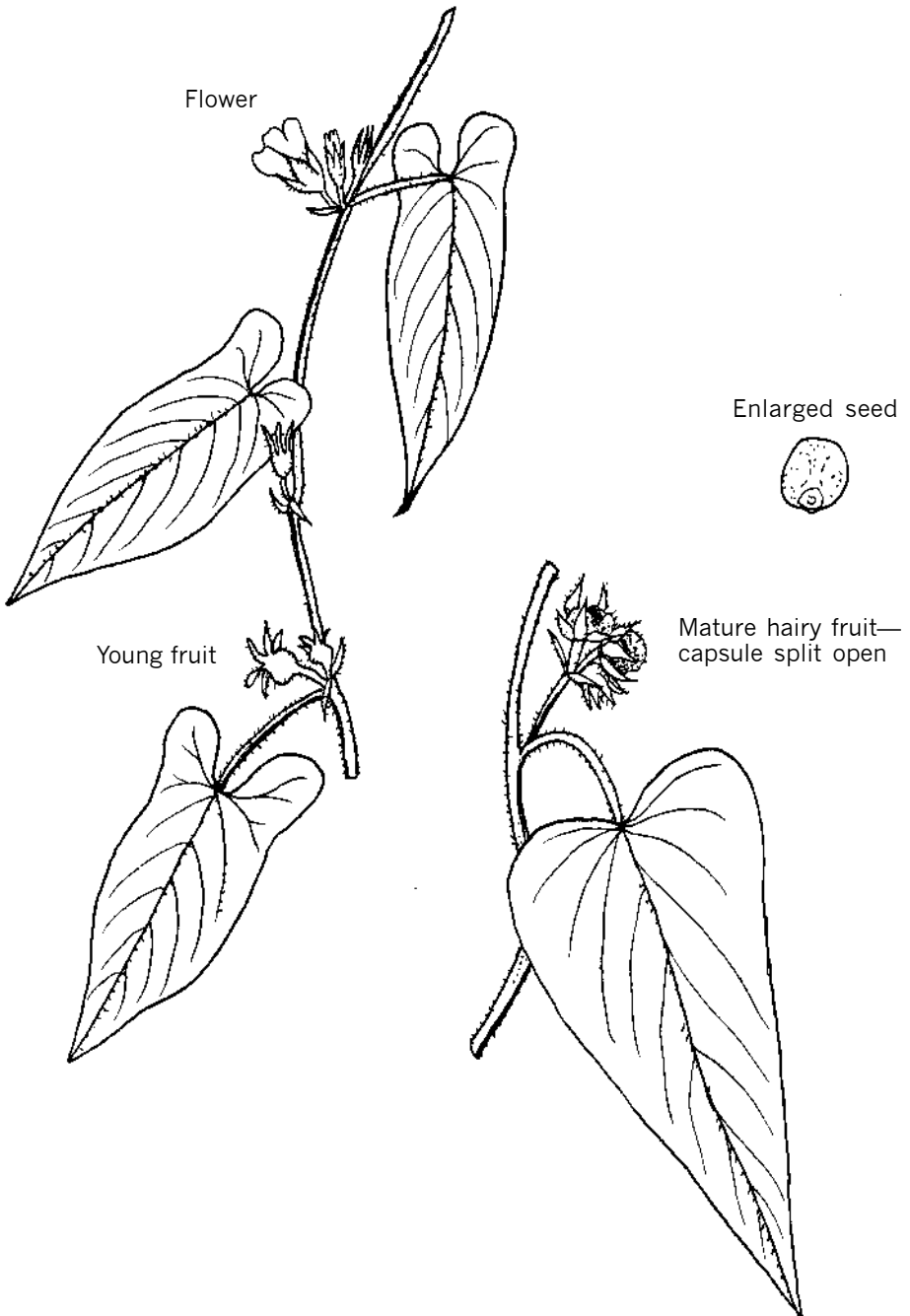
STORAGE: Dried leaves can be stored for several months.

MANAGEMENT: Collected from the wild but can be cultivated using cuttings.

STATUS: Locally common.

*Ipomoea eriocarpa*

Convolvulaceae



***Ipomoea pres-caprae (I. biloba)***      **Convolvulaceae**

Indigenous

LOCAL NAMES: **Hehe:** Nyakapulikilo; **Sambaa:** Talata; **Swahili:** Majani ya mwaka, Mlakasa.

DESCRIPTION: A straggling hairless perennial with **thick hollow stems, 5–30 m, creeping along sand**, often forming tangled mats. LEAVES: **Almost round, deeply notched, almost bi-lobed**, held up by purplish stalks 5–17 cm, **blades 3–10 cm wide** and long. FLOWERS: **Corolla funnel shaped, pink-red-purple, 3–5 cm long with a darker centre**, 5 sepals about 1 cm, each flower stalk to 4 cm on a many-flowered main stalk, 3–16 cm. FRUIT: A **dry round capsule to 1.8 cm across** containing several brown-black hairy seeds.

ECOLOGY: Sandy sea shores and estuaries above high-tide mark, more rarely on inland lake shores and by roadsides, 0–1,200 m.

DISTRIBUTION: Found in Tanga Region and other eastern, western and southern parts of Tanzania, Zanzibar, Pemba; Kenya, Somalia, Mozambique, Malawi, the Congo basin, Zimbabwe, South Africa, Angola to West Africa, pantropical.

USES:

**Food:**

- Leaves are collected, chopped and cooked alone or with other vegetables such as *Cleome gynandra*, *Galinsoga parviflora* or *Bidens pilosa* and eaten with a staple.
- Alternatively, leaves can be dried for storage and preparation later.

**Commercial:** Not marketed.

**Other:** The plant is used for fodder.

SEASON: Leaves can be collected at all times because it grows near water.

STORAGE: Dried leaves can be stored for several months.

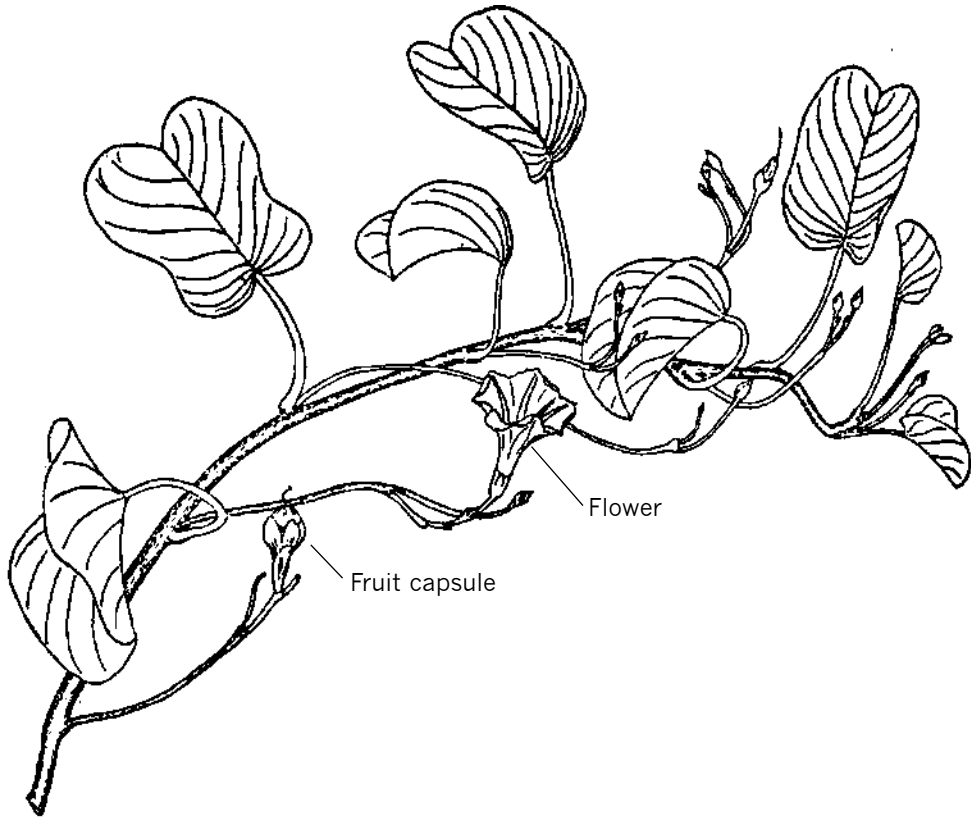
MANAGEMENT: Usually collected from the wild, but can be easily propagated using cuttings.

STATUS: Locally common.



*Ipomoea pres-caprae* (*I. biloba*)

Convolvulaceae



*Isoglossa lactea*

## Acanthaceae

Indigenous

LOCAL NAMES: **Matengo**: Litimbatimba; **Sambaa**: Mboniyati-ngoshi.

DESCRIPTION: A trailing or scrambling hairless herb, with ascending stems 1–2.5 m, rooting from a woody base. LEAVES: **Opposite, long oval to 8 cm, the tip tapering**, base narrowed to a short stalk, sometimes fleshy, red below and along midrib. FLOWERS: **White, arising on large open heads, branched several times**, thin wiry stalks, **each flower about 12 mm long, broadly funnel shaped** with a 3-lobed lip, spotted purple in the throat, 5 narrow sepals. FRUIT: **Hard brown pointed capsules, about 2 cm**, tip pointed, breaking open to set free rough seeds, young fruit white with pink tips.

ECOLOGY: A herb of montane evergreen rainforest or riparian forests, often dominant over large areas of the forest floor, 1,300–1,800 m.

DISTRIBUTION: Widespread in Tanzania except in central and southern areas; Kenya, Uganda.

USES:

**Food:**

Leaves are collected, chopped and cooked with coconut milk or pounded groundnuts and served with a staple.

**Medicinal:** Roots are boiled and the decoction is drunk three times a day as a remedy for STDs and coughs.

**Commercial:** Sold in local markets.

**Other:** The plant is used for fodder.

SEASON: Leaves are collected during the rainy season.

STORAGE: Not stored.

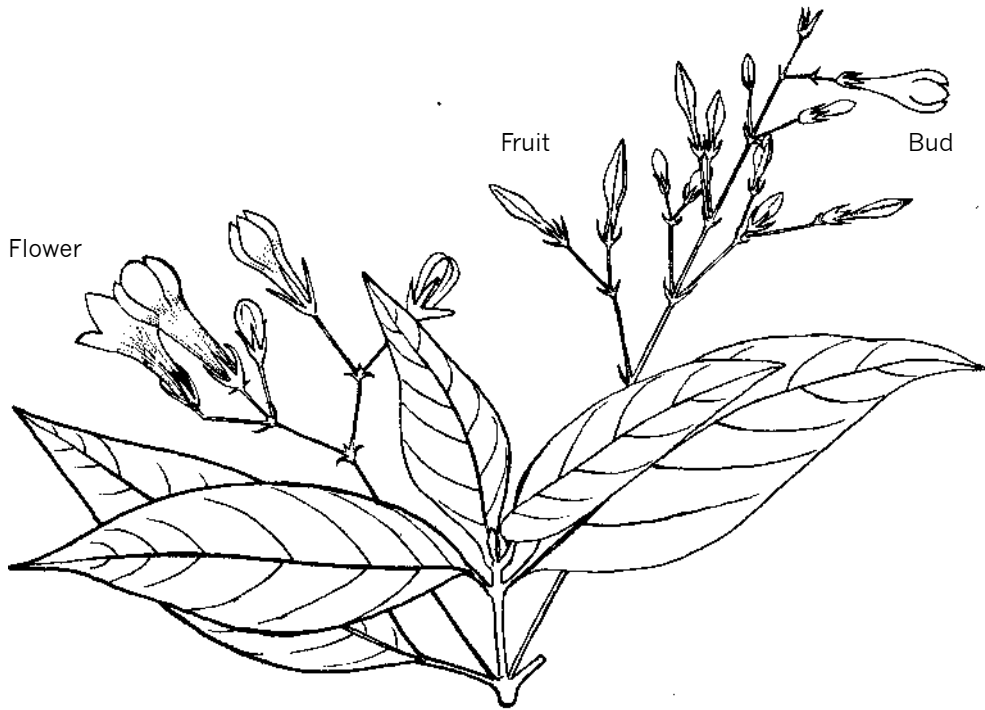
MANAGEMENT: Collected from the wild and not cultivated. The plant can be established by seed and cuttings.

STATUS: Locally common.

REMARKS: A recognized weed of gardens.

*Isoglossa lactea*

Acanthaceae



*Jacquemontia tamnifolia*

## Convolvulaceae

Indigenous

LOCAL NAMES: **Ngindo**: Bwala bwaya; **Swahili**: Kikopwe.

**DESCRIPTION**: An **annual twiner**, the stems with flattened silky hairs. **LEAVES**: An oval blade to 6 cm long and wide, tip generally well pointed, base variable to a stalk about 3.5 cm, sometimes a few hairs. **FLOWERS**: **Blue**, funnel shaped in **dense crowded heads. 2–3 cm across**, rusty coloured when dry, on **stalks to 15 cm, leafy bracts surround the heads, about 2 cm long**, each flower with 5 narrow hairy sepals, to 7 mm. **FRUIT**: **Capsules round and somewhat lobed**, straw coloured to 5 mm across, containing 4 brown seeds.

**ECOLOGY**: Dry scrub, grasslands and cultivated ground on sandy or rocky soils, 60–900 m.

**DISTRIBUTION**: Widespread in eastern Tanzania and on Zanzibar and Pemba Islands; occurs, for example, in the foothills of the East Usambara Mountains. Also found from West Africa to Kenya and south to South Africa and on Madagascar. Also in tropical America.

**USES**:

**Food:**

Leaves are collected, withered in the sun and then cooked alone or mixed with other vegetables such as peas or amaranth, coconut milk or pounded groundnuts added. The vegetable is then ready for eating with a staple.

**Medicinal:**

- Leaves and roots are chewed and the juice swallowed as an antidote to green mamba bite.
- The infusion from the leaves is used for washing wounds.

**Commercial**: Not marketed.

**Other**: The plant is used for fodder and is suitable for ornamental purposes.

**SEASON**: Leaves are collected during and soon after the rainy season.

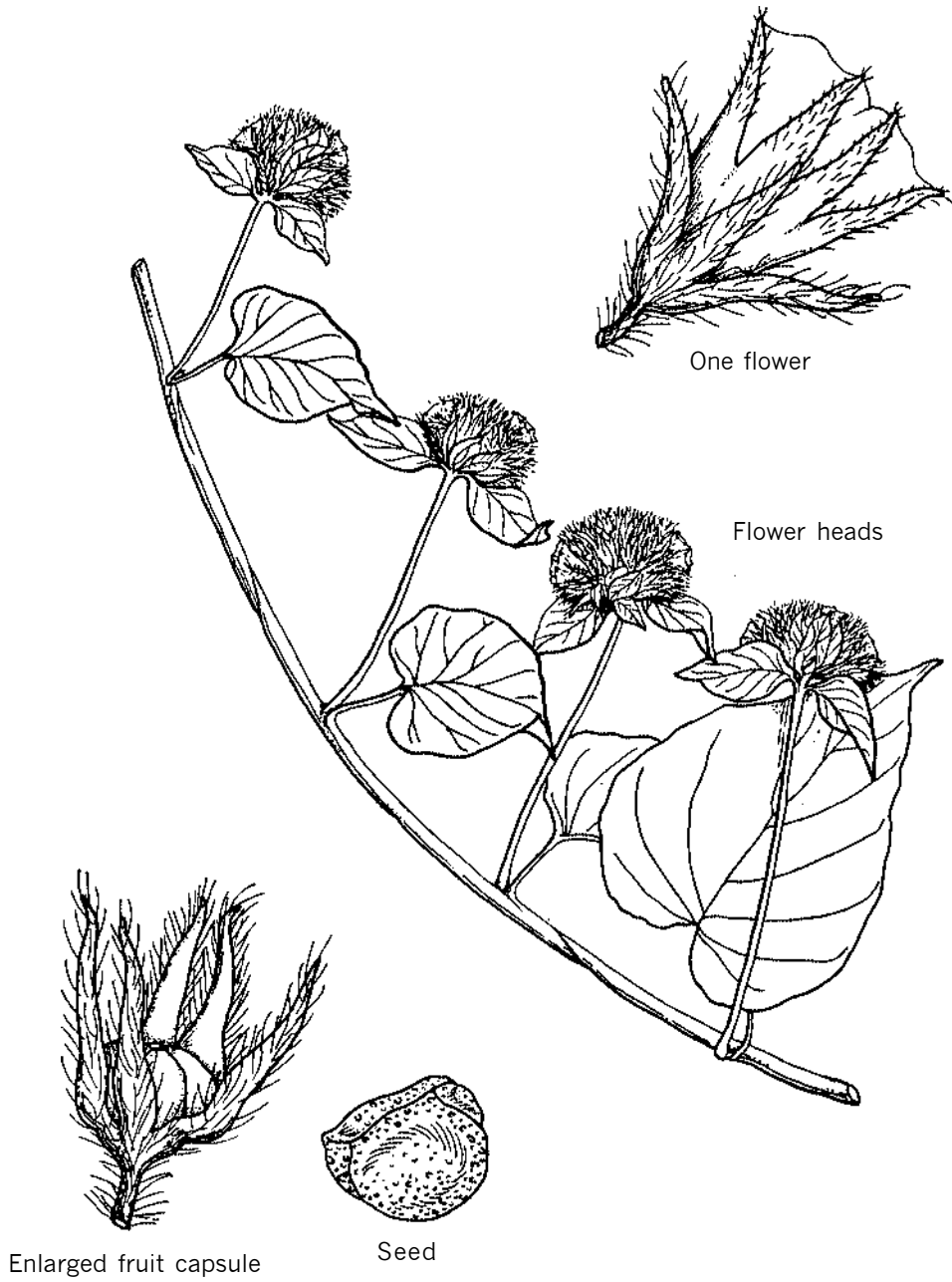
**STORAGE**: Not stored.

**MANAGEMENT**: Collected from the wild and not cultivated. It can be propagated by seed and cuttings.

**STATUS**: Occasional within its area of distribution.

*Jacquemontia tamnifolia*

Convolvulaceae



*Justicia heterocarpa*

## Acanthaceae

Indigenous

LOCAL NAMES: **Bondei:** Unkobo; **Sambaa:** Unkobo.

DESCRIPTION: An erect hairy annual herb, often much branched and spreading to 60 cm, the stem angular, ribbed and hairy, slightly swollen at nodes, rooting at lower nodes. LEAVES: Opposite, oval 3–9 cm by 5 cm across, usually small, **tip pointed, base narrowed** to a very short stalk, **softly hairy**. FLOWERS: Surrounded by a pair of **leafy bracts** and the pale green **calyx with darker lobes, covered with soft white hairs, clusters of flowers** in leaf axils, stalkless, **white-pink-mauve, 2-lobed** under 6 mm, with dark red markings in the throat, upper lip hooded over the 2 stamens. FRUIT: A dry capsule about 6 mm long containing 4 seeds, one above the other in each side (occasionally some have hooked spines).

ECOLOGY: Locally common in dry grassland, bushland, *Brachystegia* woodland, wooded grassland, rocky hillsides, often under shade, in a variety of soils, 300–2,000 m. Many subspecies.

DISTRIBUTION: Found in all parts of Tanzania; also occurs in Kenya, Uganda, Ethiopia, Burundi, and the Congo basin south to South Africa.

USES:

**Food:**

Leaves are collected, chopped and cooked alone or with other vegetables.

Pounded groundnuts or coconut milk are added and then served with a staple.

**Commercial:** Sold in local markets (Lushoto, Korogwe, Muheza).

**Other:** The plant is used for fodder. Also suitable for ornamental planting.

SEASON: Leaves are collected during the rainy season.

STORAGE: Not stored.

MANAGEMENT: Only collected from the wild but can be propagated by seed and cuttings.

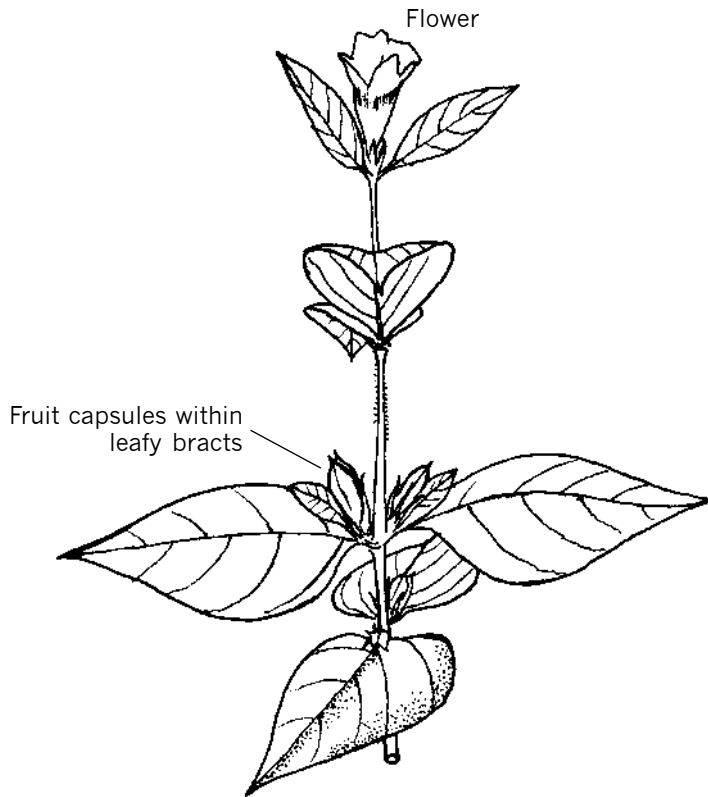
STATUS: Locally very common and regarded as a troublesome weed on farms.

REMARKS: Several other *Justicia* species are edible, including:

*Justicia pinguior* (**Hehe:** Nyawolo) a perennial herb arising from a woody tuberous rootstock up to 80 cm long. This species is widespread in Tanzania, Kenya and Uganda. Also found in Sudan. Leaves are pounded, boiled in water and the decoction used as a remedy for intestinal worms.

*Justicia heterocarpa*

Acanthaceae



***Kedrostis leloja*****Cucurbitaceae**

Indigenous

LOCAL NAMES: **Hehe**: Nyandanga; **Sandawi**: /'iko.

DESCRIPTION: A perennial, **bristly or hairy climber** to 1 m, from a swollen tuberous rootstock; young **stems green and herbaceous** but the base thickened and grey. The plant bears simple tendrils. LEAVES: Simple but with **5 shallow lobes**, to 6 cm across x 10 cm wide, the lobes wide at the tip, narrowed below, the surface roughly hairy and some hairs on the stalk 5–60 mm. FLOWERS: **Male and female flowers separate** on the same plant, **very small green-yellow**; male flowers on a hanging stalk 3–9 cm, often on nearly leafless shoots, **female flowers solitary** on short stalks, the flowers saucer shaped with pointed lobes. FRUIT: Solitary on stalks about 1 cm, **shiny, orange, 5–9 cm long and about 1.5 cm wide**. a long beak at the tip, breaking open by one long slit, the smooth round seeds dark brown, surrounded by orange flesh in little packets of red watery tissue.

ECOLOGY: Common in *Combretum* woodland, deciduous bushland with *Acacia* or *Euclea*, in wooded grassland of dry areas, 0–600 m.

DISTRIBUTION: In southern and eastern Tanzania; also parts of Kenya, Somalia and the Arabian peninsular.

USES:

**Food:**

- Leaves are collected, chopped and cooked, coconut milk or pounded ground-nuts added and eaten along with a staple.
- Ripe fruits are fleshy and eaten raw, especially by children.

**Commercial:** Not marketed.

**Other:** The plant is used for fodder. Also suitable for ornamental planting.

SEASON: Leaves and fruits are collected during the rainy season.

STORAGE: Not stored.

MANAGEMENT: Collected from the wild and not cultivated. This species can be propagated by seed.

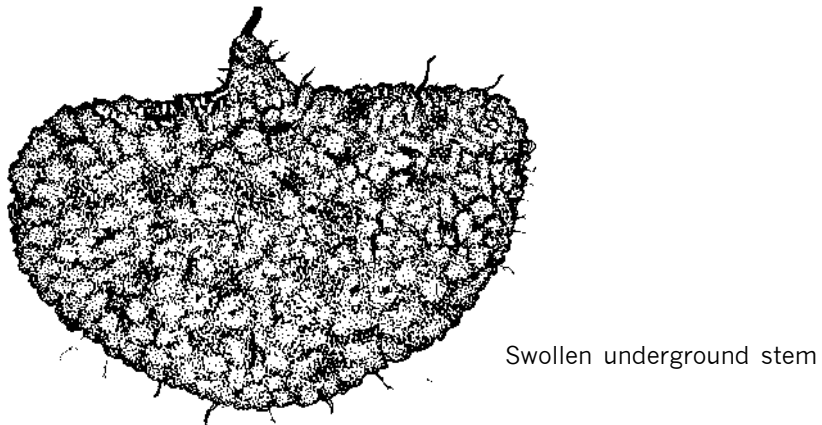
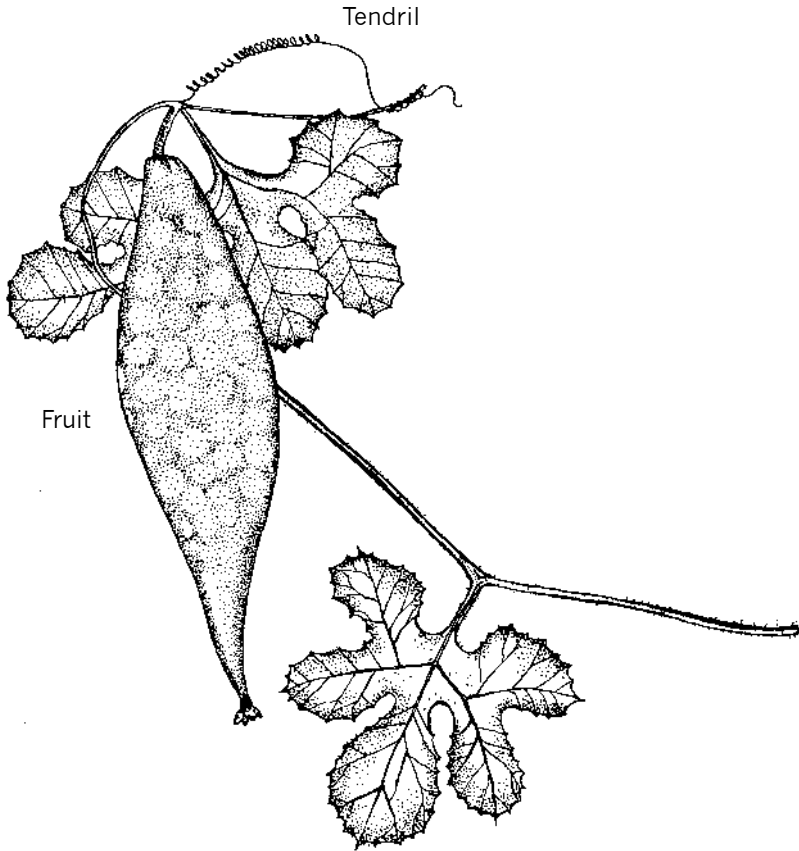
STATUS: Occasional within its area of distribution.

REMARKS: A recognized weed.



*Kedrostis leloja*

Cucurbitaceae



***Kigelia africana***  
(*K. pinnata*, *K. aethiopum*)

**Bignoniaceae**

Indigenous

LOCAL NAMES: **Arusha:** Oldaoboi; **Bena:** Mfumbi; **Bondei:** Mlegea; **English:** Sausage tree; **Fipa:** Nzungwa; **Gorowa:** Dati; **Haya:** Mzungute; **Hehe:** Mfumbi; **Iraqw:** Mangafi; **Isanzu:** Mulunzi; **Luguru:** Mwegea, Myegea; **Maasai:** Oldaboi, Oldarpoi, Oldarboi, Ortarboi; **Mbugwe:** Mosofwa; **Mwera:** Mtandi; **Ngindo:** Mtandi; **Nguu:** Mvungwe; **Nguru:** Mvungwe; **Nyamwezi:** Mdungwa, Msanghwa, Mvungwa, Mwiegea; **Nyaturu:** Mungungu; **Nyiramba:** Mulunzi; **Rangi:** Isuha, Msuha, Musuha, Musuva; **Rufiji:** Mtandi; **Sandawi:** Irata, Ráta; **Sukuma:** Mgwicha, Ngwicha; **Swahili:** Mbungati, Mbomba, Mranaa, Mti sumu, Mvungunya, Mvungwa, Mwicha, Mwegea; **Tongwe:** Lifungwa; **Zaramo:** Myigeya; **Zigua:** Mvungwe; **Zinza:** Mzingute.

DESCRIPTION: A semi-deciduous tree with a rounded crown, to 9 m tall in open woodland but to 18 m beside rivers. BARK: Grey-brown, smooth, flaking in round patches with age. LEAVES: Compound, **growing in threes**, at the end of the branches, few leaflets, each broadly oval, **very rough and hard, up to 10 cm**, often with a **sharp tip, edge wavy**. Flowers on long rope-like stalks 2–3 m. Horizontal, reddish branches, in threes, bear up-turned trumpet-like flowers, petals folded and wavy, **dark maroon with heavy yellow veins** outside, an unpleasant smell. FRUIT: Large **grey-green “sausages”**, 30–60 cm long. Hanging stalks remain on the tree. Several kilos of fibrous pulp surround the seeds which are only released when fruit rots on the ground.

ECOLOGY: Found in medium-altitude moist savanna woodland and along rivers in dry areas, 0–1,800 m; rainfall 900–1,400 mm. Thrives in well-drained sandy sediments and sandy loams.

DISTRIBUTION: Widely distributed in Tanzania and throughout tropical Africa.

USES:

**Food:**

The fruits are crushed and used to speed up fermentation in the preparation of local alcoholic brews.

**Medicinal:**

- The leaves and stem bark are used as medicine for treatment of STDs, rheumatism, malaria, infertility, dysentery, epilepsy and headache.
- Fruits used for treatment of wounds.
- Bark and roots used for treatment of convulsions.
- The bark is boiled and the decoction used for treatment of stomach-ache.
- The bark is soaked in water and the liquid drunk to increase lactation in women.

**Commercial:** The alcoholic brew made from the fruit is sold in local bars (Pare).

**Other:** The wood is used for beehives, drums, water troughs, mortars, stools,

***Kigelia africana* (contd)****Bignoniaceae**

milk pots and canoes. The tree is a good ornamental because of its large red flowers and its large hanging sausage-like fruits. Also used as a bee-forage tree. The fruit, either sliced or pounded, are fed to chickens as a treatment for Newcastle disease.

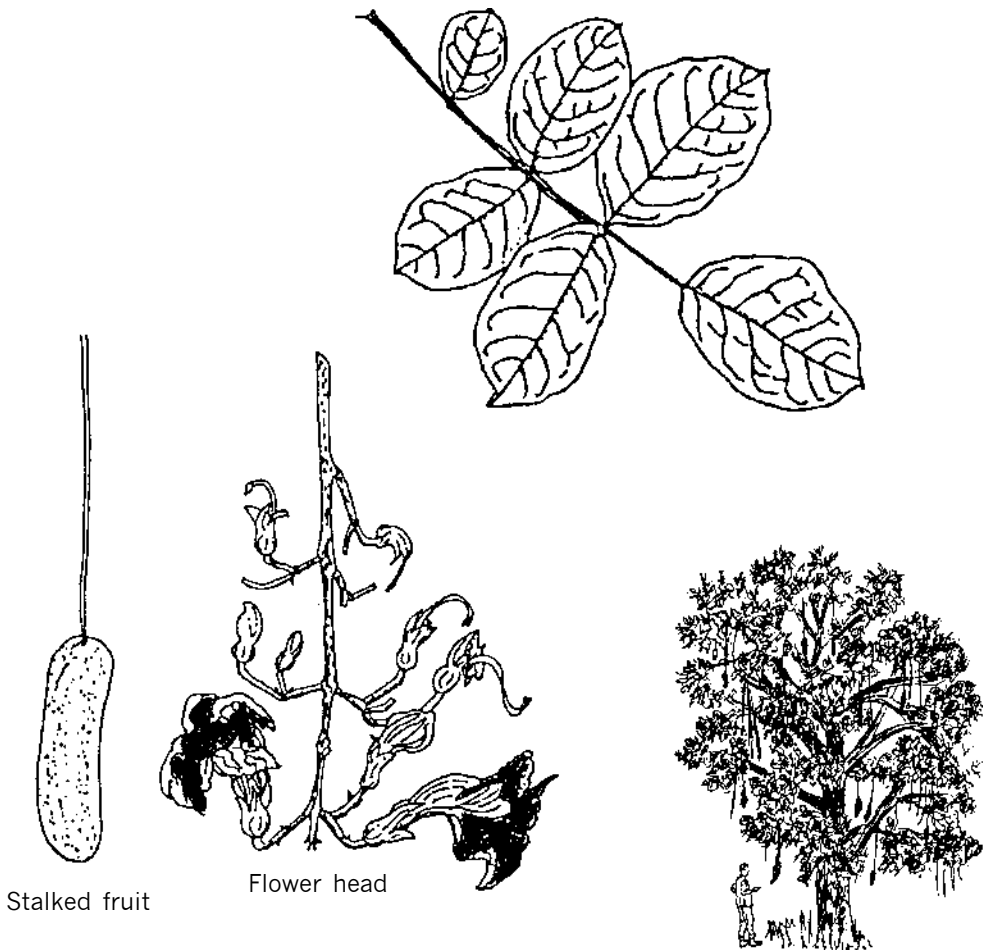
SEASON: Collected June–December

STORAGE: Mature fruits can be stored for more than a week before use.

MANAGEMENT: Collected from the wild and retained around homes and gardens for medicinal purposes, but not planted. It can be propagated by seed.

STATUS: Common and easily accessible within its area of distribution.

REMARKS: Unripe fruits are poisonous. The tree does not compete with crops.



Stalked fruit

Flower head

***Landolphia kilimanjarica***  
**(*L. buchananii*)**

**Apocynaceae**

Indigenous

LOCAL NAMES: **Chagga:** Kiwiru; **Hehe:** Liwungowungo; **Nyamwezi:** Ibungobugo; Ivungovungo; **Pare:** Totwe; **Sambaa:** Mpia-mzitu, Ugooto; **Swahili:** Mbungo.

DESCRIPTION: A woody shrub or climbing liane to 6–20 m, the **stem deeply fluted and dark brown**, branches twining in the tree canopy. Hooked tendrils may be present or not. LEAVES: Long oval, narrow or wide, **5–12 cm, the tip elongate but blunt, usually without hairs** (except on midrib below), base narrowed to a short stalk. FLOWERS: Small, fragrant, white-yellow with touches of red or orange, in **few-flowered terminal heads of 5–10 flowers**, sepals green, ovate, **corolla tube 5–8 mm**, with **lobes about the same length**, overlapping to the left in the bud. FRUIT: A **round berry with a hard rind, green with white spots, 4–10 cm across**, yellow when open, with 10 or more seeds in juicy pulp.

ECOLOGY: Common in rainforest, fruiting more on the forest edges; also in hillside thickets and bushland, on sloping rocky areas, in riverine forest, at medium altitudes up to 1,600 m.

DISTRIBUTION: Found in almost all parts of Tanzania in suitable habitats, e.g. in Kagera, Rukwa, Tanga, Kilimanjaro, Dodoma, Mbeya and Pwani Regions. Widespread in West Africa, through the Congo basin to Kenya, Uganda, Ethiopia, and south to Zimbabwe.

USES:

**Food:**

The fruits are collected from the tree or from the ground when ripe, cut open and the sweet pulp, together with the seeds, eaten fresh as a snack.

**Commercial:** Not marketed.

**Other:** Young stems are used as rope.

SEASON: Collected in May to July.

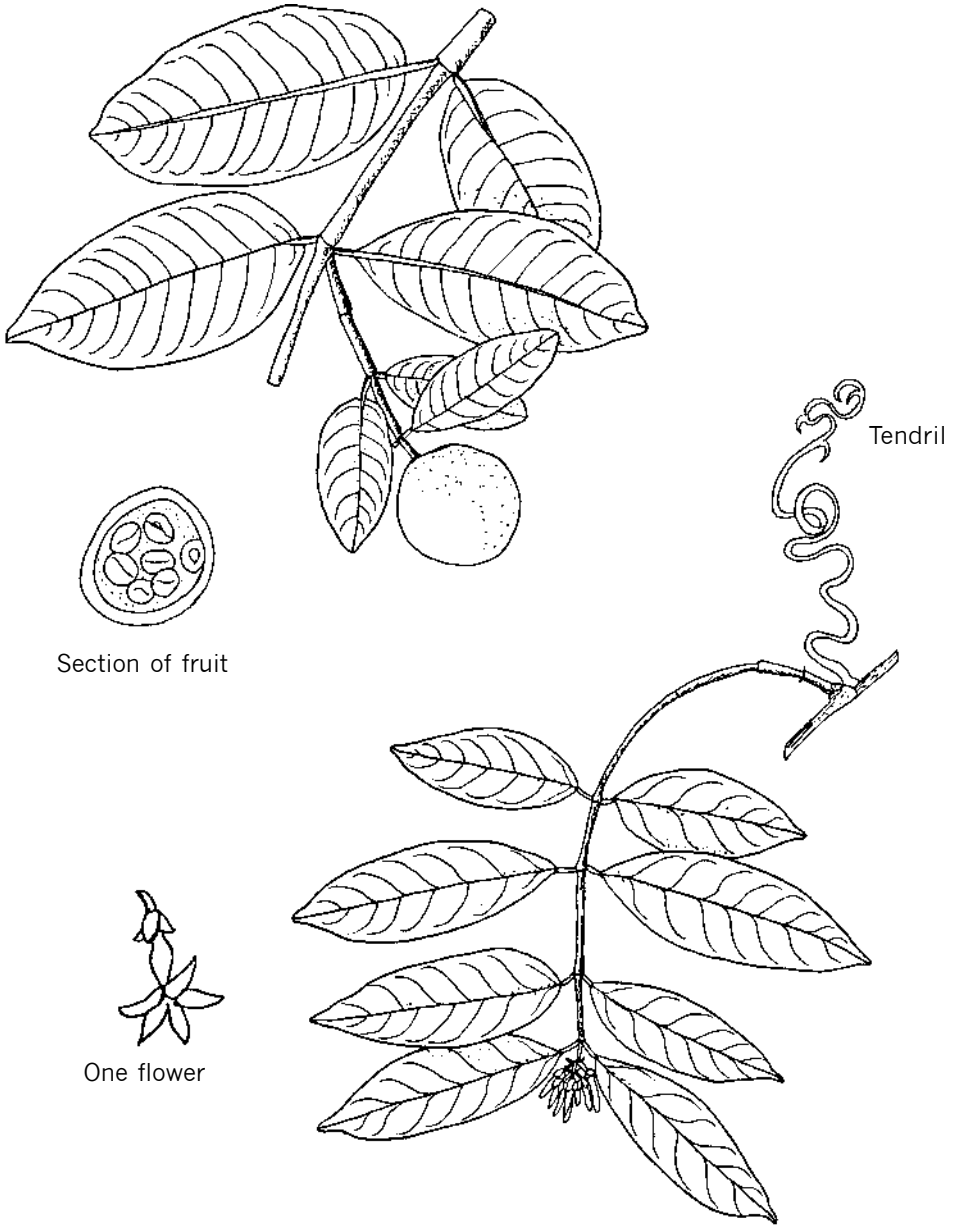
STORAGE: Not stored.

MANAGEMENT: It is collected from the wild and not protected or cultivated by local people, but can be propagated by seed and cuttings.

STATUS: Common in forests and easily accessible within its area of distribution.

*Landolphia kilimanjarica*

Apocynaceae



*Landolphia kirkii*

## Apocynaceae

Indigenous

LOCAL NAMES: **Digo:** Kitoria, Libugu, Mpira; **English:** Rubber vine; **Hehe:** Liwungowungo; **Matengo:** Kibungu, Libungu; **Ngindo:** Kibungo, Mahanga; **Nyasa:** Maungu; **Pare:** Totwe; **Sambaa:** Mpia-mzitu; Ugoroto; **Swahili:** Mlimbo, Mlungwana, Mmeru sukari, Moyo, Mpira, Mpo, Mpyo; **Tongwe:** Libufu; **Zigua:** Utorojo.

DESCRIPTION: An **evergreen climber 2–6 m**, or sometimes a shrub. **All parts with sticky white latex.** BARK: Smooth at first, then rough grey-brown. **Tendrils to 15 cm (sometimes absent) branched at the very tip.** LEAVES: **Small, opposite**, long oval, variable but **3–8 cm long, tapering to a short blunt tip**, hairy when young, later shiny. FLOWERS: Terminal loose **heads of flowers** or beside leaves, hardly stalked, each flower tubular, very small, **white–pale pink.** FRUIT: Rounded to oval, a many-seeded berry with a hard skin, **to 15 cm, dull green but spotted**—the size of an orange. The 4–5 ovoid seeds lie in juicy edible pulp.

ECOLOGY: A strong climber in forest, at forest edges and in *Brachystegia* bushland, miombo woodlands on plateaux and wet valleys, in areas of higher rainfall.

DISTRIBUTION: Found in Tanga Region and other eastern coastal areas of Tanzania, e.g. around Dar es Salaam and on Mafia and Zanzibar Islands; Kenya south to southern Africa.

USES:

**Food:**

The pulp of ripe fruits is edible. Ripe fruits are cut in half and the yellow juicy pulp eaten raw. It is sweet with a slightly acid taste.

**Commercial:** Sold in local markets.

**Other:** Stems are flexible and used as ropes. The latex is used as a rubber substitute and birdlime.

SEASON: Fruits are collected from March to June.

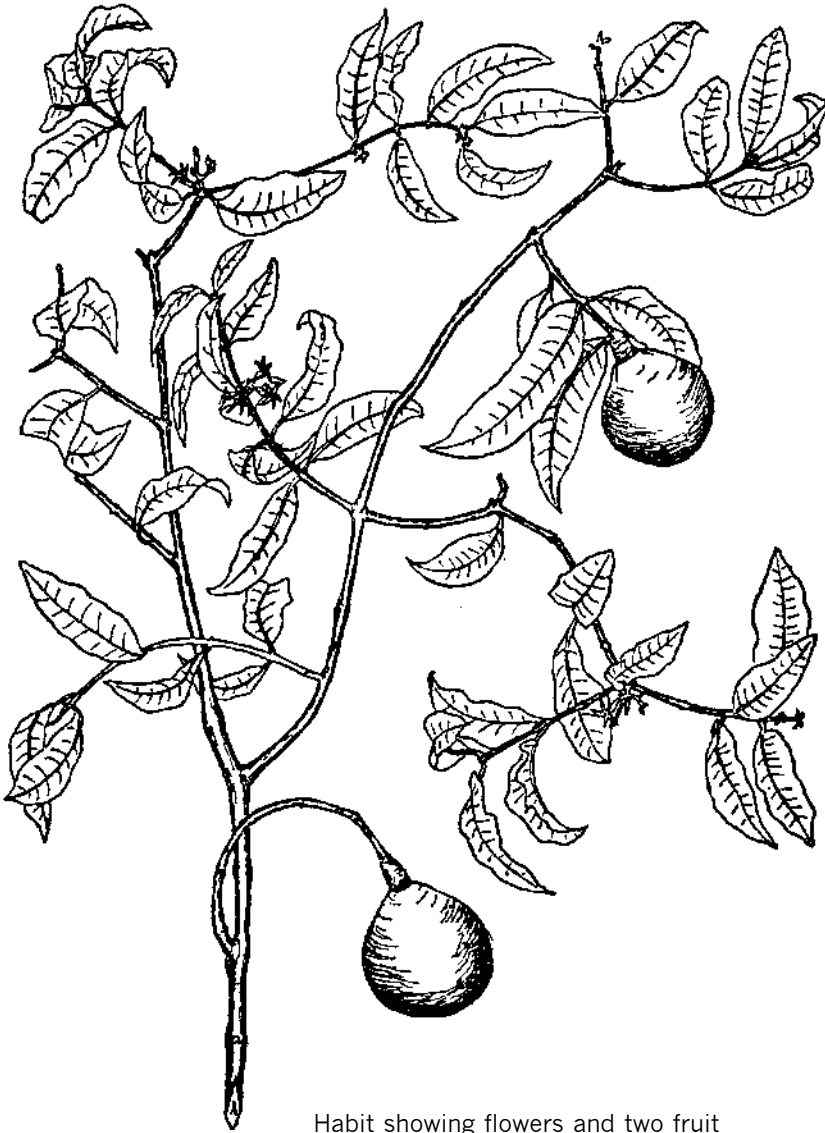
STORAGE: Ripe fruits can be stored in the shade for several weeks.

MANAGEMENT: Collected from the wild and not cultivated. It can be propagated by seed and cuttings.

STATUS: Locally common.

*Landolphia kirkii*

Apocynaceae



Habit showing flowers and two fruit

*Landolphia parvifolia*

## Apocynaceae

Indigenous

LOCAL NAMES: **English:** Rubber vine; **Hehe:** Liwungowungo; **Matengo:** Kibundu, Libungu; **Nyamwezi:** Ibungobungo, Muwungowungo; **Nyasa:** Maungu; **Swahili:** Mbungo.

DESCRIPTION: An **evergreen climber**, 2 to several metres long, much-branched and shrubby with tendrils at branched forks (altered flower stalks), dark green young stems dotted with pale breathing pores and covered with short rusty brown hairs. The strong tendrils are hooked. **BARK:** Dark, smooth; all parts, including the roots, producing much white latex when cut. **LEAVES:** Opposite, dark green, shiny above, paler below, **leathery, up to 6.5 cm but generally smaller, long oval**, tip blunt, narrowed at the base to a short hairy stalk, veins clear, parallel. **FLOWERS:** Fragrant cream-white in **terminal clusters on side branches** to 10 cm, each flower tubular with 5 overlapping lobes, often a yellow “eye” and brown spot at the base of each lobe. Flowers open late in the day. Calyx lobes are whitish and green tipped. **FRUIT:** Like a small orange when ripe, green at first, **round, 3–5 cm diameter**, with a sharp tip, containing edible pulp around the seeds.

ECOLOGY: A forest climber in river valleys, on lake shores and woodland, often on rocky outcrops in gravelly well-drained soils, 0–1,400 m.

DISTRIBUTION: Found in most parts of Tanzania, including Tabora, Lindi, Shinyanga, Iringa and Rukwa Regions. Recorded in Malawi, Democratic Republic of Congo and West Africa.

USES:

**Food:**

Ripe fruits are cut into two pieces and the juicy pulp eaten raw. It is sweet but rather acidic and is much liked by children and herdsmen.

**Commercial:** Not marketed.

**Other:** The latex from stem and fruits is used as a lime for trapping birds.

Fruits are much eaten by monkeys. The plant is important for ornamental purposes and as a source of bee forage.

SEASON: Ripe fruits are collected from July to October.

STORAGE: Locally marketed on a small scale.

MANAGEMENT: Collected from the wild and is not cultivated. It can be propagated by seeds and cuttings.

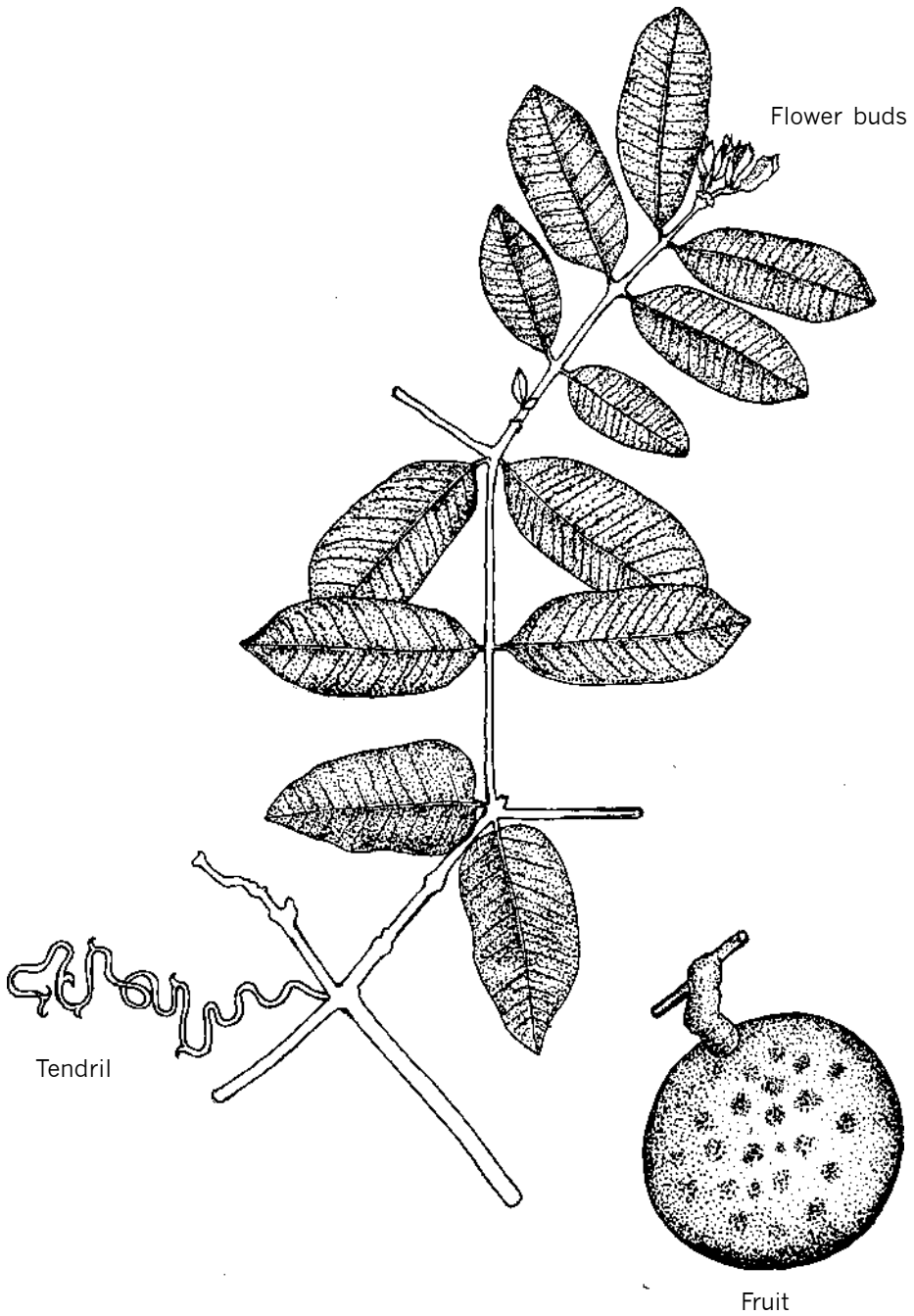
STATUS: Occasional within its area of distribution.

REMARKS: The fruit resembles that of *Strychnos* but does not have the hard shell of that genus.



*Landolphia parvifolia*

Apocynaceae



*Lannea fulva*

## Anacardiaceae

Indigenous

LOCAL NAMES: **Gogo:** Msabi, Muwurubu; **Gorowa:** Itiwi, Tsalmi; **Hehe:** Mgulumo; **Kerewe:** Murangarara; **Nyamwezi:** Mselya; **Rangi:** Chandu, Mtarima, Muchunganyama; **Sandawi:** Kwilili; **Sukuma:** Nselya; **Zigua:** Mumbu; **Zinza:** Murangalala.

DESCRIPTION: A deciduous shrub or tree, 3–10 m, with a short bole and much branching to a rounded crown, branchlets drooping. BARK: Thick, grey-brown, tough, flaking. **Branchlets, leaf and flower stalks have yellow hairs.** LEAVES: Some single leaves but **usually 3 leaflets, the large central leaflet 5–8 cm**, on a 2-cm stalk, lateral leaflets smaller, leaflets oval to rounded, tip rounded, blunt or notched, **dark shiny green above when mature, but very dense pale yellow-brown hairs below.** FLOWERS: Small, yellow-green, on **simple 4–12 cm spikes**, with some branches, beside leaves, **stalk white, hairy.** FRUIT: Small drupes, purple when ripe, less than 1 cm, oblong but somewhat flattened.

ECOLOGY: Found in wooded grasslands, often on rocky hills, extending into deciduous thickets and *Brachystegia* woodlands, often on termite mounds, forest edges, 900–1,600 m.

DISTRIBUTION: Occurs in the northern, western and central areas of Tanzania, e.g. in Kigoma, Arusha, Mbeya, Dodoma, Shinyanga, Mwanza and Tabora Regions. Also in Kenya, Uganda, Rwanda, Burundi and the Congo basin.

USES:

**Food:**

The fruits are edible and sweet. They are mostly eaten by children as a snack while they herd cattle.

**Medicinal:**

- The bark is crushed and used as a bandage (poultice) for wounds and snakebite and, generally, to stop bleeding.
- Roots are soaked in warm water and drunk to treat stomach-ache and chest pains (Nyamwezi, Gogo, Hehe).

**Other:** The wood is used for construction and the bark as string.

SEASON: First fruit usually in December, main season in February and early March.

STORAGE: Not stored.

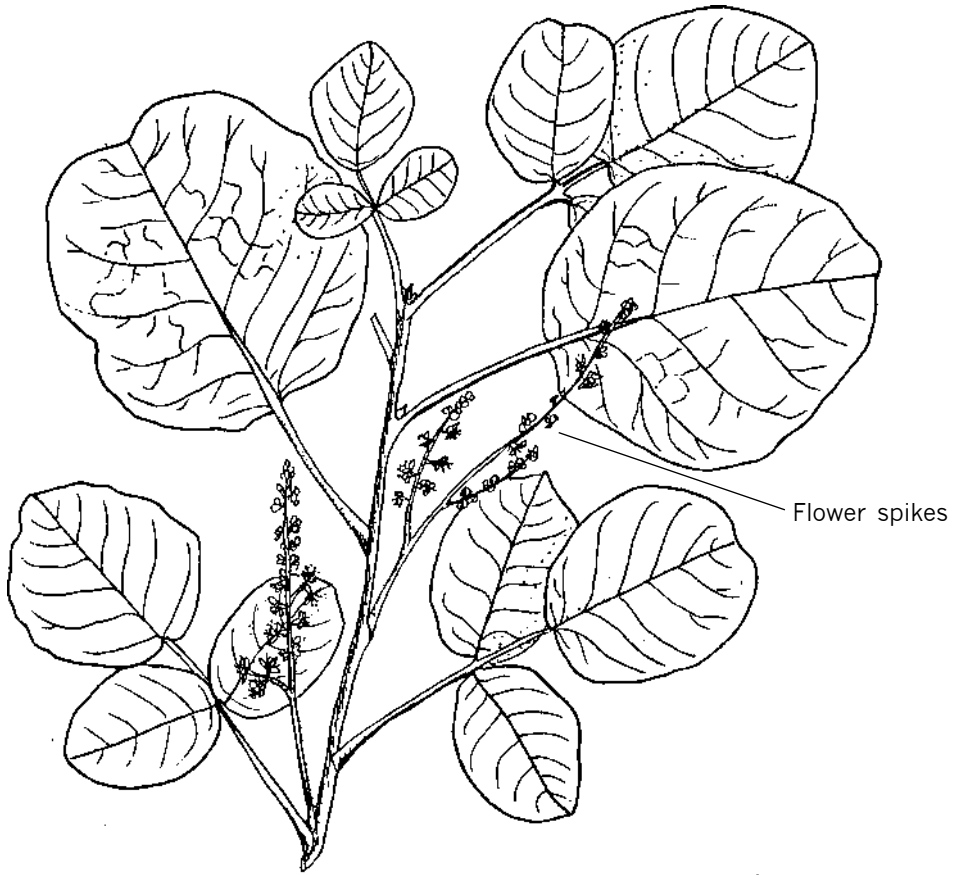
MANAGEMENT: Collected from the wild and not cultivated or protected by local people.

It can be propagated by seed and cuttings.

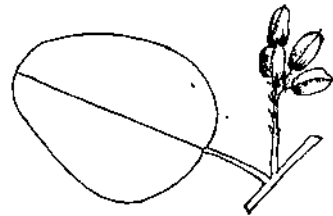
STATUS: Common and easily accessible within its area of distribution.

*Lannea fulva*

Anacardiaceae



Fruit capsules



*Lannea humilis*

## Anacardiaceae

Indigenous

LOCAL NAMES: **Bena:** Lilinga; **Gogo:** Mnghanangha; **Hehe:** Mlinga, Mlingalinga; **Kerewe:** Mnyamaji; **Nyamwezi:** Mtinje; **Sandawi:** G/.omi; **Zinza:** Mhondobogo, Mnyamenzi.

DESCRIPTION: A small deciduous savanna tree or shrub, sometimes forming thickets, 3–6 m high, often flat topped. **BARK: Dark grey, spongy, almost black** in older trees. Branches smooth but striated and have clear lenticels; young branchlets white hairy. Shorter side shoots bear the leaves and flowers. **LEAVES:** In tufts at the ends of side shoots, compound, **with 3–10 pairs of opposite leaflets plus a larger one at the tip**, 10–15 cm long, each leaflet oval–oblong, 1–5 cm long, dark green above, the lower surface clearly veined and densely covered with **white or rusty woolly hairs when young**. **FLOWERS:** Male and female flowers on separate trees. Small, cream-yellow, **in spikes 2–5 cm** long on short side branches, **stalks covered with furry white hairs; 4 hairy sepals** and 4 petals only to 4.5 mm, arising from a small disc. Flowers appear with the fresh leafy growth or on the bare tree. **FRUIT:** A drupe about **1 cm, flat and oblong**, covered with **dense grey furry hairs**, containing the seeds. Many cluster on the short spike.

ECOLOGY: Found in deciduous bushland and woodland, locally common in wooded grasslands where drainage is poor, often at edges of seasonally flooded valleys, plains below hillsides and other local water catchments, 700–1,700 m.

DISTRIBUTION: Found in many parts of Tanzania. Recorded in Mwanza, Mara, Singida, Iringa and Mbeya Regions. Also in Uganda, Kenya, Senegal to Sudan, Rwanda, Zambia, Malawi, Zimbabwe, South Africa.

USES:

**Food:**

Ripe fruits are collected and eaten raw as a snack. They are sweet and eaten in moderate amounts.

**Medicinal:** Roots are pounded, the powder stirred into warm water and drunk for treatment of generalized body pains, stomach problems and cough.

**Other:** The bark is used as ropes. Flexible twigs are used as whips. The tree is used as a live fence.

SEASON: Fruits are collected from November to January.

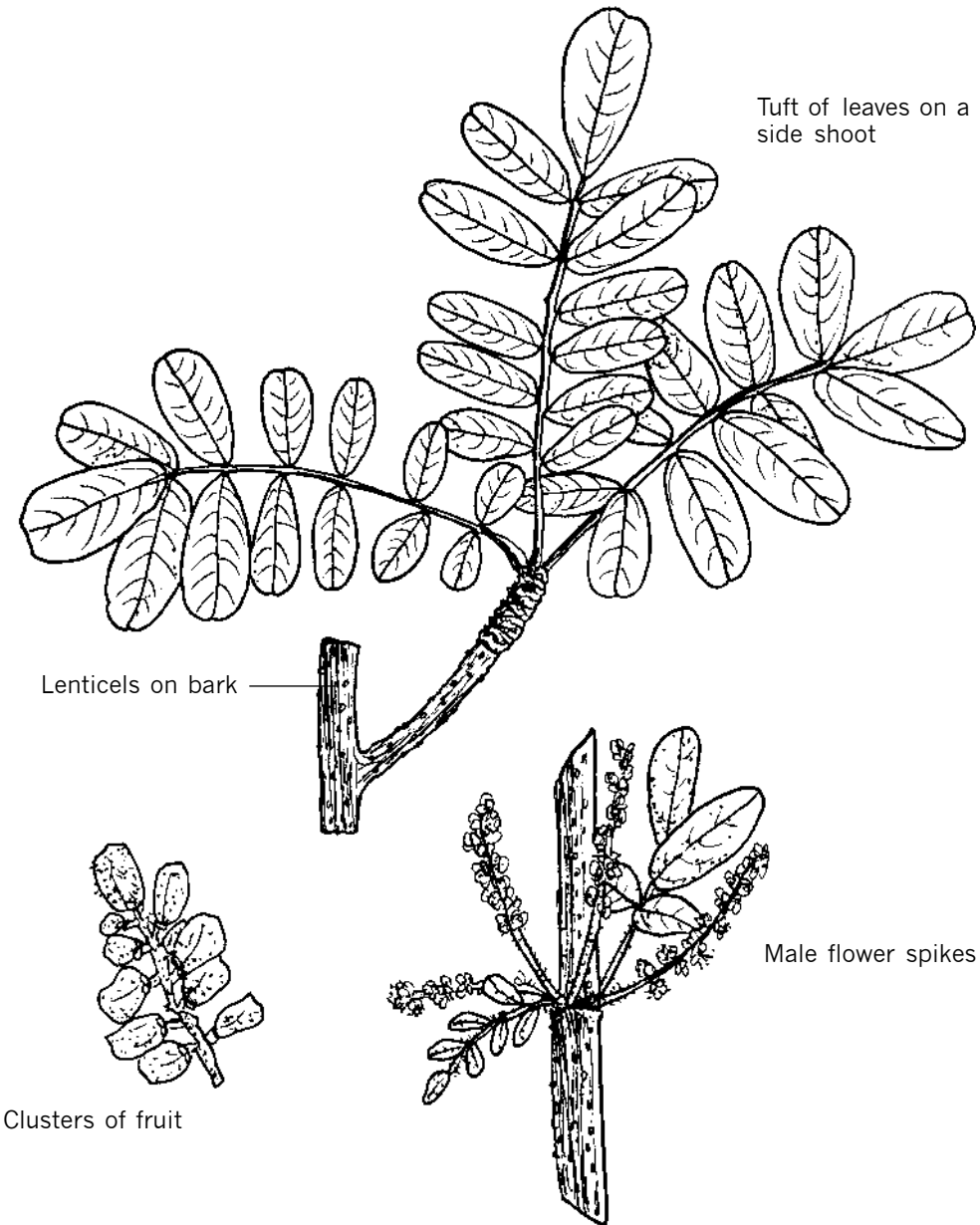
STORAGE: Not stored.

MANAGEMENT: Collected from the wild and not protected or cultivated by local people. A fire-resistant tree which coppices while still young.

STATUS: Common and easily accessible within its area of distribution.

*Lannea humilis*

Anacardiaceae



*Lannea rivae* (*L. floccosa*)

## Anacardiaceae

Indigenous

[Plate 3]

LOCAL NAMES: **English:** Wild grape; **Gogo:** Muwumbu; **Ha:** Ingege, Intabali, Intulakigina; **Hehe:** Muwumbu; **Nyamwezi:** Mgumbugumbu, Mtinje; **Sandawi:** Kwilili; **Sukuma:** Ntinje.

DESCRIPTION: A deciduous shrub or small tree, 1.5–6 m, with a flat spreading crown.

**BARK:** More or less smooth, becoming cracked and rough, underbark red. Short thick branches with rough raised breathing pores. **LEAVES:** **Wide oval to rounded, 3–10 cm, rough above and dense star-shaped white hairs below,** leaf stalks to 4 cm with similar hairs, **leaves single** but several crowded on the short small knobby side branches. **FLOWERS:** Often on the bare tree, very small, along **spike-like stalks 1–3 cm** on short lateral branches, petals yellow-green to 5 mm, **sepals** and stalks covered with white star-shaped hairs. **FRUIT:** **Ovoid, to 1.4 cm long, densely hairy,** with edible flesh around the seed.

ECOLOGY: In wooded grassland, semi-evergreen and deciduous bushland, often on rocky sites including lava, 300–2,000 m.

DISTRIBUTION: Found in north-eastern Tanzania and also in many parts of Kenya and southern Ethiopia.

USES:

**Food:**

Fruits are juicy and eaten fresh. They taste sweet and are eaten as a snack, especially by children and herdsman.

**Medicinal:** The bark is chewed to treat coughs, colds and stomach-ache.

**Commercial:** Not marketed.

**Other:** Roots are dug up and the bark peeled off to make ropes. Branches are used to make toothbrushes. The tree is suitable for hedges.

SEASON: Fruits are available from October to December.

STORAGE: Not stored.

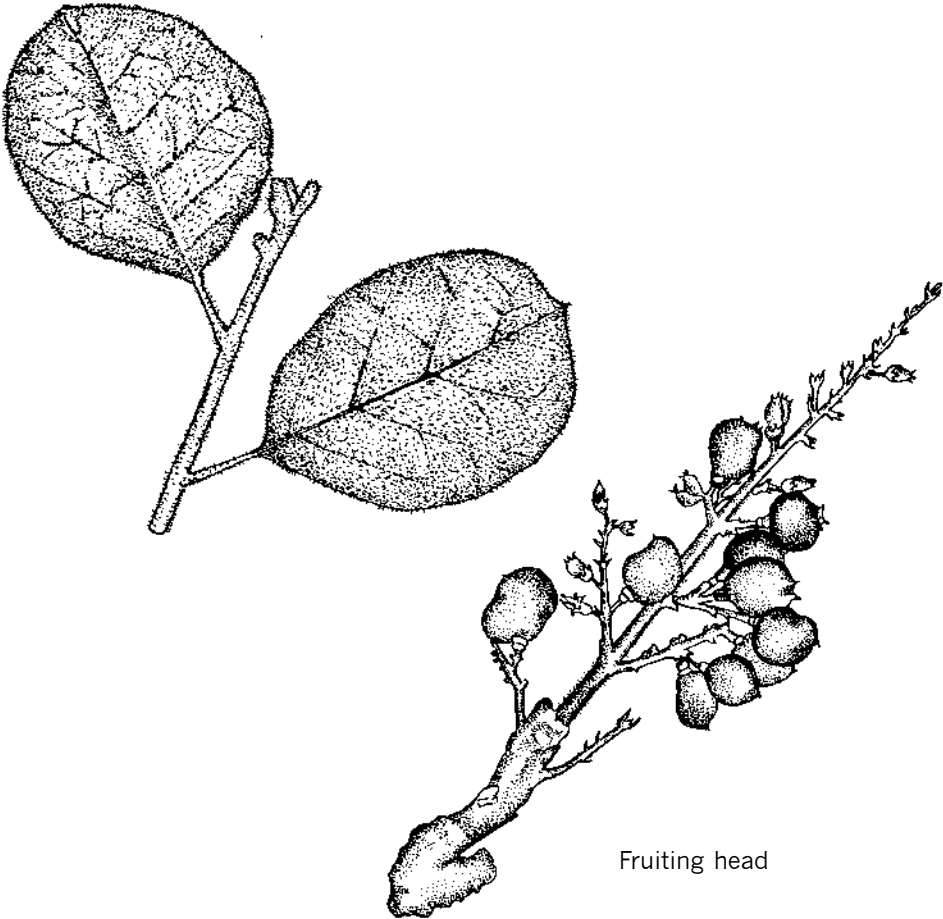
MANAGEMENT: Usually collected from the wild, but can easily be propagated by seeds and cuttings.

STATUS: Locally common.

REMARKS: A suitable tree for agroforestry.

*Lanea rivae* (*L. floccosa*)

Anacardiaceae



Fruiting head



Flowering head

***Lannea schweinfurthii* var. *stuhlmannii***    **Anacardiaceae**  
**(*L. stuhlmannii*)**

Indigenous

LOCAL NAMES: **Arusha:** Eravande; **Chagga:** Ishishina; **English:** False marula; **Gogo:** Muwumbu; **Iraqw:** Orbochandi, Tambaragi, Thigi, Thigii; **Kuria:** Mumendo, Omosaruwa; **Luguru:** Muhingilo; **Matengo:** Ndelamwana; **Mwera:** Mpupi; **Ngindo:** Mpwipwi; **Nyamwezi:** Mnyumbu; **Nyaturu:** Musagha; **Pare:** Msighe; **Rangi:** Msakawa; **Sandawi:** /Amaka; **Sukuma:** Msayu, Nsayu; **Swahili:** Mfupapu, Mnyumbo, Mtundu, Mumbu, Muumbu; **Zaramo:** Mpiwipwi; **Zigua:** Mumbu; **Zinza:** Mnyamendi, Mribwampara, Muhondobogo.

DESCRIPTION: A shrub or small deciduous tree, usually 3–5 m, irregularly branched, the crown rounded and spreading, branchlets drooping. BARK: Grey-brown, fairly smooth, flaking when older. LEAVES: Compound, usually crowded at the ends of branches, few leaflets, usually 3–5, shiny and stiff, oval, larger terminal leaflet to 9 cm, tips blunt, leaf stalk grooved. FLOWERS: Strongly scented, small, cream coloured, in hanging spikes to 20 cm. Male and female trees. FRUIT: Oblong, 1–2 cm, red-brown, fleshy, edible.

ECOLOGY: Deciduous woodland and bushland, wooded grassland, dry forests and river valleys, 0–1,800 m.

DISTRIBUTION: Widespread in Tanzania, including Zanzibar and Pemba, e.g. occurs in Tanga, Morogoro, Pwani, Dar es Salaam and Kilimanjaro Regions, around Pangani, Mikumi National Park, Kilosa, Pugu and Mgambo Forest Reserves, and Mzizima. Also in Uganda, Kenya and south to South Africa.

USES:

**Food:**

The ripe pink fruit are collected in handfuls and eaten fresh, mostly as a snack and thirst quencher. The whole fruit and the seeds are sweet.

**Medicinal:**

- The bark is boiled and used as a tonic for anaemia. A decoction of the bark is used by the Pare and Gogo for treatment of diarrhoea, stomach-ache and headache.

**Commercial:** Not marketed.

**Other:** Timber for doors, bedsteads, household utensils, tool handles, walking sticks, cartwheels, milk pots, grain mortars and stools. Bark for rope making and red dye. Roots used by the Sambia for a bath that is believed to bring good luck in business. The tree is also used for live fencing and shade.

SEASON: Fruits are collected in May–June.

STORAGE: Not stored.

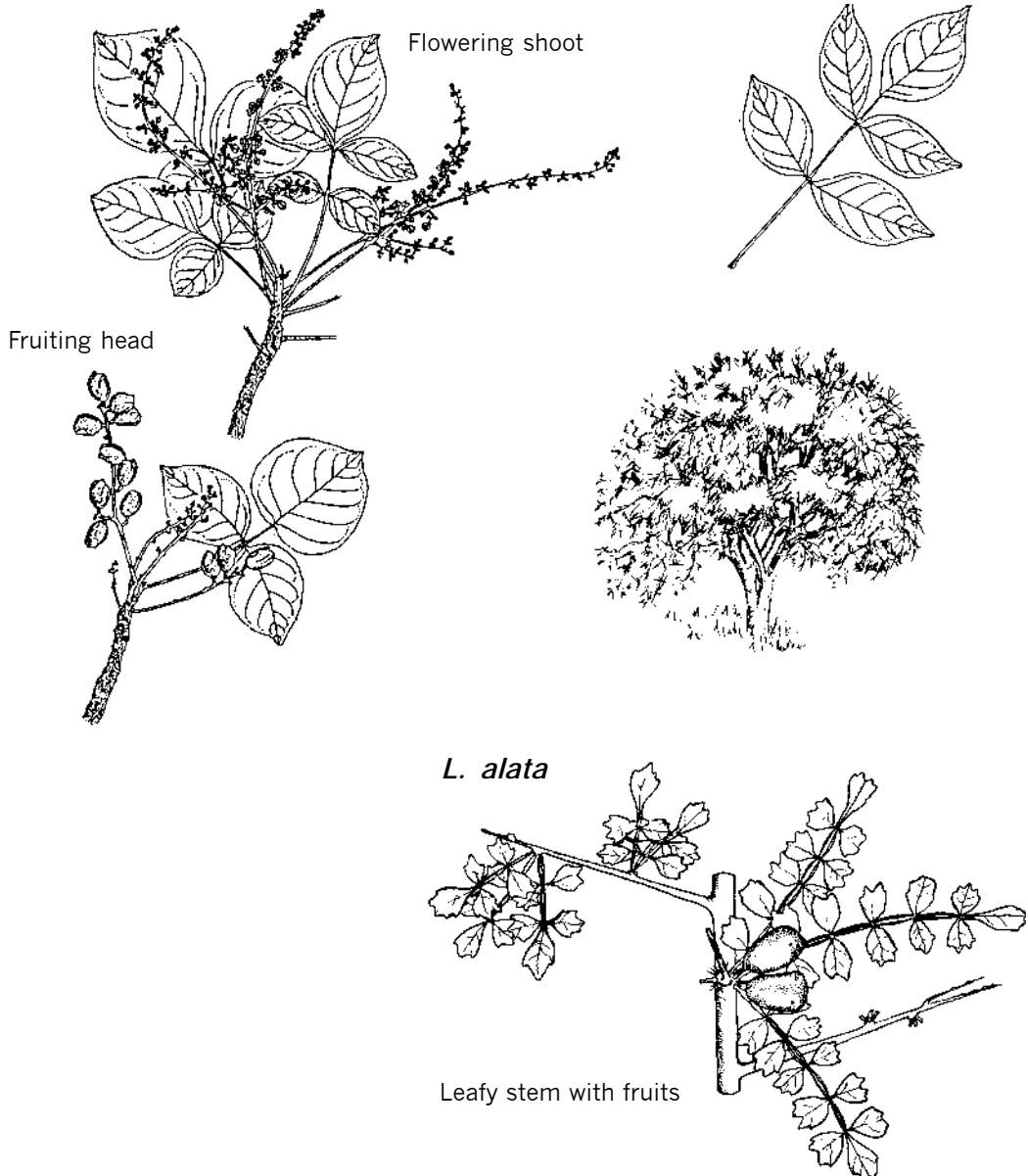
MANAGEMENT: Collected from the wild and not protected or cultivated by local people. It can be propagated by seed and cuttings.



## *Lannea schweinfurthii* var. *stuhlmannii* (contd)

STATUS: Common and easily accessible within its area of distribution.

REMARKS: There are two varieties in Tanzania, one occurring in coastal forest and not known elsewhere. The species is resistant to fire. A related species, *L. alata* (Maasai: Endungui), a shrub or small tree, 1–6 m, found in northern Tanzania also has edible fruits. It also occurs in Kenya and Somalia.



*Lantana camara*

## Verbenaceae

South America

LOCAL NAMES: **English:** Tuck-berry; **Gogo:** Muwaha; **Hehe:** Luhongole, Lupebeta; **Iraqw:** Xaslaamo; **Nyamwezi:** Mpugambu; **Rangi:** Gigambu; **Sambaa:** Mvuti; **Swahili:** Mvuti.

DESCRIPTION: A scrambling evergreen shrub, 1–5 m, with many **small recurved prickles on the 4-angled stems**, becoming woody and forming a dense thicket. LEAVES: Opposite or in threes, **aromatic, ovate, 3–9 cm**, tip pointed, base rounded to a short stalk, the **edge toothed, the upper surface rough, sandpapery**. FLOWERS: Small and tubular in **flat colourful heads 5 cm across, yellow-orange to pink-purple**, changing colour with age. FRUIT: **A cluster of round berries, each one about 8 mm across, green at first, ripening black.**

ECOLOGY: Does well in medium and high-altitude areas where it forms dense thickets by roadsides, in forest clearings, abandoned fields and other disturbed areas. Very invasive in a wide range of environments, up to 2,000 m; rainfall 1,100–1,800 mm. Tolerates a wide range of soil types.

DISTRIBUTION: Originally from the West Indies or South America but now naturalized throughout the tropics and subtropics of both hemispheres. Widespread in Tanzania, especially in the northern and eastern parts.

USES:

**Food:**

The ripe black fruits are eaten in handfuls, especially by children as a snack.

**Medicinal:** The aromatic leaves are used as medicine. They are burnt and the ash used to treat colds, coughs, toothache, sore throat and conjunctivitis.

The leaves are also used as a steam inhalation to treat headache and colds.

**Commercial:** Not marketed.

**Other:** Ornamental, and can be planted as a hedge.

SEASON: Fruits are collected in September–December.

STORAGE: Not stored.

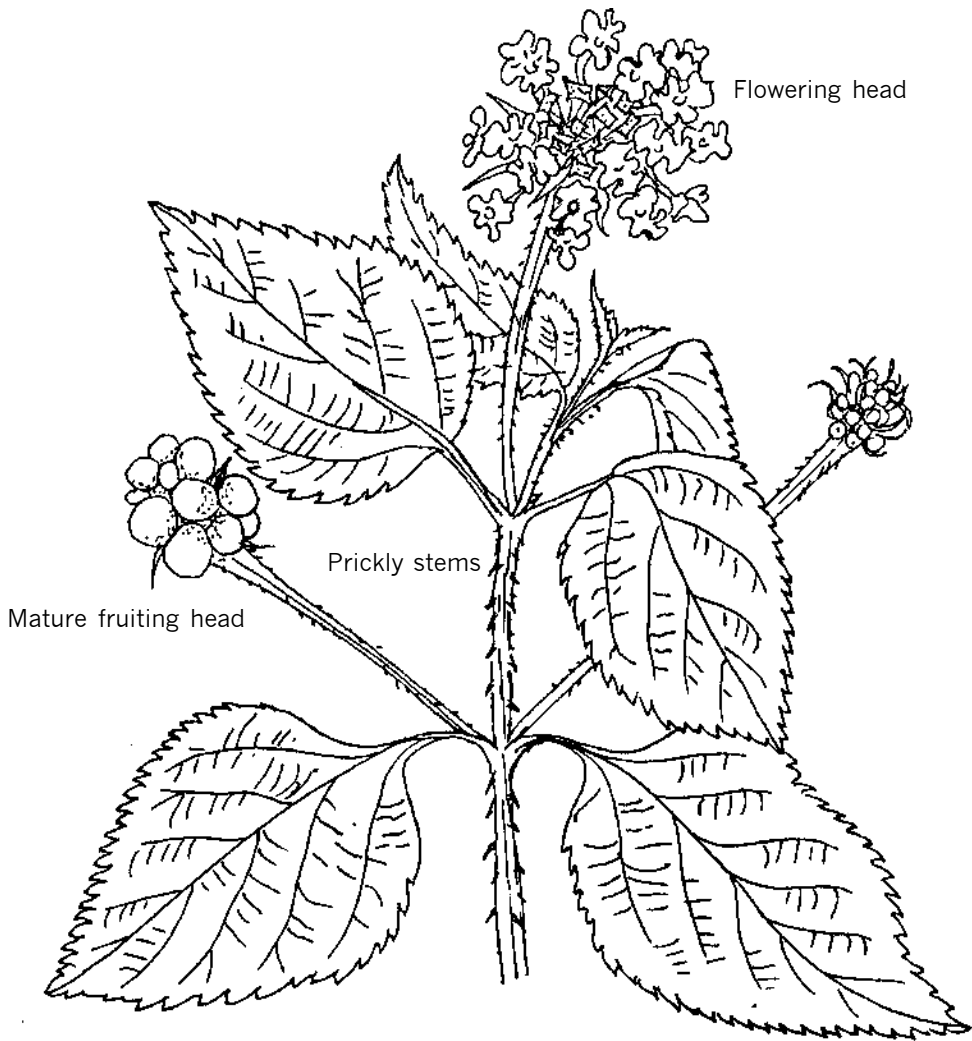
MANAGEMENT: Collected in the wild, but also planted as a hedge, ornamental and boundary marker. Propagated by seed and cuttings.

STATUS: Common and easily accessible within its area of distribution.

REMARKS: It is a very troublesome weed.

*Lantana camara*

Verbenaceae



*Lantana trifolia*

## Verbenaceae

Indigenous

LOCAL NAMES: **English:** Sage brush; **Bende:** Mhugambu; **Bondei:** Mhuuga; **Hehe:** Luhongole; **Maasai:** Enkurma-onkayiok, Lukurman-oonkayiok, Olmagirigiriani; **Nyamwezi:** Mpugambu; **Sambaa:** Msasa-kilasha, Muhanta; **Swahili:** Mvepe.

DESCRIPTION: A small scrambling shrub, 0.3–3 m, the stems with stiff hairs but **no prickles**. LEAVES: **In threes**, occasionally opposite, long oval, 1.25–10 cm long, the **edge closely toothed, the upper surface wrinkled and sandpapery, densely soft hairy below**, tip pointed, very shortly stalked. FLOWERS: Arise on **stalks 2.5–10 cm long**, beside leaves, the flower head rounded at first to 2.5 cm diameter, elongating with age. **Each flower mauve, purple or pink**, 5-lobed, slightly 2-lipped, often a yellow throat, only **3–7 mm across**. FRUIT: A group of small separate **red-purple berry-like drupes, soft and edible**.

ECOLOGY: A shrub of forest and bush edges, disturbed forest and roadsides, growing also in grasslands, bushland, abandoned cultivation, tolerating a wide variety of soils. This plant varies greatly throughout its range and is hybridized with other *Lantana* species, 900–2,500 m.

DISTRIBUTION: Found throughout Tanzania, e.g. in Kagera, Kilimanjaro, Rukwa, Iringa, Kigoma, Arusha and Morogoro Regions. Also in Uganda, Kenya and widespread in the rest of Africa.

USES:

**Food:**

- The ripe purple fruits are occasionally collected in handfuls and eaten fresh on the spot as a snack and to quench thirst. They have a sweet taste.
- Leaves are used to flavour milk.

**Medicinal:**

- Leaves are crushed and mixed in hot water and drunk to treat rheumatism, generalized body pains and indigestion. Leaves are also used for treatment of colds and ringworm.
- Roots are used to treat eczema.

**Commercial:** Not marketed.

**Other:** The plant is used for fodder and as a source of bee forage. The stems are used for constructing storage containers and fish traps.

SEASON: Fruits are collected late in the rainy season.

STORAGE: Not stored.

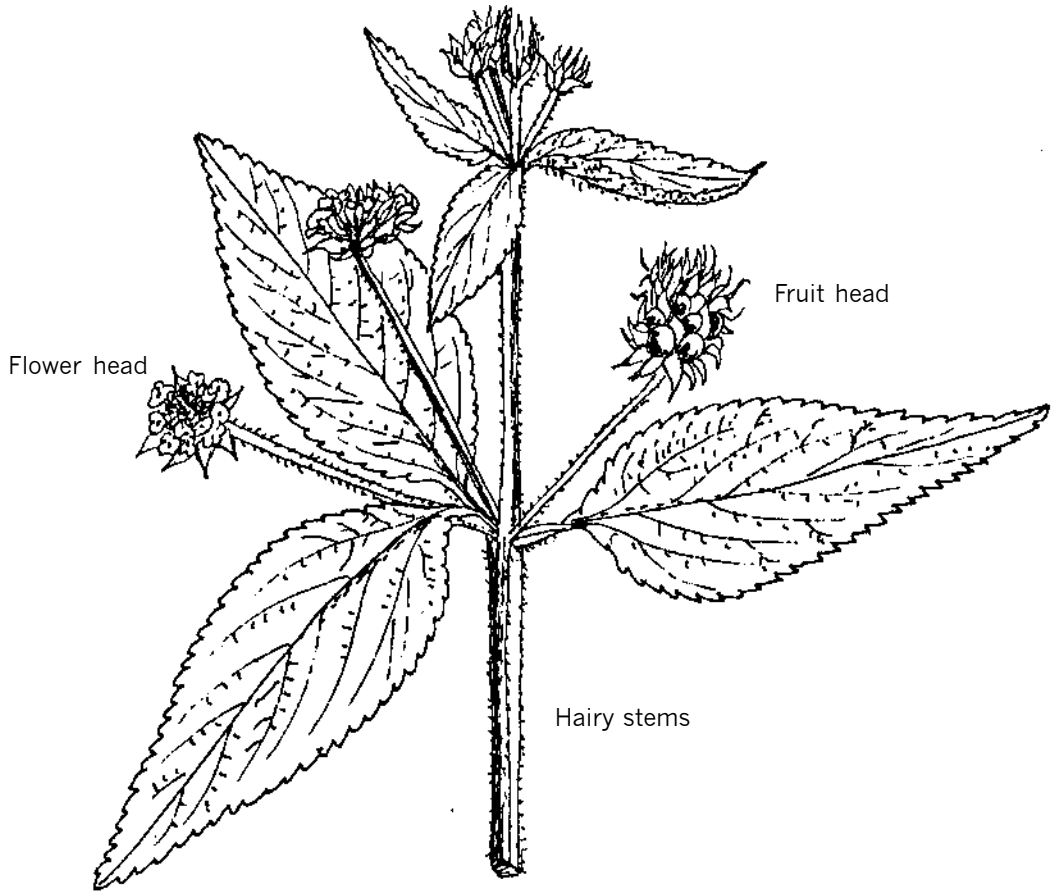
MANAGEMENT: Collected from the wild and not protected or cultivated by local people. It can be propagated by seed and cuttings.

*Lantana trifolia* (contd)

## Verbenaceae

STATUS: Common and easily accessed within its area of distribution; especially appreciated by firewood gatherers, hunters, pastoralists and children.

REMARKS: The plant is suitable for planting as a hedge or ornamental.



***Lantana ukambensis* (*L. rhodesiensis*) Verbenaceae**

Indigenous

LOCAL NAMES: **Chagga:** Efurie; **English:** Sage brush; **Hehe:** Luhongole; **Nyamwezi:** Mpugambu; **Sambaa:** Msasakilasha.

DESCRIPTION: A woody herb or small shrub under 2 m, often multi-stemmed (no prickles). LEAVES: Mostly **opposite or in whorls of 3, ovate 1–8 cm** long, the tip pointed, base narrowed, **edge round-toothed**, the **surface sandpapery above but hairy below**. FLOWERS: **Mauve-purple, the centre often yellow-white**, each slightly 2-lipped, tubular, only 1–3 mm across, in a **dense many flowered head, the short stalks to 2 cm, the whole shorter than the leaves**, surrounded by **large bracts at the base**, as broad as the young flower head, over 1 cm, usually hairy and ribbed. FRUIT: **Blue-purple berries, rounded, shiny, 2–4 mm across**, containing one seed, covered at first by the membranous calyx.

ECOLOGY: Found in grassland (often with thatching grasses, *Hyparrhenia*) and wooded grassland (with *Combretum* spp.) open woodland (including *Brachystegia*), old cultivation, sometimes amongst granite rocks, bushland, secondary bushland, 100–2,100 m.

DISTRIBUTION: Found in all parts of Tanzania; also in Kenya, Uganda, west to Cameroon, the Congo basin, Burundi, Rwanda, Sudan, Ethiopia, and south to Malawi, Zambia, Zimbabwe and Mozambique.

USES:

**Food:**

Ripe berries are collected and eaten fresh. They are sweet and much liked by children.

**Medicinal:**

- Leaves are chewed or pounded and soaked in warm water and the liquid is drunk to treat coughs, fever and sores in the throat and on the tongue.
- Roots are boiled in water and drunk for rheumatism and generalized body pains (Sambaa).

**Commercial:** Not marketed.

**Other:** The stems are used for starting fire and as torches. Leaves are used as an insect repellent. The plant is suitable as an ornamental and hedge and provides forage for bees.

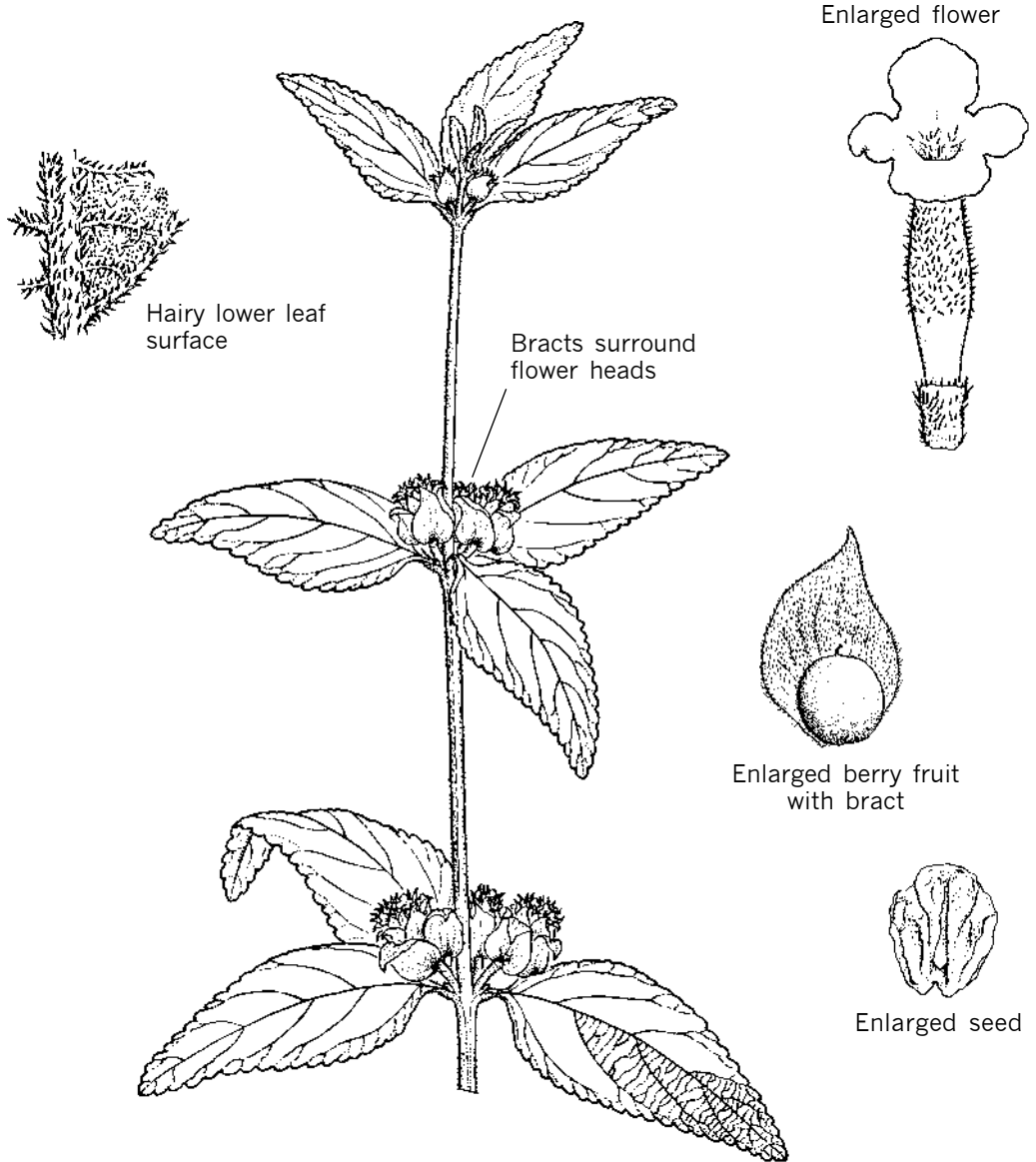
SEASON: Fruits are collected during the rainy season.

STORAGE: Not stored.

MANAGEMENT: Collected from the wild, but can be propagated by seed and cuttings.

STATUS: Locally common.

*Lantana ukambensis* (*L. rhodesiensis*) Verbenaceae



***Laportea ovalifolia* (*Fleurya ovalifolia*) Urticaceae**

Indigenous

LOCAL NAMES: **Bondei:** Pupu; **Hehe:** Lugeni, Nyaluvafya; **Luguru:** Mpupu; **Sambaa:** Pupu; **Swahili:** Mpupu; **Zigua:** Pupu.

DESCRIPTION: A perennial herb, **almost entirely spreading across the ground by stolons** and rooting at the nodes; only the male flower stalks erect, but shoots can reach over 1 m, usually with short stinging hairs; rather woody at the base. LEAVES: Alternate, variable in size and shape, to 10 cm long, **edge toothed**, tip long pointed, short stinging hairs on the upper surfaces and nerves below, **pointed stipules half joined, to 1 cm**, leaf stalk 5–10 cm long. Linear cystoliths (hair-like structures) occur along the veins. FLOWERS: **Male and female separate**. Male flowers are seen on **fleshy pink-brown erect stalks to 50 cm** which arise directly from leaf axils of underground stems, in **dense pink-cream clusters about 1 cm across** with dark glandular hairs. The anthers split open explosively as the filaments uncurl. One to a few female flowers arise from 5 cm stalks, almost underground. FRUIT: Flat oval achenes, 3–4 mm,

ECOLOGY: Found in the herb ground layer of rainforest, swamp forest, along streams, 900–2,000 m. Sometimes in gaps or along forest paths, even on adjacent cultivated land.

DISTRIBUTION: Found in the western parts of Tanzania, e.g. around Bukoba and Kigoma. Also found in Uganda, Kenya, widespread in west and central Africa from Sierra Leone to southern Sudan, and south to Angola and Zimbabwe.

USES:

**Food:**

Young leaves, which have a mild taste, are collected, washed, chopped, boiled, mixed with beans or peas, or even served on their own with a staple. They are eaten in small amounts.

**Medicinal:**

- Leaves are pounded, soaked in water and the infusion drunk to help deliver the placenta after childbirth.
- Roots are boiled in water and the liquid drunk to prevent excessive menstrual bleeding.

SEASON: Collected in the rainy season.

STORAGE: Not stored.

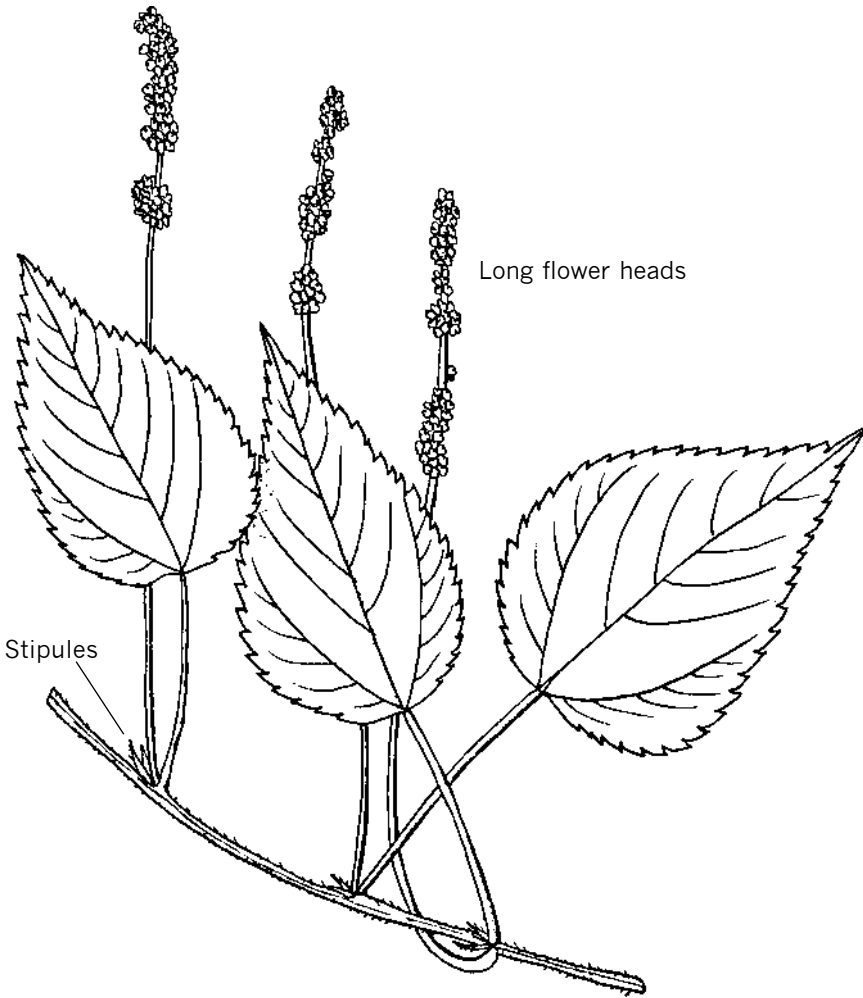
MANAGEMENT: Collected from the wild and not protected or cultivated by local people. An invasive weed in farmland.

STATUS: Common and easily accessible within its area of distribution.

REMARKS: Easily recognized by the creeping stolons.



*Laportea ovalifolia* (*Fleurya ovalifolia*) Urticaceae



***Lecaniodiscus fraxinifolius* subsp. *vaughanii*** Sapindaceae

Indigenous

LOCAL NAMES: English: **River litchi**; Luguru: **Mzindanguruwe**; Luo: **Riangata**; Sambia: **Mbwewe**; Swahili: **Mbwewe, Mnanyakanda**; Tongwe: **Kafulujege**; Vidunda: **Mnyanza, Muyanza**.

DESCRIPTION: A densely leafy tree 5–18 m, usually about 7 m. BARK: Fairly smooth, grey, becoming darker and rougher, even scaly, with age. LEAVES: Alternate, compound, with 3–7 pairs of thin leaflets, generally oval, 3–11 cm long, the lowest leaflets often smaller, on a stalk to 5.5 cm, young leaflets orange-red, turning yellow-green, **tip tapering but blunt**, base rounded, almost stalkless, the edge wavy when dried. FLOWERS: Yellow-green, small, along rather loose unbranched **spike-like heads about 10 cm long, from leaf axils**, separate male and female trees, **no petals** but **4–5 sepals to 3 mm**, about 10 stamens, very small yellow female flowers on shorter stalks than male flowers, urn-like in shape with soft black hairs at the tip of the neck. FRUIT: Yellow-orange-pink **capsules, ovoid, about 1 cm** long, the surface covered with short dense hairs; when ripe the **skin breaks irregularly to set free one hard seed** enclosed in a blue-white fleshy covering which is edible.

ECOLOGY: Riverine, lakeside and fringing forest, swamp forest, bushland, grassland with scattered trees, sometimes forming thickets, 0–1,400 m.

DISTRIBUTION: Widespread in Tanzania, including on Zanzibar and Pemba Islands, e.g. in Morogoro, Kagera, Tanga and Mara Regions. Also occurs in Kenya, Uganda, Ethiopia and Somalia.

USES:

**Food:**

Ripe fruits are collected and eaten raw as a snack.

**Medicinal:**

- The bark and roots are soaked in water and the infusion drunk to treat constipation.
- The bark is soaked in water and the liquid vigorously whisked. The resulting foam is rubbed into the breasts of mothers in order to stimulate lactation and purify milk in the breast.

**Commercial:** Not marketed.

**Other:** The hard wood is used for poles, tool handles, carvings, spoons and grain mortars. The tree provides good shade.

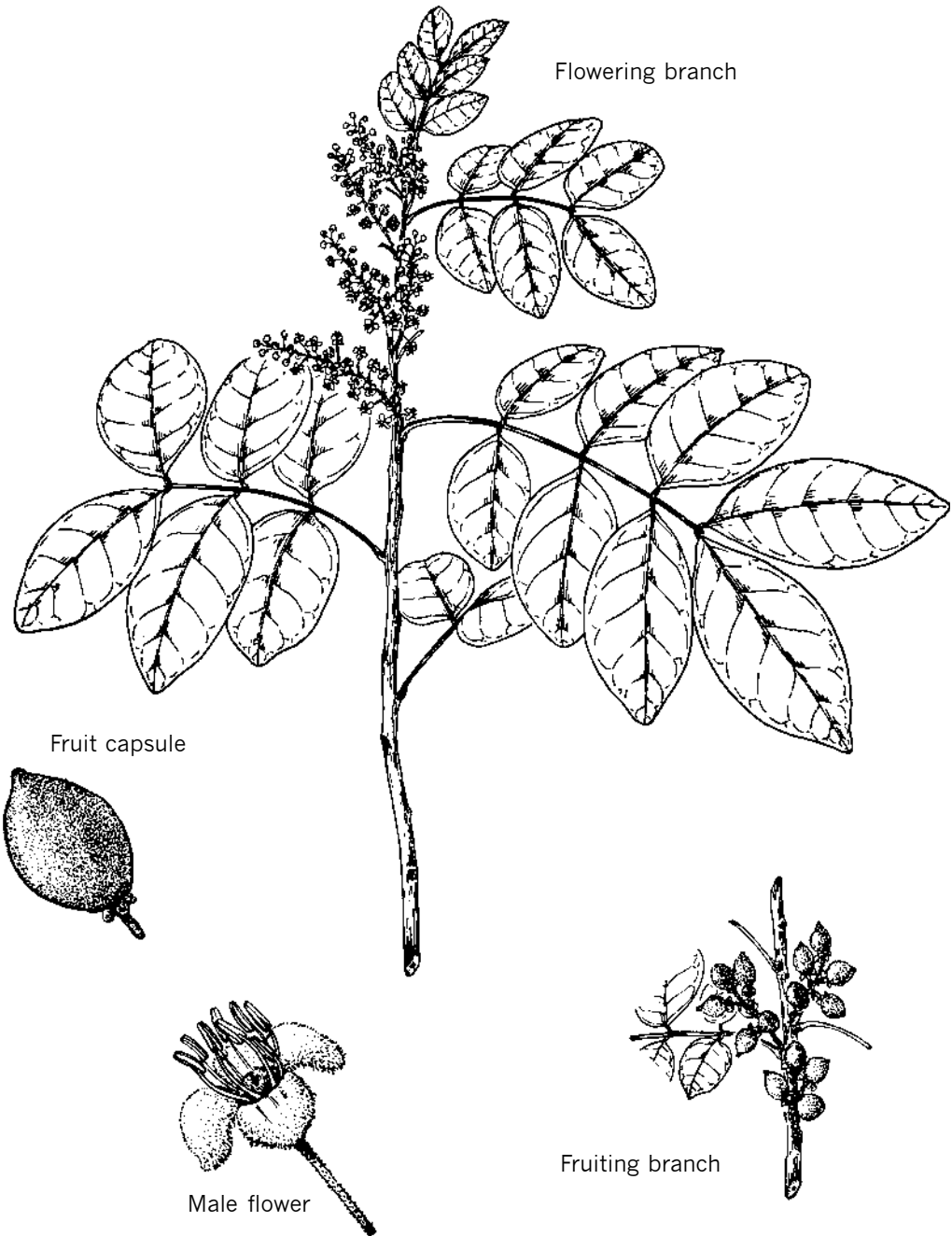
SEASON: Fruits are collected from April to June.

STORAGE: Not stored.

MANAGEMENT: Collected from the wild and not cultivated or protected by the local people. This species can be propagated by seed.

STATUS: Common within its area of distribution.

*Lecaniodiscus fraxinifolius* subsp. *vaughanii* (contd)



*Leonotis nepetifolia*

## Lamiaceae (Labiatae)

Indigenous

LOCAL NAMES: **Bena:** Linyominyomi; **Hehe:** Lisanzauki; **Nyamwezi:** Mfyomfyo.

DESCRIPTION: A tall woody **annual herb, to 2.4 m**, almost unbranched, the stiff **stems deeply ridged; most parts finely hairy**. LEAVES: Opposite, long oval, to 12 cm long, narrowed to a long stalk, the edges toothed, surfaces hairy. FLOWERS: In dense **rounded clusters** at the upper nodes, flowers opening a few at a time from the top downwards, each flower to 3.5 cm long, **bright orange**, tubular with a **densely hairy upper lip**, 4 stamens lying below, and a hairless lower lip. The surrounding **calyx is funnel shaped with 8 spines, very prickly when dry**. FRUIT: 4 smooth nutlets, long and thin, lie within the persistent calyx tube.

ECOLOGY: Found at forest margins, on wasteland, roadsides, in thickets, abandoned homesteads, generally in humus-rich soils, in secondary regrowth, 900–2,100 m.

DISTRIBUTION: Found in most parts of Tanzania, for example in Dodoma, Kagera, Tabora, Mbeya, Morogoro and Iringa Regions; also in Burundi, Uganda, Kenya and from Senegal to Sudan.

Uses:

**Food:**

Mature flowers are picked and the nectar sucked or licked from the base of the flowers. It tastes sweet and is usually eaten in small amounts as a snack.

Usually much liked by children, and the flowers are also much visited by sunbirds and bees.

**Medicinal:** Leaves are pounded, soaked in cold water and the liquid drunk to relieve stomach pain and fever or to kill intestinal worms.

**Commercial:** Not marketed.

**Other:** The plant is used for ornamental purposes and as a source of bee forage.

SEASON: Flowers soon after the first rains.

STORAGE: Not stored.

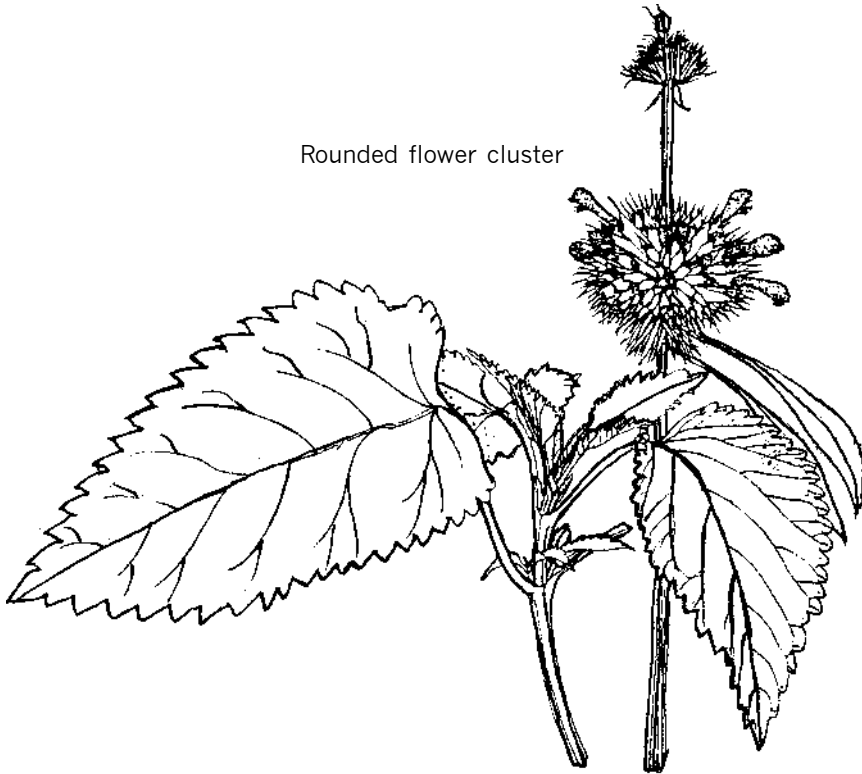
MANAGEMENT: Collected from the wild and not protected or cultivated by local people. Can be propagated by seed.

STATUS: Common and easily accessible within its area of distribution.

REMARKS: It is a common weed in fields and gardens in most parts of Tanzania.

*Leonotis nepetifolia*

Lamiaceae (Labiatae)



***Lepisanthes senegalensis***  
(*Aphania senegalensis*)

**Sapindaceae**

Indigenous

LOCAL NAMES: **Luguru:** Mduru-mweupe; **Maasai:** Oleragai; **Mwera:** Mguena, Mgwenena; **Pare:** Mkungulungu; **Swahili:** Kihari, Mlangwe; **Zinza:** Msaro.

DESCRIPTION: An evergreen tree 6–21 m with a heavy leafy crown. BARK: Smooth pale grey-brown. LEAVES: **Compound, pinnate**, the leaf stalks to 10 cm and crimson when young as well as the lower midrib, **1–3 pairs of large leaflets, 8–19 cm**, the top pair always opposite, shortly stalked, slightly one-sided, the long tip blunt or rounded, drying grey-green above and paler below. FLOWERS: Small, yellow-green male and female flowers with a rather unpleasant smell, growing along loose branched heads from leaf axils, or all appearing terminal, **usually flowering with new leaf growth. Flowering heads 5–20 cm**, the **young stalks with golden hairs**, each flower with **5 white petals, to 4 mm, with a hairy fringe, 5–7 yellow** stamens. FRUIT: **Oval, red 12–18 mm**, containing 2 black seeds.

ECOLOGY: Evergreen lowland and submontane forest, riverine forest, often on coral or lava rock near the sea, 0–1,800 m.

DISTRIBUTION: In all parts of Tanzania except western and central areas, e.g. in Morogoro, Mara, Kilimanjaro, Pwani, Mwanza and Kagera Regions. Also found from West Africa to Ethiopia, Kenya, Uganda, south to Mozambique and in India and Malaysia.

USES:

**Food:**

Ripe fruits are fleshy and eaten raw. The pulp is swallowed and seeds discarded (Mafia).

**Commercial:** Not marketed.

**Other:** The wood is medium hard and used for furniture, building poles, tool handles and spoons. The tree is used for shade. It is also used as fish poison (flowers).

SEASON: Ripe fruits are collected from February to June.

STORAGE: Not stored.

MANAGEMENT: Ripe fruits are collected from the wild, but the tree can be propagated using fresh seed.

STATUS: Common and easily accessible within its area of distribution.

REMARKS: Leaves and seeds are reported to be poisonous to goats and the flowers poisonous to fish.

*Lepisanthes senegalensis* (contd)

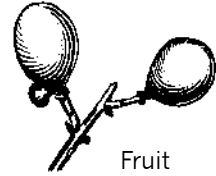
Sapindaceae



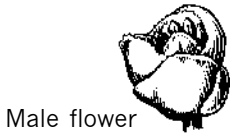
Male flower (sepals and petals removed)



Female flower (sepals and petals removed)



Fruit



Male flower



Flowering and fruiting branch

***Leptactina benguelensis*****Rubiaceae**

Indigenous

LOCAL NAMES: **Hehe:** Kindokoli, Kitokoli; **Luguru:** Mfyonzefyonze; **Nyamwezi:** Mavya-ga-ntumbili, Mavolo-ga-ntumbili.

DESCRIPTION: A wiry perennial shrubby herb, erect and much branched or along the ground forming cushions 30 cm to 2 m across and up to 1 m high, stems arising from a thick woody rootstock, stems hairy or not. BARK: Peeling on old stems. LEAVES: **Long oval, 2–12 cm**, tip pointed or not, stiff, shiny above, at least **a few hairs on lower veins, or more**, narrowed to a short stalk 3–7 mm, **a pair of leafy triangular stipules** with a midrib **to 1.6 cm long** at the stalk base. FLOWERS: **Tubular, white**, fragrant, stalkless, solitary, or 3 or more, in terminal or axillary bunches, the slender corolla tube to 6 cm, **densely covered outside with tiny curved hairs, throat hairy, 4–5 spreading lobes about 3 cm long**, also hairy outside. FRUIT: A **rounded berry 1–2 cm long, maturing orange-yellow-cream**, shiny, ribbed, thinly fleshy, edible but full of dark brown stony seeds.

ECOLOGY: A plant of *Brachystegia* woodland, rocky hillsides, riverine thickets, 900–1,400 m.

DISTRIBUTION: Found in western, central and eastern areas of Tanzania, e.g. Tabora, Kigoma, Mwanza, Dodoma, Singida and Kagera Regions. Also in Burundi, the Congo basin, Zambia and Angola.

USES:

**Food:**

- Ripe fruits are fleshy and eaten raw as a snack.
- Dried leaves can be used to add flavour to tea.

**Commercial:** Not marketed.

**Other:** The plant is used for ornamental purposes and fodder.

SEASON: Fruits are collected from November to April.

STORAGE: Not stored.

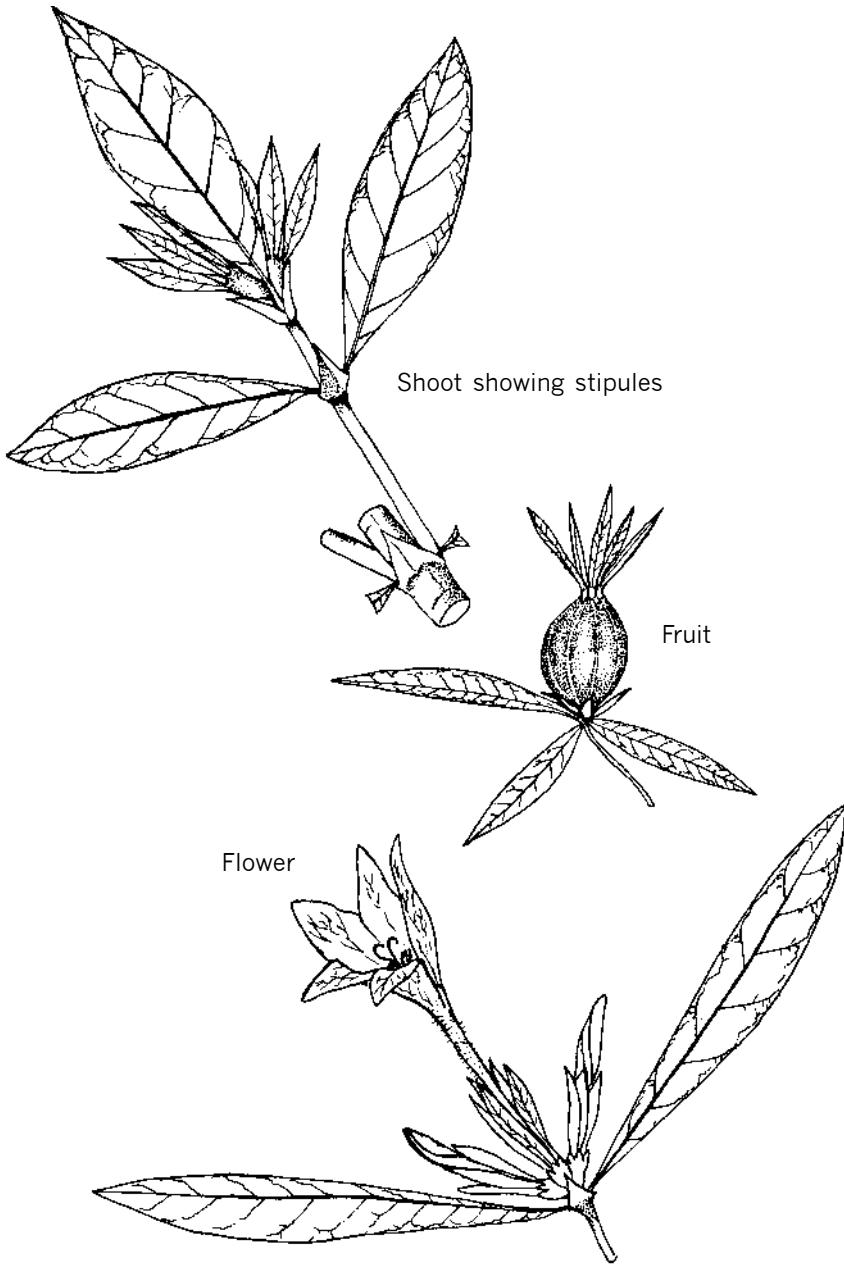
MANAGEMENT: Collected from the wild. Can be propagated by seeds and root suckers.

STATUS: Locally common.



*Leptactina benguelensis*

Rubiaceae



***Lippia kituiensis* (*L. ukambensis*)** **Verbenaceae**

Indigenous

LOCAL NAMES: **Chagga:** Efurie; **English:** Sedge plant, Wild tea; **Hehe:** Luhongole; **Iraqw:** Ufani; **Maasai:** Isinon (plural), Olsinoni, Osinoni; **Nyamwezi:** Mpugambu; **Sambaa:** Kaziti-wanda, Mvuti; **Swahili:** Mvuti; **Zigua:** Mvuti.

DESCRIPTION: A much-branched aromatic shrub to 3.5 m, stems hairy, often forming pure stands. BARK: On old stems rough with long fissures. LEAVES: Usually opposite, **long oval 2–12 cm long**, tip usually blunt, the **edges shallow, finely round toothed**, upper surface sandpaperly rough, the lower usually softly hairy, almost stalkless. FLOWERS: Small and **white**, the tube to 4 mm, the 5 lobes **obscurely 2-lipped (3 and 2)**, the **flower centre yellow**, the **crowded flower heads oval to hemispherical on stalks 2–6 cm**, up to 3 stalks beside leaves. **Bracts at the base of the flower head are twice as wide as upper bracts.** FRUIT: Two dry fruit sections (mericarps) have 1 seed each, very small but edible, red.

ECOLOGY: Bushland, woodland, rough grassland, often on volcanic soil or lava rocks. It is an important part of long-destroyed forest sites where it may be locally dominant in secondary bush, at the margins of evergreen woodlands, a colonizer of cultivated or disturbed land, so a problem in rangelands, 400–2,600 m.

DISTRIBUTION: Found for example in Mara, Arusha and Tanga Regions of Tanzania; Kenya and Malawi.

USES:

**Food:**

- Green leaves are picked, boiled, sugar added and the liquid drunk as a tea.
- Ripe berries are collected and eaten raw as a snack, especially by children and herdsmen.

**Medicinal:**

- Leaves are boiled and used as a hot bath for coughs, colds and fever (Maasai, Sambaa, Zigua). They are also crushed and the vapour inhaled to treat colds.

**Commercial:** Not marketed.

**Other:** The plant is used for ornamental purposes and as a mosquito repellent, and is a source of bee forage. Stems are also used as firewood and for making arrow shafts and storage pots.

SEASON: Fruits are collected during the rainy season.

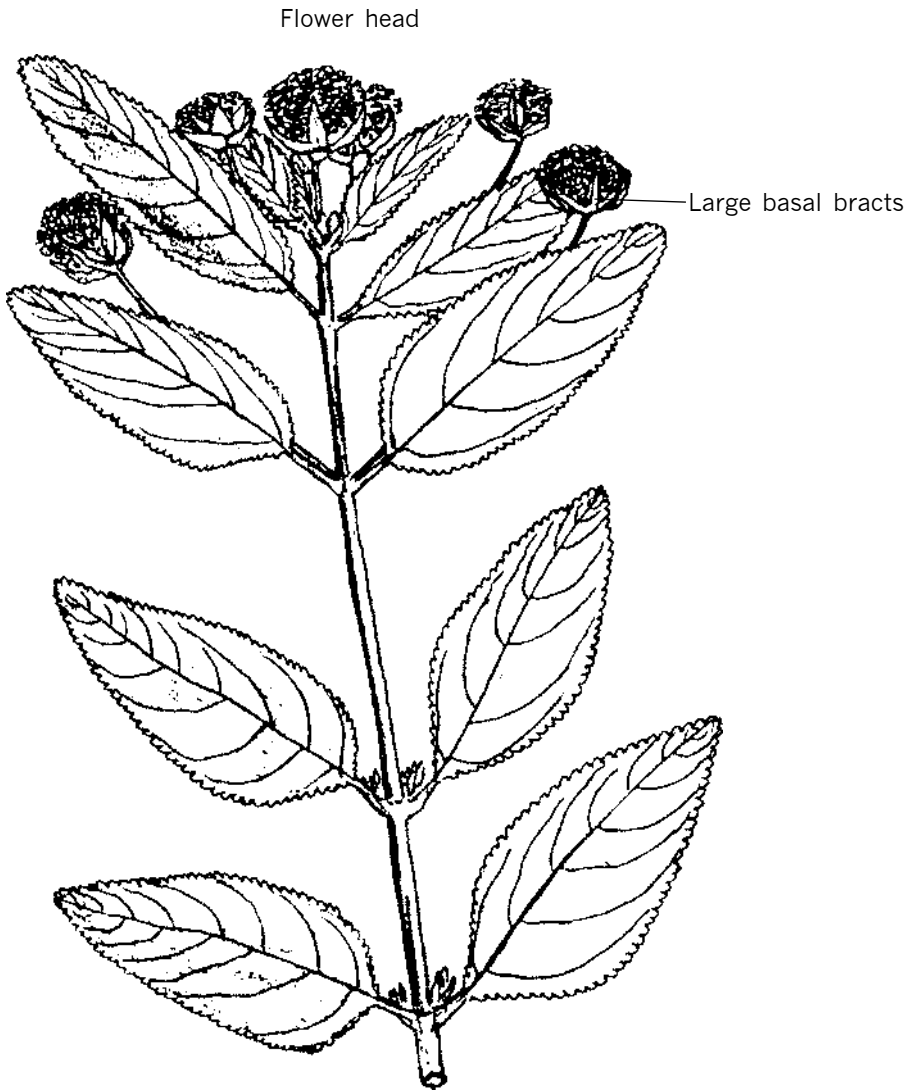
STORAGE: Not stored.

MANAGEMENT: Collected from the wild, not planted but can be propagated by seed.

STATUS: Locally common.

*Lippia kituiensis* (*L. ukambensis*)

Verbenaceae



***Lobelia fervens* subsp. *fervens* (*L. anceps*)**      **Lobeliaceae**

Indigenous

LOCAL NAMES: **Bondei:** Sambae; **Pare:** Kisambare; **Sambaa:** Sambae, Sangari, Shambae; **Swahili:** Kinwale, Kisambale, Msambali.

DESCRIPTION: A small annual herb with slender **winged stems**, rather triangular, less than 30 cm high. LEAVES: Alternate, **simple, well spaced, upper leaves long and narrow, stalkless, more than twice as long as broad**, basal leaves to 3 cm, minutely toothed. FLOWERS: **Small, pale blue on lax terminal or axillary thread-like stalks**, a bract at the base leafy and longer than the flower stalk, corolla to 1 cm long, 5 petals, **2 narrow upper lobes, 3 wider lower lobes dark blue spots in the centre, 2 anthers with hairy tips, 2 stigmas, 5 sepal lobes persist, erect or spread around the fruit like stars** (spp. *fervens*). FRUIT: A **dry narrow capsule, wider at the tip, only 6 mm**, breaking open to set free tiny seeds.

ECOLOGY: Found in damp and disturbed grassland, at forest edges, roadsides, beside streams, on coastal sand, always in damp places, especially in rice fields where it may be seen as a carpet of blue flowers, 0–1,800 m.

DISTRIBUTION: Widespread in Tanzania including Zanzibar and Pemba Islands, but not in the northern and central areas. Also in Kenya, Ethiopia, Somalia, Zimbabwe, Mozambique, Madagascar, Comoro Islands and Reunion.

USES:

**Food:**

Tender leaves and stems are collected, chopped and cooked with or without coconut milk or ghee (Bondei, Sambaa, Pare). The vegetable is then served with *ugali* or rice.

**Medicinal:** Leaves are used as medicine for stomach-ache (Pare).

**Commercial:** Not marketed.

**Other:** The plant is used for fodder and ornamental purposes.

SEASON: Collected during the rainy season.

STORAGE: Not stored.

MANAGEMENT: Collected from the wild and not usually cultivated. It can be propagated by seeds and cuttings.

STATUS: Locally common.

*Lobelia fervens* subsp. *fervens* (*L. anceps*)

Lobeliaceae



*Lycium europaeum*

## Solanaceae

Indigenous

LOCAL NAMES: **Hehe:** Kihomolwa; **Maasai:** Engokia; **Pare:** Kokonida.

DESCRIPTION: A spiny shrub 1–3 m, the spines, up to 15 mm long, at the nodes.

LEAVES: Small, rather fleshy to **2.5 cm long, wider at the tip**, narrowed to the base, no hairs. **Leaves and flowers often grow out of very short side shoots.** FLOWERS: **White at first, becoming cream or pale mauve**, small and solitary or in pairs, the **corolla to 16 mm long, tubular with 5 lobes.** FRUIT: **Orange-red berries, round, about 5 mm across.**

ECOLOGY: A shrub of dry bushland, bushed grassland, riverine bushland, scattered tree grassland and in disturbed land near villages, 1–2,100 m.

DISTRIBUTION: Northern, central and eastern parts of Tanzania. Also found in Kenya, Somalia, Eritrea, Ethiopia and the Arabian peninsular.

USES:

**Food:**

Green leaves are collected, chopped and cooked alone or with other vegetables such as *Bidens pilosa* or *Cleome gynandra* and served with *ugali* or rice (Hehe).

**Medicinal:**

- Roots are boiled and used to treat coughs and sores in the mouth.
- Leaves are used as medicine for treatment of constipation and stomach-ache (Hehe).

**Commercial:** Not marketed.

**Other:** The plant is used for hedges, fodder and ornamental purposes.

SEASON: Leaves are collected during the rainy season.

STORAGE: Not stored.

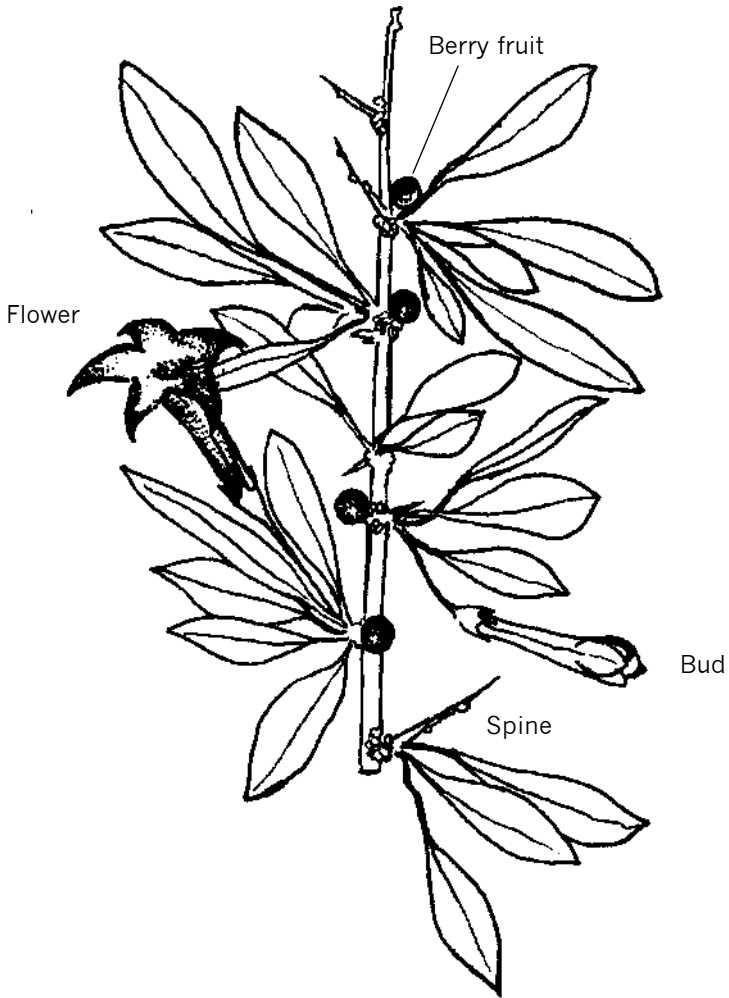
MANAGEMENT: Collected from the wild, not cultivated or protected by the local people. It can be propagated by seeds and cuttings.

STATUS: Occasional within its area of distribution.

REMARKS: This plant forms thick clumps and is reputed to harbour snakes and rats (Hehe).

*Lycium europaeum*

Solanaceae



***Maerua decumbens* (*M. edulis*)****Capparidaceae**

Indigenous

LOCAL NAMES: **Gogo:** Msakasaka, Muwumbu; **Maasai:** Olkiage; **Sambaa:** Luwuga; **Sandawi:** Segele.

DESCRIPTION: A much-branched shrub, branches stiff, ascending to 1–3 m, or a woody herb with a perennial rootstock, often large and swollen. LEAVES: Alternate, **simple**, blue-green and slightly fleshy, **smooth and hairless**, variable in shape from narrow oval to almost round, the tip often with a small pointed **mucro**, leaf **0.8–4 cm long**, base usually rounded to a **short stalk only 6 mm**, generally 3–5 nerved. FLOWERS: Yellow-green, borne singly in upper leaf axils, no petals but **3–4 narrow oval sepals about 1 cm long**, the central white stamens to 2.5 cm long, the **stalked ovary to 3 cm, recurved when mature**. FRUIT: A globose or ovoid capsule, yellow-orange, 1.5 – 3 cm long with a pointed beak, containing 1–4 seeds.

ECOLOGY: Found in hot, dry country in deciduous or semi-evergreen bushland, bushed grassland, wooded grassland, often near seasonal rivers or lakes, conspicuous in burnt grassland, regenerating quickly from its woody rootstock, 0–1,800 m.

DISTRIBUTION: Widespread in all parts of mainland Tanzania; also occurs in Kenya, Uganda, Mozambique, Malawi, Zambia, the Congo basin, south to Gauteng, north to Somalia, Ethiopia.

USES:

**Food:**

- The ripe yellow fruits are sweet and eaten fresh. They are mainly eaten by children herding animals and during periods of famine (Gogo).
- Roots are chewed to quench thirst.

**Medicinal:**

- Leaves are pounded and the juice drunk to treat allergy.
- Roots and bark are soaked in warm water and the resulting liquid is drunk for treatment of STDs.

**Commercial:** Not marketed.

**Other:** This evergreen shrub is used for ornamental purposes, hedges and bee forage. Leaves are used as fish poison and for water purification.

SEASON: Fruits collected from January to March.

STORAGE: Not stored.

MANAGEMENT: Collected from the wild and not protected or cultivated by local people.

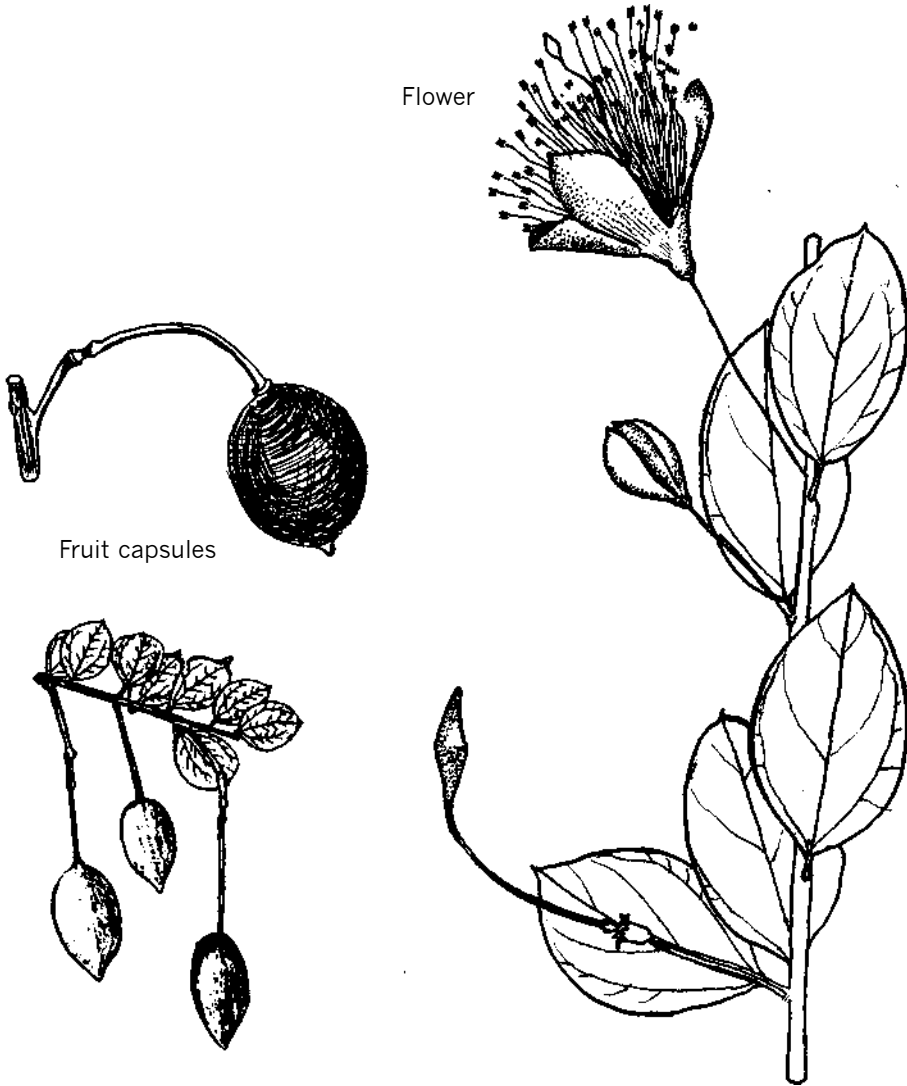
STATUS: Common and easily accessible within its area of distribution.

REMARKS: The plant is also known to be toxic.



*Maerua decumbens* (*M. edulis*)

Capparidaceae



*Malva parviflora*

## Malvaceae

Indigenous

LOCAL NAMES: **Chagga:** Mlenda; **English:** Mallow; **Iraqw:** Thobi; **Maasai:** Olemwadeni; **Swahili:** Mlenda.

DESCRIPTION: A trailing herb, the stems may be slightly hairy. LEAVES: **Very rounded in outline but with 3–5 lobes**, well notched at the base, the **edges with small soft teeth**, on a stalk 4–6 cm. FLOWERS: **Pink-purple, only 1 cm across**, a few together beside leaves, on **short stalks, some over 1 cm**. There are **3 free narrow outer sepals** and **5 rounded inner sepals with a small tooth at the tip**, joined at the base. FRUIT: A few **dry carpels in one-seeded sections** which separate when mature. The carpels are deeply sculptured.

ECOLOGY: Found in grasslands, at forest edges, in woodland, on heavily grazed grassland, sometimes on stony hills, at edges of ponds and lakes and easily becoming a weed in cultivation, up to 1,500 m; rainfall 1,100–1,500 mm. Tolerates a wide range of soils, but prefers red sandy loams.

DISTRIBUTION: Found in the northern part of Tanzania, e.g. around Loliondo and Seronera and in Ngorongoro crater (Arusha Region). Also in Uganda, Kenya, the Arabian peninsular, Eritrea, Ethiopia; recorded as a weed in South Africa.

USES:

**Food:**

The leaves are collected, chopped, boiled and added to other dishes to improve their consistency. Served with a staple and eaten in small amounts.

**Commercial:** Locally marketed.

**Other:** Ornamental and bee forage.

SEASON: Collected during the rainy season.

STORAGE: Leaves can be dried and stored for up to six months.

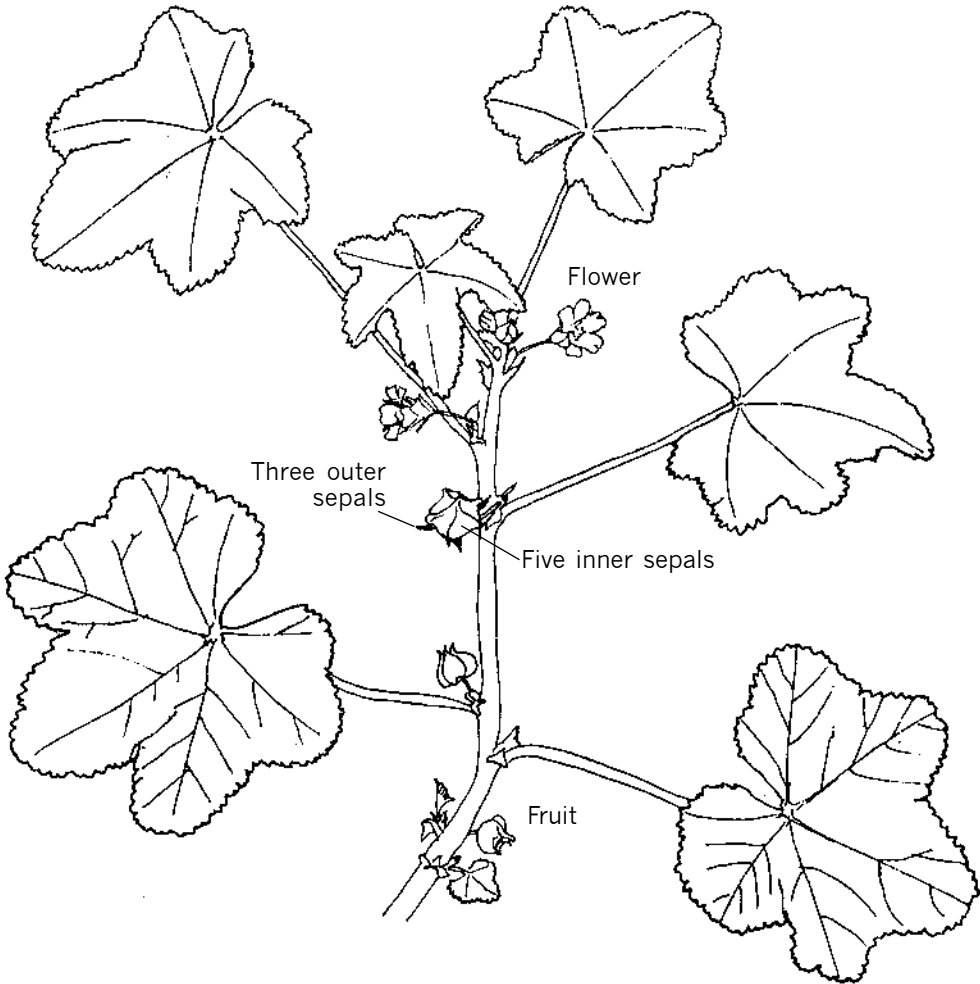
MANAGEMENT: Collected from the wild and not protected or cultivated by local people. It can be propagated by seed.

STATUS: Common and easily accessible within its area of distribution.

REMARKS: Regarded as a serious weed of farms and gardens, but is also an indicator of fertile soils. The plant is much liked by rhino. A similar species, *M. verticillata* (**English:** Mallow), is used in the same way as *M. parviflora*. It is an erect annual herb up to 1 m high with alternate and palmate leaves. It is widespread in Tanzania, Kenya and Uganda. Also found in Rwanda.

*Malva parviflora*

Malvaceae



***Mammea usambarensis***      **Clusiaceae (Guttiferae)**

Indigenous

LOCAL NAMES: **Pare:** Ikongwe, Muikongwe; **Sambaa:** Mbuni.

DESCRIPTION: An attractive forest tree to 24 m with a clear straight bole to a rounded crown, the girth at base to 6 m. BARK: Brown-grey or red-brown, smooth, later flaking into fairly thick irregular flakes. LEAVES: **Opposite, stalked with many translucent dots and streaks between the veins**, narrow to broadly oblong, 13–29 cm x 6–9 cm wide, stiff, drying yellow-green, tip usually long-pointed, base narrowed to a stalk about 1 cm. FLOWERS: **Male and female flowers. Up to 6 male flowers together** on 1 cm stalks, **buds pale green and rounded of only 1 sepal which splits into 2 concave parts, 4 white petals** are wide oval about 1 cm long and **soon drop** leaving a mass of central stamens with deep yellow anthers (female flowers not seen). FRUIT: Pale green to yellow, **rounded but with a distinct pointed tip and flattened below, 4–6.5 cm long and 3.5–7 cm wide**, containing 1–4 large seeds surrounded by colourless, edible pulp.

ECOLOGY: Evergreen forest, 1,600–2,100 m, locally dominant.

DISTRIBUTION: Found only in Lushoto District (Tanga Region) and in Pare Mountains in Kilimanjaro Region of Tanzania and not known elsewhere. It has been recorded from western Shagayu Forest and Magamba Forest in Lushoto District and Shengena Forest Reserve in the Pare Mountains.

USES:

**Food:**

- Ripe fruits are juicy and eaten raw. They are sweet but also rather acidic.
- Seeds are roasted in hot ash and then eaten, especially by children and herdsmen (Pare).

**Commercial:** Not marketed.

**Other:** The wood is used for timber, firewood, building poles, tool handles, spoons and bedsteads. The bark produces a yellow dye. The tree is used for shade.

SEASON: Fruits are collected from November to April.

STORAGE: Not stored.

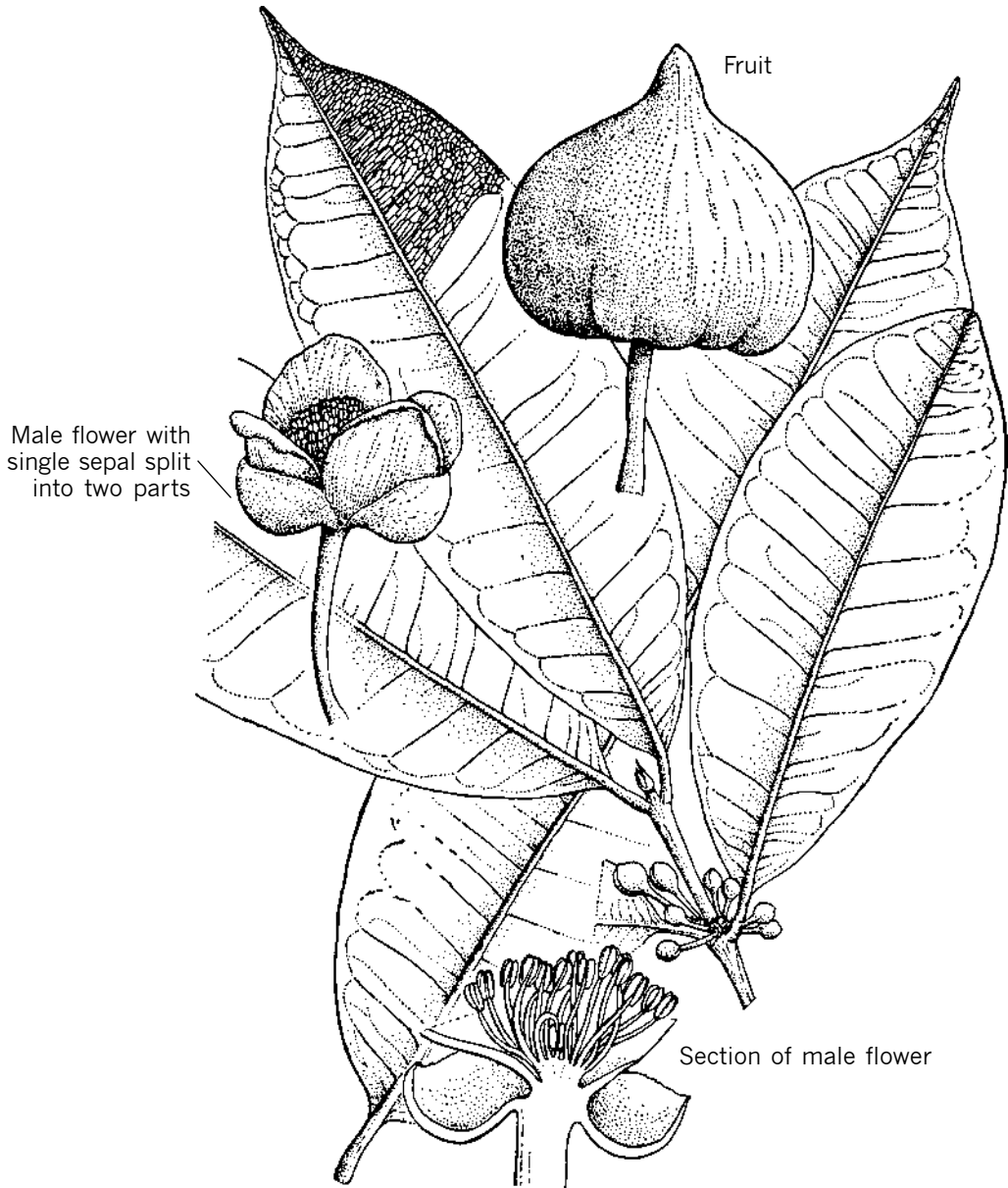
MANAGEMENT: Collected from the wild and not cultivated or protected by the local people. It can be propagated using fresh seed.

STATUS: Occasional within its area of distribution. Listed in the IUCN Red List of Threatened Plants.

REMARKS: *M. usambarensis* often grows with *Allanblackia stuhlmannii* and *Ocotea usambarensis*. A single *Mammea* tree can produce vast amounts of fruit. It is endemic in West Usambara and South Pare Mountains. A closely related exotic species, *M. americana*, the mammea apple from the West Indies, has been grown at Amani and in Zanzibar where its fruit is well liked.

*Mammea usambarensis*

Clusiaceae (Guttiferae)



*Manilkara dawei*

## Sapotaceae

Indigenous

LOCAL NAMES: **Swahili:** Mgambo.

DESCRIPTION: A small- to medium-sized forest tree to 25 m, trunk fluted at the base. Terminal buds and young shoots have a resinous gum. BARK: Brown and grooved, exuding white latex when cut. LEAVES: **Clustered at the ends of branches**, leathery, to 25 cm, usually **widest towards the tip, which is often notched, dark green above, silver-grey-white below, 18–22 clear lateral veins each side**, stalk to 4 cm. FLOWERS: 2–4 together beside leaves, **dense brown hairy** stalks, small white-green flowers, styles over 1 cm. FRUIT: A rounded berry, white powdery and hairy, flesh containing about 9 seeds.

ECOLOGY: Found in lowland rainforest and riverine forest, 1,100–1,600 m.

DISTRIBUTION: Only found in Kagera Region of Tanzania, e.g. on Kiao Island in Lake Victoria and around Bukoba. Also in Uganda, in the eastern Congo basin and the Central African Republic.

USES:

**Food:**

The ripe fruits are collected from the tree or from the ground, the pulp eaten and the seeds rejected. The fruits are eaten in small amounts, especially by children.

**Commercial:** Not marketed.

**Other:** The wood is used for timber, tool handles, charcoal, firewood, carvings, poles, bedsteads, gunstocks and spoons. The tree is good for shade.

SEASON: Fruits are collected from October to December.

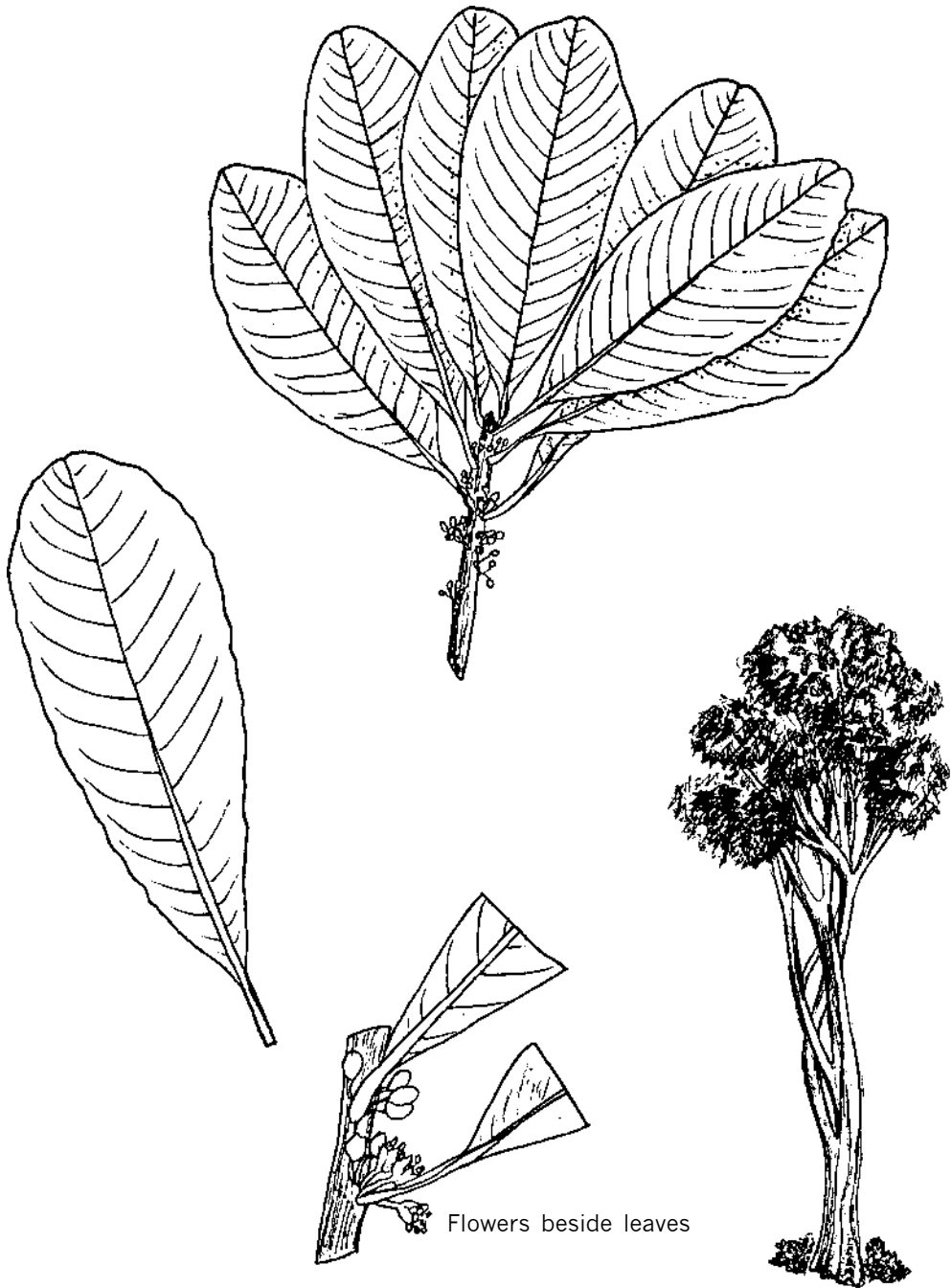
STORAGE: Not stored.

MANAGEMENT: Collected from the wild and not protected or cultivated by the local people. Can be propagated by seed.

STATUS: Easily accessible within its area of distribution.

*Manilkara dawei*

Sapotaceae



*Manilkara discolor*

## Sapotaceae

Indigenous

LOCAL NAMES: **English:** Forest milkberry; **Kimbu:** Mugambo; **Ngindo:** Mkwichimbe; **Sambaa:** Mgambo, Mghambo, Mugambo; **Swahili:** Mgambo.

DESCRIPTION: An evergreen leafy forest tree, usually 6–25 m, with a smooth straight trunk, much-branched to a dense rounded crown, **exuding white latex. Young parts covered with fine cinnamon-brown hairs.** BARK: Dark grey-brown with age deeply grooved, later flaking in patches, twigs often knobbly, dark grey-black. LEAVES: **Alternate, simple,** often terminal on branches (but not whorled) broad oval, **about 4–10 cm long, dark green above, silver grey below** due to a dense covering of minute, regularly arranged fine hairs (“discolor”), tip somewhat lengthened but rounded or notched, base narrowed to a grooved stalk about 1 cm, often with brown hairs like the midrib below, side veins clearly parallel and a **fine network between them clear above, only slightly raised.** FLOWERS: **4–6 together on reddish stalks about 1 cm, beside leaves, fragrant, creamy yellow, the 5 petals with divided lobes,** surrounded by **2 whorls of reflexed sepals, 3 plus 3 with rusty hairs outside,** many stamens in the centre. FRUIT: Fleshy berries, oval, to 1.3 cm, yellow turning red, tipped by the old style, containing a tasty juicy pulp enclosing an oval flattened pale-coloured seed.

ECOLOGY: Lowland and upland dry evergreen forest and well-drained sites in upland rainforest, 0–2,100 m.

DISTRIBUTION: Widespread in Tanzania. Found, for example, in Tanga, Iringa, Mbeya, Mtwara and Rukwa Regions of Tanzania. Also found in Kenya and south to Mozambique, Malawi, Zimbabwe into KwaZulu-Natal in South Africa.

USES:

**Food:**

Ripe fruits are fleshy and eaten raw. Seeds are discarded. They are very tasty and eaten as a snack, especially by children, herdsmen and forest workers.

**Commercial:** Not marketed.

**Other:** The wood is hard and used for poles, fuelwood, tool handles, carvings and spoons. The tree is good for shade, as an ornamental and for bee forage.

SEASON: Fruits are collected from July to November.

STORAGE: Not stored.

MANAGEMENT: Collected from the wild and not cultivated or protected by the local people. It can be propagated by seed.

STATUS: Occasional within its area of distribution.

REMARKS: Fruits of this species have been reported as being the “best of all wild fruits” (Popenoe 1920).



*Manilkara discolor*

Sapotaceae



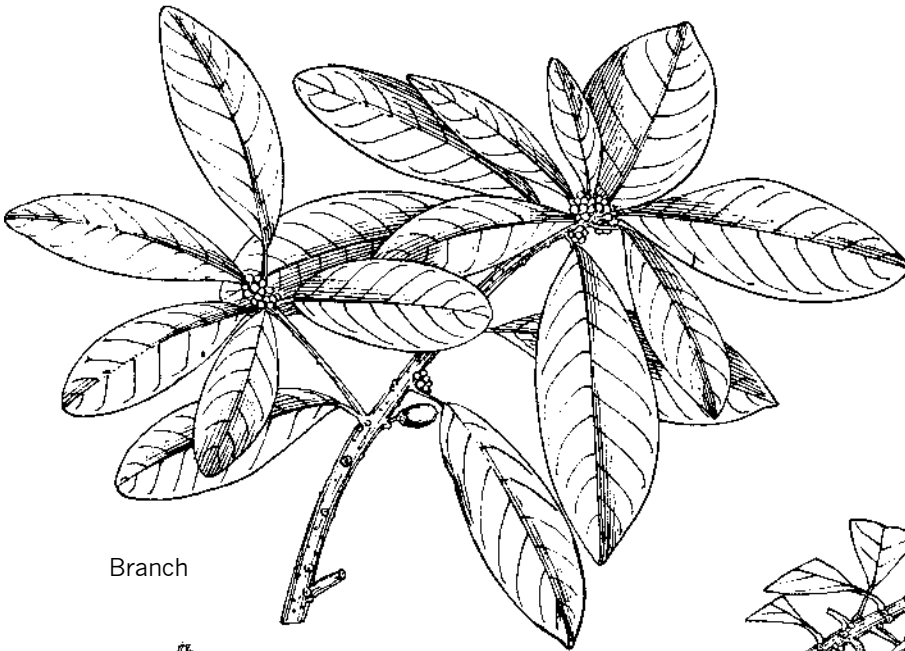
Flower head



Flower



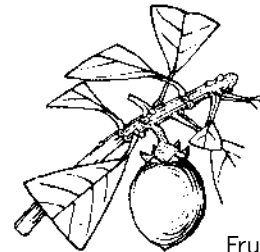
Flower opened out



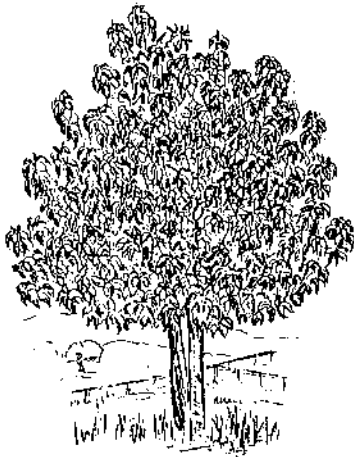
Branch



Seed



Fruit



*Manilkara mochisia*

## Sapotaceae

Indigenous

LOCAL NAMES: **English:** Milk berry; **Gogo:** Mkonze; **Haya:** Mkunya; **Matengo:** Mkwachu; **Ngindo:** Msama; **Nyamwezi:** Mkonze; **Sukuma:** Mkonze, Mukonje; **Swahili:** Mnago, Msapa, Mtalawanda; **Yao:** Mkwachu.

DESCRIPTION: A large shrub or, more usually, a small- to medium-sized tree 3–20 m, with low branching and a spreading crown. BARK: Brown-grey-black with deep longitudinal grooves. LEAVES: In characteristic **tight terminal rosettes growing from short side shoots**, stalks about 1 cm, blade stiff and shiny, **wider at the tip, 2–6 cm long, tip rounded or notched**, young leaves hairy below, 10–14 pairs of lateral nerves. FLOWERS: In leaf axils, **on stalks 6–13 mm, densely clustered, cream-yellow**, sepals in two series of 3, petals with many narrow segments. FRUIT: **Yellow, rounded to 1.8 cm long**, containing a tasty red soft pulp around 1–3 dark brown flattened seeds.

ECOLOGY: Found in deciduous bushland and thickets, dry scrub with trees, wooded grassland, also on black-cotton soil, 0–2,100 m.

DISTRIBUTION: Found in most parts of mainland Tanzania, north to Kenya, Somalia, south through Mozambique to Zambia, Zimbabwe, Malawi, KwaZulu-Natal, Botswana and Angola.

USES:

**Food:**

Ripe fruits are collected from the ground or picked from the tree and eaten raw as a snack. The sweet juicy pulp is eaten and the hard seeds are discarded.

**Medicinal:** The stem bark is used as medicine to treat mastitis. The bark is dried, pounded and powder mixed with groundnut or simsim oil and smeared on the swollen breasts of a woman who is suffering from the disease. A similar treatment can be used to treat udder inflammation in cattle.

**Commercial:** Not marketed.

**Other:** The wood is hard and heavy, used for furniture, carvings, tool handles, spoons, poles, firewood and charcoal. The tree provides good shade and bee forage.

SEASON: Ripe fruits are collected between April and June.

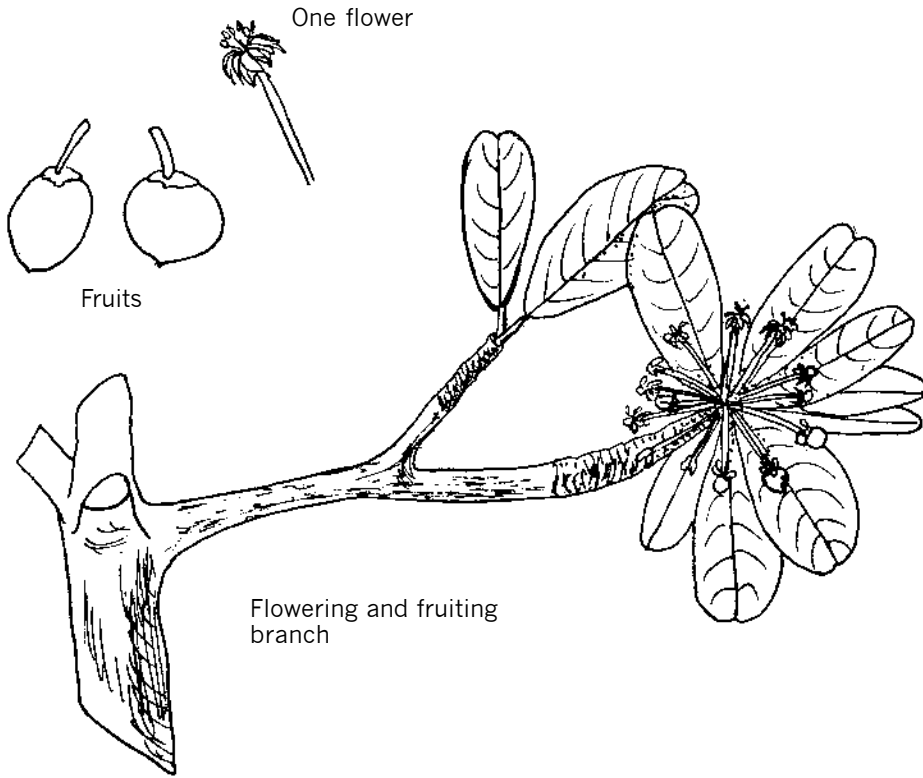
STORAGE: Not stored.

MANAGEMENT: Usually collected from the wild, not cultivated or protected by the local people, but can easily be propagated by seedlings.

STATUS: Very scattered within its area of distribution.

*Manilkara mochisia*

Sapotaceae



*Manilkara obovata*

## Sapotaceae

Indigenous

LOCAL NAMES: **Gogo:** Mmumbulu, Mumbulu; **Haya:** Mkunya, Mukuaya; **Nyamwezi:** Mmenge, Mumenge; **Swahili:** Mgama, Mgambo.

DESCRIPTION: A **tall evergreen tree to 35 m** with a long clear bole, slightly fluted and sometimes buttressed at the base. **BARK:** Pale grey turning dark brown-grey, fissured and rough with age, young branchlets purple-brown dotted with paler breathing pores, older branches with conspicuous leaf scars often raised like pegs, when cut bright red as well as white latex. **LEAVES:** Alternate, clustered at the ends of branches (but not in tight rosettes), on stalks to 1.5 cm, oval, **wider at the tip**, which is **rounded or notched, 3–10 cm long**, generally stiff, upper surface bright green, paler below, numerous side veins raised, hair like, curving to tip. **FLOWERS:** **Small and white, bunched in the axils of older or fallen leaves**, on brown hairy stalks 4–10 mm, 2 sets of 3 x 3 calyx lobes, brown hairy outside, **6 narrow petals**, each 3-lobed, only 5 mm. **FRUIT:** Ovoid to rounded to 2.5 cm, yellow when ripe and edible.

ECOLOGY: Rainforest, riverine forest, swamp, 1,100–1,300 m.

DISTRIBUTION: Found in Kagera (swamp forests of the south-west shores of Lake Victoria), Tanga, Tabora and Dodoma Regions of Tanzania. Also in Uganda, from Sierra Leone across west Africa into Gabon, Congo, Zambia and Angola.

USES:

**Food:**

- Ripe fruits are usually picked from the tree and eaten raw as a snack. Mature fruits can be collected and kept in the shade for about two days to ripen.
- Fruits can be dried, stored and eaten later.

**Commercial:** Not marketed.

**Other:** The wood is hard and durable and used for timber, building poles, tool handles and carvings.

SEASON: Ripe fruits are collected from March to June.

STORAGE: Dried fruits can be stored for several weeks.

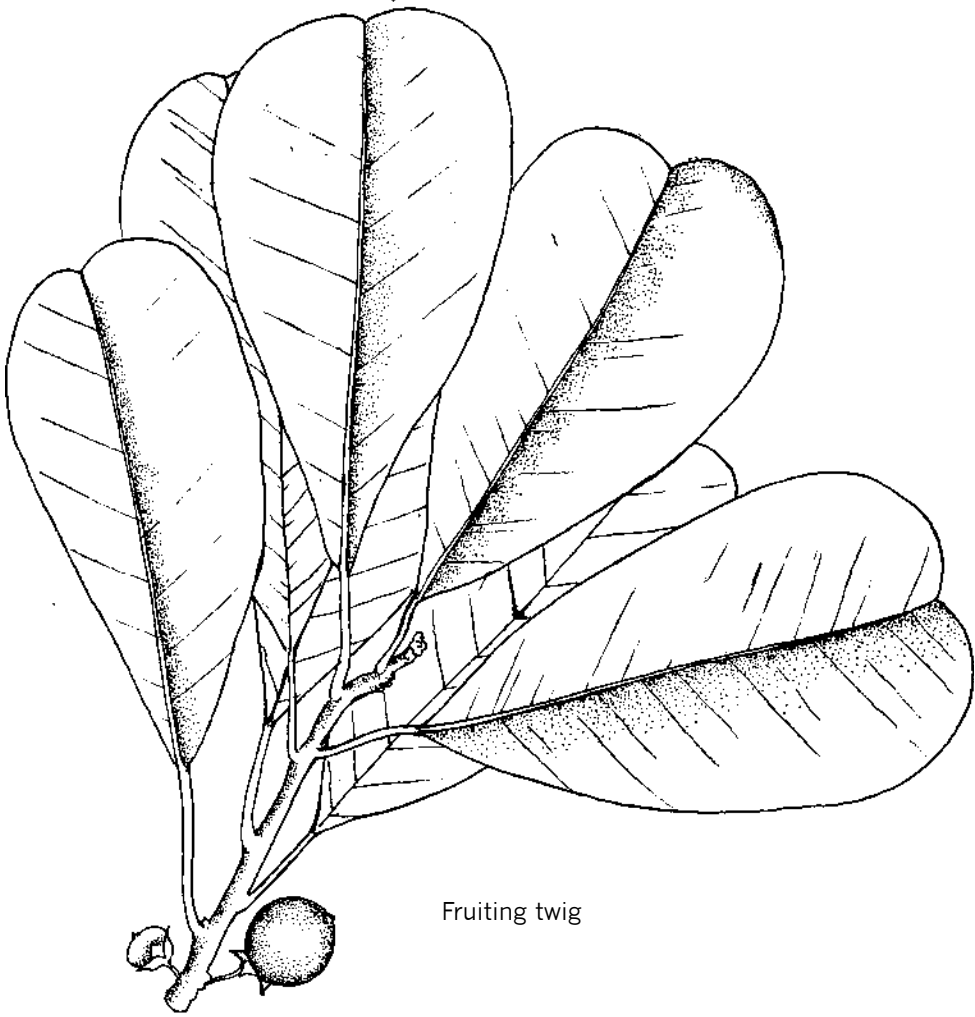
MANAGEMENT: Collected from the wild, not planted or protected by the local people. The species can be propagated by seedlings.

STATUS: Common and easily accessible within its area of distribution.

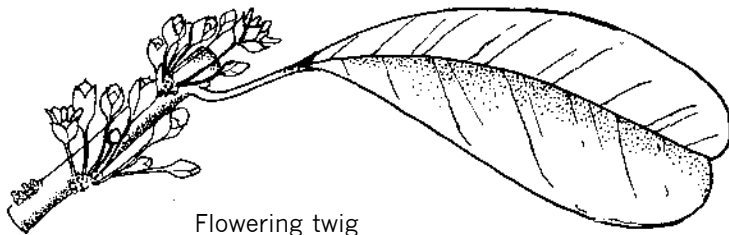
REMARKS: A suitable tree for planting on stream and river banks and in swampy areas.

*Manilkara obovata*

Sapotaceae



Fruiting twig



Flowering twig

*Manilkara sansibarensis*

## Sapotaceae

Indigenous

LOCAL NAMES: **Digo:** Mung'ambo; **Haya:** Mkunya; **Swahili:** Mcheji, Mgambo, Mguvi, Mshonzi, Mti chuma; **Zaramo:** Mtunda.

DESCRIPTION: A medium-sized tree with a bushy crown, to 25 m. BARK: Rough grey-brown-black, producing white latex when cut. LEAVES: Simple, **oblong to 14 cm, tip rounded or notched**, very stiff, **on stalks to 3 cm, dull green**, at the end of twigs, **side veins closely parallel**. FLOWERS: Very small, green-white, 4–12 in leaf axils, flower stalks and outer calyx very hairy, flowers fragrant. FRUIT: Tough round or oval **berries, to 1.3 cm**, containing 1–4 shiny flat seeds.

ECOLOGY: Lowland rainforest and lowland dry evergreen forest, also in evergreen woodland and coastal bushlands, 0–300 m.

DISTRIBUTION: Found in Tanga Region and other coastal areas, and on Zanzibar and Pemba Islands; e.g. in Pugu and Kurekese Forest Reserves and around Ruvu (Pwani Region). Also found in coastal Kenya and Mozambique.

USES:

**Food:**

Ripe fruits are edible. Fruits are collected from the ground or picked from the tree and eaten raw as a snack. The sweet pulp is swallowed and seeds are discarded.

**Medicinal:**

- The bark is used to treat pneumonia.
- Roots are used to treat STDs and constipation.

**Commercial:** Not marketed.

**Other:** The wood is used for timber, handles and domestic utensils.

SEASON: Seeds are collected from September to December.

STORAGE: Not stored.

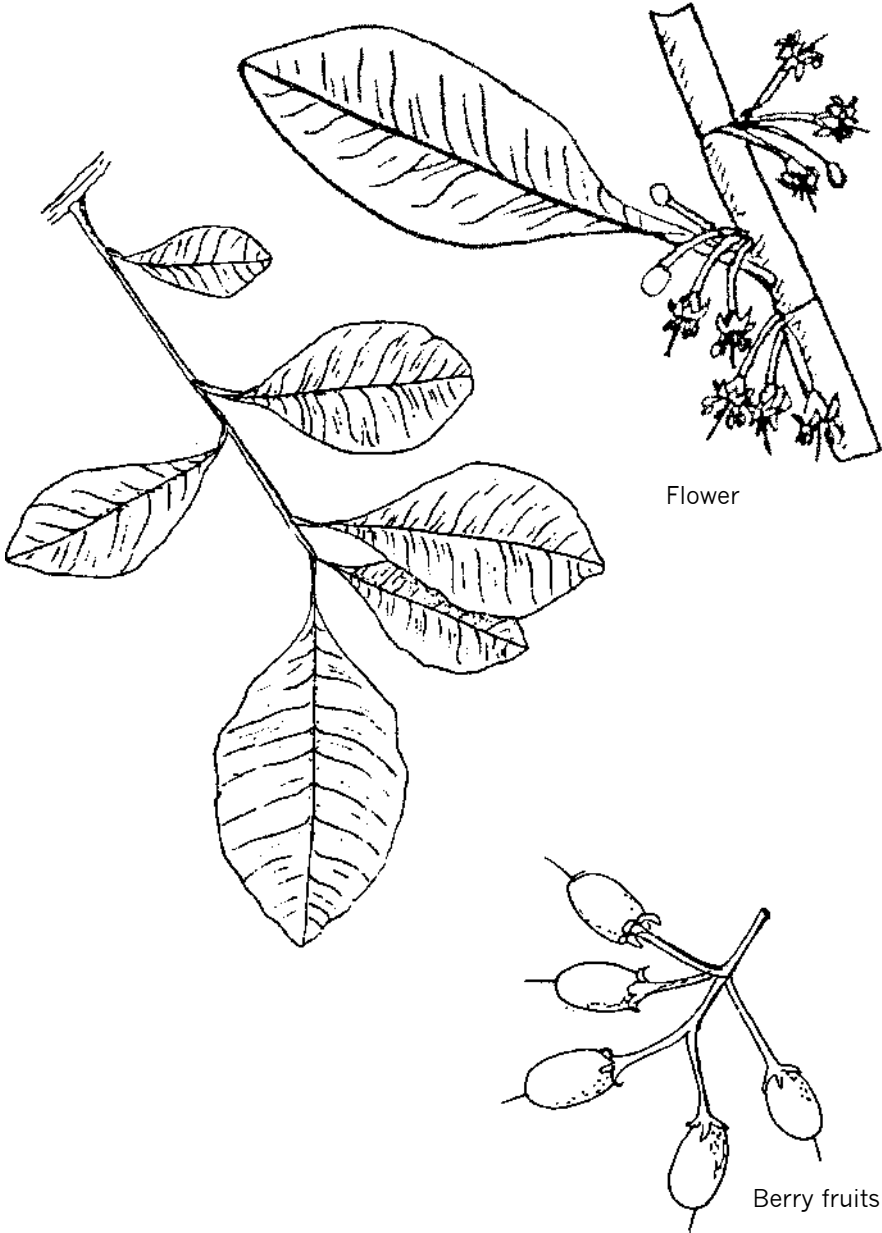
MANAGEMENT: Collected from the wild, not cultivated or protected by the local people.

However, it can be propagated by seed.

STATUS: Scattered within its area of distribution.

*Manilkara sansibarensis*

Sapotaceae



***Manilkara sulcata*****Sapotaceae**

Indigenous

LOCAL NAMES: **Digo**: Msezi, Mzezi, Nzezi; **Sambaa**: Mduyuyu; **Swahili**: Mchambigi, Mcheji, Mcheji dume, Mteweji; **Mwera**: Msofu; **Ngindo**: Muhamba; **Zaramo**: Mcheju; **Zigua**: Msezi, Msezi-mbago.

DESCRIPTION: An evergreen shrub or small much-branched tree usually 3–6 m.

**BARK**: Grey, only slight longitudinal grooves. **LEAVES**: **Small, dark shiny green above, paler below**, clustered at branch tips, oval and wider at the tip, which is notched or rounded, **2.5–8 cm long**, only **young shoots, buds and flower stalks are covered with dense rusty hairs**. **FLOWERS**: **Cream, yellow-green, in groups of 2–6 beside leaves**, each flower to 5 mm long with pale green divided petal lobes surrounded by 2 rows of sepals. **FRUIT**: Long oval, **pale green–yellow to 1.3 cm long**, without hairs, tipped by the old style, containing one seed in sweet edible pulp.

ECOLOGY: Lowland dry evergreen forest (*Cynometra*), coastal forests and bushland, *Brachystegia* woodland, mainly on sandy soils in coastal areas, 0–1,000 m.

DISTRIBUTION: Only known from the coastal regions of north-eastern Tanzania, extending also into Kenya and the adjacent regions inland.

USES:

**Food:**

The fruit pulp is sweet and eaten raw as a snack. The seeds are discarded.

**Medicinal:**

- Roots are used for treatment of snakebite.
- Leaves are crushed and rubbed on the skin to treat rashes in children.

**Commercial:** Not marketed.

**Other:** The wood is very hard and heavy and is used for building poles, firewood, charcoal, tool handles, domestic utensils and animal traps. The tree is used for shade.

SEASON: Fruits are collected from August to December.

STORAGE: Not stored.

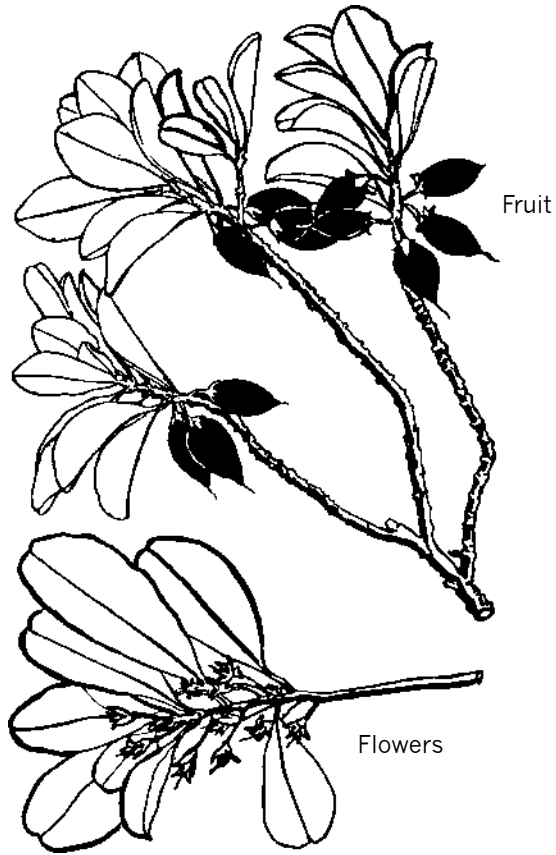
MANAGEMENT: Fruits are collected from the wild. The tree is not cultivated or protected by the local people. Can be propagated using seeds.

STATUS: Locally common.



*Manilkara sulcata*

Sapotaceae



***Maranthes goetzeniana***  
**(*Parinari goetzeniana*)**

**Chrysobalanaceae**

Indigenous

LOCAL NAMES: **Sambaa:** Banko, Fuzu, Ng'anga.

DESCRIPTION: A very **large, evergreen tree 25–50 m**, with a spreading rounded crown. BARK: Grey or red-brown, smooth but finely ridged when older. LEAVES: Alternate, simple, generally oval, **7–15 cm long, shiny above and dull below, with a conspicuous narrowed apex drawn out into a “drip-tip”**, base wide or rounded into a short stalk, 8–10 side veins, edge somewhat wavy. FLOWERS: Pale **green-cream-white**, each 1–2 cm in diameter, growing **in a wide flat-topped head, greyish to 12 cm across** and 8 cm deep, **young parts covered with thick soft green-grey-brown hairs**, the wide calyx tube with 5 lobes, **5 rounded petals** and many stamens hang well beyond the petals, long yellow hairs cover the ovary. FRUIT: **Black and fleshy, oval, to 3 cm long**, with edible flesh.

ECOLOGY: Evergreen rainforest, about 900 m.

DISTRIBUTION: Found in the East Usambara Mountains and recorded around Morogoro but also in wet evergreen forest in South Africa.

USES:

**Food:**

Fruits are collected from the ground and the pulp is eaten. The hard stones are broken and the kernel eaten, especially by children during times of food scarcity.

**Commercial:** Not marketed.

**Other:** The wood is very hard and is used for sleepers, firewood, charcoal, building poles, tool handles and yokes. The tree is used for shade and bee forage. The bark produces a red dye.

SEASON: Fruits are collected from September to December.

STORAGE: Not stored.

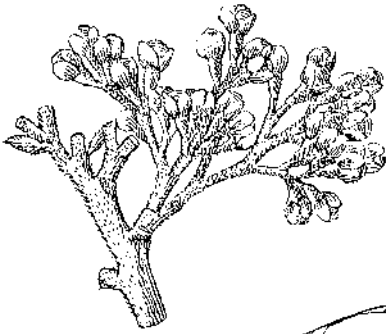
MANAGEMENT: Collected from the wild and not cultivated or protected by the local people. The species can be propagated by seed.

STATUS: Common and easily accessible within its area of distribution.

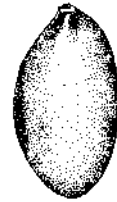
REMARKS: In Tanzania, this tree is only known to occur in the East Usambara Mountains and Uzugwa in Morogoro Region.

*Maranthes goetzeniana*

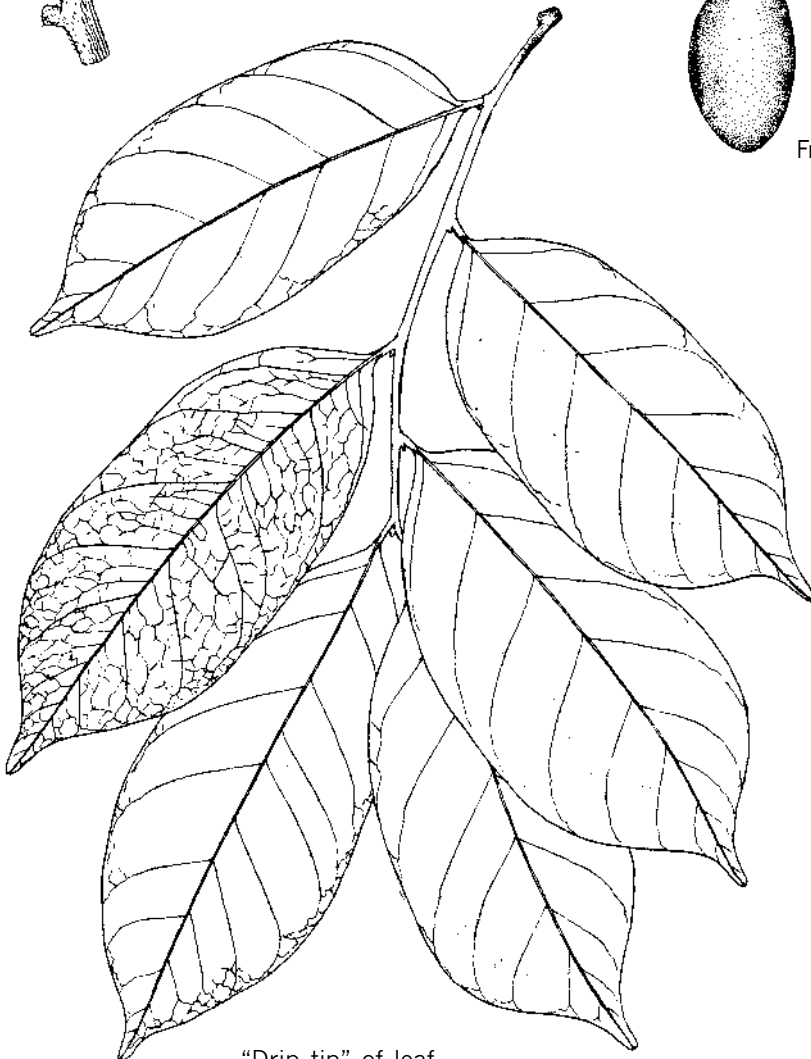
Chrysobalanaceae



Flowers



Fruit



—— "Drip tip" of leaf

*Mimusops kummel*

## Sapotaceae

Indigenous

LOCAL NAMES: **Bondei:** Mgama, Mgambo; **Gogo:** Mugama; **Kaguru:** Mugama; **Hehe:** Mugama; **Iraqw:** Hiiti; **Maasai:** Olkirenyi; **Sambaa:** Mgama, Mgambo; **Swahili:** Mgama, Mgambo; **Tongwe:** Mlonje; **Zigua:** Mgama, Mgambo.

DESCRIPTION: An evergreen tree which can reach 35 m and have a trunk diameter of more than 1 m, the crown leafy and oval. BARK: Dark grey, rough and deeply grooved, **branchlets covered with red-brown hairs**. LEAVES: Oval to 10 cm, the tip blunt, the **midrib below hairy** and also the **leaf stalk, to 15 mm**. FLOWERS: Fragrant, cream-white, 1–4 in leaf axils, on stalks to 2–5 cm. Flower parts in fours, rather flat, star shaped, **stalks and outer calyx with brown hairs**, central ovary with silky pale hairs. FRUIT: A **drupe to 2 cm**, pointed and orange-yellow, contains **one** red-brown seed.

ECOLOGY: Widespread in riverine forest and other vegetation beside streams, often scattered as small trees, even in upland dry evergreen forests, in wooded grasslands and on rocky hills in dry areas, 500–2,100 m.

DISTRIBUTION: Found in most parts of Tanzania; Uganda, Kenya, Eritrea, Ethiopia, Sudan, across the southern Sahara into West Africa.

USES:

**Food:**

- The fleshy ripe fruit pulp is sweet and eaten raw as a snack. Ripe fruits are collected from the ground or picked from the tree.
- Ripe fruits are dried in the sun, pounded, and the powder used for making juice or the local brew.

**Medicinal:** The bark is used as medicine for anaemia, asthma and malaria (Zigua).

**Commercial:** Sold in local markets.

**Other:** The wood is used for timber, carvings, tool handles and beehives. The tree gives good shade.

SEASON: Ripe fruits are available from October to December.

STORAGE: Dried fruits can be stored for several months.

MANAGEMENT: Usually collected from the wild but can be propagated from seeds.

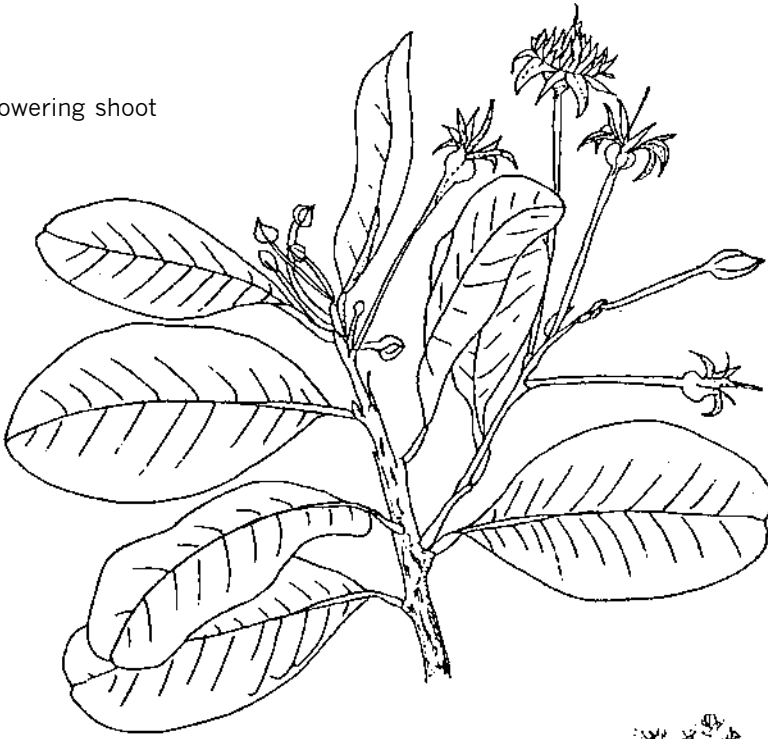
STATUS: Occasional within its area of distribution.

REMARKS: An important fruit tree which should be domesticated and bred.

*Mimusops kummel*

Sapotaceae

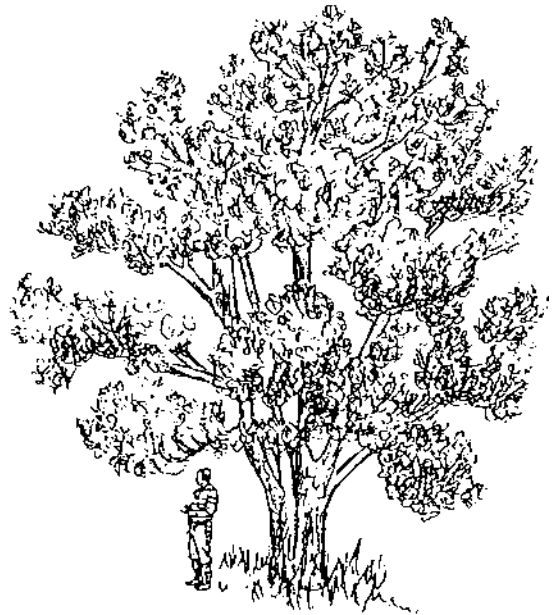
Flowering shoot



Fruit



Pistil



*Mimusops obtusifolia* (*M. fruticosa*)

## Sapotaceae

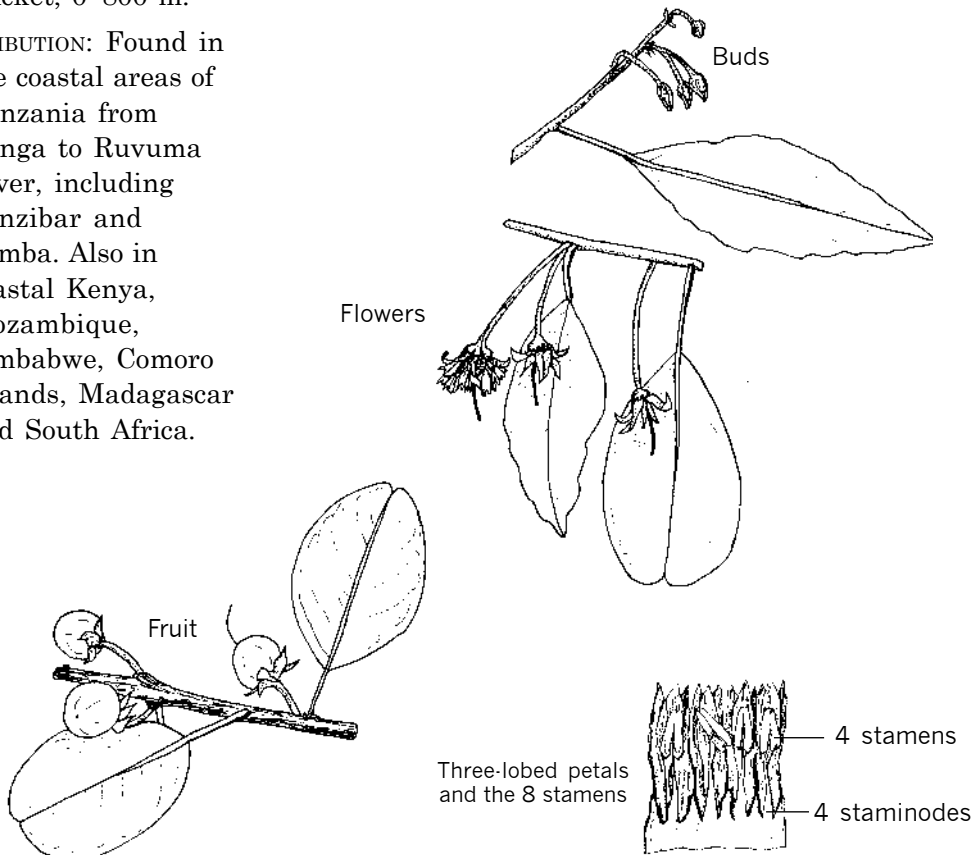
Indigenous

LOCAL NAMES: **Bondei:** Mgambo; **English:** Round-fruited red milkwood; **Sambaa:** Mgama, Mgambo; **Swahili:** Mgambo kapu, Mnguvi; **Zaramo:** Mgama.

DESCRIPTION: An evergreen shrub close to the sea shore but usually a much-branched spreading tree up to 20 m. **BARK:** Grey, rough well grooved, young branches with brown hairs, soon lost. **LEAVES:** **Long oval, 3.5–8 cm, wider towards the tip**, stiff, upper surface a dark shiny green, lower dull green, tip rounded, base narrowed to a stalk about 1 cm, fine vein network raised, side veins curving towards tip. **FLOWERS:** **Star like, white-cream petals in 2 whorls, on curved stalks, hairy brown, 1–2.5 cm long**, 1–6 stalks, from leaf axils, each flower to 11 mm across surrounded by 4 + 4 brown hairy sepals, of **two sizes**; **8 petals to 8.5 mm, divided into 3 narrow lobes**, from a tube only 2.5 mm, some petal-like stamens, hairy outside, 8 altogether (see illustration). **FRUIT:** **A round berry, orange-red, to 2.5 cm diameter**, the skin tough, containing 1–5 dark shiny seeds in edible flesh.

ECOLOGY: Lowland dry evergreen forest, riverine forest and coastal evergreen thicket, 0–800 m.

DISTRIBUTION: Found in the coastal areas of Tanzania from Tanga to Ruvuma River, including Zanzibar and Pemba. Also in coastal Kenya, Mozambique, Zimbabwe, Comoro Islands, Madagascar and South Africa.



***Mimusops obtusifolia* (contd)****Sapotaceae****USES:**

**Food:** Ripe fleshy fruit are sweet; eaten raw as a snack and seeds discarded.

**Commercial:** Not marketed.

**Other:** The wood is hard and heavy and used for fuelwood, poles, tool handles, spoons, dhow building, carvings, gunstocks, bedsteads and clogs. The tree provides good shade and bee forage.

**SEASON:** Fruits are collected from November to January.

**STORAGE:** Not stored.

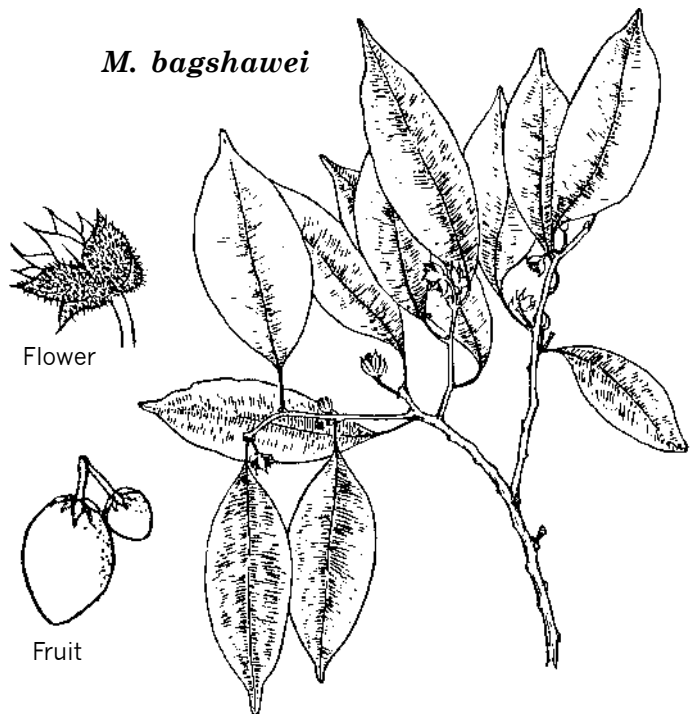
**MANAGEMENT:** Collected from the wild, not cultivated; easily propagated from seed.

**STATUS:** Common within its area of distribution.

**REMARKS:** Several other *Mimusops* species are edible:

1. *M. bagshawei* (**Bondei, Sambia, Zigua:** Mgambo; **Haya:** Msali; **Luo:** Olalwait; **Maasai:** Leliat; **Swahili,** Mgama, Mgambo): a tree up to 40 m with large spreading crown and fluted stem. **BARK:** Thick, dark brown. **LEAVES:** Stiff, often wider at the tip, clustered at ends of branchlets, 7–12 cm long, shiny dark green above, pale, dull below. **FLOWERS:** Green-yellow-cream, fragrant, small. **FRUIT:** Orange-yellow berry, 3 x 2 cm, egg shaped, tip pointed, with 1–3 brown seeds. Found only in Kagera Region, e.g. Minziro Forest in Bukoba District in rainforest, 1,100–2,400 m. Also Kenya, Uganda and southern Sudan.

2. *M. somaliensis* (*M. schliebenii*) (**Bondei, Sambia, Swahili:** Mgama; **Sambia:** Mgambo): a tree up to 20 m. **LEAVES:** Large, stiff, 4.5–11 cm x 2–5 cm wide, smooth above, hairy below. **FLOWERS:** Cream, in clusters between leaves. **FRUIT:** Yellow when ripe, to 1.7 cm across. Coastal woodland, 150–300 m, in Tanga, Lindi and Mtwara Regions; also coastal Kenya.



***Mollugo cerviana*****Aizoaceae**

Indigenous

LOCAL NAMES: **Hehe:** Ilolompya, Kibogaboga.

DESCRIPTION: An attractive annual herb, **very small, with many slender, stiff upright stems** 4–17 cm long. LEAVES: Narrow and stalkless, arising in whorls on the stem, some in a **rosette at the base, grey-green, flat**, 2–26 mm long, 3 mm or less wide, the rosette of leaves to 18 mm, often dying quickly. FLOWERS: In short heads with **1–4 greenish flowers** (stalked only in var. *spathulifolia*), no petals but 5 tiny sepals, each flower only 2 mm long. FRUIT: A capsule with tiny brown seeds.

ECOLOGY: A weed of roadsides, cultivation, waste places, bare ground and dry river beds; two varieties have a different geographic and altitude range: var. *cerviana* 400–1,700 m; var. *spathulifolia*, 0–800 m.

DISTRIBUTION: Widespread in the tropics and subtropics of Africa and Asia, including Tanzania, Kenya and Uganda.

USES:

**Food:**

Leaves are used as a vegetable. Tender leaves are collected, sorted, chopped and cooked. Coconut milk or groundnut paste may be added and then the vegetable served with *ugali* or rice.

**Medicinal:** Leaves are used as medicine for stomach-ache and constipation.

**Commercial:** Not marketed.

**Other:** The plant is used for fodder and is suitable for ornamental purposes.

SEASON: Collected during the rainy season, i.e. January to April.

STORAGE: Not stored.

MANAGEMENT: Collected from the wild and not cultivated or protected by the local people. However, it can be propagated by seeds and cuttings.

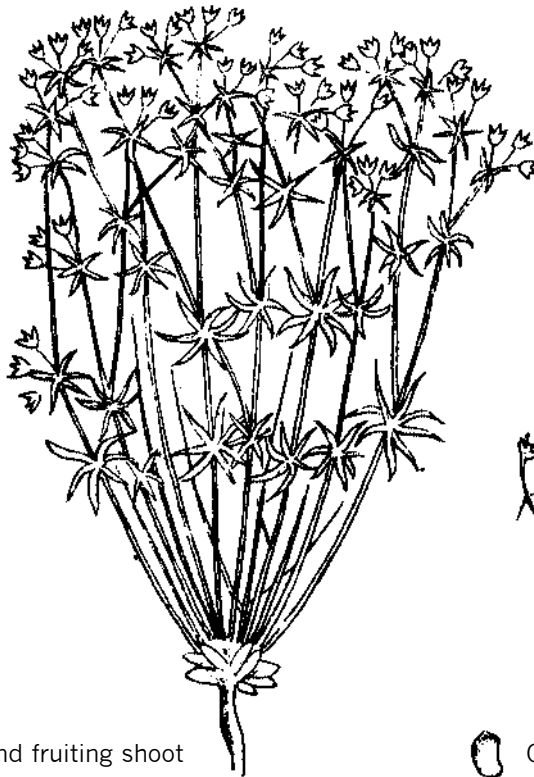
STATUS: Locally common.

REMARKS: Regarded as a troublesome weed in areas where it occurs.

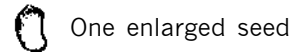
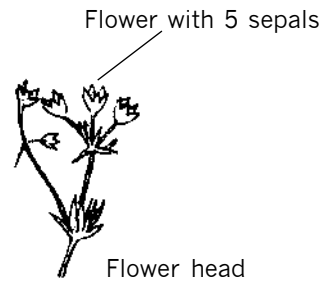


*Mollugo cerviana*

Aizoaceae



Flowering and fruiting shoot



One enlarged seed

***Momordica foetida*****Cucurbitaceae**

Indigenous

LOCAL NAMES: **Chagga:** Mokiki; **Gogo:** Kisalasalala; **Gorowa:** Oroondi; **Hehe:** Nyasalasalala; **Iraqw:** Oroondi; **Kimbu:** Kasasalya; **Nyamwezi:** Kasasalya; **Pare:** Ikungulanyoka; **Sambaa:** Lushwe.

DESCRIPTION: A **hairy climber** or creeping herb from a stout perennial rootstock, with simple or forked tendrils opposite the leaves. **Young stems spotted dark green.** The plant has a strong unpleasant smell. **LEAVES: Heart shaped,** alternate, **often unlobed, 8–12 cm across,** the edge with small widely spaced teeth, deeply notched, to a stalk about 2 cm. **FLOWERS:** Sexes on separate plants. **Female flowers single, on long axillary stalks, with 5 pale yellow petals, to 5 cm diameter,** the centre black (ovary hairy), **4–8 male flowers grouped together in a broad bract** on a long stalk, 5 oblong sepals, 5 spreading petals. **FRUIT:** Easily recognized, **pale yellow to brilliant orange, to 6.5 cm long, covered with soft orange bristles,** narrowed to a beak at the tip, and at the base to a stalk over 2.5 cm long. The fruit bursts when ripe to expose flat seeds in a red pulp.

ECOLOGY: Forest edges and clearings, margins of swamp and riverine forest and at edges of thickets, also a weed in farmland and a colonizer of disturbed ground, up to 2,400 m; rainfall 1,100–2,100 mm. Tolerates a wide range of soil types.

DISTRIBUTION: Widespread in tropical Africa from Guinea and Cameroon south to southern Africa. This species is common in all parts of Tanzania, including on Zanzibar. Also in Kenya and Uganda.

USES:

**Food:**

Leaves are collected, chopped, boiled and eaten with beans or peas together with a staple. It is eaten in small amounts as a famine food and in emergency situations. The leaves have a bad smell and a bitter taste.

**Medicinal:**

- Leaves are crushed and the liquid applied into the ears to treat earache.
- Roots are used to treat intestinal worms and constipation.

**Commercial:** Not marketed.

**Other:** The plant is used for fodder.

SEASON: Collected in the dry season

STORAGE: Not stored.

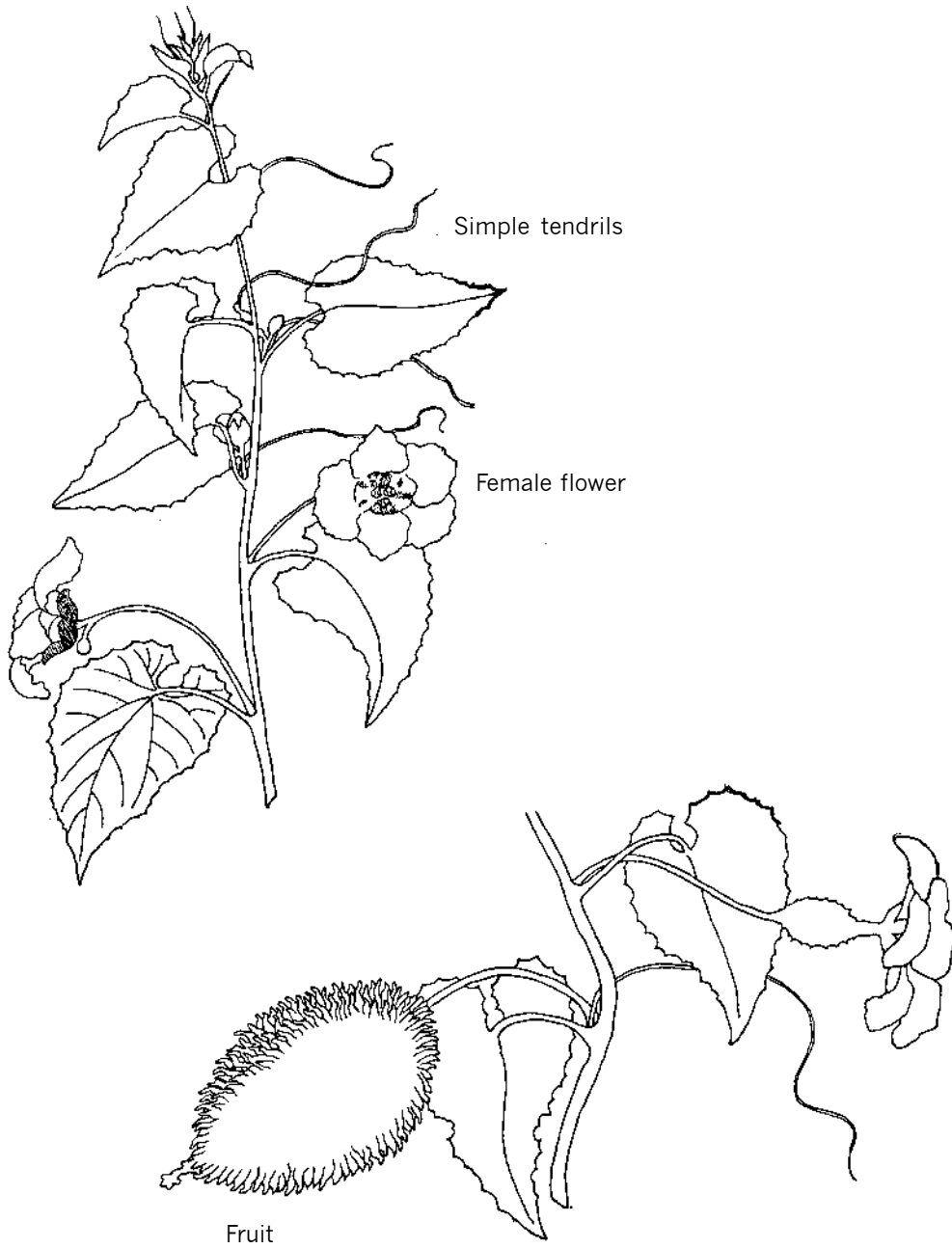
MANAGEMENT: Collected from the wild and not cultivated or protected by local people.  
Can be propagated by seed.

STATUS: Common and easily accessible within its area of distribution.

REMARKS: A troublesome weed of gardens and farms.

*Momordica foetida*

Cucurbitaceae



***Momordica rostrata*****Cucurbitaceae**

Indigenous

LOCAL NAMES: **Hehe:** Litambalanzoka; **Maasai:** Enkamposhi, Olamposhi; **Nyamwezi:** Lyungu-lya-nzoka; **Sambaa:** Kunguiva; **Sandawi:** /Umphá; **Sukuma:** Lyungu-lya-nzoka; **Swahili:** Tunda nyoka.

DESCRIPTION: **A climbing or trailing plant from a fleshy rootstock often seen protruding above the soil surface**, grey-green. Young green stems are weak and thin but become woody and white with age, simple tendrils grow opposite the alternate leaves. LEAVES: **Compound, 5–9 leaflets**, the first 3 divide again giving up to 3 groups of 3, each one oval to rounded, the edge wavy toothed, **rounded at the tip**. FLOWERS: Separate male and female plants; flowers orange with a brown base, about 2 cm across, **female flowers solitary, almost stalkless**, numerous male flowers with 5 free petals, the 5 anthers contorted and folded and in 3 groups. FRUIT: **Ovoid to egg shaped, stalk less than 1.5 cm, bright orange-red when ripe, 3–7 cm long**, up to 4 cm across, beaked at the tip, with 8 ridges (or almost smooth), containing flat brown-black seeds in yellow edible pulp. Seeds have a thick sculptured covering.

ECOLOGY: Common in dry woodland and rocky places in open grassland (*Acacia-Commiphora*), deciduous bushland, thicket, wooded grassland, 0–1,700 m.

DISTRIBUTION: In Tanzania this species is found in Kagera, Mwanza, Shinyanga, Arusha, Kilimanjaro, Tanga, Dodoma and Singida Regions. It is also found in Kenya, Uganda and southern Ethiopia.

USES:

**Food:**

- Ripe fruit are edible. They are cut in half and the juicy pulp eaten raw. It is sweet and much liked by children.
- Tender leaves are collected and cooked alone or with other vegetables such as amaranth and peas. Coconut milk or pounded groundnuts may be added and the dish is then eaten with *ugali* or rice.
- The fruits are boiled and eaten.

**Commercial:** Not marketed.

**Other:** The plant is used for fodder and ornamental purposes. A powder obtained from peeled, dried and crushed roots can be used for preservation of cereals. The powder can also kill stalkborers.

SEASON: Rainy season.

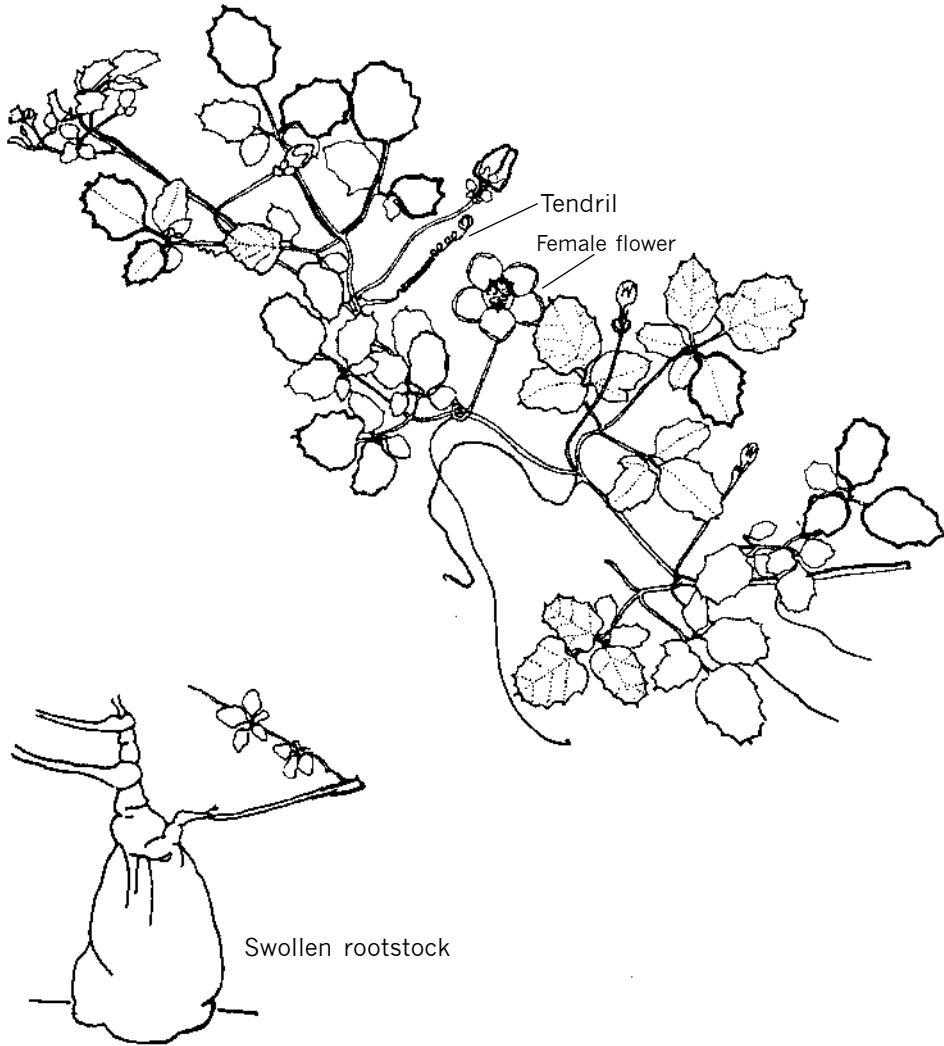
STORAGE: Not stored.

MANAGEMENT: Collected from the wild and not planted or protected by the local people. Can be propagated by seed.

STATUS: Only scattered within its area of distribution.

*Momordica rostrata*

Cucurbitaceae



*Monanthotaxis poggei*

## Annonaceae

Indigenous

LOCAL NAMES: **Ha:** Bulyankende; **Tongwe:** Lujongololo.

**DESCRIPTION:** A climbing shrub or liane, 1–6 m, **young stems covered with rusty hairs.** **LEAVES:** Long oval, 8–16 cm, usually with **long pointed tips**, base wide to a very small channelled stalk, with rusty hairs, the thin blade **green above but densely covered below with silky silver-brown hairs**, clear **nerves with rusty hairs.** **FLOWERS:** Solitary or 2–4 flowers beside or above leaves on short hairy stalks, narrow hairy bracts about 1 cm long, 2–3 tiny hairy sepals surround the flowers, which usually have **6 white-yellow fleshy petals in one whorl**, rusty hairs outside. **FRUIT:** **6–8 fruits, 1–2 cm long on a stalk about 1 cm**, each fruit usually one-seeded, **covered with rusty hairs.**

**ECOLOGY:** Evergreen forest and riverine forest, 700–1,100 m.

**DISTRIBUTION:** Found only in western Tanzania, e.g. in Gombe Stream National Park and Mahale Mountain National Park in Kigoma Region. Also in the Congo basin and in Angola.

**USES:**

**Food:**

Fruits are edible. The pulp of ripe fruits is sweet and eaten fresh as a snack.

**Medicinal:** Roots are used as medicine for stomach-ache and an antidote for snakebite.

**Commercial:** Not marketed.

**Other:** The wood is used for firewood, storage pots and withies. The tree is used for ornamental purposes because of its sweet-scented flowers and as a source of bee forage.

**SEASON:** Ripe fruits are collected from April to May.

**STORAGE:** Not stored.

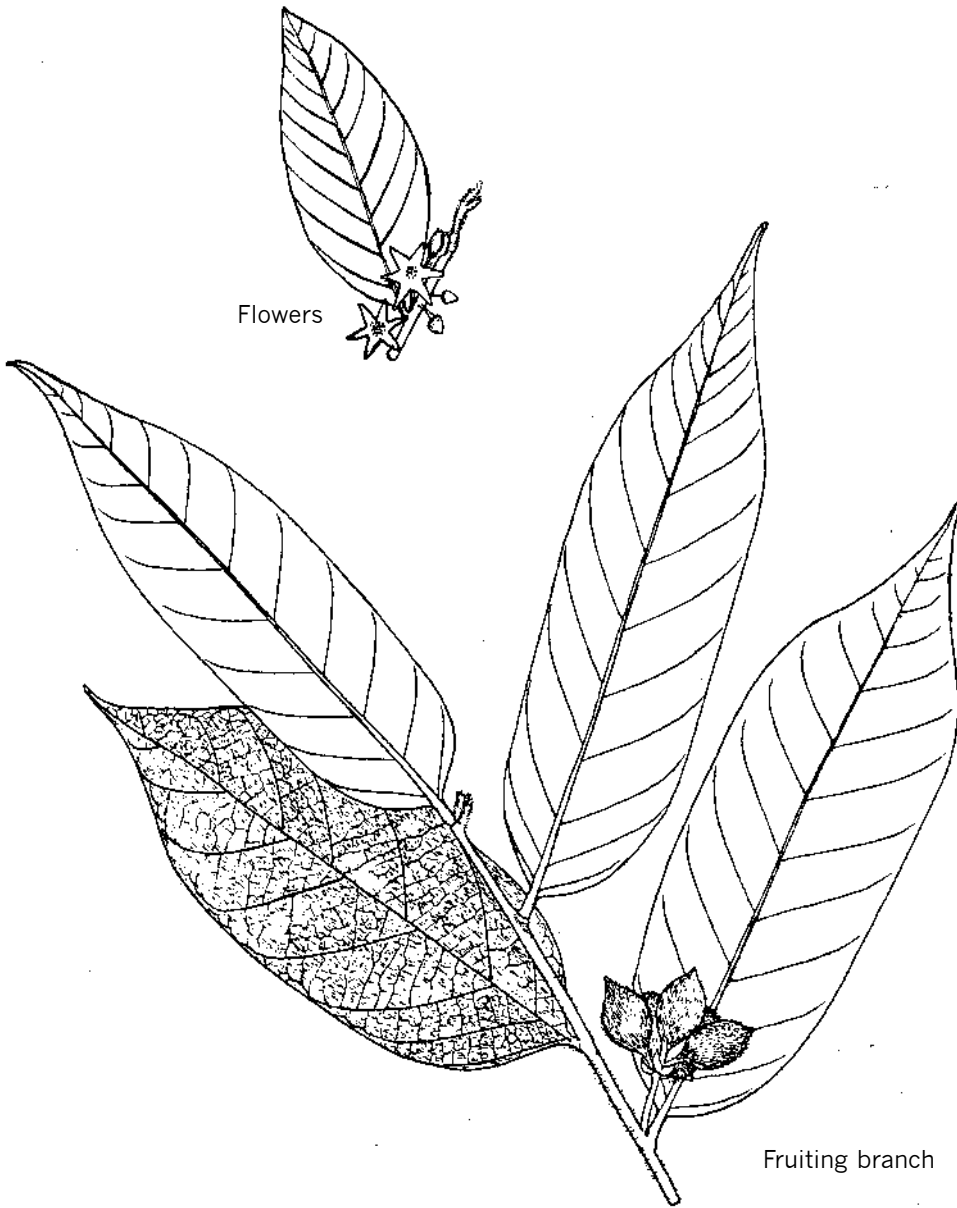
**MANAGEMENT:** Collected from the wild and not cultivated or protected by the local people. It can be propagated using fresh seed.

**STATUS:** In Tanzania, this species is only found in Kigoma Region.

**REMARKS:** Fruits are also eaten by chimpanzees.

*Monanthonaxis poggei*

Annonaceae



***Multidentia crassa* (*Canthium crassum*) Rubiaceae**

Indigenous

LOCAL NAMES: **Bena:** Muwewe; **Bende:** Mugogolo; **Hehe:** Mbwewe, Muwewe; **Matengo:** Mandikiti; **Ndendelule:** Mandikiti; **Nyamwezi:** Mkukumba, Mukukumba, Muyogoyogo; **Nyakyusa:** Ingulungulu; **Rangi:** Musede; **Sandawi:** Nam; **Tongwe:** Lungogolo; **Zinza:** Munyabitwa.

DESCRIPTION: A deciduous shrub or small tree to 6 m. BARK: **Grey-black, rough, thick** and fire resistant, peeling off the main trunk to expose a reddish underbark; if cut, much whitish sap. Young shoots stout, the corky bark powdery grey-white-yellow. LEAVES: **Rather large**, in opposite pairs and more than one pair found **at the tips of branches**—conspicuous on bare trees. Leaves fleshy, becoming stiff or papery, **3–27 cm long** x 2–15 cm wide, tip usually blunt, smooth above, **paler and hairy below with a clear vein network**, on a stalk to 2.5 cm, persistent long-pointed stipules to 1 cm. FLOWERS: **Yellow-green, in dense bunches in leaf axils, on stalks to 5 cm**, all parts hairy, even woolly, each flower with 5 fleshy petals only 6 mm long, the **calyx tubular with 5 equal lobes** (contrast *Canthium*). FRUIT: Green mottled brown, yellow, dull red or brown spotted with white, **round but flattened to 4 cm wide** with 2 lobes, fleshy and edible.

ECOLOGY: Found in woodland, thicket and grassland, particularly on burnt hillsides and rocky places, 900–2,100 m.

DISTRIBUTION: Found in most parts of dryland Tanzania excluding coastal areas. Also found in north-west Uganda, Burundi, the Congo basin, Sudan, Central African Republic, Mozambique, Malawi, Zambia, Zimbabwe and Angola.

USES:

**Food:**

Fruits are edible. Ripe fruits are fleshy, sweet and eaten raw. They are eaten as a snack and are generally well liked.

**Medicinal:**

- Leaves are pounded, soaked in water and the juice applied into the ears to treat earache.
- Roots are used as medicine for earache, stomach-ache and intestinal worms.

**Commercial:** Sold in local markets.

**Other:** The wood is used for firewood, charcoal and spoons. The tree is used for ornamental purposes and bee forage.

SEASON: Ripe fruits are collected from April to June.

STORAGE: Ripe fruits are collected, dried and stored for several weeks.

MANAGEMENT: Collected from the wild and not cultivated or protected by the local people. It can be propagated using seeds.



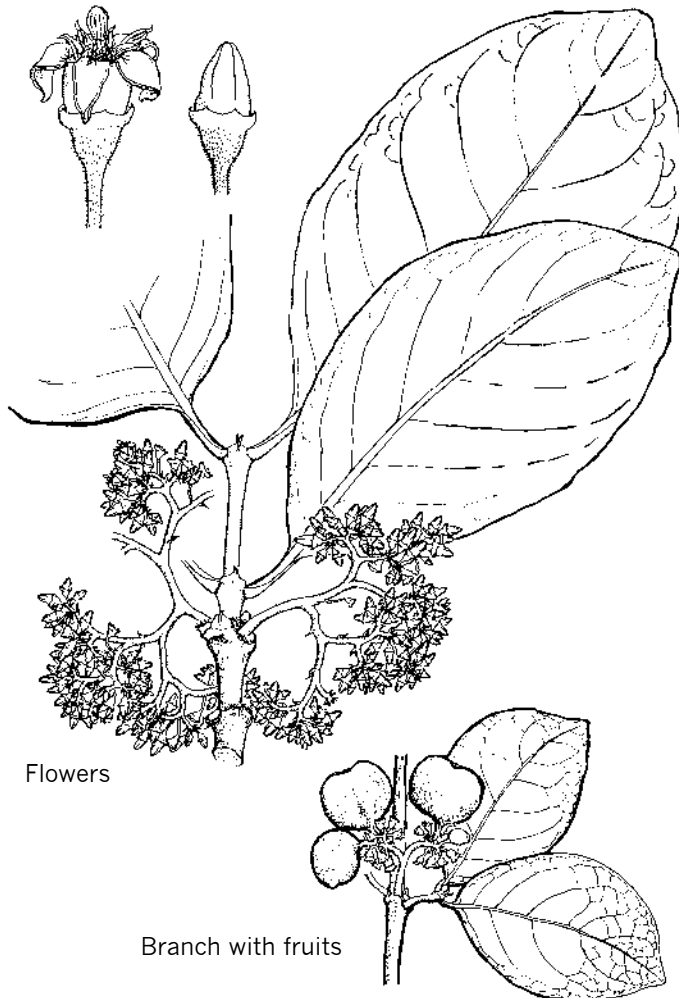
*Multidentia crassa* (contd)

## Rubiaceae

STATUS: Locally common.

REMARKS: Several other *Multidentia* species have edible fruits, including the following two:

1. *M. fanshawei* (**Hehe**: Mdegege, Msadasada; **Sambaa**: Mkulukwa) a shrub 1–3 m tall found in Iringa and Mbeya Regions;
2. *M. sclerocarpa* (**Sambaa**: Kiviruviru, Ntuavuka) a shrub or small tree up 13 m tall which is found only in Tanga Region.

*M. crassa*

***Myrianthus arboreus*****Cecropiaceae**

Indigenous

LOCAL NAMES: **Bondei**: Mkonde; **Ha**: Umufe; **Hehe**: Mfutsa; **Luguru**: Mdewerere, Mfuza, Mkwayaga, Mlowelowe; **Matengo**: Mhunsa; **Nyiha**: Liwisa; **Sambaa**: Mkonde; **Tongwe**: Isakama; **Zigua**: Mkonde.

DESCRIPTION: This rainforest tree is easily recognized by its **huge leaves** and its fruit. A large shrub to medium-sized under-storey tree, about 10 m (to 20 m), **the short trunk** divided into several steeply ascending thick branches to an untidy spreading crown. It is one of the few Tanzanian trees to have **thick stilt roots** to 60 cm long. BARK: Smooth, thin and brown, watery sap below. LEAVES: Alternate, **usually 5–7 leathery leaflets, the whole blade 30–90 cm across on a stalk to 50 cm long**. Each leaflet oval, wider at the tip, **edges sharply toothed**, the central leaflets about 25 cm long x 9 cm wide, but the outer leaflets half that size, the **lower surface hairy, white** between many raised brown veins. Leaves red when young. FLOWERS: Separate male and female flowers, usually paired heads beside leaves; male stalk much divided, about 15 cm long, the terminal branches densely covered with **tiny flowers, each with 2–4 stamens, dark yellow**; round female flower heads with 20–50 tiny flowers, yellow, **about 3 cm across**, shortly stalked. FRUIT: **Compound, bright yellow when ripe, 6–10 cm across, on a stalk to 6 cm, oval to round** (variable depending on how many flowers were fertilized), **each section about 2.5 cm and 5-sided**, a tough sandpapery skin, soft pulp inside, a thin layer of sweet gelatinous flesh around one hard oval light brown seed.

ECOLOGY: Rain or swamp forest, in clearings and regrowth, riverine or lakesides, 700–1,200 m.

DISTRIBUTION: Widespread in Tanzania, e.g. in Kigoma, Rukwa, Morogoro, Arusha, Songea and Tanga Regions. Also in Uganda, extending to southern Ethiopia and southern Sudan, the Congo basin, northern Angola and west to Guinea.

USES:

**Food:**

Yellow, ripe fruits are collected from the forest and eaten as a snack. The fruit is sweet, with a flavour like *Annona*. A well-known fruit eaten in many parts of Tanzania.

**Medicinal:**

- Leaves are used as medicine for improving lactation in women. The leaves are pounded, boiled and the liquid drunk three times a day.
- Roots are boiled and the liquid gargled to treat sore throat.

**Other:** The wood is light and used for firewood, wooden pots and spoons. Fruits are used as fodder for pigs. The tree is important for shade, soil enrichment (leaves) and bee forage.

*Myrianthus arboreus* (contd)

## Cecropiaceae

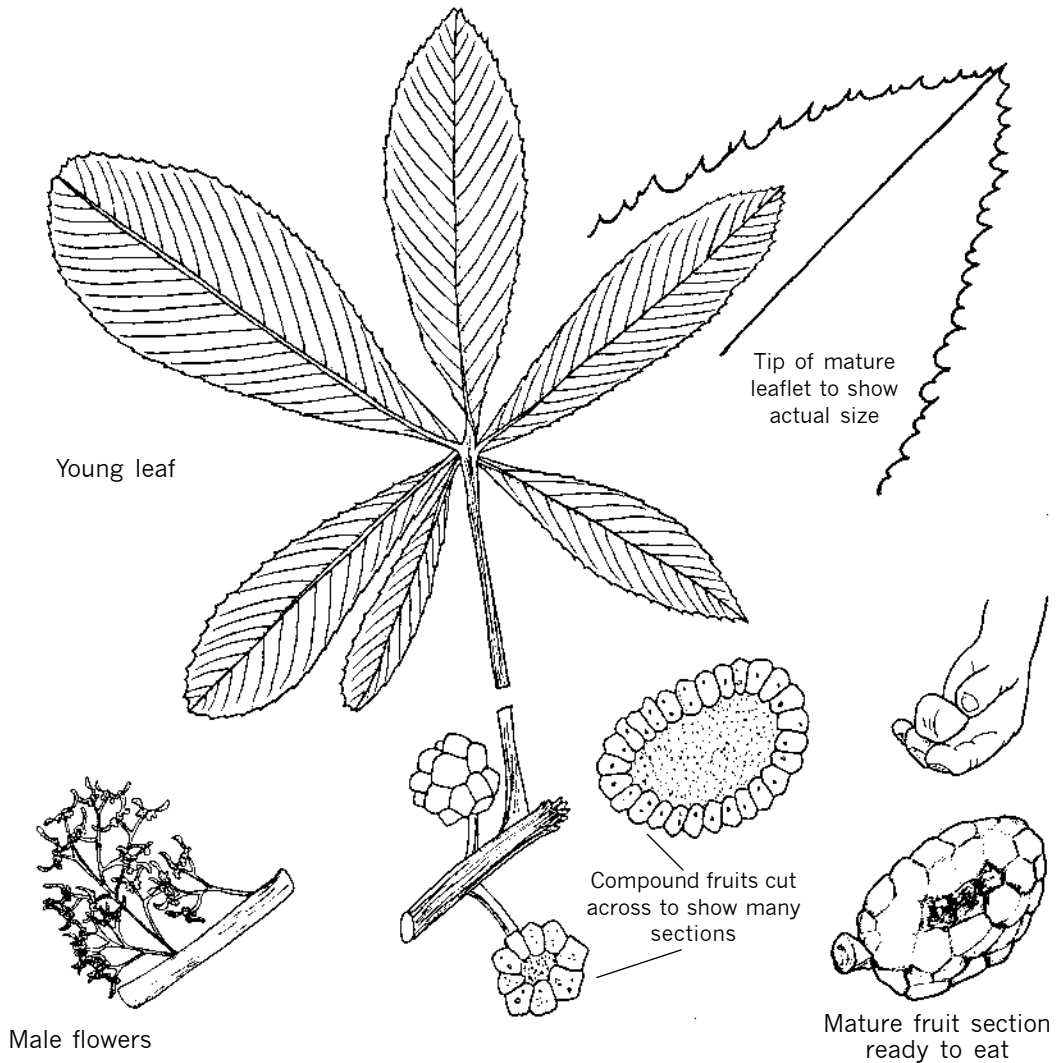
SEASON: Collected in the early dry season.

STORAGE: Not stored.

MANAGEMENT: Collected from the wild and not cultivated but usually protected while clearing land for farming. Can be propagated using fresh seed.

STATUS: Common and easily accessible within its area of distribution.

REMARKS: This tree has been grown from seed in Kilolo (Hima nursery), Iringa Region, and produced fruit in 4–5 years.



*Myrianthus holstii*

## Cecropiaceae

Indigenous

LOCAL NAMES: **English:** Giant yellow mulberry; **Hehe:** Mftsa, Mfutsa, Mkwaliiti, Mufutsa, Mvalambi; **Kaguru:** Mfuza; **Kinga:** Mabagala; **Luguru:** Mdewerere, Mkwayaga, Mlowelowe; **Matengo:** Mahusa, Muhusa; **Nguru:** Mkonde; **Nyakyusa:** Mskisya, Msuisya, Mswiza; **Nyiha:** Liwisa; **Sambaa:** Mkonde, Mkonde dume; **Tongwe:** Isakama; **Wanji:** Libangala; **Zigua:** Mkonde.

DESCRIPTION: A medium-sized tree to 1–20 m with a short trunk and large branches, often with stilt roots to 60 cm high. BARK: Grey-brown, much watery sap inside which turns black in the air. LEAVES: Distinctive, **very large, 25–60 cm across and compound palmate with 5–7 leaflets**, the largest central leaflets 20–30 cm long, outer leaflets smaller, **edge saw toothed**, upper surface smooth dark green, **lower side grey-green, hairy**, with conspicuous veins, on a brown hairy stalk 7–35 cm long. FLOWERS: Sexes separate: male flowers on thick branched heads 4–15 cm across, 6 cm long, densely covered with **tiny green flowers with orange anthers**; female flowers 20–40 on a **stalked head, yellow, 2 cm diameter**. FRUIT: **Round and yellow, 4 cm across, with hard sections, each conical and pointed** (resembling a small pineapple). Each seed in a section surrounded by acid edible pulp.

ECOLOGY: Rainforest, montane forests, sometimes at edges or in regrowth and along rivers, 900–2,100 m.

DISTRIBUTION: In Tanzania it is found in Tanga, eastern and the Southern Highlands. Also in Uganda, Kenya, parts of Central Africa, and south to Mozambique, Malawi, northern Zambia and eastern Zimbabwe.

USES:

**Food:**

Fresh fruits are collected from the tree and eaten as a snack.

**Other:** The wood is white, soft and used for firewood, torches and cups.

SEASON: Collected from February to June.

STORAGE: Not stored.

MANAGEMENT: Collected from the wild and not protected or cultivated by local people.

Can be propagated by fresh seeds, coppices and root suckers.

STATUS: Generally scattered within its area of distribution.

*Myrianthus holstii*

Cecropiaceae



Female flower heads



Compound fruit from female plant

*Myrsine africana*

## Myrsinaceae

Indigenous

LOCAL NAMES: **Barabaig**: Segedid; **Bondei**: Zuma; **English**: Cape myrtle; **Gorowa**: Mahheli; **Maasai**: Olsegetit; **Matengo**: Kanakalayi.

DESCRIPTION: An evergreen perennial undershrub or small tree, 1–5 m, often much branched; branches grey-brown-purple and finely grooved, new shoots densely hairy. BARK: Red-brown, rough. LEAVES: Alternate, simple and **small, 0.5–2 cm long, rather crowded on branchlets, leathery, shiny** green above, almost stalkless, variable in shape, the **edge usually with tiny sharp teeth, often confined to the upper leaf**, tip narrowed, often notched, base narrowed. FLOWERS: Small (3 mm), male and female or both, in **axillary clusters** among newly grown leaves, green-white to pink-crimson, rather large **purple anthers hang out beyond the 4 petals, calyx with glands**. FRUIT: **Round berries, 5 mm diameter, pink-purple when ripe, thinly fleshy, containing one seed.**

ECOLOGY: Upland forest edges, open wooded grassland, stony hillsides in grassland and pasture, sometimes riverine on sandy soil, volcanic soil or lava, 1,200–3,600 m.

DISTRIBUTION: Found in the northern, central and southern highland areas of Tanzania (not in Uluguru Mountains). Also found in Kenya, Uganda, and in other mountains of eastern Africa from Ethiopia and Socotra to Zambia, Angola, South Africa; also the Azores, the Arabian peninsular eastwards to China, and in Europe cultivated from seed as an ornamental shrub.

USES:

**Food:**

Ripe fleshy fruits are picked and eaten fresh (Lwanji, Kinga).

**Medicinal:** Fruits are used for treatment of intestinal worms, chest pains and general stomach problems. Fruits are dried, pounded, and the powder is soaked in water. The liquid is then drunk three times a day.

**Commercial:** Not marketed.

**Other:** The wood is hard and used for firewood and withies. The plant is used for ornamental purposes.

SEASON: The fruits are collected from June to December.

STORAGE: Not stored.

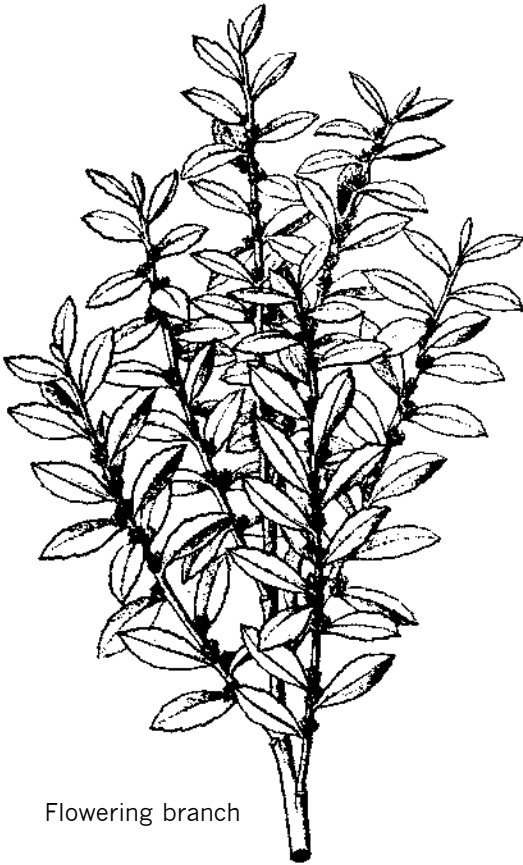
MANAGEMENT: Collected from the wild and not protected or cultivated by local people, but can be propagated from seed.

STATUS: Common and easily accessible within its area of distribution.

REMARKS: A suitable species for hedges and as an ornamental in highland areas.

*Myrsine africana*

Myrsinaceae



Flowering branch



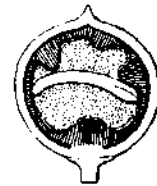
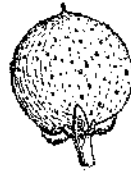
Part of female flowering branch



Male flower



Female flower



Fruit in section

*Nicandra physaloides*

## Solanaceae

Central America, Peru

LOCAL NAMES: **Bondei:** Kibwabwa; **Hehe:** Nyasongwe; **Sambaa:** Kibwabwa, Mnavu-zinge.

DESCRIPTION: An erect annual herb, usually 1.5 m, with stout branched stems, angled and grooved. LEAVES: Alternate, simple, **rather large and oval**, wider at the base, bright green, to 12 cm long x 7 cm across, **the edge irregularly and deeply toothed, abruptly narrowed at the base to a stalk about 3 cm.** FLOWERS: **Solitary in leaf axils**, almost hidden within a **characteristic green calyx**, the 5 winged sepals heart shaped with 2 curved pointed lobes at the base, the **corolla pale blue or mauve, white within, funnel shaped with 5 round short lobes, to 4 cm across.** FRUIT: **A round yellow berry held within the persistent inflated calyx**, brown and membranous, the berry containing numerous small brown seeds, each sepal now 3 cm x 2 cm.

ECOLOGY: A weed of croplands, wastelands, gardens, sometimes a dominant weed in maize, 100–2,000 m.

DISTRIBUTION: A weed originating from Central America and Peru, now cosmopolitan and found in various parts of Africa; Tanzania, Kenya, Zimbabwe and South Africa. Widespread in Tanzania.

USES:

**Food:**

Leaves are used as a vegetable. Tender leaves are collected, chopped, washed and cooked alone or with other vegetables such as amaranth or cowpeas. Then coconut milk or pounded groundnuts are added and it is served with *ugali* or rice.

**Commercial:** Sold in local markets.

**Other:** The plant is used for ornamental purposes.

SEASON: Leaves are collected during the rainy season.

STORAGE: Not stored.

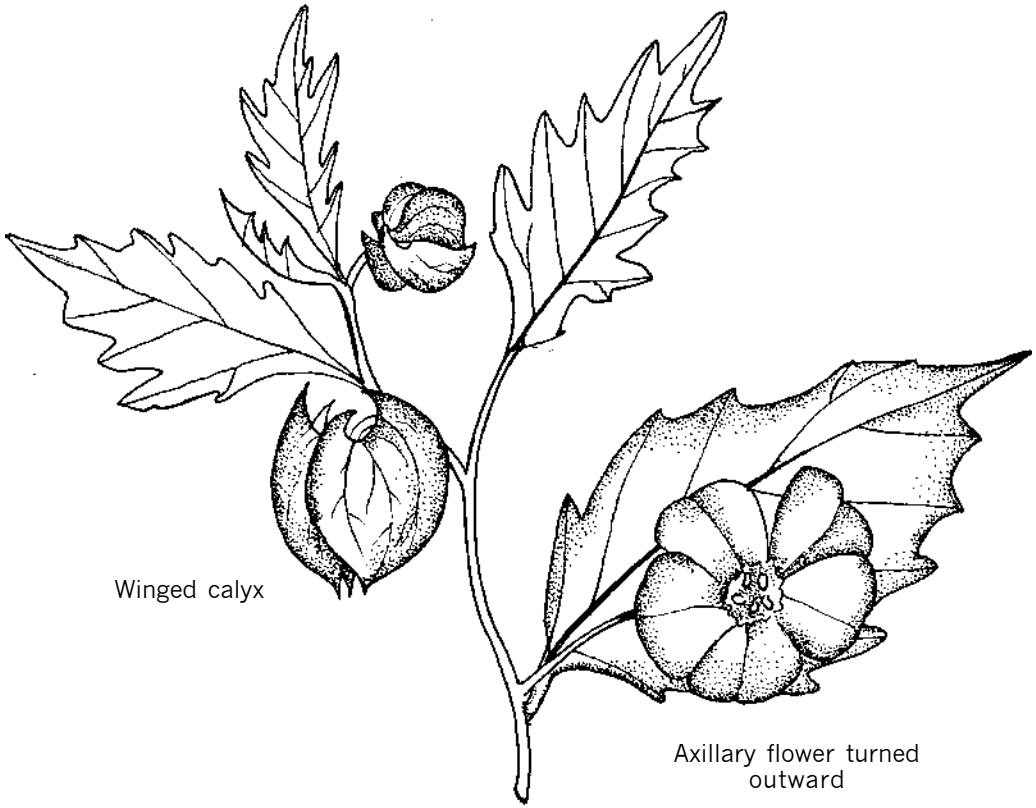
MANAGEMENT: Usually collected from the wild and not cultivated or protected by local people, but can easily be propagated from seed.

STATUS: Common and easily accessible within its area of distribution.



*Nicandra physaloides*

Solanaceae



Winged calyx

Axillary flower turned outward

*Nymphaea lotus*

## Nymphaeaceae

Indigenous

[Plate 3]

LOCAL NAMES: **Bena:** Lombo; **Digo:** Toro; **English:** White lotus, Winter lotus; **Hehe:** Lubehe; **Luo:** Yunga; **Ngindo:** King'ala; **Nyamwezi:** Maleve; **Swahili:** Myungiyungi.

DESCRIPTION: An aquatic plant growing from a large oval **tuberous rhizome**. Many stalks carry leaves which float on the surface or are submerged, depending on the season and the water level. There are air spaces inside the stalk and leaf tissue. LEAVES: Large and **rounded to deeply heart shaped**, the basal lobes touching or **slightly overlapping**, **10–32 cm** long, no hairs but clear **spreading veins** to the **edges, which have regular sharp brown teeth**, 7–9 primary veins below, the whole network raised, green above but red-purple-brown below. FLOWERS: **White**, fragrant, solitary at or above the water surface, **10–18 cm across**, 4 green sepals, 16–20 petals, a **mass of yellow stamens in the centre**. FRUIT: **Rounded but flattened, 4–9 cm diameter**, containing many seeds, ripening under water.

ECOLOGY: A water plant of sheltered still water 0.5–2.5 m deep, also in swamps and fringes of Lake Victoria, 0–1,200 m.

DISTRIBUTION: Found in many parts of Tanzania, including Zanzibar and Pemba but not in the central part. Also in Uganda, Kenya, Egypt and widespread in tropical Africa into South Africa and Madagascar. Widely cultivated in the Americas, a variety in Australia.

USES:

**Food:**

- Tubers are edible. They are collected, boiled and eaten.
- Alternatively, the tubers may be sliced, dried in the sun and then pounded into flour. The flour is then used to make porridge.

**Commercial:** Not marketed.

**Other:** The plant is used for ornamental purposes.

SEASON: Tubers are collected all year around.

STORAGE: The flour from pounded tubers can be stored for several months.

MANAGEMENT: Collected from the wild and not protected or cultivated by local people.

Regarded as a water weed. Can be propagated using seed, suckers and rhizomes.

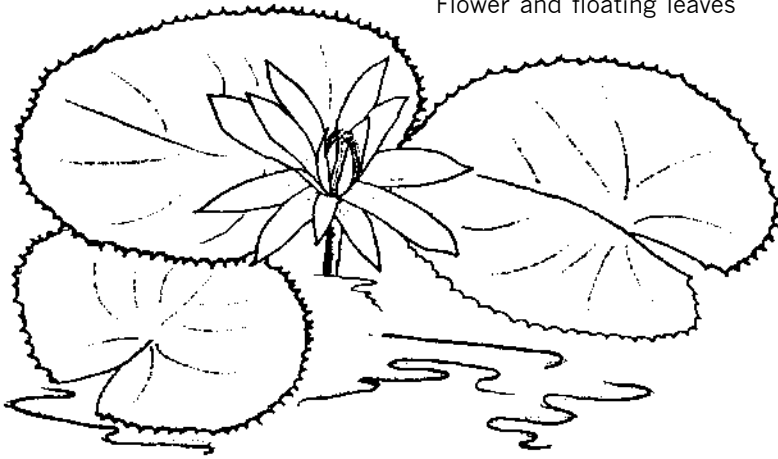
STATUS: Common and easily accessible within its area of distribution.

REMARKS: Another water lily, *N. nouchali* var. *caerulea* (**English:** Blue lotus of Egypt, Water lily; **Nyamwezi:** Maleve; **Swahili:** Myungiyungi), is also eaten in the same way. It resembles the above species but has blue flowers and is widespread in East Africa and southwards to South Africa. Also found in Egypt, Sudan and West Africa. Several other exotic species of *Nymphaea* are cultivated in ponds for ornamental purposes.

*Nymphaea lotus*

Nymphaeaceae

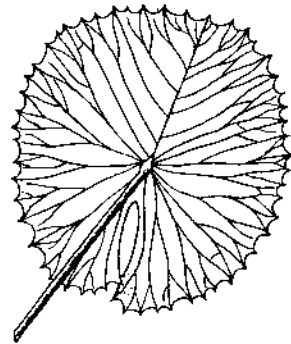
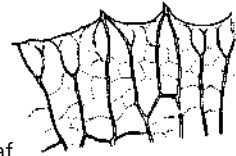
Flower and floating leaves



Fruiting head



Lower surface of young leaf and margin enlarged



Section of rhizome



Under water rhizome with buds and young leaves

***Oldenlandia corymbosa* var. *corymbosa*      Rubiaceae**

Indigenous

LOCAL NAMES: **Hehe:** Nyangulunga; **Sambaa:** Mkeyamasha.

DESCRIPTION: An erect or prostrate sparsely branched annual herb, stems to 30 cm; sometimes rooting from the nodes. LEAVES: **Small and narrow, about 4.0 cm x 0.5 cm**, usually six to eight times longer than wide, **base narrowed, tip pointed**, arising at nodes with a stipular sheath. FLOWERS: **Very small, white** or some pink stripes, **on long stalks from leaf axils, 4 petal lobes longer than the 2.5 mm tube**, 2 mm or less across, 4 very narrow red-green sepals. Sometimes 2–5 flowers on a divided stalklet to 1.8 cm. FRUIT: Dry capsules, pale brown, membranous, about 2.8 mm wide, held on thin stiff stalks reaching well beyond the leaves, tending to hang down, somewhat 2-lobed containing several pale brown seeds.

ECOLOGY: Grassland with long or short grass, bushland, montane scrub, shallow soil on rocks, sandy river ridges, furrows and dry ponds on black-cotton soil, cultivated and disturbed ground, 0–2,300 m.

DISTRIBUTION: Most parts of Tanzania including Zanzibar Island, but excluding the central and western parts of the country; widespread in Africa including Democratic Republic of Congo, Burundi, Uganda, Ethiopia and Kenya.

USES:

**Food:**

- Tender leaves and stems are cooked with other vegetables such as *Amaranthus* and *Cucurbita* species and act as a softener for the other cooked vegetables.
- Leaves and stems are burnt, the ash mixed with water then filtered and the liquid used as a tenderizer when cooking other vegetables.

**Medicinal:** Leaves are pounded, soaked in warm water and the liquid drunk to treat stomach disorders.

**Commercial:** Not marketed.

**Other:** The plant is used as fodder for rabbits and for ornamental purposes.

SEASON: Usually collected during the rainy season.

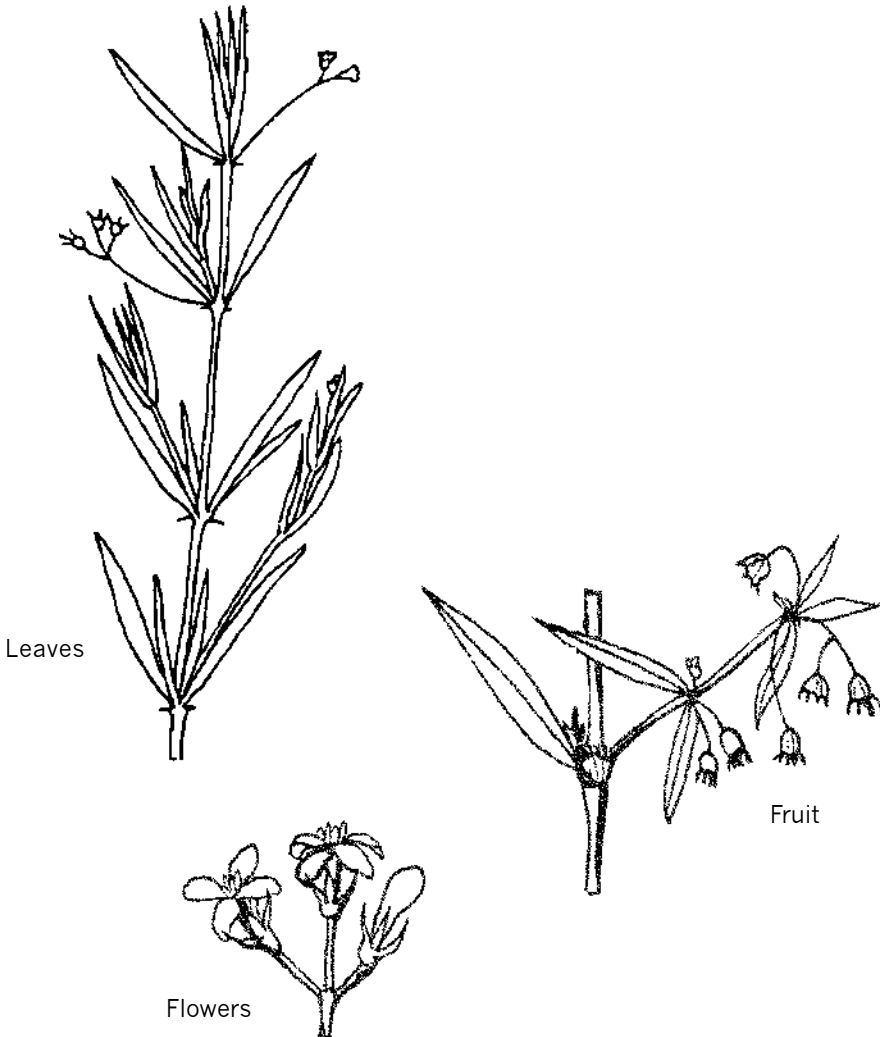
STORAGE: The ash obtained from burnt leaves and stems can be stored for several months.

MANAGEMENT: Collected from the wild and not cultivated or protected by the local people, but can be propagated by seed and cuttings.

STATUS: Common and easily obtainable within its habitat.

REMARKS: There are five varieties in East Africa; sometimes an abundant weed.

*Oldenlandia corymbosa* var. *corymbosa*      Rubiaceae



*Oldfieldia dactylophylla*

## Euphorbiaceae

Indigenous

LOCAL NAMES: **Haya:** Msamina; **Nyamwezi:** Mkalanga, Mliwanfwengi, Muliwanfwengi.

DESCRIPTION: A semi-deciduous tree up to 15 m high with a short bole, usually swollen at the base; spreading branches give it a flattish or rounded open crown. Thick branchlets covered with red-brown hairs. BARK: Grey-black, scaly, with deep vertical cracks and ridges, rather like crocodile skin. LEAVES: **Compound, digitate** like fingers of a hand with **3–7 unequal leaflets**, each one shortly stalked, **dark green and leathery**, long oval, shiny above but **brown hairy below**, to 12 cm long. The leaves have **stalks, 10 cm**, alternate on the branches. FLOWERS: Very small, on male and female trees, buds hairy brown. Female flowers solitary, male flowers in dense clusters, orange brown, April–October. FRUIT: Round and dull yellow-green, softly hairy, 2 cm diameter, edible pulp around the seeds; fruit break open to release seed.

ECOLOGY: Found in miombo woodland; 1,100–1,500 m, rainfall 700–1,000 mm. Grows on various soil types including sandy loams, sandy clay loams and red clay loams.

DISTRIBUTION: Common in Mwanza, Tabora and Singida Regions. Also found in Malawi, Zambia and eastern Angola.

USES:

**Food:**

The fruit pulp is edible. Ripe fruits are collected from the tree and the pulp around the seeds is eaten while the seeds are rejected. They have a sweetish taste and are favoured by children and herdsman.

**Medicinal:** A decoction from the roots is used as medicine for treatment of STDs and hernia. It is also used as an aphrodisiac. Roots are washed, boiled and the liquid is given to the patient three times a day (Nyamwezi).

**Commercial:** Not marketed.

**Other:** The wood is used for firewood and for making spoons.

SEASON: Fruits are collected from April to May.

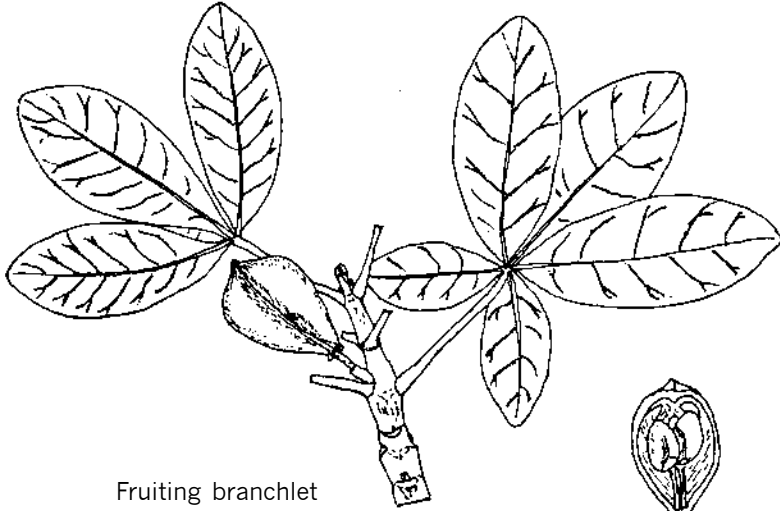
STORAGE: Not stored.

MANAGEMENT: Collected from the wild and not cultivated or protected by local people. Can be propagated by seed.

STATUS: Uncommon and only scattered in its area of distribution.

*Oldfieldia dactylophylla*

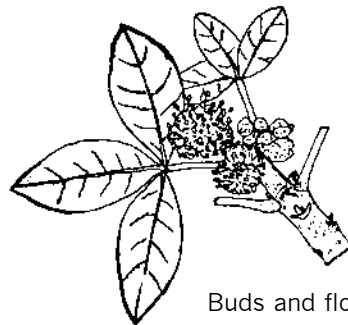
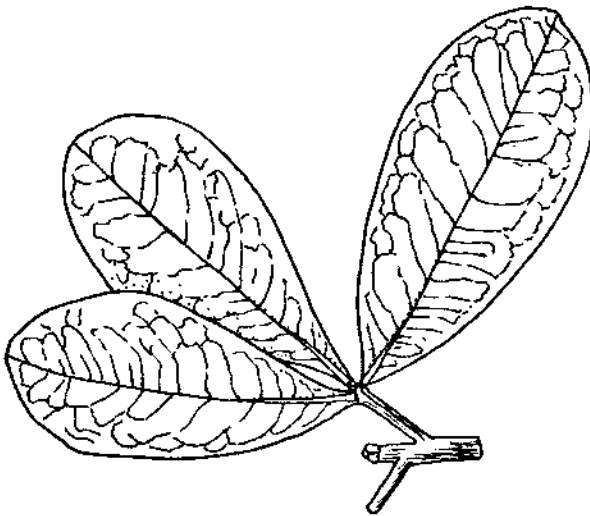
Euphorbiaceae



Fruiting branchlet



Fruit section



Buds and flowers

***Oncoba spinosa*****Flacourtiaceae**

Indigenous

LOCAL NAMES: **Chagga:** Mdara; **Kerewe:** Msebeye; **Kimbu:** Mduvi; **Maasai:** Olboldoli, Olsanangururi; **Mwera:** Ng'ewe; **Nyakyusa:** Msaibi; **Nyika:** Msangu; **Nyamwezi:** Mduvi; **Sambaa:** Mtonga; **Swahili:** Mdara; **Tongwe:** Kaposo, Katwa; **Zinza:** Msuguswa.

DESCRIPTION: A semi-deciduous spiny shrub or small tree 4–10 m, much branched to a rounded bushy crown. BARK: **Smooth, light-grey brown, young branches speckled with lenticel dots**, becoming dark brown, scaly with age. Branches with **straight, axillary spines to 8 cm, slender and sharp**, while the main trunk may have shorter compound thorns. LEAVES: Alternate, leathery, **strong shiny green**, often recurved, broadly oval, about 8 cm long, margin with **small rounded or pointed teeth**, sometimes few, base tapering to a short stalk, tip well pointed. FLOWERS: **Solitary, showy and fragrant, white** or pale pink up to **9 cm across**, on stalks 1–2 cm, with 8–10 white overlapping **petals about 3 cm long**, twice the size of 4 sepal lobes, **a mass of golden stamens in the centre, the green-cream central stigma knob about 4 mm across** (seen clearly on young fruit). FRUIT: **Round, shiny red-brown when ripe, 5–6 cm in diameter**, the hard “shell” marked with **8 faint lines**, the old calyx persists. Inside shiny brown seeds lie in a dry thick yellow-brown pulp, edible but sour.

ECOLOGY: Found along river banks, in woodland, scrub forest, sometimes forming thickets in river valleys, bushland, *Brachystegia* woodland, 0–1,800 m.

DISTRIBUTION: Widely distributed throughout tropical Africa, Arabia, South Africa. Almost every part of Tanzania, Uganda and Kenya.

USES:

**Food:**

The ripe orange-yellow pulp is eaten fresh. The seeds are rejected. It tastes sweet and is eaten as a snack or as a famine food.

**Medicinal:** Roots are pounded, soaked in hot water and the liquid drunk to treat headache and dysentery, and it is also used in “magic” ceremonies.

**Commercial:** Not marketed.

**Other:** The dry fruit is bored with holes and filled with dry seeds of *Sesbania* to make a rattle-like percussion instrument. Dry fruits are used as snuff containers (Sambaa).

SEASON: Fruits are collected from April to June.

STORAGE: Not stored.

MANAGEMENT: Collected from the wild and not protected or cultivated by local people. However, it can be propagated from seed.

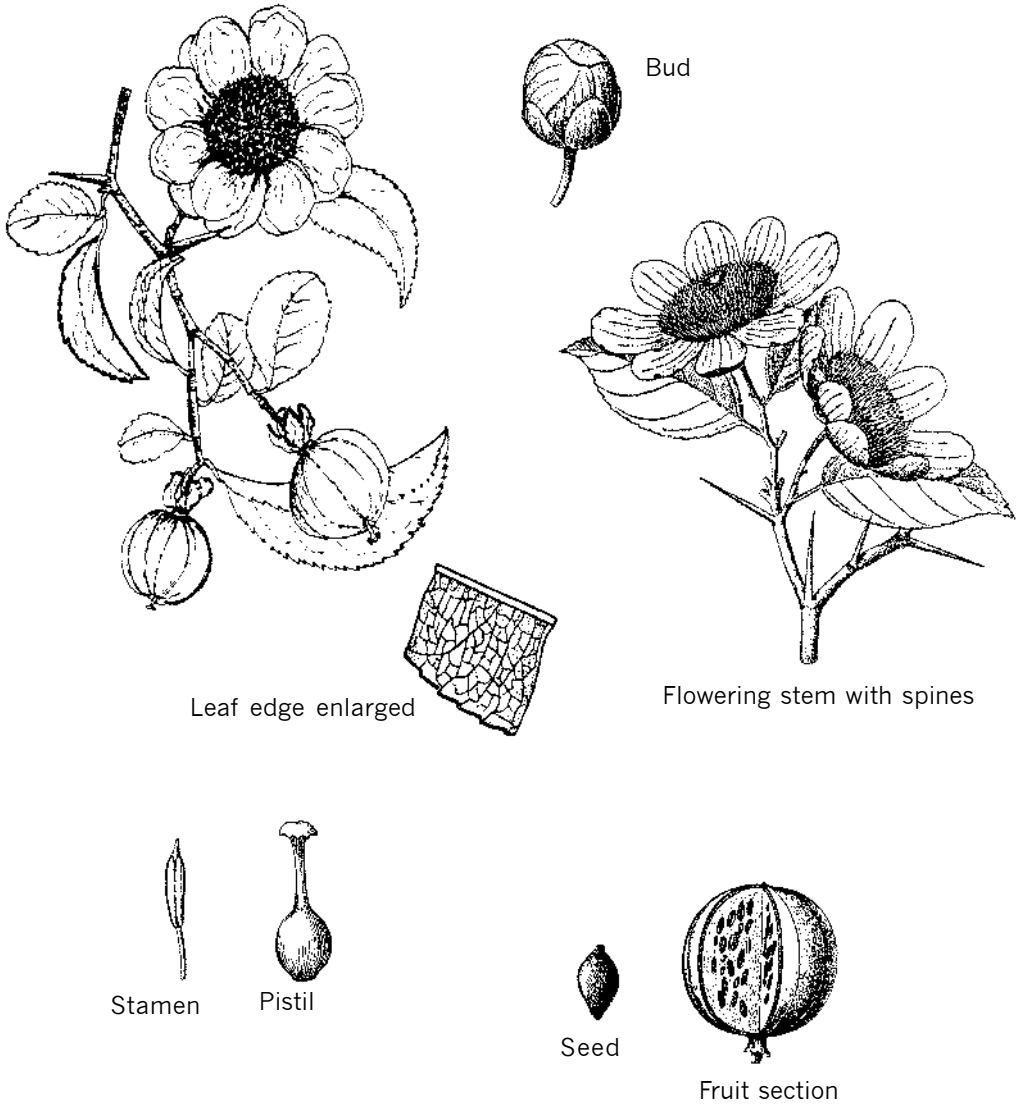


*Oncoba spinosa* (contd)

Flacourtiaceae

STATUS: Locally common.

REMARKS: Not much liked in cultivated areas because of its thorns and it is also regarded as competing with crops.



*Opilia amentacea* (*O. celtidifolia*)

## Opiliaceae

Indigenous

LOCAL NAMES: **Arusha:** Engirusha; **Gogo:** Mtulu; **Hehe:** Lukokonza, Nyamtulo; **Luguru:** Mlende; **Maasai:** Engirushai; **Nyakyusa:** Kalemela; **Nyamwezi:** Kaguha, Luvisu; **Nyaturu:** Musundu; **Sambaa:** Mwevumbulo; **Sandawi:** Tsengeré; **Sukuma:** Lubisu; **Zigua:** Mwevumbulo.

DESCRIPTION: An evergreen shrub, **often a climber** or erect to 10 m, branching from near the base. Young branches green or reddish, hairy or not. BARK: Older bark grey–dark brown, the pale breathing pores showing up as lines on ridges of cork. LEAVES: **Alternate**, on stalks 3–8 mm, **long oval, 5–12 cm**, tip usually pointed, upper surface shiny, 2–7 pairs veins clear below, base narrowed or rounded, stiff. FLOWERS: **Appear with the mature leaves**, small and regular, axillary, solitary or clustered, **sweet-scented**, covered with little hairy bracts at first appearing like a cone, becoming **catkin-like on a stalk to 5.5 cm**, the **5 tiny petals cream-yellow-green**. FRUIT: An **ovoid drupe to 2.5 cm, yellow-orange** when ripe, containing a large edible stone.

ECOLOGY: A plant growing in a wide range of environments from coastal bushland, through *Acacia* woodland to dry forest, often in riverine forest; also in upland rainforest, 0–1,900 m.

DISTRIBUTION: In all parts of Tanzania; also Kenya, Uganda; widespread all over tropical Africa southwards to Angola.

USES:

**Food:**

- Fruits are edible. Ripe fruits are picked from the tree and eaten raw.
- Leaves are cooked as a vegetable, either alone or mixed with other vegetables, and served with a staple.

**Medicinal:**

- Pounded root is mixed with sodium bicarbonate and the mixture licked to treat coughs.
- A root decoction or infusion is drunk for relief of fever, mental illness, headache, influenza and stomach problems. The root has purgative and diuretic properties.
- An extract of leaves containing sodium bicarbonate is used as an anthelmintic. A cold-water extract is drunk to treat oedema and a decoction used for toothache.
- The bark is pounded and soaked and used to treat malaria.

**Commercial:** Not marketed.

**Other:** The wood is soft and light and used for firewood, combs, toothbrushes and spoons. The flexible stems are used for making chairs and storage containers. The shrub is used for shade and ornamental purposes.

SEASON: Leaves are collected from April to November.

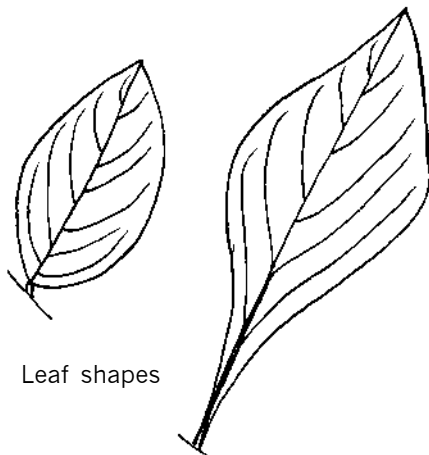
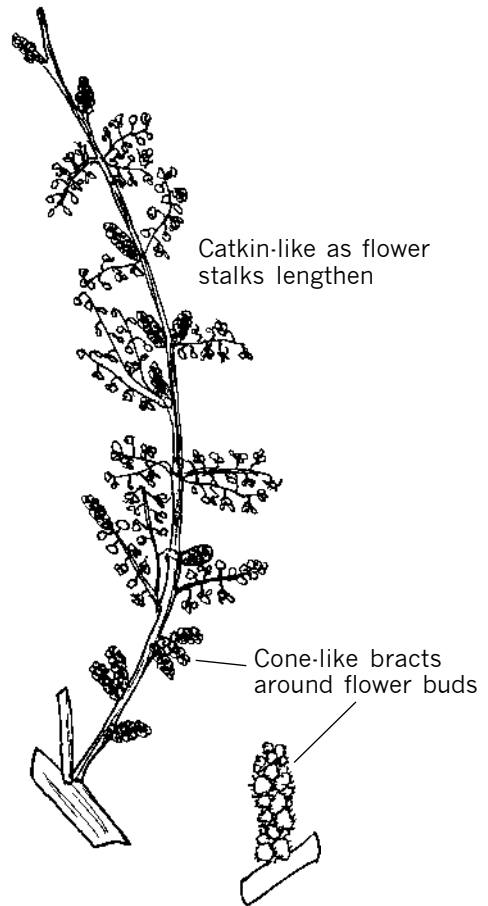
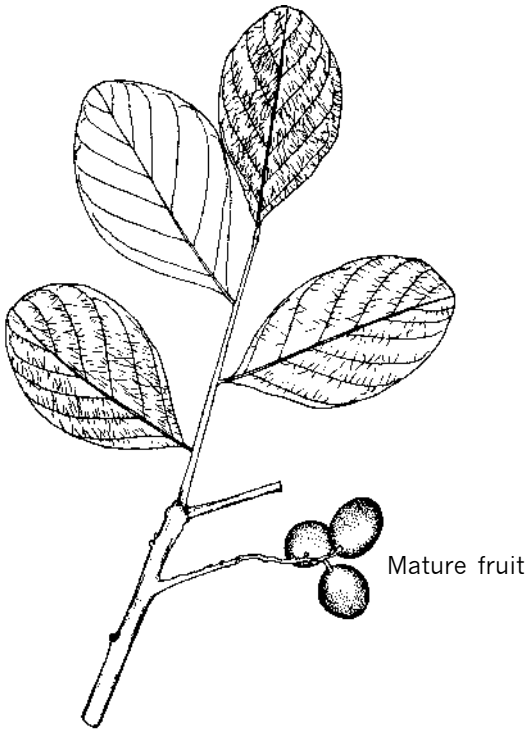
*Opilia amentacea* (contd)

Opiliaceae

STORAGE: Not stored.

MANAGEMENT: Collected from the wild, and not cultivated or protected by the local people. However, it can be propagated by seeds and cuttings.

STATUS: Locally common.



*Opuntia vulgaris* (*O. ficus-indica*)

## Cactaceae

Central America

[Plate 3]

LOCAL NAMES: **English:** Cactus, Prickly pear; **Fiome:** Ahntsi; **Hehe:** Likidindi; **Sandawi:** Tlan/.kakaso; **Swahili:** Masikio tembo, Mfurahisha mkundu, Mpungate; **Sukuma:** Matwigampuli.

DESCRIPTION: A dense succulent bush with swollen articulated branches which become woody, or a tree reaching 2–5 m. Sometimes forms impenetrable thickets. The **oval flattened stem joints grow one above the other, ear shaped, to 40 cm long** and bristling with **tufts of very sharp spines**. These green stems fulfill the function of leaves and manufacture the plant's food. LEAVES: True leaves, small and thin, appear briefly at the tips of very young shoots and soon fall off. FLOWERS: **Bright orange-yellow, 6–8 cm across, with many sepals, petals and stamens** arranged spirally. Flowers develop in rows on the upper edges of young joints almost all year round. FRUIT: **Fleshy and egg shaped but deeply depressed at the top, green, ripening brick-red–yellow–purple**. When ripe, the spiny skin, with its barbed hairs, slips off leaving **sweet edible flesh** around the seeds.

ECOLOGY: A true cactus which grows in arid, semi-arid to humid areas, 900–2,400 m. It can grow in very hot dry areas and in poor soils.

DISTRIBUTION: Found in many towns and villages in Tanzania, including on Zanzibar Island. Its origins are unknown, but probably Central or South America. The plant is now very widespread in tropical and sub-tropical areas, to north Africa and the Mediterranean.

USES:

**Food:**

The fruit is edible when it ripens and softens. The prickly hairs and spines are removed by peeling off the outer skin to expose the sweet inner white pulp which is eaten.

**Other:** The plant is used for ornamental purposes and erosion control, live fence, boundary and grave marking and bee forage.

SEASON: Being a succulent, it can be harvested all the year round.

STORAGE: Not stored.

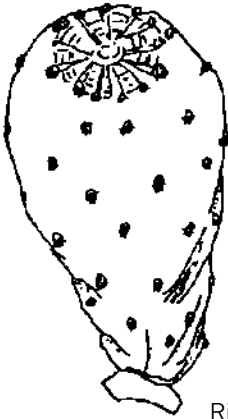
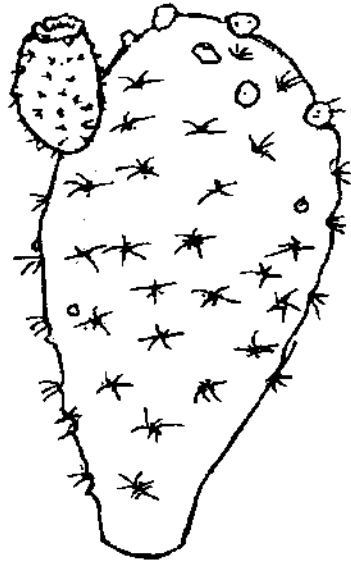
MANAGEMENT: It is planted by cuttings. First introduced for hedges, fodder or fruit, the plant has become widely naturalized. Once established, it is hard to eradicate and may become an unwelcome weed species. Severe control is required.

STATUS: Widely planted, and also spreads on its own.

*Opuntia vulgaris* (*O. ficus-indica*)

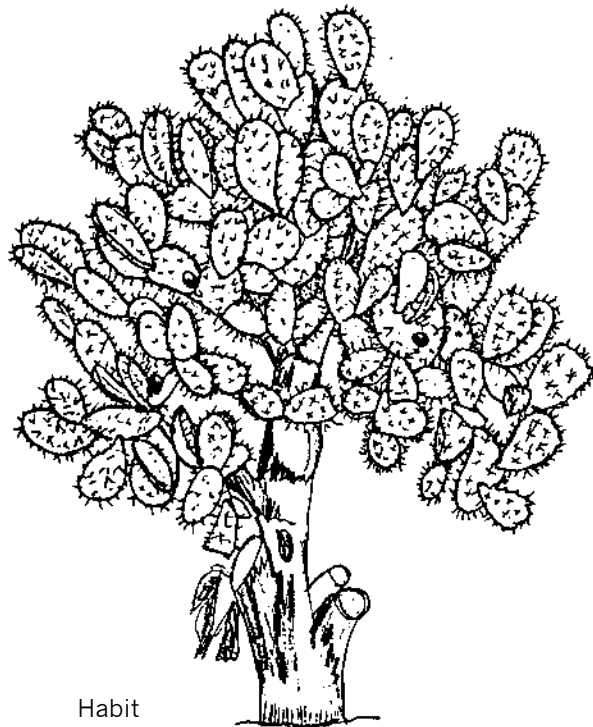
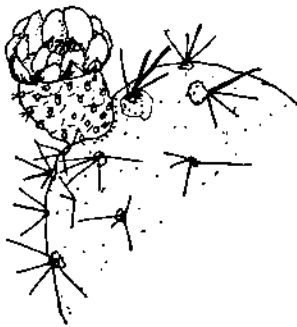
Cactaceae

One stem joint with young fruit



Ripe fruit (c.10 cm long)

Flower



Habit

***Ormocarpum kirkii*****Papilionaceae**

Indigenous

LOCAL NAMES: **Arusha:** Engokiki; **Bondei:** Hombo-kiumbu; **Digo:** Chitadzi, Kitazi, Mtute; **English:** Small caterpillar pod; **Gorowa:** Natsiayi; **Hehe:** Kitimbwi kidala; **Iraqw:** Natsiimo; **Maasai:** Esekilianjoi; **Mbugwe:** Muzisunde; **Ngindo:** Kigoje; **Nyamwezi:** Mkondwampuli, Tuuti; **Nyaturu:** Musinda; **Rangi:** Msongolamambo, Munni, Uwi; **Sambaa:** Hombo, Mhombo; **Zigua:** Kirumbu, Kisogo, Kiumbu.

DESCRIPTION: A shrub or small tree 2–9 m. BARK: Rough and grey. Young twigs with a few white hairs. LEAVES: Usually **clustered on short side shoots with 7–13 pairs of leaflets plus a terminal leaflet**, each **oblong, about 1 cm**, wider at the tip, which has a sharp point, the edge tightly rolled under, darker above than below, leaflets well spaced along the stalk with some hairs. FLOWERS: **Large, pink, deep mauve in the centre, pea shaped**, towards the ends of branches, 1–3 together on short stalks, the standard petal about 1.5 cm long, wider across, **ovary and stalk densely hairy**, corolla remains around the fruit. FRUIT: A **very small pod, barely 2 cm**, hairy, curled into a ring within the brown petals—rarely maturing due to insect attack, so often there is only one perfect seed.

ECOLOGY: A plant of *Acacia-Commiphora* or coastal bushland, dry bushed grassland, 0–1,700 m.

DISTRIBUTION: Common in all parts of Tanzania, and also in Kenya, the Congo basin, Somalia, and south to South Africa.

USES:

**Food:**

The dried leaves are pounded and sieved. This powder is stirred into warm water, which is then boiled while stirring to form a thick paste, which may then be mixed with pounded groundnuts and eaten with *ugali* or rice.

**Medicinal:**

- Ash from this plant is rubbed onto swollen parts of the body after scarification in order to reduce oedema and relieve allergic conditions.
- Roots are to treat rheumatism and stomach problems.
- Crushed leaves are rubbed on to the forehead to treat headache.

**Commercial:** Sold in local markets (Zigua, Sambaa, Bondei, Pare).

**Other:** Leaves are used as fodder for goats. The wood is used for firewood, walking sticks and poles and the tree for fencing and as an ornamental.

SEASON: Collected during the rainy season and early dry season.

STORAGE: The vegetable powder made from pounded dried leaves can be stored for several months.

MANAGEMENT: Usually collected from the wild, but can be propagated by seedlings and cuttings.

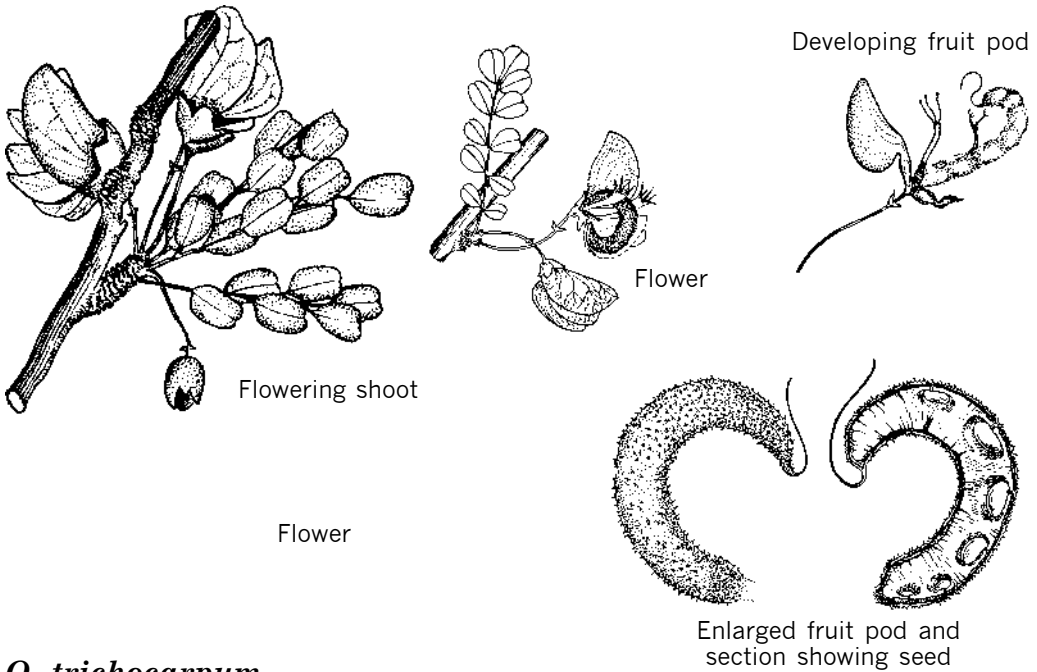
*Ormocarpum kirkii* (contd)

Papilionaceae

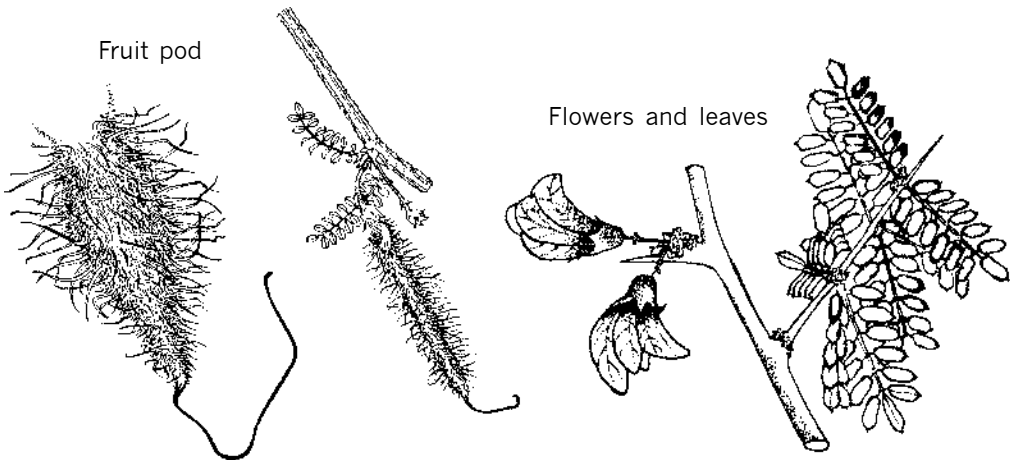
STATUS: Common and easily accessible within its area of distribution.

REMARKS: *O. trichocarpum* (**English:** Large caterpillar pod; **Hehe:** Kitimbwi kigosi; **Maasai:** Esikilianjoi; **Nyamwezi:** Mkondwampuli; **Rangi:** Msongolamambo, Muuwi, Mwuwi; **Sambaa:** Hombo kumbu) is used in the same way as *O. kirkii*. Widespread in Tanzania; also found in Kenya, Uganda and southern Ethiopia.

*O. kirkii*



*O. trichocarpum*



***Osyris lanceolata (O. compressa)*****Santalaceae**

Indigenous

**[Plate 3]**

LOCAL NAMES: **Barabaig:** Getakhubay; **Bena:** Lidunula, Mdunula; **Chagga:** Mberegesa; **English:** African sandalwood, East African sandalwood; **Fipa:** Mkaisya; **Gorowa:** Siginyanyi; **Iraqw:** Kipaa-atu, Kipatina; **Ha:** Umunyinya; **Haya:** Omunyinya; **Hehe:** Mdunula; **Maasai:** Oloyesyyai, Olsesyani; **Matengo:** Kilangati; **Nyaturu:** Munyingwampembe, Muvabaahi; **Pare:** Kizulu, Mzulu; **Rangi:** Kibwala, Kimbwala; **Sambaa:** Mzulu; **Swahili:** Msandali; **Wanji:** Lidunula.

DESCRIPTION: An evergreen shrub or small tree 1–6 m, smaller branches drooping. BARK: Smooth, grey, later thick and rough, branchlets obscurely angled. LEAVES: Simple and alternate, crowded along the stems, grey, blue or yellow-green, slightly fleshy, becoming tough and leathery, narrow oval, 1–7 cm long with a fine sharp tip, **edge tightly rolled under, the 2 mm stalk runs down the stem forming a ridge.** FLOWERS: **Small, pale yellow-green on few-flowered short heads from leaf axils,** sepal tube pale green with 3–6 lobes which are yellow-green like the disc, dull orange-green anthers. FRUIT: Waxy, oval-rounded **berries about 1 cm long, green-yellow ripening shiny red,** fleshy and edible, containing one seed.

ECOLOGY: A shrub of well-drained soils, *Brachystegia* woodlands, the under-storey of highland forests, and in forest remnants, on rocky ridges and mountain slopes, 1,500–2,500 m.

DISTRIBUTION: Found scattered in many parts of Tanzania except in the lowlands. Also in Kenya, Ethiopia, Burundi, and south to South Africa.

USES:

**Food:**

- Roots and bark are used for tea and as a tonic in soup.
- Fruits are edible. Ripe fruits are picked from the tree and eaten raw, the pulp is swallowed and the seed discarded. Only eaten as an emergency food, especially by children and herdsman.

**Medicinal:**

- Roots are used as medicine for diarrhoea.
- Bark and the heartwood are boiled and the liquid drunk to treat STDs and anaemia.

**Commercial:** Roots and wood are sold locally and also exported for making perfume.

**Other:** The wood is very hard, strong and heavy and is used for carvings, grain mortars, fuelwood, pestles, pegs and building poles. The wood is scented and used to make cosmetics and perfume. Roots are also used for making a red dye. The tree is used as an ornamental and for soil conservation.

SEASON: Fruits are available throughout the year, but most abundant from July to December.



*Osyris lanceolata* (contd)

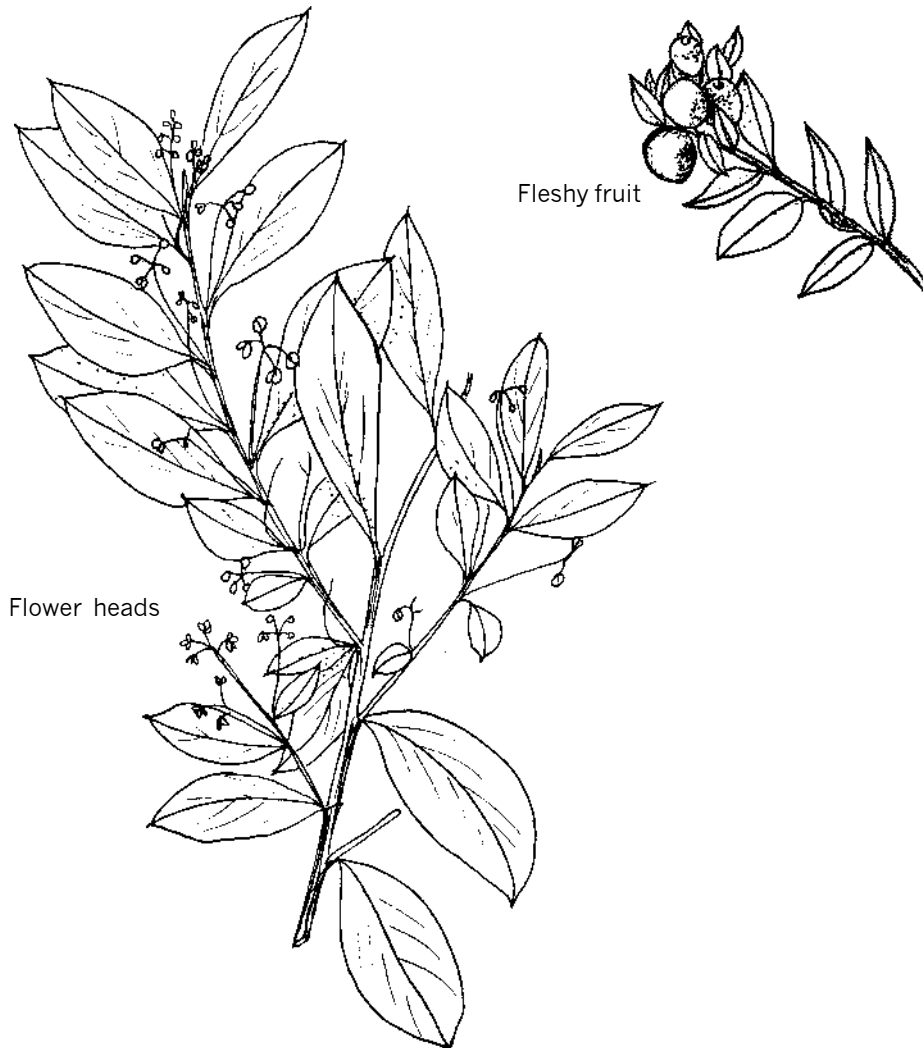
## Santalaceae

STORAGE: Not stored.

MANAGEMENT: Collected from the wild, but can be propagated from fresh seed and suckers.

STATUS: Occasional within its area of distribution. An endangered tree in Tanzania due to over-exploitation.

REMARKS: This species has been over-exploited in most parts of Tanzania, including Lushoto, Same and Kilimanjaro, because of its sweet-scented wood which has been exported since the era of German administration for the manufacture of cosmetics.



*Oxygonum sinuatum*

## Polygonaceae

Indigenous

LOCAL NAMES: **Bena:** Mbigili, Nyalenge; **Chagga:** Mbiinu; **Hehe:** Nyambigili; **Maasai:** Echunge, Enkaisijoi; **Nyamwezi:** Mbigili, Nsokolo, Shyokolo; **Sambaa:** Mbigili; **Swahili:** Kindri, Mbamba, Mbigili, Mbigiri; **Zigua:** Mbigili.

DESCRIPTION: An annual herb, bent over or erect, to 90 cm, often spreading, stems green-red-brown, with very few or no hairs. LEAVES: Alternate, oval, to 6 cm long, **the edge deeply cut into irregular lobes**, tip pointed, base narrowed to a stalk 1–2 cm. **Where the stalk joins the stem it is red and tubular for about 5 mm with fine bristles on the edge** (stipular sheath). FLOWERS: **White or pink, 2–3 mm, inconspicuous, along terminal leafless spikes up to 28 cm.** No petals, but **3–6 green sepals form a tube around the ovary.** FRUIT: The sepals make a hard wall around the erect fruit, **an indehiscent nutlet 8 mm long with 3 hard radiating prickles**, containing one seed.

ECOLOGY: A common weed in cultivation, roadsides and grasslands, 0–2,400 m. Common on poor sandy soils.

DISTRIBUTION: Found in all parts of Tanzania. Distributed from Sudan and Ethiopia in the north to the Congo basin in the south.

USES:

**Food:**

Leaves are cooked as a vegetable. They are collected and cooked with other vegetables such as *Amaranthus*, *Bidens* and *Galinsoga* species in order to soften them (Gogo, Hehe, Bondei, Zigua).

**Medicinal:**

- Leaves are squeezed and the juice is dropped into the eyes to treat conjunctivitis (Nyamwezi).
- Roots are used for treatment of STDs.

**Commercial:** Not marketed.

**Other:** Leaves and stems are used as fodder for goats and rabbits.

SEASON: Young leaves and shoots are collected in the rainy season.

STORAGE: Not stored.

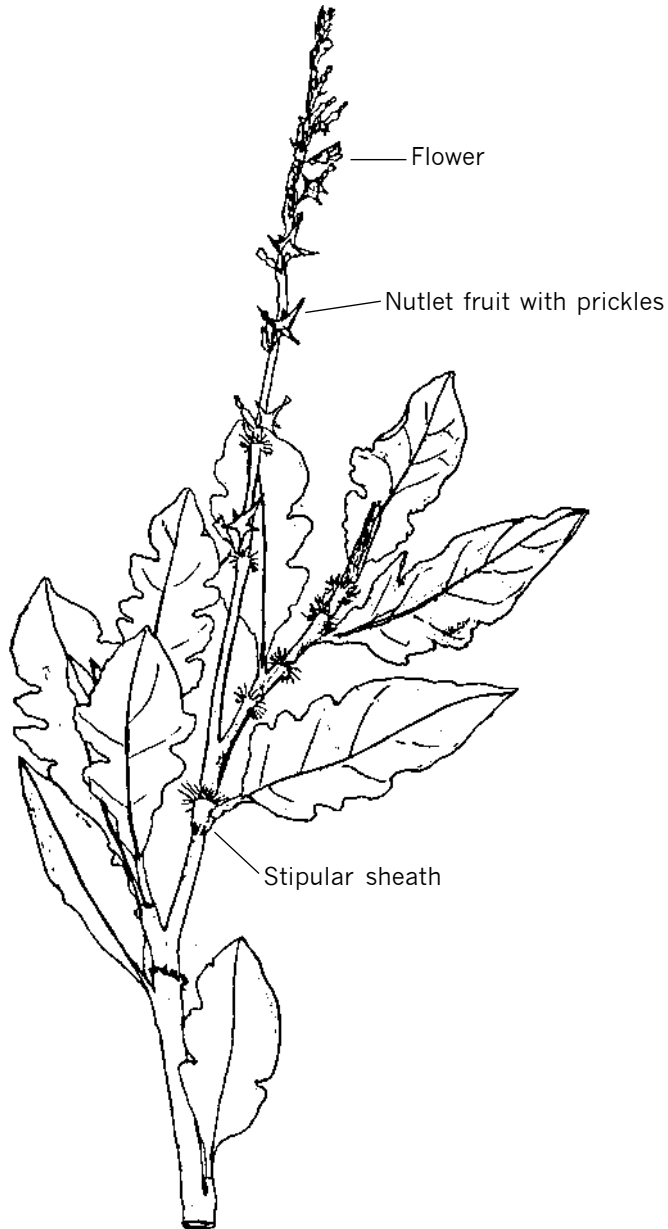
MANAGEMENT: Usually collected from the wild and not cultivated, but can be propagated by seed.

STATUS: Common and easily accessible within its area of distribution.

REMARKS: Well known as a troublesome weed—because it is efficiently distributed by its prickly fruits.

*Oxygonum sinuatum*

Polygonaceae



*Pappea capensis*

## Sapindaceae

Indigenous

LOCAL NAMES: **Arusha:** Orimigomi; **Fipa:** Mwikalatulo, Mwunza; **Gogo:** Mtori, Muanga; **Gorowa:** Getakhubay; **Hehe:** Mhungulu; **Kuria:** Momange; **Maasai:** Oldimigomi; **Nyaturu:** Mjaghamba; **Rangi:** Iyarampimbi, Mtula-ikufa; **Swahili:** Mbamba ngoma; **Zigua:** Mnenge; **Zinza:** Muliwa-mpamgo.

DESCRIPTION: A small, leafy, semi-deciduous tree, usually to 6 m, with a short trunk branching low down to form a spreading rounded crown. **BARK: Pale to dark grey, smooth, with horizontal markings.** **LEAVES: Distinctive, oblong in shape, usually in terminal clusters, dull dark green, stiff and wavy, the edge sometimes spine-toothed, base rounded.** **FLOWERS:** Green-yellow, in spikes to 12 cm, male flowers at the end, female at the base of the spike. **FRUIT:** Round, furry green capsules about 1 cm across, split to reveal a **bright orange-red jelly (the aril) covering a shiny dark red-brown to black oval seed.** This edible seed kernel is rich in oil. The juicy flesh is edible, slightly acid but pleasantly flavoured.

ECOLOGY: Found in drier forest, savanna and open woodlands, bushland, bushed grassland, on rocky hillsides, 900–2,400 m.

DISTRIBUTION: Found in most parts of Tanzania except coastal areas. Distributed from Ethiopia and northern Somalia in the north to South Africa in the south.

USES:

**Food:**

- Both ripe and unripe fruits are collected from the tree and eaten raw. The unripe fruits are sour, ripe ones sweeter.
- The bark is dried, pounded and the powder used as a tea and as an appetizer in soup.

**Medicinal:** The bark is cooked with soup to treat indigestion, stomach-ache and diarrhoea (Maasai).

**Commercial:** Not marketed.

**Other:** The wood is hard, heavy and durable. It is used for poles, fuelwood, pestles, grain mortars, tool handles, spoons and pegs. The tree provides good shade, fodder and bee forage.

SEASON: Fruits are collected from February to June.

STORAGE: Not stored.

MANAGEMENT: Fruits are usually collected from the wild, but the tree can be propagated by seed.

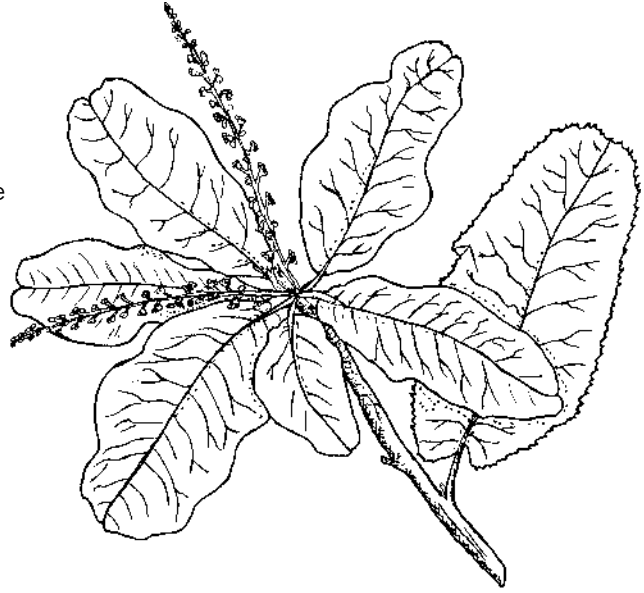
STATUS: Common within its area of distribution.

REMARKS: A tree suitable for agroforestry systems.

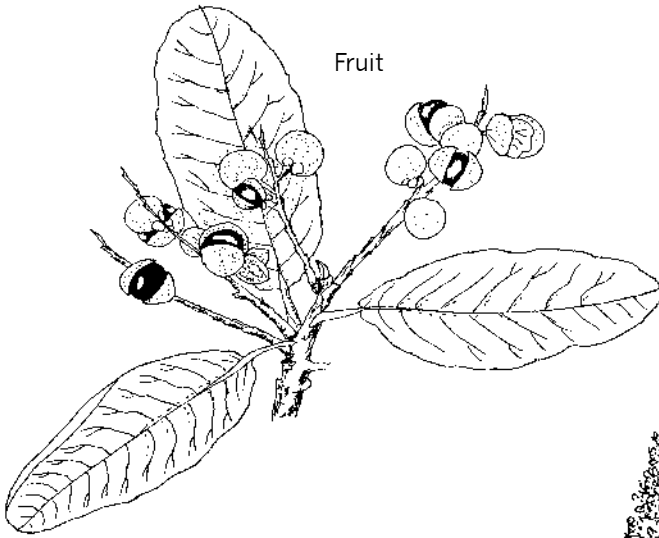
*Pappea capensis*

Sapindaceae

Flowering spike



Fruit



***Parinari curatellifolia* subsp. *curatellifolia* Chrysobalanaceae**

Indigenous

LOCAL NAMES: **Bena:** Msaula, Msawulwa, Musaulwa; **Bende:** Mbula; **English:** Mobola plum; **Fipa:** Mwula; **Gorowa:** Amafa-aa; **Ha:** Umunazi; **Haya:** Munanzi, Munazi; **Hehe:** Msaula; **Iraqw:** Amafa-aa; **Kerewe:** Muhasi, Munazi; **Longo:** Mnazi; **Maasai:** Olmatakuroi; **Matengo:** Mbora, Mbula, Mbuni, Mbura; **Ndendeule:** Mbora, Mbuni, Mbura, Umbura; **Ngindo:** Mmula; **Ngoni:** Mbora, Mbula, Mbuni, Mbura, Umbura; **Nyakyusa:** Mbula, Umbula; **Nyamwezi:** Mbula, Mubula, Muwula; **Nyasa:** Mbula; **Nyiha:** Ibula, Ikusu, Maula; **Rangi:** Mafaa, Mbula, Mbura, Mumora, Mumura; **Sukuma:** Mnazi; **Swahili:** Mbula, Mbura; **Tongwe:** Mubula; **Zaramo:** Mbula; **Zinza:** Munazi.

DESCRIPTION: An evergreen savanna shrub or tree to 15 m with **erect branches and a dense rounded crown**. Trunk occasionally buttressed at the base. BARK: Rough dark grey-brown, grooved, later flaking in large squares, **sap reddish**. **Young shoots with yellow-brown hairs**. LEAVES: **Oval and alternate with clear parallel veins**, leathery, shiny green above but hairy grey-white below, to 8 cm long and 4.5 cm wide, **tip blunt or notched** on a short stalk. FLOWERS: Small, white-pink, in short **flat-topped heads**, to 6 cm across. Flower stalks and calyx with yellow-brown woolly hairs. FRUIT: **Oval, to 5 cm**, with grey scales over **yellow-red-brown skin**. The fibrous yellow flesh is sweet-acid and contains a hard stone with **one edible seed kernel**.

ECOLOGY: Deciduous woodland, to the upper limits of *Brachystegia* woodland, then scattered in upland grassland, often persisting in secondary bushland and cultivated land, 0–2,100 m.

DISTRIBUTION: Found in most parts of Tanzania including Zanzibar and Pemba Islands, for example found in Kigoma, Iringa, Mwanza, Mbeya, Songea, Tabora and Lindi Regions. Also in Uganda and Kenya and from Senegal to Sudan.

USES:

**Food:**

- The sweet flesh around the woody stone is eaten.
- Cooking oil is extracted from seeds. They are dried, roasted, crushed, boiled in water, left to cool and the oil skimmed off.
- A soft drink is prepared by peeling ripe fruits and soaking them in warm water (Hehe, Bena).
- A nice jam is prepared from ripe fruits (Tumbi–Tabora).

**Commercial:** Seed sold in local markets.

**Other:** The wood is hard and heavy, used for fuelwood, poles and tool handles. The tree gives good shade and is important for bee forage.

SEASON: Ripe fruits are collected from May to June in Tabora, Mpanda and Kigoma, and October–December in the highland areas of Iringa, Njombe and Songea.

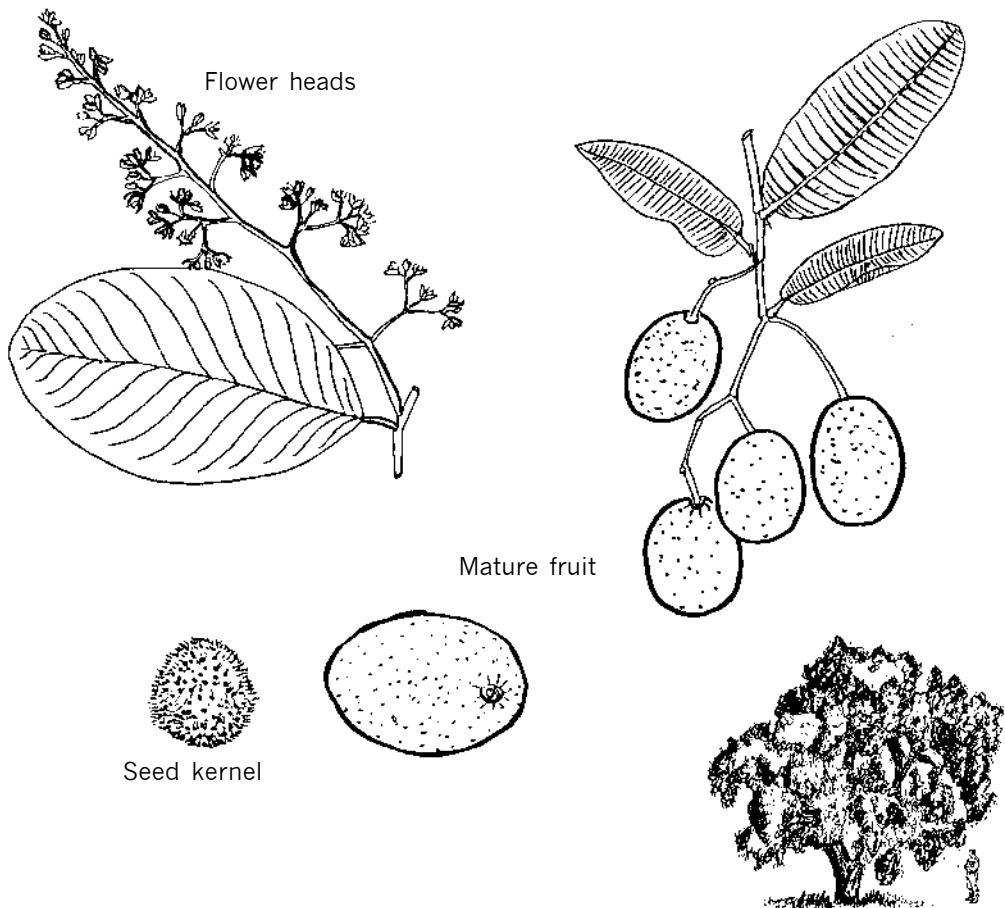
STORAGE: Dried seed can be stored in containers.

***Parinari curatellifolia* subsp. *curatellifolia* Chrysobalanaceae**

**MANAGEMENT:** Collected from the wild, but the plant is often protected and occasionally planted by local people.

**STATUS:** Common within its area of distribution. Can be propagated by seed but the seeds are difficult to germinate.

**REMARKS:** There are two subspecies which are not easy to distinguish. Subsp. *curatellifolia* is found in Tanzania but begins to be replaced by subsp. *mobola* towards the south of the country. Subsp. *mobola* (which has thicker orange-brown hairs and flowers for a longer period) is very well known and used in Malawi, Zimbabwe and South Africa, where it is always preserved in cultivated areas. In South Africa, the fruit are used for making both soft drinks and mobola plum wine. The dried fruit can be stored, and were used as provisions on Livingstone's long journey, for example. The seed kernel is also eaten. A good species for growing in orchards or homegardens.



***Parinari excelsa (P. holstii)*****Chrysobalanaceae**

Indigenous

LOCAL NAMES: **English:** Forest mobola plum; **Hehe:** Mkanzaula, Msaula; **Luguru:** Muula; **Nyakyusa:** Mbula; **Pare:** Muganda; **Sambaa:** Mbula, Mhula, Muula, Muuwa; **Swahili:** Mbula, Mbura; **Tongwe:** Mubula; **Zigua:** Mula.

DESCRIPTION: A tall evergreen tree, much branched and bushy, the bole straight, up to 20 m and 1 m across, the base slightly buttressed. BARK: Grey, finely grooved, becoming rough, cracked and scaly. Dark branchlets dotted with pale lenticels (breathing pores). **Young shoots, flower stalks, all with pale brown woolly hairs.** LEAVES: Alternate, oval, to about 11 cm and up to wide, usually with a **long-pointed tip**, narrowed to a short stalk, dark green shiny above, pale brown, softly hairy below, the veins regular and parallel above and below. FLOWERS: The terminal white flowers easily recognized on the flowering tree. Each one very small, **6 mm across, with 5 cream-white petals, on branched stalks beside leaves.** FRUIT: **A fleshy oval drupe, sometimes round, 2–5 cm long, green-brown with paler specks,** 1–2 seeds inside, also edible.

ECOLOGY: Found in upland rainforest where it is often dominant, as well as in riverine forest in *Brachystegia* woodland, 1,000–2,100 m.

DISTRIBUTION: In Tanzania this tree grows well on sandy soils in open deciduous woodland, e.g. in Dodoma Region and around Lake Victoria, but is recorded for most areas. Also in Uganda, and south to Malawi and Zambia; also widespread in West Africa.

USES:

**Food:**

- The ripe fruits are collected from the ground, the rough, woody outer cover removed and the soft fleshy pulp eaten as a snack, especially by children. The fruits are eaten in small amounts and are said to taste like avocado.
- The kernels are oily and also eaten.

**Commercial:** Not marketed.

**Other:** The wood yields good charcoal and good-quality timber for heavy construction because it is very strong and tough. It is also used for firewood, mortars and tool handles. The tree is used for shade in coffee farms and is also an important source of bee forage.

SEASON: Ripe fruits are collected from August to March, with an intermediate heavy crop in November and December.

STORAGE: Not stored.

MANAGEMENT: Collected from the forests and is not cultivated or protected by the local people.

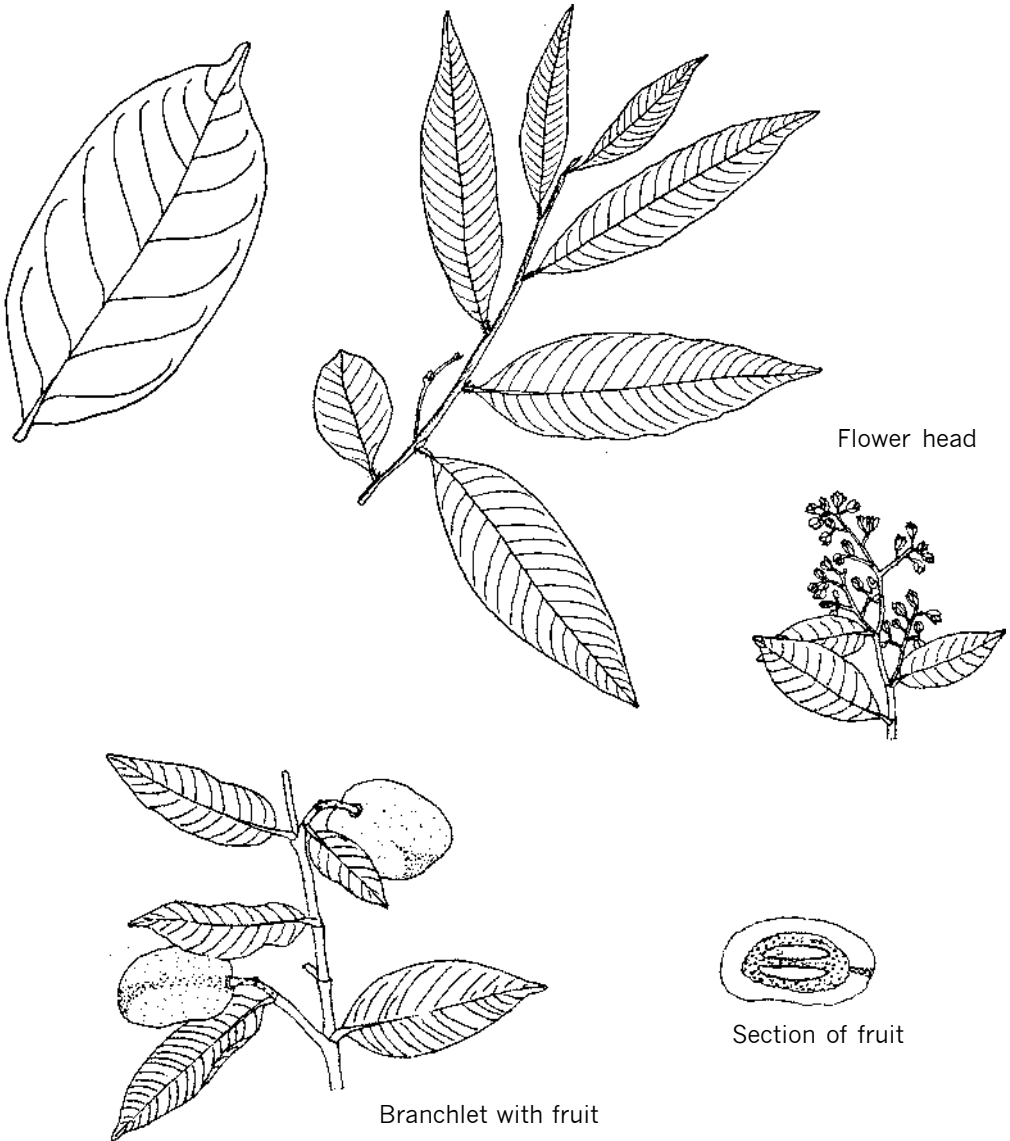
STATUS: Common and easily accessible within its area of distribution.



*Parinari excelsa* (contd)

Chrysobalanaceae

REMARKS: Suitable agroforestry tree for highland areas. The pointed leaf tips and narrower leaves differentiate this species from *Parinari curatellifolia*.



Flower head

Section of fruit

Branchlet with fruit

*Parkia filicoidea*

## Mimosaceae

Indigenous

LOCAL NAMES: **Bende:** Msepa; **Nguru:** Mkundi; **Sambaa:** Mkundi; **Swahili:** Mkunde, Mlopa; **Tongwe:** Iseha; **Zigua:** Mkundi.

DESCRIPTION: A deciduous rain forest tree, 8–30 m, with a spreading flat crown and small rounded buttresses. BARK: Scaly or smooth, grey to yellow-brown, dark and fissured with age. **Orange-coloured resin if cut.** LEAVES: **Bipinnate and feathery** with 4–14 pinnae at each side on a stalk to 20 cm. About 11–17 pairs of leaflets on each pinna, the **leaflet oblong, slightly curved, tip rounded**, 2–3 cm. FLOWERS: Easy to recognize, small flowers in **bright red club-shaped heads hanging down on stalks to 30 cm, with a strong unpleasant scent (attracting fruit bats). Heads up to 8 cm long.** FRUIT: Characteristic pods hang down in **clusters, dark brown-purple, 30–60 cm long** with stalk, the pod somewhat narrowed between the seeds. **Thick black seeds lie in a dry mealy yellow pulp** which tastes sweet.

ECOLOGY: Lowland rainforest and riverine forest, also in coastal forests, 200–1,400 m.

DISTRIBUTION: Widespread in Tanzania, e.g. in Tanga, Morogoro, Pwani and Lindi Regions. Also found in Uganda and Kenya, and south to Mozambique, Malawi, Zimbabwe and Angola.

USES:

**Food:**

- Young pods are collected, cut into short pieces, cooked like peas and eaten.
- Mature seeds are cooked and eaten, especially during periods of food shortage (Luguru/Zigua).

**Commercial:** Not marketed.

**Other:** The wood is white, rather soft and used for firewood and to make water containers, stools and beehives. The tree is used for shade and as an ornamental. The bark produces a red dye. An important bee-forage tree.

SEASON: Mature fruits are collected from January to April.

STORAGE: Dried seeds can be stored for several months.

MANAGEMENT: Collected from the wild and not cultivated or protected by the local people. Propagation can be done by seed.

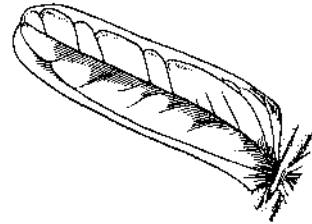
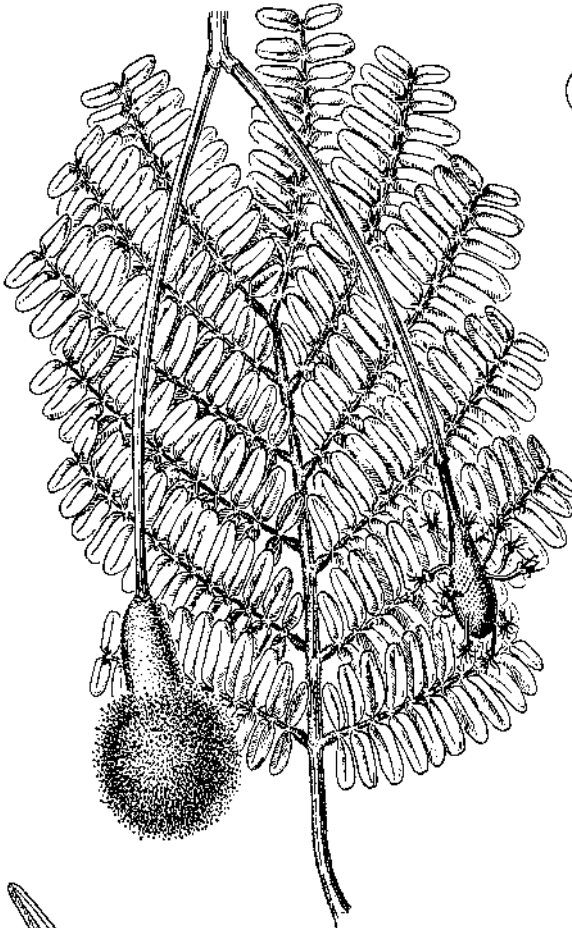
STATUS: Occasional within its habitat.

REMARKS: *Parkia filicoidea* is an important food tree for monkeys and baboons.

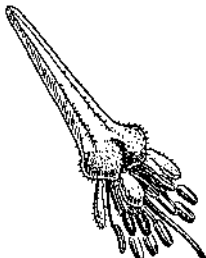
*Parkia filicoidea*

Mimosaceae

Leaf and flower heads



Enlarged leaflet



Enlarged flower



Enlarged seed



Fruit pod

*Peponium vogelii*

## Cucurbitaceae

Indigenous

LOCAL NAMES: **Sandawi:** Hlampuka.

DESCRIPTION: A small or large climber or trailing herb to 8 m, usually **roughly hairy on all parts, tendrils divided into 2**. LEAVES: Variable but membranous, and **5 lobed, 5–18 cm x 7–26 cm wide**, roughly hairy above and on veins below as well as on the stalk 2–13 cm, **the edge with sharp pointed teeth**, lobes variable, shallow or deep. FLOWERS: **Conspicuous bright yellow**, male flowers 1 to many along a stalk **8–36 cm, bearing green-yellow oval bracts to 3 cm**, flowers 4–8 cm diameter, sweet scented, opening at night and seen only in the early morning; female flowers also on long stalks, 1–5 cm, the ovary white woolly. FRUIT: **The stalk elongates to 7 cm, bearing a bright red hairy thin-skinned fruit, usually elongated to 15 cm** with a beak, sometimes orange with green streaks, containing small dark seeds in fleshy pulp.

ECOLOGY: Upland and lowland rainforest and forests on ground with high ground water-table, upland bamboo thicket, also in woodland and bushland near open water, 100–2,400 m; may also be local in rocky places, forest edges.

DISTRIBUTION: In most parts of Tanzania, including Zanzibar, but not in the western areas. Also found in West and Central tropical Africa, Ghana to Ethiopia, south through Kenya and Uganda to Angola and Mozambique, also on the Seychelles.

USES:

**Food:**

Ripe fruit pulp is sweet and eaten raw, especially by children and herdsmen.

**Medicinal:** Leaves are used as medicine for menstrual problems.

**Commercial:** Not marketed.

**Other:** Fruits are used as fodder for rabbits and pigs.

SEASON: Ripe fruits are collected during the rainy season.

STORAGE: Not stored.

MANAGEMENT: Collected from the wild and not cultivated or protected by local people.

Can be propagated by seed.

STATUS: Common within its area of distribution, especially in open areas.

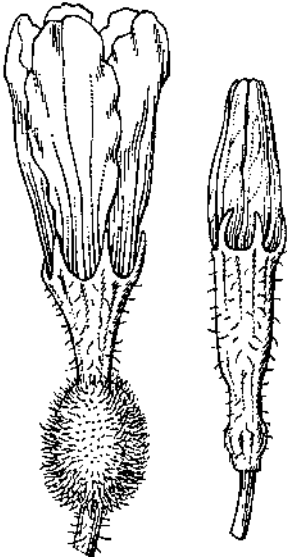
REMARKS: Regarded as a bad weed in fallow land.

*Peponium vogelii*

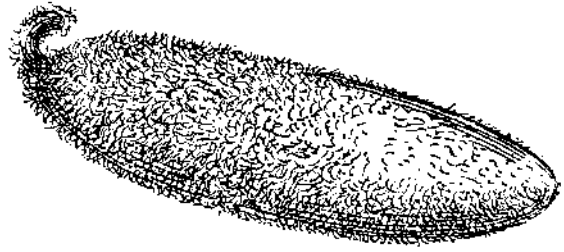
Cucurbitaceae



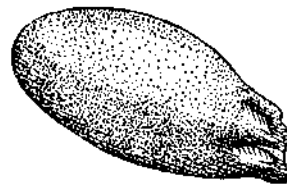
Male flower head with bracts



Female and male flowers



Fruit ( $\frac{1}{2}$  life size)



Seed (x 4)

*Phoenix reclinata*

## Areaceae (Palmae)

Indigenous

LOCAL NAMES: **Arusha:** Olpiroo; **Barabaig:** Millan; **Digo:** Makindu, Mchindu; **English:** Senegal date, Wild date palm; **Gorowa:** Intsanti; **Haya:** Makindu; **Iraqw:** Thiaanthii; **Maasai:** Olpiroo, Oltukai; **Ngindo:** Mkindu; **Nyamwezi:** Mlala; **Nyaturu:** Mkindu; **Sambaa:** Mkindu, Msaa; **Sukuma:** Bukindu; **Swahili:** Mkindu; **Tongwe:** Lusanda; **Zinza:** Mchindu.

DESCRIPTION: A palm tree with a creeping rootstock. The mature palm trunk may reach 10 m, slender and **often bent over** ("reclinata"), about 25 cm in diameter, covered in very rough leaf scars. LEAVES: To 2.7 m long, growing out from a fibrous leaf sheath, the crown of about 25 leaves arching over, leaflets **narrow, folded, bright shiny green, to 30 cm**, stiff and pointed. Lower leaflets spiny to 6 cm long, leaf stalk up to 50 cm. FLOWERS: Male and female on different trees. Male flowers cream-brown, to 7 mm, female flowers greenish, 2 mm. FRUIT: **Yellow-brown, about 2 cm, edible.**

ECOLOGY: A palm that usually grows in dense clumps beside swamps and rivers in humid lowland woodlands, in highland forests or on open rocky hillsides, 0–3,000 m. Also in moist wooded savanna grassland and in thickets.

DISTRIBUTION: Found throughout tropical Africa and widespread in Tanzania.

USES:

**Food:**

The ripe yellow or orange fruits are collected from the ground and eaten immediately as a refreshing snack. They are sweet and much liked by children.

**Beverage:** The growing shoots are tapped to make palm wine.

**Commercial:** Not marketed.

**Other:** Leaves used to make mats and baskets. The fibres from the crushed stem are used for the manufacture of scrubbing brushes. The stems are also used for construction of livestock enclosures, houses, bridges, walls and fencing. Leaves are used for ceremonial and religious purposes, roofing and weaving mats, hats and baskets. The tree is used for shade, as an ornamental and is a source of bee forage.

SEASON: Fruits are collected at the end of the rainy season and into the dry season.

STORAGE: Not stored.

MANAGEMENT: Collected from the wild but also planted as an ornamental in homestead compounds. Can be propagated by seed and suckers.

STATUS: Common in many areas, but it is troublesome to collect the fruits or leaves because of the spines on the leaves.

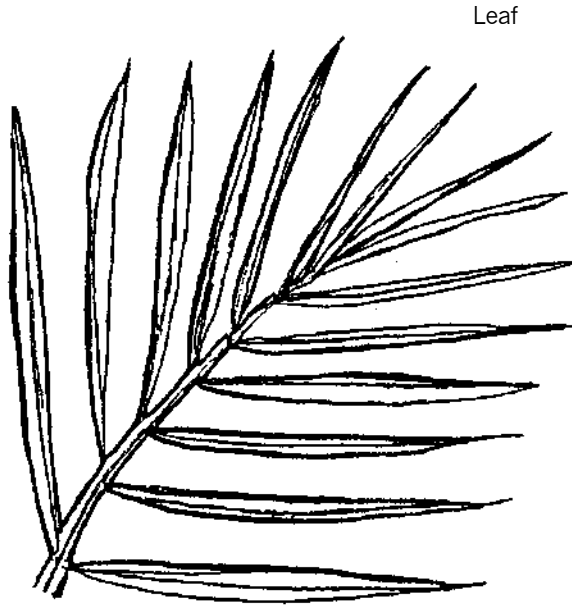
REMARKS: The strong fibres from the leaves are used all over tropical Africa for making baskets, mats, etc.

*Phoenix reclinata*

Areaceae (Palmae)



Fruit



Leaf



Habit

*Phyllanthus engleri*

## Euphorbiaceae

Indigenous

LOCAL NAMES: **Digo:** Mkuta-manena; **Fiome:** Maendahakhai; **Gorowa:** Indakhakha; **Hehe:** Mkingiligiti; **Iraqw:** Indakhakha; **Nyamwezi:** Mgogondi  
**Nyaturu:** Mubuntuwa; **Sandawi:** Samangwe.

DESCRIPTION: A deciduous spreading and much-branched thorny shrub or small tree, conspicuous when bare in the dry season, often only a few fruit remain on the grey branches covered with **prickly conical cushions**. BARK: Smooth and grey, flaking irregularly with age, the bole commonly to 15-cm diameter. LEAVES: Only scale leaves grow on the main stem, normal **simple leaves grow from shortened branchlets, which look like large scaly cushions**. These become hardened, with stout spiny stipules at the base. **Leaf blade** usually wide oval, **2–5 cm long**, tip sometimes pointed, **dull deep green, paler below**, the edge clear (hyaline). FLOWERS: **Very small, white, in bunches beside leaves**, male flowers only a few millimetres, female flowers with thread-like styles. FRUIT: **Rounded berries, in 3 sections to 3 cm in diameter, pale yellow-green**, outer skin smooth and papery, containing up to 6 dark seeds in spongy edible pulp.

ECOLOGY: Locally common and scattered in deciduous woodland, bushland, rarely in evergreen forest, 300–1,800 m.

DISTRIBUTION: Found in most parts of mainland Tanzania, into Mozambique, Zambia and Zimbabwe.

USES:

**Food:**

- Young and mature fruits are picked and eaten raw. They have an acidic taste and rather unpleasant odour but are nevertheless much liked.
- The juicy fruits are crushed and squeezed. The juice is mixed with lemon juice and onions to make a kind of vinegar which is used as an appetizer.

**Medicinal:**

- Leaves and fruits are chewed for treating coughs and stomach-ache.
- Roots are boiled and the juice is drunk to treat bilharzia, STDs, abdominal pains and menstrual problems (Digo, Nyamwezi, Sambaa, Zigua) and chest pain (Hehe). However, the bark and roots of this species are known to be toxic.

**Commercial:** Fruits are now sold in urban markets (Tabora, Dodoma and Dar es Salaam).

**Other:** The wood is used for carvings, cups, spoons, firewood and poles. Leaves are used as fodder for livestock.

SEASON: Fruits are collected from April to August.

STORAGE: Mature fruits can be stored in the shade for about three months.



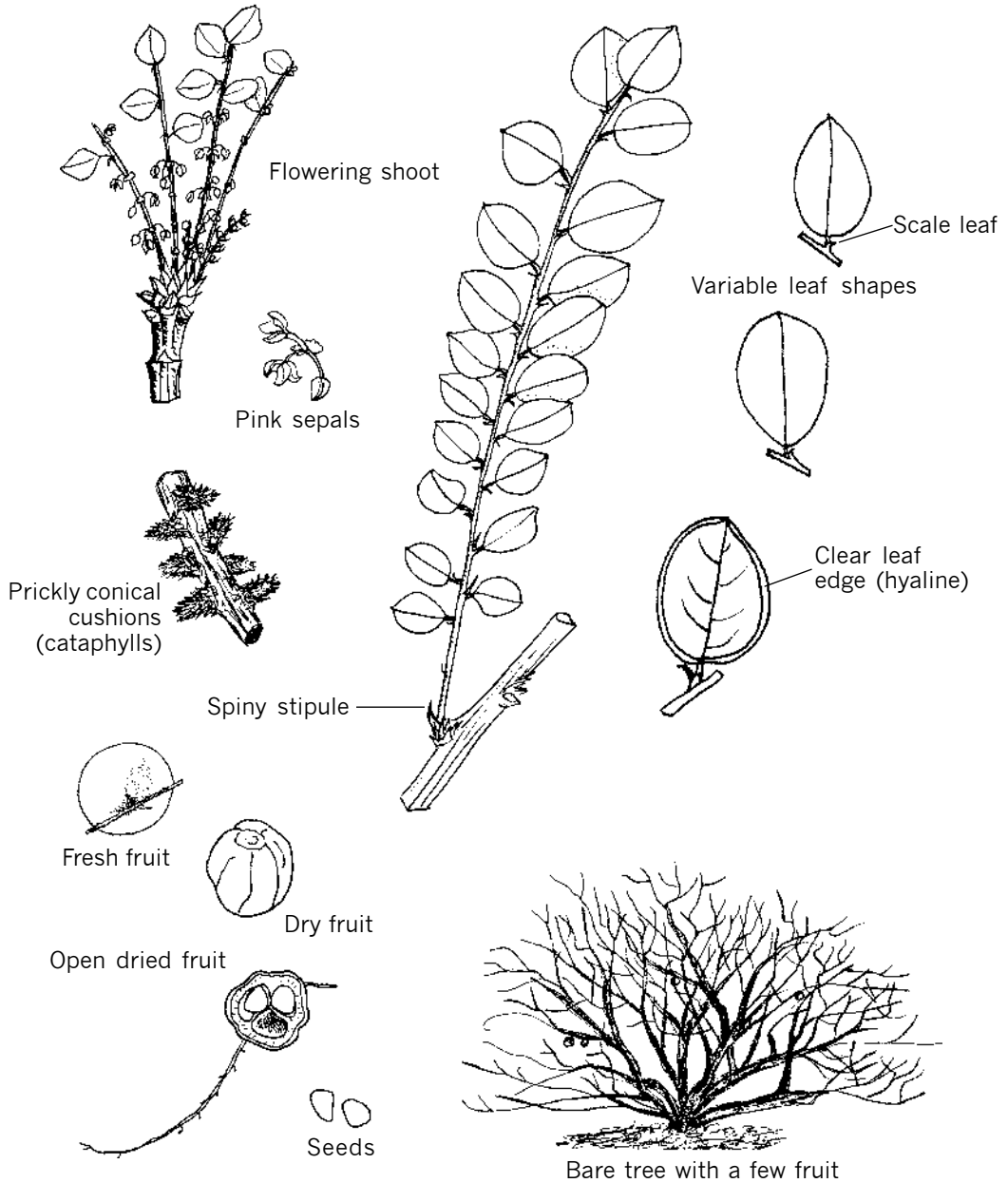
*Phyllanthus engleri* (contd)

Euphorbiaceae

MANAGEMENT: Collected from the wild and not cultivated or protected by the local people. It can be propagated from seed.

STATUS: Occasional within its area of distribution.

REMARKS: The tree is much browsed by wild game.



***Piliostigma thonningii***  
(*Bauhinia thonningii*)

**Caesalpinaceae**

Indigenous

LOCAL NAMES: **Bende:** Mfumbe, Mnsakansaka; **Digo:** Mtsekesho, Mutsekesho; **English:** Camel's foot tree, Monkeybread; **Fiome:** Galapi; **Fipa:** Mfumbe, Msindamboga, Nakifumbe; **Gorowa:** Galapi; **Haya:** Mtindambogo; **Hehe:** Mkombalwiko, Mvambangoma; **Iraqw:** Galapi; **Maasai:** Ilsagararam (plural), Olsagararami, Os sangararam; **Mate:** Chitembe, Titimbo; **Matengo:** Chitimbe, Jitimbo; **Mwera:** Mguwauwa; **Ngindo:** Msegese; **Nyamwezi:** Mtindambogo; **Nyasa:** Chitimbe; **Nyaturu:** Musasu; **Rangi:** Mngalapo, Mugalapo; **Sambaa:** Mgonambogo, Msegese, Msegesege; **Sangu:** Mkombalwike, Muhela; **Sukuma:** Mtindwa-mbogo; **Swahili:** Mchekeche, Mchikichiki, Mkichikichi, Msegese, Mbamba ngoma; **Tongwe:** Msakanasaka; **Zigua:** Msegese; **Zinza:** Msindaga.

DESCRIPTION: A rounded deciduous tree, 3–5 m, branches twisted. BARK: Thick, dark and rough, fibrous within. Dark red if cut. LEAVES: **Large and bilobed**, a small bristle in the deep notch, often folded along midrib, **leathery**, pale green, to 12 cm long, hairy, lower surface brown, **many raised veins**. FLOWERS: **White, cream or pink, hanging down in sprays 10–20 cm, 5 petals, only 2 cm long, the calyx cups very hairy, fragrant**. FRUIT: **Flat brown and woody pods, hairy at first**, 15–20 cm long, persisting on the tree but finally decaying on the ground to free pea-sized seeds. Pulp surrounding the seed is eaten.

ECOLOGY: Found in woodland, wooded grassland and bushland, 0–1,830 m; rainfall 600–1,500 mm. Thrives on a variety of soils.

DISTRIBUTION: Widespread in tropical Africa from Senegal to the Sudan and south to Namibia and South Africa. Found in most parts of Tanzania, e.g. in Pwani, Tanga, Morogoro, Tabora, Iringa, Mwanza and Kagera Regions.

USES:

**Food:**

- The brown pod is cracked, seeds are removed and the pulp eaten as a snack or as emergency food; used in small amounts. It tastes sweet and is eaten especially by children and herdsmen.
- The fruits are collected in large quantities during famine periods. They are then pounded and the powder soaked in water, the liquid stirred and drunk (Gogo, Hehe, Nyamwezi).

**Medicinal:**

- Tender leaves are chewed and the juice swallowed to treat stomach-ache, coughs and snakebite.
- The ash obtained from burnt leaves is rubbed into snakebite wounds after scarification in order to hasten healing.

*Piliostigma thonningii* (contd)

## Caesalpinaceae

- Roots are used to treat prolonged menstruation, haemorrhage and miscarriage in women and also for treatment of coughs, colds, body pain and STDs.
- Infusion of the bark is used to treat coughs, colds, chest pains and snakebite.

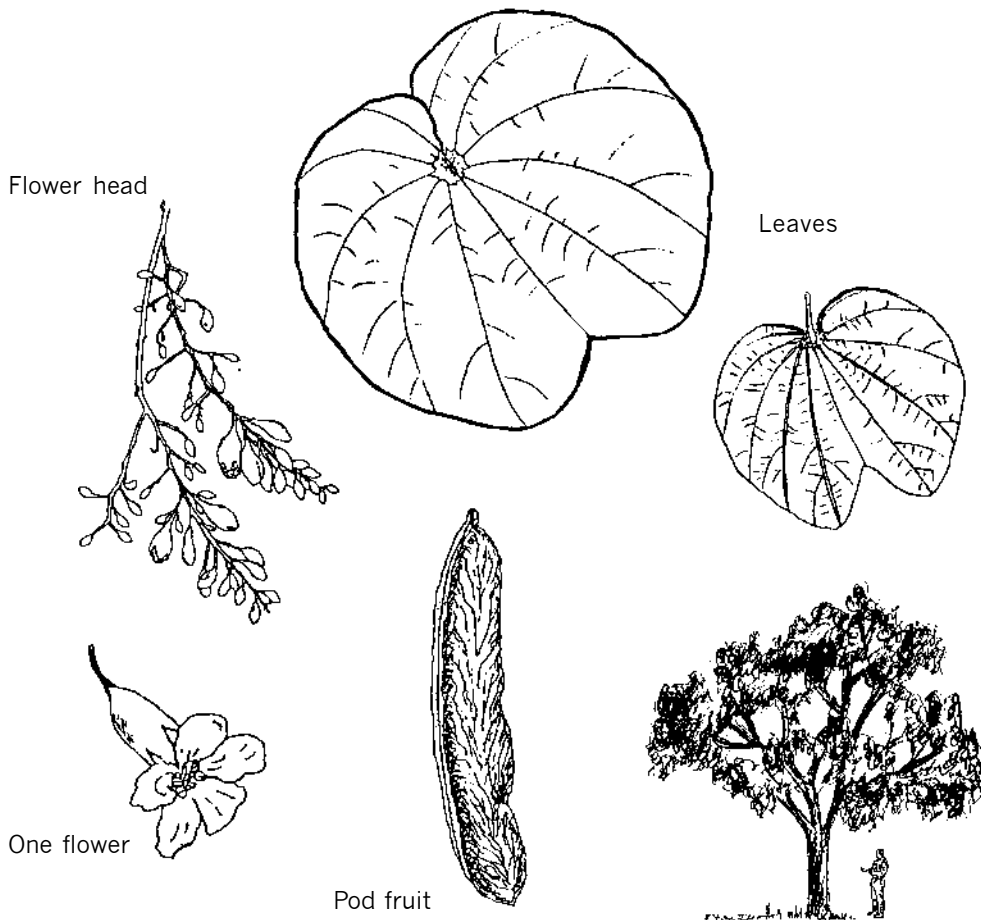
**Other:** Fruits are used for fodder. The wood is used for poles, firewood, grain mortars, tool handles, spoons and bedsteads. The bark is used for ropes. The tree is good for shade, bee forage and ornamental purposes.

**SEASON:** Fruits are collected during the dry season between May and August.

**STORAGE:** Fruits can be stored for about four months.

**MANAGEMENT:** Collected from the wild and not cultivated or protected by local people.  
It can be propagated by seed.

**STATUS:** Common and easily accessible within its area of distribution.



*Piper guineense*

## Piperaceae

Indigenous

LOCAL NAMES: **Bondei:** Tambuu; **English:** Ashanti pepper; **Sambaa:** Tambuu; **Swahili:** Mtambuu mwitu; **Tongwe:** Ilende-lya-kenyinamwami; **Zigua:** Tambuu.

DESCRIPTION: An evergreen **climber** 4–20 m, **climbing into trees by means of small adventitious roots growing from the stem** near the nodes, basal and older stems with **corky ridges, generally hairless**. LEAVES: Alternate, very variable, **round to long oval, 5–20 cm** long, **tip long-pointed**, base round or narrowed, often unequal, to a stalk 1–4 cm, about 5 veins spreading from the base. FLOWERS: Minute flowers grow on solitary **spikes, 2–9 cm, terminal or opposite leaves**, yellow to green. FRUIT: **Red**, along the elongated spike, each one **shortly stalked**, rounded, 3–6 mm, may also be **orange-yellow or brown**.

ECOLOGY: Evergreen forest and forest edges, usually in wet places, gallery forest along rocky rivers, 700–1,700 m.

DISTRIBUTION: Found in Mwanza, Kagera, Rukwa and Kigoma Regions, e.g. in Rubare Forest Reserve in Bukoba District. Also in Kenya, Uganda, Sudan, west to Mali and Guinea Bissau and south to Angola and Zambia.

USES:

**Food:**

- Leaves are chewed with betel nut (*Areca catechu*) as a substitute for *Piper betle*.
- Fruits are dried and used as a spice when cooking rice in the same manner as *Piper nigrum*.

**Medicinal:** Roots are chewed and the juice swallowed as an aphrodisiac.

**Commercial:** Sold in local markets.

**Other:** The plant is used as an indoor ornamental plant.

SEASON: Fruits are collected from October to December.

STORAGE: Dried fruits can be stored for more than a year.

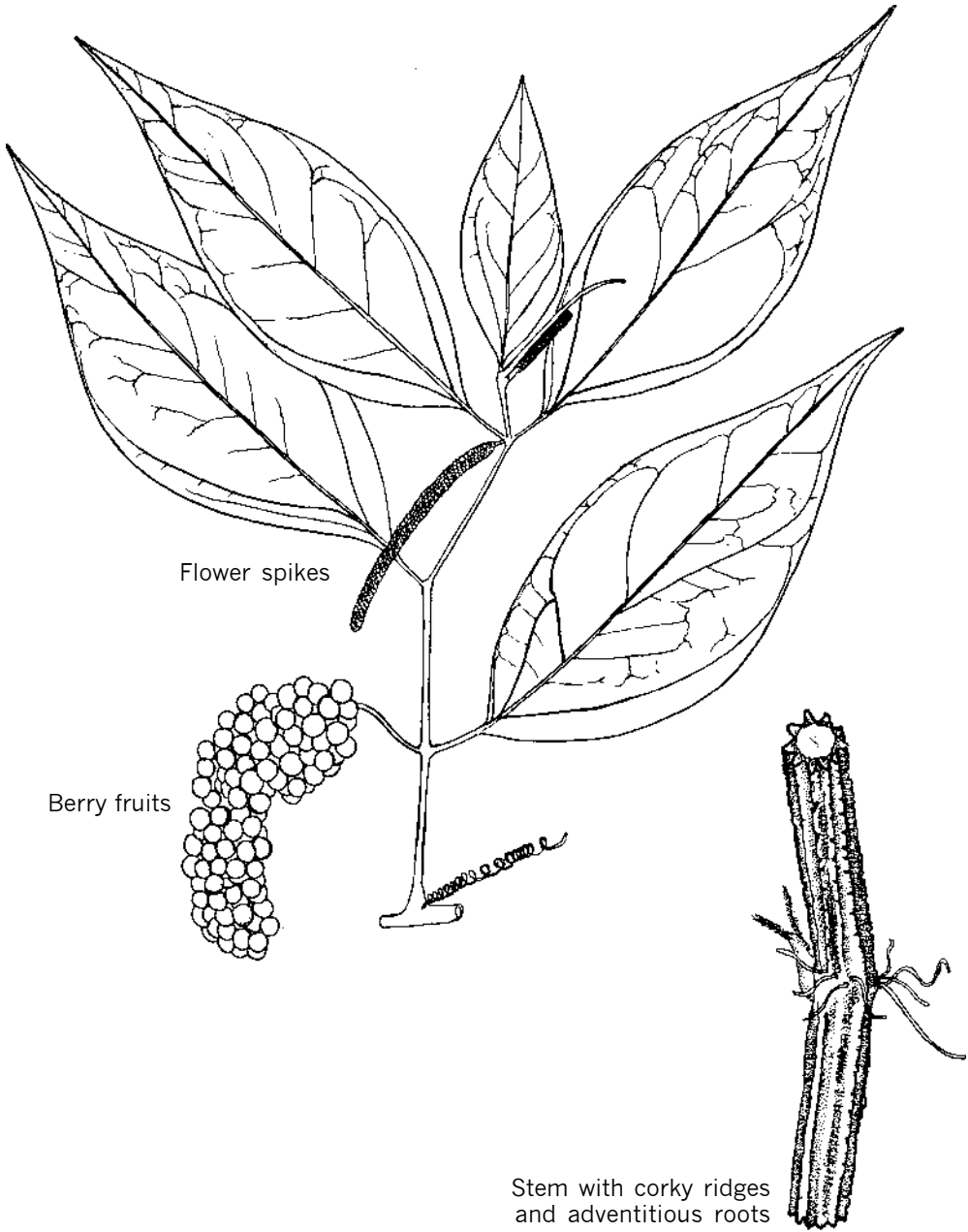
MANAGEMENT: Usually collected from the wild, but can be propagated by seeds and cuttings.

STATUS: Locally common.

REMARKS: *Piper guineense* is popular and widely used in West Africa, where it is known commercially as Ashanti pepper.

*Piper guineense*

Piperaceae



***Pistacia aethiopica*****Anacardiaceae**

Indigenous

LOCAL NAMES: **English:** Mastic tree; **Maasai:** Iltorel, Lasamarai, Oldangudwa, Olongoronok.

DESCRIPTION: A spreading evergreen shrub or tree 3–15 m, often multi-stemmed.

**BARK:** Rough, brown-black, **exuding a resinous gum if cut, most parts smell of turpentine or mango when crushed.** **LEAVES:** **Compound to 10 cm long on a characteristic winged stalk, aromatic, usually 3–4 pairs of opposite leaflets, each 1–5 cm long, red when young, stiff when mature, few or no hairs.** **FLOWERS:** **Very small, greenish (olivaceous), purplish or yellow-cream** with a red tinge on stalks, in compact heads on stalks 1–5 cm, **no petals** but tiny petal-like bracteoles, 4–6 stamens. **FRUIT:** Small, rounded, red on one side only, **to 5 mm diameter**, containing one flattened seed, smelling like mango when crushed.

ECOLOGY: Upland dry evergreen forest, with *Juniperus*, or associated bushland and wooded grassland, 1,500–2,500 m.

DISTRIBUTION: Only in the northern parts of Tanzania; Kenya, Uganda, Ethiopia and Somalia.

USES:

**Food:**

- Gum tapped from bark is chewed by the Maasai and is believed to be very nutritious.
- The bark is used as a substitute for tea.

**Commercial:** Sold locally.

**Other:** The wood is hard and used for poles, fuelwood, tool handles and tooth-brushes. The tree is used for ornamental purposes and is a source of bee forage.

SEASON: Mastic gum is tapped and collected during the dry season: August–November.

STORAGE: The gum can be stored for several months.

MANAGEMENT: Collected from the wild but can be propagated by seed.

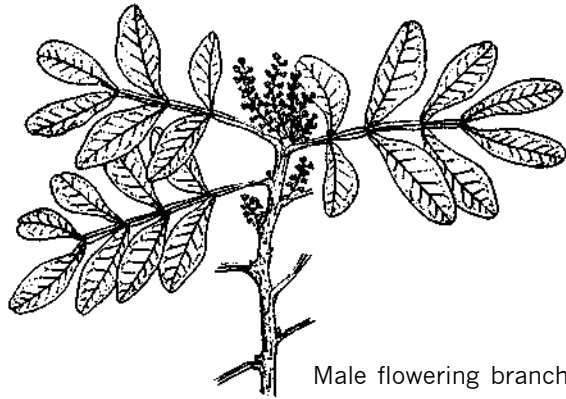
STATUS: Occasional within its area of distribution.

*Pistacia aethiopica*

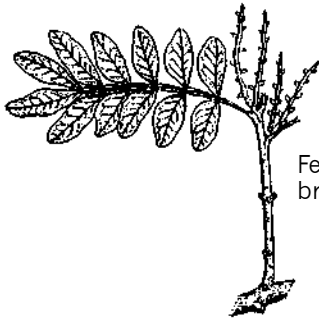
Anacardiaceae



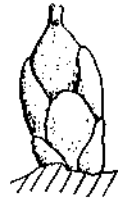
Male flower



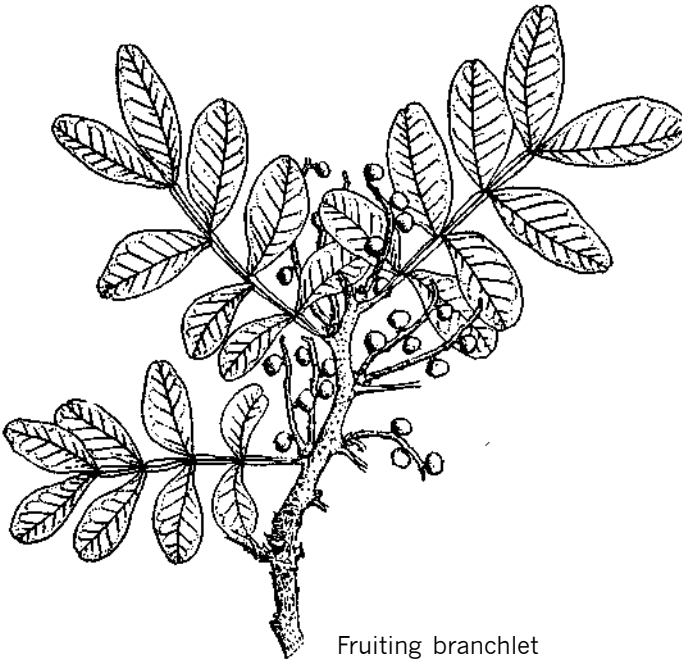
Male flowering branchlet



Female flowering branchlet



Female flower



Fruiting branchlet

***Pistia stratiotes*****Araceae**

Indigenous

LOCAL NAMES: **English:** Water lettuce; **Hehe:** Nyamayingiya; **Nyamwezi:** Ileve; **Tongwe:** Kakomakoma; **Zigua:** Chantende.

DESCRIPTION: A floating aquatic herb, stemless, with tufts of fibrous roots hanging down to great depths. The roots end in a large root cap. The plant is reproduced when the short underwater stems break off and produce new leaf rosettes. LEAVES: Many leaves make a **floating rosette**, held up by air trapped in leaf bases and between numerous hairs, leaves vary in size with habitat but reach **14 cm long and 8 cm broad, the tip flat or rounded, hairy both sides** but more hairs below, **5–7 parallel veins, prominently winged, below.** FLOWERS: Very **inconspicuous**, hidden in a short-stalked specialized leaf (spathe) between the leaves, tiny male and female flowers, the **spathe to 1.3 cm, green-white, edges hairy.** FRUIT: A thin-walled, several seeded berry which splits irregularly to release seed.

ECOLOGY: A plant of open still freshwater ponds, lagoons, dams, edges of lakes, river mouths, 0–1,800 m.

DISTRIBUTION: In all parts of Tanzania, including Zanzibar and Pemba. Also in Uganda, Kenya, and generally pantropical.

USES:

**Food:**

Leaves are used as a vegetable. Young leaves are collected, chopped and cooked alone or mixed with other vegetables such as amaranth and peas. Then coconut milk or pounded groundnuts are added and the dish is eaten with *ugali* or rice.

**Medicinal:** Roots are used for treating burns. The fresh roots are collected, pounded and applied on burns and without further dressing.

**Commercial:** Not marketed.

**Other:** The plant is used as fodder for rabbits and pigs and for ornamental purposes in ponds, dams, etc.

SEASON: Leaves are available throughout the year.

STORAGE: Not stored.

MANAGEMENT: Collected from ponds, but can be propagated using seeds and suckers.

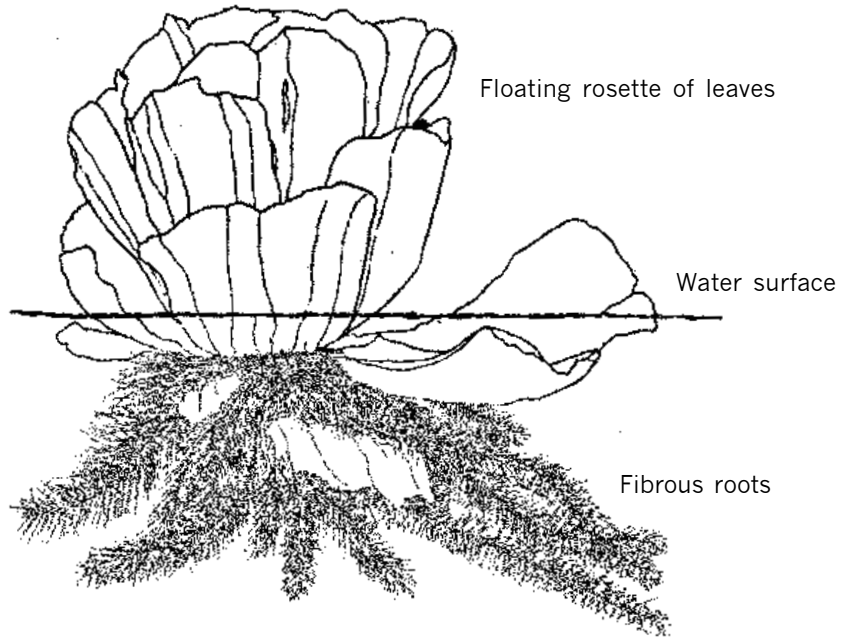
STATUS: Locally common.

REMARKS: Water lettuce is known to be a notorious weed of ponds, wells and dams.



*Pistia stratiotes*

Araceae



***Platostoma africanum*****Lamiaceae (Labiatae)**

Indigenous

LOCAL NAMES: **Bondei:** Kisugu; **Swahili:** Kisogo.

DESCRIPTION: A weakly erect or trailing annual herb or a short-lived perennial to 1 m, stem pale green and 4-angled. LEAVES: Opposite, **oval, to 5 cm x 3.5 cm**, usually smaller, tip pointed, edge toothed, **base narrowed to a 2 cm stalk**, pale grey-green below. FLOWERS: Small, along a **narrow terminal flower head, 2–15 cm**, flowers often spaced out, **only 2–3 mm, white, 2-lipped, spotted pink-mauve**, a small white bract with green tips beside each flower, the green calyx has a rounded upper lobe overlapping the lower lip, often with white hairs. FRUIT: 4 ovoid nutlets.

ECOLOGY: In all wet forest regions, often in partial shade at forest edges, roadsides, stream banks, grassland, 100–2,500 m. Sometimes a weed in tea plantations and recorded in open miombo, in rice and maize shambas, and on lava.

DISTRIBUTION: Found in most parts of Tanzania; Kenya, Uganda, Burundi, Malawi and the Congo basin into West African rainforests.

USES:

**Food:**

Leaves are cooked alone or with other vegetables and served with a staple (*ugali* or rice). Sometimes coconut milk is added.

**Medicinal:** Roots are soaked in warm water and the resulting liquid drunk to treat headache and as an aphrodisiac (Sambaa).

**Commercial:** Sold locally

SEASON: Leaves are collected during the rainy season.

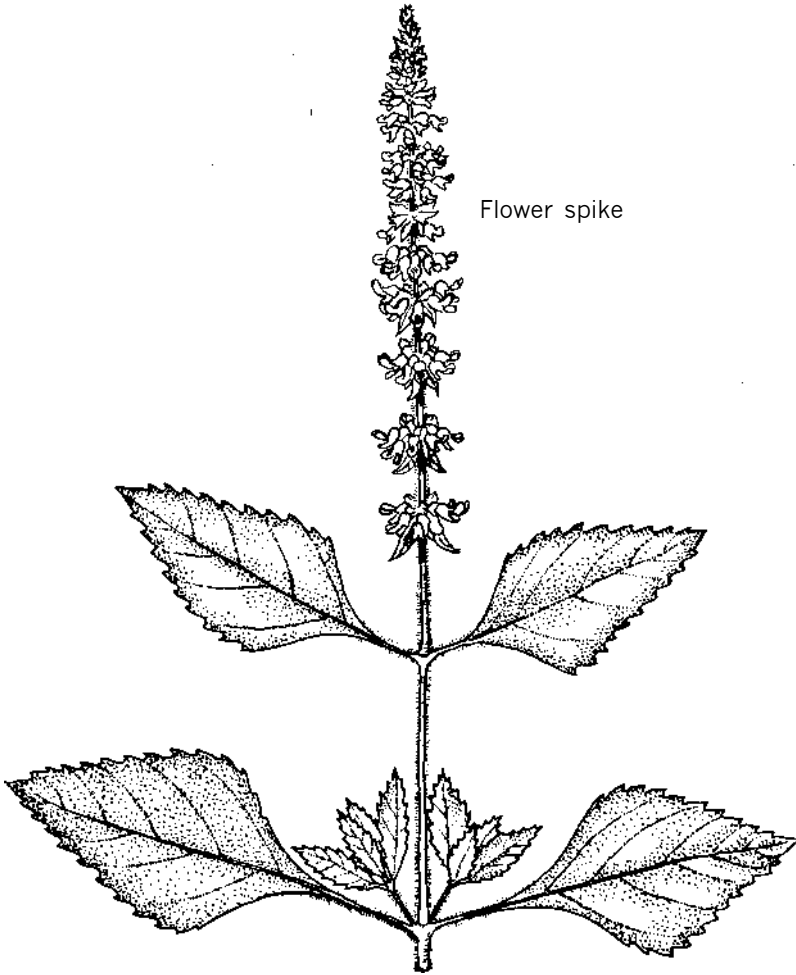
STORAGE: Not stored.

MANAGEMENT: Usually collected from the wild and not cultivated. Can be propagated by seed.

STATUS: Locally common.

*Platostoma africanum*

Lamiaceae (Labiatae)



*Polyceratocarpus scheffleri*

## Annonaceae

Indigenous

LOCAL NAMES: **Luguru:** Mkenene, Muenene; **Sambaa:** Mkenene.

DESCRIPTION: A tall forest tree. BARK: Grey, young branchlets with fine rusty hairs soon lost, later dark and rough. LEAVES: Alternate, **mostly large and oblong, 16–30 cm**, the pointed tip blunt not sharp, smooth shiny above, a few scattered rusty hairs below but only clear on the young midribs, 9–15 lateral nerves, not very prominent, edge wavy, on **an 8-mm stalk, thick and wrinkled**. FLOWERS: Arise on older shoots, **3 sepals joined to form a circular calyx about 1 cm diameter**, wrinkled and rusty hairy outside, the 6 large petals in 2 whorls, hairy both sides, the **outer whorl to 3.5 cm long**, inner smaller, numerous central stamens. Flower stalks thick and curved, about 1.5 cm, with rusty hairs. FRUIT: At least 20 **cylindrical carpels twisted together, almost stalkless**, strongly curved, 15–20 cm long and about 2.5 cm wide, **somewhat narrowed between seeds** (about 25) which are up to 1.8 cm long, striped purple-brown.

ECOLOGY: Rainforest, 800–1,000 m.

DISTRIBUTION: Only found in Tanga and Morogoro Regions.

USES:

**Food:**

The outer bark is removed and the inner bark dried, pounded and sieved.

The powder is used as a spice in soup or tea.

**Commercial:** Not marketed.

**Other:** The wood is used for poles, fuelwood, tool handles, bedsteads and spoons.

The tree is suitable for shade and as an ornamental.

SEASON: The bark is collected all year round.

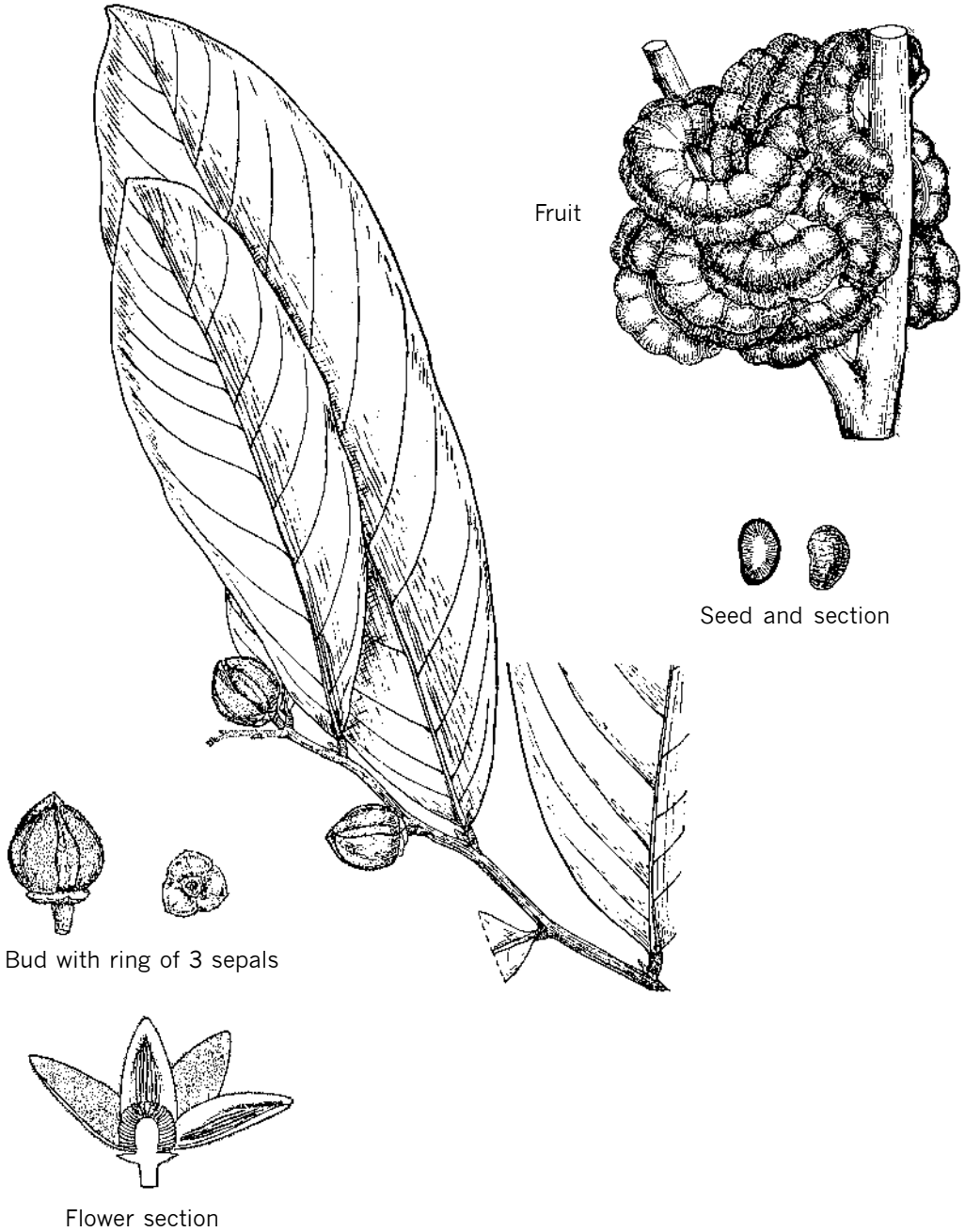
STORAGE: The powder can be stored for several months.

MANAGEMENT: Collected from the wild and not cultivated. It can be propagated by seed.

STATUS: Endemic to Tanzania. This rare species is difficult to find in the forest and is listed as “endangered” in the 1997 IUCN Red List of Threatened Plants. Needs propagation and conservation.

*Polyceratocarpus scheffleri*

Annonaceae



***Polygonum salicifolium (P. serrulatum)*** Polygonaceae

Indigenous

LOCAL NAME: **Matengo:** Mchendeka, Msendeka; **Ndendeule:** Mchendeka, Msendeka; **Ngoni:** Mchendeka, Msendeka.

DESCRIPTION: A **slender weak-stemmed annual herb**, low on the mud at the edge of water or erect to 1 m, the green stems turning brown below, usually branched and well jointed, rooting from the bristly joints. LEAVES: Alternate, **nearly stalkless, the blade long and narrow to 11 cm, dark green, narrowed at the base and clasping the stem in a well-developed sheath with a long bristle-haired fringe**; hairs along leaf edges and on veins below. FLOWERS: Small white–**pale pink–red** sepals from **red-brown bracts along slender spikes, 2–9 cm**, the axis looks **zigzag** on young heads. FRUIT: An **indehiscent nutlet**, 3-sided, smooth and shiny, **enclosed by the sepals**.

ECOLOGY: Found in damp places, often growing in water, in swamps, 0–2,400 m. Associated with *Cyperus latifolius*. Grows in black humid clay in or near water.

DISTRIBUTION: Found in all parts of Tanzania, including on Zanzibar and Pemba Islands; also all over tropical Africa, from Eritrea and Ethiopia south to Mozambique; also in tropical Asia, Australia and America; naturalized in Madagascar.

USES:

**Food:**

The young leaves and shoots are collected, chopped, boiled and served with a staple. It is mainly eaten as a famine food.

**Medicinal:**

- The ash obtained after burning the plant is licked in order to treat sore throat and tonsillitis.
- A decoction from pounded leaves is used as a purgative. Leaves are crushed and rubbed into the skin as a remedy for skin diseases.

**Commercial:** Not marketed.

**Other:** The plant is used for fodder and ornamental purposes.

SEASON: Collected in the dry season.

STORAGE: Not stored.

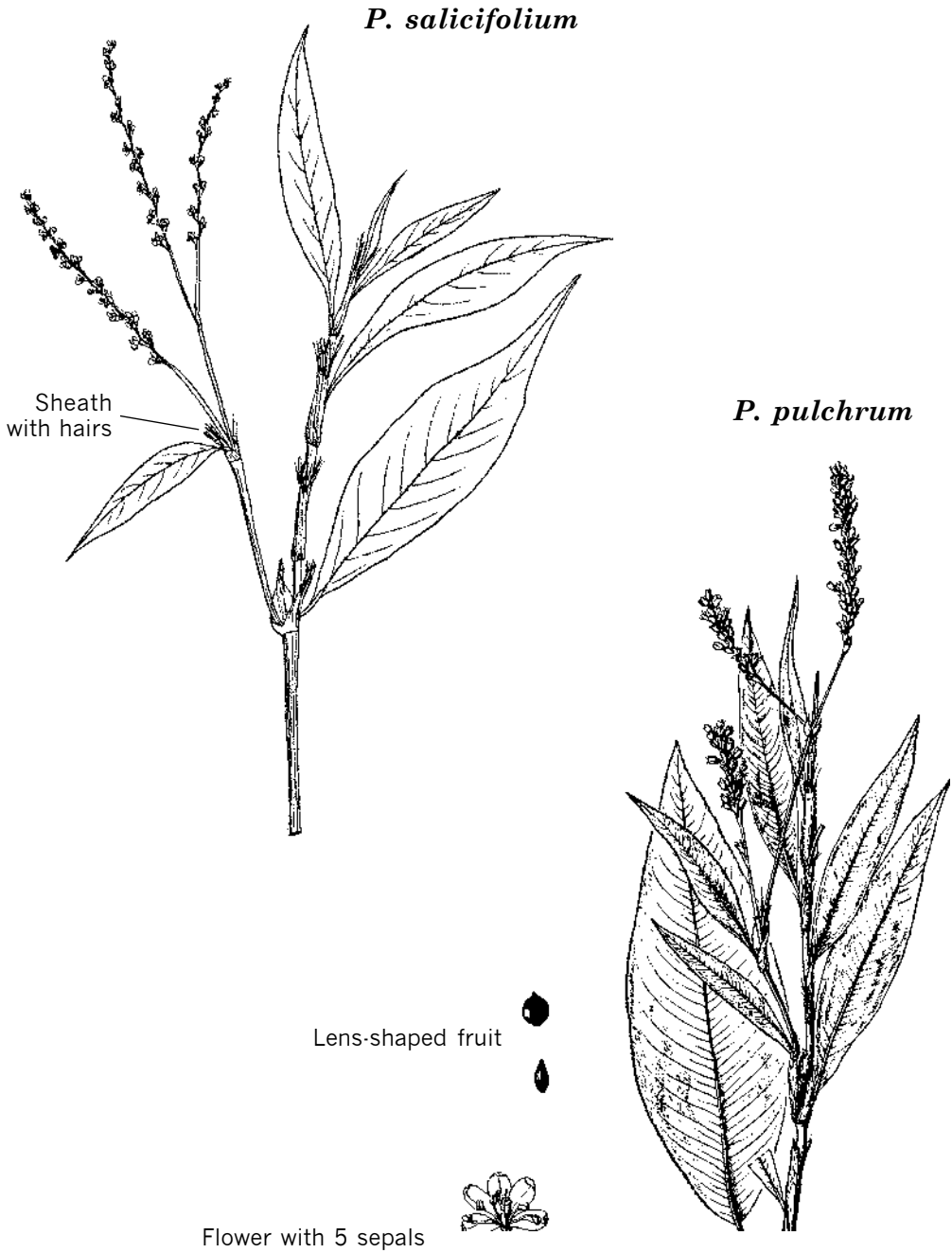
MANAGEMENT: Collected from the wild and not protected or cultivated by local people.

STATUS: Common and easily accessible within its area of distribution.

REMARKS: Another species (*P. pulchrum*): **Hehe:** Nyakisumbi; **Sambaa:** Lukantamila) has edible leaves that are used as a vegetable. The leaves are also used to treat STDs. The leaves are pounded, soaked in water and the infusion taken three times daily. The species is found throughout Tanzania, including

***Polygonum salicifolium* (contd)****Polygonaceae**

Zanzibar. It is also found in Kenya, Uganda, in tropical and subtropical Africa and Asia.



*Polysphaeria parvifolia*

## Rubiaceae

Indigenous

LOCAL NAMES: **Sambaa:** Mkame; **Swahili:** Mkanja, Mlapaa, Mrigi.

DESCRIPTION: A small tree or shrub 1–6 m, usually about 3 m, the slender stems often with a few short hairs. The **side branches arise just above the nodes**. BARK: Red-brown and peeling off in long strips from older stems. LEAVES: Opposite, **narrow oval to rounded, 5–9 cm long**, tip usually pointed, sometimes hairy below, base round to heart shaped, to a very short stalk, a pair of **tiny, undivided hairy stipules, 1 mm**. FLOWERS: **White**, appearing with the leaves in small **stalkless clusters** at the nodes, a calyx cup with **equal lobes** and spreading hairs, the corolla tube to 4 mm, tube and style hairy, **throat hairy**. FRUIT: **Round berries to 1 cm across**, in dense clusters, orange-red when mature.

ECOLOGY: A shrub of dry evergreen forest, woodland, coastal bushland and scrub, old plantations and abandoned cultivation sites, 0–1,400 m.

DISTRIBUTION: Mainly in coastal areas, including Zanzibar and Pemba, also in Kagera Region; in coastal Kenya and in Sudan, Ethiopia and Somalia.

USES:

**Food:**

Ripe fruits are collected from the tree and eaten fresh as a snack.

**Medicinal:** Roots are used as medicine for treatment of stomach-ache.

**Commercial:** Not marketed.

**Other:** The wood is hard and tough and is used for firewood, building poles, pegs, tool handles and animal traps. The tree is used for shade and is a source of bee forage.

SEASON: Fruits are collected from April to June.

STORAGE: Not stored.

MANAGEMENT: Collected from the wild and not cultivated or protected by the local people. It can be propagated by seed.

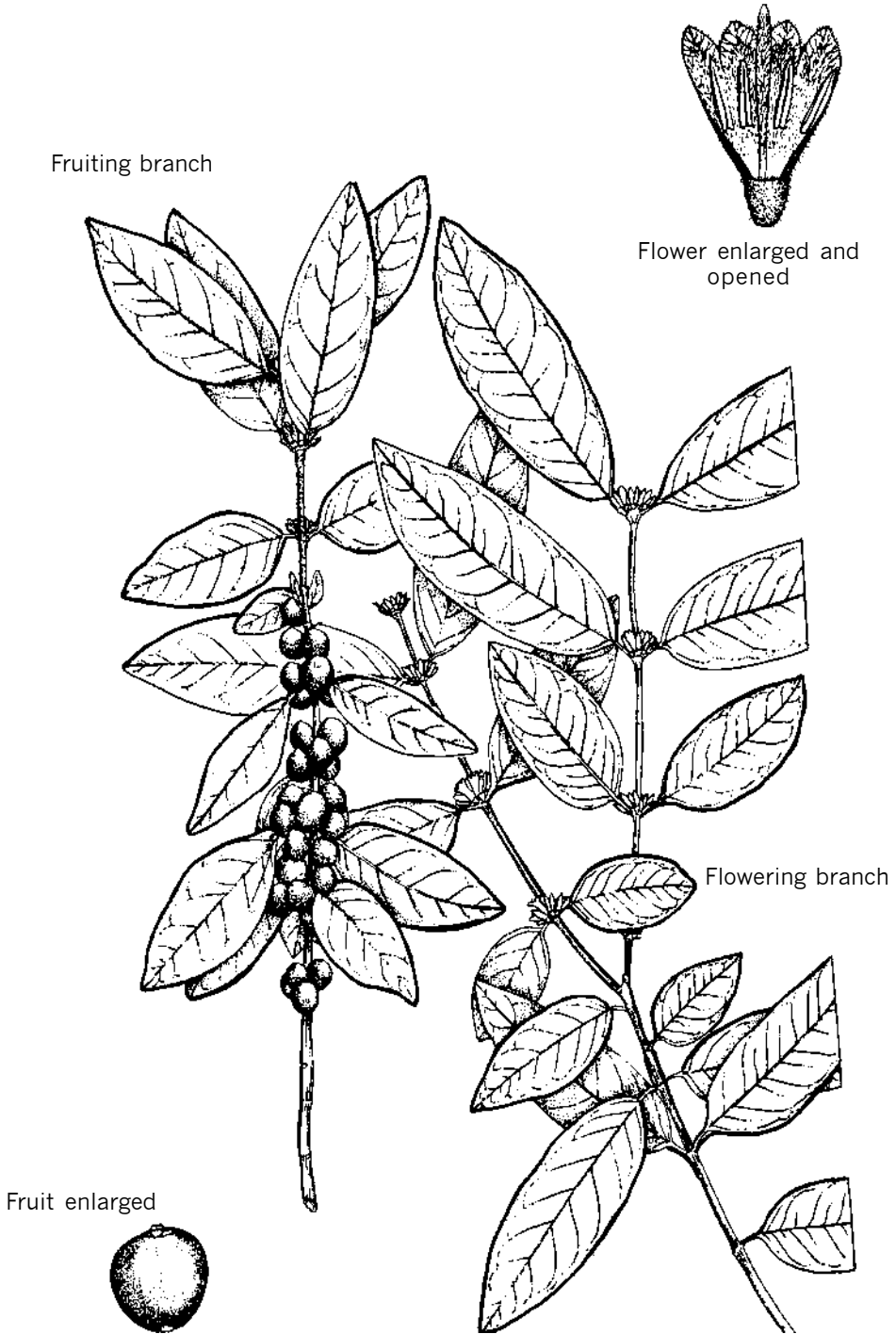
STATUS: Locally very common.

REMARKS: *P. multiflora* (**Swahili:** Mgudi) also has edible fruits. It is a shrub or small tree, 1–3 m high, found in central, eastern and southern parts of Tanzania. The species is also found in Kenya, the Comoro Islands, Mauritius and Somalia. It is reported to be cultivated in Mauritius.



*Polysphaeria parvifolia*

Rubiaceae



*Portulaca oleracea*

## Portulacaceae

Indigenous

LOCAL NAMES: **Bondei:** Danga-danga, Tako-da-hasani; **Digo:** Tako-la-hasani; **English:** Common purslane, Purslane; **Maasai:** Engaiyagut; **Samba:** Danga-danga; **Swahili:** Tako la hasani; **Zigua:** Danga-danga.

DESCRIPTION: A **low-growing fleshy annual herb**, the numerous spreading fleshy stems reddish, to 30 cm long. **LEAVES:** **Alternate, succulent, flat and shiny, spoon shaped**, widest at the round tip, up to **3 cm long** with a few 1 mm long hairy stipules at the base, soon falling. **FLOWERS:** **Bright yellow, about 1 cm across**, with 5 petals, many central stamens and 2 sepals, opening in the morning in bright sunshine for a few hours. Flowers **3–5 together in terminal clusters, without stalks**, surrounded by membranous scales and 2 or more leaves. **FRUIT:** **A round capsule opening transversely**, the top falling off like a small cap to set free many seeds.

ECOLOGY: Common in secondary regrowth after cultivation, as a cosmopolitan weed of cultivation and in other disturbed areas, even on rocky ground with shallow soils, doing well up to 2,000 m.

DISTRIBUTION: Found in many parts of Tanzania, e. g. in Tanga, Arusha, Morogoro, Kilimanjaro and Shinyanga Regions. Found in Africa from Eritrea and Ethiopia through East Africa south to Mozambique and South Africa.

USES:

**Food:**

Leaves and young shoots are collected, washed, chopped and cooked alone or mixed with other local vegetables, and usually also with coconut milk, onions, tomatoes and salt. It is then served with a staple (*ugali*, or *bada*—*ugali* made from cassava flour).

**Medicinal:**

– The cooked vegetable is used as a remedy for constipation.

**Commercial:** Not marketed

**Other:** The plant is used for fodder and is suitable for ornamental purposes.

SEASON: Leaves and young shoots are usually collected during the dry season when other vegetables become scarce.

STORAGE: Not stored.

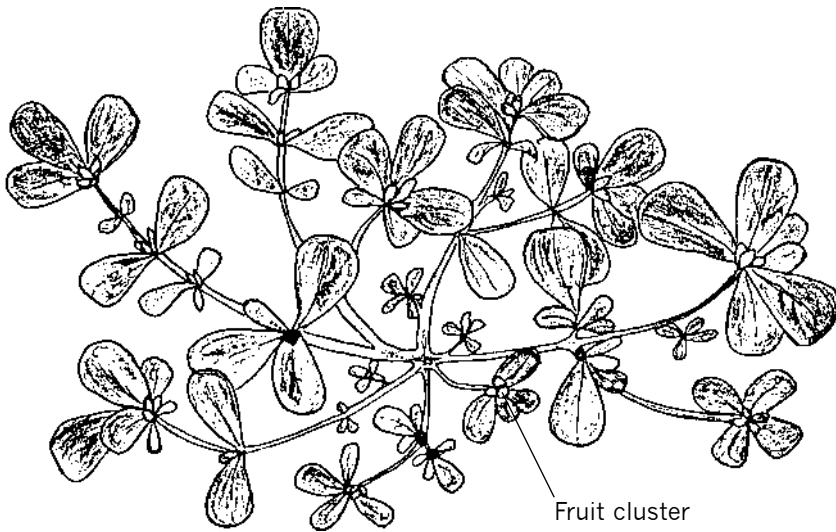
MANAGEMENT: Usually collected from the wild, but can easily be propagated using shoots and stem cuttings.

STATUS: Common and easily accessible within its habitat and is also regarded as a troublesome weed.

REMARKS: This species has been cultivated in France, Denmark and the Netherlands, including some erect and improved cultivars. *P. quadrifida* is a related

***Portulaca oleracea* (contd)****Portulacaceae**

species which is known and used in the same way as *P. oleracea*. It resembles *P. oleracea* but has smaller leaves and is also widespread in Tanzania and Kenya.



***Pouteria adolfi-friedericii* subsp. *australis*** Sapotaceae  
(*Aningeria adolfi-friedericii*)

Indigenous

LOCAL NAMES: **Bende:** Kuti; **Fipa:** Mwengele; **Sambaa:** Kuti, Mkuti; **Tongwe:** Mwale.

DESCRIPTION: A very tall tree, to 50 m, with a clear straight bole to about 16 m, topped by a relatively small dense crown, mature trees buttressed at the base. BARK: Pale, grey-brown, smooth to lightly fissured, much white latex if cut and an unpleasant smell. Flower and leaf stalks, buds and shoots covered with golden-brown hairs. LEAVES: Stiff and large to 22 x 8 cm, usually smaller, dark shiny green above, hairy and pale orange below, 10–20 pairs prominent veins, the tip pointed, on a twisted stalk to 2 cm. FLOWERS: Cream-green, very small, in clusters beside leaves, sepals and flower stalks brown, hairy, soon falling to the ground. FRUIT: Hard, green, narrow, to 4 cm with a beak, the soft hairy skin milky but inside is one shiny brown seed to 3 cm long with a large white scar (hilum).

ECOLOGY: Generally, the species occurs in upland rainforest, frequently associated with *Podocarpus*, rarely in riverine forest, 1,430–2,500 m.

DISTRIBUTION: In Tanzania this subspecies grows in Tanga Region, western areas and in the Southern Highlands, e.g. in Mbeya, Tanga, Rukwa and Kigoma Regions. Also found in Uganda, Kenya, Ethiopia, the Congo basin, Rwanda and Sudan.

USES:

**Food:**

Seeds are pounded, boiled, the liquid filtered off and cooled. The oil which floats to the top of the pot is then skimmed off and used for cooking. Ripe fruit pulp is sweet and eaten raw.

**Commercial:** Not marketed.

**Other:** The wood is used for timber, firewood and charcoal. The tree is used for shade.

SEASON: Fruits are collected from January to June.

STORAGE: Not stored.

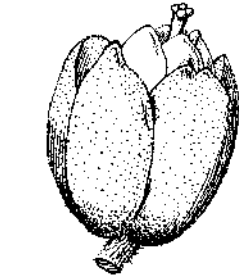
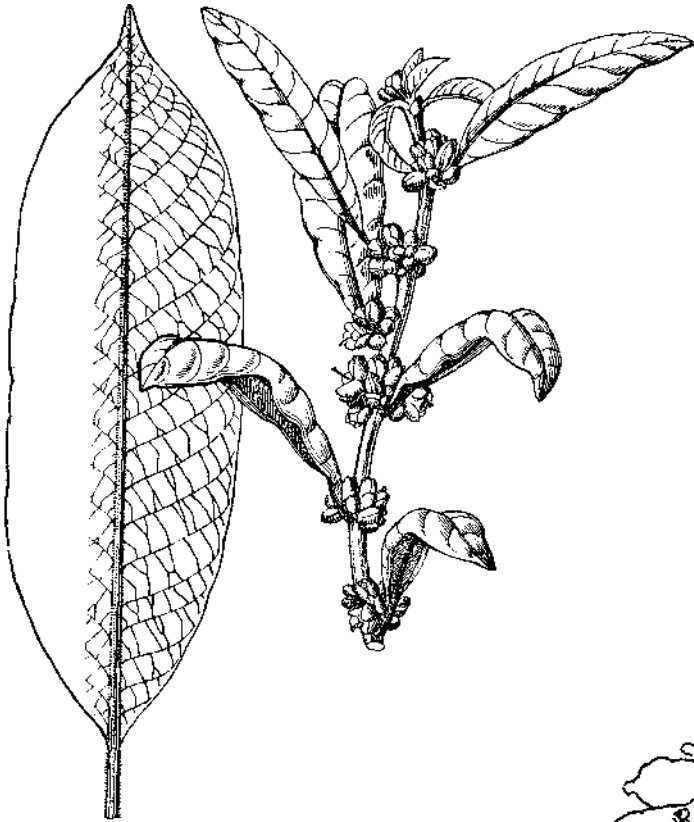
MANAGEMENT: Collected from the wild but can be propagated by seed.

STATUS: Common and easily accessible within its habitat.

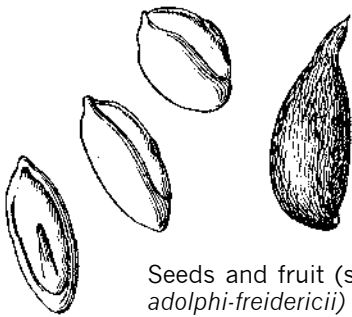
REMARKS: *P. alnifolia* (*Malacantha alnifolia*) (**Luguru:** Mgombogombo; **Sambaa:** Mguoguo, Mnguoguo, Msambia-ongwe, Ngoma, Nguoguo, **Nguru:** Mguoguo; **Pangwa:** Mpange; **Swahili:** Mguoguo; **Tongwe:** Mlale, Mulale) has similar uses to *P. adolfi-friedericii*. It is a tree up to 25 m high with a fluted bole and buttressed base found in Tanga and Morogoro Regions. It is also widespread from Senegal to Sudan and south to Mozambique.

*Pouteria adolfi-friedericii* subsp. *australis* (contd)

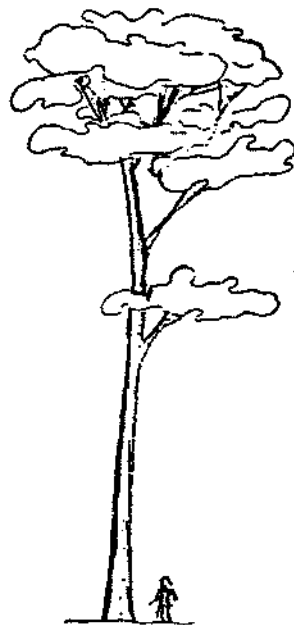
Leaf and flowering branchlet (subsp. *keniensis*)



Young flower  
(subsp. *keniensis*)



Seeds and fruit (subsp.  
*adolphi-friedericii*)



***Pouzolzia mixta* (*P. hypoleuca*)****Urticaceae**

Indigenous

LOCAL NAMES: **Bondei:** Mkaafuu; **Hehe:** Mtwaki; **Sambaa:** Mkaafuu.

**DESCRIPTION:** A deciduous perennial shrub, 1.5–3 m, with open branching stem, soft, fleshy and juicy, the outer stalk fibrous and woody but a wide spongy pith or hollow centre. **BARK:** Smooth iron-grey, “lumpy”. **LEAVES:** Alternate, entire, the oval blade 2–8 cm, smaller at ends of branchlets, tip long pointed, a hairy stalk, red-brown to 3 cm with a pair of pointed brown stipules at the base, upper surface rough with both long and short hairs, lower surface markedly white-silver with hairs (children stick woolly leaves together). **FLOWERS:** Very small, stalkless, in dense axillary clusters beside new leaves or in axils of fallen leaves, numerous male flowers, cream, hairy; fewer green-yellow female flowers with deep red sepals. **FRUIT:** Smooth, shiny, 2.5 mm, dispersed within the persistent membranous flower parts, young fruits pale yellow-green.

**ECOLOGY:** Wooded grassland, especially along edges of riverine forest or on rocky outcrops, 100–1,200 m.

**DISTRIBUTION:** Widely distributed in Tanzania. Also found in Uganda, Ethiopia, Sudan, south to South Africa and in Yemen.

**USES:**

**Food:**

Leaves are used as a vegetable. Tender leaves are collected, chopped and cooked with coconut milk or pounded groundnuts. It is then served with *ugali* or rice.

**Medicinal:** Adventitious roots are crushed and the jelly-like liquid obtained is used to treat burns.

**Commercial:** Not marketed.

**Other:** The plant is used as an ornamental and is a source of bee forage. The fibre is used to make fishing nets and string.

**SEASON:** Leaves are collected in the rainy season.

**STORAGE:** Not stored.

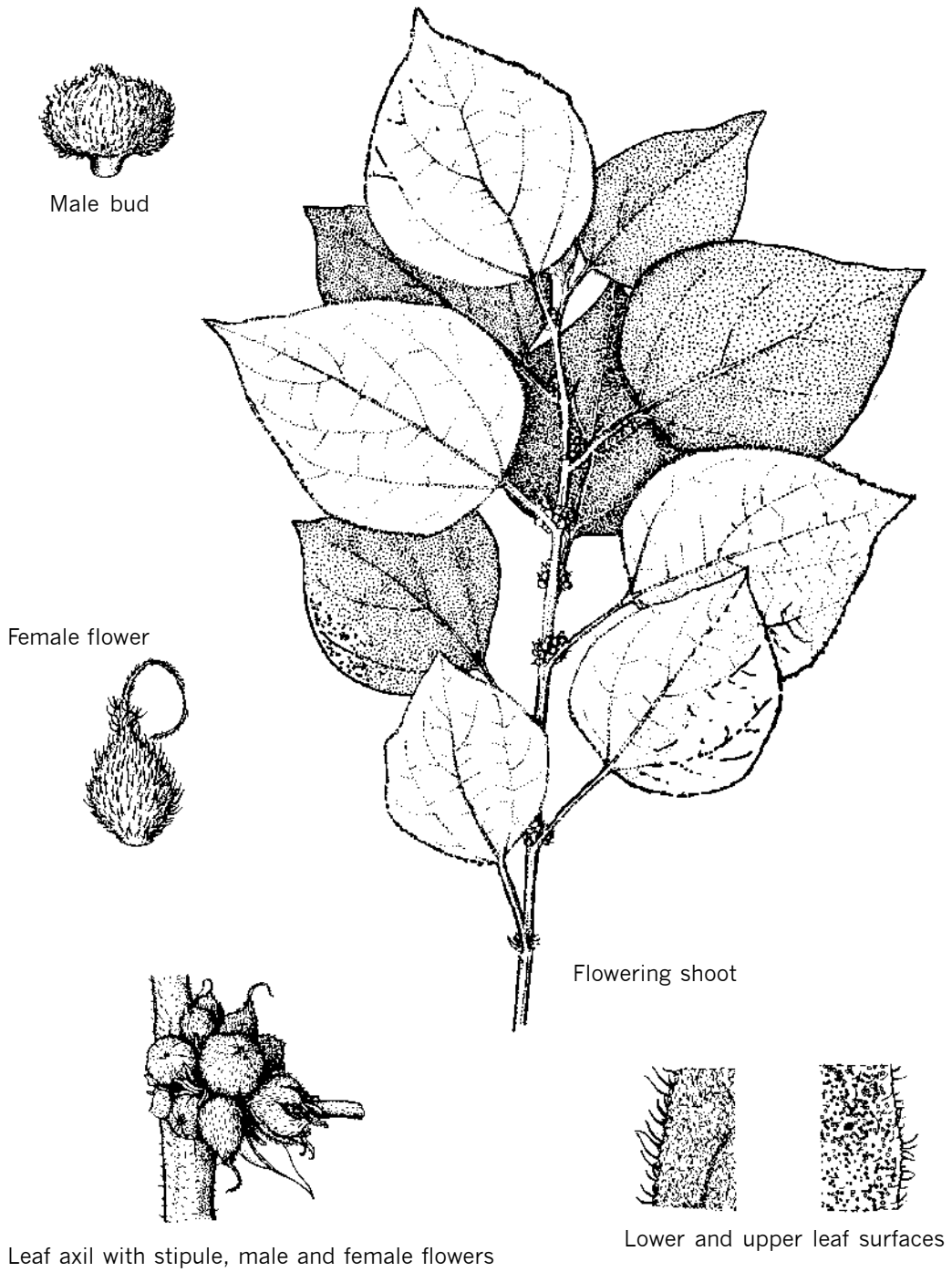
**MANAGEMENT:** Usually collected from the wild, but can be propagated by seed.

**STATUS:** Locally common.

**REMARKS:** The hairs on the leaves cause itching. Once cultivated at Amani Botanical Garden for its fibre.

*Pouzolzia mixta* (*P. hypoleuca*)

Urticaceae



***Pseudeminia comosa*****Papilionaceae**

Indigenous

LOCAL NAMES: **Nyamwezi:** Limbizu.

DESCRIPTION: A strong climber 2–9 m, or forming a low tangled thicket, the slightly ridged stems, arising from a tuberous rootstock, are usually rust coloured and covered with bristly or soft hairs. LEAVES: 3 leaflets on long stalks 5–21 cm, leaflets wide oval, the two outer leaflets unequal-sided, all about 3.5–13 cm long and wide, base often rounded, **the leaflets entire or 2–3 lobed, the edge with widely spaced teeth, both sides lined with hairs, the lower surface often silky silvery apart from rust-brown veins**, pairs of narrow pointed stipules at the base of the leaf stalk. FLOWERS: Pea shaped, the **large standard petal to 2.6 cm long, green to dull purple-brown outside, pale violet inside, wings violet, keel violet tipped green. Flower head long stalked, 4–42 cm, appearing terminal**, flowers in pairs with conspicuous narrow bracts and bracteoles, the short tubular calyx has 5 lobes drawn out into long hairy points. FRUIT: Pods narrow oblong, **flattened, to 2 cm long**, covered with long bristly hairs and soft short hairs, breaking open to set free **2 rough brown-black seeds**.

ECOLOGY: Bushland, *Brachystegia* woodland, old cultivation, 800–1,800 m.

DISTRIBUTION: Found in most parts of Tanzania except Tanga Region and the Southern Highlands. Also in Malawi, Zimbabwe and Mozambique.

USES:

**Food:**

Root tubers are dug up, peeled and chewed. The sweet juice is swallowed and the remains spat out.

**Commercial:** Not marketed.

**Other:** The plant is used for fodder and is suitable for ornamental purposes.

SEASON: Tubers are dug up during the rainy season.

STORAGE: Not stored.

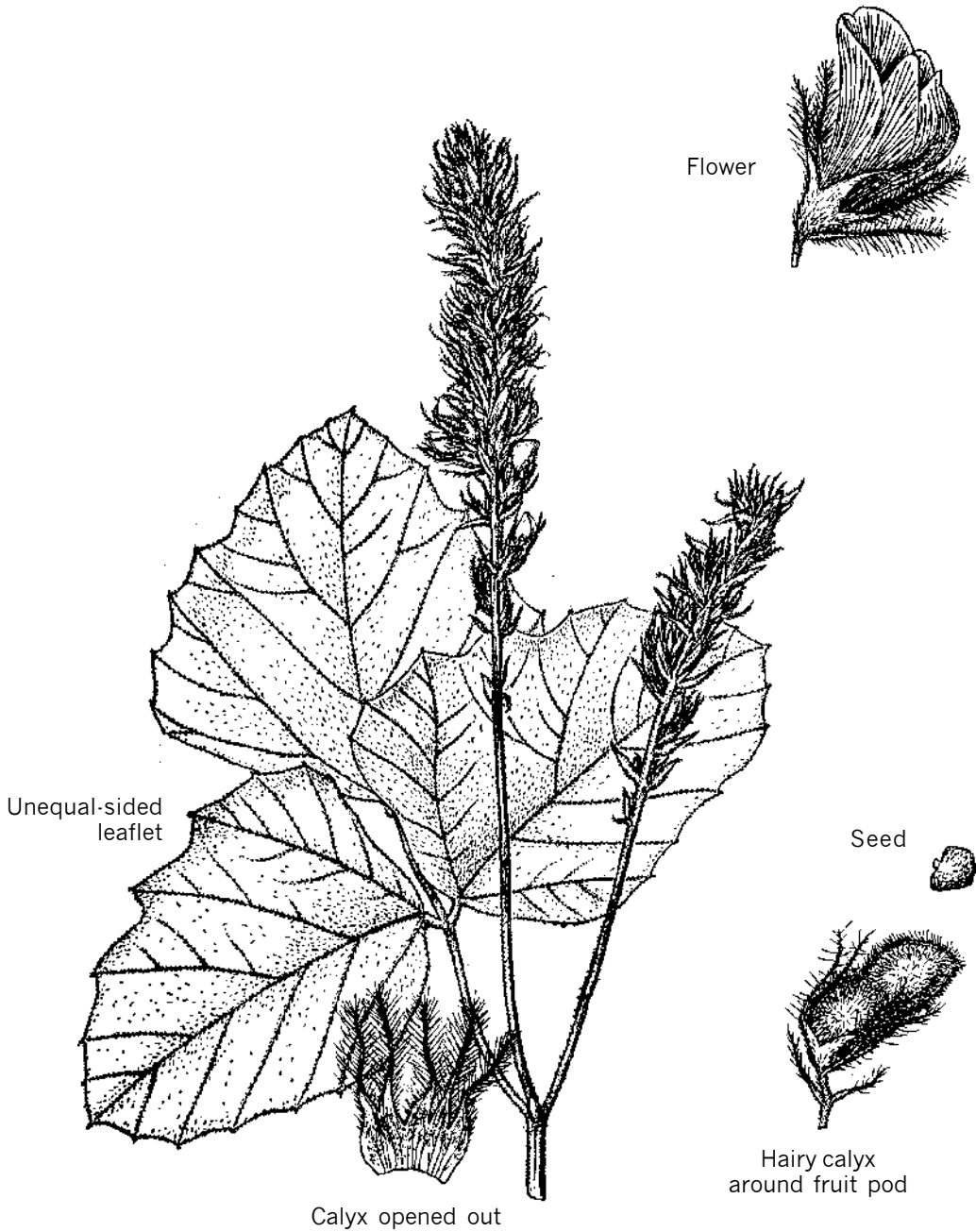
MANAGEMENT: Collected from the wild and is not cultivated or protected by the local people. It can be propagated by seed.

STATUS: Locally common.



*Pseudeminia comosa*

Papilionaceae



*Pseudospondias microcarpa*

## Anacardiaceae

Indigenous

LOCAL NAMES: **Bende:** Kashira-nguruwe; **Ha:** Mgwiza; **Haya:** Muziru, Omubolu, Umubalu; **Kuria:** Muitinina, Mushiro; **Tongwe:** Buhono; **Zinza:** Mugomba.

DESCRIPTION: A large spreading tree 15–20 m, bole up to 2 m in diameter and strongly buttressed, the trunk often irregular, twisted, the branches growing near the base and often covered with epiphytic plants. BARK: Smooth and thin when young, becoming yellow-grey and rough, flaking in large pieces. LEAVES: Odd, pinnate, on stalks to 30 cm, with **2–8 pairs leaflets plus 1, each leaflet stalked**, rather stiff, oval 5–20 cm, **base very unequal, tip long pointed**, darker above than below. Basal leaflets the smallest. FLOWERS: In **loose heads, 10–32 cm, beside leaves**, the stalks dull red-brown, very small white male and female flowers, parts in fours. FRUIT: A **soft edible drupe to 2.5 cm, blue-black when ripe**, the stone inside is 4-sided and contains the seeds.

ECOLOGY: Common on lake shores, rainforest edges, riverine and in swamp forests. It occurs naturally at medium altitude, 900–1,700 m; rainfall 1,200–2,100 mm. Thrives in well-drained loamy soil.

DISTRIBUTION: Only in western parts of Tanzania, e.g. in Mwanza, Kigoma, Kagera, Rukwa and Mara Regions. Also in Kenya and Uganda and from Senegal to the Sudan and south to Angola and Zambia.

USES:

**Food:**

Ripe fruits are sweet. They are collected and eaten fresh as a snack, mainly by women and children as they collect firewood from the forests. It is eaten occasionally and in moderate amounts.

**Commercial:** Not marketed.

**Other:** The seeds are used to make beads. The wood, which is moderately soft, is used for grain mortars, stools, water troughs and for making canoes. A good tree for shade. The bark is pounded to produce a red paste which is used for smearing on winnowing trays to make them grain proof (Tongwe).

SEASON: Collected during the rainy season, September–December.

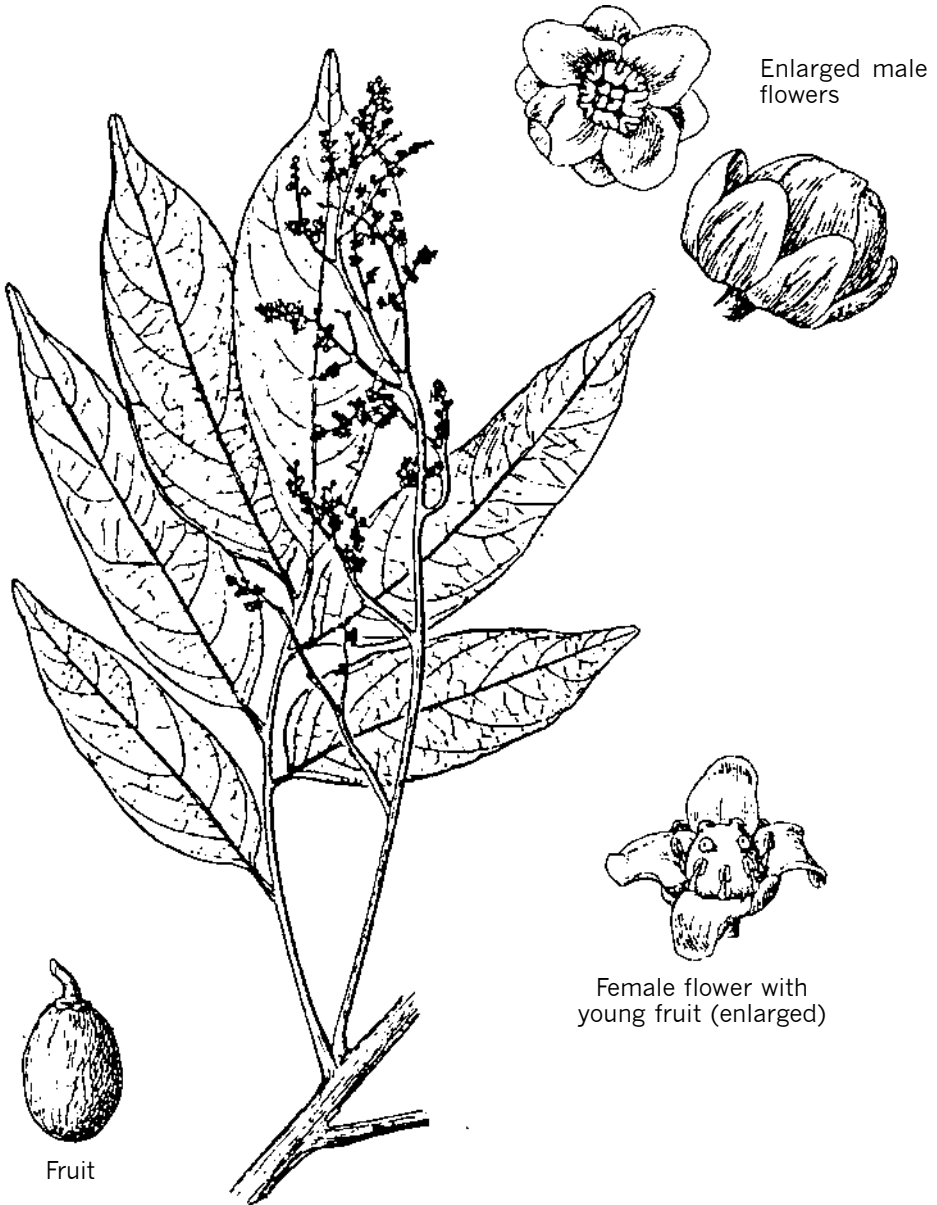
STORAGE: Not stored.

MANAGEMENT: Collected in the wild and not cultivated or protected by local people, but can be propagated from seed.

STATUS: Common and easily accessible within its area of distribution.

*Pseudospondias microcarpa*

Anacardiaceae



***Psorospermum febrifugum* Clusiaceae (Guttiferae)**

Indigenous

LOCAL NAMES: **Bena:** Mfwifwi; **English:** Christmas berry; **Gorowa:** Da-aahugmo; **Iraqw:** Da-aaslsmo; **Matengo:** Kihibihibi, Kihivahivi; **Ngindo:** Kalijenge; **Nyamwezi:** Msalunhunda; **Nyaturu:** Mofere; **Rangi:** Kibabibabi; **Sambaa:** Mkandandogowe; **Swahili:** Mchakwe; **Tongwe:** Kangululungululu; **Zigua:** Mhelahela.

DESCRIPTION: A shrub or tree 1.5–6 m. BARK: Grey-brown, rough, rather corky, flaking and peeling in strips. LEAVES: Opposite, broad oval, usually 3–7 cm, tip pointed or blunt, dotted with translucent glands, **almost stalkless**, the **lower surface covered with rusty star-like hairs**, upper surface a dark shiny green with a clear vein network. FLOWERS: Inconspicuous, sweet smelling, **cream-white, only 6–8 mm across, in branched heads to 4 cm**, 5 outer sepals, usually densely hairy and glandular, **the 5 hairy petals inside**, with many stamens. FRUIT: **Round berries 6–10 mm, bright to dark red**, topped by the style, in terminal clusters.

ECOLOGY: Deciduous woodland, wooded or more open grassland over a wide range of altitude, 0–2,000 m.

DISTRIBUTION: Found in most parts of Tanzania except the northern and Tanga areas. Also in Uganda and Kenya, and widespread in tropical Africa.

USES:

**Food:**

Fruits are edible. Ripe fruits are collected from the tree and eaten fresh. They are sweet and are much favoured by children and herdsmen.

**Medicinal:**

- Roots and leaves are boiled and the juice is drunk to treat leprosy.
- The bark is dried, pounded, mixed with ghee or oil and rubbed into the skin of a person suffering from scabies.
- Roots are also used as a mouthwash for tongue diseases and a gargle for tonsillitis.

**Commercial:** Sold locally.

**Other:** The wood is used for fuel and tool handles. The bark yields a yellow dye. The tree is used for ornamental purposes and bee forage.

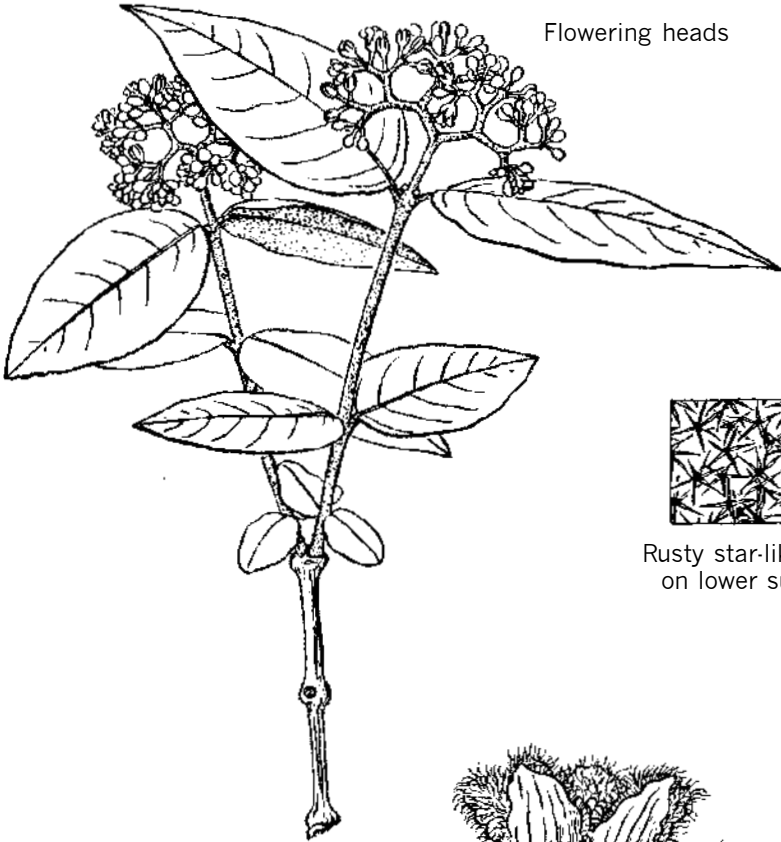
SEASON: Ripe fruits are collected in November and December.

STORAGE: Not stored.

MANAGEMENT: Collected from the wild, not cultivated. Can be propagated by seed.

STATUS: Locally common.

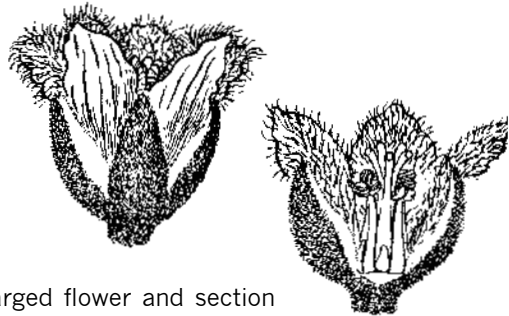
*Psorospermum febrifugum* Clusiaceae (Guttiferae)



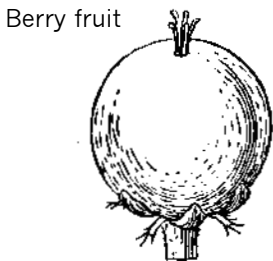
Flowering heads



Rusty star-like hairs on lower surface



Enlarged flower and section



Berry fruit



Fresh and dry seeds

***Psydrax parviflora* subsp. *rubrocostata***      **Rubiaceae**

Indigenous

LOCAL NAMES: **Gogo:** Msechela; **Haya:** Mshangati; **Kerewe:** Mkome, Muebe; **Luguru:** Msada; **Meru:** Omemuta; **Safwa:** Livilo; **Zinza:** Mgongo, Mkomambuza, Mshangule.

DESCRIPTION: An evergreen shrub or tall tree 2–27 m, the bole sometimes fluted. **BARK:** Slightly cracked, brown to light grey, a distinctive almond smell if cut. **LEAVES:** Well spaced along the stem, opposite, long oval, 5–15 cm, with a **clear pointed tip**, stiff, shiny above, the **midrib paler, sometimes red**, 4–8 main side nerves with **hairy pockets in the angle with the midrib below**, a stalk to 1 cm with a pair of **triangular stipules, to 7 mm, clasping the base**. **FLOWERS:** Tiny, cream-white, in dense **stalked heads to 6 cm** across, 20–100 flowers, each tubular with a ring of hairs inside as well as a hairy throat, **the 8 mm style longer than the 4 corolla lobes**. **FRUIT:** **Round to two-lobed, soft and black, 5–8 mm long, 8–14 mm wide**, 1–2 seeded and **sometimes almost split in two**.

ECOLOGY: A species of moist lowland forests and montane rainforests, 0–2,800 m.

DISTRIBUTION: In Tanzania found, for example, at Narok in Arusha Region, Nyumba Nyitu in Iringa Region, Mbeya Peak in Mbeya Region, near Hululu Falls in Bunduki Forest Reserve (Morogoro Region), in coastal areas and on Zanzibar and Pemba Islands. Also found in Kenya, Uganda and Malawi.

USES:

**Food:**

Ripe fruits are picked from the tree and eaten fresh as a snack. They are much liked by children and forest workers.

**Medicinal:**

- The fruits are used as medicine for coughs and colds.
- Roots are cooked with animal soup (meat and bones) and taken as a treatment for intestinal worms and general body pains.

**Commercial:** Not marketed.

**Other:** The wood is used for timber, firewood, charcoal and tool handles. The tree is used for shade, as an ornamental and is a source of bee forage.

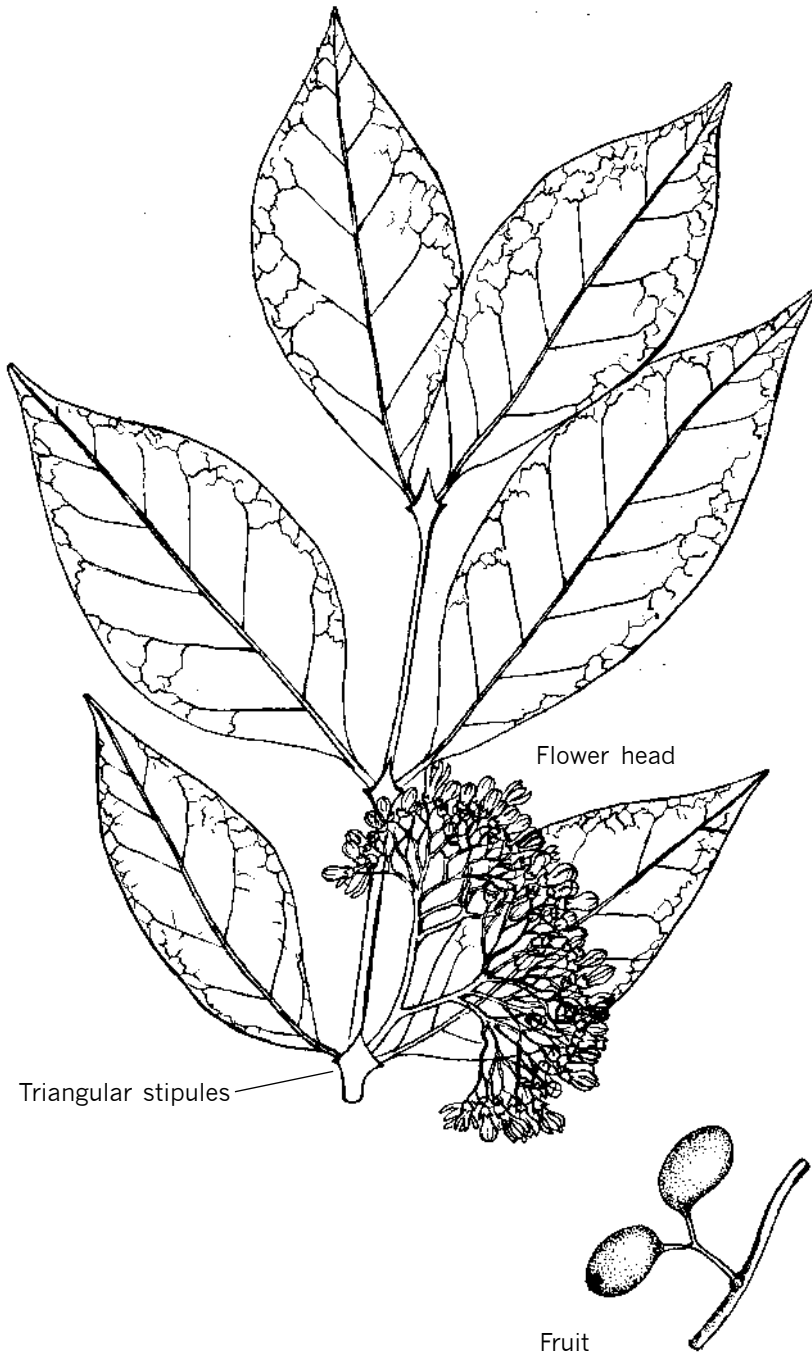
SEASON: Ripe fruits are collected from January to May.

STORAGE: Not stored.

MANAGEMENT: Collected from the wild and not planted. The species can be propagated by seed.

STATUS: Locally common.

*Psydrax parviflora* subsp. *rubrocostata* Rubiaceae



***Pupalia lappacea* var. *velutina*****Amaranthaceae**

Indigenous

LOCAL NAMES: **Bondei:** Mamata; **Hehe:** Lulyamindi; **Iraqw:** Mumuhai; **Nyamwezi:** Ilamata; **Sambaa:** Mamata; **Swahili:** Mnasa nguo; **Zaramo:** Mnamata; **Zigua:** Mamata.

DESCRIPTION: A small hairy herb, usually sprawling along the ground, annual or perennial. LEAVES: Opposite, long oval to rounded, to 10 cm long, the tip rounded, narrowed at the base to a short stalk, hairy both sides. FLOWERS: Very small and papery, yellow-purple-red, in alternate **clusters to 13 mm across, along terminal spikes**, each fertile flower has a pair of sterile flowers either side, the cluster soon becomes surrounded by **very pale hooked bristles**, spreading like a star as the stalk lengthens. FRUIT: Ovoid capsules, only 2.5 mm, containing a shiny brown seed.

ECOLOGY: A plant of dry bushland, the spiny burrs easily catching on passing animals, including people, 0–2,100 m.

DISTRIBUTION: In all parts of Tanzania; also occurs in Kenya and most of Uganda. Widespread in tropical Africa north to Egypt, also in South Africa, Madagascar, the Arabian peninsular and Asia as far east as the Philippines.

USES:

**Food:**

Tender leaves are collected, chopped, washed and cooked. Pounded ground-nuts or coconut milk are added and then served with *ugali* or rice.

**Medicinal:** Roots are used as medicine for STDs and snakebite and as a purgative. The roots are boiled and the infusion drunk three times a day.

**Other:** Leaves and stems are used as fodder.

**Commercial:** Not marketed.

SEASON: Leaves are collected during the rainy season.

STORAGE: Not stored.

MANAGEMENT: Usually collected from the wild. The plant can be propagated by seed.

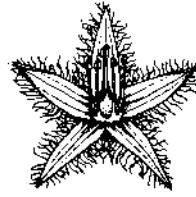
STATUS: Locally common within its area of distribution.

REMARKS: Regarded as a serious weed but is also believed to be an indicator of fertile soils in areas where it grows.



*Pupalia lappacea* var. *velutina*

Amaranthaceae



Open flower



One fertile, two sterile flowers



Part of fruiting head to show hooked bristles

*Pygmaeothamnus zeyheri*

## Rubiaceae

Indigenous

LOCAL NAMES: **English:** Dwarf medlar; **Hehe:** Kindokoli, Kitokoli; **Matengo:** Maboya, Mandungu; **Nyamwezi:** Mpenzwa.

DESCRIPTION: A low shrub with creeping underground stolons sending out 3–6 **annual woody stems to 30 cm high**, forming a bushy ground cover over a considerable area; stems may be reddish and hairy. LEAVES: **Rather large**, shiny green, **4–12 cm, long oval and wider at the tip**, upper leaves tips pointed, lower more rounded, opposite or in **whorls of 3–4**, usually **erect and stiff**, a few bristly yellow hairs both sides, tapering to the base into a bristly stalk to 1 cm; triangular bristle-tipped stipules, 5 mm. FLOWERS: **Small, about 1 cm**, faintly scented, **tubular, green-yellow-cream, few to 40**, together **from lower axils**, on much-branched stalks to 4 cm, calyx tube 8 mm, with bristle hairs, **buds slender, pointed**, corolla tubular with **5 reflexed lobes**. FRUIT: A **fleshy yellow drupe, somewhat pear shaped, flattened to 3 cm long**, usually with 1 seed.

ECOLOGY: Wooded grasslands, other types of grassland, sometimes stony, 1,200–1,400 m.

DISTRIBUTION: In Tanzania it is found in Kagera, Shinyanga, Tabora and Kigoma Regions. Also in Burundi and the Congo basin and south to South Africa.

USES:

**Food:**

Ripe fruits are fleshy and eaten raw as a snack. They are sweet and much liked by children and herdsmen.

**Commercial:** Not marketed.

**Other:** The plant is good for ornamental purposes.

SEASON: Collected during the rainy season.

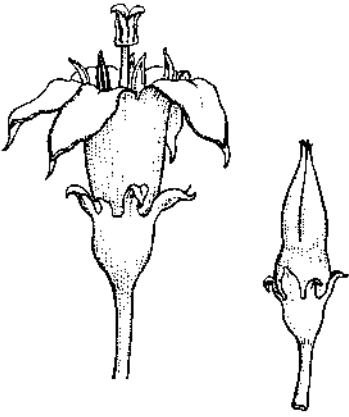
STORAGE: Not stored.

MANAGEMENT: Collected from the wild and not cultivated. It can be propagated by seeds and suckers.

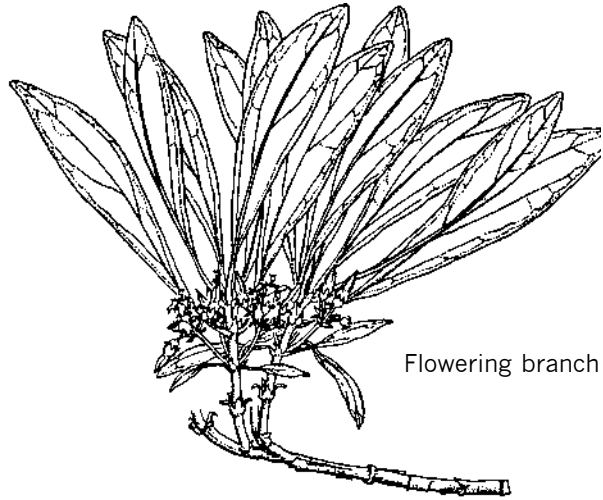
STATUS: Locally common.

*Pygmaeothamnus zeyheri*

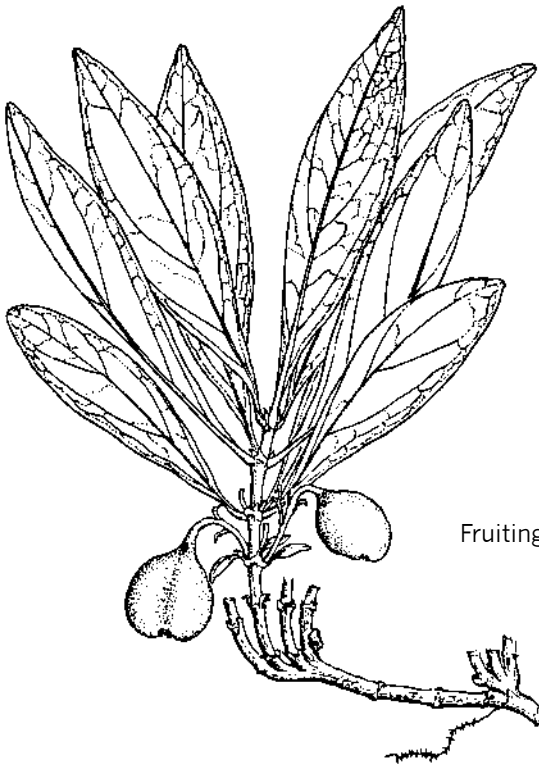
Rubiaceae



Enlarged flower and bud



Flowering branch



Fruiting branch

***Pyrostria bibracteata***  
**(*Canthium bibracteatum*)**

**Rubiaceae**

Indigenous

LOCAL NAMES: **Pare:** Mpwizopwizo; **Rufiji:** Mkonge; **Sambaa:** Mshizo; **Swahili:** Mfupapo, Mkonge; **Tongwe:** Mbunisigo; **Zaramo:** Mkonge.

DESCRIPTION: An evergreen shrub or tree 2–10 m, often with horizontal branching.

**BARK:** Pale grey. **LEAVES:** Opposite, rather large, long oval to 12 cm long with reddish midribs and **4–5 pairs of lateral nerves**, leaves dull **stiff and papery, turning brown black as they dry**, base narrowed to a short stalk.

**FLOWERS:** **Green-white-yellow in dense clusters of 4–30, almost stalkless**, beside leaves, each flower 4–5 mm, petals woolly inside, flowers surrounded by paired, pointed bracts. **FRUIT: Rounded berries, yellow-red turning black, to 8 mm across**, containing one seed.

ECOLOGY: In bushland, bushed grassland or secondary bushland, in woodland or on forest edges at low altitudes, 0–900 m.

DISTRIBUTION: Found in coastal areas and low altitudes of Tanzania, including Zanzibar, coastal Kenya, Mozambique, Zimbabwe, Madagascar and Seychelles.

USES:

**Food:**

Ripe fruits are fleshy, sweet and eaten raw as a snack. They are collected in handfuls and eaten.

**Commercial:** Not marketed.

**Other:** The wood is hard and used for building poles, withies, pegs, tool handles and fuelwood. The tree is used for shade, as an ornamental and is a source of bee forage.

SEASON: Fruits are collected from April to June.

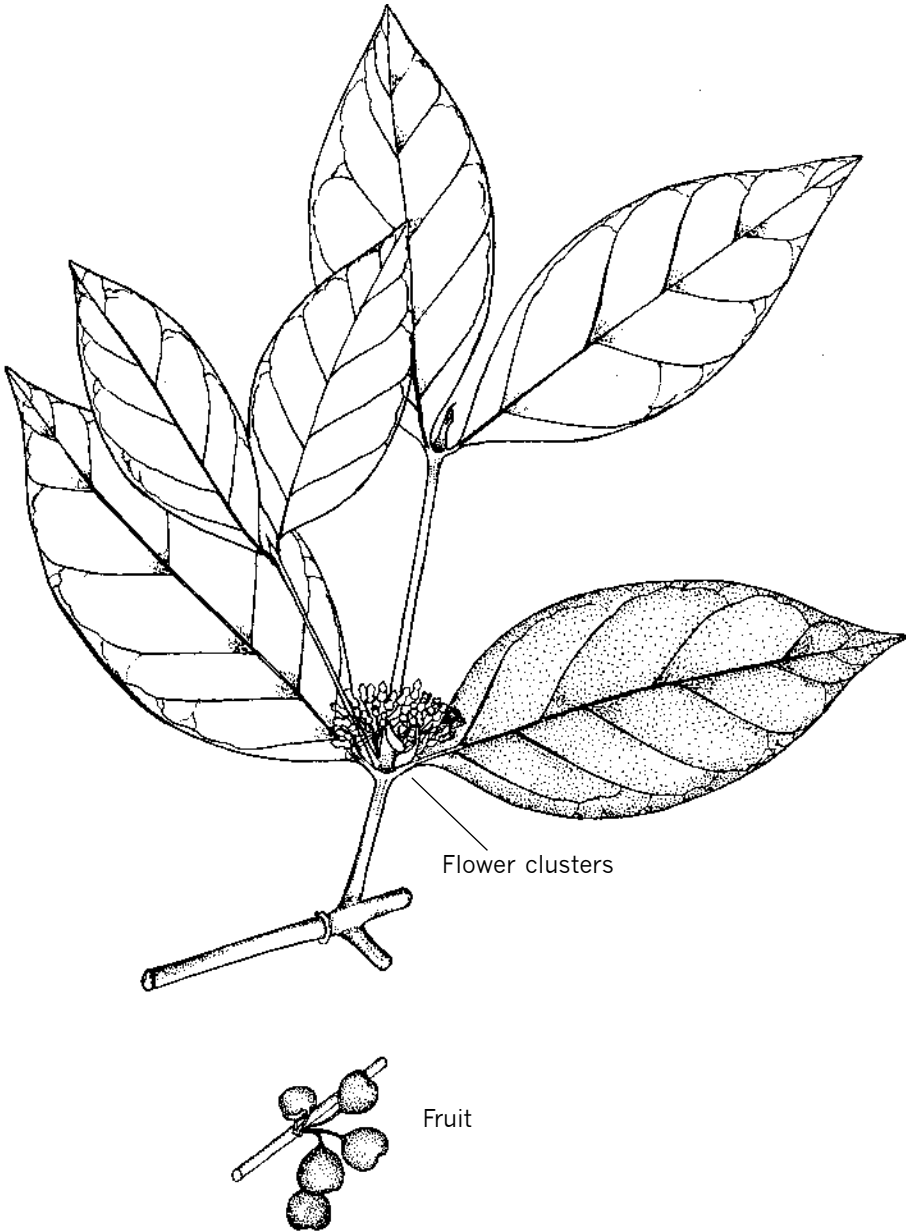
STORAGE: Not stored.

MANAGEMENT: Collected from the wild and not cultivated. It can be propagated by seed.

STATUS: Common and easily accessible within its area of distribution.

*Pyrostria bibracteata* (contd)

Rubiaceae



*Raphia farinifera*

## Areaceae (Palmae)

Indigenous

LOCAL NAMES: **Haya:** Muhunge, Umondo; **Nyamwezi:** Mkamilila, Mukamilila; **Sangu:** Livale; **Swahili:** Mwale.

DESCRIPTION: A massive palm growing in clusters in swamp forest, reaching 25 m but usually much less; the trunk 60 cm or more across and to 10 m high, covered with large leaf bases, old rotting ones, plant debris and epiphytes. LEAVES: Pinnate and erect, only slightly spreading, to 8 m long, usually less, the base sheathing the stem. The **leaf stalk very strong, orange-brown to crimson** when young, cylindrical, to **1.5 m long and 20 cm diameter** at the base, narrowing to 12 cm across where leaflets arise; **150 or more leaflets grow in 2 planes**, each to 1 m long x 8 cm wide, edged with little spines, drooping only very slightly or rather stiff. Leaflets  $\Lambda$ -shaped in cross-section (reduplicate). FLOWERS: Male and female on the same plant, grow in **massive hanging heads from the stem apex, to 3 m x 35 cm**. After flowering, the plant dies, often the majority in an area dying in the same year. FRUIT: **Shiny orange-brown and ovoid** (like a cone), **about 10 cm long x 5 cm across**, with 12–13 rows of tightly packed convex scales. Inside an oily layer and one seed about 5 cm long, shaped like the fruit.

ECOLOGY: Widespread in gallery forests, freshwater swamp forest, along river banks and in the western shoreline forests of Lake Victoria, 0–2,500 m.

DISTRIBUTION: Found in Tanga Region and other coastal areas of Tanzania and in the Southern Highlands as well as on Zanzibar and Pemba Islands. Also in Uganda, Kenya, throughout southern tropical Africa and on Madagascar.

USES:

**Food:**

Fruits are crushed in a mortar, water added, boiled and left to cool. The floating oil is then skimmed off and used in cooking.

**Other:** The outer layer of the young leaflets is easily removed and makes excellent fibre for string, ropes, baskets and mats—the raffia of commerce. The strong midrib is used locally for rafters, chairs, ladders, etc.

**Commercial:** Not marketed.

SEASON: Collected all year round.

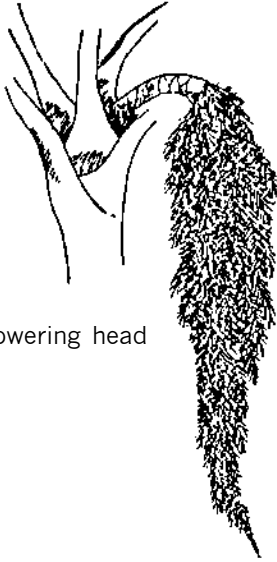
STORAGE: Not stored.

MANAGEMENT: Fruits are collected from the wild, and in Tanzania the palm is not cultivated or protected by local people. It can, however, be grown as individual plants or in a plantation on raised ground as long as there is good moisture in the soil and the climate is conducive to its growth. Propagated by use of seedlings.

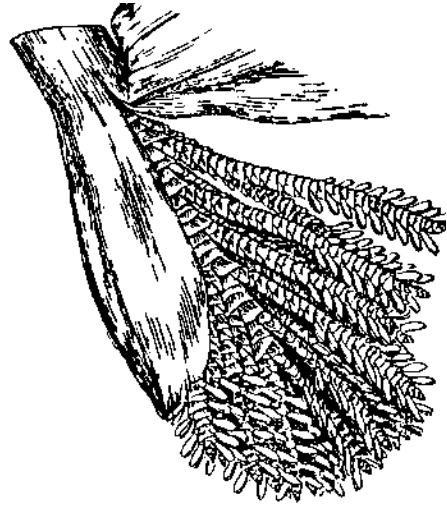
STATUS: Common and easily accessible.

*Raphia farinifera*

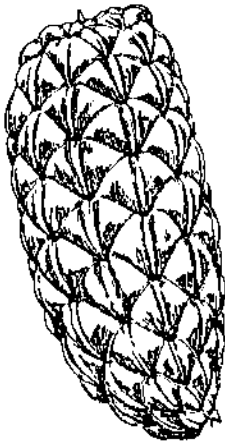
Areaceae (Palmae)



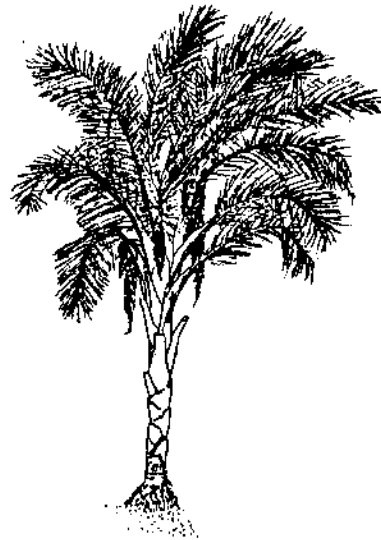
Massive flowering head



Enlarged part of flower head



Fruit



## *Rhus natalensis*

## Anacardiaceae

Indigenous

LOCAL NAMES: **Arusha:** Ormisigiyo; **Chagga:** Mpungulu; **Chasi:** Sasakimo; **Digo:** Mbwananyahi, Mgwanyahi; **Fipa:** Msangula; **Haya:** Msagara, Omusheshe; **Hehe:** Mtunumbi; **Iraqw:** Datei, Mstunga, Sirongi; **Kerewe:** Musheshe; **Kuria:** Msangura; **Maasai:** Olmesigie, Ilmisigiyo (plural), Olmisigiyo, Ormisigiyo; **Rangi:** Msakasaka, Muizi; **Sambaa:** Mhunguru, Mhunguru-mhomba; **Sukuma:** Mhunguru; **Swahili:** Mkono chuma, Mkumba, Mkuna chuma, Mtishangwe, Mvunja kondo; **Zinza:** Msense.

DESCRIPTION: A many-branched shrub or tree, sometimes tending to scramble, up to 8 m in height. BARK: Grey, often almost white, branchlets pale and dotted with breathing pores, **branches angular**. LEAVES: 3-foliolate, the central leaflet largest, to 9 cm, **usually dark green**, rather **leathery**, hairless, sometimes toothed, very variable, **wider towards the tip**, narrowed to the base, on a stalk 2–4 cm. FLOWERS: Green-yellow with tiny flowers in loose heads to 15 cm. FRUIT: Oblong to bean shaped, smooth, **red with thin flesh** and a waxy covering, about 5 mm, edible. The dry papery fruit soon fall.

ECOLOGY: Deciduous and evergreen savanna bushland and woodland, riverine vegetation, forest edges. Often found on well-drained slopes, 0–3,000 m; rainfall 1,000–1,400 mm. Tolerates a wide range of soil types.

DISTRIBUTION: Found in all parts of Tanzania, including on Zanzibar and Pemba Islands. From Guinea to Somalia and the Arabian peninsular, southwards to South Africa.

USES:

### **Food:**

Both the green and ripe fruits are collected in handfuls and eaten fresh as a snack, especially by hunters. They taste acid but are refreshing. Eaten occasionally in moderate quantities. Fruits are also used in brewing local alcoholic beverages.

### **Medicinal:**

- Roots are pounded and boiled and the decoction used to treat gonorrhoea, colds, abdominal pains and hookworm.
- Leaves are crushed and put in a bath for women with prolapsed uterus. Leaves are pounded, soaked in hot water and the resulting liquid used to treat coughs.

**Other:** The wood is used for firewood, tool handles and charcoal. Leaves and fruits are used for fodder.

SEASON: Fruits are collected in the dry season.

STORAGE: Not stored.

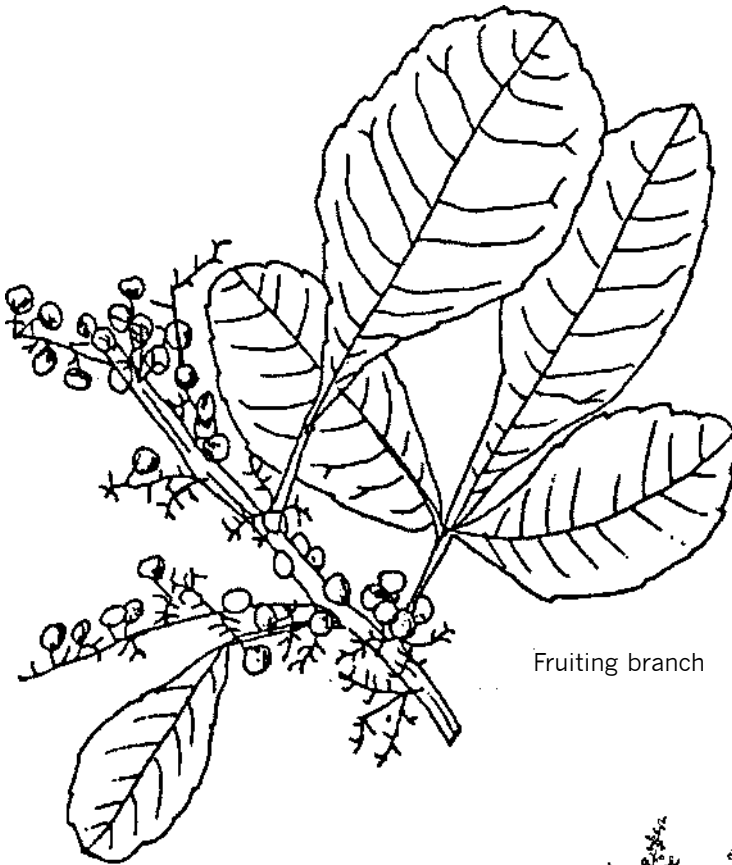
MANAGEMENT: Collected from the wild and not protected or cultivated by local people. It can be propagated by seed.



*Rhus natalensis* (contd)

Anacardiaceae

STATUS: Common and easily accessible within its area of distribution.



Fruiting branch



## *Rhus vulgaris*

## Anacardiaceae

Indigenous

LOCAL NAMES: **Bena:** Lidzadzi; **Chagga:** Mpungulu, Nyungu; **Digo:** Mbwanyahi; **Gorowa:** Datlaili; **Ha:** Umukeri; **Haya:** Umusagara; **Hehe:** Muhehefu; **Iraqw:** Datlaili; **Isanzu:** Mbulagankuku; **Maasai:** Emungushi, Engarachi, Ilmisigyio (plural), Msigwe, Olmisigiyioi, Ormisigiyoi; **Matengo:** Mkenekene; **Rangi:** Msakasaka, Muizi, Mwiizi; **Sambaa:** Mtuntano; **Swahili:** Mkono chuma, Mlama mwitu, Mlishangwe, Mrinja kondo; **Wanji:** Lisekelu.

DESCRIPTION: A hairy multi-branched shrub or tree, 1–9 m. BARK: Smooth, dark brown, branches yellow-red-brown, often densely hairy. LEAVES: 3 leaflets, **dull green, softly hairy**, the central leaflet larger, 4–11 cm long x 2–6.5 cm wide, the two laterals smaller, shortly stalked, **edge entire or soft toothed** towards the tip, which is blunt or pointed, **leaflets dark above, paler below**. FLOWERS: Small cream-green-yellow, parts in fives, in **terminal loose heads** or from upper leaf axils, **5–20 cm long**, all densely hairy. FRUIT: Drupes, with thin flesh, **flat and round, red-brown, only 3–5 mm across**.

ECOLOGY: Common in upland evergreen bushland, forest edges, lake shore, river banks, savanna woodlands and bushland, often in thickets or on termite mounds. It occurs naturally both on hill slopes and in valleys, 800–2,700 m; rainfall 1,000–1,700 mm. Thrives in yellow sandy loams, but tolerates many soil types.

DISTRIBUTION: Found in all parts of Tanzania; Uganda and Kenya and from Cameroon to Ethiopia and south to Mozambique, Malawi, Zambia and Zimbabwe.

USES:

### **Food:**

The tiny fruits are occasionally eaten in handfuls as a snack. They can be eaten unripe or ripe, often both mixed together. The unripe fruit are green and have a refreshing but slightly acidic taste, whereas the ripe red-to-black fruits are sweet.

### **Medicinal:**

- Fruits are pounded, boiled and the decoction drunk to treat diarrhoea.
- Roots are pounded and the powder cooked with porridge which is then drunk to treat gonorrhoea.
- The bark is boiled and the decoction used as a wash for wounds.
- The leaves are pounded and used as a treatment for piles.

**Commercial:** Not marketed.

**Other:** The wood is used for firewood and charcoal. Stems are used for tooth-brushes.

SEASON: Fruits are collected at the end of the rainy season.

STORAGE: Not stored.

*Rhus vulgaris* (contd)

## Anacardiaceae

MANAGEMENT: Collected from the wild and not protected or cultivated by local people, but can be propagated using fresh seed.

STATUS: Common and easily accessible within its area of distribution.

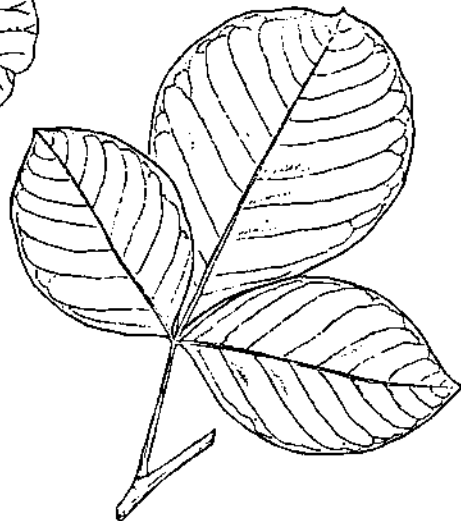
REMARKS: *R. longipes* (**Arusha:** Emusigiloi; **Barabaig:** Sirong; **Gorowa:** Aambalangw, Datei, Datlii; **Iraqw:** Ambalaki; **Matengo:** Mkenikeni; **Rangi:** Mukundi; **Swahili:** Mchengele; **Wanji:** Lisekeru-dume) is a shrub or tree up to 12 m high with small edible fruit. The species is widespread in Tanzania. It is also found in Kenya, Uganda, Ethiopia and south to South Africa.



Flowering shoot



Part of fruiting head



***Ricinodendron heudelotii* subsp. *africanum* Euphorbiaceae**

Indigenous

LOCAL NAMES: **English:** Cork-wood tree; **Luguru:** Mkungunolo; **Mwera:** Mkangaula; **Ngindo:** Nnjunju; **Nguu:** Mtondoro; **Sambaa:** Mtondoro; **Swahili:** Maua, Muawa; **Tongwe:** Sitobaga; **Zigua:** Mtwatwa.

DESCRIPTION: A deciduous tree 25–40 m, with a very straight trunk, over 1 m across in large specimens. The spreading rounded crown is fairly open, sometimes with short buttresses at the base. **Young trees have whorled branches arching upwards. Branchlets to 1 cm thick, densely brown hairy when young.** BARK: Grey-brown, thin and smooth at first, becoming scaly and dark with age. LEAVES: Compound digitate with 3–6 leaflets like fingers, the largest central leaflets 10–30 cm long, **the tip long and pointed**, narrowed to the base and hardly stalked, **the edge with small black glandular teeth**, often silvery hairs below. At the base of the leaf stalk are fan-shaped leafy stipules with deeply toothed edges. FLOWERS: Green-white-yellow and small. Male heads 15–30 cm and female heads shorter and denser, 6–10 cm. FRUIT: Capsules 4–5 cm across, **2–3 lobed, green-yellow**, slightly fleshy and smelling of rotten apples; containing 2–3 red-brown-black seeds, rounded and flat, over 1 cm across.

ECOLOGY: Evergreen forest and secondary associations, 100–1,200 m. A light-demanding tree of lower altitude tropical rainforests. Common in gaps and at forest edges.

DISTRIBUTION: Subsp. *africanum* is found in Tanga Region and other eastern and southern areas of Tanzania; also in Uganda, and from Nigeria eastwards to Sudan, south to Angola, Mozambique. (A var. *tomentellum* is restricted to coastal Kenya and Tanzania.)

USES:

**Food:**

Seeds produce edible oil. The seeds are pounded, boiled and cooled. The floating oil is skimmed off, boiled and filtered and used for cooking. Seeds may also be pounded and the powder used for making porridge in times of food shortage.

**Medicinal:** Roots are used by the Sambaa to treat diarrhoea and constipation.

**Commercial:** Not marketed.

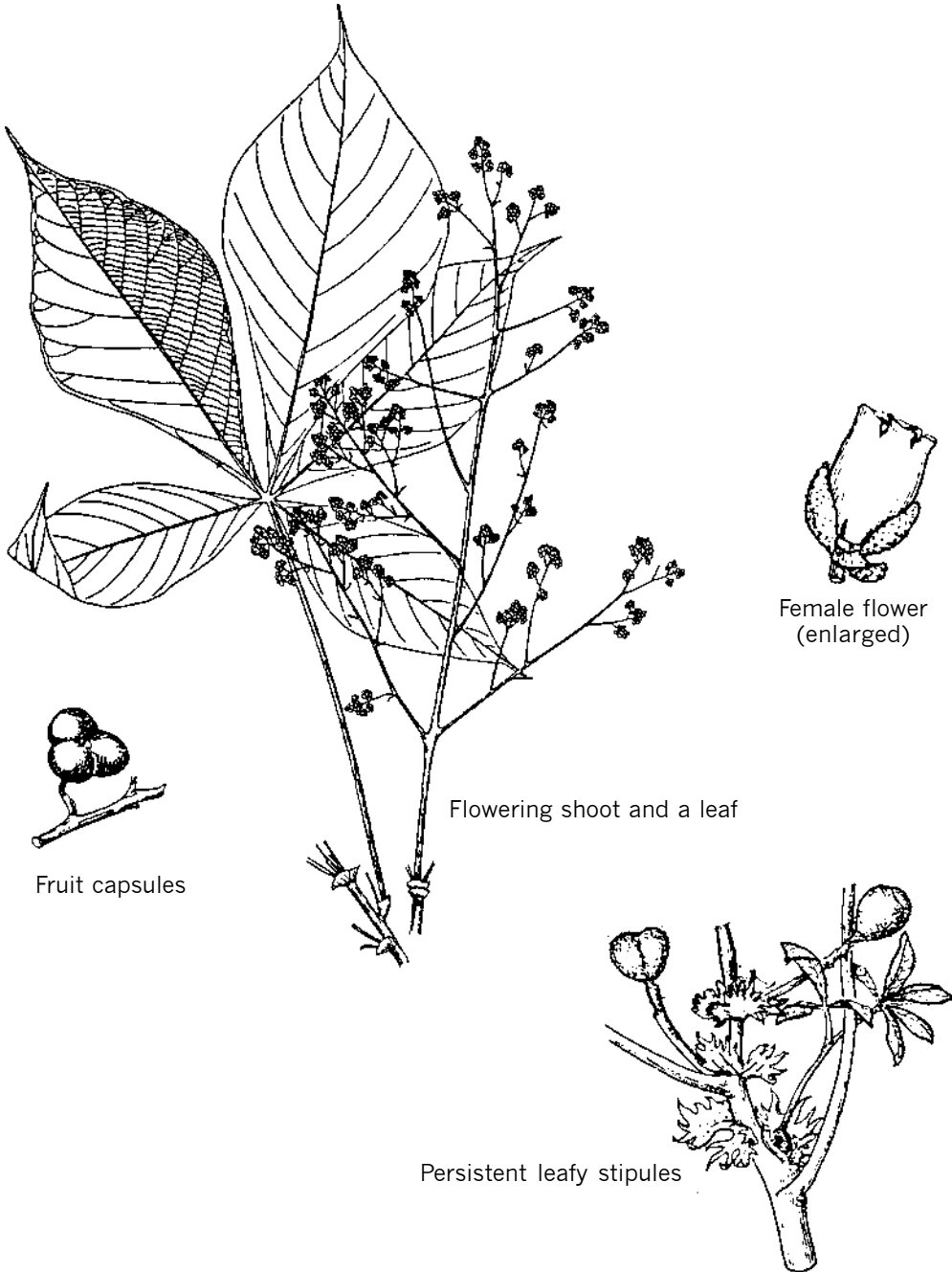
**Other:** The wood is very soft and perishable but is used for domestic utensils such as spoons, cups, bowls and plates. The oil produced from seeds is used in soap making.

SEASON: Fruits are collected from October to December.

STORAGE: Dried seeds can be stored for several months.

MANAGEMENT: Collected from the wild and not cultivated. The species can be propagated by seed.

*Ricinodendron heudelotii* subsp. *africanum* Euphorbiaceae

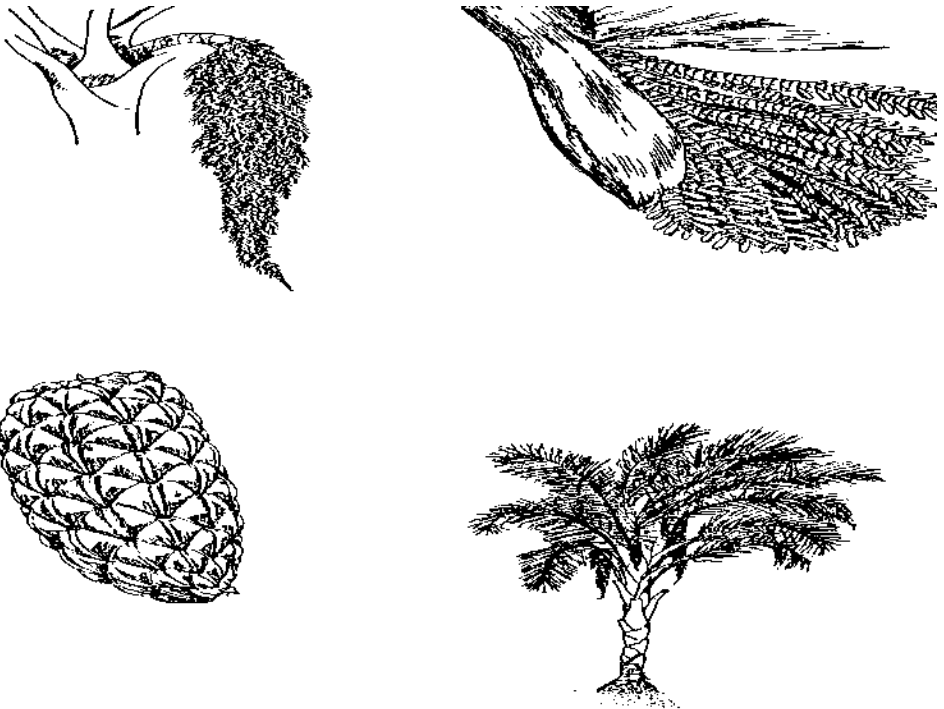


## *Ricinodendron heudelotii* subsp. *africanum* (contd)

STATUS: Occasional within its area of distribution.

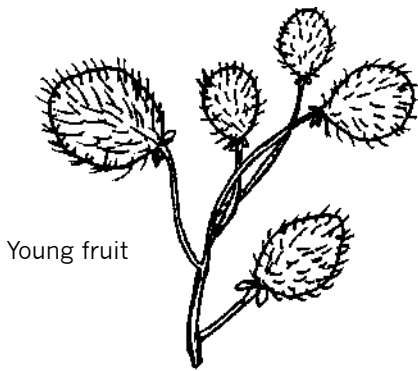
REMARKS: *R. rautanenii* is used in the same way as *R. heudelotii* and bears the same local names. It is a tree up to 25 m high found in Morogoro and Lindi Regions. Also found in Angola, Namibia and Mozambique. It has an edible floury pulp, green or red when fresh, surrounding a very hard brown nut, which contains a single pale seed from which a yellow oil can be extracted. Found in open deciduous woodland, 200–500 m, usually on well-drained soils. The fruit are eaten by wild game, and elephant like the bark. The pale yellow timber is very light and can be used for packing cases. Fresh pulp can be dried and pounded to a flour and used to make porridge.

### *R. rautanenii*

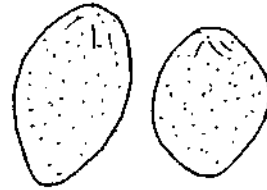


*Ricinodendron heudelotii* subsp. *africanum* (contd)

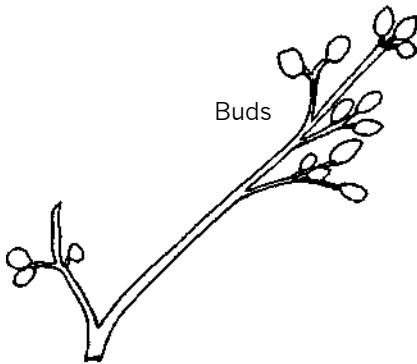
*R. rautanenii*



Young fruit



Hard brown stones contain the seed kernel



Buds



Soft fruit covering on stone partly removed



## *Ritchiea albersii*

## Capparidaceae (Capparaceae)

Indigenous

LOCAL NAMES: **Sambaa:** Mwaza-njama, Mwooza-nyama; **Swahili:** Mdudu.

DESCRIPTION: A shrub or small tree, 2–15 m, the stems arising from underground tubers. BARK: Smooth, grey. LEAVES: **Compound, with 1–5 shortly stalked leaflets, each long oval, 5–17 cm**, the tip long pointed with a hair, the main stalk to 10 cm long. FLOWERS: **Green and white in terminal groups of 3–10 flowers**, 4 sepals, **thin petals to 4.5 cm long from a cup-shaped receptacle**, many stamens to 4 cm, the ovary stalk more than 2 cm. FRUIT: **A brown long-oval capsule, to 4.5 cm**, slightly grooved, eventually splitting to release seeds.

ECOLOGY: Upland rainforest, often at margins, less common in rainforest at lower altitudes and in evergreen thicket, 1,100–2,400 m.

DISTRIBUTION: In Tanzania found, for example, in Kigoma, Tanga, Kilimanjaro, Iringa and Arusha Regions. Also in Kenya, Uganda, Ethiopia, Sudan, west to Nigeria and south to South Africa.

USES:

### **Food:**

- Root tubers are dug up, peeled, soaked in water for several days and dried in the sun. The dried tubers are pounded into flour which is used to make porridge.
- Tubers are peeled and cooked. The water is drained several times in order to reduce the concentration of toxic constituents before eating them with tea. This is a famine food.

**Commercial:** Not marketed.

**Other:** The plant is used for shade and ornamental purposes. The wood is used for firewood and to make tool handles.

SEASON: Tubers are dug up during the rainy season.

STORAGE: The flour made from pounded roots can be stored for several weeks.

MANAGEMENT: Collected from the wild, not cultivated. Propagation can be done using seed and cuttings.

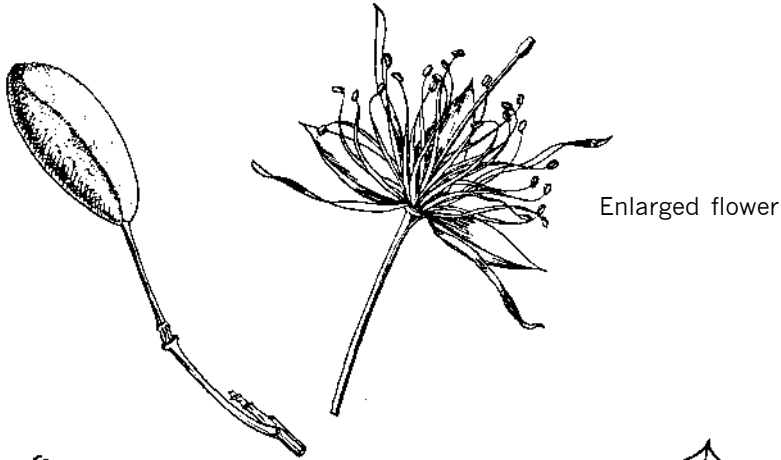
STATUS: Occasional within its area of distribution.

REMARKS: The tubers are known to be toxic if not well prepared.

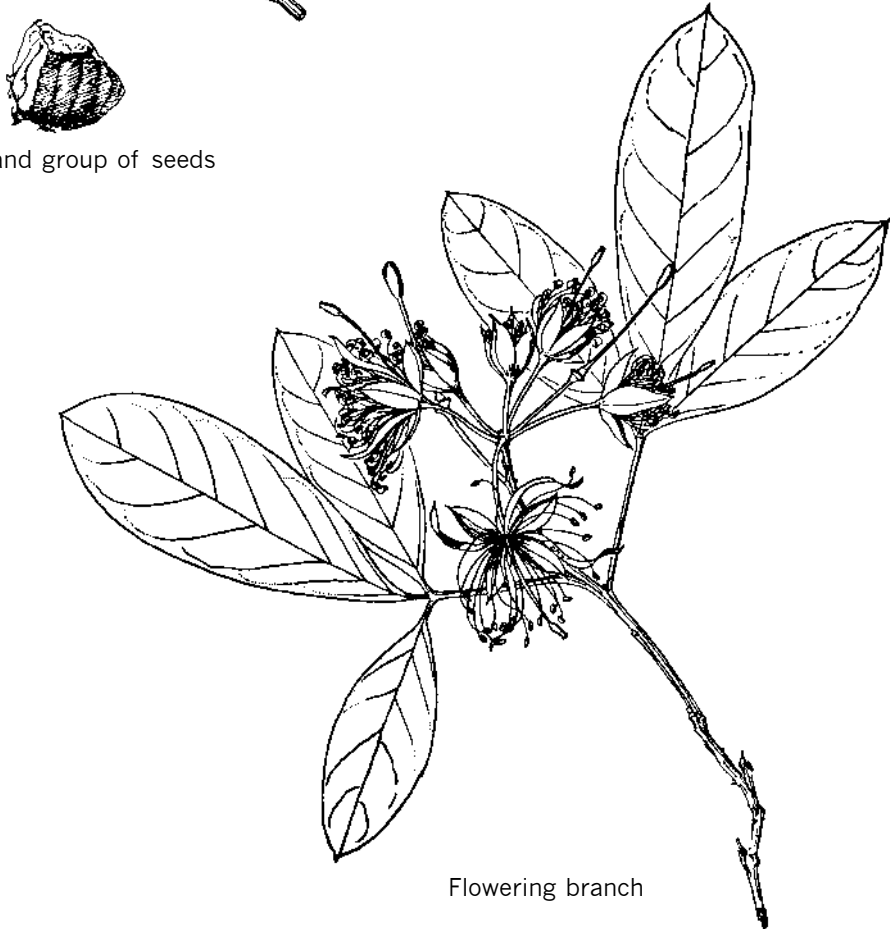


*Ritchiea albersii*

Capparidaceae (Capparaceae)



Fruit and group of seeds



Flowering branch

***Rothmannia engleriana*****Rubiaceae**

Indigenous

LOCAL NAMES: **Hehe:** Mkumba, Mpumba; **Matengo:** Mpumba; **Nyamwezi:** Mkondokondo, Mlozilozi, Mutwinya; **Nyaturu:** Mupumba; **Sangu:** Mpumba; **Sukuma:** Mkondokondo; **Zinza:** Muharangundo.

DESCRIPTION: A small, spindly tree, 2–9 m, with light branching, often whorled, giving a rounded or flat-topped crown. BARK: Young shoots with soft hairs. Older branches with cracked reddish bark, becoming dark brown and scaly with age. LEAVES: Usually in **opposite pairs** but clustered at branch tips, occasionally in threes, **oval 9–30 cm long, shiny, leathery and stiff**, a few hairs below, wider at the tip, base narrowed to a short stalk up to 1.5 cm, often drying yellow-green. FLOWERS: Sweet scented, **large, white and trumpet shaped, hanging down in terminal heads** with 3–17 flowers, the 5 corolla lobes overlap left in bud, surrounded by the tubular calyx with yellow hairs, **each flower to 8 cm long**, the lobes 3 cm long, shiny white inside, dotted with red-purple spots but yellow hairy outside. FRUIT: **Round to oval, 2–4.6 cm**, covered with **soft dark orange hairs**, containing many brown seeds surrounded by **soft edible pulp**. The calyx remains attached.

ECOLOGY: Common in *Brachystegia* woodland, 1,100–1,900 m.

DISTRIBUTION: All inland parts of Tanzania. Also in parts of Central Africa, south to Mozambique, Malawi, Zambia and Angola.

USES:

**Food:**

- The ripe fruit pulp is juicy and edible. The hard pericarp is broken and the soft endocarp sucked out. Ripe fruits are very sweet and have a fragrant and sweet smell. They are eaten as a snack and much liked by children.
- The pulp is soaked in warm water, squeezed, sugar added and the liquid filtered. This refreshing juice can then be drunk before or after being cooled.

**Medicinal:** Roots are chewed and swallowed or pounded and soaked in cold water and the infusion used to treat snakebite and stomach-ache.

**Commercial:** Not marketed.

**Other:** The wood is used for firewood and to make tool handles and spoons.

SEASON: Ripe fruits are collected from July to September.

STORAGE: Not stored.

MANAGEMENT: Collected from the wild, not cultivated. It can be propagated by seed.

STATUS: Locally common.

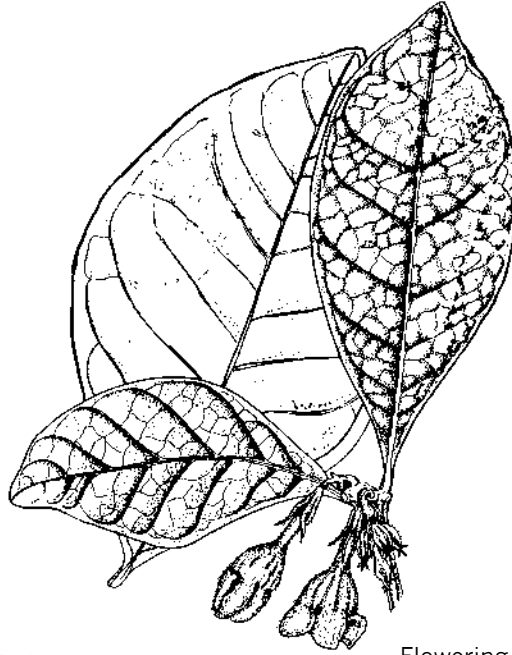
*Rothmannia engleriana*

Rubiaceae

Enlarged flower section



Mature flower



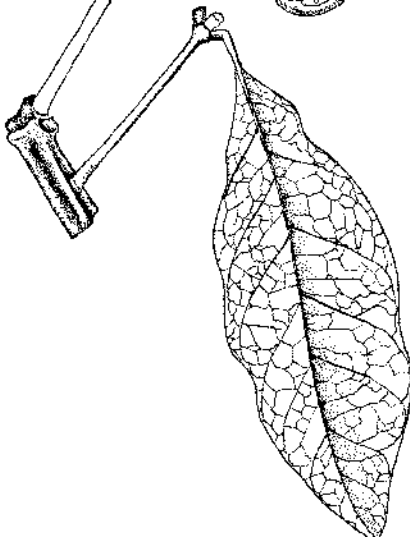
Flowering branch



Fruit



Fruit section



***Rourea orientalis***  
**(*Byrsocarpus orientalis*)**

**Connaraceae**

Indigenous

LOCAL NAMES: **Bondei:** Hombo-kisogo, Kisogo; **Digo:** Kisogo; **Hehe:** Liyenzi; **Sambaa:** Kisogo; **Swahili:** Msogo; **Zaramo:** Kisogo, Mhombo; **Zigua:** Kisogo.

DESCRIPTION: A deciduous shrub or small tree to 6 m, sometimes a climber, the branches red-grey-brown with clear breathing pores, almost without hairs. LEAVES: Alternate, compound, **odd pinnate with 6–14 pairs of leaflets, more or less opposite along the 25 cm stalk, with a terminal leaflet**, each one long oval to 4 cm, the tip blunt, the base somewhat rounded. FLOWERS: **Present before leaves appear, white-yellow, fragrant, on axillary stalks** to 5 cm, bearing several flowers, 5 tiny sepals, 5 long narrow petals about 1 cm, 10 central stamens. FRUIT: **Yellow-red and oval** (a follicle), 2 cm long x 1 cm across, enclosed in a soft bright red aril. The whole follicle opens on one side to set free black seed.

ECOLOGY: Forest edges, woodland, bushland, 0–2,000 m.

DISTRIBUTION: Found in many parts of Tanzania, including Zanzibar. Also in coastal Kenya, south to Mozambique, Zimbabwe and Angola.

USES:

**Food:**

Leaves are collected, dried in the sun and then pounded and sieved. The powder is steeped in hot water, stirred and boiled to form a thick vegetable paste which may be mixed with pounded groundnuts and eaten along with *ugali* or *bada* (Sambaa, Zigua).

**Medicinal:** A decoction of the roots is used as a remedy for diarrhoea, STDs and blockage of the urethra. Also used as a prophylactic against tick fever and for treating headaches.

**Commercial:** The vegetable powder is sold in local markets (Bondei, Sambaa).

**Other:** The wood is used for firewood. The plant is used for ornamental purposes and is a source of bee forage.

SEASON: Leaves are collected from November to June.

STORAGE: In the powdered form the vegetable can be stored for several months.

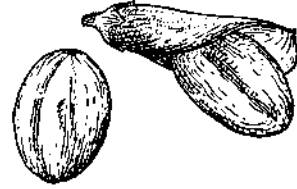
MANAGEMENT: Leaves are collected from the wild as the tree is not planted. However, it can easily be propagated by seed and cuttings.

STATUS: Locally common.

REMARKS: A popular and easily prepared vegetable among the Bondei, Sambaa and Zigua people.

*Rourea orientalis*  
(*Byrsocarpus orientalis*)

Connaraceae

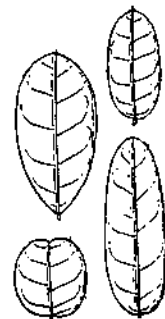


Mature fruit and seed



Mature leaves and fruit

Section of flower  
with long stamens



Variation in leaflet shape

***Rubia cordifolia*****Rubiaceae**

Indigenous

LOCAL NAMES: **Bondei:** Ukakaka; **Chagga:** Kichangoru, Kitariche, **Pare:** Ndusi; **Sambaa:** Lukaka, Mguira, Ukakaka; **Swahili:** Kifundo, Ukakaka; **Zigua:** Ukakaka.

DESCRIPTION: A climbing, scrambling or creeping herb, the brittle branched stems up to 6 m, having **quite strong recurved prickles on the 4 ribs** and hairs as well, stems woody at the base. LEAVES: Very distinctive, **in whorls of 4 (without stipular sheaths in between)**, blades narrow or wide oval, 0.7–8.5 cm long, **tip long pointed, base heart shaped to relatively long stalks**, blade rough hairy above, young leaves white hairy below, edges with curved prickles, 5–7 clear nerves from the base. FLOWERS: Very small, on stalks beside leaves, to 2.5 cm, the 5-part corolla yellow-green-cream, bud tips pink-purple, 4–6 mm wide. FRUIT: **Pairs of fleshy berries** round black lobes, each 5 mm across, sometimes only one.

ECOLOGY: Mostly at forest edges in clearings or thickets, in riverine bushland in dry areas, even open grassland and bushland, scrubland and rocky gullies, 1,100–2,600 m.

DISTRIBUTION: In all parts of Tanzania. Also in Kenya, Uganda, Sudan, Somalia, and south to South Africa.

USES:

**Food:**

Leaves and stems are collected and roasted or burnt to ashes. The ash is soaked in water and filtered. The filtered solution is used to soften other vegetables when cooking. Alternatively, the ash may be used as a substitute for sodium bicarbonate.

**Medicinal:**

- Leaves and stems are pounded and soaked in cold water. The infusion is used to treat diarrhoea and stomach-ache.
- Roots are pounded, boiled and the decoction used as an antidote for general poisoning and stomach disorders. It is also gargled to treat toothache and mouth sores.

**Other:** The roots produce a black dye. The plant can be used for ornamental purposes.

SEASON: Leaves are collected during the rainy season.

STORAGE: The ash from burnt plants can be stored for several months.

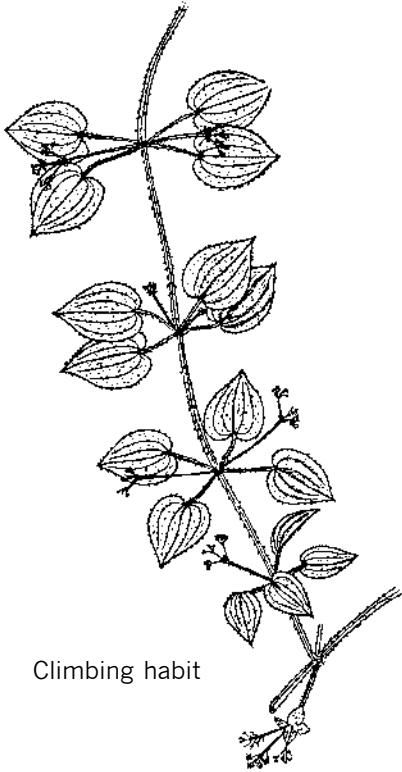
MANAGEMENT: The plant is only collected from the wild. It can be propagated by seed and cuttings.

STATUS: Locally common.

REMARKS: Well known as a troublesome weed on farms.

*Rubia cordifolia*

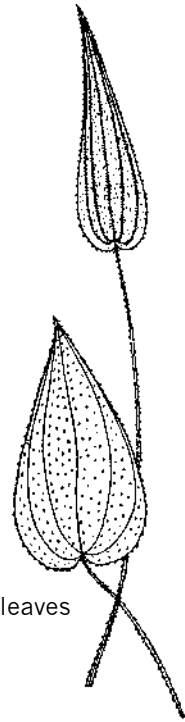
Rubiaceae



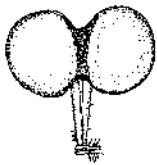
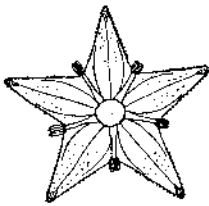
Climbing habit



Recurved prickles on stem



Variable leaves



Enlarged flower and fruit



Flowering shoots

***Rubus apetalus (R. adolfi-friedericii)*****Rosaceae**

Indigenous

LOCAL NAMES: **Bondei:** Mshaa; **Chagga:** Iwero; **Hehe:** Lidung'o, Lumwino, Mdung'o; **Maasai:** Ngayakuji; **Matengo:** Utongonya; **Pare:** Mtelia; **Sambaa:** Mshaa; **Swahili:** Utonge; **Wanji:** Lidoni.

DESCRIPTION: A scrambling shrub 1–3 m, the tangled **hairy stems** well armed with hooked prickles 2–6 mm long, a very variable species. LEAVES: Compound, 3–7 leaflets, often trifoliate, each leaflet oval and pointed, the base straight, the edges well toothed, **a terminal leaflet reaching 4–10 cm, dull or hairy grey-green above and more or less grey-white and hairy below.** FLOWERS: Small, 6–9 mm, in **loose terminal heads, 3–21 cm,** cylindrical and **hairy, longer than the leaves,** each flower has 5 faintly scented **pink-white petals, or none, falling early,** sepals 6–7 mm. FRUIT: **More than 40 single-seeded fleshy drupes** make a compound fruit to **1.5 cm long,** hairy or not, falling with the receptacle, green-yellow-red, **ripening purple-black** and all stages seen together.

ECOLOGY: Edges of forest clearings, secondary bush and grassland, riverine forest, upland grassland, roadsides, often forming thickets, 1,400–2,700 m.

DISTRIBUTION: In most parts of Tanzania except the dry central areas. Found, for example, in Kagera, Kilimanjaro, Tanga and Rukwa Regions. Also in Uganda, Kenya; from West Africa to Ethiopia and in most of southern Africa.

USES:

**Food:**

Ripe fruits are collected in handfuls and eaten raw as a snack. They are much liked by people of all ages. Both jam and juice are also made from ripe fruits.

**Medicinal:**

- Ripe fruits are boiled in water, stirred and filtered. Sugar is added and the liquid drunk to treat anaemia.
- An infusion from leaves is used for treating diabetes.

**Commercial:** Sold in local and urban markets.

**Other:** The fruits are used for fodder. The plant is used for ornamental purposes and for boundary marking.

SEASON: Ripe fruits are collected during the rainy season.

STORAGE: The jam can be stored.

MANAGEMENT: Usually collected from the wild, but can also be propagated by seed or suckers and planted in the gardens.

STATUS: Common within its area of distribution.

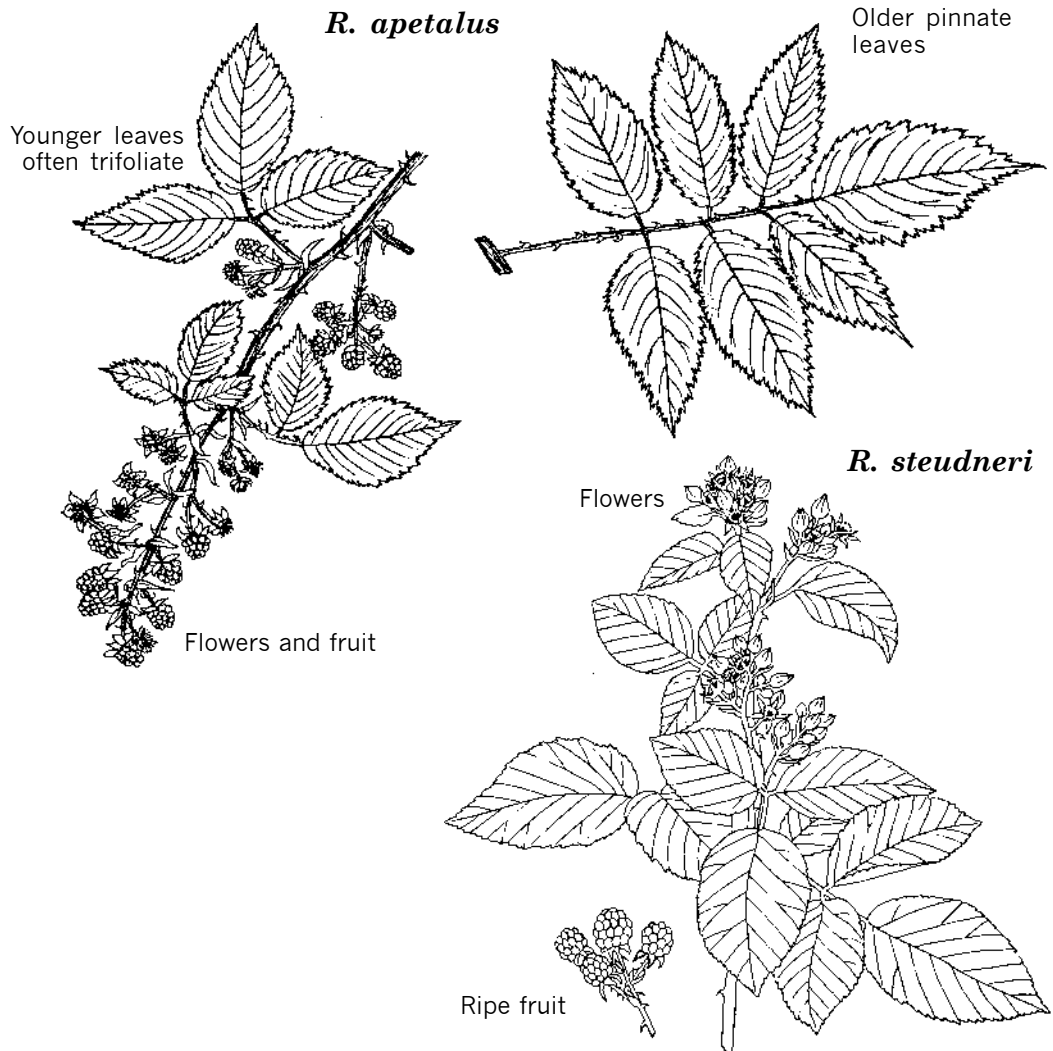
REMARKS: The different *Rubus* species are all very similar, giving rise to confusion



## *Rubus apetalus* (*R. adolfi-friedericii*) (contd)

in taxonomy, and the same local names. Several species apart from *R. apetalus* have edible fruits, including the following:

1. *R. rigidus* (**Bondei:** Mshaa; **Chagga:** Iwero; **Hehe:** Lidung'o; **Swahili:** Utonge; **Wanji:** Lidoni; **Zigua:** Mshaa) a scrambling shrub up to 3 m high with pink flowers and small edible fruits. This species is widespread in Tanzania, Kenya, Uganda and other parts of Africa;
2. *R. steudneri* (**Matengo:** Utongonya; **Sambaa:** Mshaa) with the same vernacular names as *R. rigidus*, a hairy scrambler with grey-green stems up to 4 m in height and dark red to black fruits. It is found in Morogoro, Kilimanjaro, Iringa and Tanga Regions. It is also found in Kenya, Uganda and Ethiopia.



***Rumex abyssinicus*****Polygonaceae**

Indigenous

LOCAL NAMES: **Bena:** Mdoda; **Bondei:** Nywanywa; **Chagga:** Kiweriweri; **Hehe:** Lipembapemba; **Sambaa:** Gentamana, Mnywanywa, Nywanywa; **Swahili:** Mchachu, Mchumvichumvi; **Zigua:** Nywanywa.

DESCRIPTION: A large, **stout erect perennial herb** to 4 m tall, the stem green-red, to 3 cm wide at the base, with conspicuous sheathing stipules where leaves emerge from the stems. LEAVES: **Large and soft, to 30 cm long x 20 cm wide, somewhat triangular with large, spreading basal lobes** (variable in shape), on a **stalk to 14 cm**, the lower stalks sometimes larger than the leaves. FLOWERS: A large much-branched **erect loose head to 40 cm long x 25 cm across, tiny flowers on delicate stalks, green-brown-red**, no petals but **six sepals**, about 1 mm, the 3 inner sepals winged. FRUIT: The **inner sepals enlarge to 4–6 mm, becoming almost circular, net-veined, enclosing the 3-sided shiny brown nutlet.**

ECOLOGY: Does well in grassland, woodland and bushland, but most abundant in the highlands where it may form thickets, 700–2,300 m; rainfall 1,100–2,200 mm. Thrives in volcanic soils and sandy loams.

DISTRIBUTION: Widespread in Tanzania. Also in Kenya and Uganda and occurs in most tropical African highlands; also in Madagascar.

USES:

**Food:**

The young stems and leaves are collected and eaten fresh. They are usually eaten by herders, farmers and children. They taste acidic and are eaten as a snack.

**Medicinal:**

- Pounded roots are used as a poultice for wounds. Roots are pounded and soaked in cold water. The infusion is drunk to treat stomach-ache and to relieve flatulence and indigestion.
- Tender leaves and stems are pounded and the juice drunk to treat pneumonia and coughs.
- Pounded leaves are used for dressing wounds.

**Commercial:** Not marketed.

**Other:** Crushed leaves are used to remove grease and for cleaning brass. It is also used for fodder.

SEASON: Leaves are collected in the rainy season.

STORAGE: Not stored.

MANAGEMENT: Collected from the wild and not protected or cultivated by local people. It can be propagated by seed and suckers.

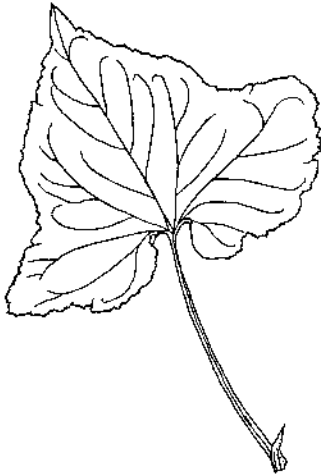
STATUS: Common and easily accessible within its area of distribution.

*Rumex abyssinicus*

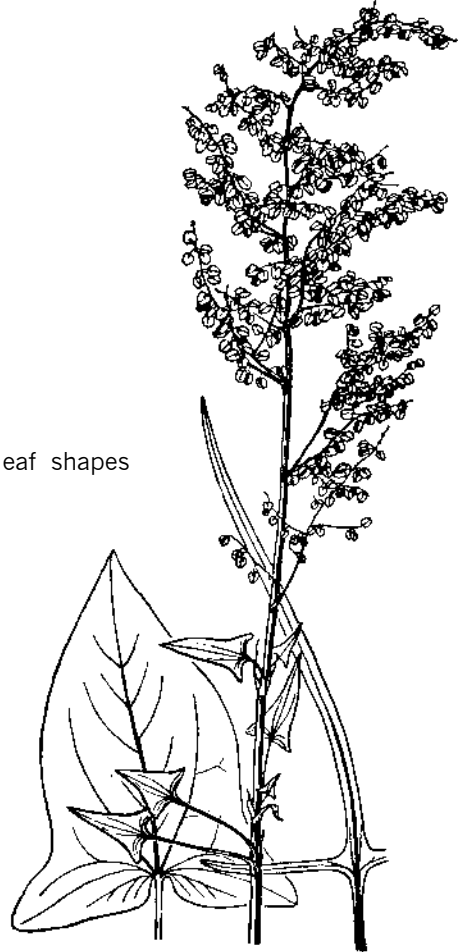
Polygonaceae



Enlarged fruit: a winged nutlet



Various leaf shapes



***Rumex usambarensis*****Polygonaceae**

Indigenous

LOCAL NAMES: **Bena:** Mdoda; **Bondei:** Nywanywa; **Chagga:** Kiweriweri; **English:** Sorrel; **Hehe:** Linyimbili; **Maasai:** Enkaisijoi, Enkaiswishoi; **Sambaa:** Gentamana, Nywanywa; **Swahili:** Mchachu, Mchumvichumvi; **Zigua:** Nywanywa.

DESCRIPTION: A weak hairless shrub or straggling climber to 3 m or more, stems brown. LEAVES: In clusters, the lower leaves arrow shaped at the base, **small basal lobes bent backwards, upper leaves long oval and pointed, 5–9 cm, 3-veined from the centre, veins arching to the tip**, on a stalk to 4 cm. Basal lobes of leaves less than 1 cm wide. FLOWERS: On a **much-branched terminal head, each tiny flower pink-purple** with 3 reflexed outer sepals and 3 inner clear sepals, red, winged, enlarged in fruit. FRUIT: The **inner sepals become circular, net-veined, wavy edged, 4–5 mm across, red-brown**, with 2 small processes at the base around the 3-sided nutlet.

ECOLOGY: Common in montane grassland, open mist forest, bushland, exposed rocky slopes and woodlands and gaps in montane forests, but also near swamps in lowlands. Does best in soil rich in humus, 900–2,400 m; rainfall 1,100–2,200 mm.

DISTRIBUTION: Found in most highland areas of Tanzania, e.g. around Lushoto, Mbeya Peak and in Mbizi Forest Reserve (Rukwa Region). Also in Kenya, Uganda, Malawi and parts of Central Africa.

USES:

**Food:**

The young stems and leaves are eaten raw and taste salty. They are eaten particularly by children as they collect water from streams and usually eaten as a snack.

**Medicinal:**

- Leaves are pounded and soaked in cold water. The infusion is used to treat coughs, rheumatism, stomach-ache and to reduce gas in the stomach.

**Commercial:** Not marketed.

**Other:** Crushed leaves are used to remove grease and for cleaning brass. The plant is used for fodder and provides bee forage.

SEASON: Leaves are collected during the rainy season.

STORAGE: Not stored.

MANAGEMENT: Collected from the wild; not much cultivated but can be propagated by seed.

STATUS: Common and easily accessible within its area of distribution.

REMARKS: In the past roots were boiled and the decoction drunk to treat smallpox.

***Rumex usambarensis* (contd)****Polygonaceae**

It was also used as a cold bath for sufferers of the disease. The young stems and leaves of *R. bequertii* and *R. ruwenzoriensis* are also edible.



***Saba comorensis* (*S. florida*)****Apocynaceae**

Indigenous

LOCAL NAMES: **Ha:** Umubhungo; **Hehe:** Lizwana; Muungo; **Kuria:** Mtegeti; **Luguru:** Mbungo; **Mara:** Mtegeti; **Matengo:** Mbungu; **Nyamwezi:** Ibungobungo; **Nyasa:** Mawungu; **Rufiji:** Ngombe; **Sambaa:** Mbungo; **Swahili:** Mbungo, Mpira; **Tongwe:** Ilombo; **Zigua:** Mbungo; **Zinza:** Mubungu, Omubungo.

DESCRIPTION: A **climbing or scrambling creeper or shrub** with hairless **reddish stems dotted with white breathing pores** (lenticels). The liana can be to 20 metres long, its stems looping through the forest or scrambling over trees and shrubs at forest edges, with **brown tendrils to 12 cm or more**. LEAVES: Large, oval to oblong, **leathery** and shiny, darker above, tip usually rounded, base rounded to heart shaped, **7–16 cm** long. FLOWERS: In **dense terminal bunches**, with many flowers, sweet scented, tubular, about 3.5 cm long, the 5 lobes as long as or shorter than the tube, **white with a yellow throat**, petal lobes overlap to the left in the bud. FRUIT: **A large berry, rounded, 2.5–6 cm across, a thick green lemon-like skin, yellow or orange** with age, containing sweet-sour edible pulp around many seeds, each about 1 cm long.

ECOLOGY: Common in riverine forest and rainforest, at forest edges and in thickets, up to 1,800 m; rainfall 1,200–2,400 mm. It grows profusely in the shoreline forests of Lake Victoria.

DISTRIBUTION: Widespread in Tanzania. Also in Kenya and Uganda; widespread in Africa, through Central Africa to Ethiopia and southern Somalia south to Mozambique.

USES:

**Food:**

- Fruits are collected when ripe (yellow–orange–brown). Each fruit is cut open and the sweet pulp eaten with seeds being discarded. It is eaten as a snack. A well-known fruit in many parts of the country with a sweet-sour taste similar to tamarind.
- The pulp is soaked in water, sugar added and the juice drunk before or after being cooled.

**Medicinal:**

- Leaves are pounded, soaked in cold water and the infusion used to treat hypertension.
- A boiled root decoction is drunk as a treatment for rheumatism and infertility in women.

**Other:** The plant is useful as a source of bee forage and for ornamental purposes.

SEASON: Fruits are collected at the end of the rainy season and beginning of the dry season.

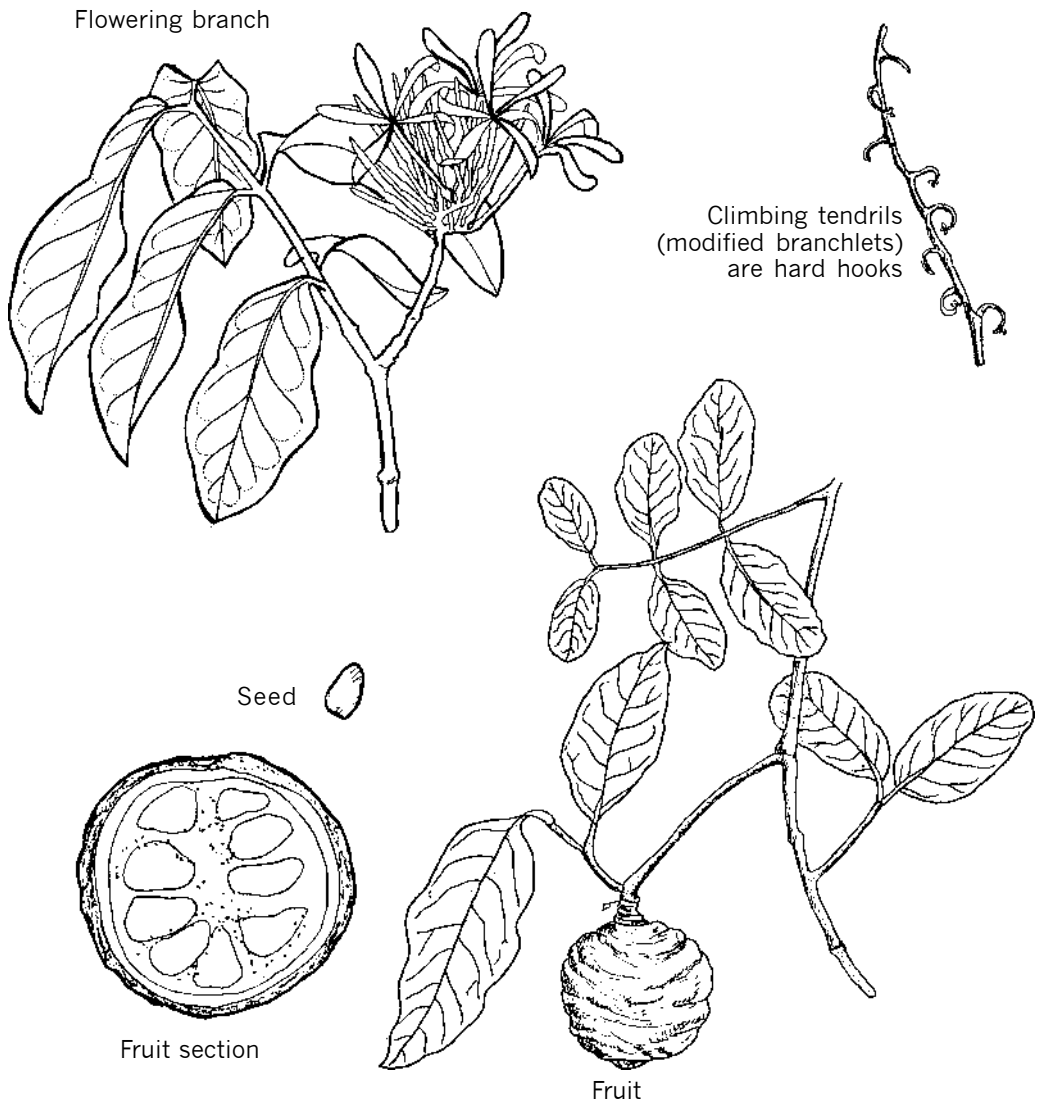
***Saba comorensis* (*S. florida*) (contd)      Apocynaceae**

STORAGE: Not stored.

MANAGEMENT: Collected from the wild and not cultivated or protected by local people. It can be propagated using fresh seed and cuttings.

STATUS: Common and easily accessible within its area of distribution.

REMARKS: It has been tried as an horticultural crop in the Central African Republic.



*Salacia leptoclada*

## Celastraceae

Indigenous

LOCAL NAMES: **Ha:** Mkavu, Umubhungo; **Tongwe:** Igandamakungu.

DESCRIPTION: A **hairless** shrub, small tree or liane 1–4 m, the young stems with raised lines, green-grey–purple, later rough with raised breathing pores. **BARK:** Dark grey, younger branches dark brown, long and drooping. **LEAVES:** **Opposite** (except on climbing shoots), generally long oval, 5–8.5 cm, the **tip well pointed**, base narrowed to a very short stalk, **papery or stiff**, dark and **shiny above, paler below**, vein network very fine and raised, the edge may have widely separated shallow teeth, **blade widest below the middle**. **FLOWERS:** Small, yellow-green, 5–7 mm across, **1–5 together**, each one stalked but the bunch has no stalk at the base from the leaf axil, buds 2.5 mm, generally cone shaped, **the central disc thick and fleshy** with a **conical ovary**, 5 narrow petals. **FRUIT:** **Always rounded** and smooth, **1–2.2 cm, orange-red when ripe**, a leathery skin around the **fleshy berry**.

ECOLOGY: Evergreen or deciduous forests, 100–2,200 m.

DISTRIBUTION: Found in Tanga Region and other eastern and southern areas of Tanzania. Also coastal Kenya, and in West Africa, south to South Africa. Also on the Comoro Islands and Madagascar.

USES:

**Food:**

Ripe fruits are edible. They are collected and the pulp eaten raw as a snack, especially by children and herders.

**Commercial:** Not marketed.

**Other:** The plant is useful for ornamental purposes and as a source of bee forage. Fruits are eaten by chimpanzees.

SEASON: Fruits are collected during the rainy season.

STORAGE: Not stored.

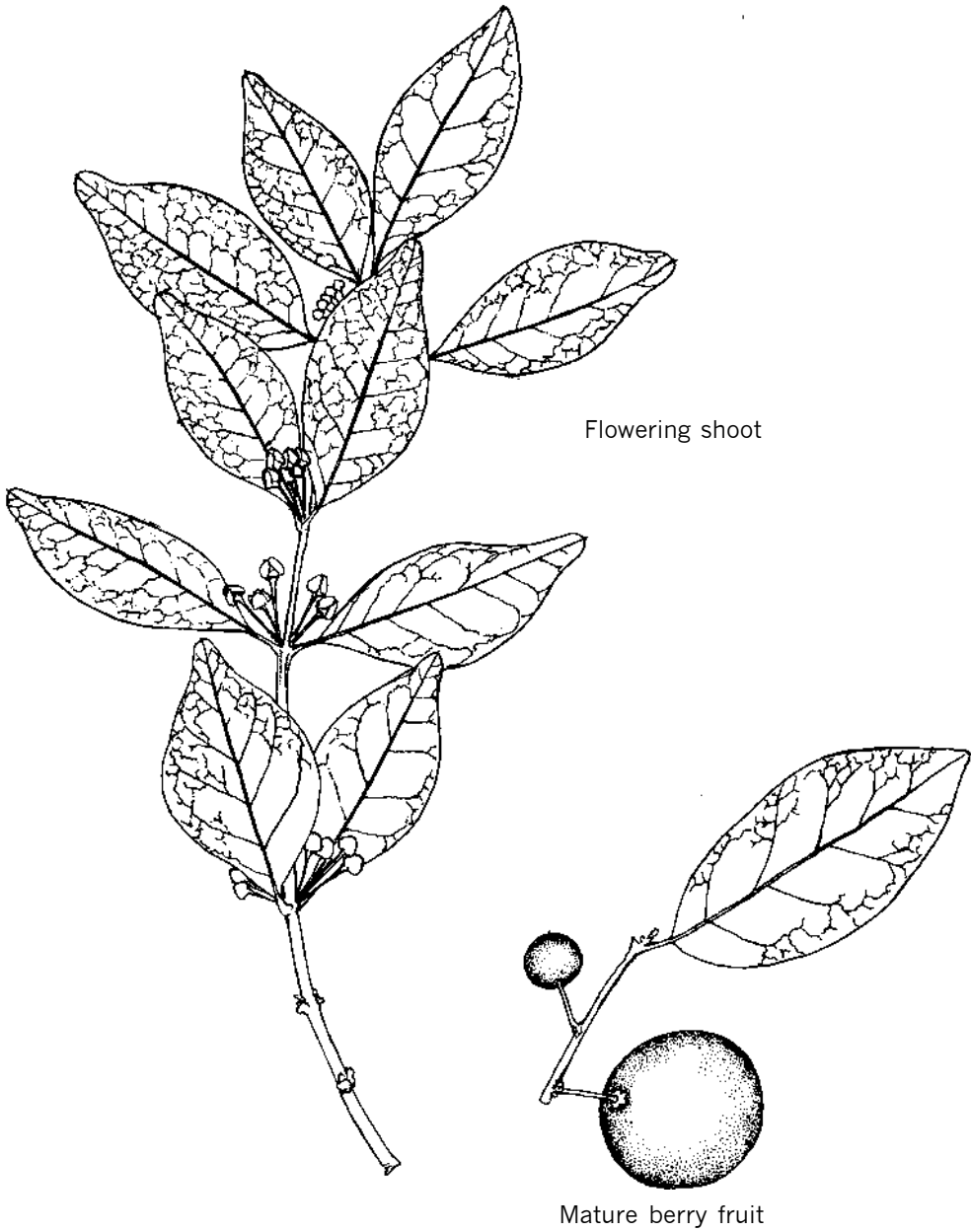
MANAGEMENT: Only collected from the wild and not cultivated. The species can be propagated by seed.

STATUS: Common within its area of distribution.



*Salacia leptoclada*

Celastraceae



*Salvadora persica*

## Salvadoraceae

Indigenous

LOCAL NAMES: **English:** Mustard tree, Toothbrush bush, Toothbrush tree; **Gogo:** Mkunghuni; **Gorowa:** Msaki; **Hehe:** Mkung'uni; **Iraqw:** Mswaki; **Maasai:** Iremito (plural), Olremit, Oremit; **Mbugwe:** Modee; **Mwera:** Chigombo; **Ngindo:** Mswaki; **Pare:** Mkayo; **Sambaa:** Mswaki; **Sandawi:** Muléwa; **Sangu:** Mswake; **Sukuma:** Mswake, Muche; **Swahili:** Mswaki; **Zigua:** Mswaki.

DESCRIPTION: An evergreen trailing shrub or small tree, 3–7 m. **Young flexible branches pendulous**, older wood twisted. **BARK:** Cracked and brown. **LEAVES:** **Yellow-green, dull, rather fleshy** but hard with rough gland dots and raised veins, **oblong to rounded to 5 cm**. **FLOWERS:** In loose heads, to 10 cm, small, white. **FRUIT:** **White, then pink to purple, 1 cm across, one-seeded, juicy** and strongly flavoured.

ECOLOGY: Grows in thorn shrub and savanna and on alkaline soils, 0–1,400 m. It is very drought resistant and is an important indicator of saline soils, even though it prefers the sandy clay soils of water courses.

DISTRIBUTION: Widespread all over arid Africa and in the driest parts of India. It grows in many parts of Tanzania, e.g. in Dodoma, Tanga, Morogoro, Lindi and Kilimanjaro Regions.

USES:

**Food:**

- Ripe fruit are collected in handfuls and eaten raw as a snack. Fruit are also eaten with honey (Sandawi).
- Leaves are pounded, mixed with water, the liquid filtered and used as a tenderizer when cooking other vegetables.

**Medicinal:**

- Leaves are pounded and boiled in water and the decoction used as a remedy for generalized body pains, backache, stomach-ache and chest pains. Pounded leaves are used as a poultice for wounds.
- The root is ground and the powder rubbed on the forehead to relieve headache. A decoction of the root mixed with meat soup is used for general body pains, backache, stomach-ache and chest pain.
- The bark is soaked in water and the infusion drunk for treating sore throat.

**Commercial:** Fruits are not marketed but toothbrushes are sold in both rural and urban markets.

**Other:** The young stems are used as toothbrushes. Leaves are good fodder.

SEASON: Fruits are collected during the rainy season.

STORAGE: Not stored.

MANAGEMENT: Collected from the wild, not cultivated. Can be propagated by seed.

STATUS: Common.

*Salvadora persica*

Salvadoraceae



Flowers

Flowering branch



Fruit



***Satyrium macrophyllum***  
(*S. cheirophorum*)

**Orchidaceae**

Indigenous

LOCAL NAMES: **Bena:** Kikande, Nyamachebele, Nyamasebele; **Hehe:** Kikande; **Wanji:** Chikande.

DESCRIPTION: A **terrestrial orchid, usually 15–80 cm, an erect stem arising from a pair of round-oval underground tubers, 1–2.5 cm long, 1 cm across.** LEAVES: 6–10 leaves along the entire length of the stem but 2–3 larger basal leaves, 4–20 cm x 3–11 cm across, tip pointed, other leaves much smaller, sheath-like around the stem. FLOWERS: Usually sweet scented, **pale pink to dark red with darker veins, 12–130 flowers on a cylindrical head 3–55 cm long, about 2 cm across,** each flower supported by a conspicuous leafy bract, the sepals joined to the petals and lip in the lower third, **the 2 spurs slender, 10–18 mm long,** tapering very gradually, the upper parts of the flower convex and hooded, **sepals and petals narrow and oblong, much longer than the lip,** more than 10 mm. FRUIT: A small ellipsoid capsule opening by slits to release very many tiny seeds.

ECOLOGY: Found in damp or poorly drained upland grassland, edges of scrub or open *Brachystegia* woodland, 1,200–2,900 m.

DISTRIBUTION: In the Southern Highlands and other southern areas of Tanzania; Kenya, south to South Africa.

USES:

**Food:**

- Tubers are dug out from the ground, peeled and washed. They are then cooked and eaten like potatoes.
- The tubers are peeled, pounded, the flour fermented and then baked into cakes, which are eaten with tea.

**Commercial:** Tubers and cakes are sold in markets.

**Other:** Plants can be used for ornamental purposes and are a source of bee forage.

SEASON: Tubers are dug up during and soon after the rainy season.

STORAGE: Tubers can be stored for several months if kept cool and dry.

MANAGEMENT: Tubers are usually collected from the wild, but the plant can easily be propagated from the tubers.

STATUS: Locally common but becoming increasingly rare due to over collecting. Harvesting of orchid tubers destroys the whole plant and is thus an unsustainable harvesting method which should be discouraged. To maintain wild populations, studies on domestication are urgently needed.

REMARKS: One of several *Satyrium* species which are edible and need further studies for breeding and domestication.

*Satyrium macrophyllum*  
(*S. cheirophorum*)

Orchidaceae



***Satyrium neglectum* var. *neglectum***      **Orchidaceae**

Indigenous

LOCAL NAMES: **Bena:** Kikande, Nyamachebele; **Hehe:** Limwapembe; **Kinga:** Chikande; **Matengo:** Chikande, Kikande-mangonji-matali; **Ngoni:** Kikande-mangonji-matali; **Wanji:** Chikande.

DESCRIPTION: A terrestrial orchid to 1 m, without hairs, the slender or stout stems arising from hairy tubers, 1.5–3 cm long and to 1 cm across, the roots hairy, wiry. **Separate leafy sterile stems to 15 cm grow close to the flowering stems**, usually a pair. LEAVES: 2–5, on the sterile stem, the lowest 1–2 shorter and surrounding the stem, tip blunt; upper leaves long narrow and pointed up to 27 cm x 6.5 cm wide. FLOWERS: The flowering stalk, 4–35 cm, is stout with 6–12 sheathing leaves covering it, these leaves 13 cm long, narrow and pointed, smaller towards the tip; the terminal cylindrical flower head 5–25 cm long with very many small pink-yellow (to dark red or orange-yellow) flowers, usually sweet scented, each one curved outwards, clearly **hooded** as the **sepals and petals are joined to one another** and bent down, **the 2 characteristic spurs to 17 mm long (the opening only 2–4 mm and the flap above the lip entrance not hairy)**. Each flower is backed by a **wide pointed leafy bract 1–3 cm long, typically bent backwards** (reflexed). FRUIT: Ellipsoid capsules open by slits to release tiny seed.

ECOLOGY: Upland or montane grassland, 1,800–2,700 m.

DISTRIBUTION: North-eastern and Southern Highlands of Tanzania; southwards to South Africa. Another variety, var. *brevicalcar*, is found only in the Southern Highlands. It has shorter lips and spurs.

USES:

**Food:**

- Tubers are dug up from the ground, peeled, cooked and eaten like potatoes.
- Tubers are peeled, pounded and the flour baked into cakes to be eaten with tea.

**Commercial:** Tubers and cakes are sold in markets.

**Other:** Plants can be used for ornamental planting.

SEASON: Tubers are excavated during and soon after the rainy season.

STORAGE: Tubers can be stored for several weeks if kept cool and dry.

MANAGEMENT: Tubers are collected from the wild, but the plant can easily be propagated from the tubers.

STATUS: Locally common but becoming increasingly rare due to over collecting. Harvesting of orchid tubers destroys the whole plant and is thus an unsustainable harvesting method which should be discouraged. To maintain wild populations, studies on domestication are urgently needed.

*Satyrium neglectum* var. *neglectum*

Orchidaceae

REMARKS: This is one of several *Satyrium* species which are highly valued as food plants.



***Sclerocarya birrea* subsp. *caffra***      **Anacardiaceae**

Indigenous

LOCAL NAMES: **Arusha:** Olmang'wai; **Bena:** Mbwegele; **Bondei:** Mng'ongo; **Chagga:** Mango, Mang'we; **Digo:** Mngongo, Mng'ongo; **English:** Cider tree, Marula, Marula plum, **Gogo:** Mbwejele; **Gorowa:** Gulgurchandi; **Hehe:** Mbwegele; **Iraqw:** Gulgurchandi; **Kaguru:** Mbwegele; **Kuria:** Omongwe; **Maasai:** Ilmang'ua (plural), Olmangisai, Olmang'uai; **Makonde:** Muongo; **Matengo:** Mbwegele, Mtondoko; **Mbugwe:** Monyangu; **Ngindo:** Mng'ongo; **Nguu:** Mng'ong'o, **Nyamwezi:** Mng'ongo; **Nyaturu:** Muhuvi; **Pare:** Mng'ong'o; **Rangi:** Muangu; **Sandawi:** An/.uma; **Sukuma:** Ng'ongo; **Swahili:** Mng'ongo, Mng'ong'o, Mongo; **Tongwe:** Igongo; **Zaramo:** Mng'ongo; **Zigua:** Mng'ongo.

DESCRIPTION: A deciduous tree, 10–18 m, with a thick bole and large branches to a light rounded crown. BARK: Grey, then **black and thick with irregular cracks and raised scales; inner bark pink-red.** LEAVES: Compound pinnate, crowded at tips of branches, **3–18 pairs leaflets plus a central leaflet, each stalked, usually less than 3 cm, tip blunt or pointed.** FLOWERS: Male and female flowers on the same or different trees; pale green male flowers in spikes, hang down and attract insects; **female flowers solitary, green-pink.** FRUIT: **Rounded and fleshy, to 3.5 cm across, skin cream, spotted,** peeling away from the **sweet flesh,** which has a flavour somewhat similar to mango; **2–3 large seeds inside,** oily and edible.

ECOLOGY: A fruit tree of medium to low altitudes scattered in mixed deciduous woodland and wooded grassland, often on rocky hills, 0–1,200 m.

DISTRIBUTION: Widely distributed in Tanzania, including Zanzibar. Also in Kenya. Subsp. *caffra* occurs throughout southern Africa from the Congo basin, Angola and Namibia to South Africa and in Madagascar.

USES:

**Food:**

- The pale yellow ripe fruit are sweet but slightly acidic. They are peeled and eaten very frequently as a snack, mostly by children. They are very rich in vitamin C, and the pulp can be used to prepare jam and wine.
- The kernel is edible and produces an edible oil.

**Medicinal:**

- Leaves and fruits are chewed for coughs.
- A powder made from the bark is mixed with honey and used as a remedy for coughs.
- A decoction of the leaves or bark is used to treat diabetes and snakebite.

**Other:** The wood is soft and used for construction, and to make traditional chairs, grain mortars, boats, beehives, beer pots, milk pots, boats, carvings and cups. Leaves and fruits are used for fodder. Fruits and roots are soaked in hot water and the decoction used to treat poultry diseases.



## *Sclerocarya birrea* subsp. *caffra* (contd)

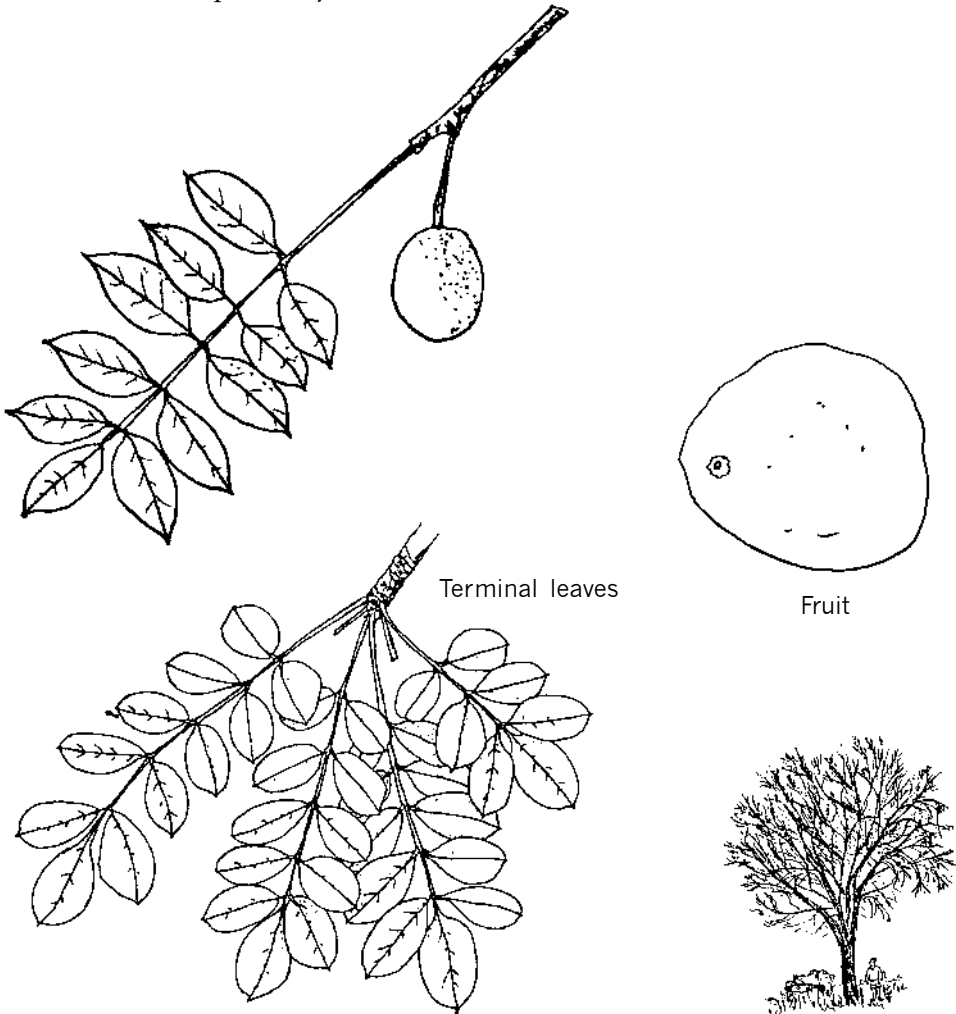
SEASON: Fruits are collected in the dry season.

STORAGE: The kernels can be stored for several months.

MANAGEMENT: Collected from the wild and not protected or cultivated by local people. The species can be propagated by seed.

STATUS: Common and easily accessible within its area of distribution.

REMARKS: Young trees are susceptible to fire damage. In southern Africa, *S. birrea* is known as marula, and the fruit is used both locally and on a large scale for the commercial production of alcoholic beverages, and the oil from the nut is valued for cooking. Three subspecies are found in Tanzania: subsp. *caffra*, subsp. *birrea* and subsp. *multifoliolata*.



*Scolopia rhamniphylla*

## Flacourtiaceae

Indigenous

LOCAL NAMES: **Haya:** Omukanaga; **Hehe:** Mgola; **Swahili:** Mgovigovi.

DESCRIPTION: A much-branched shrub or tree, 3–12 m, with a bushy rounded crown.

**BARK:** Pale brown or grey, smooth or rough, the trunk sometimes with straight spines to 15 cm, **branches and branchlets with axillary spines to 6 cm.**

**LEAVES:** Generally stiff and oval, alternate, 5–12 cm long, tip slightly pointed or blunt, base narrowed to a 1 cm stalk, edges usually regularly round toothed, the 5–8 pairs veins slightly raised on both sides as well as a dense vein network. **FLOWERS:** Yellow-white, **on few-flowered stalks, 1–2 cm, beside leaves, 4 hairy sepals, 2 mm, and 4–6 narrow petals, 20–30 stamens.**

**FRUIT:** **A small berry,** rounded to oval, 6–7 mm across, tipped by the old style and remnants of the flower at the base, pink-purple-black, containing a few angular seeds.

ECOLOGY: A tree of rainforest or dry evergreen forest and associated bushland, riverine forest, 1,000–2,000 m.

DISTRIBUTION: In most parts of Tanzania except the central and western areas; Kenya, Uganda, Rwanda, Cameroon, Angola and in the Congo basin.

USES:

**Food:**

Ripe fruits are fleshy and eaten raw as a snack, especially by children and herdsmen.

**Commercial:** Not marketed.

**Other:** The wood is hard and is used for firewood, charcoal, poles, tool handles and yokes. The tree is important as a source of bee forage.

SEASON: Ripe fruits are collected during the rainy season.

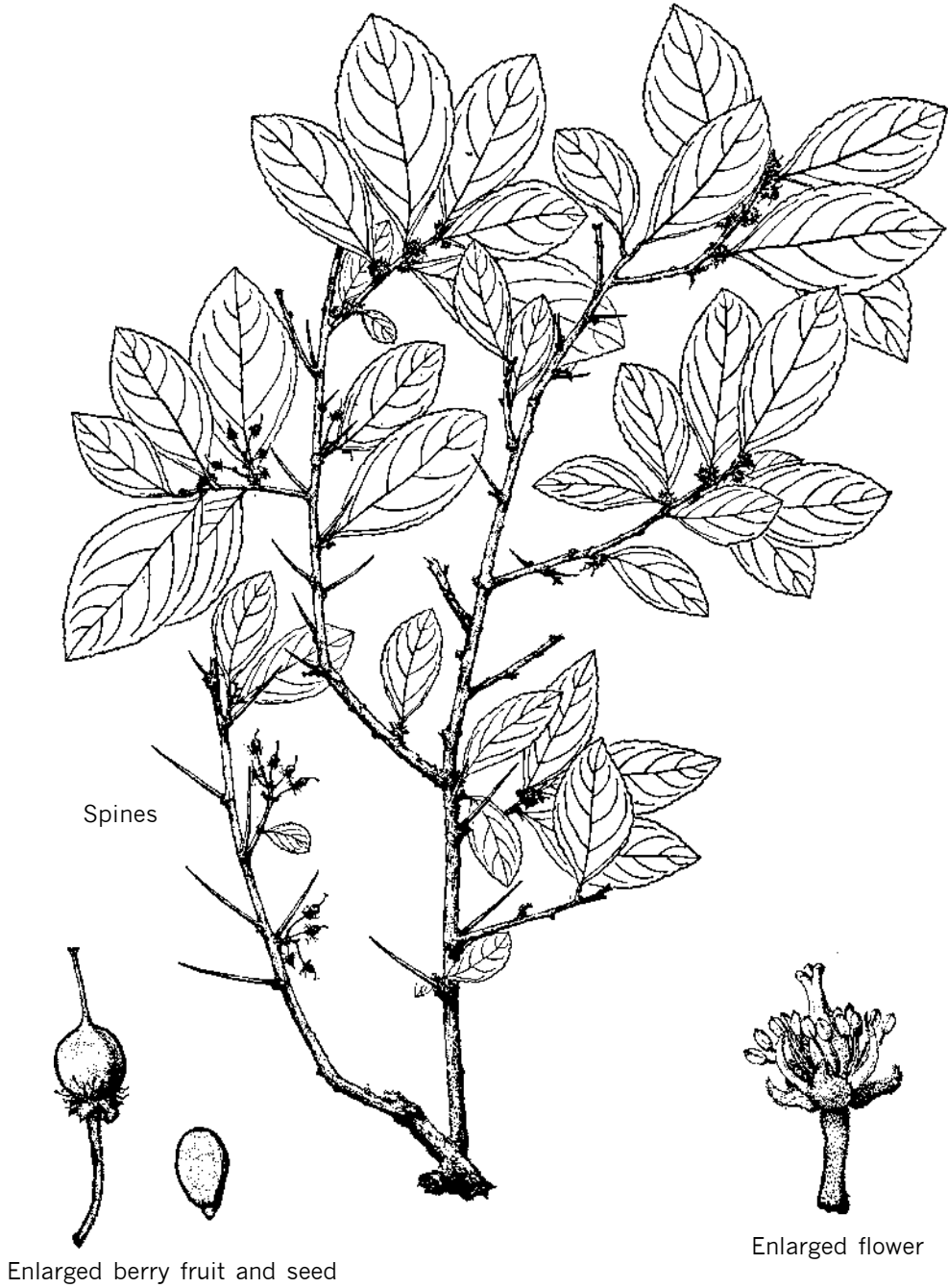
STORAGE: Not stored.

MANAGEMENT: Fruits are collected from the wild and it is not cultivated but can be propagated by seed.

STATUS: Locally common.

*Scolopia rhamniphylla*

Flacourtiaceae



*Scolopia zeyheri*

## Flacourtiaceae

Indigenous

LOCAL NAMES: **English:** Thorn pear; **Hehe:** Mgola, **Luguru:** Msona; **Sambaa:** Mtwampara, Kikongoo; **Wanji:** Litungu.

DESCRIPTION: A spiny shrub or small tree, usually 2–7 m but up to 25 m, the trunk 60 cm diameter, often branching low down and young plants sometimes climbing. **BARK:** Pale grey and smooth becoming dark brown-grey, rough and peeling in flakes, the **straight spines from leaf axils usually 1.5 to 5 cm** but up to 10 cm. (Occasionally a mass of spiny branchlets may grow out of the main trunk.) **LEAVES:** Alternate, simple, **leathery, dark green, stiff when older**, paler below, veins prominent both sides, **variable in size and shape, narrow to almost circular, 2–9 cm long**, the edge entire or with shallow rounded teeth, **broadly tapering to a round or notched tip**, the base narrowed to a **1 cm stalk**. Young leaves and stalks reddish. Sometimes leaves have a thin waxy coating. **FLOWERS:** **Very small**, along axillary stalks, 1–3 cm, petals white-cream-yellow fading brown, only the central yellow anthers conspicuous, receptacle densely white-hairy. **FRUIT:** Rounded fleshy **berries 5–10 mm diameter, red-purple then black with a hair-like tip**, containing 2–3 angular seeds.

ECOLOGY: Found in dry evergreen forest, riverine forest, bushland, wooded grassland, open rocky or sandy sites (in drier places than *S. rhamniphylla*), 0–2,400 m.

DISTRIBUTION: In most parts of Tanzania except the central and western areas and the Southern Highlands. Also in Kenya, Uganda; west to Cameroon and south to South Africa.

USES:

**Food:**

Ripe fruits are fleshy, sweet and eaten raw as a snack.

**Commercial:** Not marketed.

**Other:** The wood is used for firewood, poles, tool handles and spoons. The tree is useful for fodder and is a source of bee forage.

SEASON: Fruits are collected during the rainy season.

STORAGE: Not stored.

MANAGEMENT: Collected from the wild, not cultivated. Propagation is possible using seed.

STATUS: Locally common.

REMARKS: Several other *Scolopia* species are edible, including the following:

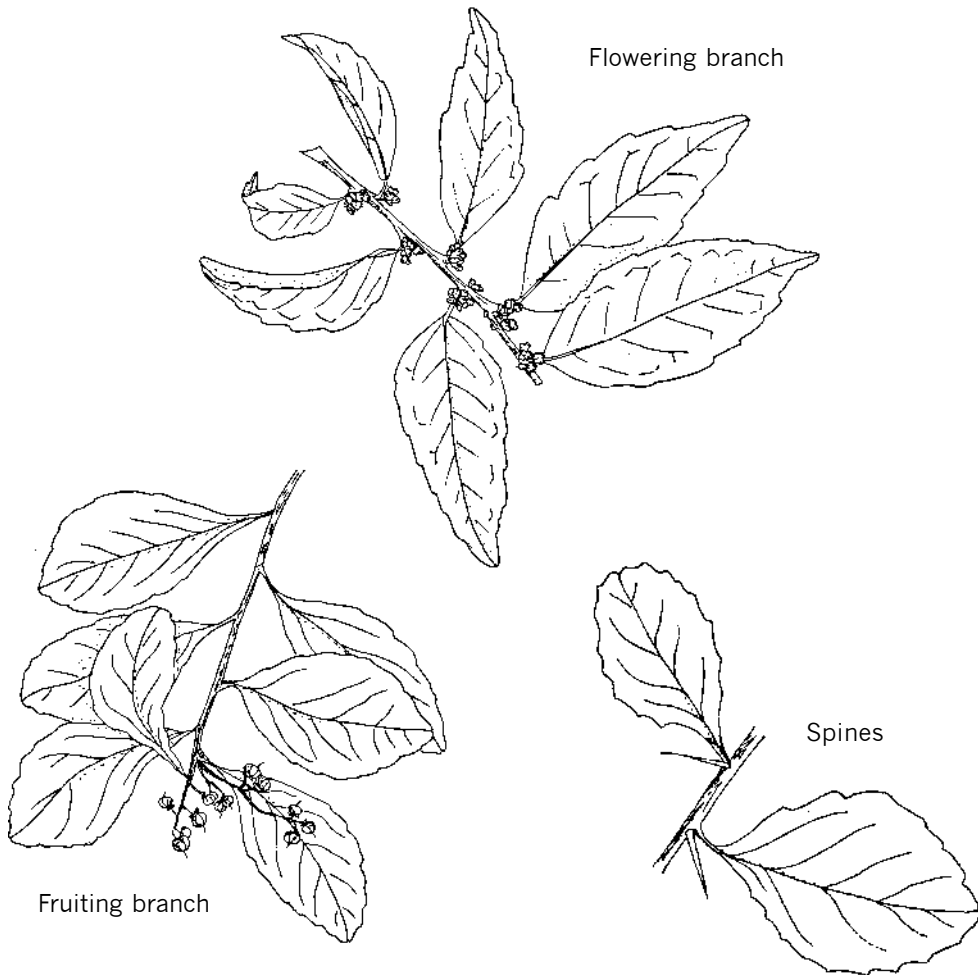
1. *S. stolzii* (**Hehe:** Mgola; **Sambaa:** Mkongola; **Swahili:** Mgovigovi) a much-branched tree up to 15 m high with fleshy fruits. It is found in Iringa and

*Scolopia zeyheri* (contd)

## Flacourtiaceae

Mbeya Regions and also in Cameroon, Malawi, Mozambique, Zambia, Zimbabwe and the Congo basin;

2. *S. theifolia* (**Hehe**: Mgola; **Iraqw**: Indahaheye; **Maasai**: Oleleloi, Oladarrara; **Sambaa**: Mkongola, Mtiwampara; **Swahili**: Mgovigovi; **Wanji**: Litungu) a shrub or tree up to 15 m with smooth greying bark and small fleshy fruits. It occurs in Arusha, Kilimanjaro, Tanga, Iringa and Mbeya Regions, and in Ethiopia and Sudan.



***Senna bicapsularis***  
**(*Cassia bicapsularis*)**

**Caesalpiaceae**

West Indies and western South America

LOCAL NAMES: **Swahili:** Mwingajini.

DESCRIPTION: An erect, straggling or bushy shrub, sometimes scrambling or climbing, 1.5–9 m, stems without hairs. LEAVES: Compound pinnate, rather small, with **2–3 pairs of leaflets, oblong to almost circular**, 1–3 cm, wider at the round tip. FLOWERS: Bright yellow-orange with brown veining, on well-developed stalks beside leaves, usually with 4–8 flowers, 5 rounded sepals, clear in bud, the **5 petals long oblong, wider at the round tip, to 1.3 cm** long. In the centre **10 unequal stamens**: 3 large, 4 medium sized and 3 undeveloped. FRUIT: **Straight cylindrical pods to 15 cm long, tip rounded**, sections just visible, brown and somewhat swollen when mature, only very slowly breaking open to set free many olive-brown flat seeds.

ECOLOGY: Originally planted in gardens but naturalized in grasslands, secondary bushland, abandoned fields and roadsides, up to 2,100 m; rainfall 1,100–1,800 mm. It prefers well-drained soils.

DISTRIBUTION: Widespread in Tanzania. Also in Uganda and Kenya; cultivated in many parts of the tropics, often escaped and naturalized.

USES:

**Food:**

- The leaves are gathered, wilted and cooked as a vegetable. Can be served alone or mixed with other leaves, beans or peas. The leaves are eaten as a substitute when more preferred vegetables are not available. They are eaten with a staple food.
- Seeds are roasted, pounded and used as a substitute for coffee.

**Medicinal:** Roots and leaves can be chewed to relieve stomach-ache.

**Other:** The plant is used for ornamental purposes and as a hedge.

SEASON: Leaves are collected in the early rainy season for food.

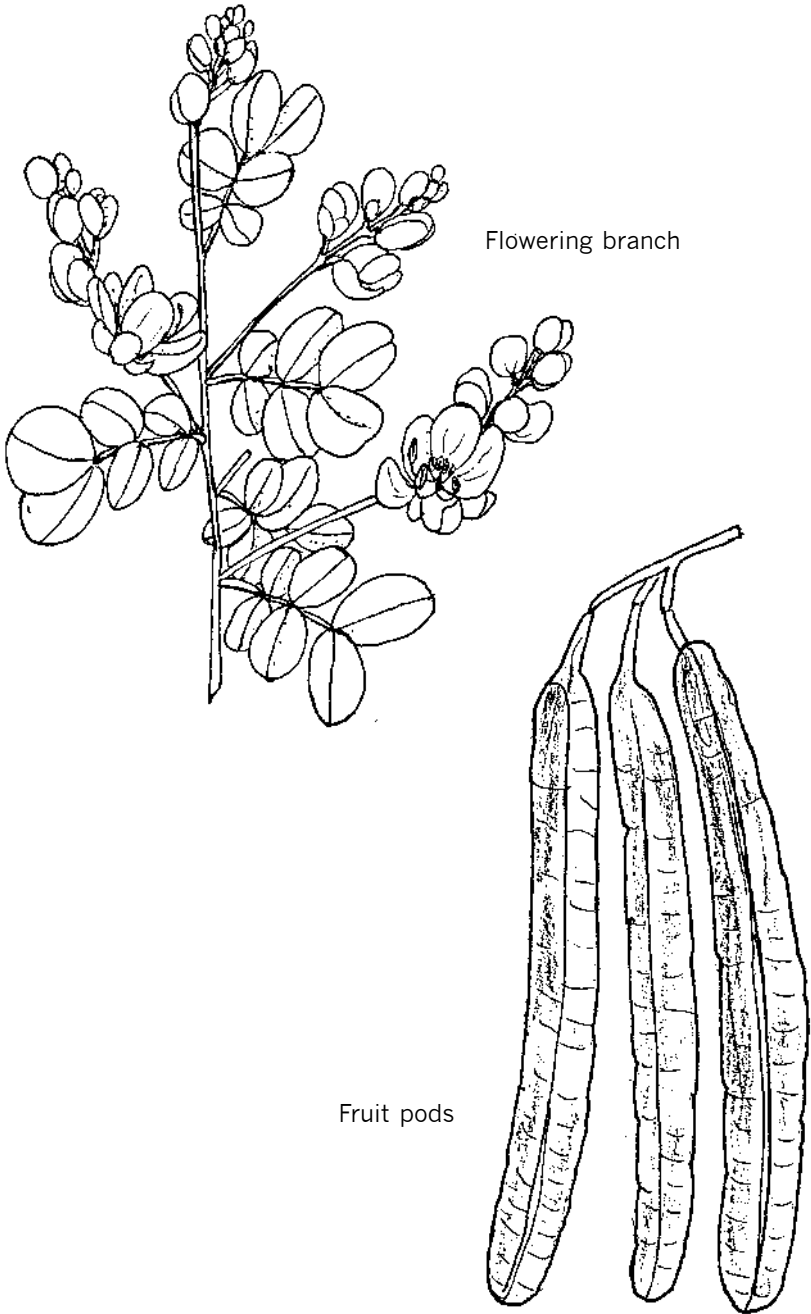
STORAGE: Not stored.

MANAGEMENT: Collected from the wild, but also planted as a hedge by the local people using seed.

STATUS: Common and easily accessible within its area of distribution.

*Senna bicapsularis*  
(*Cassia bicapsularis*)

Caesalpiaceae



*Senna singueana*

## Caesalpinaceae

Indigenous

LOCAL NAMES: **Bena:** Muhanjahanja; **English:** Winter cassia; **Gogo:** Mswaga, Muhumba; **Gorowa:** Dalaagi; **Hehe:** Muhanza; **Iraqw:** Dalaa-akumo, Qarerei; **Kaguru:** Muhumba; **Luguru:** Mhumba; **Maasai:** Engai-pulsan; **Ngindo:** Mkundekunde; **Ngoni:** Mteपुरा; **Nyamwezi:** Mdimwambuli, Msambila, Msambisambi; **Nyaturu:** Mutungulu; **Pare:** Msidati, Msindali; **Rangi:** Mtungulu-mwiru, Mutungulu; **Sambaa:** Mhumba; **Sandawi:** Gelegela; **Sangu:** Mhanja; **Sukuma:** Msambilya; **Swahili:** Mbaraka, Mkundekunde; **Zigua:** Mhumba.

DESCRIPTION: A deciduous shrub or small tree, usually 4–5 m, with a light open crown. BARK: Red becoming grey-brown and rough. LEAVES: Compound with 4–10 pairs oval leaflets, fresh green in colour, 2.5–5 cm long. **Between each leaflet pair there is a conspicuous gland on the stalk.** FLOWERS: Striking **deep yellow**, fragrant, in large **loose sprays** to 15 cm, at the ends of branches on the bare tree (April–September). The **5 sepals and 5 petals are rounded and yellow**, to 3 cm long; the 10 stamens are of three different sizes. **The flower stalks, 2–4 cm, have conspicuous glands.** FRUIT: **A narrow cylindrical pod to 25 cm, sharply pointed and narrowed between seeds.** Pods hang in clusters and ripen the following year; yellow when ripe. **Seeds circular flat, only 5–6 mm.**

ECOLOGY: Found in woodland, wooded grassland and bushland; often on termite mounds, up to 2,200 m.

DISTRIBUTION: In all parts of Tanzania; widespread in tropical Africa, especially in semi-arid areas; Uganda, Kenya; Eritrea to South Africa and the Comoro Islands.

USES:

**Food:**

- Pods are fleshy, sweet and edible. They are collected as soon as they are ripe, broken, the sweet pulp sucked out and the seeds discarded. They are mostly eaten by children and herdsmen.
- Seeds are used as a substitute for coffee.

**Medicinal:**

- Leaves are pounded and soaked in cold water, the infusion is used as a remedy for STDs, malaria, convulsions, epilepsy, coughs, intestinal worms, constipation, heartburn and stomach-ache.
- A decoction of the roots is used to treat wounds and as a remedy for diarrhoea, convulsions, dementia and STDs (Bondei, Hehe, Gogo, Nyamwezi, Sukuma).

**Commercial:** Not marketed.

**Other:** The wood is used for firewood and charcoal and to make spoons. The



*Senna singueana* (contd)

## Caesalpinaceae

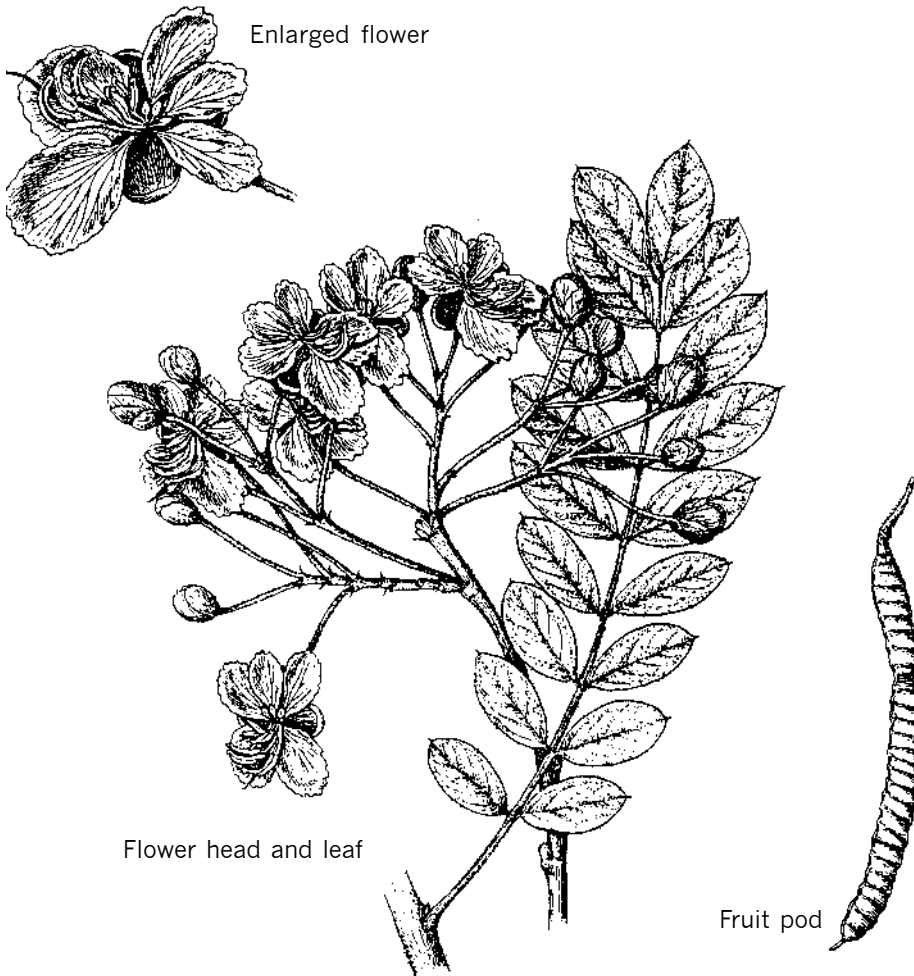
tree is used for fodder, soil improvement, as an ornamental and is a source of bee forage.

SEASON: Fruits are collected during the dry season, usually from July to November.

STORAGE: Not stored.

MANAGEMENT: Usually collected from the wild, but can easily be propagated by seed.

STATUS: Common and easily accessible within its area of distribution.



***Senna singueana* (contd)****Caesalpinaceae**

REMARKS: The species is also known to be toxic. Care should be taken by following the instructions given by the herbalist when using it medicinally. A suitable candidate for agroforestry in dry areas.

A related species, *S. occidentalis* (**Bondei:** Komanguku; **English:** Stinking weed; **Gogo:** Muwinganzoka; **Hehe:** Nyamaganga; **Kuria:** Maitanyoka; **Maasai:** Eswaili; **Sambaa:** Muinu; **Sukuma:** Nzegenzege; **Swahili:** Mnuka uvundo, Mwingajini) is an erect herb up to 20 cm high with compound leaves, yellow flowers and erect and slightly curved pods. It is widespread in tropical Africa and found all over Tanzania. The leaves of this species are used as a vegetable. Seeds are roasted and used as a substitute for coffee. Leaves and roots are used to treat stomach-ache, fever, snakebite, STDs and mental illness.

*Senna singueana* (contd)

Caesalpinaceae

*S. occidentalis*



Flowering and fruiting branch

*Sesamothamnus busseanus*

## Pedaliaceae

Indigenous

LOCAL NAMES: **English:** Sesame bush; **Gogo:** Mlyang'ungu, Mulyanhungu; **Hehe:** Chung'ungu; **Sangu:** Ifufu.

DESCRIPTION: A **spiny** shrub or small tree, 1–5 m high, with a **swollen trunk** at the base and soft wood. **BARK:** **Dark coppery pink-green, scaling off in papery shavings**, branches pale red-brown, the **young shoots hairy**, many spines, usually straight, 0.5–1.5 cm and swollen at the base. **LEAVES:** Deciduous, **growing in bundles** from cushions along the stem, 2–5 cm long, wider at the tip, which is rounded or notched, dense glandular **hairs** below but few above. **FLOWERS:** The few sweet-scented flowers appear on the bare tree, white, the tube often crimson, shortly stalked, the tube 2.5–4 cm long, wider at the throat, the **long thin spur to 6 cm, the flower 4–9 cm across with 5 pointed lobes, 4 fringed**. **FRUIT:** **Woody capsules, glandular hairy when young, brown oblong and flattened**, to 4 cm long and 2 cm wide, containing numerous winged seeds.

ECOLOGY: Found in dry *Acacia–Commiphora* bushland or grassed bushland on shallow rocky soils, 300–1,300 m. Can survive in very dry conditions.

DISTRIBUTION: Recorded from central and southern Tanzania, e.g. in Dodoma, Singida and Iringa Regions. Also in Kenya and Somalia.

USES:

**Food:**

- Leaves and flowers are wilted and cooked alone or mixed with other vegetables such as amaranth or peas and eaten along with a staple.
- Leaves are pounded, soaked in cold water and filtered. The infusion is used as a tenderizer when cooking other vegetables.

**Medicinal:**

- Leaves are pounded and soaked in water. The infusion is drunk as a remedy for constipation and intestinal gas.
- Pounded leaves and stems are applied to fresh wounds to stop bleeding. (In northern Kenya and Somalia ground parts of the plant are used to make a paste to stop bleeding.)

**Commercial:** Not marketed.

**Other:** The wood is soft and used for making fire by friction. The tree can be used for ornamental purposes.

SEASON: Leaves are collected during the rainy season.

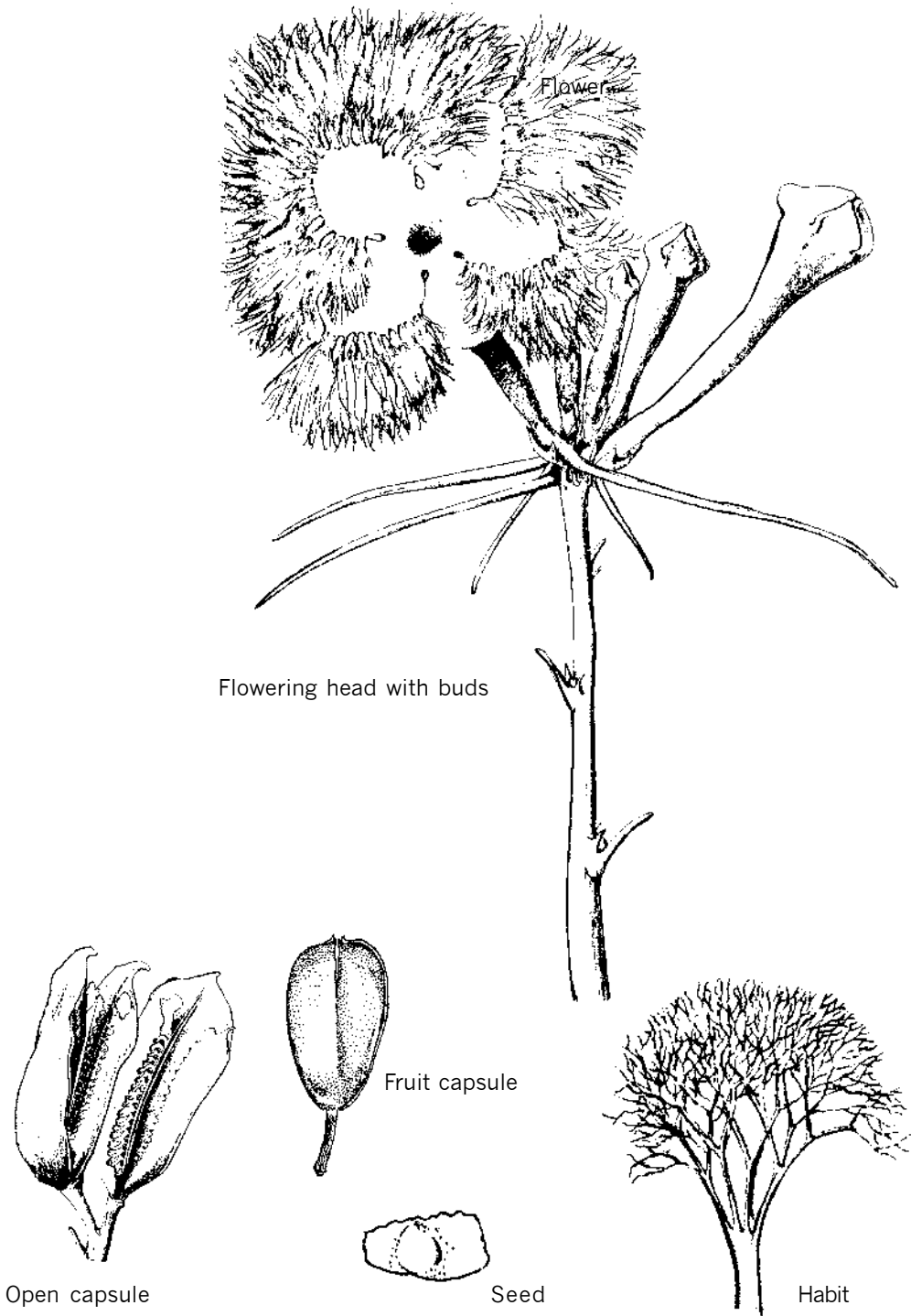
STORAGE: Not stored.

MANAGEMENT: Usually collected from the wild, but can also be propagated and cultivated using seed and cuttings.

STATUS: Occasional within its area of distribution.

*Sesamothamnus busseanus*

Pedaliaceae



*Sesamum angolense*

## Pedaliaceae

Indigenous

LOCAL NAMES: **Gogo:** Ilendi-lya-mhonjela; **Hehe:** Lilendi, Mkongela, Mlenda mtali; **Luguru:** Mlenda; **Maasai:** Enderemet; **Ngoni:** Delele; **Nyamwezi:** Mlenda-gwa-wima; **Rangi:** Irenda; **Sandawi:** Erenze; **Sukuma:** Ilendi; **Swahili:** Mlenda; **Tongwe:** Ipela, Mlenda; **Yao:** Mkuyamani; **Zaramo:** Mlenda, Mpombo.

DESCRIPTION: A densely leafy perennial herb, to 3 m but usually smaller, simple or branched, the stem somewhat 4-angled. LEAVES: Almost without stalks, narrow oblong, 2–11 cm, the margins more or less rolled under, the upper surface with rough hairs, the **lower white with hairs**, tip blunt or pointed. FLOWERS: **Tubular**, pink–purple–red–pale mauve with deeper coloured markings, **3.5–7 cm long** and 2–3 cm across the throat, the 5 petals more or less two-lipped, a hairy persistent calyx with pointed lobes. FRUIT: A **4-side capsule 2.5 cm long**, 6 mm across, **densely hairy** with a flat beak, breaking open to set free tiny black seeds.

ECOLOGY: Found in disturbed grassland, roadsides, along river valleys and in open woodlands and abandoned cultivation, 400–2,400 m.

DISTRIBUTION: Grows in most parts of Tanzania; also in Kenya, Uganda, south to Zimbabwe, Zambia and Angola.

USES:

**Food:**

Leaves are wilted and cooked alone or mixed with other vegetables such as beans, peas or amaranth and served with a staple.

**Medicinal:**

- Leaves are pounded, soaked in water and the infusion used to treat constipation and to stop vomiting.
- Roots and leaves are used for treating measles and poisoning.

**Commercial:** Sold in local markets.

**Other:** Leaves are soaked in cold water which is then used as a shampoo that oils and straightens the hair. The plant is useful as a source of bee forage and for ornamental purposes.

SEASON: Collected during the rainy season.

STORAGE: Dried leaves can be stored for several months. Alternatively, they can be stored in the powdered form.

MANAGEMENT: Collected from the wild, but can easily be propagated by seed.

STATUS: Locally common and easily accessible.

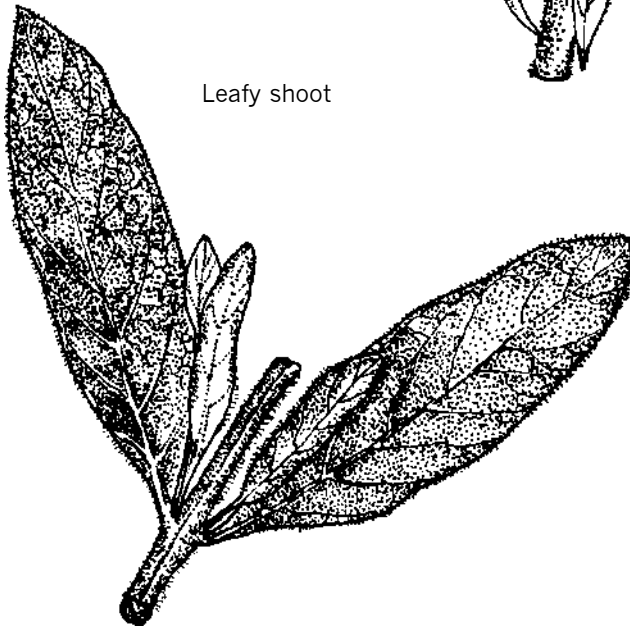
*Sesamum angolense*

Pedaliaceae

4-sided fruit capsules



Leafy shoot



***Sesamum calycinum* var. *angustifolium***      **Pedaliaceae**  
**(*S. angustifolium*)**

Indigenous

LOCAL NAMES: **English:** Wild simsim; **Hehe:** Lilendi mtali, Mlenda mtali; **Luo:** Onyulo, Anyulo, Olukenu, Kenu; **Maasai:** Oldelemet; **Matengo:** Mbonani, Mlenda-mgunda, Lidelele-mgunda; **Ngoni:** Mbonani, Mlenda-mgunda, Lidelele-mgunda; **Ndendeule:** Mbonani, Mlenda-mgunda, Lidelele-mgunda; **Nyamwezi:** Mlenda-gwa-wima; **Swahili:** Mfuta, Mlenda mwitu.

DESCRIPTION: An erect, sometimes spreading, herb, one or only a few branches from a woody base, 30–180 cm, **stems more or less 4-sided**, hairy at first. **LEAVES: Long and narrow, to 12 cm, a short stalk or none**, the lowest leaves coarsely and irregularly toothed. **FLOWERS: Tubular, pink-red-mauve-purple**, often spotted in the throat, **2-lipped, 2–3.5 cm long**, 4 stamens, 5 sepals. **FRUIT: Narrow capsules, to 25 cm long, 4 mm across, straight**, deeply 4-grooved, gradually narrowed into a **flat triangular beak**, many 1-mm seeds inside have a rough surface.

ECOLOGY: Found in cultivated areas and wastelands, abandoned gardens, at roadsides, in sandy river soils, grassland, 0–2,000 m.

DISTRIBUTION: Found in most parts of Tanzania, including Zanzibar Island. Also in Kenya, Uganda, from Sierra Leone to Sudan, Rwanda, Burundi, the Congo basin, Malawi, Zimbabwe, Botswana, Namibia, Mozambique.

USES:

**Food:**

Leaves are collected, chopped and cooked together with other ingredients, e.g. green vegetables, peas or beans, to thicken the sauce. The leaves are slippery (okra-like) when crushed, with a mild to sour taste. It is eaten with a staple.

**Commercial:** Not marketed.

SEASON: Leaves are collected in the rainy season, seeds in the dry season.

SSTORAGE: Dried leaves may be stored in containers for a long time to be used during the dry season.

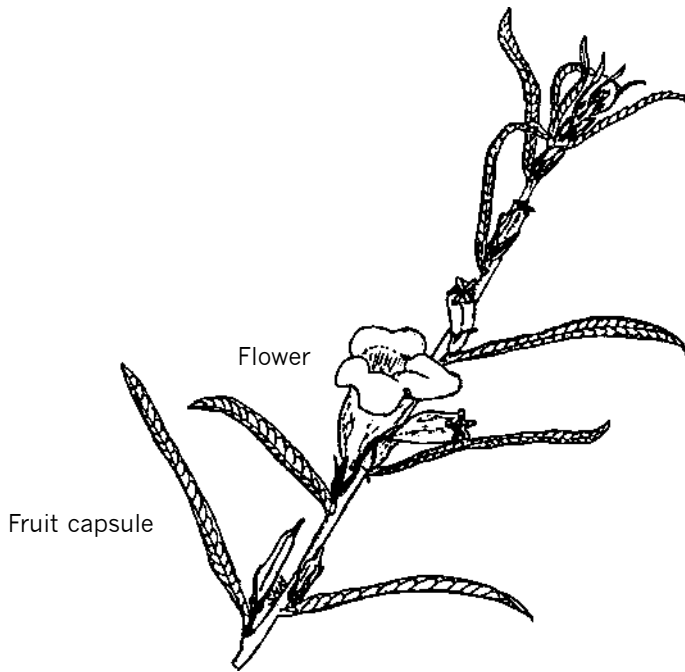
MANAGEMENT: Collected from the wild, but also protected and cultivated around homesteads.

REMARKS The plant is normally used during the dry season when other vegetables are not available.



*Sesamum calycinum* var. *angustifolium*  
(*S. angustifolium*)

Pedaliaceae



*Sesuvium portulacastrum*

## Aizoaceae

Indigenous

LOCAL NAMES: **English:** Sea purslane; **Hehe:** Nyangomba; **Swahili:** Mboga wa pwani.

DESCRIPTION: A **succulent perennial herb**, no more than 30 cm tall, with **trailing reddish stems**, often rooting at the nodes. LEAVES: **Opposite, fleshy, 1–6.5 cm** including the stalk, **narrow oblong, smooth and round tipped**, upper surface flat; lower surface convex, the base half joined to the opposite leaf base. FLOWERS: **Single, about 1 cm, in leaf axils, shortly stalked**, no petals but **5 unequal green calyx lobes joined at the base, red-purple inside and with a definite pointed tip**, many stamens surround the ovary. FRUIT: **Small conical capsules** split around the centre, the lid remaining whole to set free many black seeds.

ECOLOGY: Found on the seashore at or about high-water level and on mud flats in Zanzibar and Pemba. Also in rice fields.

DISTRIBUTION: A pan-tropical species; in Tanzania restricted to coastal areas, Pemba and Zanzibar; also coastal Kenya.

USES:

**Food:**

The succulent leaves and stems are chopped and cooked alone or mixed with other vegetables and then served with a staple. Coconut milk, onions, tomatoes and salt may be added in order to make it more tasty.

**Commercial:** Sold in local markets.

**Other:** The plant is used for fodder and ornamental purposes.

SEASON: Collected during the rainy season.

STORAGE: Not stored.

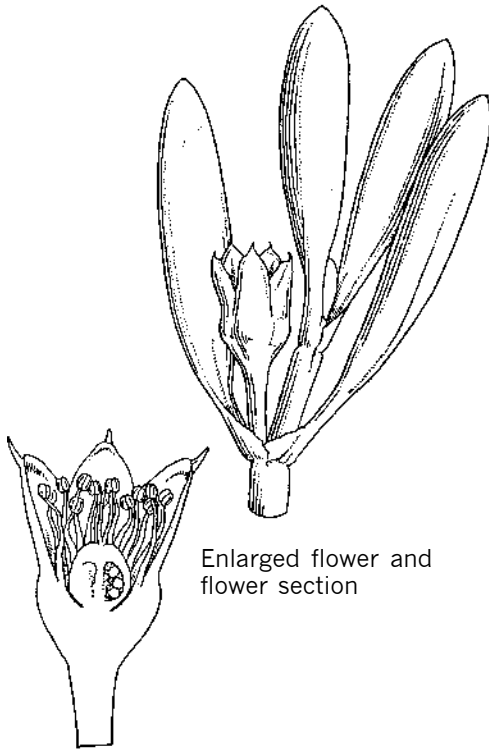
MANAGEMENT: Collected from the wild, not cultivated. The plant can be propagated by seed and cuttings.

STATUS: Locally common.

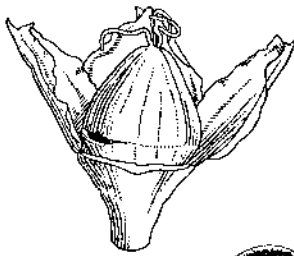
REMARKS: Regarded as a troublesome weed in rice fields. It is a useful plant for conservation of soils along the sea shores of Tanzania.

*Sesuvium portulacastrum*

Aizoaceae



Enlarged flower and  
flower section



Enlarged dehiscent  
fruit and a seed



Habit

***Solanum anguivii* (*S. indicum*)****Solanaceae**

Indigenous

LOCAL NAMES: **Bondei:** Njujui; **Pare:** Njujui; **Sambaa:** Njujui; **Tongwe:** Ntunfululu; **Zigua:** Njujui.

DESCRIPTION: An erect perennial **hairy woody herb or shrub to 2 m**, with or without prickles on stems and leaves, prickles either straight or recurved to 1 cm long. LEAVES: Alternate and simple, **ovate, rather angular or lobed, to 20 cm long x 15 cm wide, densely hairy with unusual star-shaped hairs** (one ray longer than the others), leaf base unequal, on a thick stalk about 3 cm long, midrib often spiny below. FLOWERS: White, yellow or **mauve, webbed between lobes, only 9 mm long, 15 mm across**, in small stalked clusters which arise from the main stem between the leaves, 5 erect anthers, 5 tiny sepals enlarging in fruit. FRUIT: **1–6 berries on bent stalks, each 1 cm across**, dark green, striped, turning **orange then red**, black with age, containing the seeds.

ECOLOGY: Common in secondary regrowth, disturbed land, abandoned cultivation, thickets and at forest edges. It occurs naturally in lowland and at medium altitudes up to 1,800 m.

DISTRIBUTION: Found in most parts of Tanzania. Also in Uganda, Kenya and from Senegal through West Africa to Ethiopia, south to South Africa and on the Seychelles.

USES:

**Food:**

Fruits are collected, washed and eaten raw, or cooked with other vegetables such as amaranth or peas.

**Medicinal:**

- Fruits are chewed as a remedy for coughs and chest pains.
- Roots are used to treat toothache.

**Commercial:** Sold in local markets.

**Other:** The plant is used for fodder and ornamental purposes.

SEASON: Fruits are collected at the end of the rainy season and early in the dry season.

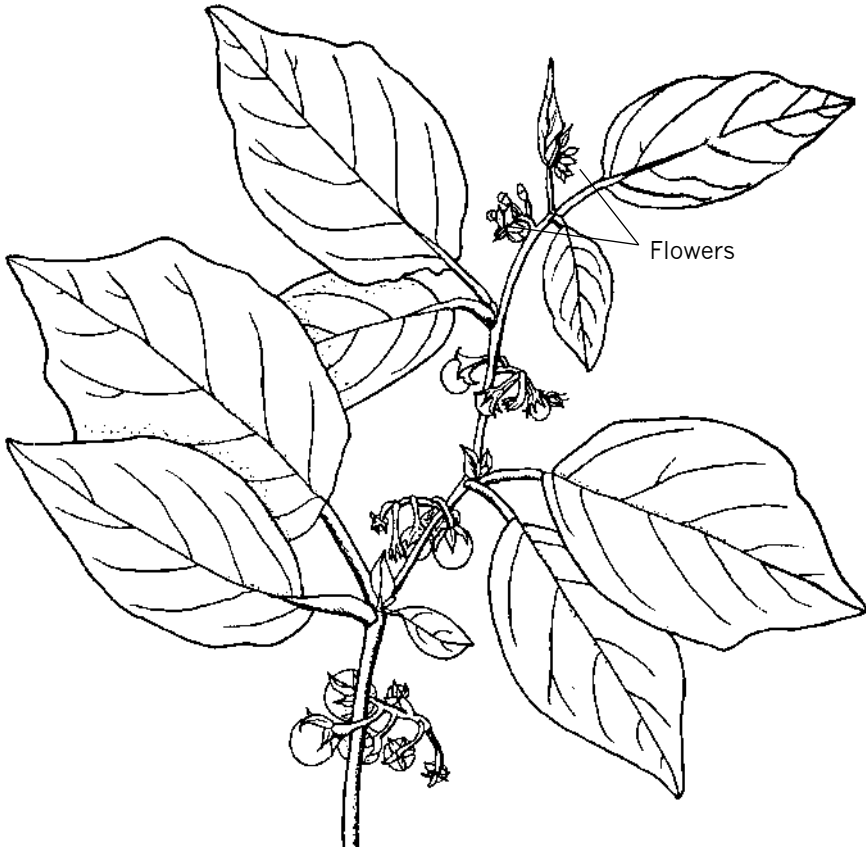
STORAGE: Not stored.

MANAGEMENT: It is collected from the wild and not cultivated or protected by local people. It can be propagated by seed.

STATUS: Common within its area of distribution.

*Solanum anguivii* (*S. indicum*)

Solanaceae



Flowering and fruiting shoot

*Solanum schumannianum*

## Solanaceae

Indigenous

LOCAL NAMES: **Bondei:** Njujui; **Haya:** Omutura; **Pare:** Mndujwi; **Sambaa:** Njujui; **Swahili:** Mtula, Mtunguja; **Zigua:** Njujui.

DESCRIPTION: An erect **perennial** herb or lightly branched small shrub, 1–3.6 m, easily recognized by the **stems which are densely covered in soft bristles to 8 mm** long, dark violet becoming pale brown. LEAVES: Alternate, **long oval, 6–25 cm** by 2–8 cm, on long thin hairy stalks about 3 cm, **no hairs below**, clear looped veins, tip long pointed, base narrowed. Young shoots purple-green. FLOWERS: Cream or mauve, 12 mm across, 5 reflexed petals turning brown before falling, many together in heads on a well-branched **stalk about 10 cm long**, the stalk sometimes mealy hairy, pale brown, the flowers hanging down. FRUIT: **Soft round berries, 6–8 mm**, in dense bunches on a branched stalk, shiny green turning yellow then **dark red**.

ECOLOGY: A plant of dense evergreen and wet montane forests, open glades and around water holes in forest areas, moist forest remnants, disturbed forest edges, tea estates, locally common in dry montane forest, 1,300–2,700 m.

DISTRIBUTION: Widespread in Tanzania; recorded, for example, around Morogoro, in the West Usambara Mountains (Tanga Region) and in Mbizi Forest Reserve (Rukwa Region). Also found in Kenya.

USES:

**Food:**

- Young and mature fruits are eaten raw or cooked with vegetables such as peas, beans or amaranth to improve their flavour.
- Fruit are pounded and mixed with onion and lemon juice and the liquid used as a substitute for vinegar.

**Medicinal:** Fruits are pounded, boiled and the decoction used as a remedy for constipation and intestinal worms.

**Commercial:** Sold in local markets.

**Other:** The plant is used for fodder, hedges and boundary marking.

SEASON: Fruits are collected during the rainy season.

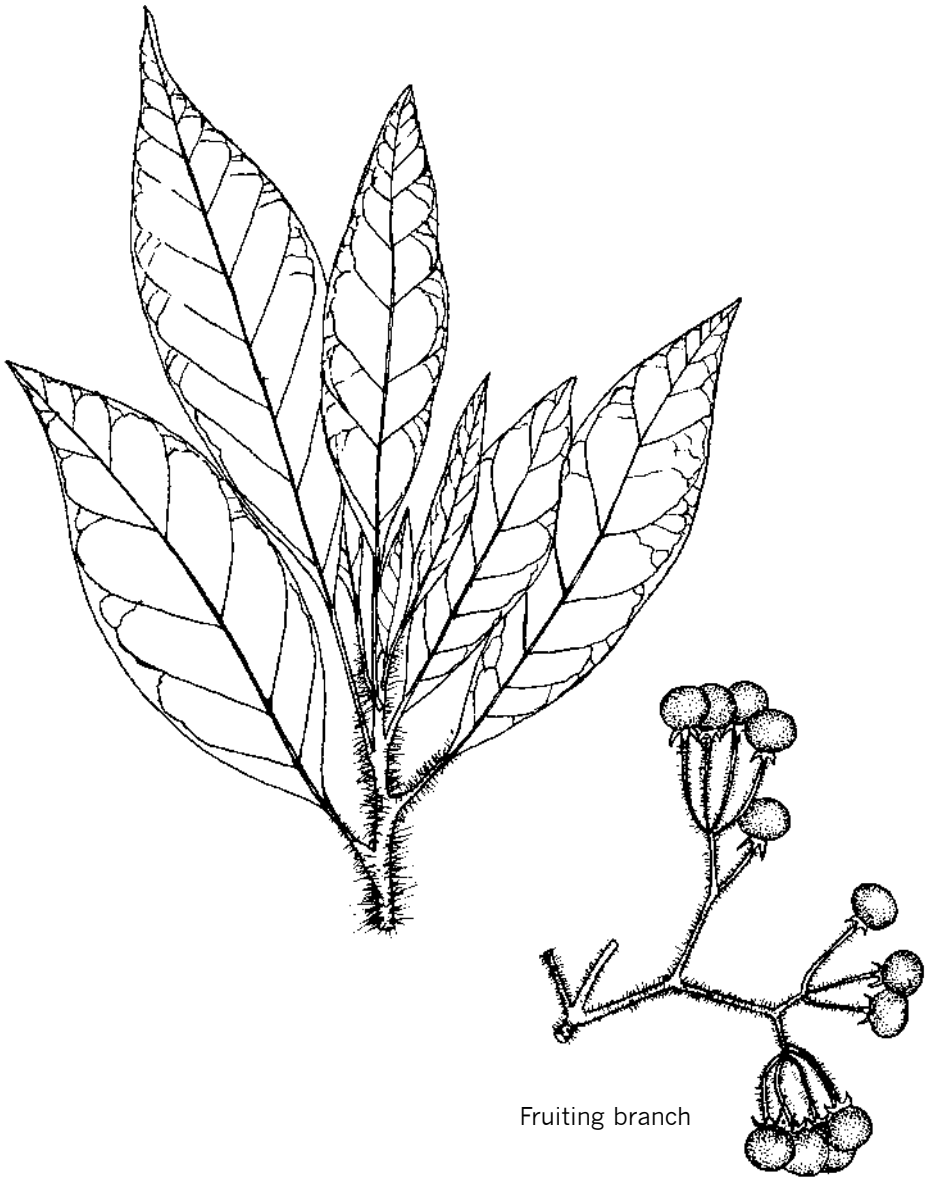
STORAGE: Dried fruits can be pounded and stored in powder form.

MANAGEMENT: Usually collected from the wild, but sometimes cultivated near houses.

STATUS: Locally common and easily accessible.

*Solanum schumannianum*

Solanaceae



*Sonchus luxurians*

## Compositae

Indigenous

LOCAL NAMES: **Chagga:** Mchungu; **Luguru:** Sungu; **Pare:** Mshunga-mboga; **Sambaa:** Kwake, Mshunga-mboga, Pwake, Shunga-pwapwa; **Swahili:** Mchungu; **Tongwe:** Ipempu.

DESCRIPTION: A robust perennial herb, erect or trailing, 1–2 m, succulent with much white latex, older stems hollow and becoming woody at the base. LEAVES: **Alternate, pinnately divided**, the lobes usually curved away from the tip, somewhat triangular, stalkless and clasping the stem with wide basal lobes, up to 15 cm long. FLOWERS: **Heads of florets almost stalkless, yellow**, about 8 mm across, clustered at the ends of axillary branches towards the top of the stems, central florets yellow, outer ray florets deep orange-yellow, surrounded by **many rows of phyllaries, 13–18 mm long, dark green with some brown**, additional flower clusters below, all white woolly at the base. FRUIT: Tiny flat achenes with many wavy hairs and stiff, straight bristles.

ECOLOGY: Found along roadsides in highlands, on mountain sides, grasslands, 1,500–2,000 m.

DISTRIBUTION: Found in the northern, north-eastern and Southern Highland areas of Tanzania. Also in Kenya, Uganda, Rwanda, Burundi.

USES:

**Food:**

Leaves are chopped and cooked alone or mixed with other vegetables such as *Solanum*, *Bidens* or *Galinsoga*, coconut milk or pounded groundnuts are added and then they are eaten alone or along with a staple such as *ugali* or rice.

**Medicinal:** Leaves are pounded and soaked in cold water. The infusion is used as a remedy for fever and stomach upsets.

**Commercial:** Leaves are sold in local markets.

**Other:** The plant is used as fodder for rabbits, sheep and goats.

SEASON: Leaves are collected during the rainy season.

STORAGE: Not stored.

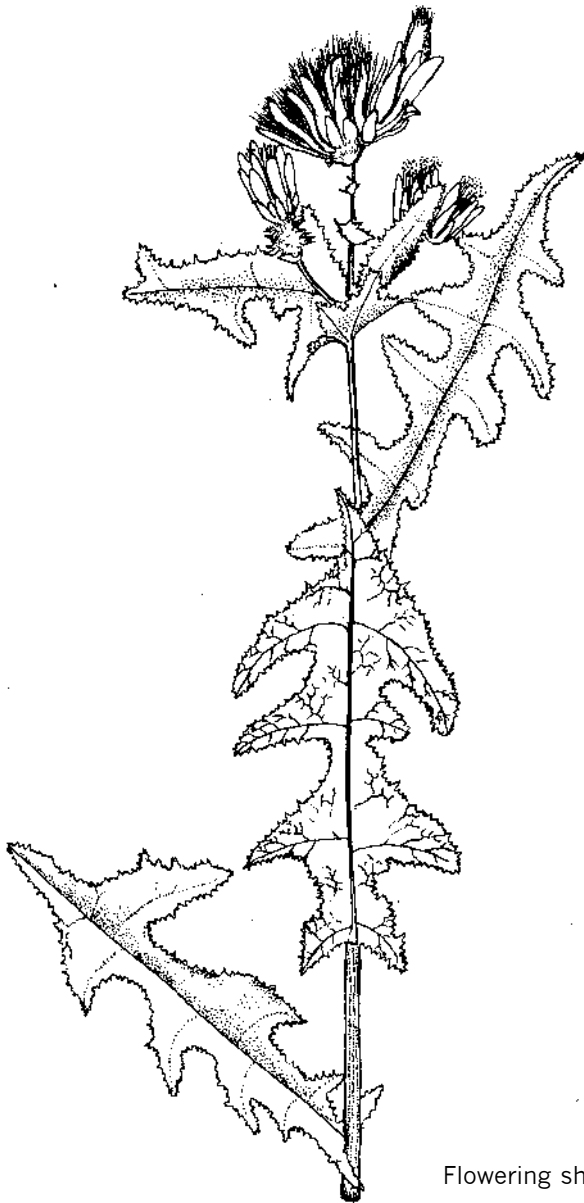
MANAGEMENT: Collected from the wild, not cultivated but can be propagated by seed.

STATUS: Locally very common.



*Sonchus luxurians*

Compositae



Flowering shoot

***Sorghum purpureo-sericeum***      **Poaceae (Graminae)**

Indigenous

LOCAL NAMES: **English:** Wild sorghum; **Swahili:** Mtama mwitu.

DESCRIPTION: A robust annual grass, the main stalks up to 2 m, the nodes between stem sections “bearded”, white hairy. LEAVES: Blades to 50 cm long, 1 cm wide. FLOWERS: A branched panicle of glumes, more or less oblong, the primary branches whorled, simple, with fine stalks bearing the **dark paired spikelets, thin and pointed to 10 mm long**, the lower glume **shiny red-brown-black**, hairy or not, with **a stiff hair-like awn, bent and twisted**. FRUIT: Typical grass-like, smaller than rice grains.

ECOLOGY: Riverine or in lakeside sedimentary soils or black-cotton soil. Does well in lowland and medium-altitude areas, 500–1,500 m; rainfall 1,000–1,300 mm.

DISTRIBUTION: Found in western and northern areas of Tanzania, e.g. in Kigoma, Arusha and Rukwa Regions. Also in Uganda, Kenya, from West Africa to Sudan, Ethiopia and Somalia and south to Mozambique; also occurs in India.

USES:

**Food:**

The seed is eaten as a staple and tastes like rice. The heads are collected, threshed and winnowed and the seed boiled like rice or ground to flour. The flour is used to make *ugali*, which is then served with a sauce—beans, peas or beef. It is eaten during periods of food shortage.

**Commercial:** Not marketed.

**Other:** Dry stalks and leaves are used for fodder for livestock. Brooms are made from the heads. The stalks can also be used for building simple shelters.

SEASON: Collected in the dry season

STORAGE: Not stored.

MANAGEMENT: Collected from the wild and not cultivated or protected by local people. Regarded as a serious weed in farms and can easily be propagated by seed.

STATUS: Common and easily accessible within its area of distribution.

*Sorghum purpureo-sericeum*

Poaceae (Graminae)



One spikelet (enlarged)

*Sorindeia madagascariensis*

## Anacardiaceae

Indigenous

[Plate 4]

LOCAL NAMES: **Bende:** Muzingilizi; **Bondei:** Mkwingwina; **Chagga:** Mndaraho, Mgodá, Mgweda, Mng'wang'wa, Ngomighaa; **Digo:** Mkunguma; **Gorowa:** Msugwe; **Hehe:** Mpilipili; **Luguru:** Mhilihili, Mkungwina; **Matengo:** Msigisi; **Ngindo:** Mpilipili; Mdarako; **Pare:** Mkunguma; **Sambaa:** Luhagalanguku, Mkwingwina; **Swahili:** Mhilihili, Mkunguma, Mlakungu, Mpakasi, Mpilipili, Mpilipili doria, Mtikiza, Mtunguma; **Vidunda:** Msurupi; **Zaramo:** Mpilipili, **Zigua:** Chambula, Mkwingwina, Msungwi.

DESCRIPTION: An evergreen forest tree, 8–25 m, without hairs. BARK: Grey-brown, flaky. LEAVES: Compound, usually with **4 pairs of quite large alternate leaflets, plus one at the tip (7–13)**, on a grooved stalk to 30 cm, **lateral leaflets one-sided at the base**, all shortly stalked, tip blunt, rounded, edge wavy, varying in length 9–23 cm, lowest leaflets smallest. FLOWERS: **Bright yellow**, pink at the base, quite **small, in hanging branched heads 20–95 cm long**, usually from older branches below the leafy region, male and female flowers separate, calyx brown-red, petals to 4.5 mm. FRUIT: Oval, 1–2.5 cm long, in **drooping clusters**, green ripening **bright yellow, sharply tipped**, containing a seed about 1 cm in soft edible pulp.

ECOLOGY: Found in riverine, coastal and upland forest, often in wet or seasonally flooded places, 0–1,800 m.

DISTRIBUTION: Found in all parts of Tanzania except in the west; also in Kenya, south to Malawi and on Madagascar and the Mascarene Islands.

USES:

**Food:**

- Ripe fruits are collected from the tree and eaten raw as a snack. They are sweet but slightly acidic and are much eaten by people of all ages.
- Ripe fruits are soaked in warm water, squeezed and filtered. Sugar is added and the juice is drunk before or after being cooled.

**Medicinal:** Roots are used by the Sambaa for treatment of tuberculosis, schistosomiasis and menstrual problems.

**Commercial:** Fruits are sold in local markets (Chagga, Sambaa, Luguru).

**Other:** The tree is good for firewood and the wood produces good timber for furniture, doors, spoons, milk pots, grain mortars, tool handles, canoe paddles, pestles and carvings. The tree is good for shade and is a source of bee forage.

SEASON: Fruits are available from September to January in Kilimanjaro Region but only from September to October in Morogoro and Iringa Regions.

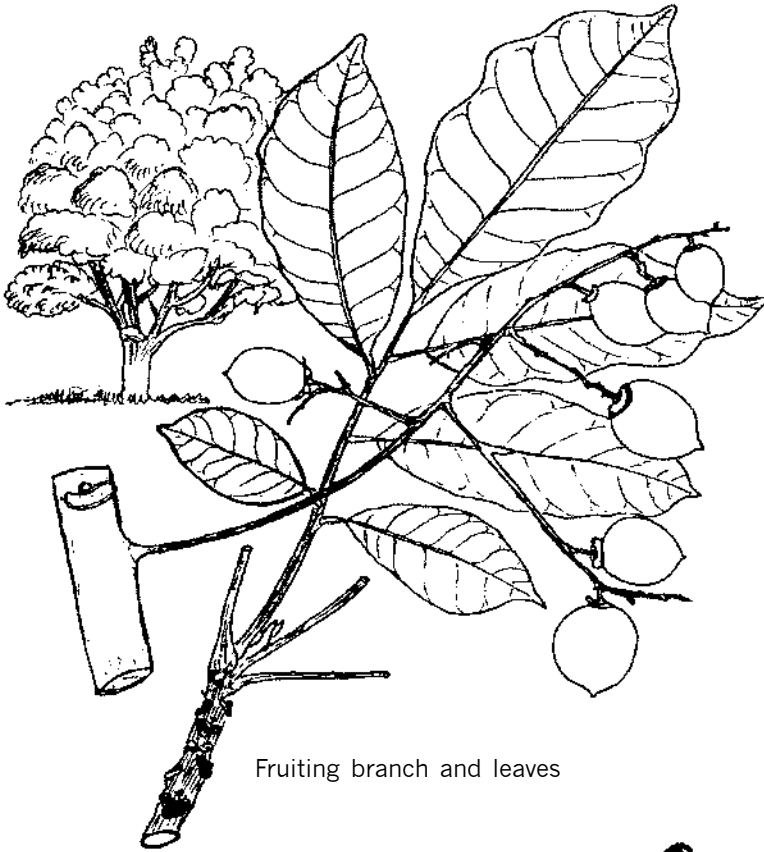
STORAGE: Not stored.

MANAGEMENT: Usually collected from the wild, but sometimes retained on farms during land preparation. It can easily be propagated by fresh seed.

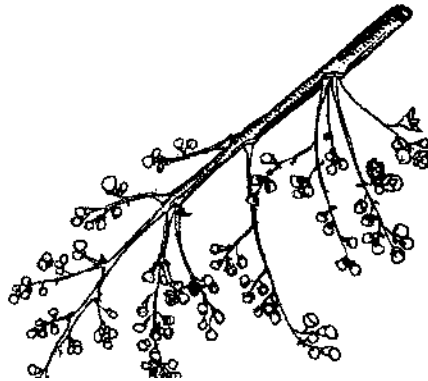
*Sorindeia madagascariensis* (contd) Anacardiaceae

STATUS: Locally common and easily accessible within its area of distribution.

REMARKS: One of the best wild fruit trees and suitable for agroforestry.



Fruiting branch and leaves



Flowering branch

*Stachytarpheta jamaicensis*

## Verbenaceae

West Indies

LOCAL NAMES: **Swahili:** Kikwayakwaya.

**DESCRIPTION:** A perennial plant of erect habit up to 1 m, well branched, woody at the base, young shoots rather hairy and purplish. **LEAVES:** Oblong to long oval, 2–11 cm long, **blunt at the tip**, the edges coarsely **toothed, shallow** (the **points one-sided**), the base narrowed to a stalk about 1 cm. **FLOWERS:** In terminal spikes, a conspicuous pale blue–deep blue–purple, the **narrow spike 14–45 cm, without hairs**, many narrow pointed bracts, stalkless flowers, the **corolla tube about 1 cm**, slightly curved, **the flowers lie in depressions along the stalk**; only 2 fertile stamens. **FRUIT:** Stays inside the calyx, 4 mm long and splits into 2 1-seeded sections with linear seeds.

**ECOLOGY:** A plant confined to coastal areas near sea level; a common weed in Zanzibar occurring in pure stands over large areas, often a weed of coconut plantations but also troublesome in shambas; sometimes planted as a hedge.

**DISTRIBUTION:** Coastal areas of Tanzania, including Zanzibar and Pemba. Introduced and naturalized in many parts of Africa, Asia, Australia and Oceania.

**USES:**

**Food:**

Green leaves are chopped and cooked alone or mixed with other vegetables. Coconut milk or pounded groundnuts are added. The vegetable is then served with *ugali* or rice.

**Medicinal:** Leaves are pounded, soaked in cold water and the infusion used as a remedy for headache (Digo, Bondei).

**Commercial:** Not marketed.

**Other:** The plant is used for hedges and ornamental purposes and the flowers to make earrings.

**SEASON:** Leaves are collected during the rainy season.

**STORAGE:** Not stored.

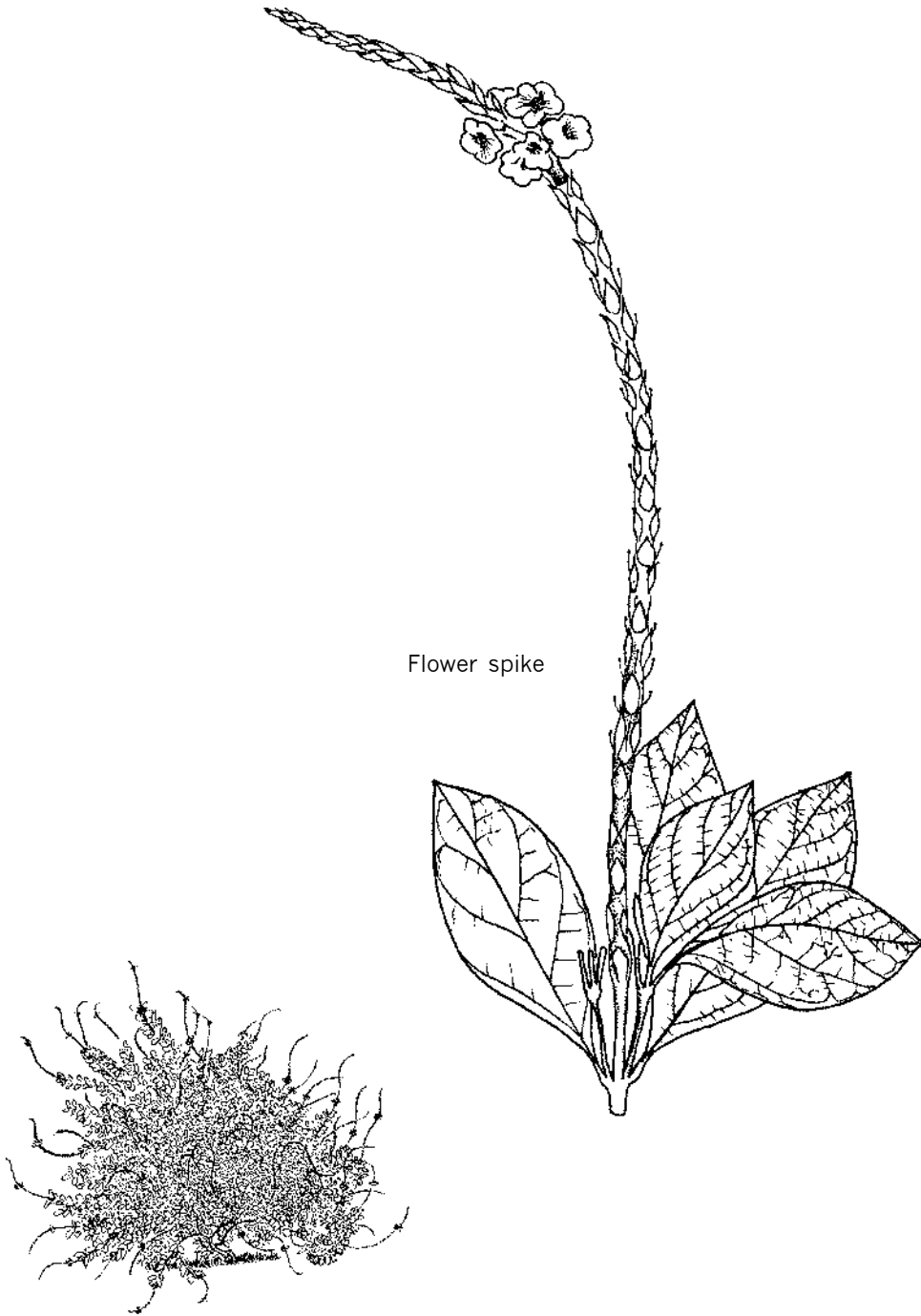
**MANAGEMENT:** Usually collected from the wild, but also from homestead compounds where it is grown as a hedge. It is easily propagated by seed.

**STATUS:** Locally common.

**REMARKS:** Regarded as a troublesome weed.

*Stachytarpheta jamaicensis*

Verbenaceae



*Sterculia africana*

## Sterculiaceae

Indigenous

LOCAL NAMES: **Bondei:** Mfunne; **English:** African star chestnut, Tick tree; **Gogo:** Mluze, Muluze; **Kaguru:** Moza; **Luguru:** Moza; **Ngindo:** Mtumbwi; **Nyamwezi:** Mhozya, Muhozya; **Sambaa:** Mfunne; **Sandawi:** Tlágwa; **Sukuma:** Mhoja; **Swahili:** Mboza, Moza, Mtakaa; **Zigua:** Mboza; **Zinza:** Mkorogomwa, Sagwia.

DESCRIPTION: A deciduous tree with a thick, fluted trunk, usually 5–12 m but may reach 25 m, the erect branches spreading to a rounded crown. Branches soft and brittle. **BARK: Smooth, often shiny white**, later flaking irregularly into patches to reveal a beautiful underbark purple-green-white-brown. **LEAVES:** Crowded at the tips of branches, **deeply divided with 3–5 lobes**, over 10 cm across, on a **stalk to 10 cm, lobes pointed**. **FLOWERS:** Appear on the bare tree, sexes separate on the same tree, in branched heads to 9 cm, **green-yellow sepals** (no petals) joined together, **2.5 cm across with red honey-guide lines within**. **FRUIT: 1–5 woody beaked sections**, boat shaped, with short yellow hairs. One side only breaks open to free 3–10 flat, **blue-grey seeds** which hang like ticks around the open edge.

ECOLOGY: A tree commonly found at low altitudes in hot dry areas, on rocky hills or the fringes of woodlands, usually below 600 m.

DISTRIBUTION: A tree found in all parts of Tanzania, including Zanzibar and Mafia Islands but not in the northern hills. Also in Kenya, Somalia, Ethiopia, Eritrea, south to Zambia and Mozambique.

USES:

**Food:**

Seeds are collected, pounded and then sieved. The resulting flour is cooked with vegetables such as peas or amaranth as a substitute for pounded groundnuts or cooking fat.

**Medicinal:** Leaves and bark are boiled and the decoction inhaled to treat fever and influenza. The infusion from the bark is used as a remedy for mental disorders and snakebite (Gogo, Nyamwezi).

**Commercial:** Not marketed.

**Other:** The bark produces a fibre, which is used to make ropes and mats.

SEASON: Seeds are collected during the dry season, i.e. July–December.

STORAGE: Seeds can be stored for several months.

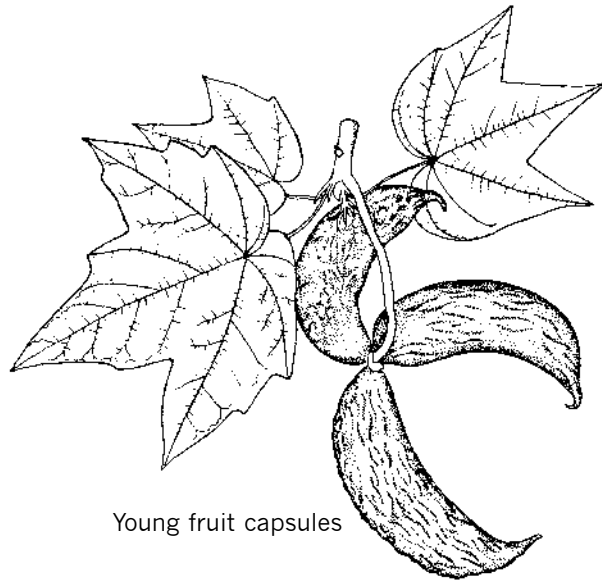
MANAGEMENT: Collected from the wild, not cultivated, but can be propagated by seed.

STATUS: Locally common and easily accessible within its area of distribution.



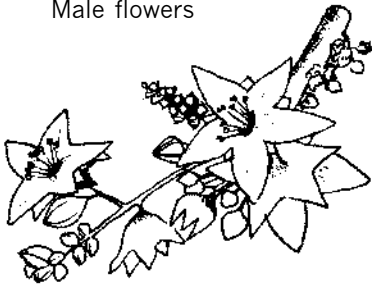
*Sterculia africana*

Sterculiaceae



Young fruit capsules

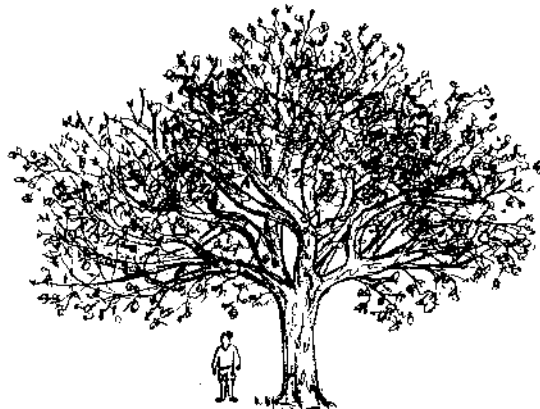
Male flowers



Open mature capsule with seeds



One female flower enlarged



*Sterculia appendiculata*

## Sterculiaceae

Indigenous

LOCAL NAMES: **English:** Tall sterculia; **Luguru:** Mfune, Mgude; **Mwera:** Mjale; **Ngindo:** Mkunya; **Nguu:** Mfune, Mgude; **Pare:** Mfune; **Sambaa:** Mfune; **Swahili:** Mfune, Mgude; **Zigua:** Mfune, Mgude, Mharata-nyani.

DESCRIPTION: A **tall, straight** deciduous tree **up to 40 m high with a dense rounded crown**. Trees have a clear bole 15–20 m and often emerge above the surrounding woodland. **BARK: Pale yellow**, smooth, conspicuous and powdery. Branchlets have dense rusty yellow hairs. **LEAVES:** At the end of branches, **large, 14–30 cm across, the leaf blade divided into 3–7 lobes. Young leaves usually densely woolly with rusty hairs**, lost at maturity. Leaf stalks **over 6 cm, hairy at first**. **FLOWERS: Green-yellow-brown, to 2.8 cm** across, in hairy few-flowered **spray to 12 cm**, before leaves. **FRUIT:** Made up of **2–3 sections**, each to 9 cm, covered with **soft brown hairs** on the outside. When opened, **seeds line the edges, each 2 cm long, brown with a soft yellow aril at the base**.

ECOLOGY: A tree of coastal and riverine forests, coastal bushland and woodland at low altitudes, 0–600 m.

DISTRIBUTION: Found in all coastal areas of Tanzania, and on Zanzibar, e.g. around Tamoto-Handeni, Mtibwa and Kwamsambia Forest Reserves and in Longuza Forest. Also in Kenya, Malawi, Mozambique.

USES:

**Food:**

Seeds are collected from the ground, roasted and eaten whole or roasted, pounded and cooked with vegetables as a substitute for groundnuts or cooking fat.

**Medicinal:**

- A decoction of the bark and leaves is taken as a remedy for convulsions, paralysis and impotence.
- A decoction from the roots is used to treat bilharzia and preventing miscarriage in pregnant women (Bondei, Sambaa, Zigua).

**Commercial:** Not marketed.

**Other:** The wood is soft, white and used for plywood. The tree is good for shade and as an avenue.

SEASON: Seeds are collected from August to September.

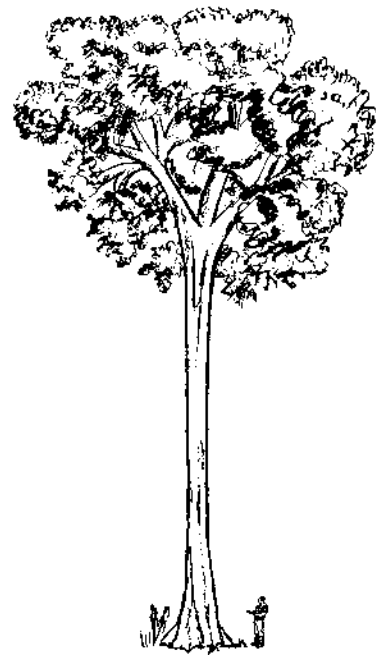
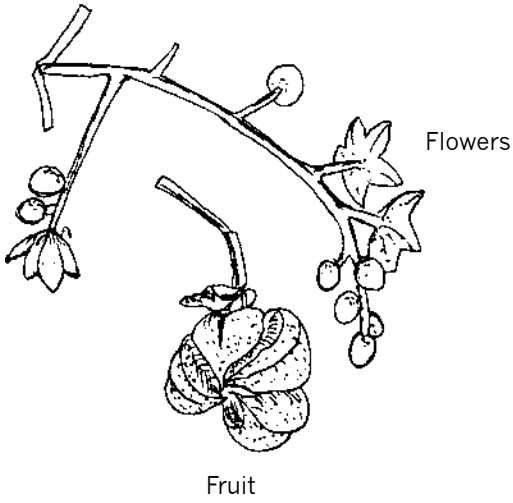
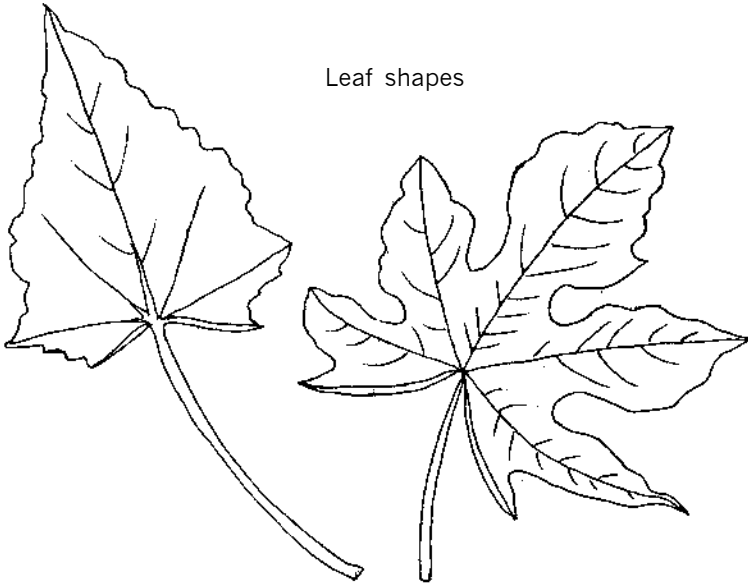
STORAGE: Seeds can be stored for several weeks.

MANAGEMENT: Only collected from the wild, but the species can be propagated by fresh seed.

STATUS: Locally common and easily accessible within its area of distribution.

*Sterculia appendiculata*

Sterculiaceae



*Sterculia tragacantha*

## Sterculiaceae

Indigenous

LOCAL NAMES: **English:** African tragacanth, Parasol tree; **Sambaa:** Lufifia; **Tongwe:** Kakubabolo, Mkubukubu.

DESCRIPTION: A **massive deciduous tree which can reach 24 m**, the trunk sometimes buttressed, but **a long cylindrical bole to an oblong deep crown, not spreading**, the bole more than 1 m across and branching only near the top. Young shoots with dense star-shaped hairs. BARK: Young saplings fine grey with squared markings, later **corky, deeply fissured** into diamond-shaped patterns, even on smaller branches, large oblong woody scales flake off. LEAVES: **Simple**, alternate, very variable, **15–20 cm long and oval**, often with a pointed tip, waxy green at first becoming leathery, **smooth and shiny above**, but **yellow-red hairs below**, edge rolled under, base rounded to a **brown hairy stalk**, about 3 cm. FLOWERS: Buds in a cone-like structure which opens out on the leafless tree at ends of branches into **conspicuous loose red-purple-pink heads**, stalks 15–20 cm, with brown star-like hairs, male and female flowers on the same tree, no petals but **5 coloured sepals remain attached by their tips**. FRUIT: A **group of woody follicles**, beaked at the tip, shortly hairy, the follicles stick up from the ends of branches (as do buds and flowers), green at first, then red-brown, finally grey-brown, **splitting while on the tree along the upper side to expose 8 grey-blue seeds around the edge of the woody “bowl”**; inside, the carpels are yellow and silky.

ECOLOGY: A tree of swamp and riverside forests, gallery forests, stream-side remnants, occasional in dry mixed forest or on lake shores.

DISTRIBUTION: A tree of western Tanzania, recorded, for example, in Kagera, Kigoma and Rukwa Regions; also in Central, West and southern Africa.

USES:

**Food:**

Seeds are roasted and eaten whole like peanuts, or roasted, pounded and cooked with vegetables such as peas or pumpkins.

**Commercial:** Not marketed.

**Other:** The bark is used for fibre. Gum, sapwood and other parts of the tree are eaten by chimpanzees.

SEASON: Seeds are collected during the dry season.

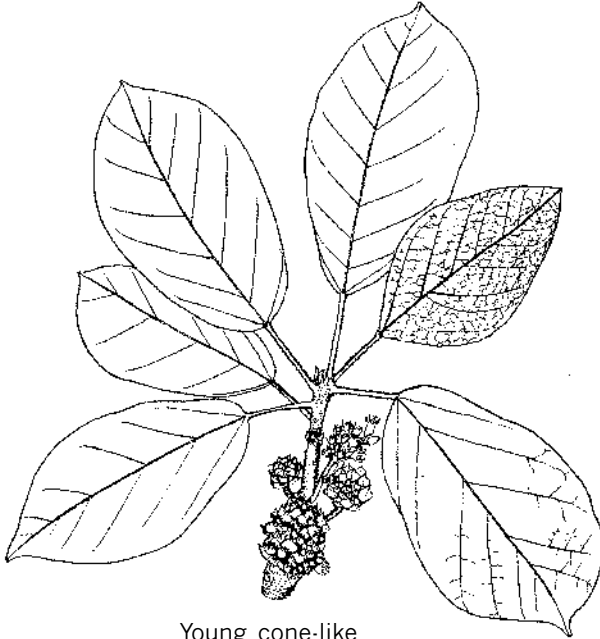
STORAGE: Seeds can be stored for several weeks.

MANAGEMENT: Collected from the wild, not cultivated. It can be propagated from seed.

STATUS: Occasional within its area of distribution.

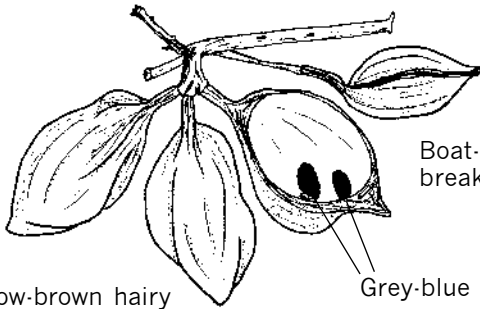
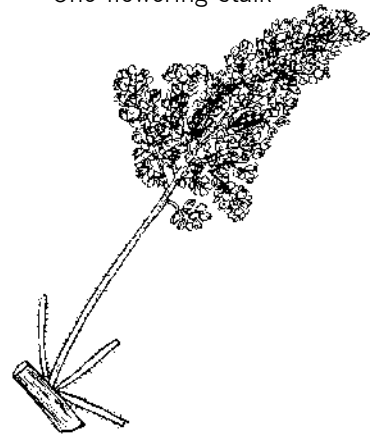
*Sterculia tragacantha*

Sterculiaceae



Young cone-like  
flower heads

One flowering stalk



Yellow-brown hairy  
follicles

Boat-shaped fruit  
break open

Grey-blue seeds

*Sterculia tragacantha* (contd)

## Sterculiaceae

REMARKS: Some other *Sterculia* species have edible seed:

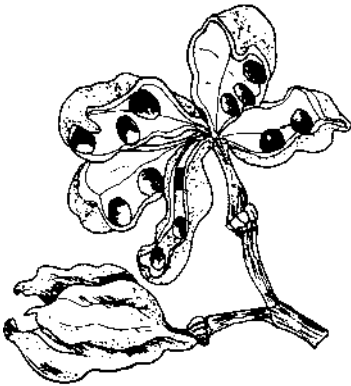
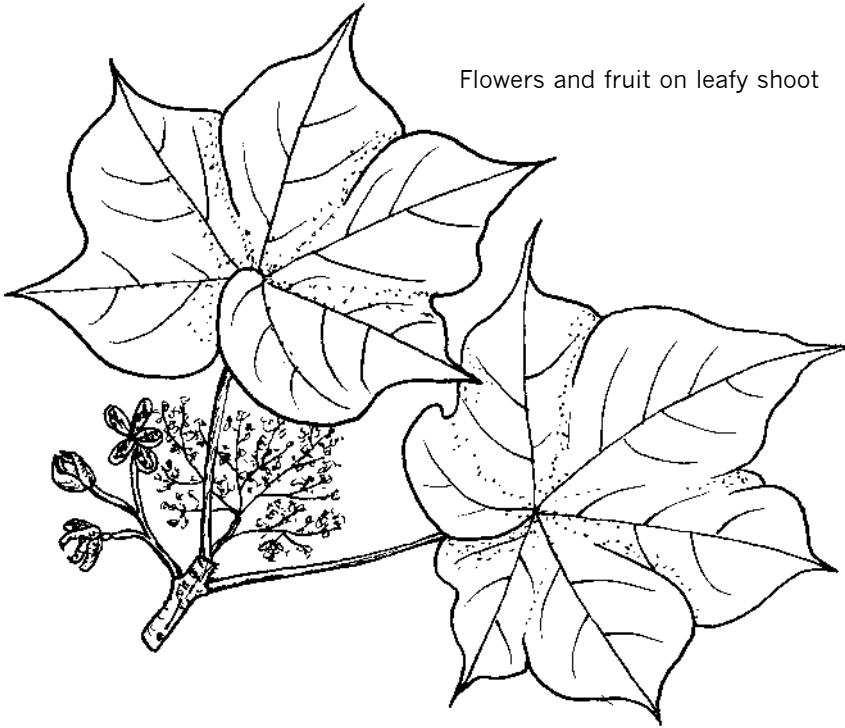
1. *S. mhosya* (**Gogo**: Muluze; **Nyamwezi**: Muhozya; **Rangi**: Ibuibui, Msusulavana; **Sukuma**: Mhoja; **Swahili**: Moza) a shrub or small tree up to 7 m high with palmate leaves, large pods and small black seeds;
2. *S. rhynchocarpa* (**Pare**: Mnoja; **Sambaa**: Moza) a small, much-branched tree to 8 m with small palmate leaves and hairy pods occurring only in the Same area;
3. *S. quinqueloba* (**English**: Egyptian plane tree, Large-leaved star chestnut, Large-leaved sterculia; **Fipa**: Mkungulanga, Mpelemusi, Msaguye; **Gogo**: Muluze; **Hehe**: Mkwelangedege; **Kaguru**: Muhembeti; **Kimbu**: Msavala; **Luguru**: Muhembeti, Mhembeti; **Nyamwezi**: Mguwa, Mkungulanga; **Rangi**: Ibuibui; **Sambaa**: Muhembeti; **Sangu**: Mkwelangedege, Mwingirangedege; **Sukuma**: Muhoja; **Swahili**: Mbalamwezi, Mkwera nyani; **Zaramo**: Moza; **Zigua**: Mhembeti; **Zinza**: Muhembeti) a large timber tree up to 22 m with large palmate leaves, white bark and small black fruit. It is found in Tanga, Morogoro, Shinyanga and Tabora and southwards to Mtwara Region. It is also found in Malawi, Mozambique, Zambia and Zimbabwe.

*Sterculia tragacantha* (contd)

Sterculiaceae

*S. quinqueloba*

Flowers and fruit on leafy shoot



Mature fruit capsules  
open to release 2-3 seeds



*Strychnos cocculoides*

## Loganiaceae

Indigenous

[Plate 4]

LOCAL NAMES: **Bena:** Linyowa; **English:** Corky bark strychnos, Monkey orange; **Hehe:** Mnywewa; **Matengo:** Lidongansanga, Litongawai, Mdonga, Mtongawali; **Nyamwezi:** M'milwa, Mtonga, Mumilwa; **Swahili:** Mpera mwitu, Mtonga; **Tongwe:** Libwaje, Lifumbu; **Ngindo:** Mtongatonga.

DESCRIPTION: A semi-deciduous shrub or small tree, 3–8 m, branches spreading to a rounded crown. BARK: Thick, ridged and **corky, brown**. Branchlets hairy, purple, with **strong paired spines**, curved, **1 cm or more**. LEAVES: **Oval to circular, to 5 cm long**, shiny above, dull below, 5 veins from the base. FLOWERS: Small green-white, in dense heads about 3 cm in diameter. FRUIT: Round, hard, woody, about 7 cm in diameter, dark green, speckled with white when young, becoming yellow when ripe, containing a juicy pulp and many seeds. Fruit may take a year to mature.

ECOLOGY: It grows naturally in *Brachystegia* and deciduous woodlands, often on sand, especially on rocky hills, 0–2,000 m in drier parts of central and southern Africa.

DISTRIBUTION: In Tanzania it is found, for example, in Tabora, Dodoma, Iringa, Mbeya and Lindi Regions. Its distribution extends west to Angola and south to South Africa.

USES:

**Food:**

- Fruits are edible. The fruit which has a juicy pulp is broken in half and the sweet rather acidic pulp eaten raw. Seeds may be swallowed or discarded.
- A refreshing juice is made by soaking the pulp in water and adding sugar.

**Medicinal:**

- Leaves are pounded and applied on sores.
- Roots are pounded and boiled and the decoction used to treat STDs and stomach disorders.

**Commercial:** Sold in rural and urban markets (Nyamwezi, Hehe). Also exported to Malawi, Mozambique, Zimbabwe, Zambia and South Africa.

**Other:** The wood is used for building poles and firewood.

SEASON: Ripe fruits are collected from June to August in Tabora, Kigoma, Dodoma, Songea, Singida and Lindi Regions; July–December in the highlands of Iringa and Mbeya Regions.

STORAGE: Ripe fruits can be stored in the shade for about two weeks.

MANAGEMENT: Usually collected from the wild, but also retained in farms. Can be propagated by seed.

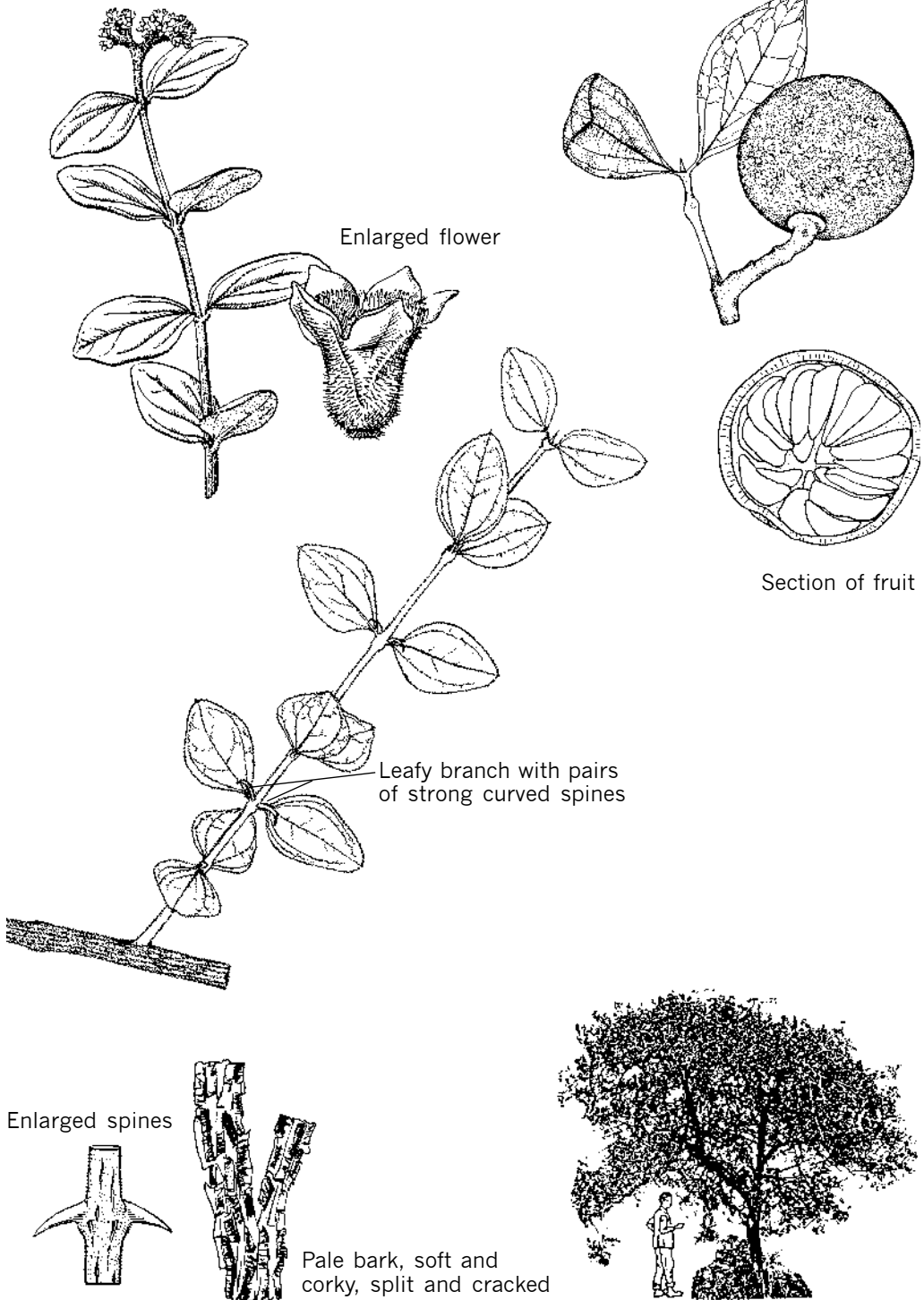
STATUS: Scattered within its area of distribution.

REMARKS: One of the most important wild fruit trees in Tanzania.



*Strychnos cocculoides*

Loganiaceae



*Strychnos innocua*

## Loganiaceae

Indigenous

LOCAL NAMES: **Bena:** Mng'ulung'ulu; **Bende:** Bunkundu; **Bondei:** Mkwakwa, Mtonga; **Digo:** Mkwakwa, Mtonga; **English:** Dull-leaved strychnos; **Gogo:** Mnhulwa; **Gorowa:** Furudou; **Ha:** Umuhongo kome; **Hehe:** Mbaya; **Kuria:** Msege; **Maasai:** Endugai; **Matengo:** Lugulanguha, Madonga, Mangurungundu, Mdonga; **Mwera:** Mgulungulu; **Ndendeule:** Mambuha; **Ngoni:** Madonga choyo, Mchenga; **Nyamwezi:** Mkulwa, Mpundu, Mumundu, Mumpundu; **Nyaturu:** Mkulungundu; **Rangi:** Mukomu; **Sandawi:** E'kegheke, Gheke; **Sambaa:** Mtanga; **Sandawi:** G/.éke; **Swahili:** Mkwakwa, Mgulungulu, Mtonga; **Tongwe:** Kankundu; **Yao:** Mngulungulu; **Zigua:** Mkwakwa, Mtonga; **Zinza:** Mkome, Mkwata.

DESCRIPTION: A shrub or small straight-stemmed tree, usually 3–6 m, **without spines**; branches often twisted and branchlets hang down. Four varieties, all in Tanzania, with differences in leaf hairiness and venation. BARK: Pale grey, smooth. Branchlets powdery grey-green to yellow-brown. LEAVES: In opposite pairs, widely spaced, tough, **dull blue-green**, with **3–5 main veins** and **clear net veining, both sides similar**, oblong but **wider at the rounded tip**, 4–10 cm long. FLOWERS: 8 mm long, green-cream, **2–4 in stalked clusters beside leaves, calyx shorter than petals**, a ring of **white hairs in the throat**. FRUIT: Round, with a thick **woody shell**, about **5–7 cm** across, blue-green, ripening **yellow-orange**, containing **many seeds** in pulp.

ECOLOGY: Deciduous woodland, 0-1,400 m. Sometimes on rocky hills or in moist savanna woodland, *Brachystegia* woodland, more often in coastal lowlands.

DISTRIBUTION: Widespread in Tanzania, including Zanzibar Island. Also in Uganda, Kenya; Sudan to West Africa and south to Zambia and Angola.

USES:

**Food:**

The hard woody fruit case is cracked open to expose the yellow seed aril, which is eaten. The seeds are discarded. The aril tastes sweet and is eaten as a substitute for other fruits, especially by children and hunters. Eaten as a snack. If eaten in large amounts it causes stomach upsets due to the strychnine content.

**Medicinal:**

- Roots are boiled and the decoction used as an aphrodisiac and to treat STDs.
- Pounded roots are used to treat snakebite.
- An infusion from bark and twigs is drunk by pregnant women to put the baby in the right position and to ease childbirth.

**Commercial:** Sold in local markets.

**Other:** The wood is used for firewood, building poles and tool handles. Small branches are used for toothbrushes and toothpicks. The tree is used for shade and is a source of bee forage.

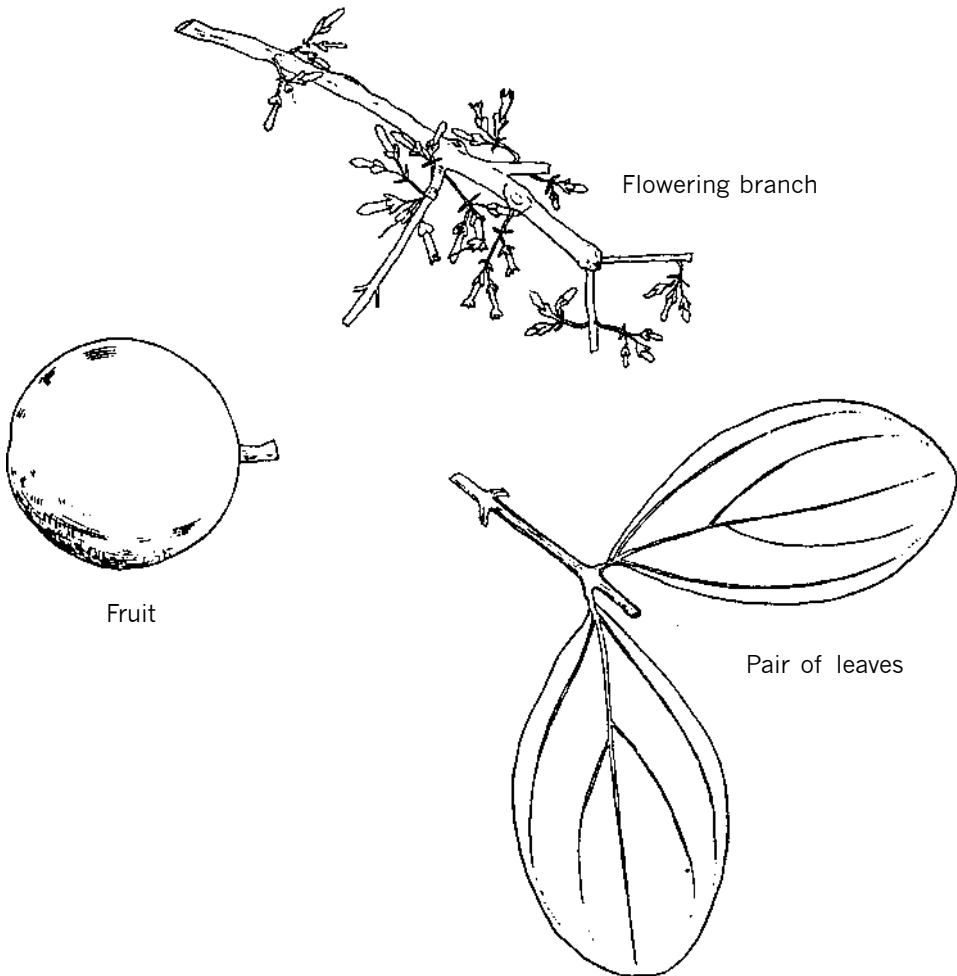
***Strychnos innocua* (contd)****Loganiaceae**

SEASON: Collected in the dry season, August–December.

STORAGE: Not stored.

MANAGEMENT: Collected from the wild and not protected or cultivated by local people. Can be propagated using fresh seed.

STATUS: Common and easily accessible within its area of distribution.



*Strychnos madagascariensis*  
(*S. dysophylla*)

Loganiaceae

Indigenous

LOCAL NAMES: **Digo:** Muhonga, Musikiro; **English:** Spineless monkey orange; **Gogo:** Mnhulwa; **Ha:** Umuhongo; **Sambaa:** Mkangala; **Swahili:** Mkwakwa, Mtonga.

DESCRIPTION: A shrub or small tree, usually deciduous, 2–12 m, often multi-stemmed to a flat **densely twiggy crown**. BARK: Pale grey, smooth or grooved, no spines but often **hard, knobby side shoots, 1–3 cm, give the impression of thorns**, grey–dark brown branchlets, sometimes hairy, covered with pale breathing pores. LEAVES: **Simple, opposite, 2–10 cm**, oval to circular, **shiny dark green above, much paler below**, thin or leathery, 3–5 clear veins from the base, **outer veins running parallel to the leaf edge**, tip usually rounded, base narrowed, almost stalkless. FLOWERS: **Small, 5 mm, yellow-green, 1–4 flowers on short stalks from leaf axils, 4 rounded calyx lobes**, hairs in the corolla throat. FRUIT: **Round berries 2.5–7 cm diameter, blue-green or mottled green when young, ripening yellow with a thick woody shell**, remaining on the tree long after leaf fall, containing 7–12 thick angular seeds in edible pulp.

ECOLOGY: Subsp. *dysophylla* is found in deciduous bushland and woodland, 900–1,500 m. Subsp. *engleri* occurs at 0–500 m in similar habitats.

DISTRIBUTION: Subsp. *engleri* is only found in Tanga Region, while subsp. *dysophylla* is widespread in Tanzania; also Mozambique south to South Africa.

USES:

**Food:**

The orange pulp in the fruit is edible.

**Commercial:** Sold in local markets.

**Other:** The wood is used for construction of local houses, firewood, tool handles, woven doors, storage containers and spoons. A decoction of the leaves is used to treat cattle and goat diseases.

SEASON: Fruits are collected from June to August.

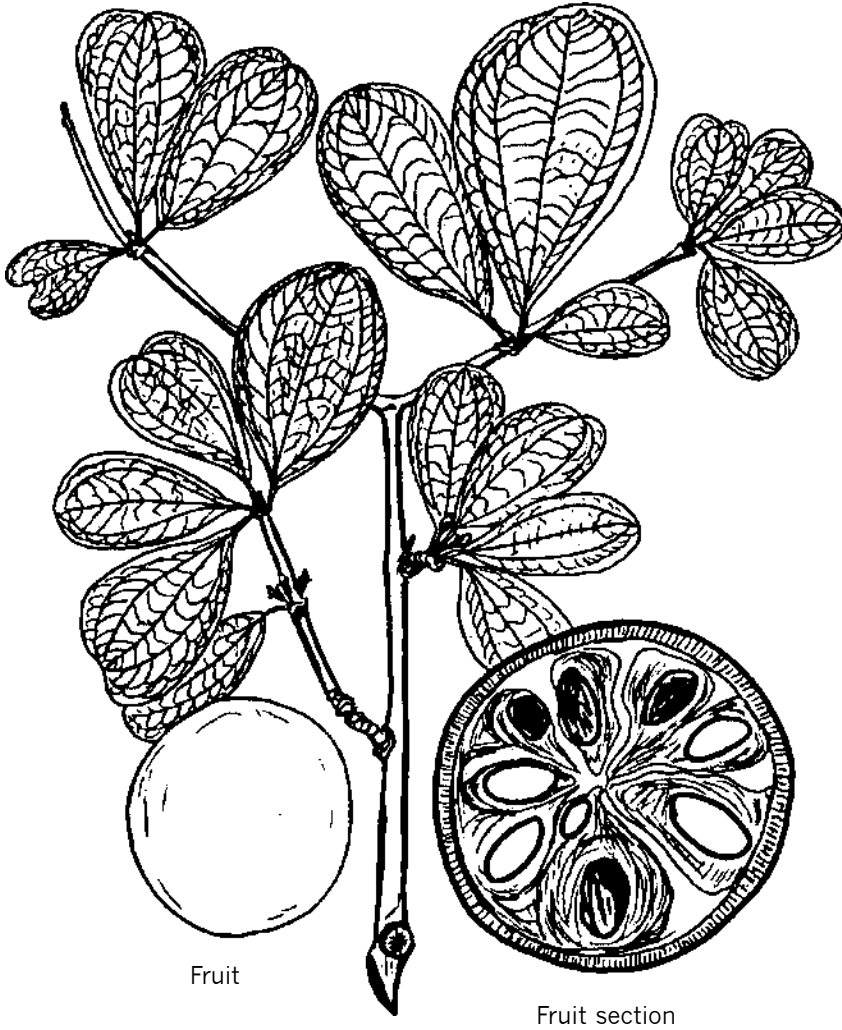
STORAGE: Ripe fruits can be kept in the shade for about two weeks.

MANAGEMENT: Collected from the wild, but can be propagated by seed.

STATUS: Scattered locally within its area of distribution.

*Strychnos madagascariensis*  
(*S. dysophylla*)

Loganiaceae



*Strychnos spinosa* subsp. *lokua*

## Loganiaceae

Indigenous

[Plate 4]

LOCAL NAMES: **Bondei:** Mtonga; **Digo:** Mtonga; **Gorowa:** Khkokhoi; **English:** Spiny monkey orange; **Fiome:** Amafughun; **Fipa:** Mtonga; **Hehe:** Mtangadasi; **Iraqw:** Khkokhoi; **Matengo:** Lidonga kikumba, Limbua, Mdonga, Mungulungu; **Ndendeule:** Mambuha; **Ngoni:** Chikumba, Madonga; **Nyamwezi:** Mwage; **Nyaturu:** Mkulungundu; **Pare:** Mshegheshe; **Rangi:** Mkambaiwe, Msumbaive, Mukomu; **Sambaa:** Mtonga; **Sangu:** Mtangadas; **Swahili:** Mkwakwa, Mpapa, Mtonga; **Zaramo:** Mtonga; **Zigua:** Mkwakwa.

DESCRIPTION: A thorny semi-deciduous tree, often multi-stemmed, 2–5 m, up to 9 m, crown rounded. **Young branchlets pale, surface powdery** (not shiny), older branchlets becoming corky, spines fairly **stout, curved**, black tipped, usually **in pairs along branches**. LEAVES: **Opposite, oval to round, to 10 cm, stiff**, shiny green, edge wavy, **3–5 veins from the base, the vein network conspicuous**, usually without hairs, but sometimes hair pockets (domatia) in the angles between lateral veins and the midrib. FLOWERS: Small, **cream-green-white**, in bunches at the ends of branches. FRUIT: **Round and woody**, green, turning **yellow-brown when ripe, to 12 cm across**, conspicuous and hanging many months on the tree. Up to 100 flat seeds lie in **juicy rather acid but edible flesh**.

ECOLOGY: Grows in a wide variety of dry woodland, thickets and savanna woodland, frequently on sandy loams of river banks, 400–2,200 m; rainfall 1,100–1,500 mm.

DISTRIBUTION: Widespread in Tanzania, e.g. in Tanga, Lindi and Kagera Regions. Also in Uganda and Kenya, and from Gambia east to Sudan, south to South Africa.

USES:

**Food:**

Ripe yellow fruits are collected from the ground or from the tree, the hard shell is cracked open, the sweet rather acid pulp eaten and the seed discarded.

**Medicinal:** A decoction from the root is used as a remedy for STDs, intestinal worms, earache and colds.

**Commercial:** Not marketed.

**Other:** The wood is used for firewood, building poles, tool handles, bedsteads and spoons.

SEASON: Fruits are collected at the end of the rainy season and into the early dry season.

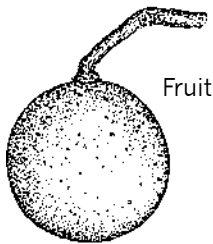
STORAGE: Not stored.

MANAGEMENT: It is collected from the wild and not protected or cultivated by local people, but can easily be propagated by seed.

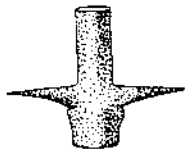
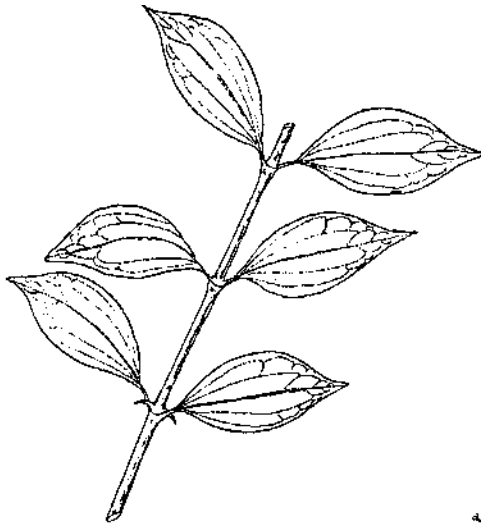
*Strychnos spinosa* subsp. *lokua* (contd) Loganiaceae

STATUS: Common and easily accessible within its area of distribution.

REMARKS: Another species, *S. pungens* (**Bena:** Litangadasi; **Hehe:** Mbaya, Mtangadasi; **English:** Spiny-leaved monkey orange; **Nyamwezi:** Mhandagi, Mkome; **Swahili:** Mtonga), is also edible but only very ripe fruits are eaten and only in small quantities. A small tree up to 4 m high with spiny-tipped leaves and large yellow fruits when ripe, it is found in miombo woodland from Tanzania southwards to South Africa. A decoction of roots is used as a remedy for stomach-ache and bronchitis, and an infusion from the leaves as a lotion for sore eyes. The wood is used for firewood. Seeds are known to be poisonous. [Plate 4]

*S. spinosa*

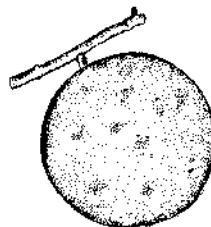
Fruit



Enlarged spines



One enlarged flower

*S. pungens*

*Synaptolepis alternifolia*

## Thymelaeaceae

Indigenous

LOCAL NAMES: **Matengo:** Ntongotongo-lya-huluka, Nzukumbi; **Sambaa:** Kwavi; **Swahili:** Mbibikiu, Mkatu; **Yao:** Ntongotongo lya huluka, Nzukumbi; **Zaramo:** Kiga-nungu.

DESCRIPTION: A shrub or woody climber to 10 m, with slender hairless branches. **BARK:** Red-brown or black with clear breathing pores. **LEAVES:** Alternate or opposite, narrow oval leaves to 4.5 cm long, the tip often pointed, base narrowed to a 3 mm stalk, no hairs, sometimes wavy. **FLOWERS:** White-cream-pale yellow in **terminal heads**, the calyx tube up to 1.8 cm, with 5 small lobes, **the petals with stiff hairs to 0.5 mm, the ovary with hairs at the base.** (*S. kirkii* has no hairs.) **FRUIT:** Yellow-red-orange berries included in the persistent calyx base, oval, 1.2–2.3 cm long.

ECOLOGY: Riverine forest and thickets, *Brachystegia* woodland, secondary bushland and wooded grassland, 0–1,100 m.

DISTRIBUTION: Found in the eastern part of Tanzania from Tanga to Mtwara Regions. Also in Kenya, Malawi, Mozambique and Zimbabwe.

USES:

**Food:**

The pulp of ripe fruit is sweet and eaten raw as a snack and the seed is discarded. It is picked from the plant in handfuls and eaten fresh, especially by children and forest workers.

**Medicinal:** Roots are chewed and the juice swallowed as a remedy for stomach-ache and snakebite.

**Commercial:** Not marketed.

**Other:** The plant is used for constructing granaries and for withies in house construction.

SEASON: Fruits are collected during the rainy season.

STORAGE: Not stored.

MANAGEMENT: Collected from the wild and is not planted. Propagation can be done using seeds.

STATUS: Occasional within its area of distribution.



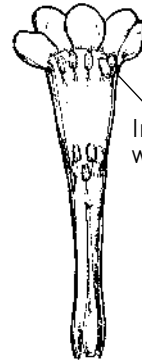
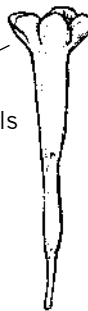
*Synaptolepis alternifolia*

Thymelaeaceae



Flowering branch

5 petal-like sepals



Inner ring of 5 petals with stiff hairs

Flower and section

*Synaptolepis kirkii*

## Thymelaeaceae

Indigenous

LOCAL NAMES: **Digo:** Mjirambiri, Munjirembiri, Muzanira-kuzimu; **Ngindo:** Lukubi wa msitu; **Swahili:** Mbibikiu, Mfungu waume, Mkatu.

DESCRIPTION: A small shrub, **usually a climber, up to 4 m**, the **branches twining** around other plants, stems arising from tuberous swollen roots. **BARK:** Black with numerous lighter breathing pores, young shoots sometimes glandular. **LEAVES:** **Opposite, ovate**, tip pointed, 2–4.5 cm long, base rounded to a short stalk, **stiff and hairless**, the lateral **nerves clearly parallel**. **FLOWERS:** **White-cream, sweet scented at night**, one or more flowers in leaf axils, often **hanging down**, the calyx tubular with 5 lobes, coloured and petal-like, the 5 inner **petals very small and bearing tiny glands making a ring at the mouth of the tube**. **FRUIT:** Hairless berries, oval, about 1 cm long, orange when ripe, containing seed with a black lobe (caruncle) at one end.

ECOLOGY: A lowland tree of dry evergreen forest edges, *Brachystegia* woodland, coastal and secondary bushland or thicket, 0–900 m.

DISTRIBUTION: Found in the eastern part of Tanzania, including Zanzibar and Pemba. Also in coastal Kenya, Mozambique and South Africa.

USES:

**Food:**

The fruit pulp is fleshy, sweet and eaten raw as a snack.

**Medicinal:** A root decoction is used as a remedy for snakebite, impotence and vomiting. It is also used as a charm for success in business and love affairs (Zanzibar).

**Commercial:** Not marketed.

**Other:** The plant is used for ornamental purposes, and the stem can be used as a substitute for ropes.

SEASON: Ripe fruits are collected from March to May.

STORAGE: Not stored.

MANAGEMENT: Collected only from the wild, but can be propagated using fresh seed.

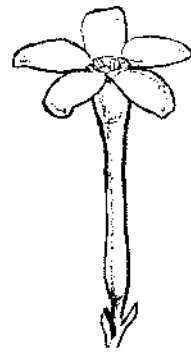
STATUS: Common within its area of distribution.

*Synaptolepis kirkii*

Thymelaeaceae



Flower



Fruit section



Enlarged seed



***Synsepalum brevipes***  
(*Pachystela brevipes*)

**Sapotaceae**

Indigenous

LOCAL NAME: **Luguru:** Msambwa; **Nguu:** Msambia; **Nyakyusa:** Ndobilobe; **Pare:** Mdu, Msambia; **Swahili:** Mchamvia, Mchocho jike, Msambia, Msamvia; **Zaramo:** Mgelezi, **Zinza:** Mkarati.

DESCRIPTION: A much-branched tree, 3–25 m, the bole often like a pillar and deeply fluted, slightly buttressed at the base, to a dense crown. Young shoots and leaf stalks with dense hairs. BARK: Grey, rough, breaking into rectangular scales, exuding white latex. LEAVES: Alternate, long oval, **wider at the tip, 9–20 cm long**, young leaves grey, hairy, narrowed to a 1-cm stalk. **A pair of 1-cm-long hair-like stipules** persist at the base of the leaf stalk. FLOWERS: Small and fragrant, **yellow-cream-green, in dense clusters on small cushions on bare branches**, below leaves. FRUIT: **Yellow-orange, long oval with a pointed tip and thick skin, 2.5 cm**, containing milky juice and white acid-sweet edible pulp. **The one seed is shiny brown with a large scar on one side.**

ECOLOGY: Grows in lowland rainforest and riverine forest, commonly found on river banks and margins of lakes or other sites with a permanently high water-table. Up to 1,500 m; rainfall 1,500–2,500 mm. Thrives in deep well-drained humus-rich sandy loams.

DISTRIBUTION: Absent from central and northern Tanzania but otherwise widespread, including Zanzibar and Pemba Islands. Also in Uganda, Kenya, throughout tropical Africa, West Africa to Sudan, south to Angola, Zambia, Malawi, Mozambique, Zimbabwe. Widespread and abundant in the shoreline forest of Lake Victoria.

USES:

**Food:**

- The ripe orange-brown fruit are collected from the tree and the pulp eaten. It is eaten very frequently as a snack.
- The ripe fruit are soaked in water, squeezed, filtered and sugar added to the juice, which is then drunk before or after cooling.

**Commercial:** Not marketed.

**Other:** The wood is hard and used for firewood, pestles, tool handles, charcoal and domestic utensils. The tree provides good shade.

SEASON: Ripe fruits are collected from October to February.

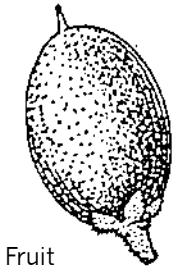
STORAGE: Not stored.

MANAGEMENT: Collected from the wild and not protected or cultivated by local people, but can be propagated by seed.

STATUS: Very common in most parts of Tanzania.

*Synsepalum brevipes*  
(*Pachystela brevipes*)

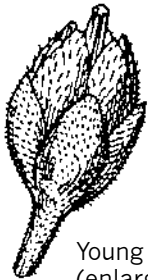
Sapotaceae



Fruit



Flowering branch



Young flower  
(enlarged)



Flower opened out (enlarged)

***Synsepalum msolo* (*Pachystela msolo*) Sapotaceae**

Indigenous

**[Plate 5]**

LOCAL NAME: **Luguru:** Mkumbulu, Msanyanzale, Msambwa; **Nguu:** Mnyohoyo, Msambwa; **Nyakyusa:** Ndobilobe; **Pare:** Mdu, Msambwa; **Sambaa:** Msambwa; **Swahili:** Mchocho dume, Msambwa, Msamvia; **Zaramo:** Mgelezi, **Zigua:** Mnyohoyo, Msambwa; **Zinza:** Mkarati.

DESCRIPTION: A medium to tall tree, usually 10–15 m but can reach 50 m. Young shoots with dense, flat hairs. **The bole is deeply fluted**, especially at the base, the canopy much branched and spreading. LEAVES: **Large, 10–35 cm x 4–14 cm wide**; wider at the tip, which may be sharp or rounded, the **leaf base obtuse or lobed** to a short, thick stalk, the lower surface may have silver grey flat hairs, 10–20 pairs lateral nerves, **a pair of narrow stipules to 15 mm**. FLOWERS: Green-white, fragrant, very small, clustered on small woody cushions on old wood, **stalks 4–6 mm**, 5 oval sepals, 6 mm, with orange hairs. FRUIT: **Rounded, dull yellow when ripe, 2.5 cm diameter**, a thin skin containing juicy flesh and one seed, to 1.8 cm, with a prominent scar.

ECOLOGY: A tree of lowland rainforest, extending into the lower fringes of upland rainforest, riverine forest, 100–1,400 m.

DISTRIBUTION: Widespread in Tanzania. From Ghana and Benin in the west and extending to Kenya and Tanzania in the east.

USES:

**Food:**

- The fruits are edible. Ripe fruits are fleshy, sweet and eaten raw as a snack, especially by children and herdsmen.
- The ripe fruit are soaked in water, squeezed, filtered and sugar added to the juice, which is then drunk before or after cooling.

**Commercial:** Not marketed.

**Other:** The wood is used for building poles, firewood, charcoal, tool handles, spoons and pestles. The tree provides good shade.

SEASON: Fruits are collected from December to April.

STORAGE: Not stored.

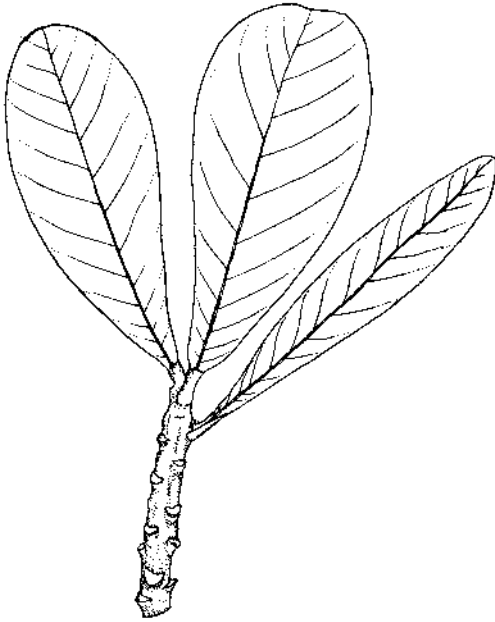
MANAGEMENT: Fruits are collected from the wild; the tree is not cultivated but can be propagated by seed.

STATUS: Relatively common within its area of distribution.

REMARKS: A related species, *S. ceraciferum* (*Afrosersalisia ceracifera*) (**Ha:** Luzu; **Luguru:** Mkumbulu, Msambwa; **Sambaa:** Muokoyo, Muyohoyo, Mohoyo; **Swahili:** Mchamvia; **Tongwe:** Mlyansekesi, Msakafya, Msankafya; **Zigua:** Mnyohoyo) also has edible fruit. It is a tree 10–40 m high with fluted bole, dark green shiny leaves and red fruits when ripe; found around Bukoba, Muheza, Morogoro and Mpanda. It is also found in Guinea and extends to Sudan and

*Synsepalum msolo* (*Pachystela msolo*) (contd)

southwards to Mozambique, Malawi, Zambia and Angola. Its wood is used for firewood, charcoal and domestic utensils. The tree provides good shade and its latex is used to treat wounds.

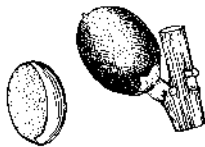


Flower clusters on old wood

*S. ceraciferum*



Flower clusters on old wood



Seed and fruit



Enlarged flower

*Syzygium cordatum*

## Myrtaceae

Indigenous

[Plate 5]

LOCAL NAMES: **Digo:** Muziahi, Mzihae; **English:** Waterberry tree; **Fipa:** Msu, Musu; **Gogo:** Muhulo, Muhuu; **Gorowa:** Awartu, Ijiraombe; **Ha:** Msivia; **Haya:** Mugege; **Hehe:** Muvengi, Muvengi lulenga; **Iraqw:** Orokutuno; **Isanzu:** Mungongampembe; **Kinga:** Imivengi; **Maasai:** Oloiragai; **Matengo:** Mhugu, Mnyonyo, Mvenge, Mzio, Orokutuno; **Ndendeule:** Mgwilu; **Ngoni:** Mgwilu; **Nguu:** Msungunde; **Nyakyusa:** Mpegele; **Nyamwezi:** Kasyamongo; **Nyaturu:** Mondoyanjoghu, Munyongwampembe; **Pare:** Mlama; **Rangi:** Msuharu, Mungalinya, Musuharu; **Sambaa:** Mshihwi, Msungudi; **Swahili:** Mkarafuu mwitu, Mlati, Myamayu, Mzambarau mwitu, Mzambarau ziwa, Mzuari; **Tongwe:** Msabasaba; **Zaramo:** Mtalala mweupe, Mzati; **Zinza:** Mzeze.

DESCRIPTION: A medium-sized evergreen tree, 8–15 m, sometimes a flowering shrub, the crown compact and rounded from a short thick trunk, sometimes buttressed. BARK: Dark brown, rough and fissured, breaking into small squares; **branchlets square, edges winged.** LEAVES: Very many, near the ends of branches, **clasping the stem** in opposite pairs, the **next leaf pair at right angles, leathery, blue-green, oblong to circular, to 8 cm, leaf base heart shaped** (“cordatum”). FLOWERS: Dense branched **clusters to 10 cm across, pink-white, with conspicuous stamens**, abundant nectar. FRUIT: Fleshy, **oval, to 1.5 cm long, purple** when ripe, edible but acid, 1 seed.

ECOLOGY: A tree of montane woodlands and often found beside rivers, also in seasonal swamps in medium to high altitudes, up to 1,800 m, in riverine thicket and forests, doing well in sandy loam soils.

DISTRIBUTION: Found in most parts of Tanzania except the southern areas. Also in Uganda and Kenya; from West Africa to Ethiopia, south through Central Africa to South Africa.

USES:

**Food:**

The fruits are collected from the tree and eaten raw. They taste sweet and are eaten both as a snack and a famine food.

**Medicinal:** Bark and roots are boiled and the decoction drunk as a remedy for indigestion.

**Commercial:** Not marketed.

**Other:** The wood is used for timber, firewood, charcoal, spoons, stools, beehives and canoes. Fruits produce a purple dye. The tree is used for shade and is a source of bee forage.

SEASON: Fruits are available from November to May.

STORAGE: Not stored.



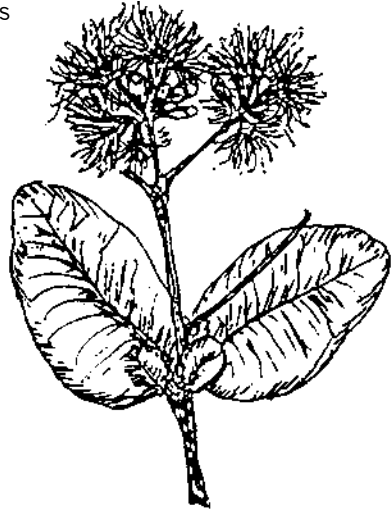
*Syzygium cordatum* (contd)

## Myrtaceae

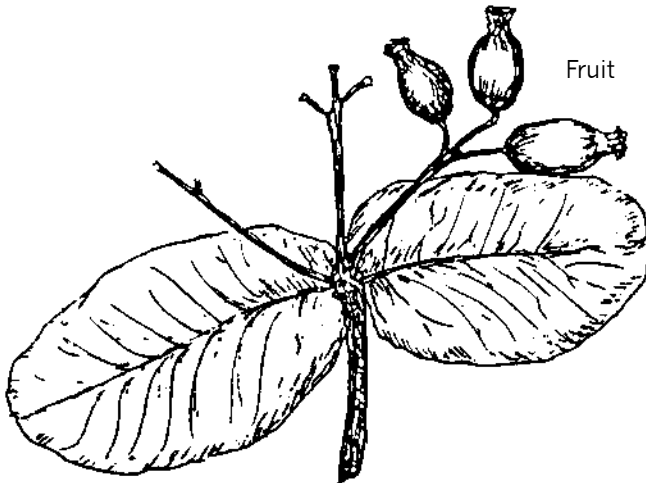
MANAGEMENT: Collected from the wild, but also protected in gardens for easy access. Can be propagated using fresh seed.

STATUS: Common and easily accessible within its area of distribution.

Flower heads



Fruit



*Syzygium guineense*

## Myrtaceae

Indigenous

LOCAL NAMES: **Barabaig:** Geta-da-qwal, Sonari; **Bende:** Mulalambo, Mulambo; **Chagga:** Masdi, Mmasai; **Digo:** Mugiaki, Muziahi, Muziyahe; **English:** Waterberry, Water pear; **Fipa:** Mlalambo, Msu, Musu; **Gogo:** Muhulo, Muhuu; **Ha:** Mbogonte; **Haya:** Mchwezi, Muchwesi; **Hehe:** Muvengi, Muvengi lutanana; **Iraqw:** Irgatu, Matlarmo; **Kerewe:** Issassa; **Luguru:** Msalazi; **Makonde:** Mpegele, Nguluka; **Matengo:** Mkowosi, Nkolo; **Maasai:** Olairagai, Oleragi; **Ngoni:** Makohozi, Makowozi, Matunda, Mkohozi; **Ndendeule:** Makowozi (fruit), Matunda, Mhuruhuru, Mkohozi; **Nyakyusa:** Msengele, Muhu; **Nyamwezi:** Kashamongo, Kasyamongo, Mwasya, Mzambalawe; **Pare:** Mlama; **Rangi:** Mbajiru, Mkamati, Mkomati, Musuharu, Muswaru; **Ngindo:** Muhuluhuti; **Rufiji:** Msarabo; **Sambaa:** Mschihui, Mshihwi, Mshiwii, Muhuba, Muhula, Sambarau; **Swahili:** Mzambarau mwitu, Mzuari; **Tongwe:** Lusangabale, Msabasaba; **Zaramo:** Mzarabo; **Zigua:** Muvenge, Muwenge; **Zinza:** Mgege, Msangura.

DESCRIPTION: A densely leafy forest tree, usually 10–15 m, up to 25 m, **the trunk broad and fluted and the crown rounded and heavy**, branchlets drooping, stems thick and angular. BARK: Smooth when young, black and rough with age, flaking, producing a red watery sap if cut. LEAVES: Young leaves purple-red but mature leaves dark green, **opposite, shiny and smooth on both surfaces, the tip long but rounded, on a short grooved stalk**. Leaves variable in shape. FLOWERS: **White, showy stamens, in dense branched heads 10 cm across, the honey-sweet smell** attracting many insects; **stalks angular, square**. FRUIT: **Oval to 3 cm, purple-black and shiny, 1-seeded, in big bunches of 20–30**.

ECOLOGY: A tree which grows best in moist soils with a high water-table and beside rivers but will also grow in open woodland, lowland riverine forest and woodland and lower montane forests, 0–2,100 m.

DISTRIBUTION: Widely distributed in tropical Africa and found in all parts of Tanzania.

USES:

**Food:**

The pulp of the fruit is eaten and the kernel discarded. The ripe fruit are collected from the tree or fallen on the ground. They should be collected quickly after falling as they are perishable. A single tree can yield a considerable amount of fruit. It tastes sweet and is eaten as a snack and famine food.

**Medicinal:** A decoction from bark and roots is used as a remedy for stomach-ache, intestinal worms and as a tonic and purgative. Fruits are used as a remedy for dysentery.

*Syzygium guineense* (contd)

## Myrtaceae

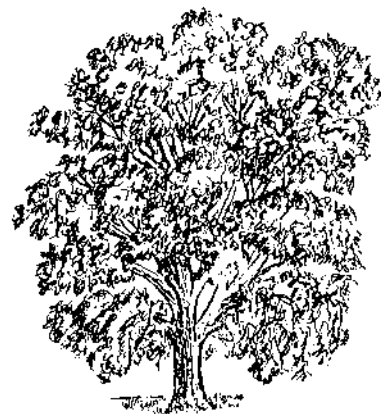
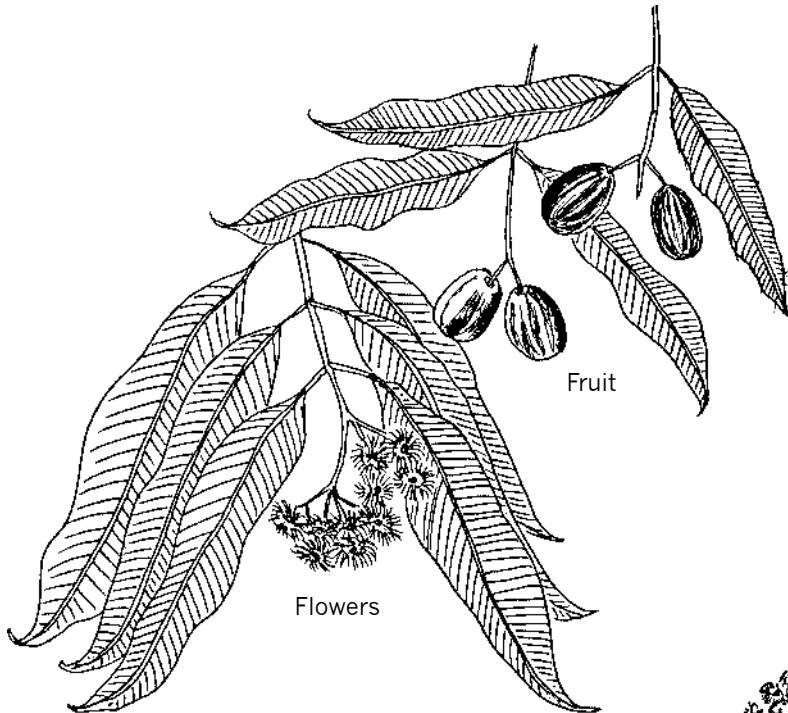
**Other:** The wood is used for fuel, poles, withies, beams and spoons. Fruits produce a purple dye. The tree is used for shade and is a source of bee forage.

**SEASON:** Ripe fruits are collected from February to May.

**STORAGE:** Not stored.

**MANAGEMENT:** Collected from the wild and not protected or cultivated by local people. This species can be propagated using fresh seed.

**STATUS:** Common and easily accessible within its area of distribution.



*Syzygium owariense*

## Myrtaceae

Indigenous

LOCAL NAMES: **Bende:** Kajibajiba, Kasiamongo; **English:** Waterberry; **Fipa:** Yunga; **Matengo:** Ihugu, Mbuwa, Mhungu, Muhuwahuwi, Nhungu; **Nyamwezi:** Kasyamongo, Mtumbu; **Swahili:** Mzambaru ziwa; **Zinza:** Mgege.

DESCRIPTION: A semi-deciduous multi-stemmed shrub or small tree up to 8 m, erect branches to a **bushy rounded crown**. In swamp forests it grows small knee-like breathing roots (pneumatophores). **BARK:** Grey, **thick, smooth at first**, becoming dark grey, rough and flaking with age. **LEAVES:** Opposite, blue-green, **thick, leathery**, smooth and shiny, about 10 cm long, **leaf tip long pointed** but blunt, **pink-yellow midrib, clear below**, leaf stalk pink-red, aromatic when crushed. **FLOWERS:** Creamy white or pink with numerous stamens, sweet scented, **in heads to 15 cm across**, on angular square stalks. **FRUIT:** Oblong and fleshy, **about 1.5 cm long and 1 cm thick**, green at first, purple, then black when ripe, containing **1 seed**.

ECOLOGY: Found in well-drained woodlands in low- and medium-altitude areas as well as in swamp forests, on stream banks, in riverine thicket and woodlands at higher altitude. It will also grow in semi-arid woodland, preferring stony ground and hills. Up to 1,800 m; rainfall 1,200–1,700 mm. Tolerates a wide range of soil types.

DISTRIBUTION: Found in the western and all southern areas of Tanzania, e.g. in Mbeya, Rukwa, Mwanza and Songea Regions. Also in Uganda and from West Africa to the Sudan, south to Zambia, Malawi and Mozambique.

USES:

**Food:**

The ripe purple fruits are collected and eaten raw. They have a fleshy soft pulp and taste sweet. The seeds are discarded. Eaten as a snack.

**Commercial:** Not marketed.

**Other:** Fruits produce a purple dye. The wood is used for firewood and spoons. The tree is a good source of bee forage.

SEASON: Fruits are collected at the end of the rainy season and into the early dry season.

STORAGE: Not stored.

MANAGEMENT: Collected from the wild and not protected or cultivated by local people. Can be propagated by seed.

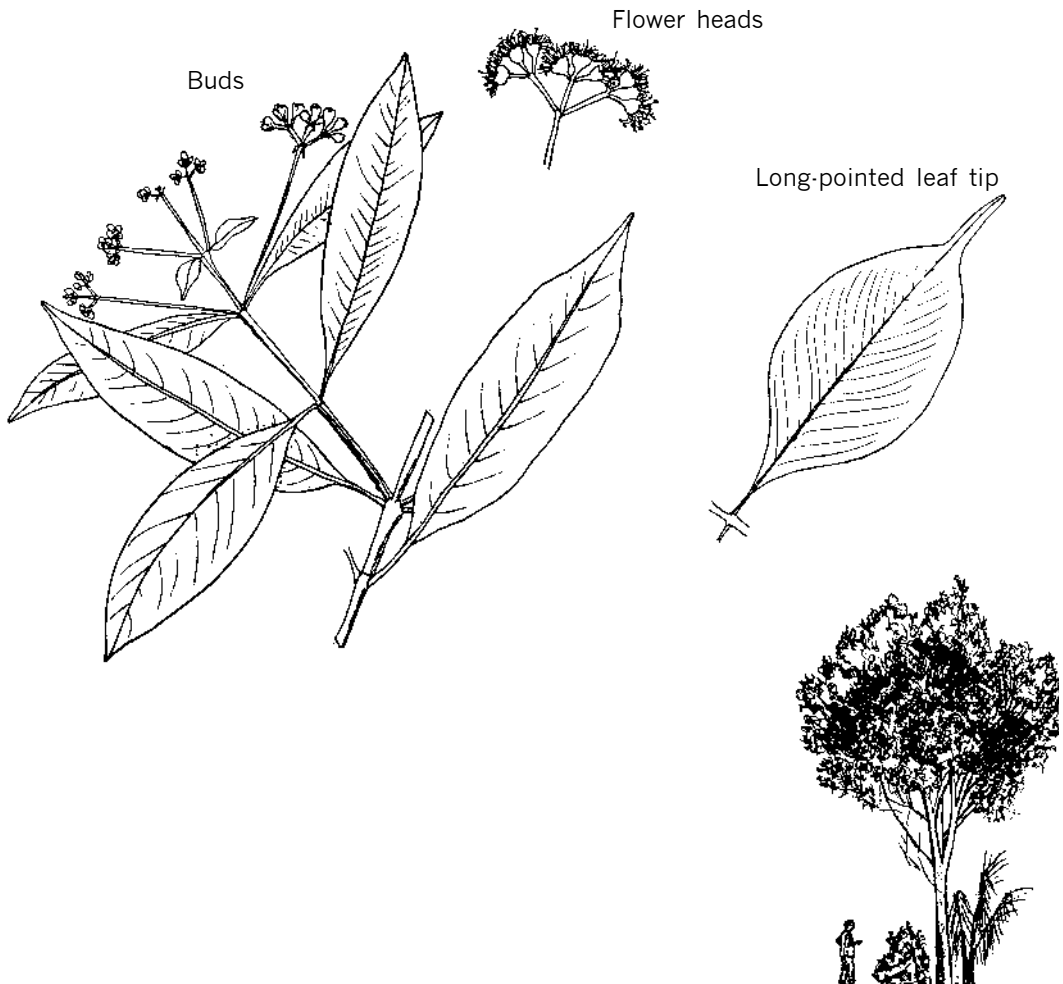
STATUS: Common and easily accessible within its area of distribution.

REMARKS: This is said to be the best *Syzygium* species for honey. The leaves and the fruit contain the essential oil eugenol, which has been used for flavouring food. Two other *Syzygium* species are also edible:

*Syzygium owariense* (contd)

## Myrtaceae

1. *S. masukuense* subsp. *masukuense* (**English:** Small-fruited waterberry; **Hehe:** Muvengi; **Nyamwezi:** Kasyamongo, Msambalawe; **Swahili:** Mzambarau mwitu) a shrub or small tree, 1.5–25 m, with pale brown bark and fleshy blue-purple ripe fruits, which are collected from April to June. Occurs in Iringa and Mbeya Regions; also Malawi, Zambia and southwards to South Africa;
2. *Syzygium sclerophyllum* (**Gogo:** Muhulo, Muhuu; **Hehe:** Muvengi, Mkwaliti; **Kerewe:** Issassa; **Nyakyusa:** Nguluka; **Sambaa:** Mshushi; **Zaramo:** Mzati) a tree 7–30 m high with brown flaking bark, white flowers and purple-black fruits. It is found in Lushoto, Iringa and Mbeya Regions. Also occurs in Kenya.



***Tacca leontopetaloides* (*T. involucrata*) Taccaceae**

Indigenous

LOCAL NAMES: **Bondei:** Langa, Mwanga; **English:** East African arrowroot; **Ngindo:** Utondo; **Sambaa:** Langa, Msakula, Mwanga; **Swahili:** Mlanga, Mwanga; **Tongwe:** Kabuga; **Zigua:** Mwanga.

DESCRIPTION: A stout perennial herb, easily recognized by its habit, often only one, characteristic, leaf and a green mottled stalk to 1.5 m tall, the underground tuber to 10 cm across. LEAVES: 1–3, large, erect, **the ridged stalk to 1 m with a sheathing base, the leaf blade divided into 3**, each part subdivided again into irregular oval-rounded lobes, 3–12 cm long, from the winged branches. FLOWERS: **A head of 20–40 small green flowers tops a stalk taller than the leaf, the head is surrounded by long thread-like bracts, purple with white tips, stiff at first then hanging down; also some leafy oval bracts coloured green with purple.** Each flower has 6 thick purple-green segments 8 mm long, the flower stalk lengthens in fruit to 4 cm. (See illustration.) FRUIT: **Rounded, with 6 ridges to 3 cm long**, the green capsule containing many red-brown seeds covered by a thin fleshy aril.

ECOLOGY: Grassland, bushland or woodland, usually on sandy soils, a weed of cultivated or abandoned land, 0–1,100 m.

DISTRIBUTION: Found in western, eastern and southern Tanzania, including on Zanzibar and Pemba Islands. Also on the Kenya coast, Uganda, other tropical and subtropical areas from Asia to the Pacific, Madagascar, the Mascarene Islands, Sierra Leone to Ethiopia, south to Zimbabwe.

USES:

**Food:**

Tubers are dug up from the ground, washed, grated, mixed with water and the liquid filtered through cloth several times. Alternatively, the grated pulp may be soaked in water for a week in order to remove some of the toxic matter. The starch is then dried in the sun and made into porridge during times of famine.

**Medicinal:** The stem is roasted and the sap squeezed out and used as a remedy for earache (in the form of ear drops).

**Commercial:** Not marketed.

**Other:** The plant is used for ornamental purposes.

SEASON: Tubers are collected during the rainy season.

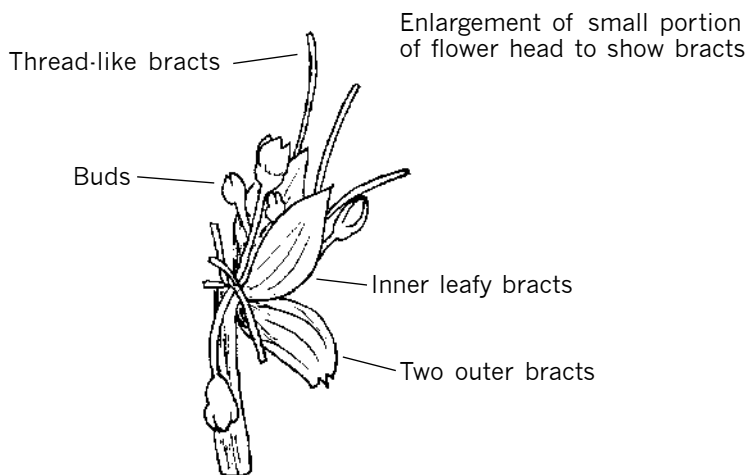
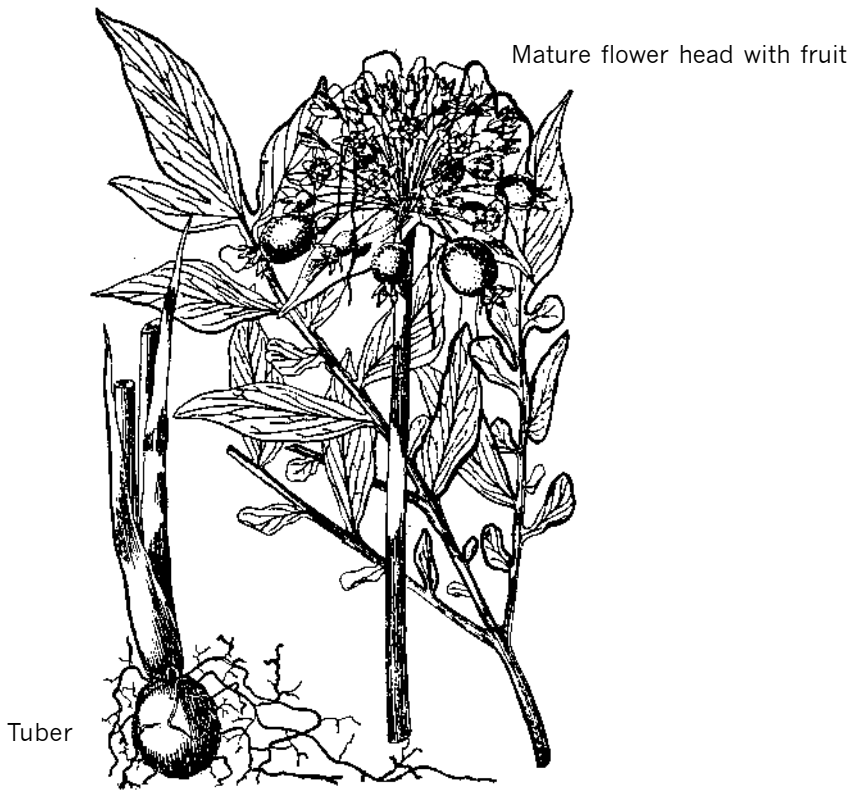
STORAGE: The dried starch obtained from grated tubers can be stored for several months.

MANAGEMENT: Collected from the wild; can be propagated by tubers and suckers.

STATUS: Occasional within its area of distribution.

REMARKS: Care should be taken when using this species for food as it is toxic.

*Tacca leontopetaloides* (*T. involucrata*)



***Talinum portulacifolium***  
**(*T. cuneifolium*)**

**Portulacaceae**

Indigenous

LOCAL NAMES: **Bondei:** Tonge; **Kaguru:** Mbwimbwi; **Mwera:** Nandele; **Sambaa:** Tonge.

DESCRIPTION: A **fleshy perennial herb**, sometimes creeping, loosely rooted, often growing up through thorny bushes, also shrub-like with woody basal **stems, 1–5 m**. LEAVES: **Alternate, succulent, without stalks**, very variable in size but **wider at the tip**, which has a tiny point, about 4 cm long (to 7 x 4 cm), veins not clear. FLOWERS: Arise from **terminal stalks**, one or more together, **bright purple-pink, over 2 cm across with 5 petals** around many central yellow stamens, open by noon, 2 green sepals below the flower. FRUIT: **Ovoid capsules about 8 mm long**, shiny yellow-brown, breaking across to set free tiny brown seeds.

ECOLOGY: Common in dry bushland, also on floodplains of rivers, steep rocky slopes, disturbed roadsides, thin coastal soils on coral or limestone, 0–1,900 m.

DISTRIBUTION: Found in most parts of Tanzania. Also in Kenya, Uganda, Ethiopia, the Arabian peninsular, Burundi and Somalia.

USES:

**Food:**

Fleshy leaves and stems are chopped and cooked with other vegetables such as *Bidens* or *Cleome*, and may be mixed with coconut milk or pounded ground-nuts and served with a staple (*ugali* or *bada*).

**Medicinal:** A decoction of leaves is used as a remedy for constipation.

**Commercial:** Not marketed.

**Other:** The plant is used for fodder and ornamental purposes.

SEASON: Collected during and soon after the rainy season.

STORAGE: Not stored.

MANAGEMENT: Collected from the wild and not cultivated, but can be propagated by seed and cuttings.

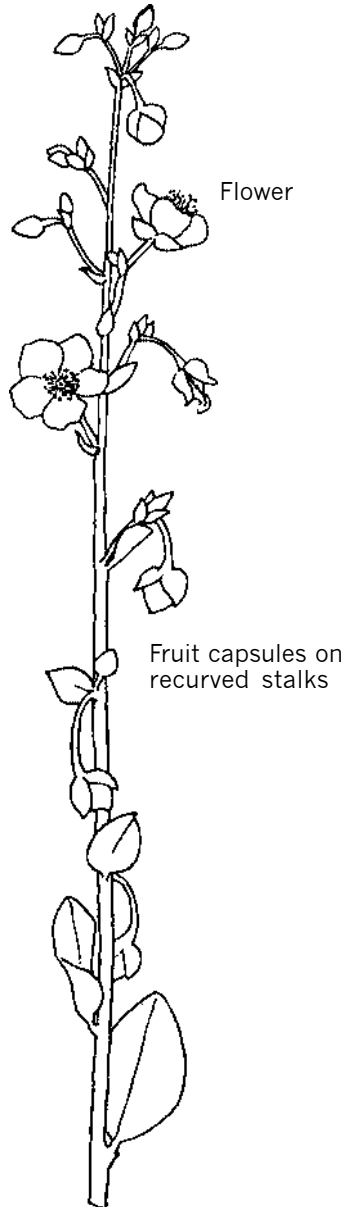
STATUS: Locally very common within its area of distribution.

REMARKS: A known weed.



*Talinum portulacifolium*  
(*T. cuneifolium*)

Portulacaceae



*Tamarindus indica*

## Caesalpinaceae

Indigenous

[Plates 5 and 6]

LOCAL NAMES: **Arusha:** Olmasambrai; **Bende:** Mshishi, Msisi; **Bondei:** Mkwazu; **Chagga:** Mkakayi, Moya; **Digo:** Mkwadzu, Mkwaju; **English:** Tamarind; **Gogo:** Msisi; **Gorowa:** Mithingiti; **Hehe:** Mnyali, Munyali; **Luguru:** Mdai; **Maasai:** Masamburai, Olmasambrai, Olmasumoei, Oloisijoi; **Matengo:** Ukwezu; **Mbugwe:** Mosinko; **Ngindo:** Mkwaju; **Ngoni:** Mapohora; **Nyamwezi:** Msisi; **Nyaturu:** Mkwaju, Mukwaju; **Rangi:** Mkwaju; **Sambaa:** Mkwazu, Nshishi; **Sandawi:** /ank'á; **Sukuma:** Bushishi, Nshishi; **Swahili:** Mkwaju; **Tongwe:** Lusisi; **Vidunda:** Mdai; **Zaramo:** Mkwesu; **Zigua:** Mkwazu; **Zinza:** Msisa.

DESCRIPTION: A large tree, up to 30 m, with an **extensive dense crown**. The short bole can be 1 m in diameter. Evergreen, or deciduous in dry areas. BARK: Rough, grey-brown, flaking. LEAVES: Compound pinnate, on hairy stalks to 15 cm, 10–18 pairs of leaflets, **dull green, to 3 cm, oblong**, round at the tip and base, veins raised. FLOWERS: Small, in few-flowered heads, buds red, petals gold with red veins. FRUIT: Pale brown, **sausage-like**, hairy pods, cracking when mature to show **sticky brown pulp around 1–10 dark brown angular seeds**.

ECOLOGY: A very adaptable species, drought hardy, preferring semi-arid woodlands and wooded grasslands. It tolerates salty soils, coastal winds and monsoon climates, 0–1,500 m. It grows in most soils, even sand or coral, but prefers deep alluvial soil, often riverine in very dry areas. A long, well-marked dry season seems to improve fruiting.

DISTRIBUTION: It grows in all parts of Tanzania, most abundant in woodland and thorn bush but prominent at the coast and in Zanzibar; widespread in the rest of tropical Africa, into India and South East Asia.

USES:

**Food:**

- Fruits are edible. The pulp of mature fruits is sour and eaten only in small amounts. Seeds are discarded.
- Fallen ripe fruit are collected, cleaned, soaked in water and mixed with porridge and also used in making millet bread. The mixture tastes sour.
- The green fruit can also be picked straight from the tree and eaten fresh, with the seed, as a snack. They are enjoyed mostly by children and are eaten occasionally and usually in small amounts.
- Fruits are peeled, soaked in warm water, squeezed and filtered. Sugar is added and the juice drunk before or after being cooled. Alternatively, the juice is packed in small polythene packets, frozen and used as an iced lollipop. In many parts of the world the fruits are used in curries, chutneys and sauces. Also made into jam, sweets and eaten raw.

*Tamarindus indica* (contd)

## Caesalpinaceae

**Medicinal:**

- Leaves are chewed or pounded and used as medicine for treatment of diarrhoea, dysentery, stomach-ache, malaria, sore throat and fever, as poultices for wounds, abscesses, snakebite and to treat mental disorders.
- A root decoction is used as a remedy for asthma, leprosy, liver disease, rheumatism, amenorrhoea, boils, fever, hookworm and ulcers.
- Pounded seeds are used as a remedy for dysentery.

**Commercial:** The fruits are marketed locally in most major towns.

**Other:** The wood is very hard and heavy and is used for firewood, charcoal, general carpentry, boat building, poles, walking sticks, trays, tool handles, pestles, bows and carvings. Leaves are used for fodder. The tree is used for shade, and as a windbreak, firebreak, ornamental and source of bee forage.

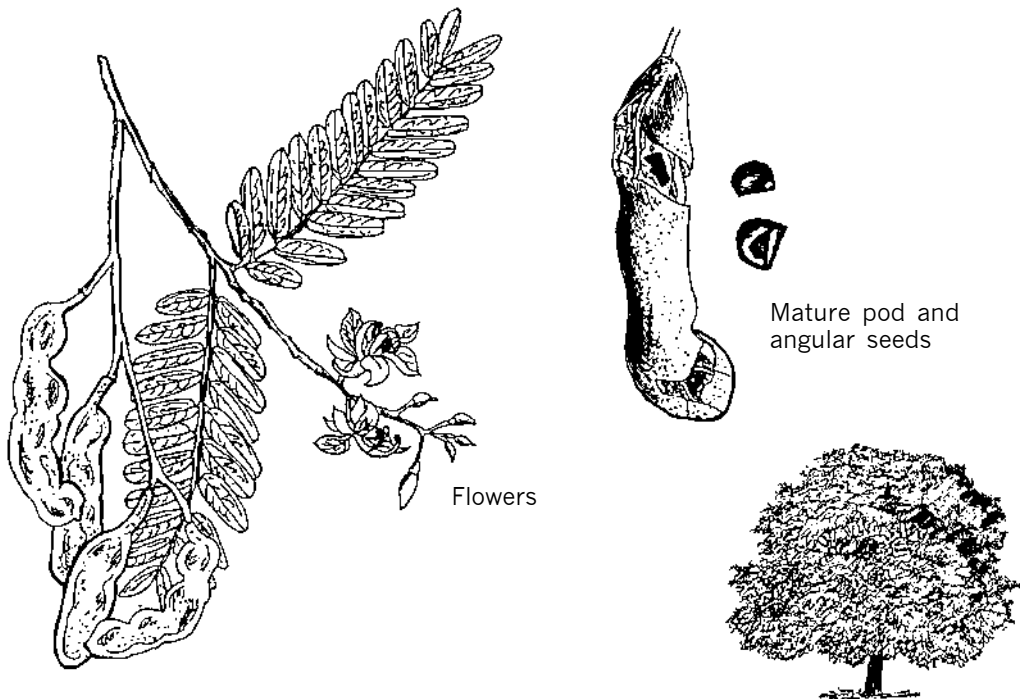
**SEASON:** Fruits are collected during the dry season.

**STORAGE:** The sticky pulp of the dried fruit is made into balls which can be stored for about 2 years.

**MANAGEMENT:** Collected from the wild. Protected by local people in compounds and fields. Can be propagated using seed.

**STATUS:** Common and easily accessible within its area of distribution.

**REMARKS:** One of the most popular wild fruit in Tanzania.



*Tapiphyllum burnettii*

## Rubiaceae

Indigenous

LOCAL NAMES: **Bena:** Findokoli; **Hehe:** Fitokoli, Kindokoli; **Nyamwezi:** Kambolambola; **Rufiji:** Nkobeliya.

DESCRIPTION: A shrub or small tree, 1.5–5 m, with slender branches, dense pale rusty hairs on young parts soon lost. BARK: Purple-brown, grooved. LEAVES: In **opposite pairs**, the oval blades to 9 cm long, the base more or less rounded to a 2 mm stalk, **green with some rusty hairs above but dense silver to pale rusty soft hairs below**, main veins a bit darker. FLOWERS: Pale green–cream–white, **the slender tube over 1 cm, with 5 narrow pointed lobes**, the style and stamens visible, 3 to many flowers at nodes, **the calyx also pale rusty hairy** and buds pointed. FRUIT: **Rounded, fleshy, 1–3 cm diameter, orange yellow** when ripe, covered with rusty hairs and containing 2–5 red-brown seeds.

ECOLOGY: Ravines, streams and rocky places in thickets and woodlands, 1,200–1,500 m.

DISTRIBUTION: Found in most highland areas of Tanzania. Also occurs in Zambia.

USES:

**Food:**

Fruits are edible. Ripe fruits are picked from the plant and eaten raw. They are fleshy and taste like chocolate and are much liked by children and herds-men.

**Commercial:** Not marketed.

**Other:** The plant is used for ornamental purposes and is a source of bee forage.

SEASON: Fruits are collected from October to April.

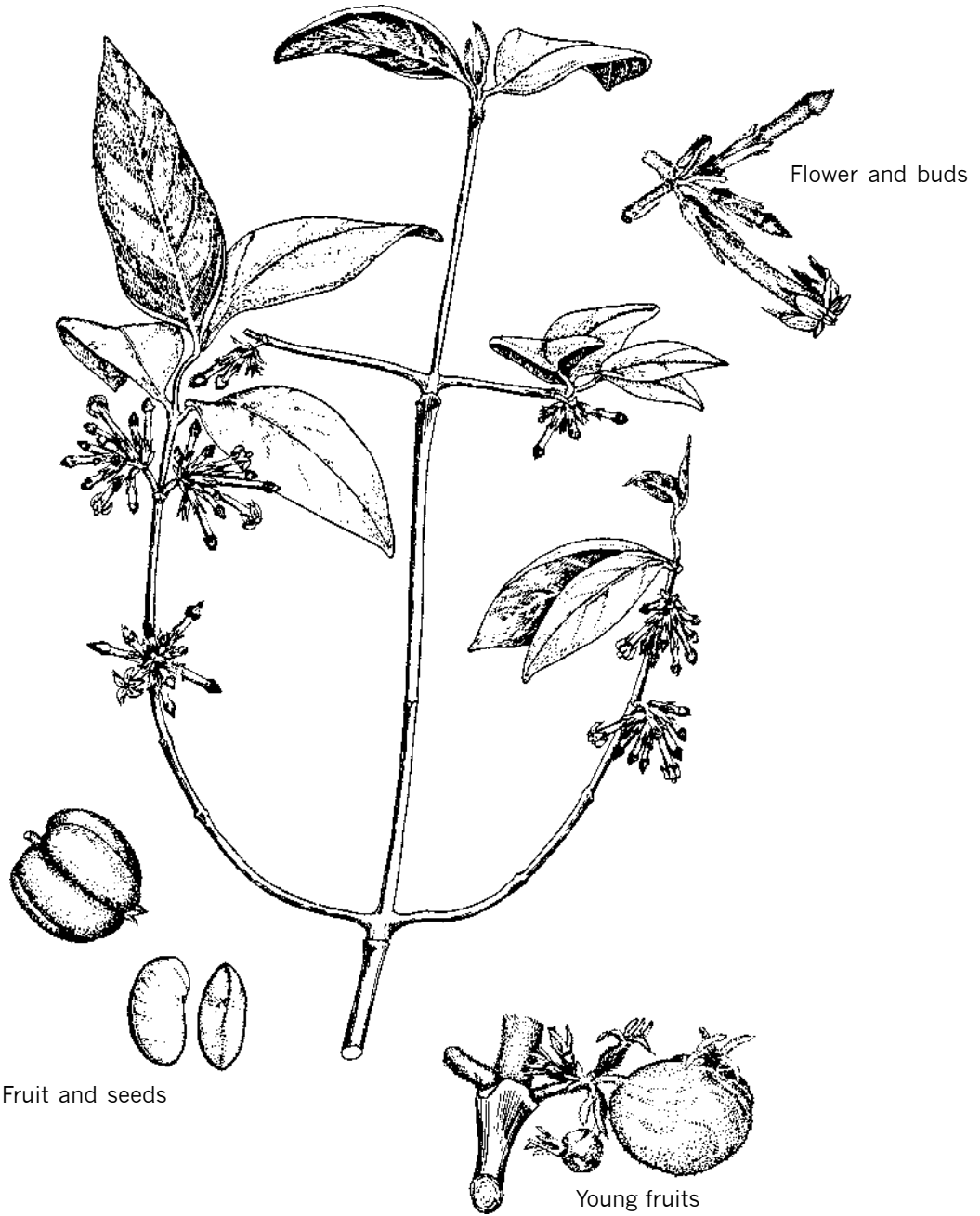
STORAGE: Not stored.

MANAGEMENT: Collected from the wild and not cultivated, but can be propagated from seed.

STATUS: Occasional within its area of distribution.

*Tapiphyllum burnettii*

Rubiaceae



***Tapiphyllum cinerascens* var. *cinerascens* Rubiaceae**

Indigenous

LOCAL NAMES: **Hehe:** Kindokoli, Kitokoli; **Nyamwezi:** Kambolambola; **Rufiji:** Nkobeliya; **Sandawi:** Sisimpirae.

DESCRIPTION: An **erect shrub** or small tree, 1–3 m, with the slender branches spreading, branchlets covered with dense, rusty hairs which are usually lost later. A woody rootstock, often quite large. LEAVES: Usually paired, opposite, **mostly 8 cm, long oval** to a pointed tip, base rounded to a 6 mm stalk, **rough hairy above, dense soft hairs below**, orange to grey, the stipule sheath with pointed tips. FLOWERS: Small, **pale yellow-green-white, axillary clusters of 15 flowers, each long tubular with 5 lobes**, rounded buds with an orange-brown hairy calyx, **about 4 mm long**, and hairy bracts. FRUIT: **Rounded, crowned with the calyx remains, fleshy, yellow-orange-brown-red when ripe, 8–9 mm across**, covered with short and long brownish hairs, containing 1–5 seeds.

ECOLOGY: *Brachystegia* woodland and secondary woodland, 1,100–1,300 m.

DISTRIBUTION: Found in the western and central parts of Tanzania, e.g. in Simbo Forest Reserve. Also in parts of Central Africa, south to Zambia, Malawi and Angola.

USES:

**Food:**

Fruits are fleshy and eaten raw as a snack, especially by children.

**Commercial:** Not marketed.

**Other:** The wood is used for fire sticks. The plant is important as a source of bee forage and is suitable for ornamental purposes.

SEASON: Fruits are collected from November to May.

STORAGE: Not stored.

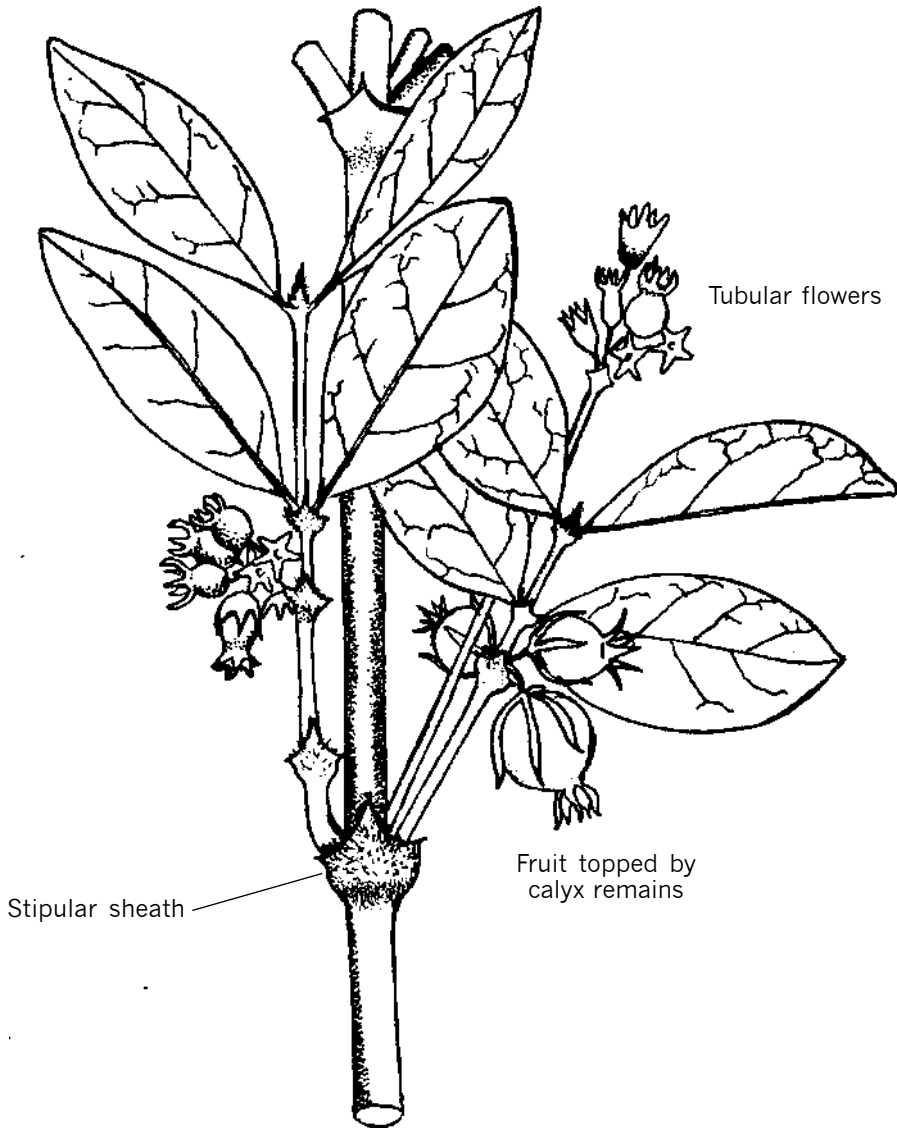
MANAGEMENT: Only collected from the wild, but can be propagated by seed.

STATUS: Scattered within its area of distribution. Listed on the 1997 IUCN Red List of Threatened Plants.

REMARKS: There are two other species of *Tapiphyllum* known to be edible:

1. *T. discolor* (**Hehe:** Kindokoli, Kitokoli; **Nyamwezi:** Kambolambola; **Sukuma:** Kambolambola) a shrub up to 4 m high with whorled leaves and yellow fruits. It is found in Kagera, Mwanza, Kigoma and Shinyanga Regions. Also occurs in Burundi, Zambia and the Congo basin;
2. *T. obtusifolium* (*T. floribundum*) (**Hehe:** Kindokoli, Kitokoli; **Nyamwezi:** Kambolambola; **Rangi:** Msambalawe) a shrub 2–8 m high, usually much-branched with dark grey bark and dark green fruits. It is found only in Dodoma, Singida and Iringa Regions and is also listed in the 1997 IUCN Red List of Threatened Plants.

*Tapiphyllum cinerascens* var. *cinerascens* Rubiaceae



***Thylachium africanum* Capparidaceae (Capparaceae)**

Indigenous

LOCAL NAMES: **Bondei:** Mdudu; **Gogo:** Mwimachigulu; **Maasai:** Umududu; **Pare:** Kishangalaji; **Rangi:** Mutungu; **Sambaa:** Shingaazi; **Sandawi:** Mtungu; **Swahili:** Mdudu, Mtunguru; **Zaramo:** Mdudu; **Zigua:** Mdudu.

DESCRIPTION: A shrub or small tree to 7 m, stems branched or not from a thickened tuberous rootstock. BARK: Smooth or rough, light grey, grooved. LEAVES: **Simple or trifoliate and sometimes mixed**, on a stalk to 6 cm, leaflets **long oval, 3–10 cm**, stiff, wavy, edges thickened on wrinkled stalks. FLOWERS: White and green (no petals), some purple on the stamen and ovary stalks, characteristic fat buds arise in terminal or axillary groups, usually 1–10, **each 7–14 mm across, breaking open to release many spreading wavy stamens to 3.6 cm, a “cap” remains hanging to one side**, the flower stalk is jointed. FRUIT: **Oval, 3–6 cm, clearly stalked with up to 12 ribs**, containing many seeds.

ECOLOGY: Deciduous woodland, bushland and thicket, grassland with scattered trees, riverine forest, abandoned cultivated areas, 0–1,600 m.

DISTRIBUTION: Found in all parts of Tanzania. Also in Kenya, south to South Africa and on Madagascar.

USES:

**Food:**

- Tubers are peeled, cooked and the water drained off several times to reduce toxicity before being eaten with tea. Alternatively, the tubers are peeled and soaked in water for about a week, then washed and dried in the sun. The dried tubers are pounded and sieved. The resultant flour is used to prepare *uji* or *ugali* which is eaten along with cooked vegetables.
- Fruits are eaten by children.

**Commercial:** Not marketed.

**Other:** The wood is used for firewood, tool handles and spoons. The tree is useful for shade, as a source of bee forage and for ornamental purposes.

SEASON: Tubers are usually collected during the rainy season.

STORAGE: Dried flour can be stored for several months.

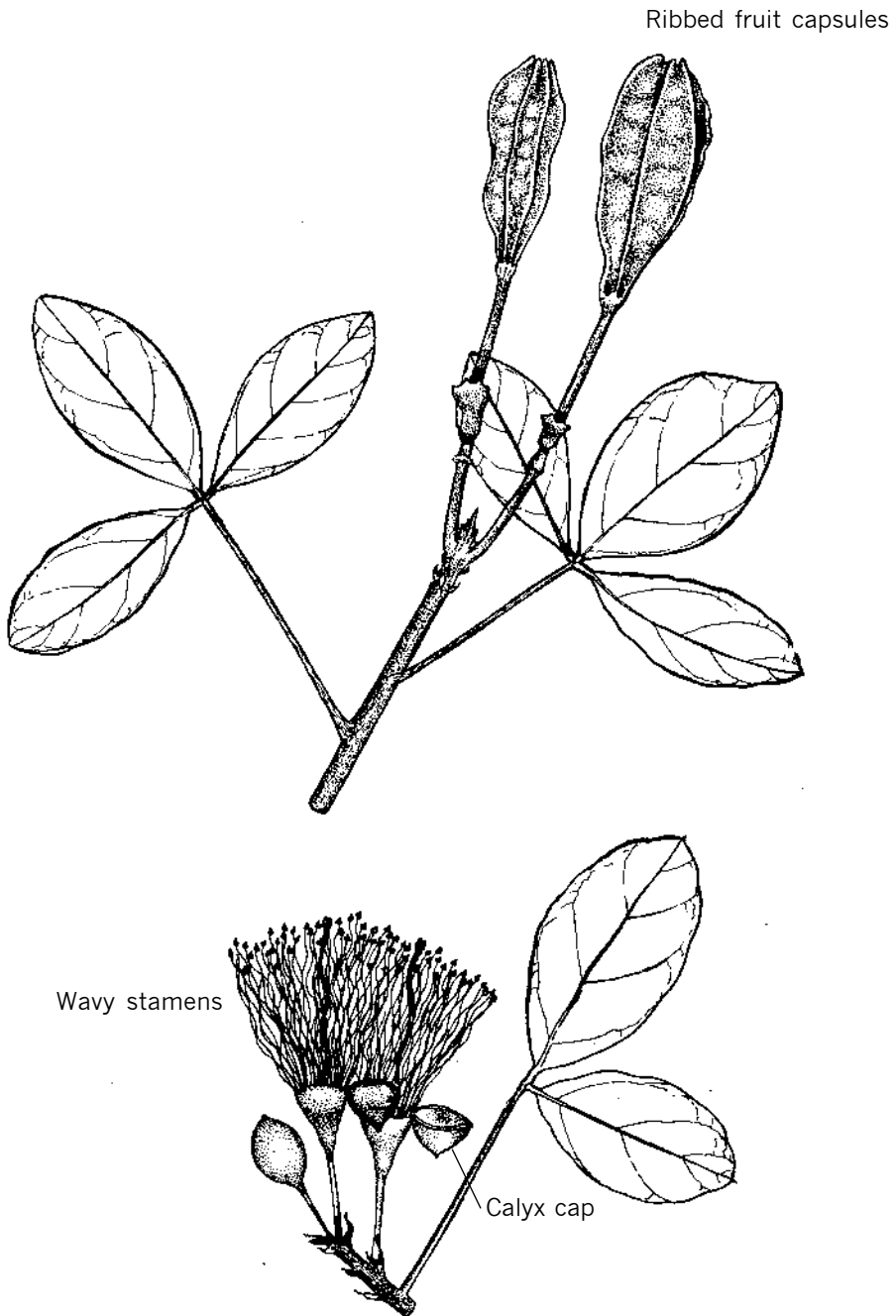
MANAGEMENT: Tubers are collected from the wild, but the plant can be propagated by seed and cuttings.

STATUS: Relatively common within its area of distribution.

REMARKS: A famine food which can be toxic if not well prepared.



*Thylachium africanum* Capparidaceae (Capparaceae)



*Tragia insuavis*

## Euphorbiaceae

Indigenous

LOCAL NAMES: **Hehe:** Nyaluvafya; **Sambaa:** Mbawa.

DESCRIPTION: A slender, **twining** or trailing perennial herb with **stinging hairs** on stems and leaves. Stems arise from a woody rootstock and twine anti-clockwise. LEAVES: Alternate, ovate to oblong, **heart shaped at the base, or straight**, to a stalk 1–6 cm, blade 4–10 cm, the tip pointed, edge sharply toothed, 5–7 nerved from the base, bright green above, paler below. FLOWERS: Yellow-green, very small and inconspicuous, **male and female flowers, beside leaves on stalks 4–10 cm**, sometimes opposite leaves, **sepals hairy**. FRUIT: A lobed capsule, breaking into rounded sections.

ECOLOGY: Locally common in deciduous bushland and thicket, sometimes by lakes or rivers and in disturbed places, 500–1,300 m.

DISTRIBUTION: Widespread in Tanzania and also found in western Kenya. Not known elsewhere.

USES:

**Food:**

Tender leaves are chopped and cooked alone or mixed with other vegetables such as amaranth, beans or peas. Coconut milk, pounded groundnuts or pounded sunflower seed may be added and then it is served with *ugali*, rice or potatoes.

**Commercial:** Not marketed.

**Other:** The plant is used for fodder.

SEASON: Leaves are collected during the rainy season.

STORAGE: Not stored.

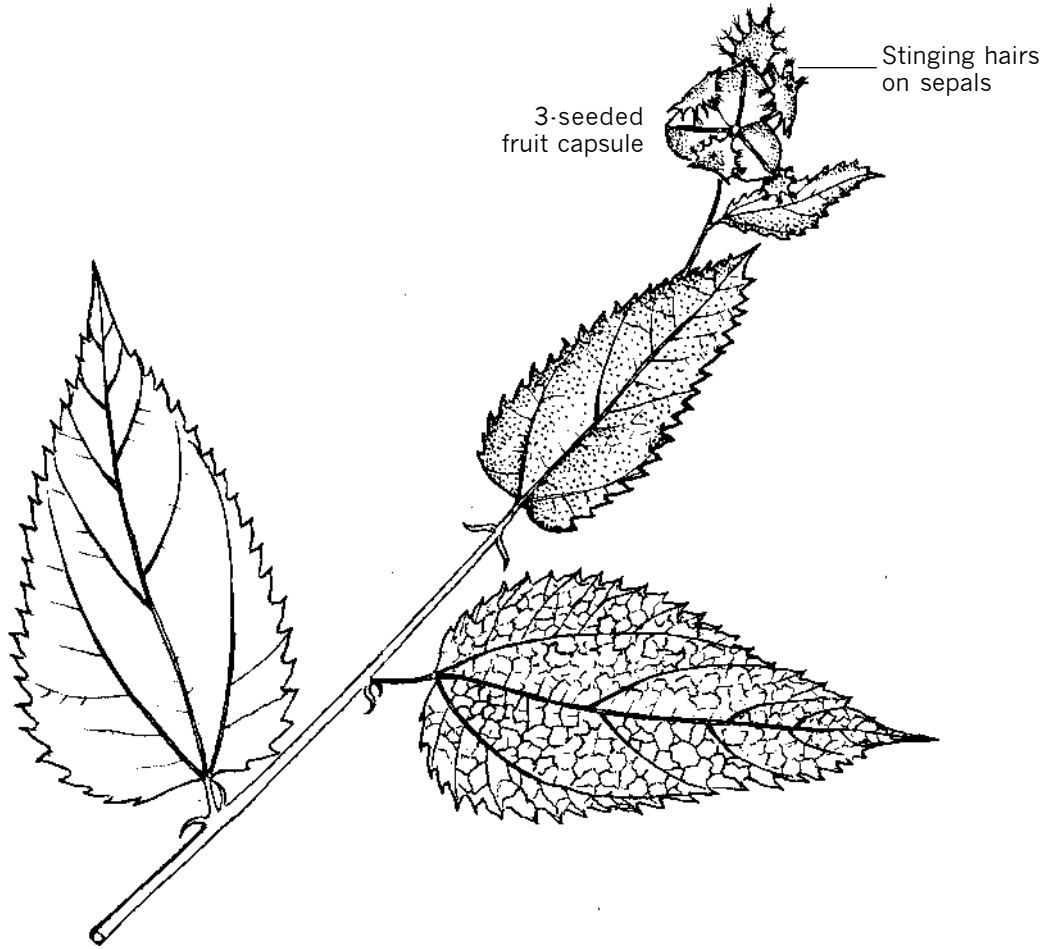
MANAGEMENT: Leaves are collected from the wild, but the plant can be propagated by seed.

STATUS: Locally common. Endemic to Tanzania and Kenya.

REMARKS: Also known to be a weed, and the nasty stinging hairs cause itching.

*Tragia insuavis*

Euphorbiaceae



*Treculia africana*

## Moraceae

Indigenous

[Plate 5]

LOCAL NAMES: **English:** African bread fruit, Wild jackfruit; **Haya:** Mbungu; **Luguru:** Ezeya, Mjaya; **Matengo:** Maya, Mjaya, Mwaya; **Ngoni:** Maya.

DESCRIPTION: An evergreen tree, 15–30 m, up to 50 m, with a dense spreading crown and a fluted trunk. BARK: **Grey, smooth**, thick, exuding **white latex** when cut, which later **turns rusty red**. LEAVES: Simple, alternate, **very large, about 30 x 14 cm** (up to 50 x 20 cm), dark green, shiny above, leathery, paler below, with some hairs on the **10–18 pairs of clear veins, tip pointed, a short stalk** to 1.5 cm. Young leaves red or yellow. FLOWERS: In heads, pale green at first, later brown-yellow, **rounded, 2.5–10 cm across**, male and female flowers usually separate, growing **beside leaves** (axillary) or **on older wood**, even on the trunk. Numerous small white trumpet-shaped flowers cover the round flower head. Over several months it increases in size and weight reaching 10–15 kg when in fruit. An edible oil can be extracted from the seeds. FRUIT: Compound, **rounded, very large, up to 30 cm across**, on the trunk or main branches, containing the seeds, buried in spongy pulp (resinous, slimy and inedible). The outer surface turns yellow and is covered with rough pointed outgrowths. Inside are hundreds of peanut-sized edible orange seeds.

ECOLOGY: A forest species, often beside rivers, 0–1,200 m.

DISTRIBUTION: Widespread in Tanzania. Also in Uganda, other parts of tropical Africa and on Madagascar.

USES:

**Food:**

- Fruits are collected, the seeds removed and the slimy flesh washed off. Then they are roasted in a pan and eaten with or without removing the outer coat first. It is eaten as a snack and is very nutritious.
- Seeds are roasted, pounded and cooked with vegetables as a substitute for other oily seeds (groundnuts).

**Other:** The wood is white, soft and used for rough timber, firewood and charcoal. The tree is suitable as an avenue tree and for shade.

SEASON: Ripe fruits are collected from the ground from November to January.

STORAGE: Not stored.

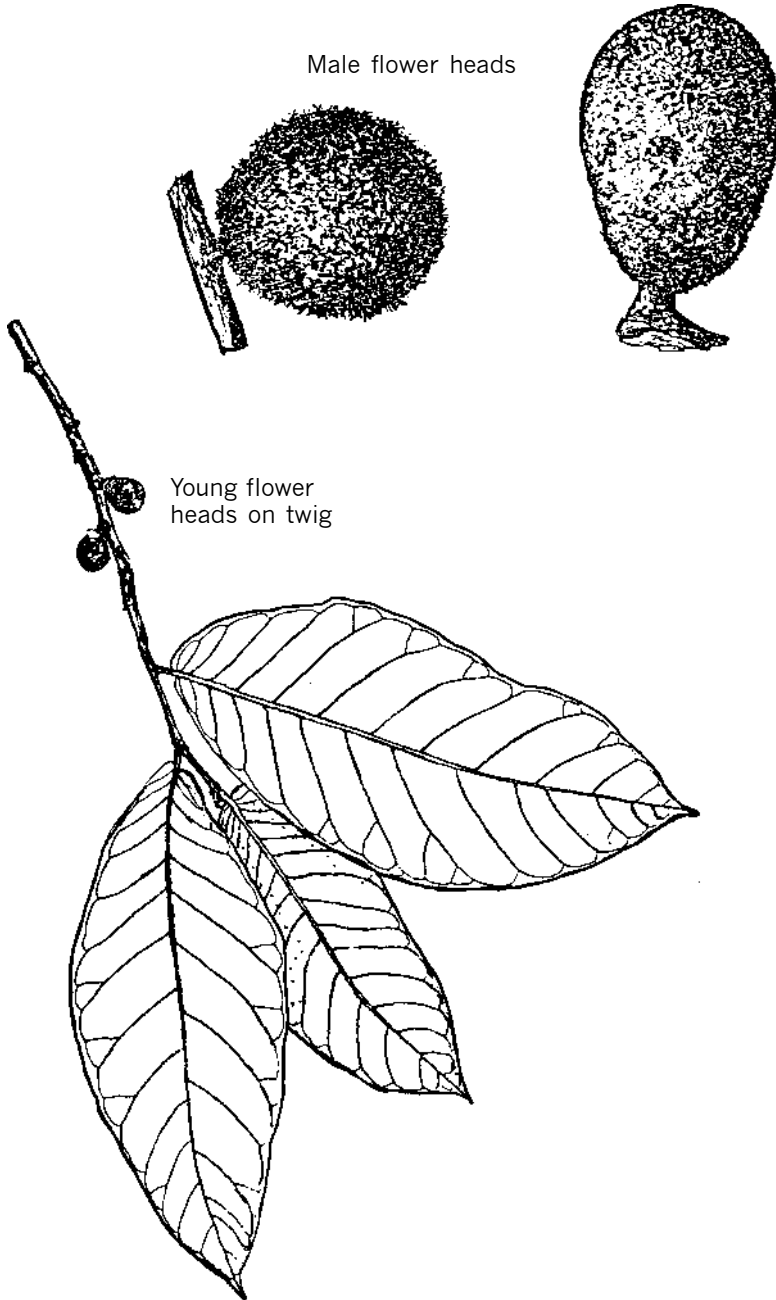
MANAGEMENT: Collected from the wild and often protected when land is cleared for agriculture. The species can be propagated using fresh seed.

STATUS: Common but not easy to access since it grows in wet places deep in the forest.

REMARKS: This tree has a potential for domestication on farmland, in valley and riverine areas or as an avenue tree.

*Treculia africana*

Moraceae



*Tribulus terrestris*

## Zygophyllaceae

Indigenous

LOCAL NAMES: **Bondei:** Mbigii; **English:** Caltraps, Puncture vine; **Hehe:** Mbigili; **Ngindo:** Mbigili ng'ombe; **Nyamwezi:** Mbigili; **Pare:** Ikongo, Ikonkho; **Sukuma:** Mbigili, Mbigiri; **Swahili:** Mbigili, Mbigiri; **Zaramo:** Mbigili; **Zigua:** Ikongo.

DESCRIPTION: A hairy annual plant with **trailing branches radiating along the ground to 90 cm** from a taproot. Characters vary widely. LEAVES: Opposite, with **unusual larger and small leaves alternating along the stem, pinnately lobed**, the larger 7–8 cm with 8 pairs oval leaflets, the smaller with only 4 pairs leaflets. FLOWERS: Small, **bright yellow, solitary on stalks about 1 cm from the leaf axils of the smaller leaves, 1.5 cm across** with 5 spreading petals 4–8 mm long, 10 stamens. FRUIT: A **hairy rounded capsule**, green at first, hardening to a **5-angled spiny fruit** which splits into **5 triangular sections**, each with numerous small and 2 larger **very sharp spines** at the tip, containing seeds. The **fruit stalk to 1 cm**.

ECOLOGY: A plant of open and disturbed places, often on sandy soils and in cultivated areas, 0–2,300 m.

DISTRIBUTION: All parts of Tanzania and East Africa; a plant occurring worldwide, found both in tropical and some warm temperate climates.

USES:

**Food:**

Leaves are chopped, washed and cooked alone or mixed with other vegetables. Coconut milk or groundnut paste may be added and then they are eaten with a staple (Pare, Hehe, Gogo).

**Commercial:** Not marketed.

**Other:** The plant is used for fodder and is a source of bee forage.

SEASON: Leaves are collected during and soon after the rainy season.

STORAGE: Leaves are pounded with other vegetables then dried and stored.

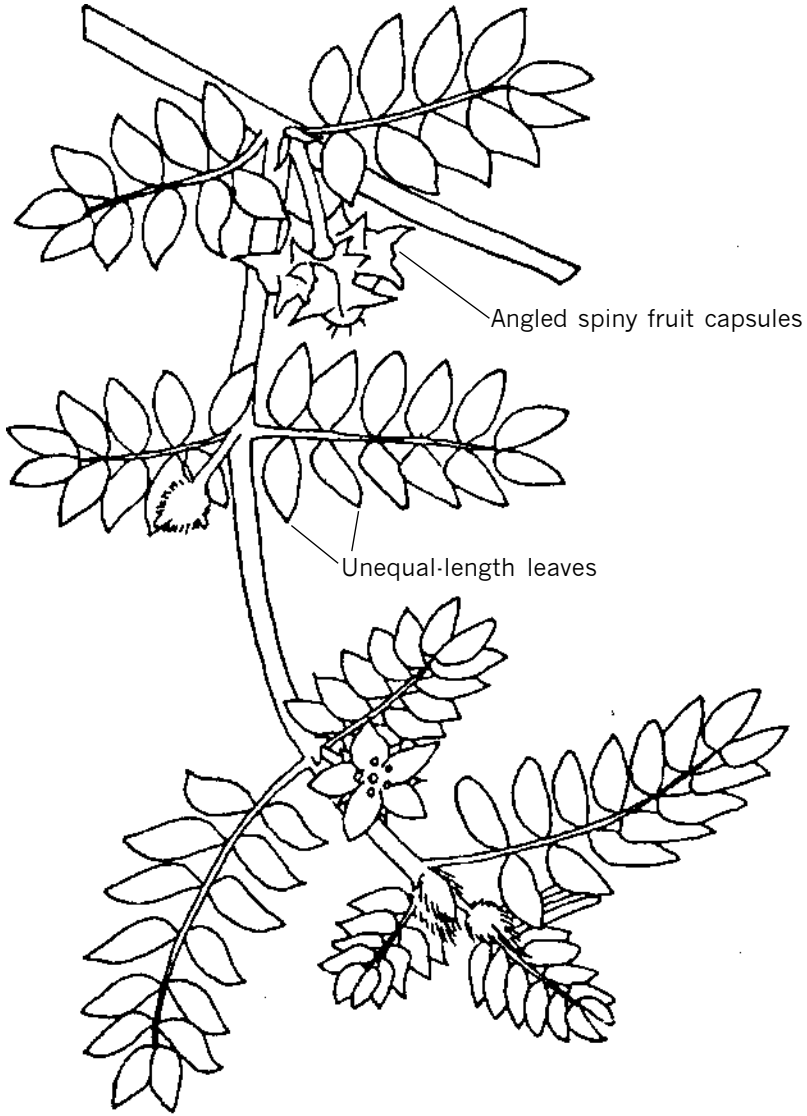
MANAGEMENT: Only collected from the wild and not cultivated. However, it may easily be propagated by seed.

STATUS: Locally common.

REMARKS: A problematic weeds in farmland. A related species, *T. cistoides*, which bears the same local names as *T. terrestris*, is also eaten as a vegetable. It can be differentiated from *T. terrestris* by its hairless leaves and stems and its large bright yellow flowers. It is confined mainly to the coastal plains of Africa from Ethiopia southwards to Mozambique and Madagascar.

*Tribulus terrestris*

Zygophyllaceae



*Trichilia dregeana*

## Meliaceae

Indigenous

LOCAL NAMES: **English:** Forest mahogany; **Ha:** Mnyongayonga; **Sambaa:** Mbamba, Mkungwina, Ngolimazi; **Swahili:** Mkungwina, Mtimaji; **Tongwe:** Kamoko, Kampakampaka.

DESCRIPTION: A very large evergreen tree to 30 m, with a straight trunk dividing into large branches and a rounded crown. Buttresses absent or small. BARK: Fairly thin and **smooth, brown** with clear breathing pores (lenticels); when **cut, the bark edges (slash) are red and white**. LEAVES: Compound, with 4–6 pairs leaflets plus one on a stalk to 10 cm, each leaflet about 12 cm long, **always wider towards the pointed tip**, often rounded at the base. The **7–12 pairs veins below are widely spaced** with a few hairs. Dry or fallen leaves turn dark brown (*T. emetica* leaves dry to pale yellow-brown or olive green). FLOWERS: Few, in branched sprays to 6 cm, each large flower with 5 cream-white **hairy petals** over 2 cm long, the 10 **hairy stamens joined in a ring** around the central style. FRUIT: A rounded capsule to 3 cm across, pink to dull yellow-brown and hairy, **without a neck to the fruit stalk**, splitting into sections when dry to set free **large black seeds** which are **almost covered by a soft red aril**.

ECOLOGY: A tree of mid-altitude rainforest, riverine and swamp forest, 800–1,500 m.

DISTRIBUTION: Widespread in Tanzania except central and southern areas, for example, found in Kigoma, Kagera, Tanga and Kilimanjaro Regions. Also in Kenya and Uganda and from Guinea in West Africa to Ethiopia in the east and southwards to the Cape Province of South Africa, and also Angola.

USES:

**Food:**

A fatty suspension obtained after squeezing the aril in warm water is used for cooking.

**Medicinal:**

- A decoction of the roots is used to induce labour in pregnant women and to treat intestinal worms, colds and infertility.
- The bark and leaves are used to treat fever, lumbago and dysentery.

**Commercial:** Seeds are sold for soap making.

**Other:** The wood is pink, moderately heavy and easy to work and is used for timber, poles, furniture, domestic utensils, canoes, beehives, water troughs, carving, firewood and charcoal. Since the tree is an evergreen it is used for shade and as an ornamental. Oil from the seed is used commercially for making soap, candles and cosmetics.

SEASON: Fruits are collected from April to July.

STORAGE: Dried seeds can be stored for several months.



*Trichilia dregeana* (contd)

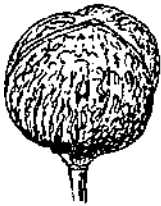
## Meliaceae

MANAGEMENT: Collected from the wild, but often retained or planted in farmland. It can be propagated using fresh seed.

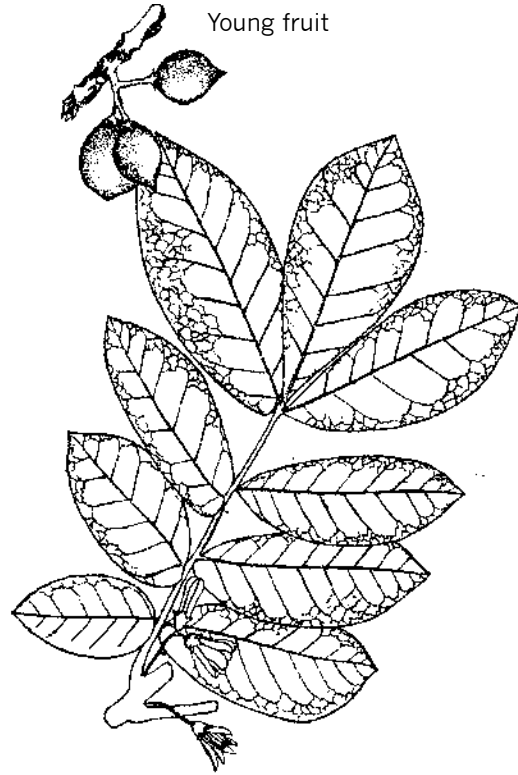
STATUS: Locally common.

REMARKS: A promising tree for agroforestry.

Mature fruit capsule



Young fruit



*Trichilia emetica*

## Meliaceae

Indigenous

LOCAL NAMES: **Chagga:** Mbindiyo, Mchengo, Mkongoni, Mmbindio, Mtutu, Mwavai;

**English:** Cape mahogany; Natal mahogany, **Gogo:** Nyembemwitu, Myembemwitu; **Ha:** Mtandaruka; **Iraqw:** Taewi; **Luguru:** Mgolemazi, Mjagengo, Msukulilo, Mtengotengo; **Maasai:** Elkoroshi; **Mbugwe:** Letakaiko; **Ngindo:** Muhukuliro; **Nguu:** Mgolimazi; **Kaguru:** Mgolemazi; **Nyakyusa:** Msanguti; **Sambaa:** Mbangwe, Mbwewe, Mgolimazi, Monko-ya-nyika; **Sukuma:** Sungute; **Swahili:** Mkungwina, Mtimaji; **Tongwe:** Kamoko; **Zigua:** Mgolimazi, Monko-ya-nyika; **Zinza:** Mtandaruka.

DESCRIPTION: An evergreen tree, 15–30 m, with **dark hanging foliage**, pyramid shaped when young, later the **crown is rounded and heavy**, the trunk rather smooth. BARK: Grey-red-brown, finely grooved, later rough, scaling to show green underbark. LEAVES: Compound, **stalks and shoots softly hairy**, 4–5 pairs leaflets, thick and shiny, leaflets **increasing in size up to the largest central leaflet** which may be up to 16 cm long, **the midrib below continues into an unusual hairy tip**. Leaves dry green to pale brown, 11–18 pairs veins below are close together. FLOWERS: Inconspicuous, fragrant clusters, cream-green, 5 thick petals around a hairy centre of stamens. FRUIT: Round, red-brown hairy capsules to 3 cm across dry and split into 3–4 parts. **A clear neck to 1 cm long** (unlike *T. dregeana*) connects the capsule to the fruit stalk. Up to 6 shiny black seeds hang out of the open capsules, each one almost covered by a soft orange-red aril.

ECOLOGY: Found in coastal forest, drier types of riverine forests and woodland, more rarely in rocky outcrops or in wooded grassland, 0–1,300 m.

DISTRIBUTION: Found in all parts of Tanzania, including on Zanzibar Island. Also in Uganda, Kenya; widespread in Africa from Senegal to the Red Sea, through Central Africa to South Africa (KwaZulu-Natal), and also in the Arabian peninsula.

USES:

**Food:**

Seeds are squeezed in water and the resulting tasty fatty suspension is used for cooking.

**Medicinal:**

- The oil extracted from the seed kernel is used to treat rheumatism, leprosy and fractures.
- An infusion of the leaves and bark is used to treat dysentery, fever, lumbago and bruises.
- A decoction of the roots is used to treat intestinal worms, rheumatism, colds, persistent infertility and to induce labour in pregnant women.
- An infusion from the bark is used as an emetic and for treating pneumonia.

*Trichilia emetica* (contd)

## Meliaceae

**Commercial:** Seeds are sold commercially (Tukuyu, Mbeya).

**Other:** Has pink-brown to brown-grey wood which is straight grained and easy to plane making it popular for furniture, household utensils, water pots, beehives and canoes. The tree provides good shade and is suitable as an avenue tree. Oil extracted from the seed kernel is used commercially for making soap, candles and cosmetics.

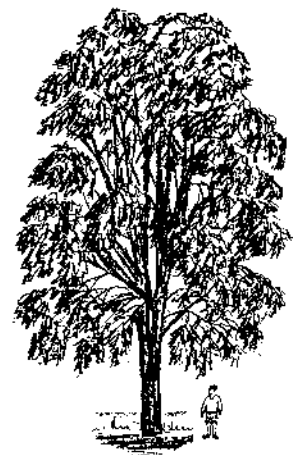
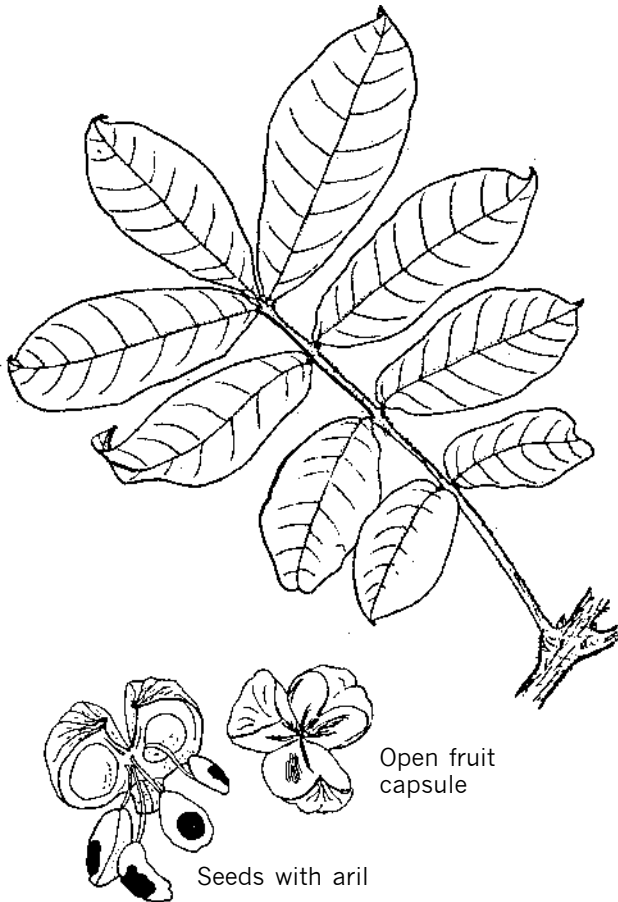
**SEASON:** Fruits are collected from April to July and November to December.

**STORAGE:** Dried seeds can be stored for several months.

**MANAGEMENT:** Usually collected from the wild, but also retained or planted on farms.

**STATUS:** Locally common within its area of distribution.

**REMARKS:** A suitable and important tree for agroforestry.



*Trichodesma zeylanicum*

## Boraginaceae

Indigenous

LOCAL NAMES: **Bondei:** Sesemlanda; **Chagga:** Iwasha; **English:** Ceylon borage; **Gogo:** Ilimi-lya-ng'ombe; **Gorowa:** Thaki; **Rangi:** Inyankumbi; **Sambaa:** Sesemlanda; **Swahili:** Msasa mlanda; **Tongwe:** Mambamlele.

DESCRIPTION: An annual or perennial herb, shrubby, to 1.5 m high from a taproot, stems woody at the base and **densely rough hairy, irritating** to handle. LEAVES: Small upper leaves alternate, **oblong, stalkless 2–12 cm**, rounded at the base, very rough hairy above, more soft paler hairs below. **Lower leaves to 16 cm** x 5 cm across, on a stalk to 1 cm, all coarsely hairy. FLOWERS: Small and **drooping from many flowered heads**, the slender flower stalks reddish, **hairy**, about 3.5 cm, each flower tubular, 5 mm, with **5 lobes, pale to deep blue, twisted at the tip**, the centre white-pink-purple, darker spots at the base; **5 long stamens, hairy at the base, reach out of the flower**, the 5 pointed **hairy sepals** are about 1 cm and **enlarge to 2 cm in fruit**. FRUIT: **4 shiny grey-brown nutlets**, 4 mm, one side round, 3 sides flat.

ECOLOGY: Found in disturbed dry bushland, grasslands, cultivated areas or as a pioneer on disturbed ground both in well-drained and marshy or black-cotton soil; up to 1,700 m.

DISTRIBUTION: In all parts of Tanzania, including Zanzibar and Pemba Islands; Uganda, Kenya, Sudan, Ethiopia, Central and Southern Africa, also on Madagascar and east to India, the Philippines and Australia.

USES:

**Food:**

Young leaves and shoots are chopped and cooked with other vegetables such as amaranth or peas, and coconut milk or groundnut paste added. The vegetable is then served with a staple.

**Medicinal:**

- Roots are chewed or pounded and soaked in cold water. The infusion is used as a remedy for tuberculosis, stomach-ache, poisoning and snakebite.
- Green leaves and roots are chewed and used as a poultice for fresh wounds, boils and snakebite.

**Commercial:** Not marketed.

**Other:** Stems are used as fire sticks and the flowers are a source of bee forage.

SEASON: Young leaves are collected in the early rainy season (December–January).

STORAGE: Not stored.

MANAGEMENT: Only collected from the wild, but it can be propagated by seed.

STATUS: Locally very common within its area of distribution.

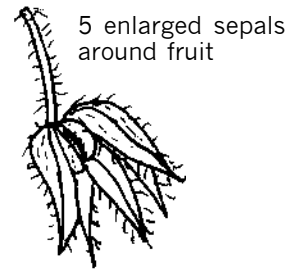
REMARKS: One of the troublesome weeds in farms.

*Trichodesma zeylanicum*

Boraginaceae



Flowering and fruiting stem



5 enlarged sepals  
around fruit



4 shiny grey nutlets

*Trilepisium madagascariense*

## Moraceae

Indigenous

LOCAL NAMES: **Chagga:** Mrua; **English:** Bastard fig, False fig; **Hehe:** Mfilafila; **Luguru:** Mzugo; **Rufiji:** Msisingololo; **Sambaa:** Mzughu.

DESCRIPTION: An evergreen tree, usually 20–30 m high, diameter usually 50–100 cm, with straight clean bole to a small rounded crown with drooping branches. **BARK:** Grey and smooth, when cut, white latex drips out; outer part of the cut bark pink-red. The latex soon becomes violet and the whole area turns brown. **LEAVES:** Simple, alternate, tough and leathery, dark shiny green above, to 12 cm, on a stalk about 1 cm. The edge is rolled under and the **looping veins join up below the edge**. The **narrow tip** is drawn out about 1 cm. **FLOWERS:** Both male and female flowers develop inside the **bell-shaped receptacle**, about 1.5 cm long. Receptacle has a wide opening and **stamens** like a **cream-mauve brush hang out, about 1 cm** across. The female parts are hidden inside. **FRUIT:** When ripe, the fleshy oval **receptacle** (false fig), **about 2 cm** long, turns **purple-black**, contains a single seed in a hard nut.

ECOLOGY: Rainforest and other wetter evergreen forests, riverine and forest on land with a high water-table, up to 1,800 m.

DISTRIBUTION: Widespread in Tanzania except central and western parts; found, for example, in Morogoro, Tanga, Arusha and Pwani Regions and on Zanzibar Island. Also in Uganda, Kenya; from Guinea to southern Ethiopia and south to Angola and South Africa.

USES:

**Food:**

Fruits are edible. Ripe fruits are fleshy and eaten raw as a snack. They are sweet and much eaten by children.

**Medicinal:** Roots are pounded, soaked in cold water and the infusion mixed with porridge made out of finger millet flour. The porridge is drunk as a remedy for impotence (Bondei, Sambaa).

**Commercial:** Not marketed.

**Other:** The wood is used for building poles, tool handles, spoons, bedsteads, bows, gunstocks and carvings. The tree provides good shade. Latex from the bark is used as lime for trapping birds.

SEASON: Fruits are collected from October–December.

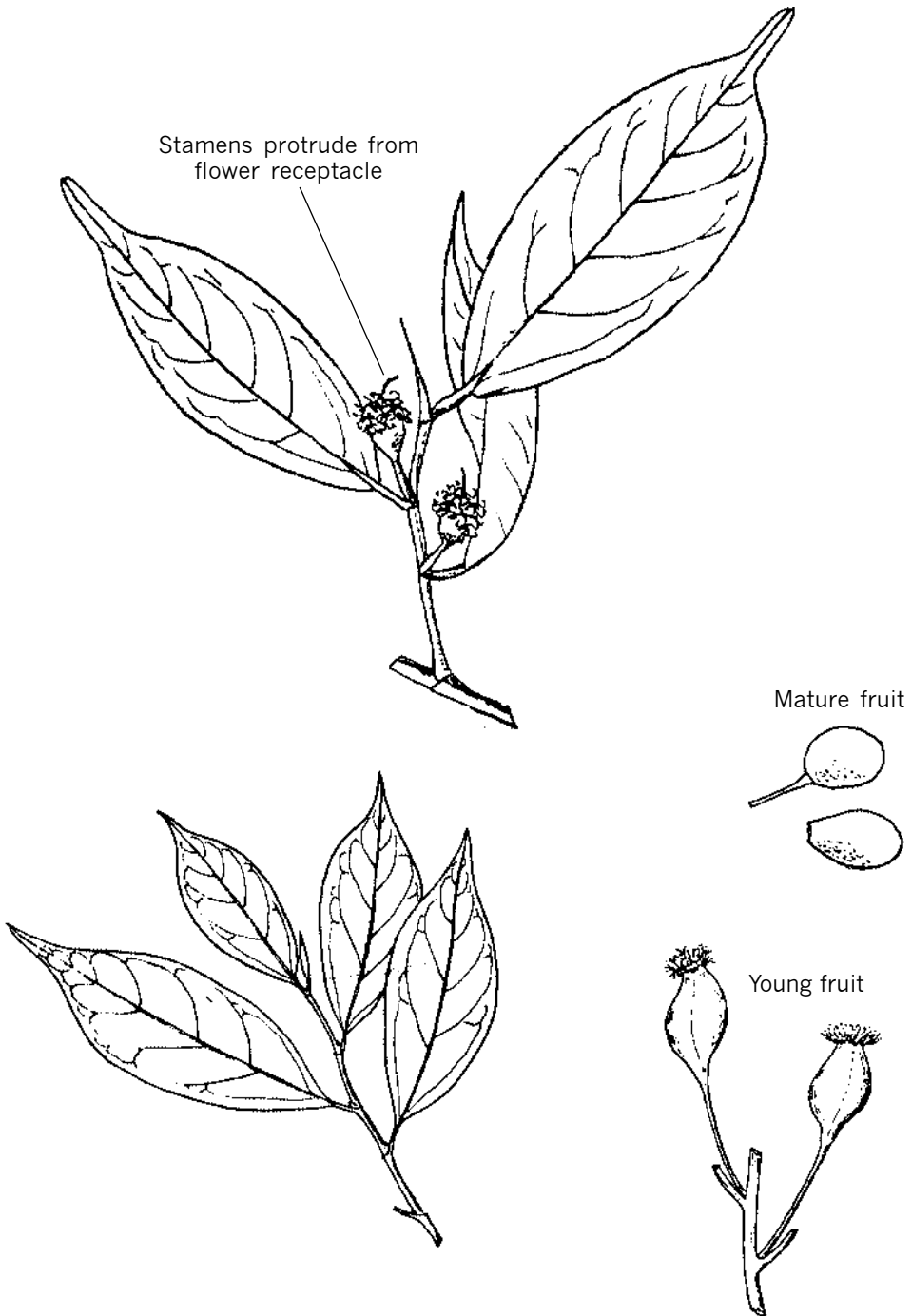
STORAGE: Not stored.

MANAGEMENT: Fruits are collected only from the wild as the tree is not cultivated. Propagation can be done using fresh seed.

STATUS: Common and easily accessible within its area of distribution.

*Trilepisium madagascariense*

Moraceae



***Triumfetta cordifolia* var. *tomentosa*****Tiliaceae**

Indigenous

LOCAL NAMES: **Bondei:** Fyofyokoe, Msosokolwe, Sosokolwe; **Hehe:** Lihana; **Rangi:** Murenda; **Sambaa:** Fyofyokoe, Kidwanga, Msosokolwe, Sosokolwe; **Swahili:** Mchochokoe; **Zigua:** Msosokolwe.

DESCRIPTION: A hairy **perennial erect shrub up to 2.5 m**, sparsely branched **stout stems** thick at the base, red-brown, younger stems **rough or with softly brown-white hairs**, mostly star shaped. LEAVES: **Elongate to rounded, 6–13 cm, the tip 3-lobed**, base **slightly heart shaped**, on a stalk 4–6 cm, edge doubly toothed, **the upper surface dark green** with tiny scattered star hairs, quite rough while the **lower surface is distinctly grey-brown-white, softly hairy** and some longer simple hairs, a pair of hairy triangular stipules at first. The central lobe is long pointed to 4.5 cm, laterals smaller. FLOWERS: **Orange-yellow in a terminal head with 5–10 branches**, each to 30 cm, bearing numerous flowers at the nodes, 5 narrow sepals to 9 mm are spine tipped, the outer surface brown-grey, densely hairy, **5 petals only 5–7 mm**, the edges with dense woolly hairs, 10–12 stamens in the centre with brown anthers. FRUIT: **A rounded bristly capsule** about 1 cm diameter (a few white hairs), **the many bristles 3–4 mm long, tightly hooked at the tip**, the green young capsule becomes red then brown and shiny.

ECOLOGY: A plant of edges and clearings in wet forest, riverine forest or in marshy areas, mostly at higher altitudes in the most western areas of East Africa, 900–2,600 m. A colonizer at roadsides.

DISTRIBUTION: Widespread in Tanzania, e.g. in Kagera, Mbeya, Mwanza, Iringa, Tanga, Rukwa, Arusha and Kigoma Regions; Uganda, Kenya, from West Africa through to Central Africa and south to Zimbabwe.

USES:

**Food:**

Tender leaves are chopped and cooked alone or mixed with other vegetables such as peas or beans. Coconut milk or pounded groundnuts are added and then they are served with *ugali*, rice, potatoes or bananas.

**Commercial:** Not marketed.

**Other:** The plant is used as a broom and is a source of bee forage.

SEASON: Leaves are collected during the rainy season.

STORAGE: Not stored.

MANAGEMENT: Only collected from the wild but can easily be propagated from seed.

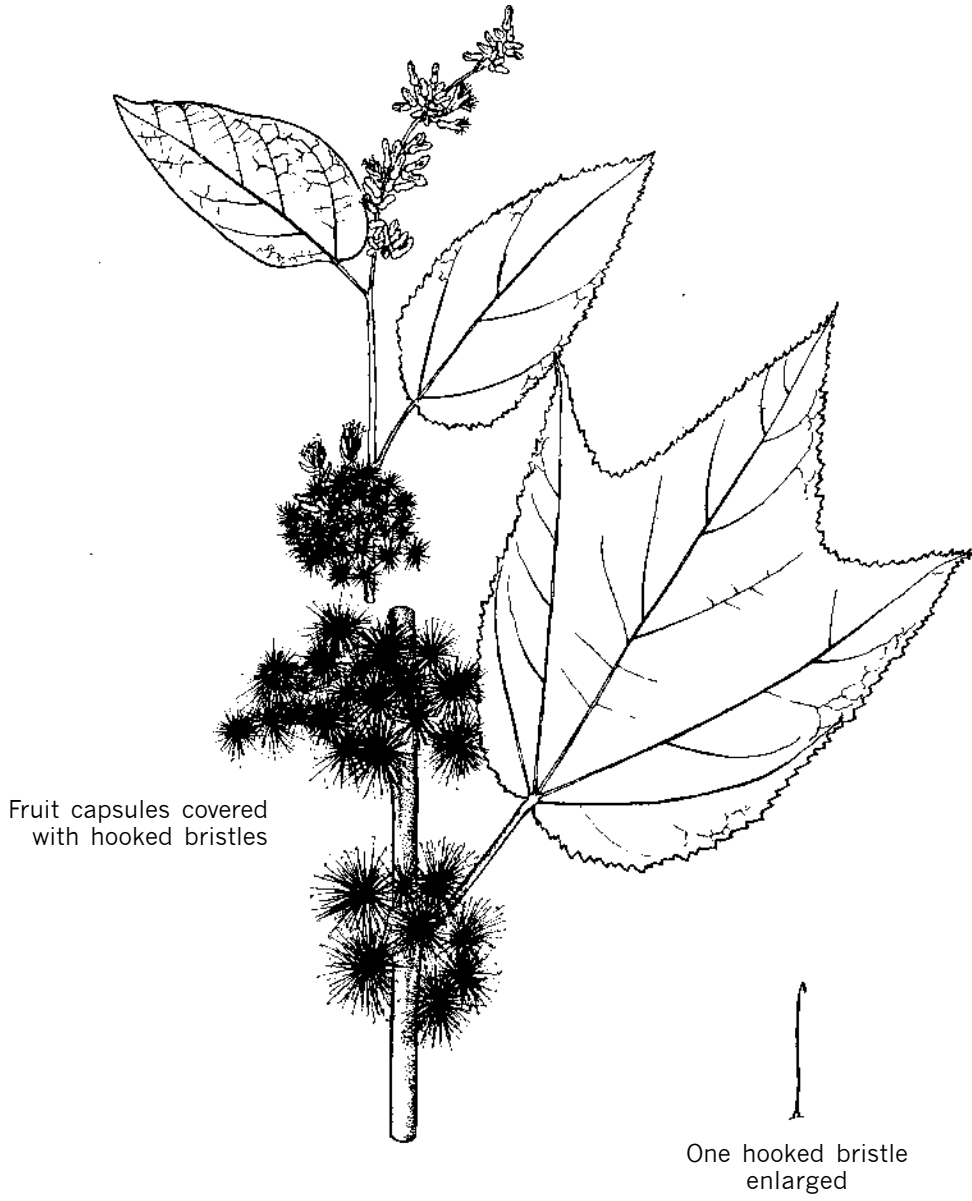
STATUS: Locally common.

REMARKS: Regarded as a bad weed.



*Triumfetta cordifolia* var. *tomentosa*

Tiliaceae



*Tylosema fassoglense*  
(*Bauhinia fassoglensis*)

Caesalpinaceae

Indigenous

LOCAL NAMES: **English:** Fish-poison bean, Sprawling bauhinia; **Luguru:** Mbalawala; **Maasai:** Esinkarua.

DESCRIPTION: A trailing or **climbing herb** or shrub to 6 m, sometimes woody below, spreading out from a **large underground tuber** as long as 3 m, irregularly cylindrical. **Young parts covered with soft rust-red hairs**, later grey. The hairy **tendrils fork and curl** enabling the plant to scramble over other vegetation. LEAVES: Distinctive **heart shaped, bilobed, about 5–20 cm wide**, the notch shallow, never deeper than one-third of the length, stalk 2–20 cm, rusty hairs below, especially on the nerves. FLOWERS: Attractive **pale yellow–pink**, butterfly shaped, **2–5.5 cm across**, in hairy rust-red calyx cups, spaced along a main stalk about 12 cm, **4 large petals, rounded, crinkled, to 4 cm long, one very small petal with a spur**, only 2 of the 10 stamens fertile, with red filaments and dark anthers. FRUIT: Pods broad and flat, dark brown, leathery, 7–12 cm long, containing several oval flat seeds, dark brown–black.

ECOLOGY: Grasslands, wooded grasslands, woodlands and forest edges in medium-altitude areas, up to 1,500 m; rainfall 1,000–1,600 mm. Tolerates a wide range of soil types but thrives well in red or yellow sandy clay loams.

DISTRIBUTION: Eastern and central tropical Africa from the Sudan south to South Africa. In Tanzania it is found in all parts except in Arusha and Kilimanjaro Regions.

USES:

**Food:**

- The seeds are collected and placed in hot ashes for 3–4 minutes to bake and then eaten as a snack (Luguru, Hehe). They taste like beans.
- Seeds are boiled or roasted in a pan, a little salt added and then they are eaten (Luguru, Vidunda).

**Medicinal:** A root decoction is used as a remedy for stomach-ache and diarrhoea (Luguru).

**Commercial:** Not marketed.

**Other:** The plant is used for fodder, as a source of bee forage and for ornamental purposes.

SEASON: Collected at the end of the rainy season.

STORAGE: Not stored.

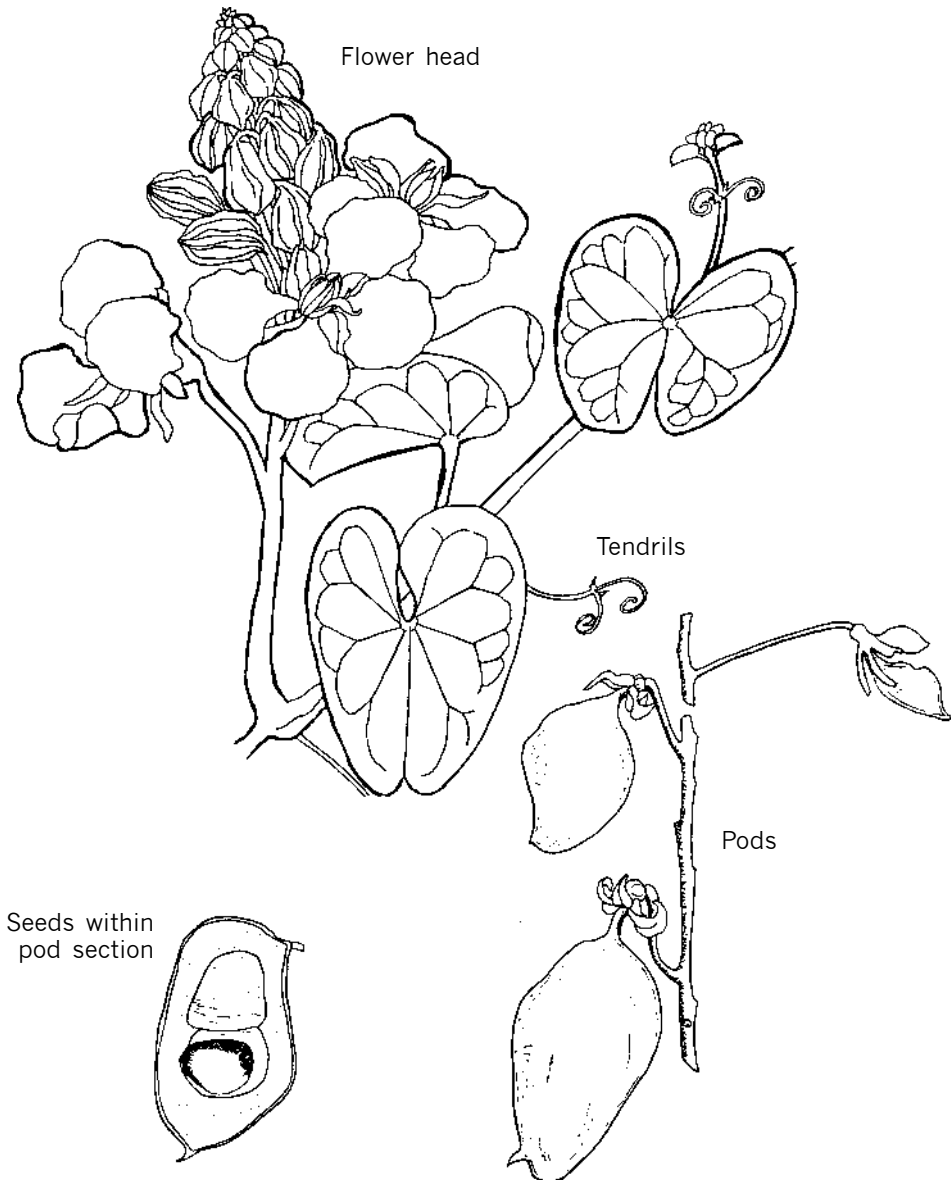
MANAGEMENT: Collected from the wild and not protected or cultivated by local people. It can be propagated by seed.

STATUS: Common and easily accessible within its area of distribution.

*Tylosema fassoglense* (contd)

## Caesalpinaceae

REMARKS: Pods are eaten raw when young, but cooked when older (Zimbabwe). The large tuber is crushed and pounded to make a fine meal used to make porridge (Zimbabwe). The plant has been cultivated in the Sudan for fish poison (rotenone) and for an insecticide obtained from the leaves.



*Typhonodorum lindleyanum*

## Araceae

Indigenous

LOCAL NAMES: **English:** Giant aroid; **Swahili:** Mgombakofi, Mtongonya.

DESCRIPTION: A **giant perennial herb with erect banana-like false stems** to 4 m tall, 30 cm thick at the base, rather fleshy, with irritant sap, arising from an underground rhizome, the true stem. LEAVES: Leaf stalk and sheath to 3 m, the base white-pink, striped and spotted purple-black, **the blade to 140 cm long, 85 cm, wide shaped like an arrow head.** FLOWERS: Typical of the family, arise on a **columnar spadix to 55 cm long, yellow-white, the ovary red-yellow, surrounded by a white leaf-like enclosing spathe to 80 cm** which bends over in fruit. FRUIT: **Large, oval, containing round berries, about 4 cm across, yellow when ripe,** 1–2 flattened brown seeds inside.

ECOLOGY: Usually in pure stands in fresh water swamps near the sea.

DISTRIBUTION: Found only in Zanzibar and Pemba Islands; Madagascar, Comoro and Mascarene Islands.

USES:

**Food:**

The thick rootstock is dug up from the ground, peeled and cut into small slices. The slices are boiled and washed several times in order to remove some of the toxic matter, then coconut milk added and eaten. Alternatively, the slices are soaked in water for two days and dried in the sun. The dried slices are pounded into flour which is cooked into *ugali*.

**Commercial:** Not marketed.

**Other:** The leaves are used for thatching and mulching. The plant is used for ornamental purposes.

SEASON: Rootstocks are dug up during the rainy season.

STORAGE: Dried slices and the flour can be stored for several months.

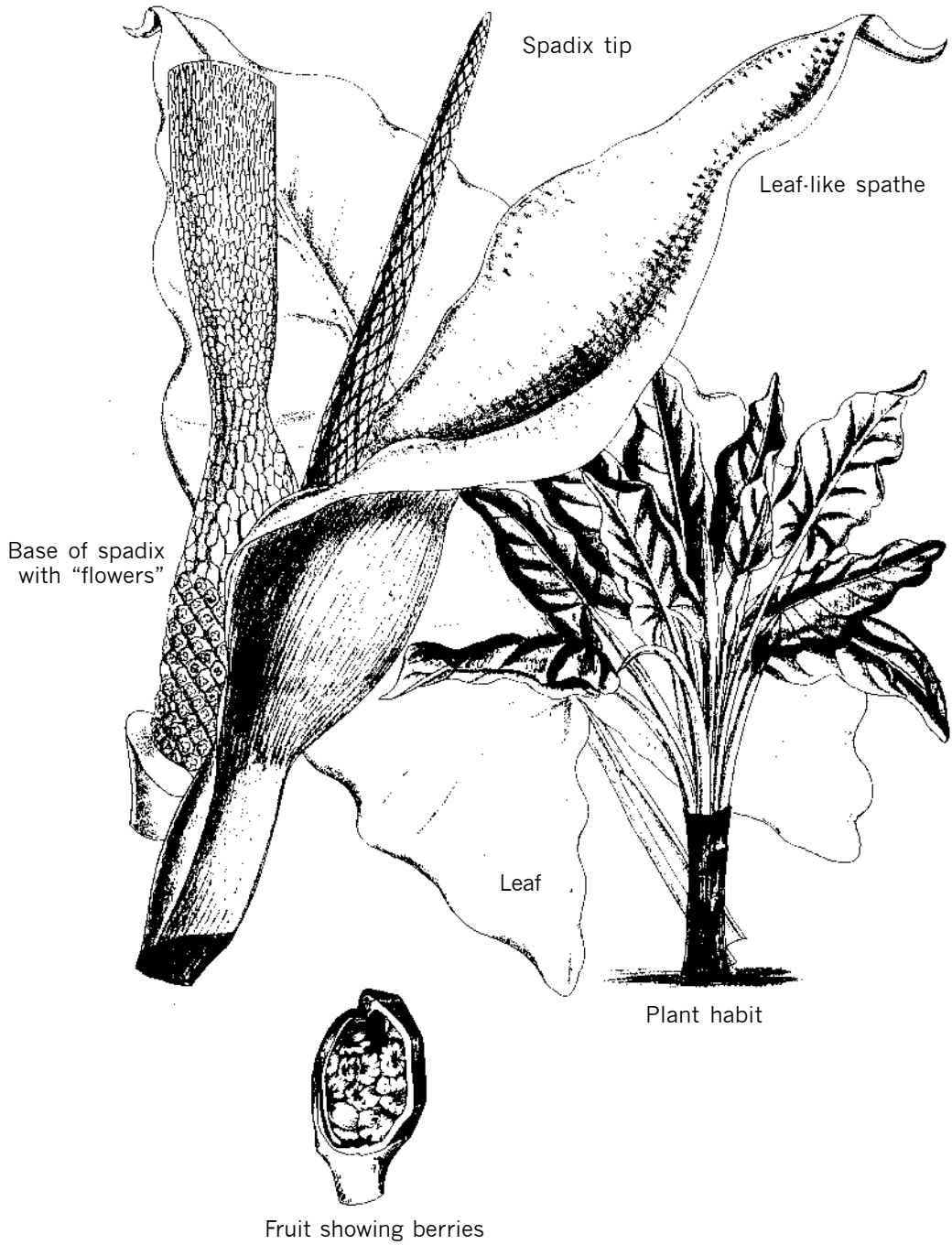
MANAGEMENT: Only collected from the wild, but can be propagated by seed and suckers.

STATUS: Occasional, but in pure stands within its area of distribution.

REMARKS: Used only as a famine food and often causes itching in the throat.

*Typhonodorum lindleyanum*

Araceae



*Upaca kirkiana*

## Euphorbiaceae

Indigenous

[Plates 5 and 6]

LOCAL NAMES: **Bena:** Mguhu; **Bende:** Mkusu; **English:** Wild loquat; **Ha:** Mgusu, Umugusu; **Hehe:** Mguhu, Mkusu; **Matengo:** Hekela, Msuku; **Ndendeule:** Mahuko; **Ngoni:** Masuku, Msuku; **Nyakyusa:** Mkuhu; **Nyamwezi:** Mkusu; **Nyasa:** Masuku; **Swahili:** Mkusu; **Tongwe:** Ikusu; **Zigua:** Mhungu.

DESCRIPTION: A much-branched semi-deciduous tree up to 9 m with a **rounded crown**. **BARK: Dark grey or grey-brown with vertical fissures**. **LEAVES:** Simple, alternate or in whorls, confined to ends of branchlets. Shiny dark green, thick and coarse, usually about 17 cm long, **orange-yellow, woolly hairs below and on veins**, tip notched. **FLOWERS:** Male and female flowers produced on different trees. All flowers are greenish yellow, inconspicuous, growing from old wood. **FRUIT:** Rounded, rusty green berry, to 3 cm diameter, turning rusty **yellow when ripe, sweet pulpy flesh** surrounds 3–4 seeds.

ECOLOGY: A tree which may occur in extensive pure stands in deciduous woodlands, upland wooded grasslands and along streams, often on stony soils or rocky slopes, 700–2,000 m. Regarded as an indicator of poor agricultural soils.

DISTRIBUTION: Widespread in Tanzania; found, for example, in Mwanza, Iringa, Kigoma, Rukwa, Songea and Mbeya Regions. Also in parts of Central Africa and south to South Africa.

USES:

**Food:**

- The pulp of ripe fruits is fleshy, sweet and eaten raw. It is delicious and much eaten by all age and gender groups. The pulp can also be used to make jam.
- Ripe fruits are fermented and made into a local brew or wine.
- A pleasant juice is prepared by squeezing the fruits in water.

**Medicinal:** Roots are boiled and the decoction is used as a remedy for indigestion and intestinal problems.

**Commercial:** Much marketed in areas where it occurs and is a source of many people's income (Iringa, Mbeya, Songea).

**Other:** The wood is used for firewood, spoons, bedsteads, stools and beehives. The tree provides good shade.

SEASON: Ripe fruits are collected from October to January.

STORAGE: The jam can be stored.

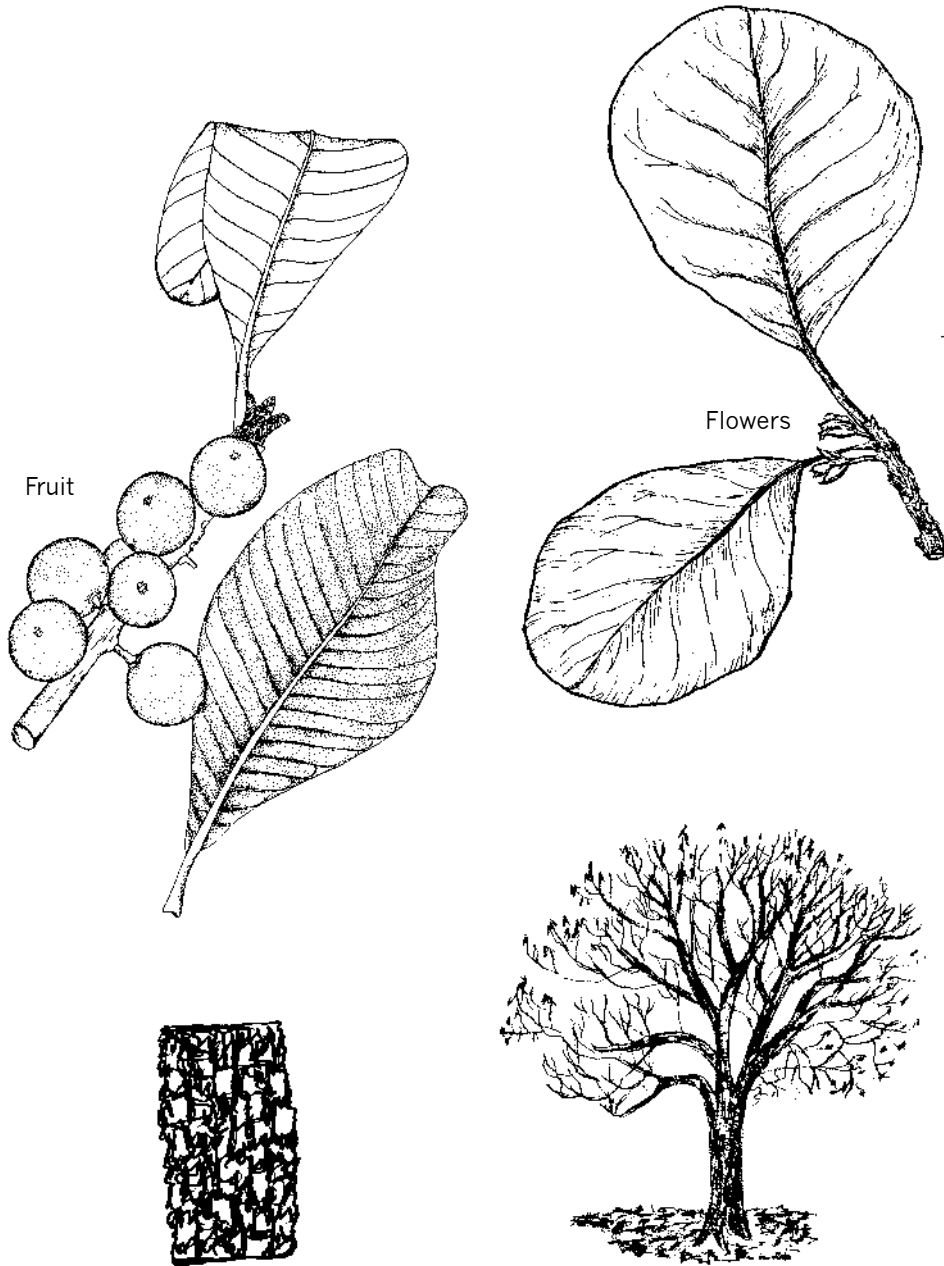
MANAGEMENT: Usually collected from the wild, but also protected by some farmers and may be propagated by fresh seed.

STATUS: Locally very common.

REMARKS: A very important indigenous fruit tree in Tanzania. In South Africa Masuku wine is made from this species.

*Uapaca kirkiana*

Euphorbiaceae



Rough, reticulated bark

*Uapaca nitida*

## Euphorbiaceae

Indigenous

LOCAL NAMES: **Ha:** Mhandehande, Umuhandehande; **Matengo:** Mhuku, Mtakalu; **Mwera:** Mngeshelo; **Ngindo:** Mahekela, Muhekela; **Nyakyusa:** Mnyamsimbi, Nsangisa; **Swahili:** Mtalala; **Tongwe:** Lulobe; **Zaramo:** Mtalala mwekundu; **Zigua:** Mhugu; **Zinza:** Mhendambogo.

DESCRIPTION: A small- to medium-sized evergreen tree reaching 12 m with a light rounded crown. BARK: Dark grey-black, rough, deep fissures and scaling irregularly. LEAVES: Alternate, **thin and leathery**, shiny green above, **no hairs either side**, with conspicuous veining, **the tip rounded**, the base narrowed to a **slender yellow-green stalk to 5 cm long**, long oval, 5–16 cm, edge wavy. FLOWERS: Male and female flowers on different trees. Flowers cream-yellow, inconspicuous, axillary. FRUIT: Green-yellow, ripening orange-brown in 6 months, **round-oval, up to 2 cm long**, 3-celled, **on a short stem**. The yellow flesh around the seeds is edible and tasty (but not as good as *U. kirkiana*).

ECOLOGY: A typical tree of the miombo woodlands of Tanzania, which are dominated by *Brachystegia* and the associated wooded grasslands, 300–1,600 m.

DISTRIBUTION: A tree found in most parts of Tanzania excluding the north-eastern areas; found, for example, in Mwanza, Songea, Rukwa, Lindi and Pwani Regions. Also in parts of Central Africa and south to Mozambique, Malawi, Zambia, Zimbabwe and Angola.

USES:

**Food:**

- The pulp of ripe fruits is fleshy and sweet and is eaten raw as a snack.
- A refreshing juice is made by squeezing fruits in water.

**Commercial:** Not marketed.

**Other:** The wood is used for firewood, charcoal, bedsteads and spoons. The tree is used for shade.

SEASON: Fruits are collected from November to December.

STORAGE: Not stored.

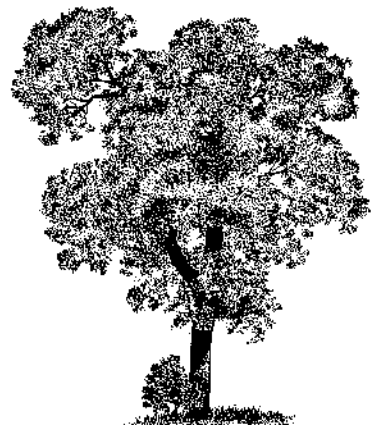
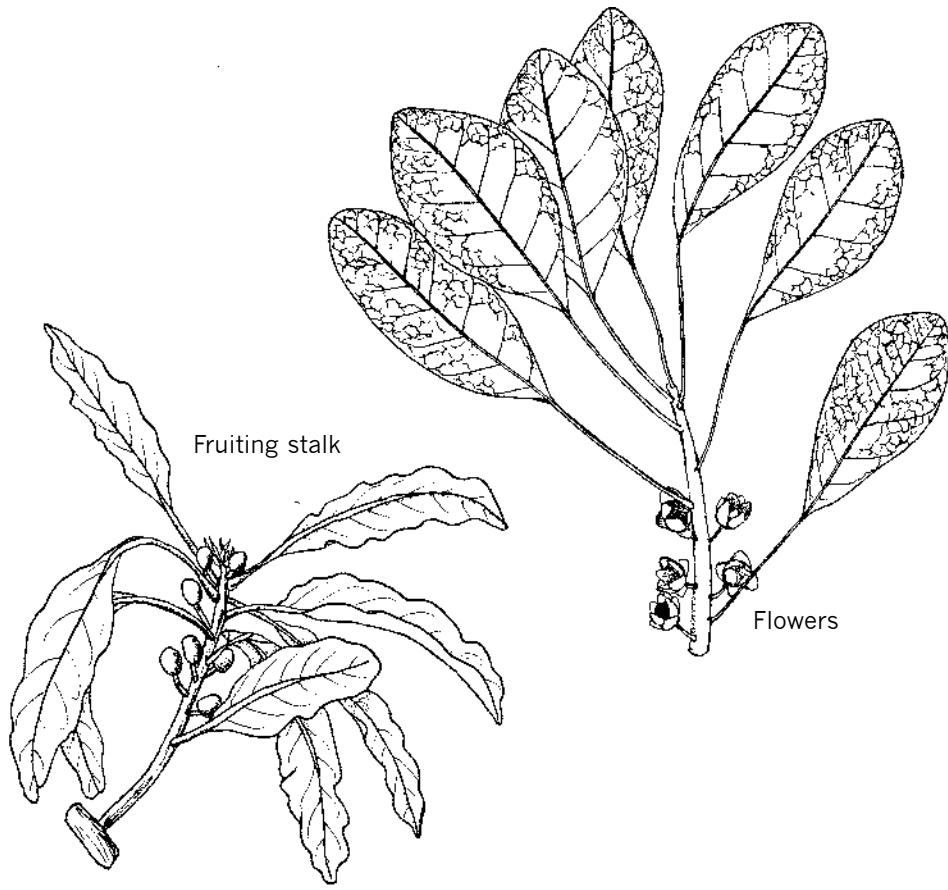
MANAGEMENT: Fruits are collected from the wild as the tree is not cultivated, but it can be propagated using fresh seed.

STATUS: Common and easily accessible within its area of distribution.



*Uapaca nitida*

Euphorbiaceae



***Uapaca paludosa* (*U. guineensis*)**      **Euphorbiaceae**

Indigenous

LOCAL NAMES: **Swahili:** Mchenza mwitu.

**DESCRIPTION:** A much-branched evergreen tree to 18 m, supported on very prominent **stilt roots** which leave the bole up to 3–4 m above the ground; a dense rounded crown of large leaves. **BARK:** Light brown–red-brown, scaly but generally smooth, vertical lines of lenticel dots, fissured with age. **LEAVES:** **Bunched at the ends of branchlets, thin and stiff, about 25 x 5 cm**, with 10–20 main lateral veins on each side, clear below, tip rounded, narrowed to a stalk about 5 cm. **FLOWERS:** Male flower heads towards ends of branchlets, numerous **yellow-green flowers surrounded by golden-yellow bracts**, stalks about 1 cm, bracts 1 cm. **Female flowers** similar but with a **single flower** instead of the rounded head. **FRUIT:** **Yellow, ovoid-round, about 2 cm diameter**, 2–4 smooth green seeds inside.

**ECOLOGY:** Dominant in swamp forests, lakeside forests, fringing forest and as an under-storey tree in lowland rainforest, 600–1,400 m.

**DISTRIBUTION:** From West Africa through Uganda into north-eastern Tanzania. It occurs in forests around Lake Victoria and on islands in the Lake. It has also been recorded at Turiani Falls in the Nguru Mountains (Morogoro District), at Manyangu Forest and in Mwanihana Forest Reserve (Iringa District).

**USES:**

**Food:**

- The fruits are collected from the tree when ripe. The pulp is eaten fresh and the seeds discarded. The fruit tastes avocado-like and is eaten as a snack frequently and in moderate amounts.
- The ripe fruit can be squeezed into juice and drunk before or after being cooled.

**Other:** The wood is used as timber for general purposes and for firewood, charcoal, boxes, crates and for making domestic utensils such as spoons and cups. The tree is used for shade.

**SEASON:** Fruits are collected throughout the year with a peak in November–December.

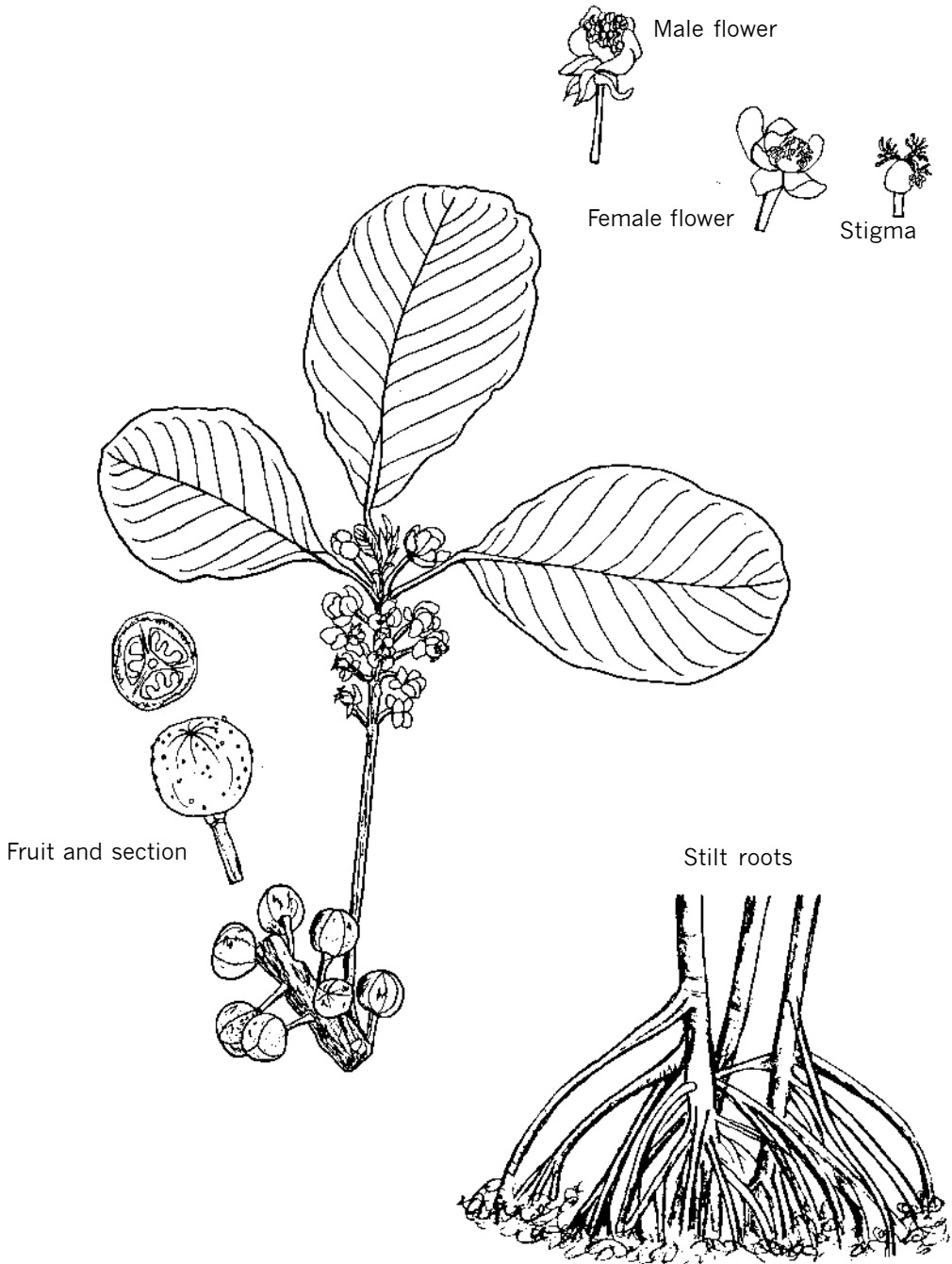
**STORAGE:** Not stored.

**MANAGEMENT:** Collected from the wild and not protected or cultivated by local people. Can be propagated using fresh seed.

**STATUS:** Common and very easily accessible within its area of distribution.

*Uapaca paludosa* (*U. guineensis*)

Euphorbiaceae



***Uapaca sansibarica***  
(*U. macrocephala*)

**Euphorbiaceae**

Indigenous

LOCAL NAMES: **Ha:** Umutobho; **Matengo:** Mtatanku; **Nyakyusa:** Kakuchu, Nsangisa; **Nyiha:** Mkusu-mpareni; **Swahili:** Mchenza mwitu, Mouma, Mtalala, Mtoto; **Tongwe:** Kakusufinya; **Zaramo:** Mtalala; **Zinza:** Mugusugusu.

DESCRIPTION: A small semi-deciduous tree to 14 m, often less, the crown heavy, flat to rounded. BARK: Grey-black, smooth, then **cracked into small square or oblong scales**, stout branchlets black. LEAVES: Alternate and simple, **leathery, usually shiny dark green in terminal tufts, about 12 cm but up to 45 cm x 25 cm, wider at the tip, which is rounded**, base narrowed to a stalk 1–2 cm, lower surface dull with yellow veins, not more than 20 pairs of side veins (more in *U. kirkiiana*). FLOWERS: Male and female separate on different trees, **male flowers yellow-green surrounded by yellow leafy bracts**, in stalked clusters, **female flowers solitary and stalked, styles fan shaped and recurved**. FRUIT: Rounded **yellow-orange-brown and fleshy when ripe, up to 2 cm diameter**, containing 2–4 seeds, the edible flesh yellow, jelly-like and sweet.

ECOLOGY: Common and locally co-dominant in deciduous and coastal woodland and associated wooded grassland, also in evergreen woodland and riverine forest, 0–1,900 m.

DISTRIBUTION: Found in most parts of Tanzania except the central and north-eastern areas; e.g. in Morogoro, Pwani, Kigoma, Kagera, Mwanza, Mbeya. Also in Uganda, from Sudan south to Mozambique, Zimbabwe, Malawi, Zambia and Angola.

USES:

**Food:**

- Fruits are edible. Ripe fruits are sweet and eaten raw as a snack, especially by children.
- A pleasant juice can also be made from the fruits.

**Commercial:** Not marketed.

**Other:** The wood is used for timber, tool handles, bedsteads, grain mortars and beehives.

SEASON: Fruits are available from June to August.

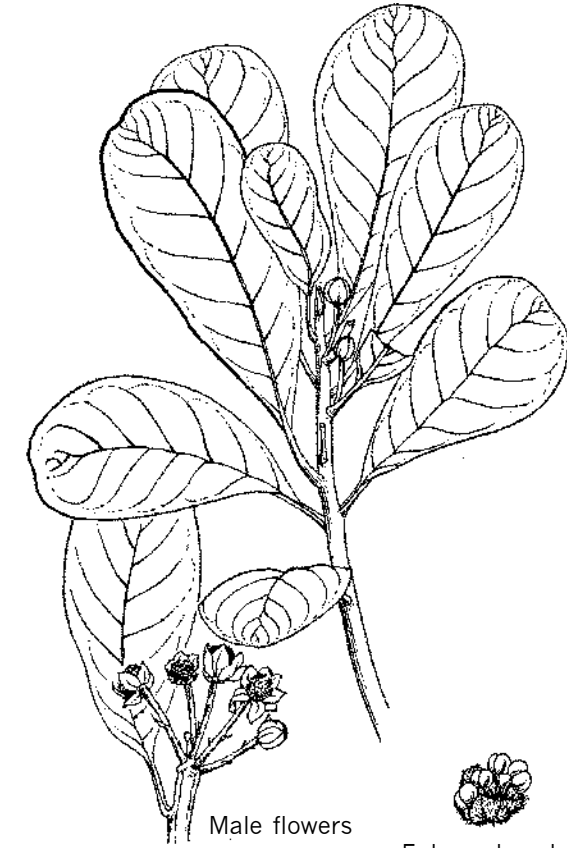
STORAGE: Not stored.

MANAGEMENT: Fruits are collected from the wild as the tree is not cultivated, but it can be propagated using fresh seed.

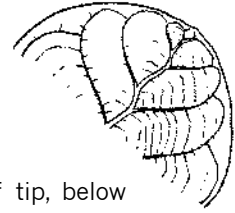
STATUS: Common and easily accessible within its area of distribution.

*Uapaca sansibarica* (contd)

Euphorbiaceae



Male flowers



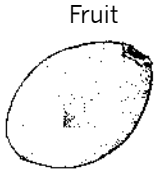
Leaf tip, below



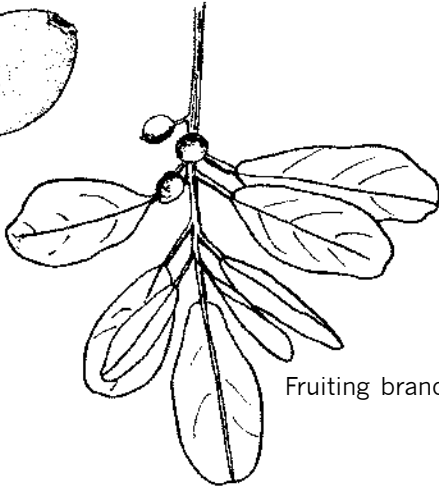
Female flower



Enlarged male flower



Fruit



Fruiting branchlet



*Urtica massaica*

## Urticaceae

Indigenous

LOCAL NAMES: **English:** Maasai stinging nettle; **Maasai:** Endamejoi, Entameijoi, Intameijo (plural), Olmbasa, Olnyal; **Pare:** Ivasha, Ivava; **Sambaa:** Tufia; **Swahili:** Mpupu.

DESCRIPTION: **An erect perennial herb** to 2 m with few branches, forming loose clumps from a creeping rhizome, the stems 4-sided and **all parts with fiercely stinging hairs**, 1–2 mm long. LEAVES: Opposite, simple, oval, tip pointed, to 13 cm long, **base cordate to a stalk to 4 cm, margin wavy, usually double-toothed**, upper leaf surface with stinging hairs as well as fine hairs, lower surface with stinging hairs along nerves, brown membranous stipules, 1–2 cm long, joined together, grow between leaf pairs. FLOWERS: Small, 1 mm, greenish, on **pairs of spike-like stalks, 3–4 cm long, in the axils of upper leaves**, no petals; male flowers stalked, 4 sepals; female flower without stalks and 4 unequal sepals, the 2 larger ones enclose the ovary. FRUIT: A 1-cm **white achene, flat and oval, enclosed by sepals** but dispersed separately.

ECOLOGY: A plant which does well in gaps, on disturbed ground in montane forests, near human habitation, around cattle enclosures, in abandoned fields and in secondary bushland after clearing of forests in high-altitude areas, 1,500–3,200.

DISTRIBUTION: Found in the north and east of Tanzania. Also in Uganda, Kenya and parts of Central Africa.

USES:

**Food:**

Tender leaves are collected, chopped, soaked in warm water and washed. They are then cooked alone or mixed with other vegetables, then coconut milk or pounded groundnuts may be added and the dish eaten along with *ugali*. The vegetable is only used as a famine food and is handled with care because of its stinging hairs (Pare, Sambaa).

**Medicinal:** A decoction of roots is used as a remedy for stomach-ache (Maasai).

**Commercial:** Not marketed.

SEASON: Leaves are collected in the rainy season.

STORAGE: Not stored.

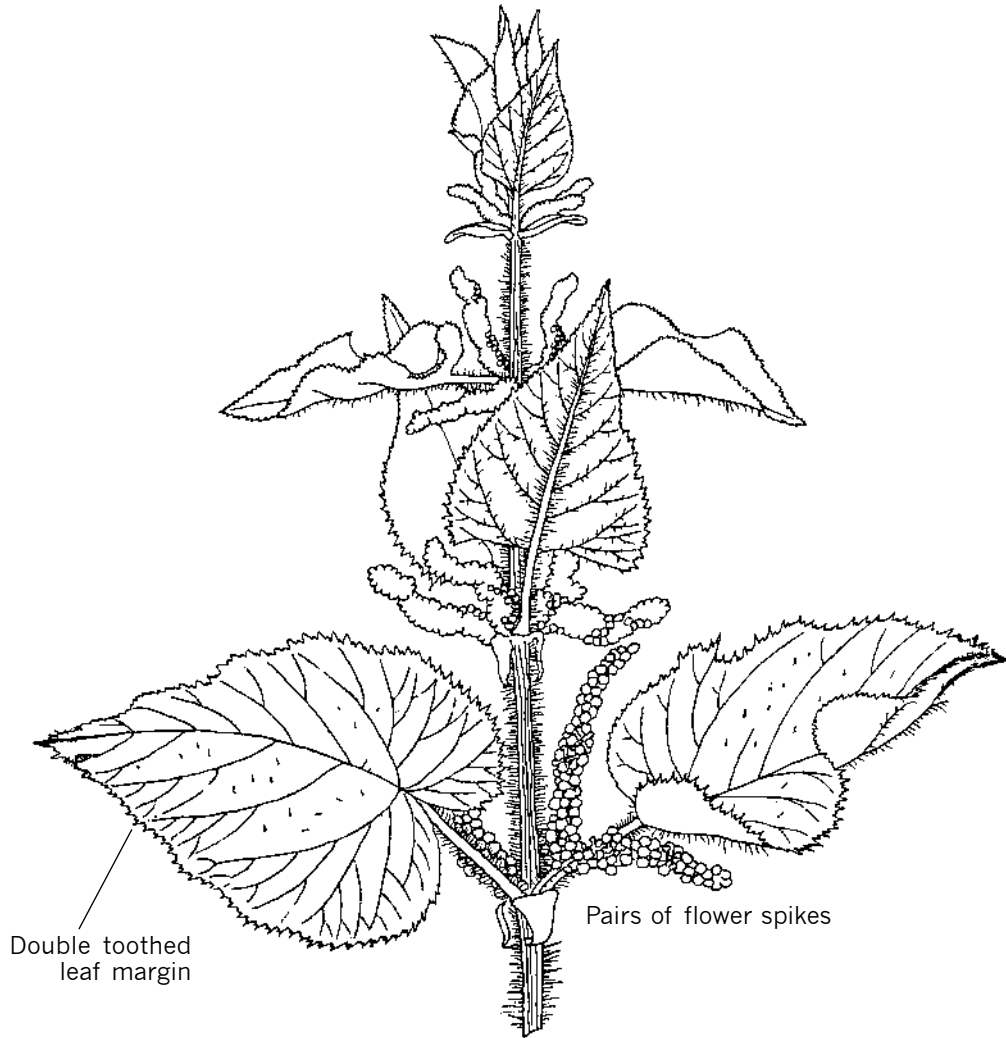
MANAGEMENT: Leaves are only collected from the wild, but it can easily be propagated using seed and rhizomes.

STATUS: Common within its area of distribution.

REMARKS: *U. massaica* is regarded by the Maasai as a bad weed of their pasture land and difficult to control. Many other *Urtica* species are used as vegetables in other parts of the world.

*Urtica massaica*

Urticaceae



*Uvaria acuminata*

## Annonaceae

Indigenous

LOCAL NAMES: **Digo:** Mudzala, Mumbweni; **Luguru:** Msofu; **Ngindo:** Muhou; **Ngoni:** Mhuani; **Sambaa:** Mleko, Mshofu, Msofu; **Sukuma:** Ihulungula; **Swahili:** Mganda simba, Mgweni, Mwacha; **Zaramo:** Msofu; **Zigua:** Mshofu, Msofu.

DESCRIPTION: A shrub or liane creeper to 5 m, leaves and branches with few or many hairs. LEAVES: Long oval, alternate, 3–8 cm, usually wider at the well-pointed tip, smooth above but **few or many rough star-shaped hairs below**, base rounded to a short stalk. FLOWERS: **3 distinct sepals cover the petals in bud**, coarse star hairs rusty in colour, one or two flowers hang down on flower stalks about 1 cm long, the **6 petals thin or fleshy, almost equal**, 6–13 mm, **white–pale yellow**. FRUIT: **Yellow or orange carpels** in a bunch on a stalk to 2 cm, green-brown at first, **5–15, round to ovoid, each 8–16 mm, covered with rusty hairs** and usually containing 1–2 shiny brown seeds.

ECOLOGY: Found in thicket, bushland and dry scrubby forest, also in wetter evergreen forest or woodland, predominantly coastal, 0–800 m.

DISTRIBUTION: Growing in the eastern and southern areas of Tanzania, including Zanzibar and Pemba Islands; found, for example, in Morogoro, Pwani, Tanga and Lindi Regions. Also the Kenya coast, Mozambique and Madagascar.

USES:

**Food:**

- The pulp of ripe fruits is sweet and is eaten raw by sucking it out and discarding the seeds.
- A refreshing juice is prepared by squeezing ripe fruits in water and adding some sugar, then it is filtered and drunk before or after being cooled.

**Medicinal:** Roots are boiled and the decoction is used for the treatment of dysentery, snakebite, painful menstruation, stomach-ache and breast disorders.

**Commercial:** Not marketed.

**Other:** The wood is used for firewood, withies, bows, tool handles and walking sticks. The tree is good for ornamental purposes and is a source of bee forage.

SEASON: Ripe fruits are collected from July to September.

STORAGE: Not stored.

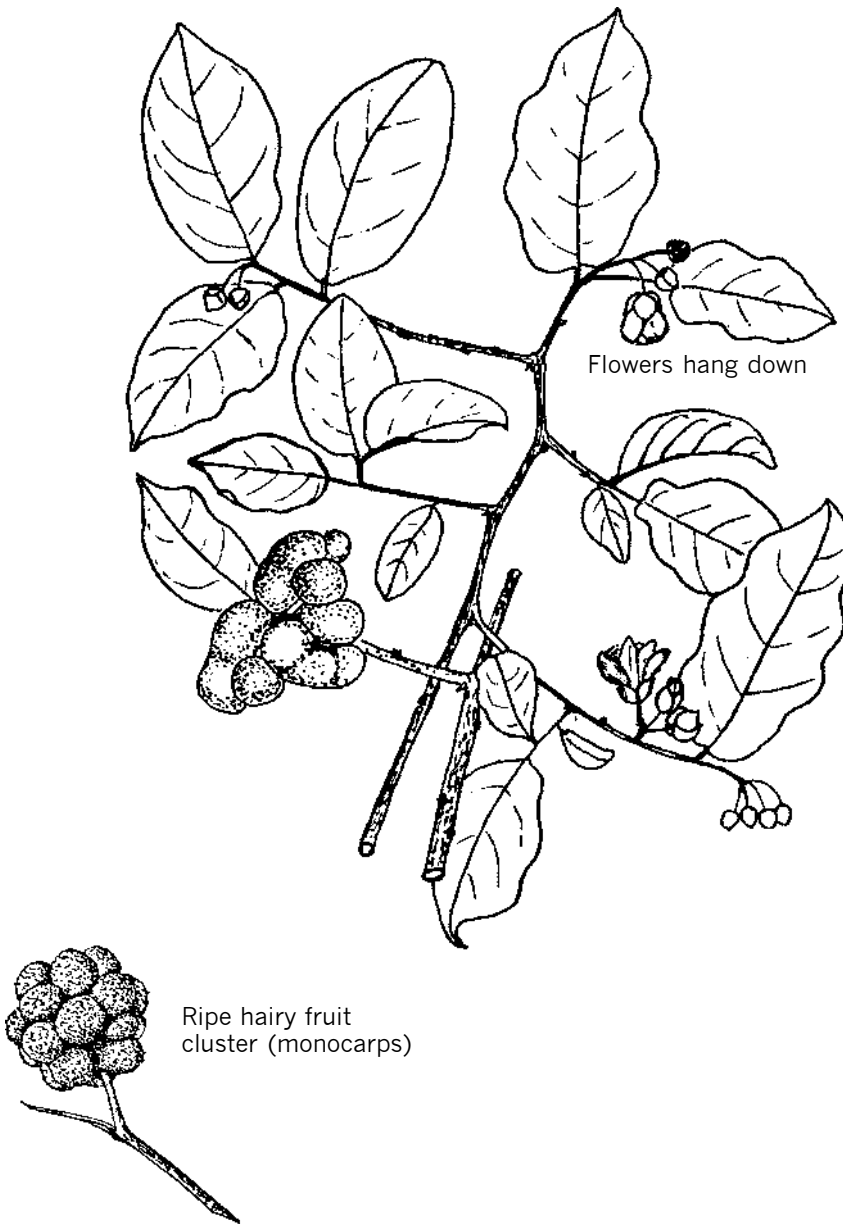
MANAGEMENT: Fruits are only collected from the wild, but the species can be propagated by seed.

STATUS: Common and easily accessible within its area of distribution.



*Uvaria acuminata*

**Annonaceae**



*Uvaria kirkii*

## Annonaceae

Indigenous

LOCAL NAMES: **Luguru:** Msofu; **Ngindo:** Mkonjiganga; **Sambaa:** Msofu; **Swahili:** Mcho, Mchofu, Msofu; **Zigua:** Msofu-simba.

DESCRIPTION: A shrub 1–2 m, or scrambler to 7.5 m. LEAVES: Broadly oval, the **tip flat or notched, 3–12 cm** long, no hairs or a few star hairs below. FLOWERS: Cream-yellow, solitary, terminal or leaf opposed, **the 6 petals 30–45 mm long**, on stalks to 3 mm or stalkless. FRUIT: **Oblong carpels 17–25 mm, the surface densely hairy and with small warty bumps**, each on stalks to 8 mm and containing 5–8 edible seeds in pulp (not narrowed between seeds).

ECOLOGY: Coastal bushland, scrub thicket or grassland, *Brachystegia* woodland, *Hyphaene* palm savanna, 0–400 m, sometimes riverine.

DISTRIBUTION: Found in coastal areas of Tanzania, including Zanzibar and Pemba Islands; coastal Kenya, Mozambique.

USES:

**Food:**

The pulp of ripe fruits is sweet and eaten fresh as a snack. The seeds are discarded.

**Commercial:** Not marketed.

**Other:** The wood is used for firewood, withies and tool handles. Roots produce a black dye. The plant is good for ornamental purposes and as a source of bee forage

SEASON: Ripe fruits are collected from April to June.

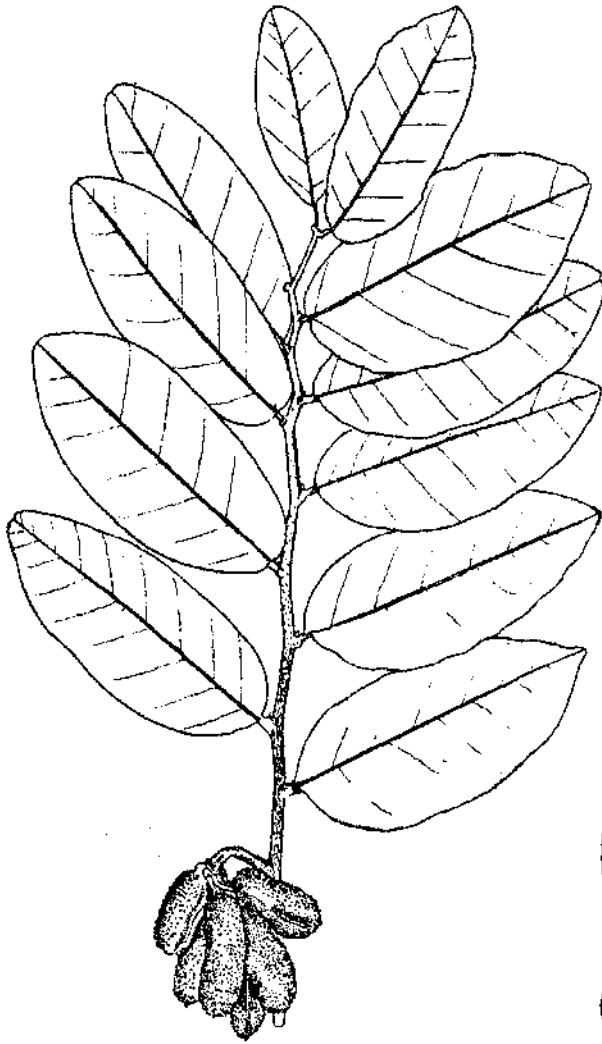
STORAGE: Not stored.

MANAGEMENT: Usually collected from the wild, but can be propagated by seed.

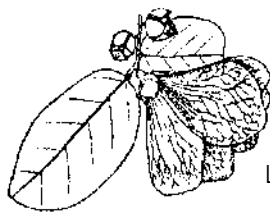
STATUS: Common and easily accessible within its area of distribution.

*Uvaria kirkii*

**Annonaceae**



Clusters of oblong  
fruit (monocarps)



Large flower petals

*Uvaria lucida* subsp. *lucida*

## Annonaceae

Indigenous

LOCAL NAMES: **Digo:** Mudzala; **English:** Large cluster pear; **Sambaa:** Mshofu; **Swahili:** Mganda simba; **Zaramo:** Mchofu, Msofu; **Zigua:** Mshofu.

DESCRIPTION: A climbing shrub or liane 1–7 m. LEAVES: Long oval, usually wider at the tip, 1–10 cm long, star-shaped hairs and scales on the lower surface. FLOWERS: **Yellow-green**, 1–3 together, terminal, opposite leaves or above leaf axils, **petals only 7–20 mm, the cup-like calyx splitting into 3 as the flower opens.** FRUIT: **Rusty hairy carpels, slightly bumpy, 9–30 mm long, narrowed between the 3–12 seeds, on stalks 7–12 mm.** A sweet edible flesh surrounds the seeds.

ECOLOGY: Lowland dry evergreen forest, wooded grassland and coastal bushland, often on rocky outcrops. Also in riverine forest and *Brachystegia* woodland, 0–1,500 m.

DISTRIBUTION: Found in eastern parts of Tanzania and in Zanzibar. Also coastal Kenya. This subspecies is not known elsewhere. Subsp. *virens* is, however, found in the Uluguru Mountains and generally in southern Africa south of the Zambezi River.

USES:

**Food:**

- Ripe fruits are fleshy, sweet and eaten raw.
- Ripe fruits may also be used for making juice.

**Commercial:** Not marketed.

**Other:** Wood is used for firewood and withies.

SEASON: Fruits are available from April to June.

STORAGE: Not stored.

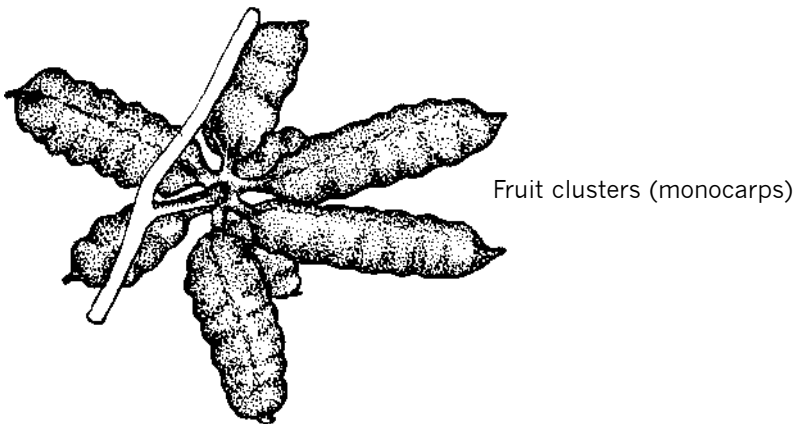
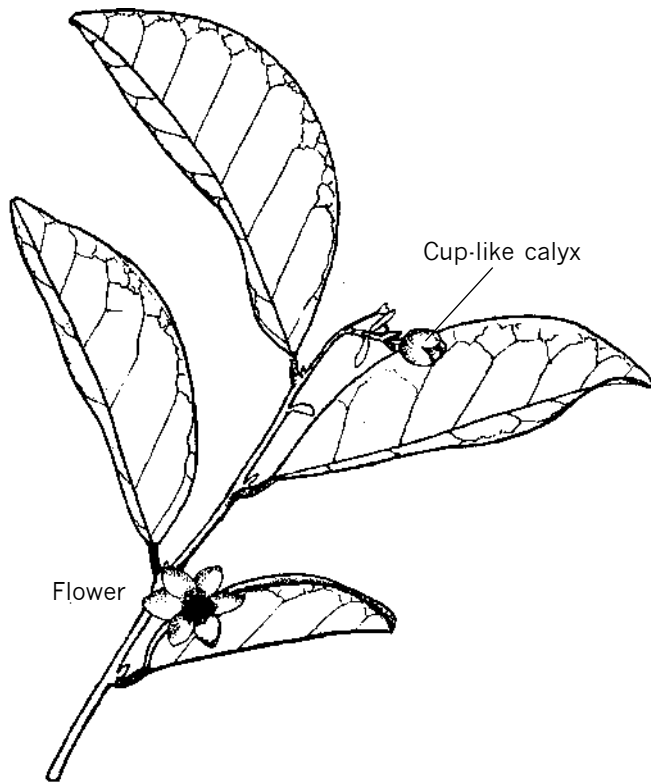
MANAGEMENT: Fruits are collected from the wild as the plant is not cultivated, but it can be propagated by seed.

STATUS: Locally common.

REMARKS: Roots of *U. lucida* are said to be poisonous.

*Uvaria lucida* subsp. *lucida*

**Annonaceae**



*Vangueria apiculata*

## Rubiaceae

Indigenous

LOCAL NAMES: **Chagga:** Kaworo, Kiviroe, Mdowo, Mkondikondo, Ndawiro; **Digo:** Muvuma; **English:** Tangle-flowered wild medlar; **Ha:** Mgugunwa, Umugugunwa; **Hehe:** Msambalawe; **Maasai:** Engumieker, Engumi, Ilgum (plural), Olgumi; **Pare:** Mdaria; **Swahili:** Mviru; **Zigua:** Mviru-mbago.

DESCRIPTION: A deciduous shrub or small tree 1.5–10 m. BARK: Smooth grey-brown. LEAVES: **Thin and papery (no hairs)**, more or less oval, **the tip pointed, about 13 cm long x 6 cm wide, 7–11 main veins** each side of the midrib, vein network clear below, stalk only 7 mm, stipules at the nodes quite thin, 8 mm long. FLOWERS: Beside leaves, **green-white-yellow, in much-branched bunches**, tiny flowers tubular, calyx tubular, the 5 lobes more than 3 mm long. FRUIT: Green, becoming yellow-brown, **rounded, 17–22 mm long**, edible.

ECOLOGY: Found in evergreen forest (*Juniperus*, *Podocarpus*), riverine, lakeside forest, bushland thicket, grassland with scattered trees, often on termite mounds or rocky outcrops, 900–2,200 m.

DISTRIBUTION: Found in Tanzania from Kilimanjaro to Kagera and south to Rukwa Region. Also in Uganda and Kenya, from Ethiopia south to Malawi and Zimbabwe.

USES:

**Food:**

Ripe brown fruits are collected from the tree and eaten fresh and the seeds rejected. They taste sweet and are eaten as a snack. A favourite fruit in the areas where it occurs.

**Medicinal:** Leaves are used to treat stomach-ache. Roots are boiled and the decoction used three times a day to treat intestinal worms.

**Commercial:** Not marketed.

**Other:** The stems are used for building poles. The wood is used for firewood, poles, pegs, tool handles, stirring sticks and charcoal. The tree is suitable for agroforestry.

SEASON: Fruits are collected in the dry season.

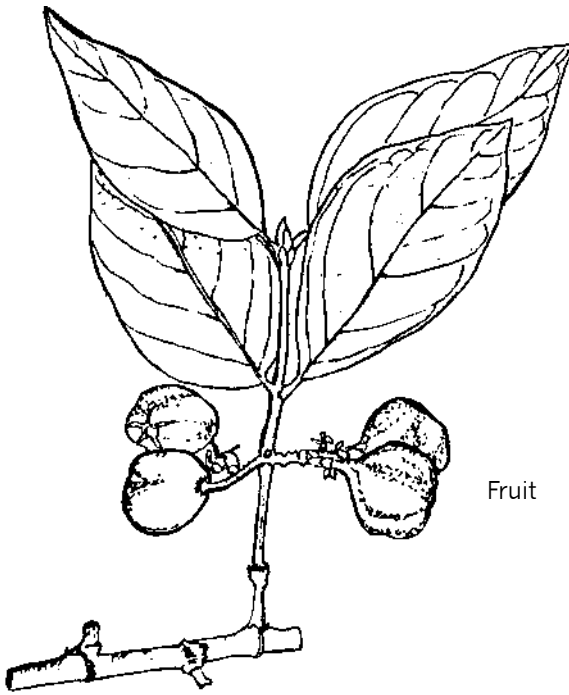
STORAGE: Not stored.

MANAGEMENT: It is collected from the wild, but is also planted or protected by local people in their fields and homegardens. Can be propagated by seed.

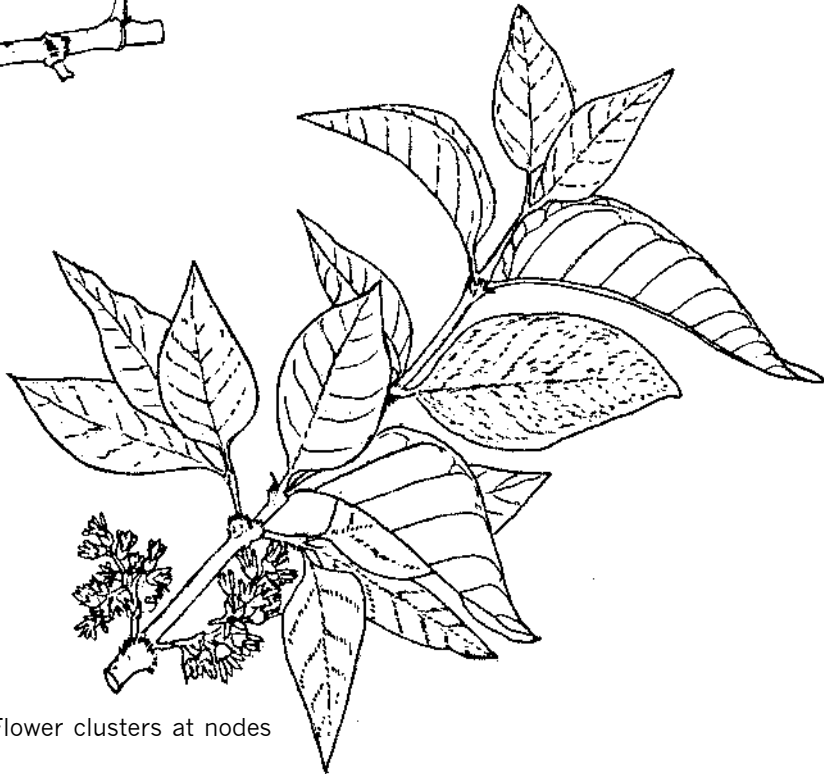
STATUS: Common and easily accessible within its area of distribution.

*Vangueria apiculata*

Rubiaceae



Fruit



Flower clusters at nodes

***Vangueria infausta* subsp. *rotundata*** **Rubiaceae**

Indigenous

[Plate 6]

LOCAL NAMES: **Arusha:** Engumi, Loshoro, Olmadanyi; **Barabaig:** Babaxchet, Barangu, Malharimog, Malharimo; **Bondei:** Mvilu, Mviu; **Chagga:** Kaworo, Mbowe, Ndawiro, Ndowo; **Digo:** Mviru; **English:** False medlar, Wild medlar; **Fipa:** Msanda; **Gogo:** Msada; **Hehe:** Msada, Msambalawe; **Isanzu:** Mukungulusuli; **Kerewe:** Mufitanda; **Luguru:** Msada; **Maasai:** Engumi, Engumi-etari Olgumi, Olmadanyi; **Matengo:** Lindikiti, Mapendo, Masada; **Meru:** Imumua; **Ndendeule:** Mavilo makubwa; **Ngoni:** Mavilo makubwa; **Nyamwezi:** Msada; **Nyaturu:** Mulade-mujenghuma; **Nyiramba:** Mkungulusuli; **Pare:** Mdaria; **Rangi:** Muriru, Musada, Muviru; **Rufiji:** Msada; **Sambaa:** Mvilu, Mviu; **Sandawi:** N/.uúk; **Swahili:** Mviru; **Vidunda:** Msada; **Zaramo:** Msada; **Zigua:** Mvilu, Mviru, Mviu; **Zinza:** Mnyabwita.

DESCRIPTION: A deciduous, usually multi-stemmed bushy shrub or small tree, usually 1.5–5 m tall. BARK: Smooth and grey at first becoming rough and ridged with age, **young parts densely brown hairy**. LEAVES: **Opposite, large oval, 4–30 cm long**, on short stalks, leathery pale green with conspicuous net veins, lighter below, **soft dense hairs can be felt both sides**, a pair of **hairy, triangular pointed stipules to 1 cm** at the nodes. FLOWERS: **White-yellow-green, densely clustered on hairy branched heads**, the stalks about 3 cm, each flower to 5 mm, **corolla with spreading hairs outside**, soon falling. FRUIT: **A round berry**, the tough skin **pale brown and smooth when ripe, 2–4 cm across**, containing about 5 seeds in a soft, brown pulp. Young fruit shiny, dark green with a circular mark (flower remains) at the tip.

ECOLOGY: Dry evergreen forests, fringing forest, woodland, *Acacia* bushland, grassland with scattered trees, rocky thickets, 0–2,100 m. (Subspecies differ in leaf size, hairiness, altitude and distribution.)

DISTRIBUTION: Widespread in Tanzania; Kenya, Uganda, Mozambique, Malawi. Very similar subspecies grow from Central Africa to South Africa.

USES:

**Food:**

- Fruits are edible. Ripe fruits are collected from the tree and eaten raw. They are sweet and liked and eaten by many people in areas where they occur.
- Ripe fruits are fermented and made into a local brew (Hehe).

**Medicinal:**

- Roots are boiled and the liquid is used as treatment for STDs.
- A decoction of roots is used as a remedy for stomach-ache, infertility and intestinal worms.
- Roots are chewed and applied on the site of a snake bite.

**Commercial:** Sold in local markets (Chagga, Hehe, Sambaa, Rangi).

**Other:** The wood is used for firewood, building poles, tool handles, pegs and



## *Vangueria infausta* subsp. *rotundata* (contd)

spoons. Small branches are used for stirring milk and cooking vegetables. The tree is good for shade and as an ornamental.

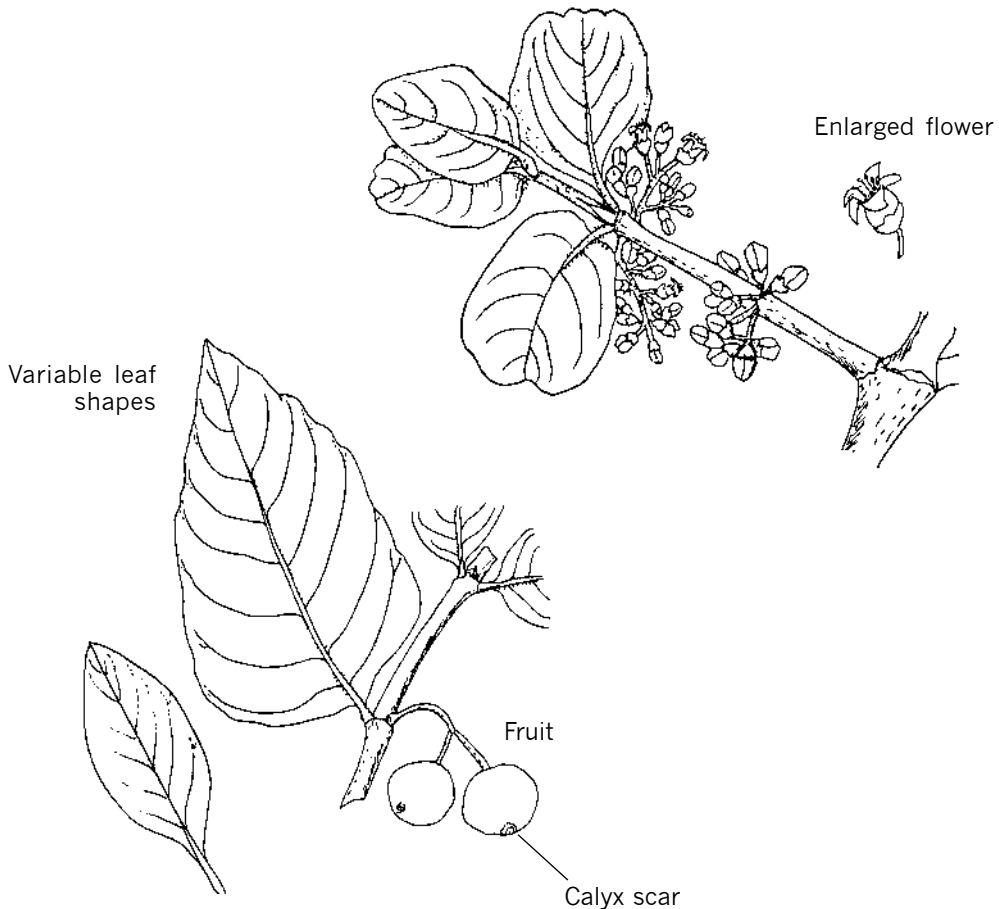
SEASON: Ripe fruits are collected from November to July.

STORAGE: Dried fruits can be stored for about a year and then soaked in warm water for about 12 hours when required for eating.

MANAGEMENT: Usually collected from the wild, but the species is now being retained and protected in cultivation. Propagation can be done using scarified seed.

STATUS: Common and easily accessible within its area of distribution.

REMARKS: This species is one of the most popular wild fruit trees in Tanzania that requires and deserves immediate cultivation and breeding.



*Vangueria madagascariensis*  
(*V. acutiloba*)

Rubiaceae

Indigenous

LOCAL NAMES: **Arusha:** Engumi, Loshoro, Olmadanyi; **Barabaig:** Babaxchet, Barangu, Malharimog; **Chagga:** Kaworo, Ndawiro, Ndowo; **English:** Common wild medlar, Wild medlar; **Fipa:** Msada; **Gogo:** Msada; **Hehe:** Msambalawe; **Iraqw:** Erakwtu, Irakwtu; **Kerewe:** Mfitanda; **Maasai:** Engumi, Olgumi, Olmadanyi; **Matengo:** Lindikiti; **Meru:** Imumua; **Nyamwezi:** Msada; **Nyaturu:** Mulade, Mulade-mujenghuma; **Nyiramba:** Mkungu-lusili, Mkungu-lusuli, Mubilu; **Pare:** Mbiro, Mdaria; **Rangi:** Musada, Muviru; **Sandawi:** N/unk'máxáe; **Swahili:** Mviru.

DESCRIPTION: Usually multi-stemmed and deciduous, the tree may reach 15 m. BARK: Pale to dark grey, fairly smooth, becoming scaly. LEAVES: Clustered at the ends of branches, **large, limp, glossy green, broadly oval to 20 cm**, usually smaller, opposite, the tip pointed, the margin wavy, veins clear below; leaves almost hairless. **Leafy stipules on the young shoots.** FLOWERS: Small, few, in **hairy stalked heads, petals green-yellow**, lobes of tubular corolla about 4 mm, 5 lobes of the tubular calyx less than 2 mm long. FRUIT: Rounded, green, 2.5–5 cm across, often in **bunches of 5–6, yellow-brown and edible when ripe, containing 4–5 hard seeds.** Each seed 1.5-cm long.

ECOLOGY: Evergreen forest, riverine forest and woodland, bushland, grassland and scattered trees, sometimes on rocky outcrops or termite mounds, 0–2,100 m.

DISTRIBUTION: It grows throughout Tanzania, including Zanzibar and Pemba. Also from West Africa to Sudan, Ethiopia and south into South Africa. It is cultivated in Madagascar, the Congo basin, India and the West Indies.

USES:

**Food:**

Ripe juicy fruits are collected from the tree, peeled and the pulp eaten fresh. It has a mealy taste, like Irish potatoes, and is eaten as a snack.

**Medicinal:**

- A decoction of roots is used as a remedy for various intestinal worms.
- An infusion of the bark is used for treating malaria.

**Commercial:** Sold in local markets.

**Other:** The wood is used for firewood, poles, charcoal, tool handles, pegs and stirring sticks.

SEASON: It is collected during dry spells, mostly in June–July.

STORAGE: Not stored.

MANAGEMENT: Collected from the wild and usually not cultivated by local people, but often retained in farms during clearing. Can be propagated by seed. The tree is occasionally planted.

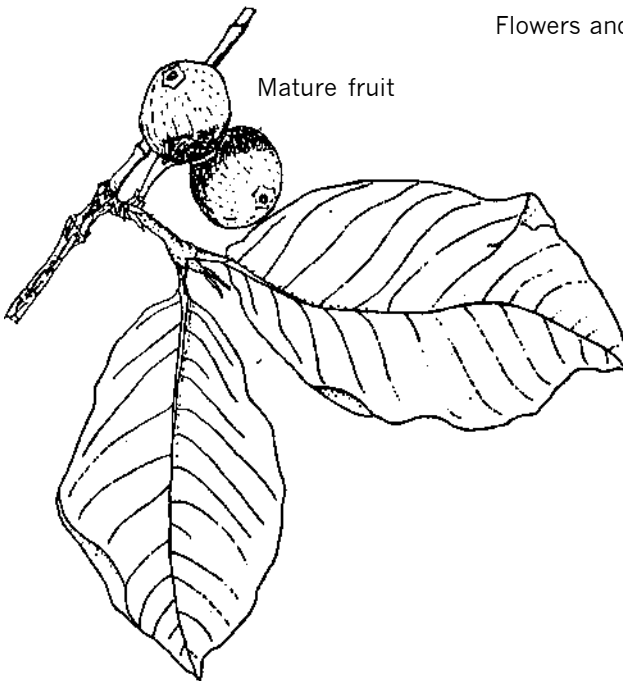
## *Vangueria madagascariensis* (contd)

STATUS: Common within its area of distribution.

Enlarged flower



Flowers and young fruit



Mature fruit



*Vangueria volkensii*

## Rubiaceae

Indigenous

LOCAL NAMES: **Arusha:** Engumi, Olmadanyi; **Chagga:** Kaworo, Ndawiro, Ndowo; **English:** Wild medlar; **Haya:** Mgugunwa; **Hehe:** Msambalawe; **Maasai:** Engumi, Olmadanyi, Olgumi; **Pare:** Mdaria; **Sambaa:** Mvilu, Mviu; **Swahili:** Mviru; **Vidunda:** Msada.

DESCRIPTION: A shrub or small tree 4–9 m, **young stems with short soft hairs**, branches often arching when mature. LEAVES: **Long oval and long pointed, 3–17 cm**, the base narrowed or nearly heart shaped, **both leaf surfaces with short dense hairs**. FLOWERS: **A branched flower head** from the leaf axil, **over 2 cm**, green-cream-yellow, fairly dense, the corolla tube to 5 mm and hairy within, with 5 short lobes, **buds over 5 mm** long and **the calyx lobes strap shaped, 3–8 mm**. FRUIT: **A rounded berry, green, turning brown, to 3 cm diameter**, with soft acid-sweet pulp around the seeds.

ECOLOGY: Found at evergreen forest margins, often associated with *Juniperus* and *Podocarpus*, in riverine forests, wet valleys, bushland, rocky places in wooded grassland and on termite mounds, 900–2,500 m.

DISTRIBUTION: In most parts of Tanzania, e.g. in Kagera, Arusha, Tanga, Iringa, Songea and Mbeya Regions. Also Kenya and Uganda, Ethiopia, Sudan, Rwanda and the Congo basin.

USES:

**Food:**

Fruits are edible. Ripe fruits are collected from the tree and eaten fresh.

They are sweet and much liked by people of all ages.

**Commercial:** Fruits are sold in local markets (Iringa).

**Other:** The tree is used for firewood, poles, handles and stirring sticks.

SEASON: Fruits are collected from April–August.

STORAGE: Dried fruits can be stored for about 12 months and then soaked in water for 6–12 hours before being required for eating.

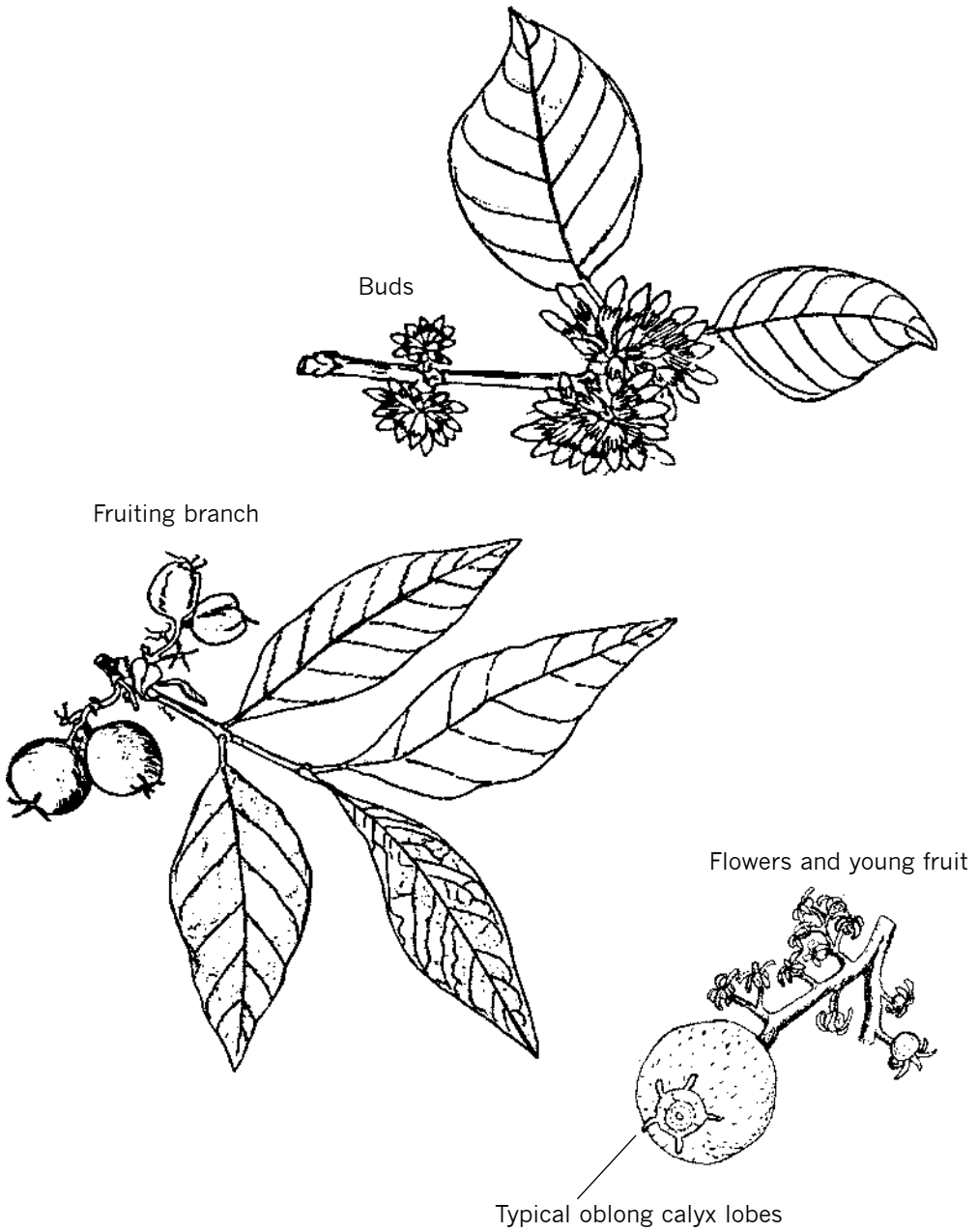
MANAGEMENT: Fruits are usually collected from the wild, but sometimes retained and protected by the local people in their farms; can be propagated using scarified seed.

STATUS: Locally common.

REMARKS: A popular wild fruit tree which merits domestication and improvement.

*Vangueria volkensii*

Rubiaceae



*Vangueriopsis lanciflora*

## Rubiaceae

Indigenous

LOCAL NAMES: **English:** Crooked false medlar; **Hehe:** Msambalawe lulenga; **Nyamwezi:** Mgelelya, Mungelelya.

DESCRIPTION: A shrub or small tree, 7 m or more, with spreading more-or-less horizontal branches. BARK: Smooth, grey on trunk and older branches; **powdery red-brown on young branches**, flaking to show brown-pink underbark. LEAVES: Variable, 3–13 cm long, oval and opposite, blue-green, roughly hairy above or smooth, but **grey-white hairs below**, tip rounded or not, edge wavy, on a stalk about 1 cm. FLOWERS: Appear before the leaves, **tubular green-yellow buds**, hairy, about 2 cm long, open to reveal white **petals which curl back, sweet scented** and showy. Flowers borne in leaf axils. FRUIT: **Rounded** when it has 2 seeds but **one-sided** when only 1 seed develops, **up to 3 cm long, green and hairy, becoming yellow-brown**; fleshy slightly acid pulp around seeds.

ECOLOGY: Found in *Brachystegia–Julbernardia* woodland and wooded grassland, often associated with rocky outcrops, 1,100–1,400 m.

DISTRIBUTION: Occurs in western and southern Tanzania. Also in parts of Central Africa and south to South Africa.

USES:

**Food:**

Ripe fruits are collected from the tree or picked up from the ground and eaten raw. They are fleshy, juicy and sweet and are much sought after by people, birds and monkeys. Mature fruits can be collected and kept covered in the shade for several days to ripen. They are peeled, the flesh sucked out and swallowed together with the seeds.

**Commercial:** Not marketed.

**Other:** The wood is used for firewood and spoons. The tree provides shade and is a source of bee forage.

SEASON: Ripe fruits are collected from October to December.

STORAGE: Not stored.

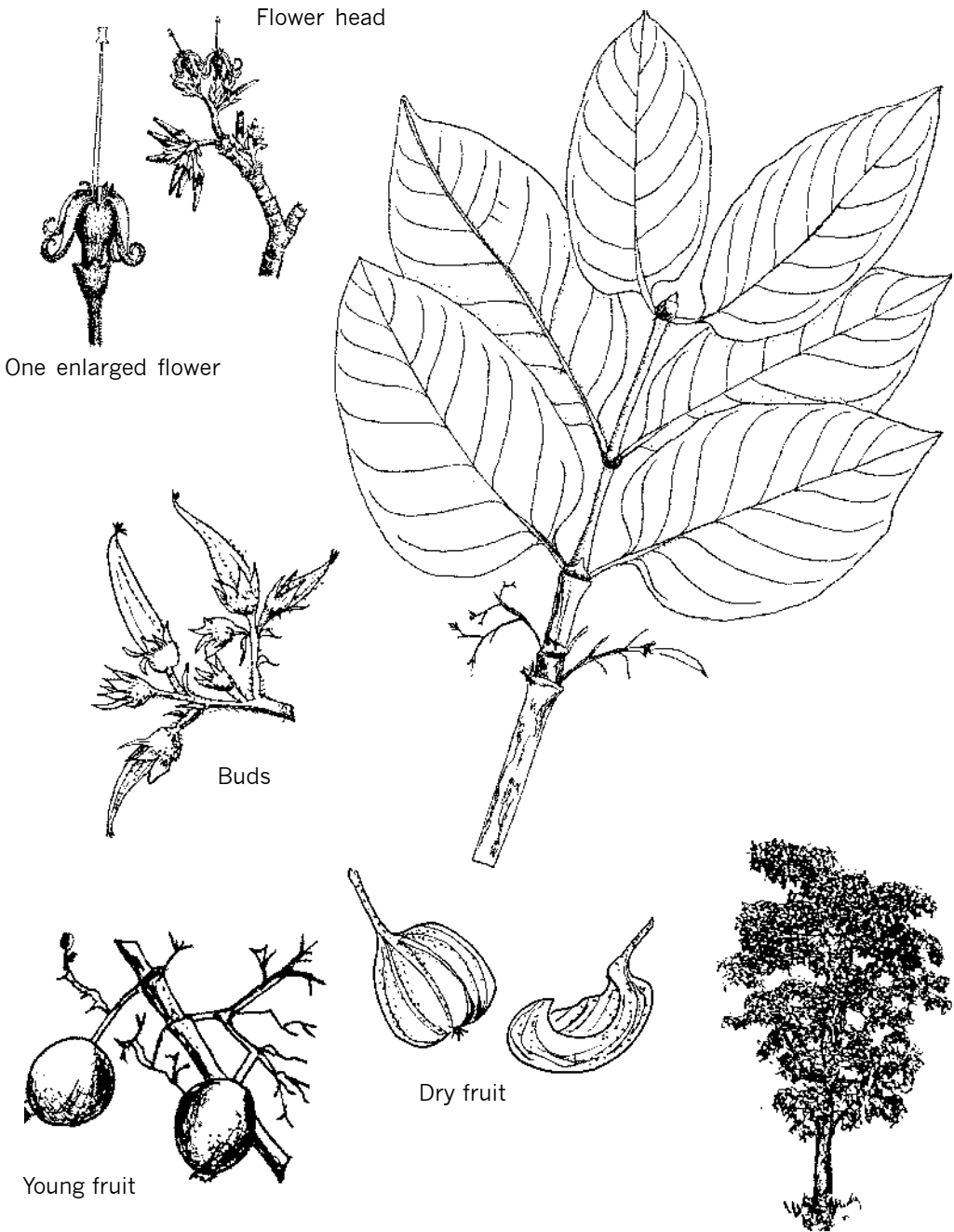
MANAGEMENT: Usually collected from the wild, but sometimes retained in farms by local people. The tree can be propagated by fresh seed.

STATUS: Occasional within its area of distribution.

REMARKS: A very important fruit tree which merits being given high priority for domestication and breeding.

*Vangueriopsis lanciflora*

Rubiaceae



***Vigna pubescens*****Papilionaceae**

Indigenous

LOCAL NAMES: **Chagga:** Ngolowo; **Hehe:** Nyanandala; **Ngindo:** Kikochongo; **Nyamwezi:** Nsili zya mwipolu; **Swahili:** Kunde mwitu; **Zaramo:** Kunde-mbala; **Zigua:** Nkunde.

DESCRIPTION: A hairy perennial climbing herb, 1–2 m, stems **covered with short white hairs**. LEAVES: **Compound, with 3 leaflets, hairy both sides**, the largest central leaflet 5–10 cm, may be deeply 3-lobed with extra lobes at the base, laterals one-sided and variously lobed, the main stalk 2–7 cm, a pair of thin long-pointed stipules at the base with a **characteristic spur, 4–9, mm projecting outwards**. FLOWERS: **Pea shaped, purple, the standard 1–2 cm long and wide, tip notched**, 2 paler lateral lobes, the keel paler with a short beak (no keel pocket), the tubular calyx usually hairy, the **5 lobes longer than the tube**, the flower stalk with a few stiff hook-like hairs below the flower. FRUIT: **Pods held erect, cylindrical 5–8 cm, covered with short, dense hairs, often reddish**, containing 15–18 seeds, dark red, speckled black.

ECOLOGY: Bushland, grassland, grassland with scattered trees, 0–1,000 m. Very similar to *V. unguiculata* apart from the white hairs.

DISTRIBUTION: Widespread in Tanzania. Also in Kenya and Uganda; parts of Central Africa and south to Mozambique.

USES:

**Food:**

Green leaves are collected, chopped and cooked alone or mixed with other vegetables or meat. Coconut milk or pounded groundnuts can be added to make the dish more tasty, then it is eaten with *ugali* or rice.

**Commercial:** Leaves are sometimes sold in local markets (Korogwe, Muheza).

**Other:** The plant is used for fodder.

SEASON: Leaves are collected during the rainy season and seeds are collected during the early dry season.

STORAGE: Dried leaves and seeds can be stored for several months.

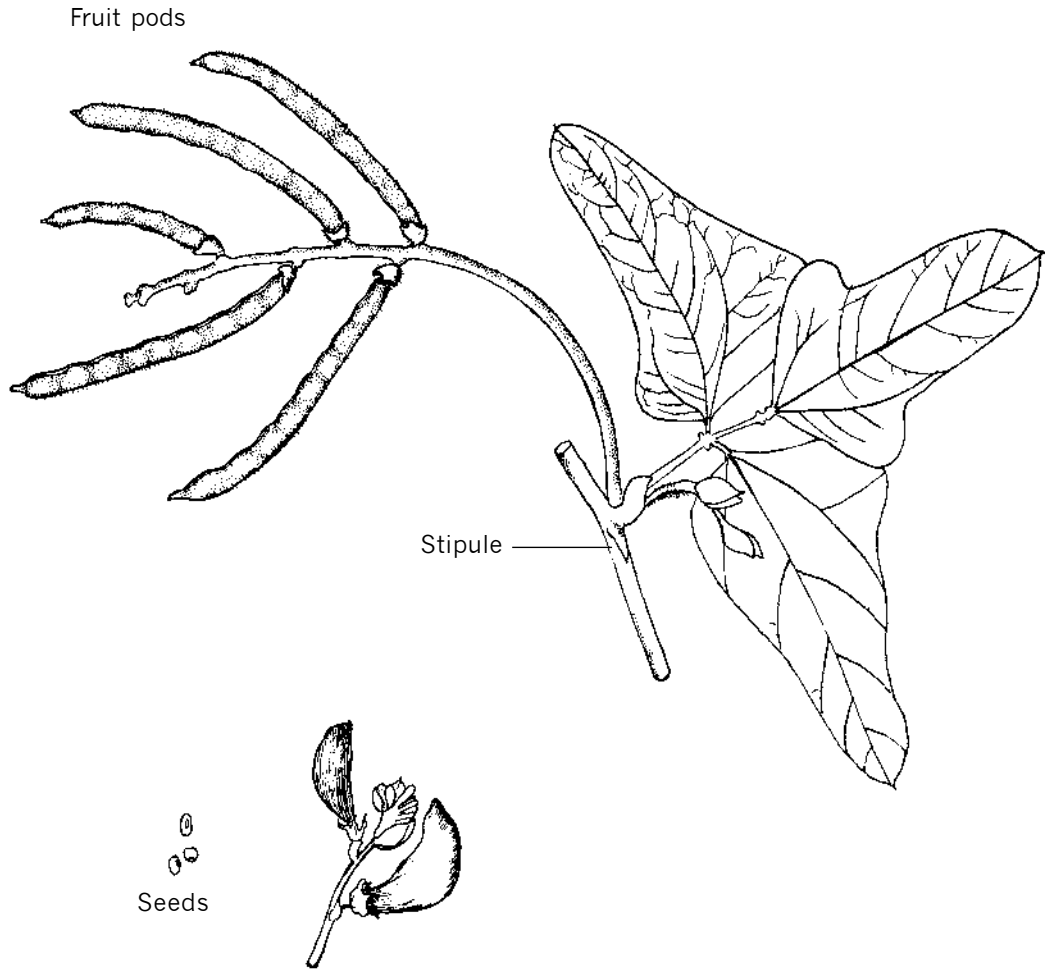
MANAGEMENT: Only collected from the wild, but it can easily be propagated by seed.

STATUS: Common and easily accessible within its area of distribution.



*Vigna pubescens*

Papilionaceae



*Vitex doniana*

## Verbenaceae

Indigenous

[Plate 6]

LOCAL NAMES: **Bena:** Mfudu; **Bondei:** Mgobe; **English:** Black plum; **Fipa:** Kiputu, Mchinka, Mfuru, Mufita; **Gogo:** Mfulu; **Gorowa:** Orrolmo; **Isanzu:** Mfulu; **Kerewe:** Mukoronto; **Luguru:** Mfuru, Mkoga; **Matengo:** Fudwe, Mfudu, Mpitimbi, Mptimbwi; **Mwera:** Mpindimbi; **Ndendeule:** Fudwe, Mfudu, Mpitimbi; **Ngindo:** Mfulu bonde; **Ngoni:** Fudwe, Mfudu, Mpitimbi; **Nguu:** Mgobwe; **Nyamwezi:** Mfulu, Mfululegea, Mfuzu, Mpulu, Mpuru; **Nyiha:** Mkunungu; **Rangi:** Mpuru; **Sambaa:** Mgobe; **Swahili:** Mfudu, Mfuru, Mfuu; **Tongwe:** Lufulu; **Vidunda:** Mkoga; **Zaramo:** Mfuru; **Zigua:** Mgobe; **Zinza:** Muvuru.

DESCRIPTION: A small or large tree, 8–14 m, with a **heavy rounded crown** and a clear bole. BARK: Pale brown or grey-white, with long fissures and scales. LEAVES: **Opposite and compound, the five leaflets digitate (like fingers), leathery** and shiny, each leaflet stalked to 22 cm long, tip rounded or notched, lower leaflets smaller. FLOWERS: Fragrant, in dense bunches on a long stalk, to 12 cm across, each flower **cream with one hairy violet lobe**; the calyx enlarging to a hairy cup around the fruit. FRUIT: **Oblong, to 3 cm**, green, marked with white dots, **black** when ripe, edible starchy pulp around the hard inner stone containing 1–4 seeds, dispersed by monkeys.

ECOLOGY: A savanna species in wooded grassland; also at forest edges, 0–2,000 m.

DISTRIBUTION: Widespread throughout Tanzania, including Zanzibar and Pemba; throughout tropical Africa from Senegal to Cameroon, Mozambique, Malawi, Zambia, Zimbabwe to Angola, Comoro Islands. Has been cultivated in some places.

USES:

**Food:**

- The ripe fruit are black, edible, sweet and mealy. May be collected from the ground when ripe (black) and the soft fleshy part eaten, while the inner stone is rejected. It is frequently eaten as a snack. A well-known fruit eaten in many of the areas of Tanzania where it occurs.
- If the hard shell of the inner stone is cracked open the seeds inside are edible and eaten mostly by children.

**Medicinal:**

- A decoction of the roots is used as a remedy for backache in women.
- Juice from pounded leaves is squeezed into the eyes to treat eye disease.
- An infusion of the leaves is added to alcoholic brews to make them stronger.

**Commercial:** Fruits are sold in local markets (Songea, Iringa, Tabora, Kigoma).

**Other:** The tree provides good timber for furniture. The wood is also used for firewood, charcoal, carvings, gunstocks, spoons, tool handles and beehives. The tree is also used for shade.

*Vitex doniana* (contd)

## Verbenaceae

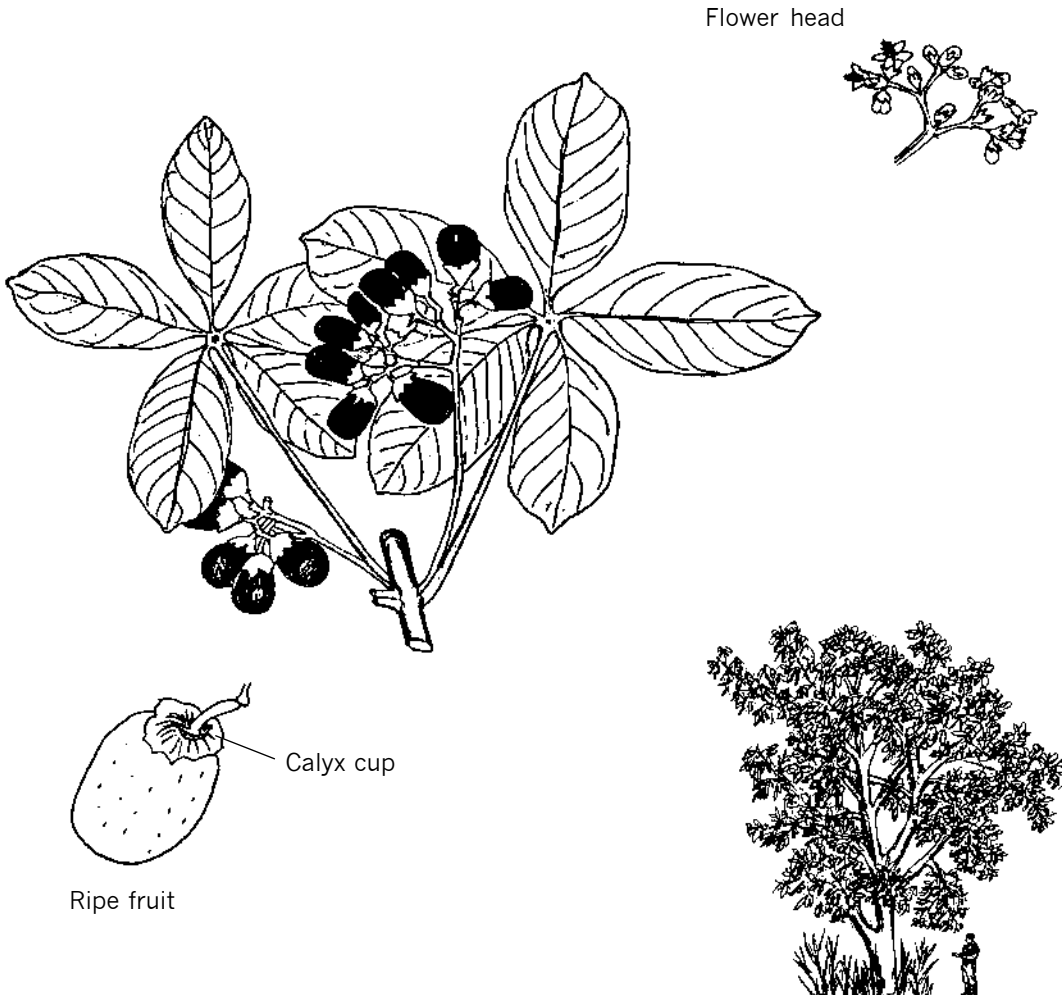
SEASON: Fruits are collected from April to July.

STORAGE: Not stored.

MANAGEMENT: Collected from the wild and not protected or cultivated by local people. The species is easily propagated from seed and root suckers.

STATUS: Common, and a single tree can yield much fruit.

REMARKS: A favourite tree for hanging beehives in Zambia. One of the most widespread and useful *Vitex* of East Africa.



*Vitex ferruginea*

## Verbenaceae

Indigenous

LOCAL NAMES: **Bondei:** Mgobe, Mugobe; **Fipa:** Kiputu; **Gogo:** Mfulu; **Haya:** Omufuru, Omukanse; **Hehe:** Mfudu; **Luguru:** Mfulu, Mfuru; **Mwera:** Mfuru; **Nyamwezi:** Mfulu, Mfulugenge; **Nyaturu:** Mufuu; **Nyiramba:** Mupulu; **Sambaa:** Mfulu, Mfuru, Mgobe; **Swahili:** Mfudu, Mfulu, Mfuu, Mgege, Mtalali; **Tongwe:** Kabulampako; **Zaramo:** Mfuru; **Zigua:** Mfuru, Mgobe, Mugobe.

DESCRIPTION: A shrub to 4 m, or a tree to 13 m, trunk slightly fluted, often deciduous and flowering with young leaf growth; branchlets with yellow-rusty brown hairs which are found on many other parts of the plant. BARK: Smooth, light grey with shallow grooves and small pieces flaking off with age. LEAVES: **Compound and opposite with 3–7 digitate leaflets** (like fingers), unequal size, the **largest 5–14 cm**, with a long pointed tip, the upper surface dull with few hairs, **lower surface with rusty hairs and clear veins**, leaflets stalked to 1 cm long but a **long hairy leaf stalk up to 12 cm**. FLOWERS: In dense heads beside leaves, on stalks to 5 cm, with narrow leafy bracts; calyx and outside petals **all hairy**. **Small tubular flowers about 1 cm long have 1 blue-violet lobe and 4 white lobes**, the throat hairy and sometimes yellow. FRUIT: Rounded and fleshy, green with white spots, turning **shiny black when ripe, to 4 cm long, edible**. The calyx enlarges in the fruit.

ECOLOGY: It is found in coastal bushland and at edges of cultivation, dry lowland forest and *Brachystegia* woodland, 0–1,400 m.

DISTRIBUTION: Widespread in Tanzania; occurs, for example, in Kagera, Pwani, Tanga, Morogoro and Songea Regions. Also occurs in coastal Kenya, Uganda, Somalia, south to Mozambique and South Africa.

USES:

**Food:**

Fruits are edible. Ripe fruits are black, fleshy, sweet and eaten raw. The pulp is eaten and the hard stone discarded.

**Medicinal:** Leaves are chewed to treat sore and swollen throat.

**Commercial:** Sold in local markets.

**Other:** The wood is used for firewood, charcoal and spoons.

SEASON: Ripe fruits are collected from April to June.

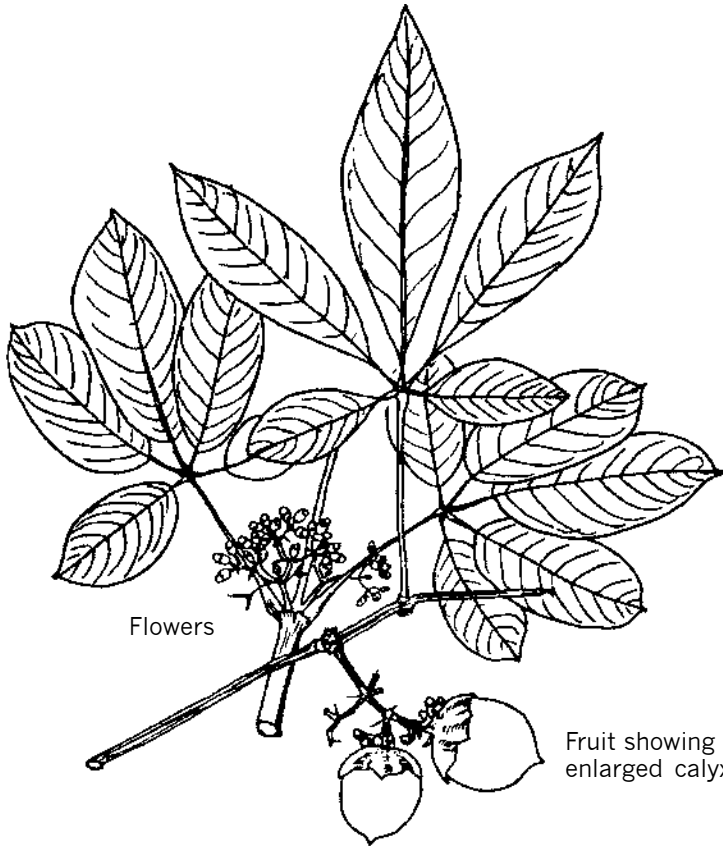
STORAGE: Not stored.

MANAGEMENT: Ripe fruits are collected from the wild. The tree can be propagated by seed.

STATUS: Occasional within its area of distribution.

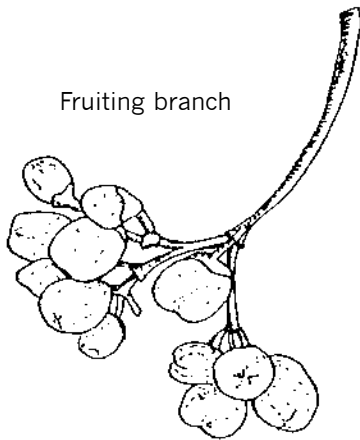
*Vitex ferruginea*

Verbenaceae



Flowers

Fruit showing enlarged calyx



Fruiting branch



*Vitex fischeri*

## Verbenaceae

Indigenous

LOCAL NAMES: **Fipa:** Kiputu; **Nyamwezi:** Mfuzu, Mpulu; **Sukuma:** Mfulu, Mpulu; **Swahili:** Mfudu, Mfuu; **Zinza:** Mhunda.

DESCRIPTION: A savanna shrub or deciduous tree, 3–15 m, the spreading crown rounded, **outer branches often hanging down** nearly to the ground. Young branches, shoots, leaf stalks and undersides of leaves with **dense orange-yellow hairs**. BARK: Grey to dark brown, with long shallow fissures. LEAVES: **Compound palmate, strongly scented**, young leaves dark purple-green, becoming paler with age, the **5 leaflets wide oval, tips pointed**, the longest leaflet **5–19 cm x 3–10 cm across, slightly sandpapery above, densely hairy below**, on long stalks. FLOWERS: Flower head conspicuous on a **long axillary stalk 5–24 cm**, each flower 6–8 mm, the **tubular corolla** usually cream-white, yellow inside, the **lower lobe mauve–bright blue** (or both purple-blue). FRUIT: Green, with pale spots, later **purple-black, drupes about 1 cm long, held in the enlarged calyx cups**.

ECOLOGY: A tree of forest edges, young closed forest and gaps, also savanna woodland and thicket, often on rocky sites, termite mounds, preferring sandy loam soils. Also occurring on some islands in Lake Victoria, up to 1,500 m.

DISTRIBUTION: Found only around Lake Victoria and in parts of western Tanzania. Also in Uganda and Kenya, from Sudan south to Zambia and Angola.

USES:

**Food:**

Ripe fruits are fleshy and eaten raw. The black pulp is eaten and the hard stone rejected.

**Commercial:** Sold in local markets.

**Other:** The wood is used for firewood and charcoal. The tree provides shade and is a source of bee forage.

SEASON: Ripe fruits are collected from April to June.

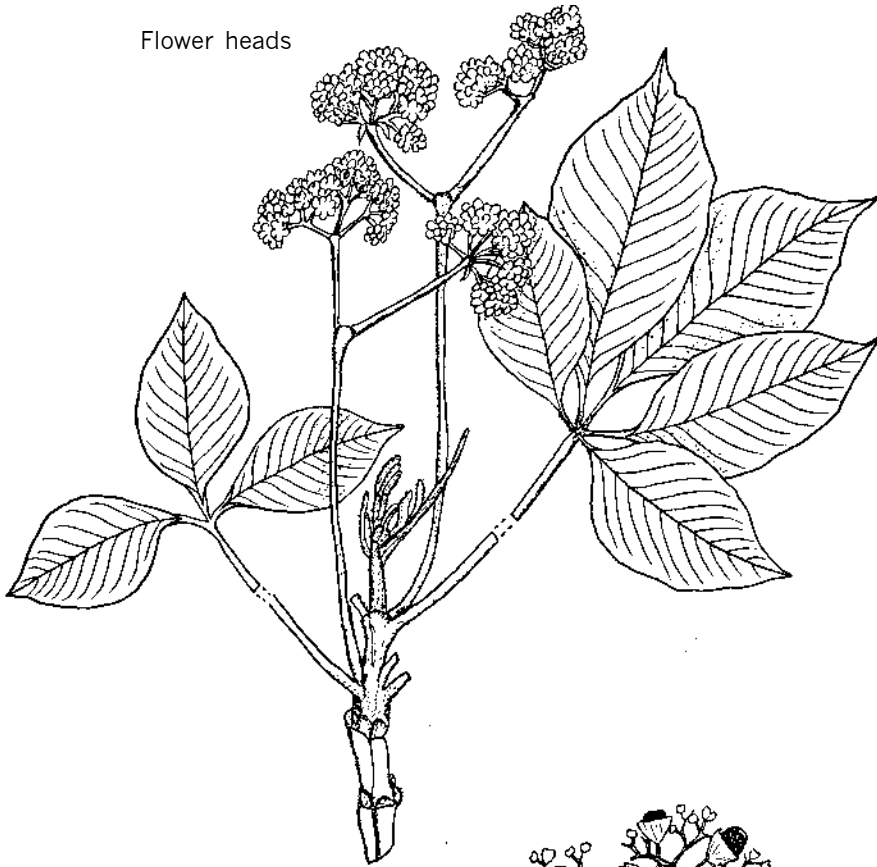
STORAGE: Not stored.

MANAGEMENT: Collected from the wild and not cultivated or protected by local people, but can be propagated by seed.

STATUS: Common and easily accessible within its area of distribution.

*Vitex fischeri*

Verbenaceae



Young fruit within  
enlarged calyx cup

***Vitex madiensis* subsp. *milanjiensis***      **Verbenaceae**

Indigenous

LOCAL NAMES: **Bende:** Mfulu-legea; **Fipa:** Kiputu; **Ha:** Umupapa, Umuvyiru, Uvyiru; **Nyamwezi:** Mfulu-legea; **Sukuma:** Mpulu; **Swahili:** Mfudu, Mfuu; **Tongwe:** Kafulujegeya.

DESCRIPTION: A woody herb or shrub to 1.5, m forming patches about 1 m wide from a large underground rootstock, or a tree 4–7 m. The stems may be dark red–purple with dense red-brown hairs, even woolly when young, but finally they are quite smooth. LEAVES: **Normally 3 leaflets, or a single one** (not usually with 5 leaflets), characteristically fragrant when crushed, arising 3 together, fairly stiff, drying yellow-green, variable in shape, to 25 cm long x 1 cm wide, usually less, tip sharply pointed and edge with **shallow but large rounded teeth**, a clear vein network below, which is usually densely hairy, longest leaf stalk about 3 cm and **main leaf stalk 5–15 cm**. FLOWERS: Scented, in loose heads beside leaves, on a stalk 4–12 cm, each tiny flower velvety, outside **pink-white with the lower larger lobe violet-blue**. **Hairs on the back of the petals and on the calyx and flower stalks**. FRUIT: Oblong-rounded, about 2.5 cm long, 1–2 cm across, shiny green with white spots, **ripening black, containing 3 seeds, calyx cup enlarged and toothed**, about 1 cm across.

ECOLOGY: Found in *Combretum*, *Terminalia* and *Brachystegia* woodland and flood pans with *Brachystegia*, 1,000–1,300 m. Another variety, var. *epidictyodes*, grows in grassland, wooded grassland or dense woodlands, 1,060–1,800 m.

DISTRIBUTION: Subsp. *milanjiensis* is found around Lake Victoria and Lake Tanganyika, e.g. in Mwanza, Kagera, Kigoma and Rukwa Regions. Also occurs in parts of Central Africa, south to Zimbabwe and Angola.

USES:

**Food:**

The ripe fruits are collected from the ground and the pulp eaten, but the seeds rejected. They taste sweet and mealy.

**Commercial:** Sold in local markets.

**Other:** The wood is used for firewood and charcoal. The tree is used for shade and is a source of bee forage.

SEASON: Fruits are collected from March to July.

STORAGE: Not stored.

MANAGEMENT: Collected from the wild, but also protected on farmland by local people. It can be propagated by seed.

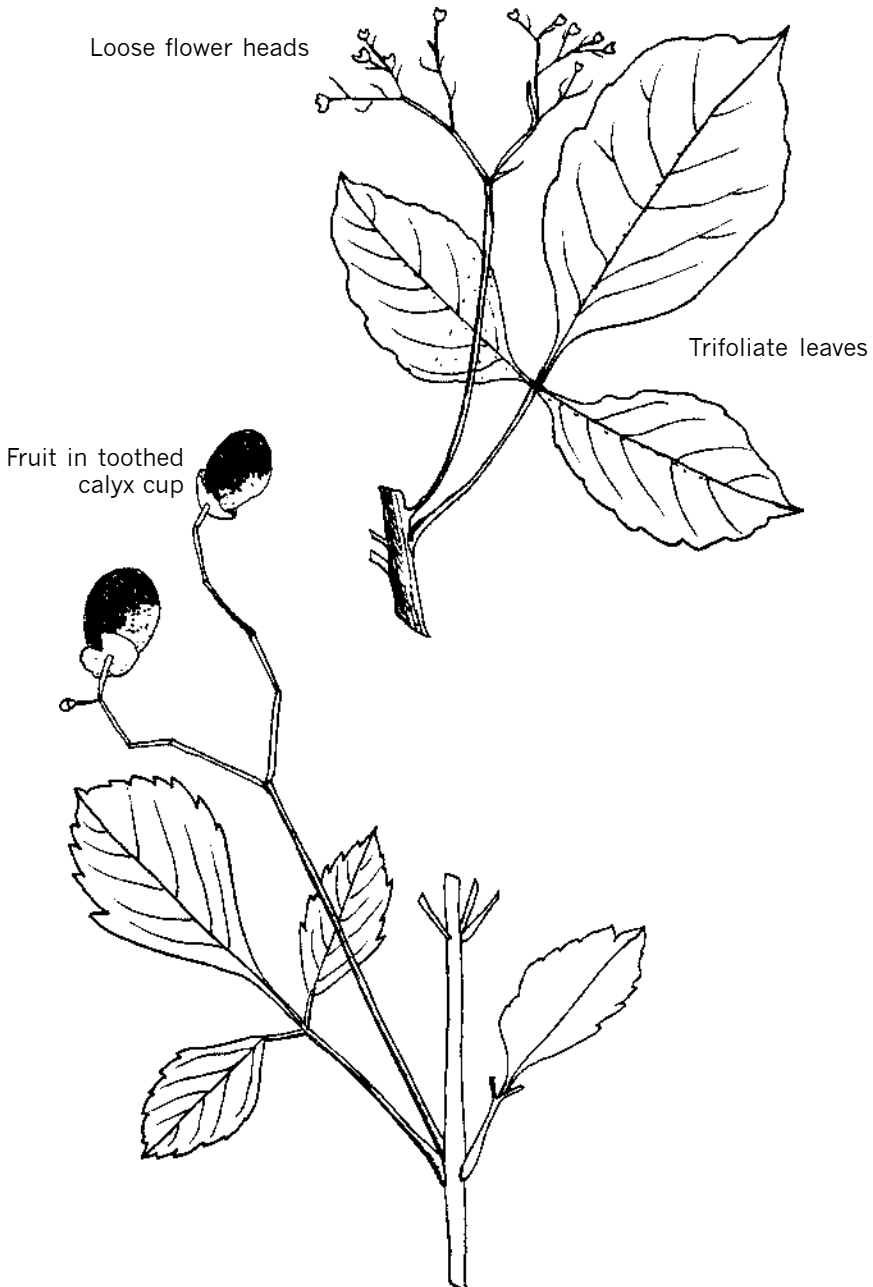
STATUS: Common and easily accessible within its area of distribution.

REMARKS: It is a rich source of vitamin C. Var. *epidictyodes* is a small somewhat succulent shrub to 2 m, growing from a massive underground woody rootstock,



***Vitex madiensis* subsp. *milanjiensis* (contd)**

found in western Tanzania and the Southern Highlands; also the Congo basin, Burundi, Malawi, Angola.



*Vitex mombassae*

## Verbenaceae

Indigenous

LOCAL NAMES: **Bena:** Msasati; **Bondei:** Mgobe; **Digo:** Fudumadzi, Mfudukoma; **English:** Smelly-berry vitex; **Fipa:** Kiputu, Mchinka, Mfulu, Mkinka, Mkiinka; **Gorowa:** Tlambau; **Hehe:** Mfudululenga, Msasati; **Iraqw:** Tlambau; **Isanzu:** Msalati; **Kerewe:** Msungwa; **Kimbu:** Msungwi; **Maasai:** Olpuri; **Matengo:** Msada, Nsoku; **Nyamwezi:** Mgukubi, Msungwe, Msungwi, Mtalali; **Nyaturu:** Irwana, Msasati, Mtaai, Musasarti; **Nyiramba:** Msasati, Msasi; **Rangi:** Mchumbau, Muchumbau, Mjumbau; **Sukuma:** Mgukubi, Msungwi; **Swahili:** Mbwanga, Mfudu, Mfudu maji, Mgege, Mtalali, Mvumba; **Zigua:** Mgobe; **Zinza:** Mkakata, Msungwa.

DESCRIPTION: A stiffly branched deciduous shrub or small tree to 8 m. BARK: Rough grey to brown with **deep longitudinal fissures**. Branchlets densely covered with brown-red hairs. LEAVES: Compound, opposite, with **5 leaflets**, sometimes 3 leaflets (lower 2 leaflets deformed or absent), widest above the middle, **about 6 cm long, short soft hairs above but dense orange hairs below**, on hairy stalks to 9 cm. FLOWERS: Few flowers in a branched head on **stalks to 6 cm**, each flower 5 mm, all violet-blue or all white with upper lip all blue; **petals twice as long as calyx lobes, ovary hairy**. FRUIT: Rounded to oblong, 2–3 cm long, green at first, turning black when ripe, juicy. **Calyx lobes enlarge**, cover the fruit but later **open out or bend back**.

ECOLOGY: Found in scrub and secondary thicket bushland, *Brachystegia* woodland, often on rocky granite hills, 0–1,600 m. Abundant in open areas where natural vegetation has been partly cleared. It prefers sandy soils with high groundwater.

DISTRIBUTION: Widespread in Tanzania. Also in Kenya, parts of Central Africa and south to South Africa.

USES:

**Food:**

- Fruits are edible. Ripe fruits are juicy and eaten raw. They have a sharp, persistent taste and an unpleasant smell, but are much eaten, especially by herdsmen and children.
- Wood ash is soaked in water and filtered. The resulting liquid is used to tenderize vegetables during cooking.
- Cracking open the hard shell of the inner stone reveals edible seeds inside.

**Medicinal:** Root are boiled and the decoction used as a remedy for diabetes and infertility and as an antiemetic.

**Commercial:** Sold in most local markets in Tanzania (Kigoma, Tabora, Singida, Kondo, Iringa, Mbeya).

**Other:** The wood is used for firewood, poles, troughs, grain mortars, pestles, spoons and tool handles. The tree provides good shade and is a source of bee forage.

*Vitex mombassae* (contd)

## Verbenaceae

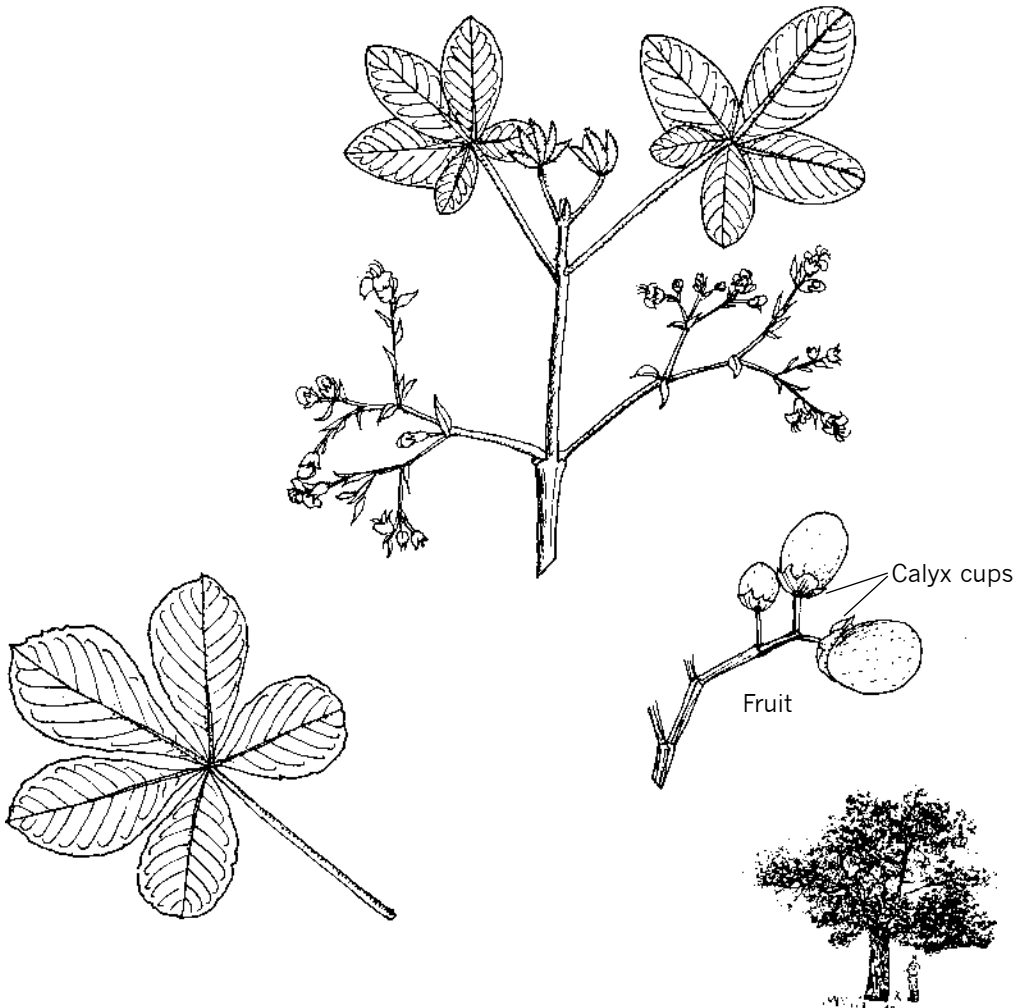
SEASON: Ripe fruits are collected from April to June in Tabora, Songea and Kigoma, and April–September in Iringa, Njombe and Mbeya.

STORAGE: Not stored.

MANAGEMENT: Fruits are usually collected from the wild, but the species is also protected on farms by the local people. It can be propagated using fresh seed.

STATUS: Common and easily accessible within its area of distribution.

REMARKS: The fruits are rich in vitamin C.



*Vitex payos* var. *payos*

## Verbenaceae

Indigenous

[Plate 6]

LOCAL NAMES: **English:** Black plum, Chocolate berry; **Fipa:** Kiputu; **Gogo:** Mfulu; **Hehe:** Mfulu, Mkoga; **Luguru:** Mfuru, Mpitimbi, Ngoni; **Mwera:** Mpitimbi; **Nyamwezi:** Mfulu, Mfulu-genge; **Nyaturu:** Mufuu; **Rangi:** Mpuru; **Sandawi:** Naaso; **Swahili:** Mfudu, Mfuu; **Vidunda:** Mkoga; **Zigua:** Mgoobe; **Zinza:** Mtombofa.

DESCRIPTION: A small- to medium-sized tree, 4–10 m with a rounded crown; rarely, a shrub about 2 m. BARK: Grey-brown, very rough, with deep vertical grooves, **all young parts densely covered with grey-yellow to red-brown woolly hairs, stems often square**, covered with large leaf scars. LEAVES: Leaves opposite, the 5 leaflets arranged like the fingers of a hand, the **largest central leaflet** up to 20 cm long, **leaflets without stalks**, wider at the tip, which is rounded, bright green with few hairs above, long red-brown hairs below, the edges often thick and rolled under, the main, hairy, **stalk to 12 cm**. FLOWERS: **Pale mauve or blue, fragrant**, an attractive tree in flower. Each flower about 6 mm, **2-lipped**, the lower lip white, the upper mauve, from few together to dense heads on a **slender common stalk, 6–13 cm**, beside leaves. FRUIT: In clusters, each one round–oval **chocolate brown, to 2 cm long with a tough skin and pointed tip**, juicy edible pulp surrounds a single stone. The **persistent calyx** makes a broad shallow cup 1–2 cm deep.

ECOLOGY: Wooded grassland, or *Acacia* woodland on termite mounds, rocky outcrops, or more open grasslands at low to medium altitudes, 0–1,600 m.

DISTRIBUTION: Widespread in Tanzania; also in Kenya, Mozambique, Malawi and Zimbabwe.

USES:

**Food:**

Fruits are edible. Ripe fruits are fleshy and eaten raw and the hard stones discarded. The fruits have a rather unpleasant smell, and leave a temporary black stain on the teeth, but they are much eaten by children and herds-men.

**Medicinal:**

- A decoction of the root is used as a remedy for stomach problems.
- The pounded bark is administered to treat threadworm and skin problems.
- The leaves are boiled and the liquid drunk by patients who have lost their appetite.

**Commercial:** The edible fruit are sold in local markets (Dodoma, Kondoa, Singida).

**Other:** The wood is used for firewood, poles and spoons. The tree is used for fodder, shade and is a source of bee forage.

SEASON: Fruits are collected from April to July.

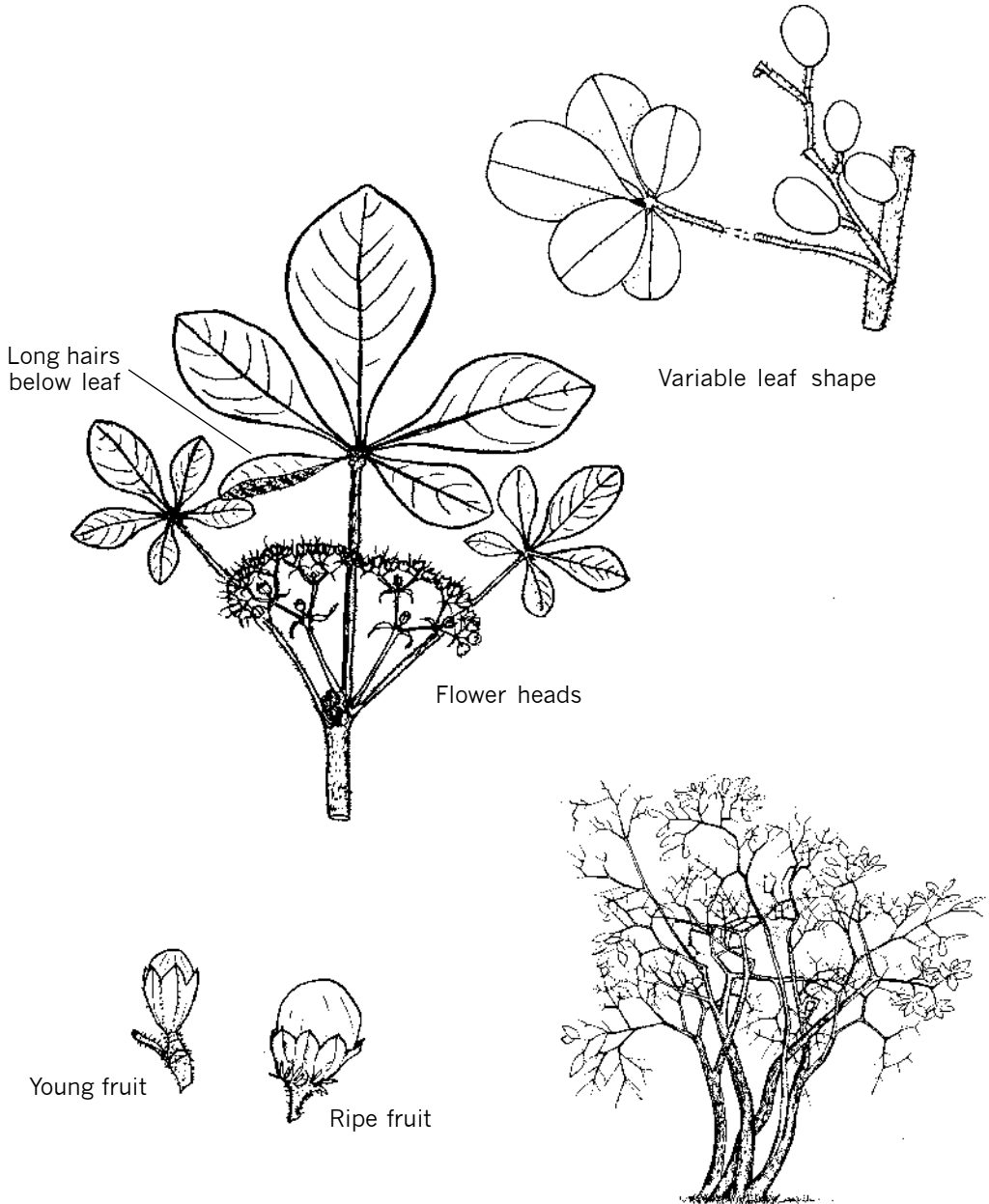
*Vitex payos* var. *payos* (contd)

Verbenaceae

STORAGE: Not stored.

MANAGEMENT: Collected from the wild only. The species can be propagated by seed.

STATUS: Common within its area of distribution.



*Ximenia americana*

## Olacaceae

Indigenous

LOCAL NAMES: **Bena:** Mpingipingi; **Bende:** Msantu; **Chagga:** Lama; **Digo:** Mtundakula; **English:** False sandalwood, Small sourplum; Tallow nut, Wild plum; **Gogo:** Mtundwe; **Gorowa:** Tarantu; **Hehe:** Mingi, Mtundwahavi; **Iraqw:** Mutuhu, Tahhamanto, Tarantu; **Nyamwezi:** Mnembwa mudo, Mnembwa, Mtundwa; **Maasai:** Engamai (plural), Ilama (plural), Lama, Olama, Olamai; **Mbugwe:** Olamai, Tarantu; **Rangi:** Mjingu; **Sambaa:** Mtundui; **Sandawi:** //aáya; **Sangu:** Mingi, Mtundwahai; **Sukuma:** Mpingi, Mtundwa; **Swahili:** Mpingi, Mtundakula; **Tongwe:** Lusantu; **Zaramo:** Membwa, Mhingi, Mpingi, Muhingi; **Zigua:** Mtundwi.

DESCRIPTION: Usually a spiny shrub or small tree to 4 m, spines to 1 cm, thin and straight; **leaves and branches without hairs** (young stems never very hairy). BARK: Brown-black, small scales. LEAVES: Alternate, **simple or in tufts**, oblong, 2–4 cm long, blue-grey-green, **folding upwards along midrib**, tip round or notched. FLOWERS: Very fragrant, small, green-white, in small branched clusters **with a common stalk**. FRUIT: Oval, to 2.5 cm, **thin skin, usually yellow**, occasionally pink-red, pulp sour but refreshing. One large seed, containing oil.

Ecology: Found in wooded grassland, deciduous and coastal bushland, dry and moist woodlands, 900–2,000 m.

DISTRIBUTION: Widespread in Tanzania; also found throughout tropical Africa, Asia and America.

USES:

**Food:**

- The sweet but slightly acidic fruit pulp is edible. Ripe orange-to-red fruits are collected in handfuls and eaten fresh. They are very tasty when fully ripe. It is eaten as a snack.
- Ripe fruits are peeled and squeezed in warm water, sugar is added and the juice is ready for drinking. It may also be fermented into a local brew.

**Medicinal:**

- Roots are boiled and the decoction used as medicine for anaemia, hernia, mental disorders, gastric disorders, retained placenta, intestinal worms and STDs.
- Fruits when eaten in large quantities act as a vermifuge.
- An infusion of leaves is used to treat stomach-ache.

**Commercial:** Not marketed.

**Other:** The wood is hard and used for firewood and tool handles. The plant is suitable for hedges and is a source of bee forage. Oil from the seeds is used for softening leather and as a skin cream.

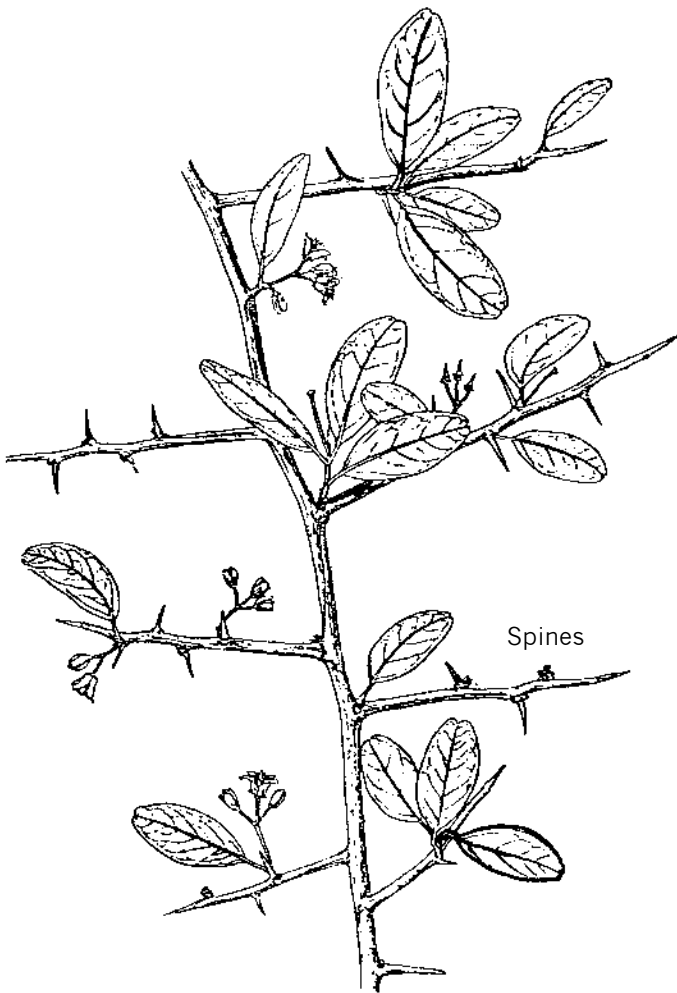
SEASON: Fruits are collected in the dry season.

## *Ximenia americana* (contd)

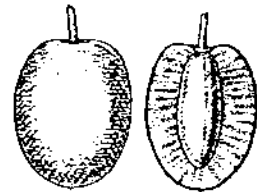
STORAGE: Not stored.

MANAGEMENT: Collected from the wild and not protected or cultivated by local people. It can be propagated using fresh seed.

STATUS: Uncommon and difficult to access in cultivated areas, but common and easily accessible where woodlands still exist.



One flower enlarged



Mature fruit and section

*Ximenia caffra*

## Olacaceae

Indigenous

LOCAL NAMES: **Barabaig:** Maanyangu; **Bena:** Mpingipingi; **Bende:** Msantu; **English:** Large sourplum; **Gogo:** Mjingu, Mtundwe; **Gorowa:** Maanyangu, Maayangumo; **Hehe:** Mtundwa; **Iraqw:** Maanyangu; **Isanzu:** Mtundwi; **Kerewe:** Mseaka; **Maasai:** Lama; **Matengo:** Mpingipingi; **Ndendeule:** Mbingembinge, Mpingipingi; **Ngindo:** Mpingi; **Ngoni:** Mbingimbingi, Mpingipingi; **Nyamwezi:** Mnembwa, Mtundwa; **Nyaturu:** Mutundwe; **Nyiramba:** Mtundwi; **Rangi:** Mjengu, Mjingu; **Sambaa:** Mtundui; **Sandawi:** /Wandánda, Xaya; **Swahili:** Mpingi; **Zaramo:** Muhingi; **Zigua:** Mhingi, Mtundwi; **Zinza:** Mseka.

DESCRIPTION: A shrub or, more commonly, a tree up to 8 m, armed with small spines. **Young stems can be very hairy.** BARK: Grey, grey-brown or black, smooth at first, then rough and fissured when old. LEAVES: Simple, alternate, 2.5–6.0 cm long, **densely hairy at first** and becoming **shiny dark green**, smooth when mature, on a short stalk. FLOWERS: **Solitary or in bunches from the same point**, small, white-green, sometimes pink to red around the hairy throat. FRUIT: Oval, about 2.5 cm long, greenish when young, then **bright red when ripe**, soft, edible, containing one woody seed. The flavour is best when over-ripe.

ECOLOGY: Found in dry woodland and wooded grassland, often on rocky hillsides and termite mounds, 0–2,000 m.

DISTRIBUTION: Widespread in Tanzania. Found, for example, in Kagera, Mwanza, Pwani, Dodoma, Morogoro and Tabora Regions. Also Kenya and Uganda, westwards to the Congo basin and into Malawi, Mozambique and South Africa.

USES:

**Food:**

Ripe fruits are picked from the tree and eaten raw. They are sweet and are much eaten by children and herdsman. A refreshing drink can be prepared by squeezing fruits in water and adding sugar.

**Medicinal:**

- A decoction of leaves is used as a remedy for malaria, coughs, toothache, stomach-ache, ulcers and hookworm. Pounded leaves are used as poultices for wounds and boils.
- Roots are boiled and the decoction is used as a remedy for chest pains, STDs, infertility, mental illness, bilharzia, scorpion bites, menstrual problems and generalized body pains. Roots are also used to treat anaemia, hernia, and against intestinal worms.

**Commercial:** Not marketed.

**Other:** The wood is used for firewood, tool handles, spoons, walking sticks, bows and storage containers. The tree is used for shade, hedges and as an



***Ximenia caffra* (contd)**

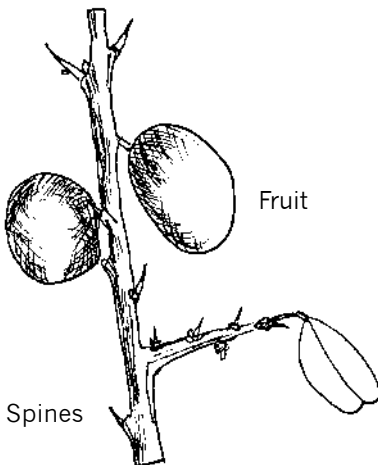
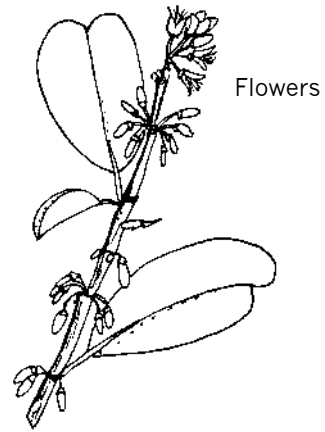
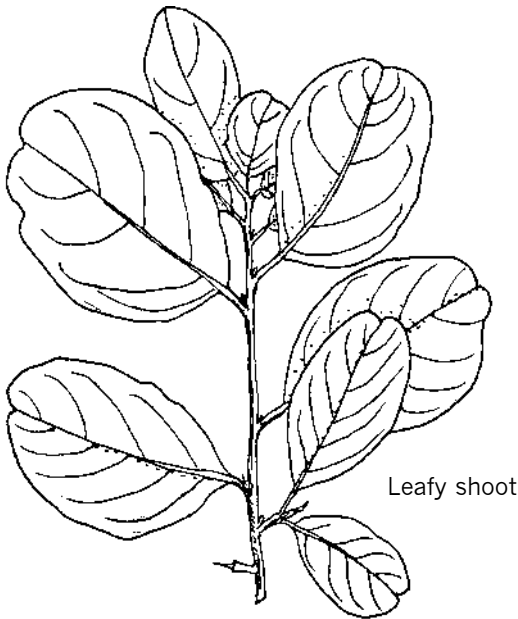
ornamental. Oil extracted from the seed is used for cosmetics and for softening of hides.

SEASON: Fruits are collected from November to January.

STORAGE: Not stored.

MANAGEMENT: Fruits are collected from the wild. This species can be propagated using fresh seed.

STATUS: Sometimes common within its area of distribution.



*Xylotheca tettensis* var. *kirkii*

## Flacourtiaceae

Indigenous

LOCAL NAMES: **English:** Northern African dog-rose; **Luguru:** Msekaseka; **Mwera:** Mchemka, Njaunabonde; **Ngindo:** Mlimia mbopo; **Swahili:** Mchekaucha, Mchekwa, Mkwema, Mripuripu, Msekwasekwa; **Zaramo:** Mkekwa, Mnywanywa, Mseka, Msekaseka, Msekwasekwa.

DESCRIPTION: A deciduous shrub or small tree, 1–5 m. BARK: Grey, with long grooves, young branches hairless (or long yellow hairs in some variants). LEAVES: Alternate or clustered on side shoots, **wide oval, 6–11 cm, wider at the rounded tip**, narrowed at the base to a 1.5-cm stalk, edges entire and wavy, shiny above, paler below, 4–8 pairs of looping side veins and clear vein network both sides. FLOWERS: Appear just after new leaves, usually **solitary or 2–3**, in axils or terminal on branchlets, **sweet scented, large, white and showy, 5–10 cm across**, many **stamens making a conspicuous yellow centre**, 4 sepals, 7–12 free petals to 4.5 cm long. FRUIT: **A black oval-rounded capsule, 3–4 cm diameter, with a hard pointed tip**, splitting by 8 into a star shape to set free yellow-brown seeds in a thin gold-scarlet edible pulp (the fruit capsule may be smooth, or hairy, shallow or deeply grooved).

ECOLOGY: Found in lowland woodland, bushland, secondary bushland, 0–600 m.

DISTRIBUTION: Four varieties of this species all grow in Tanzania but the most widespread, var. *kirkii*, grows in Tanga and eastern and southern parts of the country, as well as in Zanzibar; Mozambique, Kenya.

USES:

**Food:**

The pulp of ripe fruits is sweet and eaten raw. The sweet pulp is swallowed and seed are discarded. Eaten as a snack.

**Medicinal:** Roots are chewed or boiled and the decoction is used as an aphrodisiac. When chewed, the juice is swallowed and the rest is discarded.

**Commercial:** Not marketed.

**Other:** The wood is used for firewood. The plant is used for ornamental purposes and is a source of bee forage.

SEASON: Ripe fruits are collected from November to January.

STORAGE: Not stored.

MANAGEMENT: Ripe fruits are usually collected from the wild, but the species can be propagated by seed.

STATUS: Locally common.

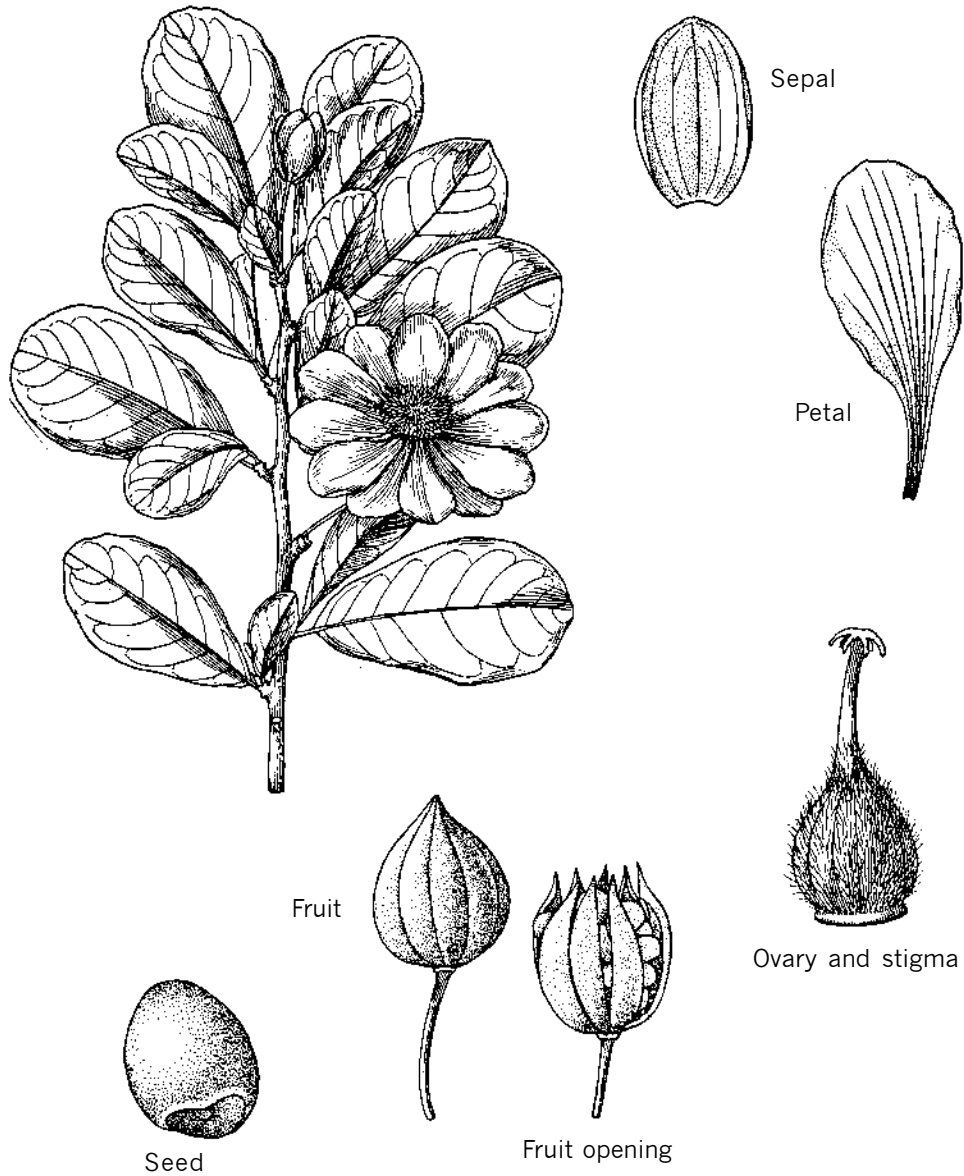
REMARKS: Four varieties are recognized in Tanzania:

1. var. *fissistyla*: which is only found in Bagamoyo;
2. var. *kirkii*: found in Tanga, Pwani, Morogoro and Lindi Regions and on Zanzibar;

*Xylothea tettensis* var. *kirkii* (contd)

3. var. *macrophylla*: found in Pwani and Lindi Regions;

4. var. *tettensis*: found in Arusha, Morogoro, Pwani and Lindi Regions.



***Zanha africana (Dialiopsis africana)*** Sapindaceae

Indigenous

LOCAL NAMES: **Bondei:** Mkwanga; **English:** Velvet-fruited zanha; **Gorowa:** Mnughumo; **Ha:** Umukakili; **Hehe:** Kivangaduma, Muvanga duma, Mwanga duma; **Isanzu:** Muyuyu; **Luguru:** Mdaula; **Matengo:** Chimanyi; **Ngindo:** Mjuju; **Nyamwezi:** Mkalya; **Nyaturu:** Mujulu; **Rangi:** Mnjulu, Mnuhu; **Sambaa:** Mkwanga; **Sukuma:** Mkalya, Ng'watya; **Swahili:** Mkalya, Mkwanga; **Zigua:** Mkwanga.

DESCRIPTION: A small deciduous tree, 3.5–12 m, the bole often crooked, the grey erect branches forming a light open crown. BARK: Pale red-brown at first, darker grey-brown with age, cracking and flaking in patches to show an orange layer below. LEAVES: Dark green, **paler below with some rusty hairs**, compound, about 23 cm long with **3–8 pairs of long oval leaflets**, 8–15 cm long, **tip blunt**, base straight or rounded, **edge round toothed, especially towards the tip**, often recognized by the **fine clear vein network below between 14 pairs of looped lateral veins**. FLOWERS: Cream yellow, male flowers and greenish female flowers appear on separate trees, **while the trees are still bare**; both are very small without petals, the female flowers sweet scented, **the male flowers in dense clusters on young twigs**. FRUIT: **Ovoid**, covered with soft hairs, **bright orange when ripe, to 2.6 cm long**, topped by the style, on hairy stalks to 2 cm.

ECOLOGY: Deciduous woodland, miombo, often on rocky hills, 300–1,800 m.

DISTRIBUTION: Found in most parts of Tanzania. Rare in Kenya. Also in parts of Central Africa and south to Angola, Zimbabwe and Mozambique.

USES:

**Food:**

Fruits are edible. They are peeled and the sweet fleshy yellow pulp eaten raw in small quantities. The seed is discarded. Fruits are mostly eaten by children and herdsman and are believed to cause severe diarrhoea if eaten in large quantities (Hehe, Luguru, Nyamwezi).

**Medicinal:**

- The bark is dried, pounded and used as snuff to treat colds, fever, headache and convulsions.
- A decoction of roots is used as a remedy for colds, convulsions, impotence, intestinal worms, stomach-ache, constipation, hernia, mental illness, dysentery, fungal infection and for facilitating childbirth.

**Commercial:** Not marketed.

**Other:** The wood is hard and used for firewood, building poles, pestles, grain mortars, tool handles, bedsteads and spoons. The tree is used for shade and is a source of bee forage. Stem and root bark contain saponin and are used as a substitute for soap.

## *Zanha africana* (contd)

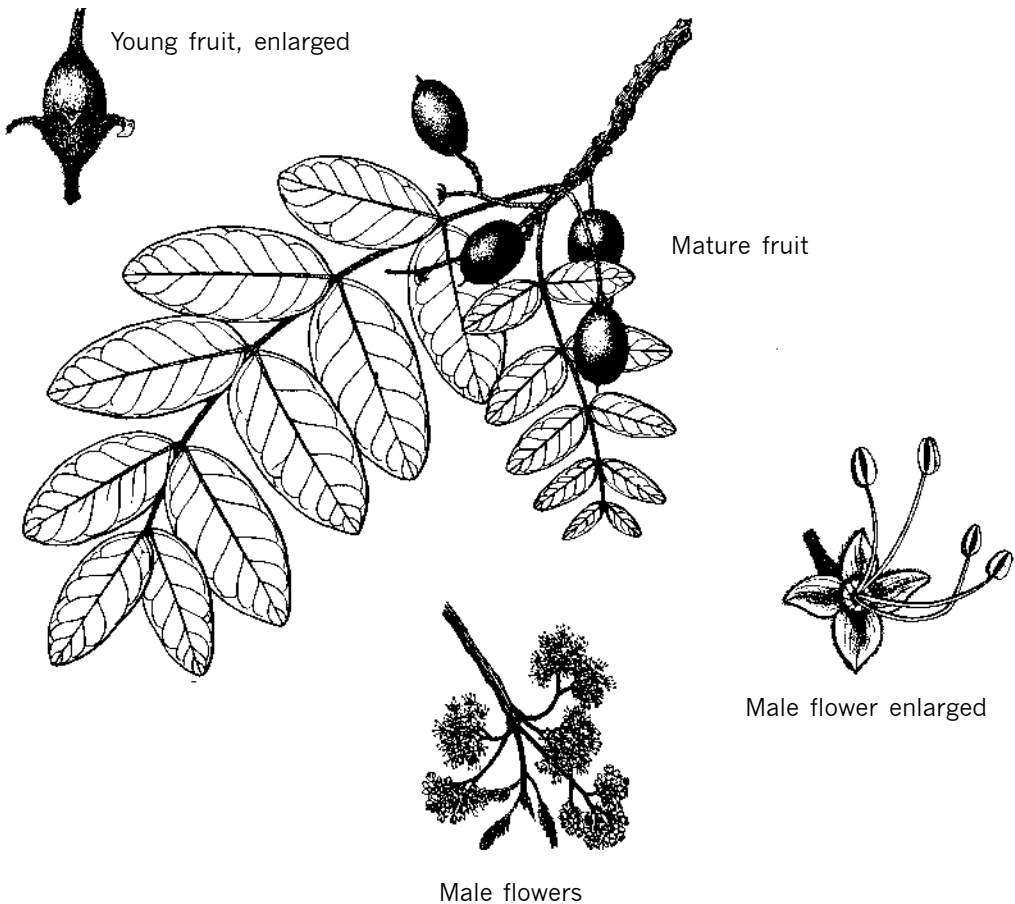
SEASON: Ripe fruits are collected from November to January.

STORAGE: Not stored.

MANAGEMENT: Fruits are collected only from the wild. The tree can be propagated using fresh seed.

STATUS: Common and easily accessible within its area of distribution.

REMARKS: Fruits contain about 10.5% saponin. A related species, *Z. golungensis*, with the same vernacular names and similar uses, is a tree up to 24 m found in Arusha, Kigoma and Tanga Regions. It also occurs in Kenya and Uganda, from Senegal to Ethiopia, south to Angola, Malawi, Mozambique, Zambia and Zimbabwe. It differs from *Z. africana* in having hairless leaves and fruits.



***Zanthoxylum chalybeum* var. *chalybeum*** Rutaceae  
(*Fagara chalybea*)

Indigenous

LOCAL NAME: **Arusha:** Oluisuki; **Barabaig:** Wapkan; **Bena:** Lilungulungu; **Bondei:** Mlungulungu; **Digo:** Mdungu, Mrungurungu, Mudhungu; **English:** Knobwood; **Fiome:** Morungi; **Fipa:** Popwe; **Gogo:** Mkunungu, Mhunungu; Mlungulungu; **Gorowa:** Morungi; **Haya:** Entare yeirungo; **Hehe:** Mkunungu; **Luguru:** Mhunungu; **Maasai:** Oloisuki; **Makonde:** Navele; **Mbugwe:** Molongo; **Ngindo:** Mlungu; **Nyamwezi:** Mlungulungu; **Pare:** Msele; **Rangi:** Mkunungu, Mlungu, Mulungu; **Sambaa:** Hombo-muungu, Muungu-magoma; **Sandawi:** Khotso; **Sukuma:** Nungu; **Swahili:** Mjafari, Mkunungu; **Zaramo:** Mnungu; **Zigua:** Muungu-goma.

DESCRIPTION: A spiny deciduous shrub or tree, to 8 m, the crown rounded but open. The bole has characteristic **large, conical woody knobs with sharp prickles**. BARK: Pale grey, smooth, **dark scales and prickles protect buds**. LEAVES: Compound, a strong **lemon smell if crushed, the leaf stalk with hooked prickles below**, 6–9 pairs of shiny leaflets. FLOWERS: Yellow-green, in short sprays below leaves on new branchlets. FRUIT: **Red-brown-purple, like berries**, open to release **shiny black seeds**.

ECOLOGY: Dry bushland and wooded grassland; often on termite mounds, 0–1,600 m.

DISTRIBUTION: Found in all parts of Tanzania; Uganda, Kenya, parts of Central Africa, from Ethiopia and Somalia south to South Africa.

USES:

**Food:**

- Leaves are used as a vegetable. Green leaves are collected, dried, pounded and sieved. The vegetable powder is soaked in hot water and stirred into a thick vegetable paste, which may be mixed with groundnut paste and eaten with *ugali*.
- The bark is collected, dried and used as a substitute for tea.

**Medicinal:**

- A decoction of bark and roots is used as a remedy for malaria, generalized body pains, coughs, scorpion- and snakebite, oedema, anaemia, and body swellings and as a gargle for toothache.
- Bark and root powder is mixed with oil and applied as liniment for pains and sprains.

**Other:** The wood is used for firewood, building poles, bedsteads, spoons, mortars, stools, drums, combs, carvings and beehives. The tree is used for shade and is a source of bee forage.

SEASON: Bark is collected all year round. Leaves are collected during the rainy and early dry season.

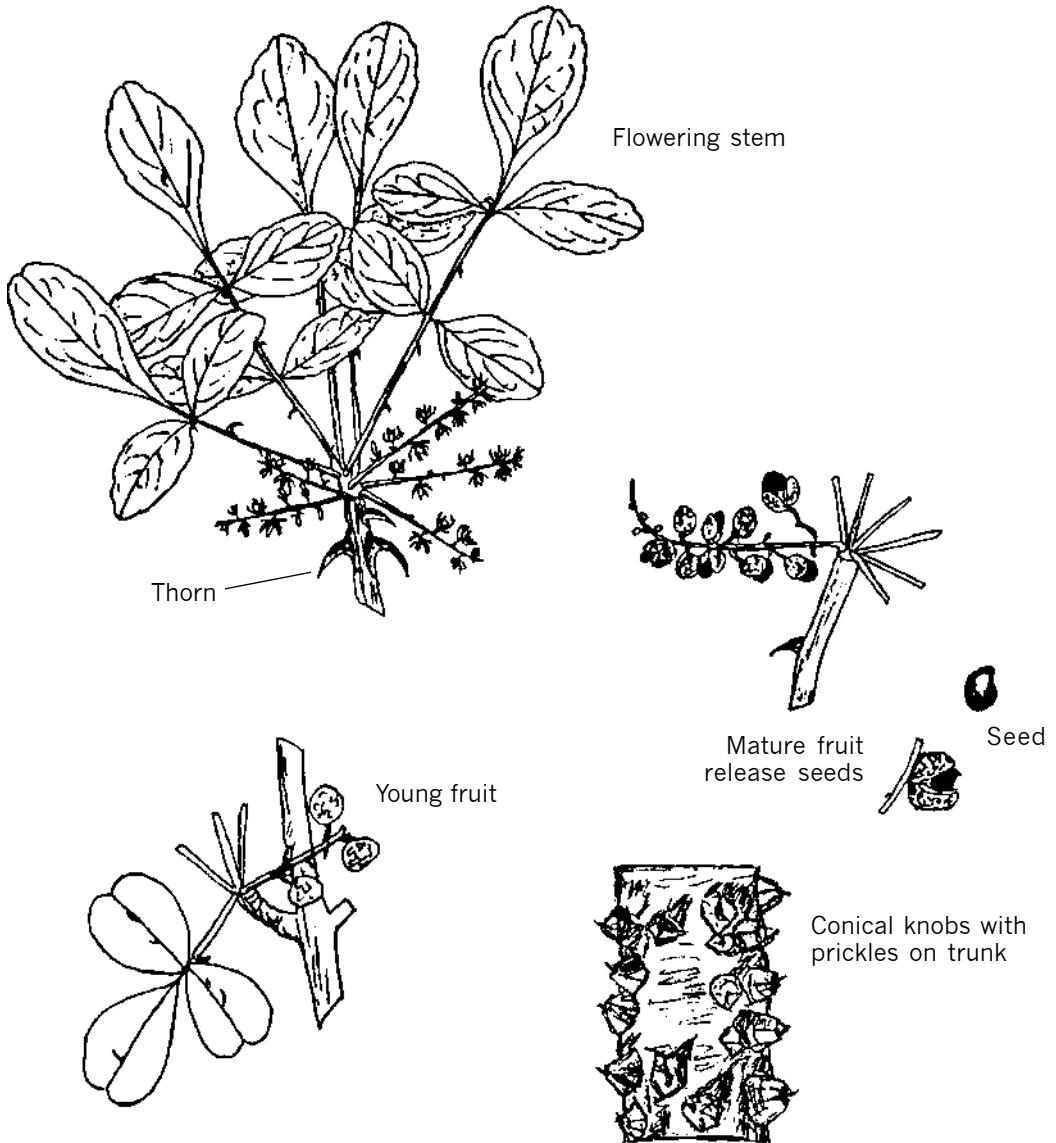
*Zanthoxylum chalybeum* var. *chalybeum* (contd)

STORAGE: Dried leaves and bark can be stored for about 6 months. Leaves are usually pounded and stored in powder form.

MANAGEMENT: Collected from the wild and not protected or cultivated by the local people. The species can be propagated using fresh seed.

STATUS: Common and easily accessed.

REMARKS: One of the most important vegetable and medicinal plants of Tanzania.



***Ziziphus abyssinica*****Rhamnaceae**

Indigenous

LOCAL NAMES: **English:** Catch thorn; **Hehe:** Mtanula; **Maasai:** Oloilalei; **Matengo:** Mpiripiri, Ufuru; **Ngindo:** Mpengele; **Nyamwezi:** Kagowole, Mgugunu; **Rangi:** Lukwaju; **Sangu:** Mtanula; **Sukuma:** Mgugunu; **Tongwe:** Kagobole.

DESCRIPTION: A thorny semi-evergreen shrub or small tree, usually 3–6 m, the trunk usually straight and single, the branches drooping to form a rounded crown. BARK: Grey-black, deeply grooved. Branches zigzag, hairy, **with single or paired dark brown thorns to 2 cm long; in a pair, one straight, one curved back (“thumb pointer”)**. LEAVES: Markedly alternate along the stems, oval, leathery, variable in length, 5–8 cm, the **leaf base unequal, shiny green above, hairy orange-yellow-grey below**, 3–5 clear veins, edge finely toothed, a short hairy stalk. FLOWERS: **Green-yellow, in small star-like heads**, 1–2 cm, stalks 1 cm, beside leaves. They have an unpleasant sharp smell. FRUIT: **Rounded, 2–3 cm, smooth, ripening to shiny red-brown, 1–2 seeds** inside the inner stone surrounded by sweet edible flesh.

ECOLOGY: A small tree of scattered tree grassland, *Combretum–Terminalia* woodlands, *Acacia* woodlands and bushland, mainly at medium to low altitudes, 400–2,200 m.

DISTRIBUTION: Found throughout Tanzania except in the Tanga and coastal areas; Kenya, Uganda, Senegal to Eritrea, Ethiopia, south to Angola, Zimbabwe and Mozambique.

USES:

**Food:** Fruits are eaten and taste sweet–bitter. The seed are discarded. It is eaten occasionally as a snack, especially by children and herdsman. It is also eaten during famine periods.

**Medicinal:**

- Roots are pounded and the powder is rubbed on the chest, after scarification, to treat pneumonia.
- Roots are boiled and taken for after-birth pains, stomach-ache, snakebite and to induce abortion.
- A decoction of roots, mixed with those of *Rhynchosia resinosa*, is drunk for stomach-ache.
- Ash from burnt leaves is mixed with common salt and rubbed externally on the throat to relieve tonsillitis.
- Leaves are boiled and used as a steam bath for pneumonia.

**Other:** The wood is hard and used for firewood, charcoal, building poles and tool handles. The spiny branches make this plant useful as a protective live fence. It is also used for shade and fodder.

SEASON: Fruits are collected at the end of the rainy season and in the dry season.



*Ziziphus abyssinica* (contd)

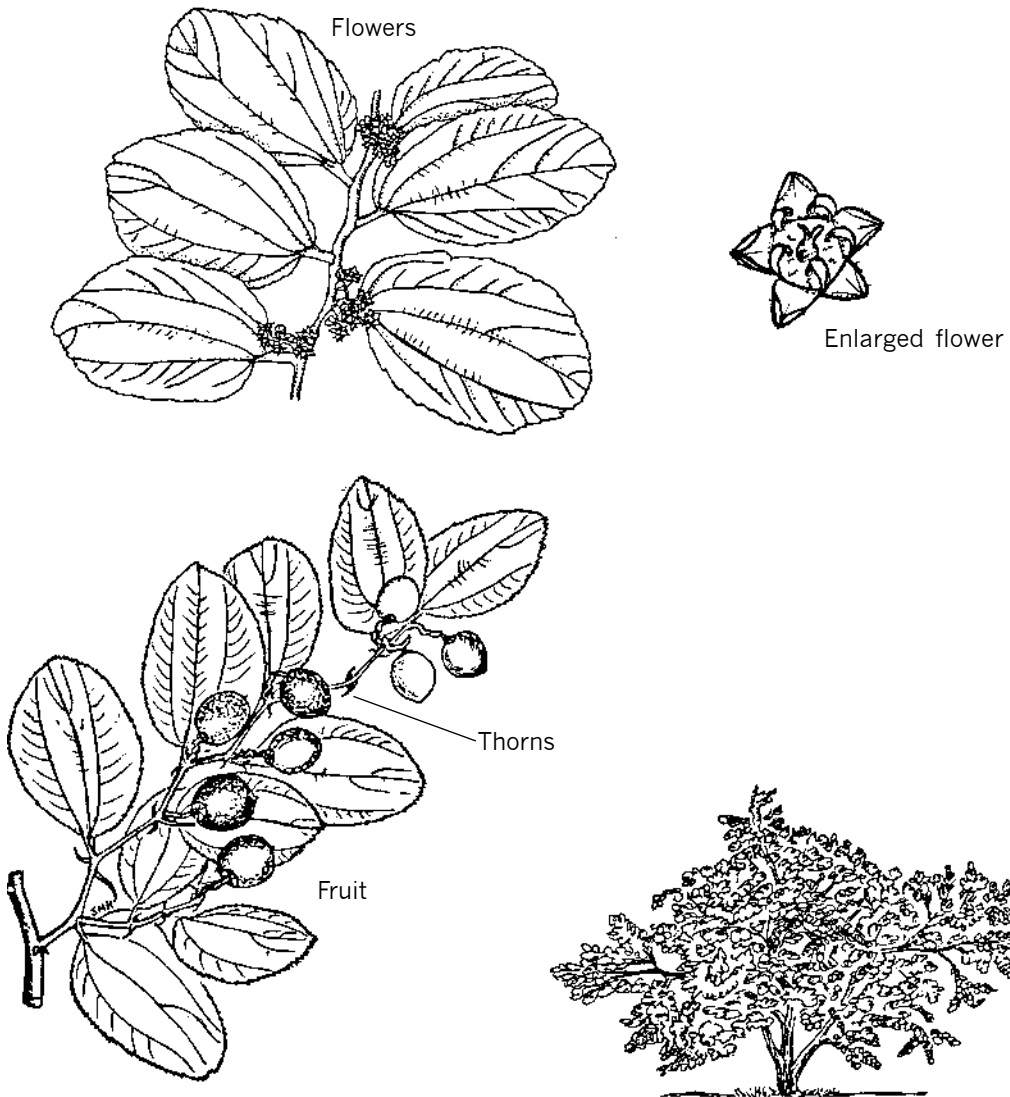
## Rhamnaceae

STORAGE: Dried fruits can be stored for up to 6 months.

MANAGEMENT: Collected from the wild and not protected or cultivated by local people. Propagation can be done by using fresh seed.

STATUS: It is uncommon and thus difficult to access.

REMARKS: In some countries leaves and fruit are used as fodder. A cinnamon-coloured dye may be obtained from the plant.



*Ziziphus mauritiana*

## Rhamnaceae

Naturalized

LOCAL NAMES: **English:** Chinese date, Geb, Indian jujube, Indian plum, Jujube; **Hehe:** Mtanula; **Maasai:** Oloilalei; **Nyamwezi:** Kagowole, Mgugunu; **Sangu:** Mtanula; **Sukuma:** Mgugunu; **Swahili:** Mkunazi, Mkunazi pori.

DESCRIPTION: A much-branched **spiny tree**, small, but may reach 7 m, drooping angular branches, **crown rounded**, often forming thickets. **BARK:** Grey branches with curved **thorns**. **LEAVES:** Alternate, shiny above, hairy white below, thin, three veins from the base, rather small but up to 8 cm, **leaf base rounded and equal sides**. **FLOWERS:** Small yellow-green, in clusters beside leaves, on hairy stalks. **FRUIT:** **Rounded, 1–2 cm**, shiny yellow then **red-brown**, pulp edible; **two seeds in a large stone**.

ECOLOGY: A plant of cultivation, other disturbed areas near settlements and along roadsides. It has a strongly developed root system and grows best in areas with a high water-table, 0–1,400 m.

DISTRIBUTION: A common coastal tree in Tanzania, Zanzibar and Pemba. Probably originating in the Middle East or South Asia, it has been universally cultivated and escaped in most tropical countries. There are many cultivated varieties and hybrids.

USES:

**Food:**

- Fruits are collected and eaten fresh as a snack. They taste sweet.
- The seeds are also sweet, and after cracking open the stone they are eaten as a snack.
- Fruit may also be dried and stored. When needed, the dried fruit must be boiled for about 2 hours to soft them and then they are served in a sauce with beans, cowpeas, pigeon peas or beef, together with a staple. It is usually eaten in famine periods.
- A strong locally made spirit is distilled from fermented fruits.

**Medicinal:**

- Roots are pounded and boiled. The decoction is drunk for indigestion.

**Other:** The wood is hard and used for timber, firewood, building poles and tool handles. The tree is used for avenues, fences and fodder, is a source of bee forage and provides good shade for both animals and humans. Roots are pounded and added to drinking water for poultry suffering from diarrhoea.

SEASON: Fruits are collected from April to June.

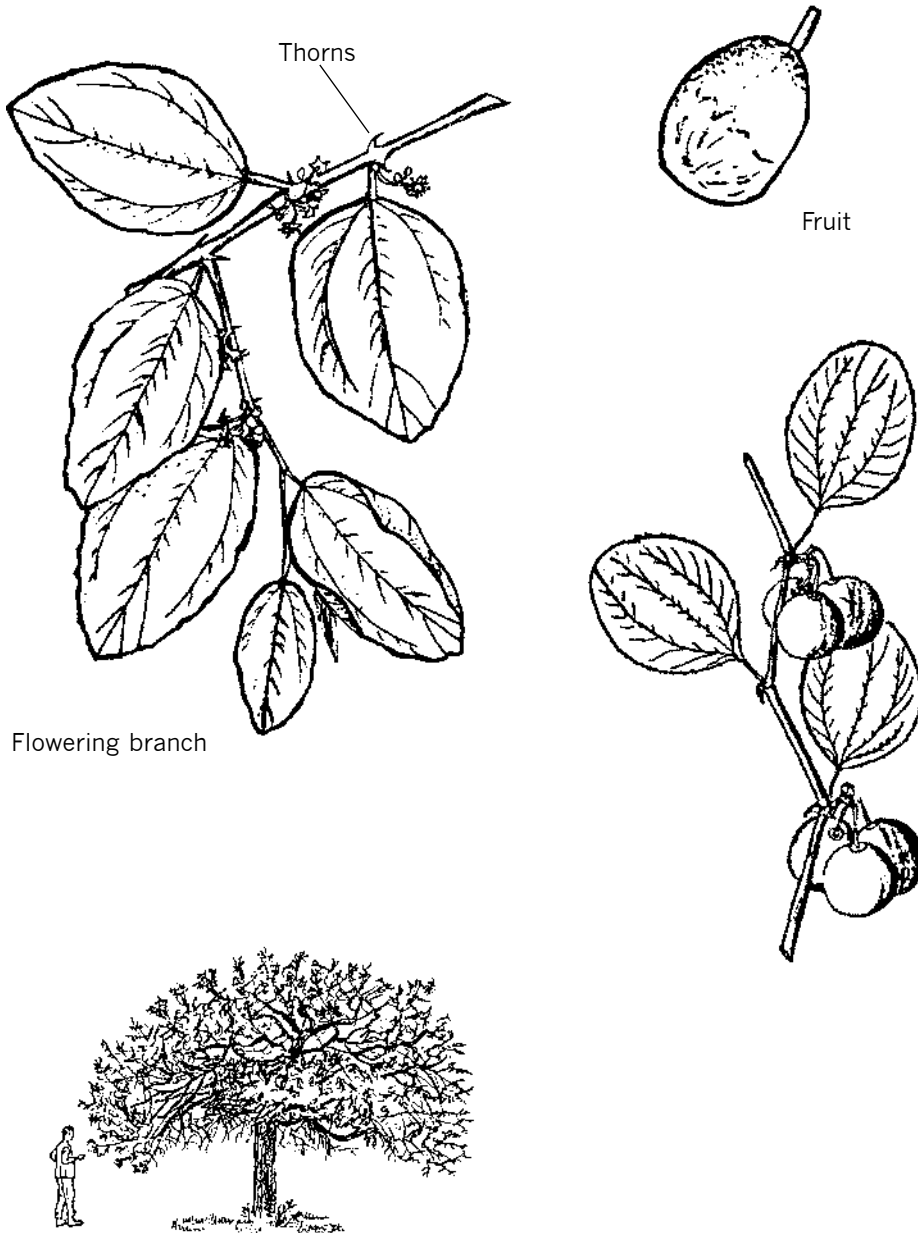
STORAGE: Dried fruits can be stored up to 6 months.

MANAGEMENT: Collected from the wild, and also protected around homesteads and trading centres for shade and food. It can be propagated by fresh seed.

STATUS: Common and easily accessible within its area of distribution.

***Ziziphus mauritiana* (contd)****Rhamnaceae**

REMARKS: *Z. mauritiana* is very resistant to drought and suitable for agroforestry in semi-arid areas.



***Ziziphus mucronata* subsp. *mucronata* Rhamnaceae**

Indigenous

LOCAL NAMES: **Arusha:** Oloilali; **Bende:** Kagobole; **Digo:** Mgorodo, Muguguni; **English:** Buffalo thorn; **Gogo:** Mngangwe, Mnyangwe, Mnyangwe-mwaha; **Gorowa:** Ghal-landi; **Hehe:** Mtanula; **Kuria:** Msarakanga; **Luguru:** Malagala-mkole, Mlagala; **Maasai:** Oleylalei, Oloilale, Oloilalei, Olperetini; **Ngindo:** Mpengele-bonde; **Nguu:** Mgagawe, Muguguni; **Nyamwezi:** Kagowole, Kalembo, Mgugunwa; **Rangi:** Lukwaju, Mgurufa, Mjijiva, Mngurufa, Mwave; **Sambaa:** Mgagawe, Mguguni; **Sandawi:** Ts'imak'o; **Sangu:** Mtanula; **Sukuma:** Mgugunu; **Swahili:** Mkunazi mwitu; **Tongwe:** Kagobole; **Zaramo:** Mgegewa; **Zigua:** Mgagawe; **Zinza:** Mbamba mzumera, Mkwata mzumula, Mukwatanzumula.

DESCRIPTION: A wickedly armed scrambler, shrub or small tree, to 7 m, with drooping tangled branches and thorns. The strong, sharp thorns are in pairs, one straight to 2 cm, the other smaller and recurved with the leaves arising between the two thorns ("thumb-pointer" thorns). BARK: Grey to dark grey, smooth at first, becoming rough and fissured with age. LEAVES: **Shiny and thin, the same green both sides, 3–6 cm long, base rounded, often very unequal sided, the edge with regular rounded teeth, a pointed tip, 3 main veins clear below.** FLOWERS: Very small, yellowish, in heads about 1.5 cm across. FRUIT: Rounded, **dark reddish-brown** when ripe, the pulp very acid and scarcely edible, **in stalked bunches.**

ECOLOGY: Widely distributed in drier parts of Africa in a variety of soils, 0–2,000 m, occasionally even higher, along rivers, dry river beds, in bushland, woodland or wooded grassland.

DISTRIBUTION: Widespread in Tanzania except in the south. *Z. mucronata* is found in Kenya, Uganda, Senegal to the Arabian peninsular, south to South Africa, Madagascar. Subsp. *rhodesia* occurs in various parts of southern Africa.

USES:

**Food:**

Fruits are edible. They are collected from the tree in handfuls and eaten raw as a snack. The thin pulp is sweetish bitter and only eaten in emergency (Hehe, Gogo, Maasai, Mbugwe).

**Medicinal:**

- Leaves and roots are used for treatment of snakebite, stomach-ache, chest pains, asthma, glandular swellings, lumbago, leprosy, bilharzia, mental illness, intestinal worms, STDs and for preventing abortion.
- Pounded leaves and roots are used as a poultice for boils and skin diseases.
- A decoction from the bark is used to treat rheumatism and stomach-ache.

**Commercial:** Not marketed.

## *Ziziphus mucronata* subsp. *mucronata* (contd)

**Other:** An important species for building poles, fuel, firewood and charcoal. Leaves and fruits are used as fodder for livestock. Fruits are pounded and used as fish poison.

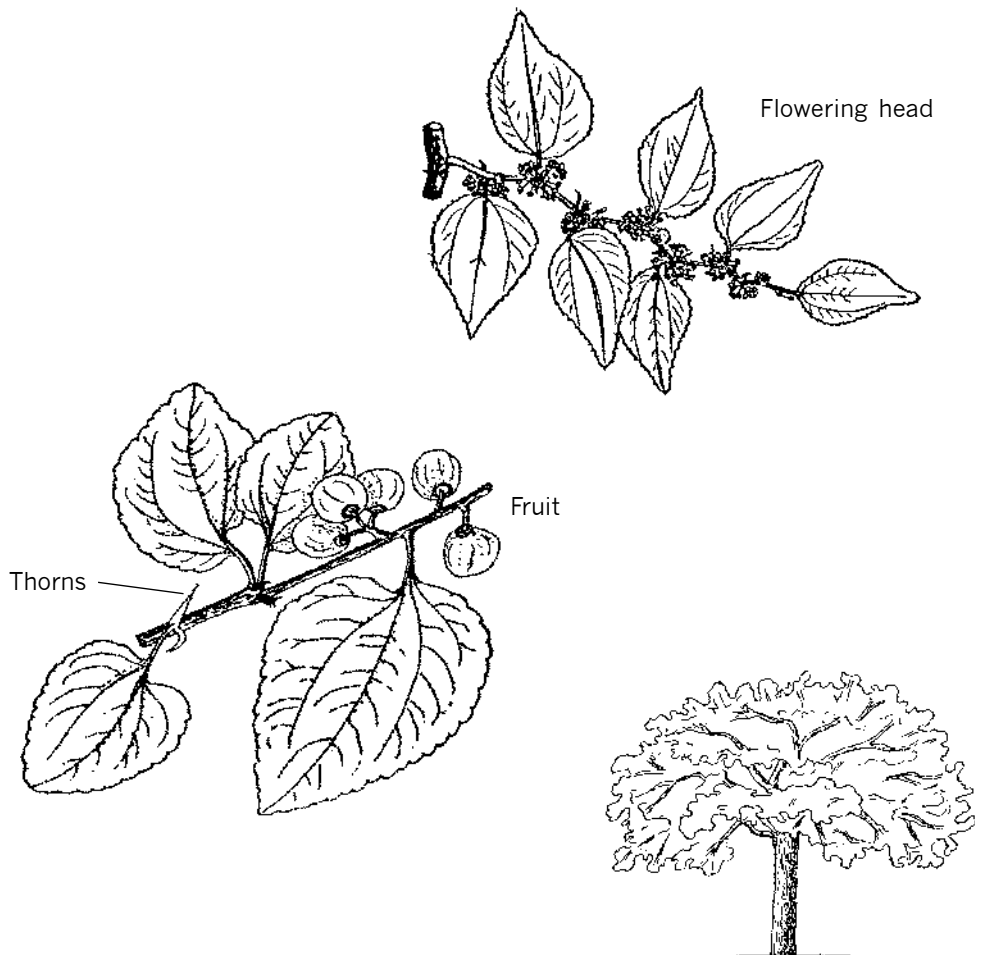
**SEASON:** Fruits are collected from May to August.

**STORAGE:** Dried fruits can be stored for up to 6 months.

**MANAGEMENT:** Fruits are only collected from the wild, as the species is not cultivated. However, propagation can be done using fresh seed.

**STATUS:** Common within its area of distribution.

**REMARKS:** A hardy, fast-growing and coppicing species suitable for agroforestry.





# Appendices

## Appendix I

**Summary table of parts of the plant used for food**

Species	Leaves Stems Flowers	Underground parts	Seeds Fruits	Bark Gum Sap
<i>Abutilon angulatum</i>	x			
<i>Abutilon longicuspe</i>	x			
<i>Abutilon mauritianum</i>	x			
<i>Acacia nilotica</i>				x
<i>Acacia senegal</i>				x
<i>Acalypha bipartita</i>	x			
<i>Acalypha fruticosa</i>	x			
<i>Acalypha ornata</i>	x			
<i>Acanthopale laxiflora</i>	x			
<i>Achyranthes aspera</i>	x			
<i>Acokanthera oppositifolia</i>			x	
<i>Acokanthera schimperi</i>			x	
<i>Adansonia digitata</i>	x		x	
<i>Adenia gummifera</i>	x			
<i>Aerva lanata</i>	x			
<i>Aerva leucura</i>	x			
<i>Aframomum angustifolium</i>			x	
<i>Allanblackia stuhlmannii</i>			x	
<i>Allanblackia ulugurensis</i>			x	
<i>Aloe nutii</i>	x			
<i>Alsodeiopsis schumanii</i>			x	
<i>Alternanthera tenella</i> var. <i>bettzickiana</i>	x			
<i>Amaranthus spinosus</i>	x			
<i>Ampelocissus africana</i>			x	
<i>Ancylobotrys petersiana</i>			x	
<i>Anisophyllea boehmii</i>			x	
<i>Anisophyllea pomifera</i>			x	
<i>Annona senegalensis</i>			x	
<i>Annona stenophylla</i>			x	
<i>Antidesma venosum</i>			x	
<i>Asparagus africanus</i>	x		x	
<i>Asparagus flagellaris</i>			x	
<i>Asystasia gangetica</i>	x			
<i>Asystasia mysorensis</i>	x			
<i>Azanza garckeana</i>			x	
<i>Balanites aegyptiaca</i>			x	
<i>Balanites rotundifolia</i>			x	
<i>Balanites wilsoniana</i>			x	
<i>Bauhinia kalandia</i>	x			
<i>Berchemia discolor</i>			x	



Species	Leaves Stems Flowers	Underground parts	Seeds Fruits	Bark Gum Sap
<i>Bidens pilosa</i>	x			
<i>Bidens schimperi</i>	x			
<i>Bombax rhodognaphalon</i> var. <i>tomentosum</i>			x	
<i>Borassus aethiopum</i>			x	x
<i>Brexia madagascariensis</i>			x	
<i>Bridelia micrantha</i>			x	
<i>Bussea massaiensis</i>			x	
<i>Canarium schweinfurthii</i>			x	
<i>Canthium burtii</i>			x	
<i>Canthium lactescens</i>			x	
<i>Canthium oligocarpum</i> subsp. <i>oligocarpum</i>			x	
<i>Cardamine trichocarpa</i>	x		x	
<i>Carissa edulis</i>			x	
<i>Carpodiptera africana</i>	x			
<i>Carpolobia goetzii</i>			x	
<i>Caylusea abyssinica</i>	x			
<i>Celosia trigyna</i>	x			
<i>Ceratotheca sesamoides</i>	x			
<i>Chenopodium opulifolium</i>	x			
<i>Chytranthus obliquinervis</i>			x	
<i>Cissus cornifolia</i>			x	
<i>Cleome hirta</i>	x			
<i>Cleome monophylla</i>	x			
<i>Coccinia grandis</i>			x	
<i>Coffea eugenioides</i>			x	
<i>Coffea mufindiensis</i>			x	
<i>Cola scheffleri</i>			x	
<i>Combretum padoides</i>	x			
<i>Commelina africana</i>	x			
<i>Commelina benghalensis</i>	x			
<i>Commiphora africana</i>		x		
<i>Commiphora mossambicensis</i>		x		
<i>Convolvulus farinosus</i>	x			
<i>Corchorus tridens</i>	x			
<i>Corchorus trilocularis</i>	x			
<i>Cordia monoica</i>			x	
<i>Cordia sinensis</i>			x	
<i>Cordyla africana</i>			x	
<i>Cordyla densiflora</i>			x	
<i>Crotalaria natalitia</i> var. <i>natalitia</i>	x			
<i>Cucumis dipsaceus</i>	x			
<i>Cucumis figarei</i>	x		x	
<i>Cussonia spicata</i>		x		
<i>Cyathula orthacantha</i>	x			

Species	Leaves Stems Flowers	Underground parts	Seeds Fruits	Bark Gum Sap
<i>Cyphostemma njegerre</i>			x	
<i>Dactyloctenium aegyptium</i>			x	
<i>Dactyloctenium giganteum</i>			x	
<i>Dalbergia nitidula</i>	x			
<i>Deinbollia borbonica</i>			x	
<i>Deinbollia kilimandscharica</i> var. <i>kilimandscharica</i>			x	
<i>Delonix elata</i>	x		x	
<i>Dialium holtzii</i>			x	
<i>Dialium orientale</i>			x	
<i>Dicliptera laxata</i>	x			
<i>Dictyophleba lucida</i>			x	
<i>Dioscorea dumetorum</i>		x		
<i>Dioscorea odoratissima</i>	x	x		
<i>Dioscorea quartiniana</i> var. <i>quartiniana</i>		x		
<i>Diospyros kirkii</i>			x	
<i>Diospyros mespiliformis</i>			x	
<i>Dolichos trilobus</i>			x	
<i>Dovyalis abyssinica</i>			x	
<i>Dovyalis macrocalyx</i>			x	
<i>Dracaena mannii</i>	x			
<i>Drymaria cordata</i>	x			
<i>Duosperma crenatum</i>	x			
<i>Embelia schimperi</i>	x			
<i>Emilia coccinea</i>	x			
<i>Encephalartos hildebrandtii</i>	x			
<i>Englerophytum magalismsontanum</i>			x	
<i>Englerophytum natalense</i>			x	
<i>Ensete ventricosum</i>	x			
<i>Eriosema burkei</i> var. <i>burkei</i>		x		
<i>Erythrococca kirkii</i>	x		x	
<i>Eugenia capensis</i> subsp. <i>nyassensis</i>			x	
<i>Fadogia ancylantha</i>	x		x	
<i>Fadogia cienkowskii</i> var. <i>cienkowskii</i>	x		x	
<i>Fadogia elskensii</i> var. <i>elskensii</i>	x		x	
<i>Fadogia homblei</i>	x		x	
<i>Feretia apodanthera</i> subsp. <i>tanzaniensis</i>			x	
<i>Ficus stuhlmannii</i>			x	
<i>Ficus sur</i>			x	
<i>Ficus sycomorus</i>			x	
<i>Ficus vallis-choudae</i>			x	
<i>Flacourtia indica</i>			x	
<i>Flueggea virosa</i>			x	
<i>Friesodielsia obovata</i>			x	

Species	Leaves Stems Flowers	Underground parts	Seeds Fruits	Bark Gum Sap
<i>Garcinia buchananii</i>			x	
<i>Garcinia livingstonei</i>			x	
<i>Grewia bicolor</i>			x	
<i>Grewia conocarpoides</i>			x	
<i>Grewia mollis</i>			x	
<i>Grewia platyclada</i>			x	
<i>Grewia similis</i>			x	
<i>Grewia trichocarpa</i>			x	
<i>Grewia villosa</i>			x	
<i>Guizotia scabra</i>	x			
<i>Habenaria epipactidea</i>		x		
<i>Habenaria walleri</i>		x		
<i>Harungana madagascariensis</i>			x	
<i>Heliotropium zeylanicum</i>	x			
<i>Hewittia sublobata</i>	x			
<i>Hexalobus monopetalus</i>			x	
<i>Hibiscus acetosella</i>	x			
<i>Hibiscus calyphyllus</i>	x			
<i>Hibiscus diversifolius</i>	x			
<i>Hibiscus surattensis</i>	x			
<i>Hirtella megacarpa</i>			x	
<i>Hoslundia opposita</i>			x	
<i>Hydnora abyssinica</i>		x	x	
<i>Hygrophila auriculata</i>	x			
<i>Hyphaene compressa</i>			x	x
<i>Hyphaene coriacea</i>			x	x
<i>Hyphaene petersiana</i>			x	x
<i>Inhambanella henriquesii</i>			x	
<i>Ipomoea cairica</i> var. <i>cairica</i>	x			
<i>Ipomoea eriocarpa</i>	x			
<i>Ipomoea pres-caprae</i>	x			
<i>Isoglossa lactea</i>	x			
<i>Jacquemontia tamnifolia</i>	x			
<i>Justicia heterocarpa</i>	x			
<i>Kedrostis leloja</i>	x		x	
<i>Kigelia africana</i>			x	
<i>Landolphia kilimanjarica</i>			x	
<i>Landolphia kirkii</i>			x	
<i>Landolphia parvifolia</i>			x	
<i>Lannea fulva</i>			x	
<i>Lannea humilis</i>			x	
<i>Lannea rivae</i>			x	
<i>Lannea schweinfurthii</i> var. <i>stuhlmannii</i>			x	
<i>Lantana camara</i>			x	

Species	Leaves Stems Flowers	Underground parts	Seeds Fruits	Bark Gum Sap
<i>Lantana trifolia</i>	x		x	
<i>Lantana ukambensis</i>			x	
<i>Laportea ovalifolia</i>	x			
<i>Lecaniodiscus fraxinifolius</i> subsp. <i>vaughanii</i>			x	
<i>Leonotis nepetifolia</i>	x			
<i>Lepisanthes senegalensis</i>			x	
<i>Leptactina benguelensis</i>	x		x	
<i>Lippia kituiensis</i>	x		x	
<i>Lobelia fervens</i> subsp. <i>fervens</i>	x			
<i>Lycium europaeum</i>	x			
<i>Maerua decumbens</i>		x	x	
<i>Malva parviflora</i>	x			
<i>Mammea usambarensis</i>			x	
<i>Manilkara dawei</i>			x	
<i>Manilkara discolor</i>			x	
<i>Manilkara mochisia</i>			x	
<i>Manilkara obovata</i>			x	
<i>Manilkara sansibarensis</i>			x	
<i>Manilkara sulcata</i>			x	
<i>Maranthes goetzeniana</i>			x	
<i>Mimusops kummel</i>			x	
<i>Mimusops obtusifolia</i>			x	
<i>Mollugo cerviana</i>	x			
<i>Momordica foetida</i>	x			
<i>Momordica rostrata</i>	x		x	
<i>Monanthes poggei</i>			x	
<i>Multidentia crassa</i>			x	
<i>Myrianthus arboreus</i>			x	
<i>Myrianthus holstii</i>			x	
<i>Myrsine africana</i>			x	
<i>Nicandra physaloides</i>	x			
<i>Nymphaea lotus</i>		x		
<i>Oldenlandia corymbosa</i> var. <i>corymbosa</i>	x			
<i>Oldfieldia dactylophylla</i>			x	
<i>Oncoba spinosa</i>			x	
<i>Opilia amentacea</i>	x		x	
<i>Opuntia vulgaris</i>			x	
<i>Ormocarpum kirkii</i>	x			
<i>Osyris lanceolata</i>		x	x	
<i>Oxygonum sinuatum</i>	x			
<i>Pappea capensis</i>			x	x
<i>Parinari curatellifolia</i> subsp. <i>curatellifolia</i>			x	
<i>Parinari excelsa</i>			x	
<i>Parkia filicoidea</i>			x	

Species	Leaves Stems Flowers	Underground parts	Seeds Fruits	Bark Gum Sap
<i>Peponium vogelii</i>			x	
<i>Phoenix reclinata</i>			x	
<i>Phyllanthus engleri</i>			x	
<i>Piliostigma thonningii</i>			x	
<i>Piper guineense</i>	x		x	
<i>Pistacia aethiopica</i>				x
<i>Pistia stratiotes</i>	x			
<i>Platostoma africanum</i>	x			
<i>Polyceratocarpus scheffleri</i>				x
<i>Polygonum salicifolium</i>	x			
<i>Polysphaeria parvifolia</i>			x	
<i>Portulaca oleracea</i>	x			
<i>Pouteria adolfi-friedericii</i> subsp. <i>australis</i>			x	
<i>Pouzolzia mixta</i>	x			
<i>Pseudeminia comosa</i>		x		
<i>Pseudospondias microcarpa</i>			x	
<i>Psorospermum febrifugum</i>			x	
<i>Psydrax parviflora</i> subsp. <i>rubrocostata</i>			x	
<i>Pupalia lappacea</i> var. <i>velutina</i>	x			
<i>Pygmaeothamnus zeyheri</i>			x	
<i>Pyrostria bibracteata</i>			x	
<i>Raphia farinifera</i>			x	
<i>Rhus natalensis</i>			x	
<i>Rhus vulgaris</i>			x	
<i>Ricinodendron heudelotii</i> subsp. <i>africanum</i>			x	
<i>Ritchiea albersii</i>		x		
<i>Rothmannia engleriana</i>			x	
<i>Rourea orientalis</i>	x			
<i>Rubia cordifolia</i>	x			
<i>Rubus apetalus</i>			x	
<i>Rumex abyssinicus</i>	x			
<i>Rumex usambarensis</i>	x			
<i>Saba comorensis</i>			x	
<i>Salacia leptoclada</i>			x	
<i>Salvadora persica</i>	x		x	
<i>Satyrium macrophyllum</i>		x		
<i>Satyrium neglectum</i> var. <i>neglectum</i>		x		
<i>Sclerocarya birrea</i> subsp. <i>caffra</i>			x	
<i>Scolopia rhamniphylla</i>			x	
<i>Scolopia zeyheri</i>			x	
<i>Senna bicapsularis</i>	x		x	
<i>Senna singueana</i>	x		x	
<i>Sesamothamnus busseanus</i>	x			
<i>Sesamum angolense</i>	x			

Species	Leaves Stems Flowers	Underground parts	Seeds Fruits	Bark Gum Sap
<i>Sesamum calycinum</i> var. <i>angustifolium</i>	x			
<i>Sesuvium portulacastrum</i>	x			
<i>Solanum anguivii</i>			x	
<i>Solanum schumannianum</i>			x	
<i>Sonchus luxurians</i>	x			
<i>Sorghum purpureo-sericeum</i>			x	
<i>Sorindeia madagascariensis</i>			x	
<i>Stachytarpheta jamaicensis</i>	x			
<i>Sterculia africana</i>			x	
<i>Sterculia appendiculata</i>			x	
<i>Sterculia tragacantha</i>			x	
<i>Strychnos cocculoides</i>			x	
<i>Strychnos innocua</i>			x	
<i>Strychnos madagascariensis</i>			x	
<i>Strychnos spinosa</i> subsp. <i>lokua</i>			x	
<i>Synaptolepis alternifolia</i>			x	
<i>Synaptolepis kirkii</i>			x	
<i>Synsepalum brevipes</i>			x	
<i>Synsepalum msolo</i>			x	
<i>Syzygium cordatum</i>			x	
<i>Syzygium guineense</i>			x	
<i>Syzygium owariense</i>			x	
<i>Tacca leontopetaloides</i>		x		
<i>Talinum portulacifolium</i>	x			
<i>Tamarindus indica</i>			x	
<i>Tapiphyllum burnettii</i>			x	
<i>Tapiphyllum cinerascens</i> var. <i>cinerascens</i>			x	
<i>Thylachium africanum</i>		x	x	
<i>Tragia insuarvis</i>	x			
<i>Treculia africana</i>			x	
<i>Tribulus terrestris</i>	x			
<i>Trichilia dregeana</i>			x	
<i>Trichilia emetica</i>			x	
<i>Trichodesma zeylanicum</i>	x			
<i>Trilepisium madagascariense</i>			x	
<i>Triumfetta cordifolia</i> var. <i>tomentosa</i>	x			
<i>Tylosema fassoglense</i>			x	
<i>Typhonodorum lindleyanum</i>		x		
<i>Uapaca kirkiana</i>			x	
<i>Uapaca nitida</i>			x	
<i>Uapaca paludosa</i>			x	
<i>Uapaca sansibarica</i>			x	
<i>Urtica massaica</i>	x			
<i>Uvaria acuminata</i>			x	

Species	Leaves Stems Flowers	Underground parts	Seeds Fruits	Bark Gum Sap
<i>Uvaria kirkii</i>			x	
<i>Uvaria lucida</i> subsp. <i>lucida</i>			x	
<i>Vangueria apiculata</i>			x	
<i>Vangueria infausta</i> subsp. <i>rotundata</i>			x	
<i>Vangueria madagascariensis</i>			x	
<i>Vangueria volkensis</i>			x	
<i>Vangueriopsis lanciflora</i>			x	
<i>Vigna pubescens</i>	x			
<i>Vitex doniana</i>			x	
<i>Vitex ferruginea</i>			x	
<i>Vitex fischeri</i>			x	
<i>Vitex madiensis</i> subsp. <i>milanjiensis</i>			x	
<i>Vitex mombassae</i>	x		x	
<i>Vitex payos</i> var. <i>payos</i>			x	
<i>Ximenia americana</i>			x	
<i>Ximenia caffra</i>			x	
<i>Xylothea tettensis</i> var. <i>kirkii</i>			x	
<i>Zanha africana</i>			x	
<i>Zanthoxylum chalybeum</i> var. <i>chalybeum</i>	x			
<i>Ziziphus abyssinica</i>			x	
<i>Ziziphus mauritiana</i>			x	
<i>Ziziphus mucronata</i> subsp. <i>mucronata</i>			x	

## Appendix II

### Workshop participants

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# List of families and species

## **Acanthaceae**

*Acanthopale laxiflora*  
*Asystasia gangetica*  
*Asystasia mysorensis* (*A. schimperi*)  
*Dicliptera laxata*  
*Duosperma crenatum*  
*Hygrophila auriculata* (*Asteracantha longifolia*)  
*Isoglossa lactea*  
*Justicia heterocarpa*

## **Aizoaceae**

*Mollugo cerviana*  
*Sesuvium portulacastrum*

## **Aloaceae**

*Aloe nutii*

## **Amaranthaceae**

*Achyranthes aspera*  
*Aerva lanata*  
*Aerva leucura*  
*Alternanthera tenella* var. *bettzickiana*  
*Amaranthus spinosus*  
*Celosia trigyna*  
*Cyathula orthacantha*  
*Pupalia lappacea* var. *velutina*

## **Anacardiaceae**

*Lannea fulva*  
*Lannea humilis*  
*Lannea rivae* (*L. floccosa*)  
*Lannea schweinfurthii* var. *stuhlmannii* (*L. stuhlmannii*)  
*Pistacia aethiopica*  
*Pseudospondias microcarpa*  
*Rhus natalensis*  
*Rhus vulgaris*  
*Sclerocarya birrea* subsp. *caffra*  
*Sorindeia madagascariensis*

**Annonaceae**

*Annona senegalensis* (*A. chrysophylla*)  
*Annona stenophylla*  
*Friesodielsia obovata* (*Popowia obovata*)  
*Hexalobus monopetalus*  
*Monanthotaxis poggei*  
*Polyceratocarpus scheffleri*  
*Uvaria acuminata*  
*Uvaria kirkii*  
*Uvaria lucida* subsp. *lucida*

**Apocynaceae**

*Acokanthera oppositifolia*  
*Acokanthera schimperi*  
*Ancylobotrys petersiana* (*Landolphia petersiana*)  
*Carissa edulis*  
*Dictyophleba lucida* (*Landolphia lucida*)  
*Landolphia kilimanjarica* (*L. buchananii*)  
*Landolphia kirkii*  
*Landolphia parvifolia*  
*Saba comorensis* (*S. florida*)

**Araceae**

*Pistia stratiotes*  
*Typhonodorum lindleyanum*

**Araliaceae**

*Cussonia spicata*

**Arecaceae (Palmae)**

*Borassus aethiopum*  
*Hyphaene compressa*  
*Hyphaene coriacea* (*H. pileata*)  
*Hyphaene petersiana* (*H. ventricosa*)  
*Phoenix reclinata*  
*Raphia farinifera*

**Asparagaceae**

*Asparagus africanus* (*A. abyssinicus*)  
*Asparagus flagellaris* (*A. nudicaulis*)

**Asteraceae (Compositae)**

*Bidens pilosa*  
*Bidens schimperi*  
*Emilia coccinea*  
*Guizotia scabra*  
*Sonchus luxurians*

**Balanitaceae**

*Balanites aegyptiaca*

*Balanites rotundifolia* (*B. orbicularis*)

*Balanites wilsoniana*

### **Bignoniaceae**

*Kigelia africana* (*K. pinnata*, *K. aethiopum*)

### **Bombacaceae**

*Adansonia digitata*

*Bombax rhodognaphalon* var. *tomentosum*

### **Boraginaceae**

*Cordia monoica*

*Cordia sinensis* (*C. gharaf*)

*Heliotropium zeylanicum* (*H. subulatum*)

*Trichodesma zeylanicum*

### **Brassicaceae (Cruciferae)**

*Cardamine trichocarpa*

### **Brexiaceae**

*Brexia madagascariensis*

### **Burseraceae**

*Canarium schweinfurthii*

*Commiphora africana*

*Commiphora mossambicensis*

### **Cactaceae**

*Opuntia vulgaris* (*O. ficus-indica*)

### **Caesalpiaceae**

*Bauhinia kаланtha*

*Bussea massaiensis* (*Peltophorum massaiense*)

*Cordyla africana*

*Cordyla densiflora*

*Delonix elata*

*Dialium holtzii*

*Dialium orientale*

*Piliostigma thonningii* (*Bauhinia thonningii*)

*Senna bicapsularis* (*Cassia bicapsularis*)

*Senna singueana*

*Tamarindus indica*

*Tylosema fassoglense* (*Bauhinia fassoglensis*)

### **Capparidaceae (Capparaceae)**

*Cleome hirta*

*Cleome monophylla*

*Maerua decumbens* (*M. edulis*)

*Ritchiea albersii*

*Thylachium africanum*

**Caryophyllaceae***Drymaria cordata***Cecropiaceae***Myrianthus arboreus**Myrianthus holstii***Celastraceae***Salacia leptoclada***Chenopodiaceae***Chenopodium opulifolium***Chrysobalanaceae***Hirtella megacarpa* (*Acioa goetzeana*)*Maranthes goetzeniana* (*Parinari goetzeniana*)*Parinari curatellifolia* subsp. *curatellifolia**Parinari excelsa* (*P. holstii*)**Clusiaceae (Guttiferae)***Allanblackia stuhlmanii**Allanblackia ulugurensis**Garcinia buchananii* (*G. huillensis*)*Garcinia livingstonei**Harungana madagascariensis**Mammea usambarensis**Psorospermum febrifugum***Combretaceae***Combretum padoides***Commelinaceae***Commelina africana**Commelina benghalensis***Connaraceae***Rourea orientalis* (*Byrsocarpus orientalis*)**Convolvulaceae***Convolvulus farinosus**Hewittia sublobata**Ipomoea cairica* var. *cairica**Ipomoea eriocarpa**Ipomoea pres-caprae* (*I. biloba*)*Jacquemontia tamnifolia***Cucurbitaceae***Coccinia grandis**Cucumis dipsaceus**Cucumis figarei**Kedrostis leloja*

*Momordica foetida*  
*Momordica rostrata*  
*Peponium vogelii*

### **Dioscoreaceae**

*Dioscorea dumetorum*  
*Dioscorea odoratissima*  
*Dioscorea quartiniana* var. *quartiniana*

### **Dracaenaceae**

*Dracaena mannii* (*D. usambarensis*)

### **Ebenaceae**

*Diospyros kirkii*  
*Diospyros mespiliformis*

### **Euphorbiaceae**

*Acalypha bipartita*  
*Acalypha fruticosa*  
*Acalypha ornata*  
*Antidesma venosum*  
*Bridelia micrantha*  
*Erythrococca kirkii*  
*Flueggea virosa* (*Securinega virosa*)  
*Oldfieldia dactylophylla*  
*Phyllanthus engleri*  
*Ricinodendron heudelotii* subsp. *africanum*  
*Tragia insuarvis*  
*Uapaca kirkiana*  
*Uapaca nitida*  
*Uapaca paludosa* (*U. guineensis*)  
*Uapaca sansibarica* (*U. macrocephala*)

### **Flacourtiaceae**

*Dovyalis abyssinica*  
*Dovyalis macrocalyx*  
*Flacourtia indica*  
*Oncoba spinosa*  
*Scolopia rhamniphylla*  
*Scolopia zeyheri*  
*Xylothea tettensis* var. *kirkii*

### **Hydnoraceae**

*Hydnora abyssinica* (*H. johannis*)

### **Icacinaceae**

*Alsodeiopsis schumanii*

### **Lamiaceae (Labiatae)**

*Hoslundia opposita*

*Leonotis nepetifolia*  
*Platostoma africanum*

### **Lobeliaceae**

*Lobelia fervens* subsp. *fervens* (*L. anceps*)

### **Loganiaceae**

*Strychnos cocculoides*  
*Strychnos innocua*  
*Strychnos madagascariensis* (*S. dysophylla*)  
*Strychnos spinosa* subsp. *lokua*

### **Malvaceae**

*Abutilon angulatum*  
*Abutilon longicuspe*  
*Abutilon mauritianum*  
*Azanza garckeana*  
*Hibiscus acetosella*  
*Hibiscus calyphyllus*  
*Hibiscus diversifolius*  
*Hibiscus surattensis*  
*Malva parviflora*

### **Meliaceae**

*Trichilia dregeana*  
*Trichilia emetica*

### **Mimosaceae**

*Acacia nilotica*  
*Acacia senegal*  
*Parkia filicoidea*

### **Moraceae**

*Ficus stuhlmannii*  
*Ficus sur* (*F. capensis*)  
*Ficus sycomorus*  
*Ficus vallis-choudae*  
*Treulia africana*  
*Trilepisium madagascariense*

### **Musaceae**

*Ensete ventricosum* (*Musa ensete*)

### **Myrsinaceae**

*Embelia schimperi*  
*Myrsine africana*

### **Myrtaceae**

*Eugenia capensis* subsp. *nyassensis* (*E. bukobensis*)  
*Syzygium cordatum*

*Syzygium guineense*

*Syzygium owariense*

### **Nymphaeaceae**

*Nymphaea lotus*

### **Olacaceae**

*Ximenia americana*

*Ximenia caffra*

### **Opiliaceae**

*Opilia amentacea* (*O. celtidifolia*)

### **Orchidaceae**

*Habenaria epipactidea* (*H. foliosa*)

*Habenaria walleri* (*H. soyauxii*)

*Satyrium macrophyllum* (*S. cheirophorum*)

*Satyrium neglectum* var. *neglectum*

### **Papilionaceae**

*Crotalaria natalitia* var. *natalitia*

*Dalbergia nitidula*

*Dolichos trilobus*

*Eriosema burkei* var. *burkei*

*Ormocarpum kirkii*

*Pseudeminia comosa*

*Vigna pubescens*

### **Passifloraceae**

*Adenia gummifera*

### **Pedaliaceae**

*Ceratotheca sesamoides*

*Sesamothamnus busseanus*

*Sesamum angolense*

*Sesamum calycinum* var. *angustifolium* (*S. angustifolium*)

### **Piperaceae**

*Piper guineense*

### **Poaceae (Gramineae)**

*Dactyloctenium aegyptium*

*Dactyloctenium giganteum*

*Sorghum purpureo-sericeum*

### **Polygalaceae**

*Carpolobia goetzii*

*Oxygonum sinuatum*

*Polygonum salicifolium* (*P. serrulatum*)

*Rumex abyssinicus*

*Rumex usambarensis*

**Portulacaceae***Portulaca oleracea**Talinum portulacifolium* (*T. cuneifolium*)**Resedaceae***Caylusea abyssinica***Rhamnaceae***Berchemia discolor**Ziziphus abyssinica**Ziziphus mauritiana**Ziziphus mucronata* subsp. *mucronata***Rhizophoraceae***Anisophyllea boehmii**Anisophyllea pomifera***Rosaceae***Rubus apetalus* (*R. adolfi-friedericii*)**Rubiaceae***Canthium burttii**Canthium lactescens**Canthium oligocarpum* subsp. *oligocarpum**Coffea eugenioides**Coffea mufindiensis**Fadogia ancylantha**Fadogia cienkowskii* var. *cienkowskii**Fadogia elskensii* var. *elskensii**Fadogia homblei**Feretia apodanthera* subsp. *tanzaniensis**Leptactina benguelensis**Multidentia crassa* (*Canthium crassum*)*Oldenlandia corymbosa* var. *corymbosa**Polysphaeria parvifolia**Psydrax parviflora* subsp. *rubrocostata**Pygmaeothamnus zeyheri**Pyrostria bibracteata* (*Canthium bibracteatum*)*Rothmannia engleriana**Rubia cordifolia**Tapiphyllum burnettii**Tapiphyllum cinerascens* var. *cinerascens**Vangueria apiculata**Vangueria infausta* subsp. *rotundata**Vangueria madagascariensis* (*V. acutiloba*)*Vangueria volkensisii**Vangueriopsis lanciflora*



**Rutaceae***Zanthoxylum chalybeum* var. *chalybeum* (*Fagara chalybea*)**Salvadoraceae***Salvadora persica***Santalaceae***Osyris lanceolata* (*O. compressa*)**Sapindaceae***Chytranthus obliquinervis**Deinbollia borbonica**Deinbollia kilimandscharica* var. *kilimandscharica**Lecaniodiscus fraxinifolius* subsp. *vaughanii**Lepisanthes senegalensis* (*Aphania senegalensis*)*Pappea capensis**Zanha africana* (*Dialiopsis africana*)**Sapotaceae***Englerophytum magalismontanum* (*Bequaertiodendron magalismontanum*)*Englerophytum natalense* (*Bequaertiodendron natalense*)*Inhambanella henriquesii**Manilkara dawei**Manilkara discolor**Manilkara mochisia**Manilkara obovata**Manilkara sansibarensis**Manilkara sulcata**Mimusops kummel**Mimusops obtusifolia* (*M. fruticosa*)*Pouteria adolfi-friedericii* subsp. *australis* (*Aningeria adolfi-friedericii*)*Synsepalum brevipes* (*Pachystela brevipes*)*Synsepalum msolo* (*Pachystela msolo*)**Solanaceae***Lycium europaeum**Nicandra physaloides**Solanum anguivii* (*S. indicum*)*Solanum schumannianum***Sterculiaceae***Cola scheffleri**Sterculia africana**Sterculia appendiculata**Sterculia tragacantha***Taccaceae***Tacca leontopetaloides* (*T. involucrata*)

**Thymelaeaceae***Synaptolepis alternifolia**Synaptolepis kirkii***Tiliaceae***Carpodiptera africana**Corchorus tridens**Corchorus trilocularis**Grewia bicolor**Grewia conocarpoides**Grewia mollis**Grewia platyclada**Grewia similis**Grewia trichocarpa**Grewia villosa**Triumfetta cordifolia* var. *tomentosa***Urticaceae***Laportea ovalifolia* (*Fleurya ovalifolia*)*Pouzolzia mixta* (*P. hypoleuca*)*Urtica massaica***Verbenaceae***Lantana camara**Lantana trifolia**Lantana ukambensis* (*L. rhodesiensis*)*Lippia kituiensis* (*L. ukambensis*)*Stachytarpheta jamaicensis**Vitex doniana**Vitex ferruginea**Vitex fischeri**Vitex madiensis* subsp. *milanjiensis**Vitex mombassae**Vitex payos* var. *payos***Vitaceae***Ampelocissus africana**Cissus cornifolia**Cyphostemma njegerre***Zamiaceae***Encephalartos hildebrandtii***Zingiberaceae***Aframomum angustifolium***Zygophyllaceae***Tribulus terrestris*

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### **About this book**

This book is the third in a series on the wild food plants of eastern Africa and describes over three hundred species found in Tanzania, most of them indigenous.

Wild food plants are those with edible parts such as leaves, fruit, seeds, tubers and bark that are found growing naturally. Many are still used by rural people in Tanzania, but often they are not valued as much as introduced species, and there is a continuing decline in knowledge about them, especially among young people and in urban areas.

However, many of these plants are both nutritious and important for food security. The inclusion in staple diets of a small amount of vitamin- and mineral-rich wild fruits, for example, can result in a considerable improvement in people's nutritional status. In addition, the indigenous species are adapted to their local environments and therefore can be easily integrated into farming systems.

In humid areas, leafy vegetables are available throughout the year, and in drier places, leaves, fruit and other parts collected during the peak season can be preserved for later use. Roots and tubers are important sources of food during periods of food scarcity, and these wild food plants can also provide income and employment through the sale or exchange of fruit, nuts and vegetables.

This book aims to encourage more Tanzanians to learn about and promote the use of the wild food plants found in their areas. It will also help extension officers and district and group leaders to take an active role in the promotion and use of these plants. The book will also be of interest to foresters, horticulturists, botanists and students and teachers at all levels.

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