

# Plant Taxonomy of the Parakuyo (Tanzania)

ARVI HURSKAINEN  
*University of Helsinki, Finland*

## INTRODUCTION

The Parakuyo (earlier also called *Iparakuyo*, *Baraguyu*, *Kwavi*, *Lumbwa*, and *Iloikop*) are a Maa-speaking ethnic group scattered over a large area in the north-eastern and central parts of Tanzania. Although no recent statistics on their population are available, their total number may be more than 50,000. Having been pushed to the east, south-east and south by the Pastoral Maasai in the intertribal wars in the 19th century, they are now the southernmost group of Maa-speakers, who belong to the Eastern Nilotes.

According to written historical sources as well as oral traditions, the Parakuyo have a common history with the Pastoral Maasai, having been separated from them in a place called Kerio (most likely in the valley of the Kerio river, south of Lake Turkana) probably not more than 200 years ago. I have recorded a number of family histories with detailed genealogies back to the time of Kerio. However, it has not been possible to prove the validity of these data.

Owing to the common historical roots with the Pastoral Maasai, the language of the Parakuyo does not differ significantly from that of the Kisongo Maasai, for example. These groups understand each other's language with no difficulty, although there are differences particularly in phonology, but also in lexicon. The vocabulary of the Parakuyo has been influenced by the presence of Bantu-speakers, with whom they have many kinds of exchange relations. In particular the vocabulary related to agriculture, and many modern terms, have infiltrated into their language through the local neighbouring Bantu languages, and Kiswahili, which is a lingua franca in the area. Nevertheless, the basic Maa vocabulary continues to persist where traditional Maa terms already exist. This vocabulary is particularly rich in fields that have traditionally been significant to the Maasai. The subject of this study, plant taxonomy, is one of such lexically rich areas.

A comprehensive study of the Parakuyo plant taxonomy would require the comparison of data from all six Parakuyo areas<sup>1</sup>. This is not possible here, however. The data I present have been obtained principally from the Iladóe area

---

<sup>1</sup> These areas (**ol-óho**, pl. **il-óhon**) are: Iladóe, Kápiróre, Manga, Kilená, Muli, and Masángu. Four of these areas form the north-eastern Parakuyo section, while the Muli and Masángu areas form the south-western section in the Ruaha valley close to Iringa and the Usangu plain.

(the area of the Doe people, from Chalinze northwards, in the Western Bagamoyo District), but several references are made to other Parakuyo areas as well, and also to Pastoral Maasai areas, particularly the Kisongo section.

In order to illuminate the use of the same plants in Pastoral Maasai areas I have included some comparative data from sources which I regard as reasonably reliable. This information is identified with the symbol [M] (=Maasai), while the information obtained from the Parakuyo only is marked by [P]. As will be seen, several plants have both symbols, thus being members in the taxonomies of both ethnic groups.

There were two principal methods of obtaining data for this study. A significant number of plant names and plant uses were recorded in several phases of the anthropological fieldwork from 1975 onwards. This phase, which from the viewpoint of taxonomical study was unsystematic, resulted in a body of unordered data on different uses of various plants. The information was obtained in conjunction with anthropological field research with several simultaneous aims. Part of the results of this research were published in Hurskainen (1984: 202-10). A more systematic study of taxonomies, including plant taxonomy, was started in 1982 and continued in 1983, 1984 and 1985, and again in 1989, 1990 and 1991. The systematic survey was carried out almost exclusively with Paulo ole Chaparisi (35), whose life and development I have been able to follow from boyhood, and whose talents I have learned to know during our cooperation. The rather long research period has also made it possible to do some diachronic comparisons with quite interesting results, as we shall see below.

In the orthography of Parakuyo words I have not been able, for technical reasons, to express the distinction between closed (+ATR) and open (-ATR) vowels satisfactorily.<sup>2</sup> In this presentation, open vowels are underlined, while closed vowels are unmarked. The tone marks are shown whenever this information is available. It has to be noted that in some older records of my own, and in almost all comparative records from other Maa groups, both tone marking and the distinction between closed and open vowels are lacking. A significant exception is the recently published series of plant taxonomies on the Chamus, Samburu, So, Rendille and Borana by Bernd Heine and his team,<sup>3</sup> where the orthography is phonemic.

---

<sup>2</sup> The symbols +ATR (+ Advanced Tongue Root) and -ATR (- Advanced Tongue Root) are used here to signify the vowels more commonly known as 'closed' and 'open'.

<sup>3</sup> In this series, which is part of a project entitled **An Ethnobotanical Survey of the Semi-Arid and Arid Lands of East Africa**, the volumes so far published are those on the Chamus (Bernd Heine and Ingo Heine 1988), the So (Bernd Heine and Christa König 1988), the Rendille (Bernd Heine and Ingo Heine 1988), the Borana (Bernd Heine and Matthias Brenzinger 1988) and the Samburu (Bernd Heine, Ingo Heine and Christa König 1988).

## Orthographic symbols used

### Consonants

	Labial	Dental	Alveol. alveo.	Post- alveo.	Palatal	Velar	Glottal
Plosive	<b>p</b>	<b>t</b>			<b>c</b>	<b>k</b>	
Implosive	<b>b</b>		<b>d</b>		<b>j</b>	<b>g</b>	
Fricative			<b>s</b>				<b>h</b>
Lateral				<b>l</b>			
Rolled			<b>r,rr</b>				
Nasal	<b>m</b>	<b>n</b>			<b>ny</b>	<b>ng'</b>	
Glides	<b>w,wv</b>				<b>y</b>		

### Vowels

Closed			Open		
<b>i</b>		<b>u</b>	<b>i</b>		<b>u</b>
<b>e</b>		<b>o</b>	<b>e</b>		<b>o</b>
	<b>a</b>			<b>a</b>	

### Tone marking

Parakuyo has three distinct tones, high, low and falling, and they are marked in the following way:

- High tone, e.g. **á**
- Low tone, e.g. **a** (unmarked)
- falling tone, e.g. **â**

Note that there are names in the text which are not tone-marked. This is due to insufficient information on the correct orthography. Such words are frequently Maasai terms derived from sources without tone marking. The plant names known by the Parakuyo are all tone-marked.

Parakuyo classifies nouns into three gender classes: masculine, feminine and locative. These classes are marked by prefixes, which are as follows: **o-** and **ol-** in masculine singular; **i-** and **il-** in masculine plural; **e-**, **en-**, **em-**, and **enk-** in feminine singular; **i**, **in-**, **im-** and **ink-** in feminine plural; **e-** in locative singular; and **i-** in locative plural.

There are a number of nominal roots which can take either the masculine or feminine gender prefix, depending on the *signifié*. Broadly speaking, the masculine gender is associated with masculinity as a natural category, and with large size. Correspondingly, small objects and femininity are reflected in the feminine gender prefix. Several tree species may therefore have either a masculine or feminine gender depending on what phase in the development of the tree is meant. For

example, Paulo's use of gender prefixes was ambiguous in many cases, although large trees were generally referred to with masculine prefixes.

The number is marked by the gender prefix and nominal suffix, which may have several different forms, and sometimes by tone. The total number of ways to distinguish singular and plural forms in Parakuyo is more than 90,<sup>4</sup> but the plant names are members of only a small number of these classes. A similar phenomenon is reported also for the Chamus (Heine and Heine 1988a: 9) and Samburu (Heine et al. 1988). There are also some plant names without distinction between singular and plural, and hence without gender prefix.

The problem of combining tone marking and vowel openness is solved here with high and falling tones marked by diacritics and open (-ATR) vowels underlined. Both vowel openness and tones are manipulated in creating contrast between plant names and between singular and plural forms. The so-called 'cross-height' (Heine et al. 1988: 11) vowel harmony rules restrict the occurrence of vowels in a word, so that a word may have vowels of one harmony set only. The vowels of the singular form may belong to a different harmony set from the vowels of the plural form.

## 1. TAXONOMIC CATEGORIES

### 1.1 LIFE FORMS

In discussions of folk biological classification there has been disagreement on whether folk taxonomies should be based on the concept of rank or not (Berlin, Breedlove, and Raven 1973, 1974; Hunn 1976; Randall 1976; Bulmer 1974). If this concept is accepted, then animals and plants may be seen as constituting a set of hierarchical ranks, so that taxa within each rank are mutually exclusive (Berlin 1981). In terms of Kay (1971), these taxa are in direct contrast, since they are immediately preceded, on a higher level, by the same taxon. On the highest level of this hierarchical tree is the so-called **unique beginner** (Brown 1974) and immediately under it there are entities generally termed **life forms**. In the area of plant taxonomy we should therefore look for a concept which is equivalent to the English term PLANT. Is there such a term in Parakuyo?

The Parakuyo appear to have the idea that all life forms which are unable to move from place to place constitute an entity different from other life forms. Nevertheless, there is no single term designating this entity. As is also reported for a number of other societies, the absence of a name does not necessarily indicate the absence of a category (Berlin 1974: 328; 1981: 94-95). It is common in all

---

<sup>4</sup> While working with the lexicon system of a two-level morphological parser (Hurskainen 1989), I had to work out a formal categorization of Maasai nouns. The number of classes formed on a purely formal basis was 91. The classes were formed of different combinations of singular and plural suffixes. In some classes the singular is marked by a suffix, while the plural has no ending. It is obvious that nouns not yet included in that lexicon will reveal new categories.

languages that a term for the unique beginner is found in a fairly late phase in the history of a language. If there is a need to refer to all growing things which in English are grouped under the term PLANT, the Parakuyo have to use more than one term. This is commonly done by using the terms **il-kéek** (trees) and **in-kújit** (grasses), which are the principal plant categories among the Parakuyo. As the pastoral life requires no abstract categorization beyond this level, no terminological development in this respect has taken place. The rationale for the fact that the categories should be precisely these two seems to lie in the environmental and economic determinants. Trees are essential in providing medicine and grasses constitute the forage of livestock.<sup>5</sup>

In addition to these two classes, there seem to be more categories which should probably be located on this level, and not as sub-ordinate taxa. Such are **il-ópít** (sg. **ol-opító**) and **il-dupái** (sg. **ol-dupái**). The former covers all creeping plants, many of which are used to provide rope for tying house walls, cattle, goats etc. Plants with similar appearance but with no practical use are also grouped under this title. The latter includes fibrous plants which may be used for preparing thread for sewing and other purposes. Other plants with similar properties but no practical value are also grouped here. The total number of species grouped as **il-ópít** is 27 and as **il-dupái** 9.<sup>6</sup>

Heine et al. (1988: 23-24) report for the Samburu that **n-dupái** (*Sansevieria ehrenbergii*) is an unaffiliated category, directly contrasted with the life forms TREE, WEED and GRASS. Because it provides binding material, it is often referred to as a 'string tree', and therefore it is regarded as a member of the life form TREE.

The Parakuyo have a tendency to keep the categories **il-ópít** and **il-dupái** separate from the category **il-kéek**. Only one **il-ópít** species, **enk-opóni**, is also found in the category **il-kéek**. All **il-dupái** species appear only in this category. These observations may justify the classification of these two categories on the life form level, although they do not have the same economic and cultural importance as **il-kéek** and **in-kújit**.

In addition to the above categories, there are terms for mushrooms (**ol-ápa**, pl. **il-ápan**) and plants with a mushroom-like appearance but with no cap, (**e-rogónya**, pl. **i-rogónyan**). The former are not eaten by people, i.e. by the Parakuyo, but some of the latter category are eaten by people and some others by cattle. Although these have only marginal significance for society, they have to be considered as classes on the life form level.<sup>7</sup>

---

<sup>5</sup> It should be noted that the plant species classified by the Parakuyo as 'trees' and 'grasses' are not necessarily the same as in English. It is the size and the use of the plant that is the basis of classification rather than formal scientific criteria. Plants which are even more than two meters high, if they are eaten by livestock, may be grasses. On the other hand, some plants less than one meter high, if not eaten by livestock, are trees.

<sup>6</sup> The singular for *il-dupái* is *ol-dupái*. The famous excavation site name Olduvai Gorge contains this term, and it refers to a place with a lot of *ol-dupái* (a kind of fibrous sisal) plants.

<sup>7</sup> The folk classification of mushrooms and fungi is problematic also because of their marginal

As the above description indicates, the life form classification of the Parakuyo does not fully coincide with that of the Chamus (Heine and Heine 1988a: 11-18) or Samburu (Heine et al. 1988: 13-15), although this could be expected because of the ethnic affinity. The category for 'weed' (Samburu: **nyoorte**) was not given spontaneously, and when deliberately proposed it did not receive acceptance. The case of cultivated plants is equally vague. The terms themselves are loans from Swahili, and species with woody stems would be classified as **il-kéek**, some as **in-kújit** etc. In no case do these form a natural category of their own in the Parakuyo taxonomy.

The Parakuyo classification of life forms is one more exception to the universal life form categories, which Berlin (1976) hypothesized to be trees, vines and herbs, and Brown (1981) to be tree, bush, grass, 'grerb' and vine. The 'vine' and 'bush' classes in particular are absent on this level in Parakuyo categorization, but on the level of subcategories we shall see hints to such classes.

## 1.2 TREE

Tree, **ol-caní** (pl. **il-kéek**), is the most important of the life form categories. It comprises 77% of the total number of known plant species. It includes everything from big trees to bushes of one meter in height. The species of this life form provide building material, firewood, and material for producing useful things. Many of them also provide forage for livestock during the rainy season, and marginally also food for people in the form of fruit. They are particularly important as a source of medicine. In fact **il-kéek** are almost the only source of medicine for the Parakuyo, and the actual term for medicine is **ol-caní**, pl. **il-caandók** (in Kisongo Maasai it is **ol-cani**, pl. **il-kéek**).

The question of whether the category TREE is in fact a single entity is not fully clear. There are also indications that this category can also be divided into two sections according to size and appearance. Occasionally the trees were divided into **il-kéek** (big trees) and **in-kéek** (small trees or bushes). Paulo, for example, spontaneously made such a division and named the species, 140 **il-kéek** and 50 **in-kéek** (the inventory is not comprehensive). The criteria for deciding the category in each case were based primarily on the size of the plant and secondarily on the use. The **in-kéek** are not suitable for building material. The terms for shrub (**o-seséo**, pl. **iseséwin**) and bush (**enk-asáka**, pl. **ink-asákan**) were not used in this context.

## 1.3 GRASS

The category GRASS (**enk-ujíta**, pl. **ink-újit**) principally includes the GRAMINAE spp., but there is a tendency also to include minor plants with a woody stem if they are useful as forage. One characteristic feature of the species of

---

significance to the people. The mushrooms (**il-ápan**) have no use value, and **i-rugúnyan** have only limited value to people and cattle. They could be also classified as **unaffiliated taxa**.

this category is that while **il-kéek** resist fire, **ink-újit** burn completely in wildfire. Although **ink-újit** are small in size compared with **il-kéek**, they often have a masculine gender. Actually the majority (14 out of 21) of the species are masculine, which most often refers to their size within the taxon. Unlike with many trees, which may have either gender depending on size, grasses tend to have one permanent gender. However, the life form label itself may be **ol-kujíta** or **enk-ujíta**.

Among the grass species, some are considered particularly useful. **E-múrua** is one of the basic species for livestock fodder. **Enk-áitetéiyai** is valuable as dry season fodder. These are the two grass species, both feminine in gender, which play an important role in numerous rituals. Sprinkling of liquids from a gourd in various rites of blessing takes place through these grass varieties. **Ol-burtían** is valued because of its capacity to store water, while **ol-kujíta onyókíe** (lit. 'red grass') is in other respects considered particularly good.

## 1.4 THE INTERMEDIATE LEVEL

Heine and Heine (1988a: 18-22) distinguish two intermediate levels between the life form and generics: sub-life forms and super-generics. According to them, the Chamus divide the life form TREE into four sub-life forms depending on the presence of one of the following characteristics: straight thorns, hooked thorns, leaves, and latex.

It may be that my data in this respect are scanty, but I did not encounter any conscious attempt to classify trees formally along these lines. In the characterization of various trees it emerged that some trees have latex (white or red) and that some trees have thorns and others do not. The presence or absence of thorns was considered important in constructing calf pens (**ol-ále**) and goat pens (**el-ekéneto**), since thorns may be harmful. Moreover, when trees are manipulated for ritual purposes, they commonly have to be thornless. Another requirement in certain ritual uses is that the tree must have latex, or that it has to have evergreen leaves. Yet such observations alone do not justify the conclusion that these groups are specific taxa.

The other intermediate level of Heine and Heine (1988a : 20-22), the super-generics, is rather close to what is found also in the Parakuyo folk taxonomy. This taxon consists of two or more generics, which are thought to belong together because of a common formal appearance. The taxon does not, however, have any label. Examples of Parakuyo super-generics are:

**ol-mórqrqi oibor** *Combretum zeyheri*  
**ol-mórqrqi orok** *Combretum molle*  
**ol-mórqrqi dapáshi bének** *Combretum sp.*

All of these are *Combretum* species with similar appearance. They are similar also in that they are a real nuisance, almost impossible to destroy because of the

extensive sprouting from the stump (Kuokka 1983). A number of tsetse-fly clearing projects, which are important for pastoralists, have failed because of this property of *Combretum* species.

Similarly the following thornless trees are conceived as one category, although no common name exists:

**e-sitéti**, pl. **i-sitét** *Grewia bicolor*

**en-cámutai** pl. **in-cámutâ**

**enk-ipini** pl. **ink-ípín**

The same applies to the following:

**ol-magóngoi**, pl. **il-magóngo**

**ol-máng'uái**, pl. **il-máng'uâ** *Sclerocarya birrea*

And also to the following, of which the last one is important as the central supporting pole of the large house built for the promotion ritual (**e-unóto**) of the age-sets.

**ol-bíli**, pl. **il-bilín** *Commifora sp.*

**ol-koneréi**, pl. **il-konére**

**o-silálei**, pl. **i-silále** *Boswellia hildebrandtii*

The life form GRASS does not have any intermediate taxonomic ranks between life form and generics. In the group of **il-opít** there is a group of three species with many similarities, but they are more naturally subcategories of generics, i.e. specific taxa.

## 1.5 GENERICS AND SPECIFICS

Generics is the basic taxonomic rank, where we find most of the Parakuyo plant nomenclature. The vast majority of generics are expressed by a primary lexeme, a single word. There are a few labels with compound structure, such as:

**ol-óirien loo láyiok** ('the boys' firestick')

**ol-cáni ló nkera**, pl. **il-kíe(k) lóo nkera** ('children's tree')

**enk-isar ng'átuny**, pl. **ink-isar ng'átunyók**

**ol-óibor bének**, pl. **il-óibor bének** ('white leaves')

**o-séki le kóp**, pl. **i-séki le kóp** ('o-seki of the country')

An interesting feature in the generic classification is that almost all of these generic labels are in fact names of species. In other words, each generic 'group' has only one species, and therefore the distinction between generics and specifics fades away. Only in very few examples can this distinction be noticed. For instance:



**ol-bukói**, pl. **il-búko** *Terminalia brownii*  
**ol-bukói lo 'Iméek** ('ol-bukoi of the non-Parakuyo')  
**e-séki**, pl. **i-sék** *Cordia ovalis*  
**e-sekí le kóp** ('e-seki of the country')

More common are the cases where the primary lexeme is further defined with a modifier. It is significant that the primary lexeme found in these labels does not occur alone as the name of generics or specifics: these modified labels are either adjectival or genitive constructions. I would classify such labels as being on the same rank as labels with a primary lexeme, whether this rank be called generics or specifics. Examples are:

**ol-cani onyókie**, pl. **il-kie(k) óonyókiok** ('red tree')  
**ol-cani órok**, pl. **il-kie(k) óórook** ('black tree')  
**ol-ca(ni) ló nkera**, pl. **il-kie(k) lóo nkera** ('children's tree')  
**ol-ca(ni) ló nkishu**, pl. **il-kie(k) lóo nkishu** ('tree of the cattle')  
**ol-opító le kúle**, pl. **il-opító le kúle** ('milk creeper')  
**ol-opító le nkáre**, pl. **il-opító le nkáre** ('water creeper')

## 2. PLANT USE

There is no doubt that the Parakuyo are more interested in knowing the use value of plants than their formal classification. The rest of this study discusses the multiple plant utilization of the Parakuyo, although they are principally pastoralists. Comparative material is, however, added from sources dealing with plant utilization among the Pastoral Maasai.

The material contains a total of 349 species. Among these there are 298 species known to the Parakuyo, while 151 are from Pastoral Maasai sources. A total of 51 of these latter are plant names which are unknown to the Parakuyo; this is largely due to the fact that several plant names were derived from Kenyan sources (e.g. Dale and Greenway 1961), and species found there may simply not grow in the Parakuyo area. A total of 100 species known by the Pastoral Maasai were, however, known also by the Parakuyo.

The vast majority of known plants, 286 out of 349, were utilized in some way by man. Table 1 shows the different ways of plant utilization:

**Table 1.** Plant utilization for various purposes

Food for human beings	75
Forage for animals	28
Building material	39
Material for household needs	136
Firewood	15
Medical use (people)	153
Veterinary use	29
Ritual use	81
<i>Total number of species</i>	286

## 2.1 FOOD FOR HUMAN BEINGS

Trees and grasses are only a marginal food source for the Parakuyo. The part of plants most often used is the fruit or berry (66 species), which is usually eaten by children, and only occasionally by grown-ups. The latex of several trees is used as such, or after boiling, as chewing gum. This too is considered normally as something for children and women. Some trees and species classified as grasses have edible roots, which may be boiled and eaten by all. Mushrooms themselves are not eaten, but one **e-rugúnya** species resembling mushrooms is eaten raw.

It must be noted that this taxonomy strictly excludes all planted and cultivated species, many of which are well known to the Parakuyo. These do not, however, belong to the traditional repertoire, and they were also explicitly excluded from the taxonomy by the Parakuyo themselves. Such names as **il-páek** (maize), **ol-kitungu** (onion), **e-machungwai** (orange), **en-dimu** (lemon), **ol-maembe** (mango), **ol-peasi** (pear), **ol-kitawi** (banana), and **ol-mandoloi** (potato), and many others, are familiar, but they belong to another scheme of classification, which does not concern us here.

## 2.2 FORAGE FOR ANIMALS

The principal source of livestock fodder is grass. Virtually all grass species known are eaten by livestock, mainly cattle. The total number of species eaten by livestock, however, is remarkably low (28 of 286) compared with the numbers among the Samburu, where as many as 70% of all useful plants were eaten by livestock (Heine et al. 1988: 33). This large difference may be explained, at least partly, by the different ecological conditions. The Parakuyo livestock usually has grass enough to eat. The major problem in these areas is livestock diseases, not scarcity of fodder. Tree leaves as additional fodder are therefore not needed so urgently as in the arid and semi-arid areas of the Samburu.

## 2.3 MATERIAL FOR BUILDING AND HOUSEHOLD NEEDS

Quite a number of species are used for building (39) and for various household needs (136). The requirements for building material vary depending on their use. Kraal fences are constructed of several kinds of trees, many of them being thorny, e.g. **e-ití, ol-mukumbála, en- Dundúlu, e-sílalei, ol-cáni ló nkéra, ol-mágongoi, e-sitéti, e-mesúri, e-iti,** and **ol-ogóltim**.

In house building, the following trees are frequently used: **ol-móroroi orok, ol-móroroi dapashi mbének, e-muluáti, e-muhámbarásha, en- Dundúlu, em-súkusúki, e-mesúri, en-jekúwo, e-sitéti, ol-cani lóo nkíshu, en-casíka** and **e-matánga**.

Whereas cattle enclosures are constructed with thorny trees, calf and goat pens are built with thornless material, such as **e-iti, e-sitéti** and **e-mesúri**. As a ritual 'seal' in closing the cattle gate, **ol-ogóltim** or **e-sitéti** are used.

The traditional need for manufacturing furniture and household utensils has been fairly limited. In addition to a bed (**e-ruát**) and a stool (**ol-óríka**) few additional items were required. The use of plants for household purposes was mainly confined to clubs, cattle sticks, spear and axe shafts and firesticks.

The following list shows some of the species used for various household purposes.

For cattle sticks (**en-gudí**, pl. **in-gúdisin**): **en-dirkís, ol-kilái, e-mákánkára, ol-masámburai, e-msúkusúki, e-mukánda, e-musundu, enk-ómi** and **e-sitéti**. Cattle sticks are always carried by men from the warrior age onwards, such sticks being also a weapon in case of need.

For making clubs (**ol-kumá**, pl. **il-kumán**) the following species are suitable: **ol-dorko, ol-eléshwa, ol-kilái, natuáina, ng'oto léyai** and **ol-tirkish**. Warriors learn to chop clubs, which are primarily weapons. They are also an important symbol of status for leaders, such as the areal leader **ol-aiguenáni** and age-set leader **ol-aunóni**.

Shafts for spears (**em-bére**) are mainly prepared from the following species: **ol-dorko, em-bárákwái, en-casíka, ol-kilái, natuaina** and **ol-óile**. Spear shafts are of two colours, white and black, the former being a symbol of juniority and the latter of seniority. These colours indicate the status of warriors in the society.

Bows are usually made from **ol-cáni ló nkíshu** or **ol-gírrigírri**. They are actually weapons of recently circumcised boys for shooting small birds. **E-siáiti** is considered good for making arrows.

Beds are built most often from **e-siáiti**. Material for softening the bed is obtained from the following species: **ol-oiyéti, e-siáiti, e-sísinyét** and **ol-matasya**. Leaves or grasses are stuffed under the cow-hides spread over the bed.

## 2.4 FIREWOOD

For some reason, only 15 species were mentioned as a source of firewood. This again is quite different from the Samburu situation, where one quarter of useful

plants were used as firewood. Different ecological conditions again provide an explanation, because in the Parakuyo area there is plenty of firewood. In fact it is a major source area for charcoal, which is marketed to Dar-es-Salaam. Some good species for firewood are easily available, and the need for using many kinds of firewood is therefore minimal.

## 2.5 MEDICAL AND VETERINARY USE

Medical use of plants is often one of their main usages in African societies (Slikkerveer 1990; Harjula 1980). This use turned out to include the largest number of species (153). Ritual use has been made a separate category, although on several occasions rituals also include medical treatment. A use of a species is considered to be medical if it is not part of a larger ritual sequence; otherwise its use is ritual.

The data are not really as thorough on this point as the large number of species would suggest. Only a limited number of species are regarded as really useful, while many are used simply for stomach troubles. The plants used for curing are almost exclusively trees; hence the name for medicine: **ol-caní**.

There are four parts of tree which are considered suitable for medicine: roots, bark, wood and leaves. Roots often provide more powerful medicine than other parts of the tree. The common way of extracting medicine is through soaking or boiling, and sometimes through grinding.

For veterinary use 29 species were used. Nowadays, however, modern medicines have rapidly become popular because of their effectiveness. Many cattle cures also fall within the realm of ritual.

## 2.6 RITUAL USE

The number of species used in rituals was 81. Heine et al. do not have exactly this category, but 'religion and custom' in their classification may cover the same area. Here again we see quite a large difference: while 13% of species were used for religious and customary purposes by the Samburu, among the Parakuyo the figure is more than twice as high.

It may be that there is a bias here, partly caused by the investigator himself and partly caused by the Parakuyo with whom I was working. They were young men often involved in **ol-púl** rituals, where use of medicines was extensive. Also, I had previously carried out and participated in a wide variety of rituals, and quickly became aware of the use of plants in various contexts. Yet the suspicion remains that there are undiscovered areas in this field.

## 3. PLANT VOCABULARY

The following abbreviations have been used below:

[P] Plant known to the Parakuyo.

[M] Plant known to the Maasai.

Merker: Information from Merker (1910).

Hollis: Information from Hollis (1905).

D-G: Information from Dale-Greenway (1961).

For more details see References.

**enk-adárridárri** pl. **ink-adárridárrini** [P] *Material*: used for making sheaths for knives and swords.

**ol-aikúngui** pl. **il-aikúngu(n)** [P] *Food*: fruit eaten.

**ol-aimérerúa** pl. **il-aimérerúaní** [P] No use known.

**ol-aimúrunyai** pl. **il-aimúrunya** [P] No use known.

**ol-aingúrúsiái** pl. **il-aingúrúsiáni** (or: **ol-agúrusiái**) [P] found in Bagamoyo District. No use for Parakuyo.

**ol-aisáiyet** pl. **íl-aisáiyetin** [P] *Material*: used for preparing arrows.

**ol-aisíkirai** pl. **íl-aisíkira** [P] *Specification*: very tall, white, straight stem (in Kwere **mgude**). *Food*: fruit eaten.

**enk-aitetéiyai** pl. **ink-aitetéiya** [P] *Specification*: a very small 'tree', resembles grass, about 40 cm high, yellowish gray. *Forage*: cattle, sheep and goats like it very much; during the dry season women go far afield to cut e. and tie it in bunches and bring it to young calves to eat; additional food to supplement milk, used when grass has dried up. *Ritual*: used in stuffing calabashes in rituals (e.g. rain-making ritual **osiómbe**). MERKER: *Medicine*: used by **il-oibónok** for protective medicine against illnesses of many kinds, sprinkled over children's faces, placed in the bath-water of a recently born child.

**enk-áji e méno** pl. **ink-ájjik e méno** [P] *Specification*: ripe fruit are black. *Food*: fruit eaten, blackens teeth.

**ol-alíli** pl. **ilalíliní** *Acacia nov. spec.* [P] [M] *Ritual*: used in **ol-púl** when eating meat; found in Handeni and Morogoro Districts; there is a belief that it is guarded by a black snake (**olásurai órok**), an uncircumcised flawless boy has to dig the medicine; makes meat soft; used also instead of tea, like **olkilóriti**. MERKER: *Ritual*: extract of bark drunk by warriors in **ol-púl**, has a digestive effect.

**enk-ámai** pl. **ink-áma** [P] *Food*: mixed in meat soup, increases strength, gives good flavour; fruit eaten. *Forage*: goats eat its fruit.

**ol-amaóki** *Maerua angolensis* [M] D-G: *Specification*: savanna shrub or tree, 15 ft.; found in Loliondo and Loitarkini areas.

**enk-ámasála** pl. **ink-ámasálani** [P] No use known.

**ol-ámolóki** pl. **il-ámolók** (**olamalogi**, **olamolog**) *Maerua johannis* [P] [M] D-G: *Specification*: bush or tree, 20 ft. *Ritual*: an ingredient in **oltogóm**, built in the middle of the kraal, leaves used. MERKER: **ol-ameloki** *Cadaba farinosa* Forsk. *Food*: fruit edible. *Forage*: leaves fodder for donkeys. *Medicine*: for curing goat-ulcer sickness. [P] *Ritual*: one of four ingredients in ritual bath-water of the initiate (male and female); one of the ingredients in the ritual fire **olokór**, others **olmangírigíriani** and **olóirien**.

**enk-ámuriáki** pl. **ink-ámuriákíní** [P] not found in Bagamoyo District. *Food*: fruit eaten. M MERKER: **ol-amriake** *Food*: fruit eaten, *Medicine*: unripe fruit eaten as medicine for bronchial catarrh.

**ol-ang'órwai** pl. **il-ang'órwan** [P] *Specification*: grass found in Bagamoyo District. *Forage*: food of cattle.

**ol-angobova** *Rapanea rhododendroides* [M] D-G: *Specification*: tree up to 90 ft; fruit an anthelmintic. *Material*: for making furniture and tool handles.

**enk-ápunkére** pl. **ink-ápunkéréni** [P] *Construction*: used as rope to tie house poles and for other purposes, not twined.

**enk-aráni** pl. **ink-áraníní** [P] Found in Tanga Region.

**ol-arashi** *Calodendrum capense* [M] D-G: *Specification*: tree to 50 ft., timber tough, easy to work.

**ol-asasiai** *Osyris tennifolia* [M] HOLLIS: used by **il-oibónok**.

**ol-asejet** *Euphorbia scheffleri* [M] D-G: *Specification*: stiffly branched, to 15 ft.

**ol-aturude** *Capparis elaeagnoides* [M] D-G: *Specification*: hooked thorns, to 30 ft.

**en-átwa-íshiu** [P] *Material*: its wood used as a brush for cleaning vessels.

**ol-áwi** pl. **il-áwi** [P] No use for Parakuyo.

**em-baéki** pl. **im-baék** [P] *Specification*: white fruit. *Material*: for cleaning gourds to give good flavour. *Food*: fruit eaten by children and grown-ups. *Forage*: leaves eaten by cattle and fruit by goats.

**em-báni** pl. **im-banín** [P] No use known.

**em-bárákit** pl. **im-bárákíti** [P] *Food*: its fruit used for producing oil. *Medicine*: given to small children to cause diarrhoea.

**em-bárákwái** pl. **im-bárákwa** [P] *Material*: spear shafts. *Medicine*: bark boiled and used for stomach troubles or for pregnant women having stomach troubles.

**em-bél** [P] No use known.

**ol-bíli** pl. **il-bílin** *Commiphora sp.* [P] [M] Found in Handeni area. *Food*: used as chewing gum. HOLLIS: *Material*: for making honey barrels and goat bells. MERKER: honey pots (**ol-ulul**) are made from the wood of this tree.

**ol-biran** *Buddleja polystachya* [M] D-G: *Specification*: shrub of 12-15 ft. (same as **olpiron**?)

**ol-birun** *Nuxia zongesta* [M] D-G: *Specification*: 13-35 ft., soft, white, poor fuel, good for bee-hives.

**em-bórokwái** pl. **im-bórokwán** [P] No use known.

**em-bósirándo** pl. **im-bósirándóni** [P] *Material*: used for preparing plugs for enlarging ear holes, smaller first and larger later.

**ol-búgoi** pl. **il-búgo** *Terminalia sp.* [P] [M] *Material*: used for softening and colouring women's sheep-skin garments, red clay (**olkaríá**) mixed with it. HOLLIS: *Medicine*: leaves used as emetic for inducing vomiting; the tannin of this tree used by women for curing skin. *Veterinary*: given to cattle with gall fever.

**ol-bugói lo l'méek** [P] *Medicine*: bark used for stomach troubles.

**ol-bulegelugi** *Trichocladus ellipticus* [M] D-G: *Specification*: shrub or thicket-forming tree to 35 ft.

**em-bumbúye** pl. **im-bumbúyeni** [P] No use known.

**em-buriyán** pl. **im-búriyáni** [P] *Fuel*: when dried it is used as a firestick for kindling fire.

**ol-burtían** pl. **íl-burtíani** [P] *Forage*: cattle.

**ol-burtiání** pl. **il-burtián** [P] Found in Handeni District.

**ol-cáing'úr** pl. **il-cáing'úrri** [P] Found in Morogoro Region.

**ol-cákítái** pl. **il-cákítání** [P] Found in Dodoma Region, not in Coastal Region. *Material*: its latex used for preparing and sealing calabashes; roots and leaves used for colouring the **iloipír** (ostrich feathers) black; iloipír are used by **isipólio** (initiated youth) during the marginal period after operation.

**en-cámirómi** pl. **in-cámiróm** [P] *Food*: fruit eaten.

**en-camukúmbés** pl. **in-cámukumbésíni** [P] No specific use.

**en-cámutai** pl. **in-cámutá** [P] *Food*: fruit eaten. *Forage*: cattle eat leaves.

**en-cáni e 'nkái** pl. **in-kiék e 'káitin** [P] Found in Handeni District.

**en-cáni e 'nkáre** pl. **in-kéek oo nkáre** *Urticaceous sp.* [P] Found in Bagamoyo District in river beds. HOLLIS: leaves used as scent.

**ol-cani lé 'nkai** *Podocarpus milanjanus* [M] D-G: *Specification*: evergreen, 80 ft., fibrous, cracking and peeling in long narrow strips.

**ol-cani ló nkéra** pl. **íl-kéek lóo nkéra** (also called **o-rupánde**) [P] *Construction*: used as upright poles on both sides of the cattle gate. *Ritual: Veterinary*: used for preparing **oltogóm** close to the house (not in the middle of the kraal this time); **ólcani ló nkera** together with **enkaitetéiyai** is put into **oltogóm**; a woman of the kraal stands close to **oltogóm** with **ólcani ló nkera** and **enkaitetéiyai** in her hand; dipping these into the medicated concoction she whisks the medicine onto the cattle entering the kraal; in the morning the same is repeated; this goes on for four days. *Forage*: cattle.

**ol-cani ló nkíshu** pl. **íl-kéek lóo nkíshu** [P] *Construction*: houses. *Medicine*: for stomach pains, boiled in water and drunk, helps to induce vomiting. *Material*: for making bows, **enkáwuo**. *Forage*: cattle.

**ol-cani onyókie** pl. **íl-kéek onyókio** [P] *Ritual*: one of the 22 medicines mixed in **olóuni**, used in **ol-púl**, enables one to eat lots of meat. HOLLIS: *Embelia kilimandscharica*. *Medicine*: as a purgative. Jacobs: *Embelia schimperi*.



**ol-cani órok** pl. **íl-keek órook** [P] *Specification*: has long branches with evergreen leaves; is never completely leafless; used as a shade (**olóip**) tree to protect from the burning sun; the name **olcani órok** ('black tree') derives from its characteristic of giving 'black' shade, not from its colour.

**ol-capáila** pl. **íl-capailáni** [P] *Food*: fruit eaten.

**ol-capéte** [P] No use known.

**ol-capólihoi** pl. **íl-capóliho** [P] *Specification*: a small tree. *Food*: swollen roots (like cassava) eaten; children (and grown-ups) eat as a refreshment. *Forage*: cattle.

**ol-cásá** pl. **íl-cásán** [P] *Medicine*: roots used as medicine to help in stomach pains. *Veterinary*: leaves boiled and given to sick calves.

**en-casáaniai** pl. **in-casáania** [P] *Material*: used for building stores for cereals; also for containers for carrying things when moving to another settlement.

**ol-casárgé** pl. **íl-casárgen(i)** *Trichilia emetica* [P] Found in Bagamoyo District. *Material*: used for preparing seats.

**en-cásjka** pl. **in-cásjkáni** [P] *Specification*: black wood. *Construction*: houses. *Material*: used as a black spear shaft (a sign of seniority in the warrior period), is considered perfect material for that purpose.

**en-cekú(w)o** pl. **in-céku(w)óni** [P] *Construction*: houses. *Medicine*: boiled in water or meat soup, used for stomach troubles.

**en-céleléru** pl. **in-céleléruni** [P] No use known.

**ol-churai** *Acacia robusta* [M] HOLLIS: *Material*: for making rope.

**ol-daangudwa** *Pistacia aethiopica* [M] D-G: *Specification*: spreading tree, 50 ft.

**ol-dagerai** *Euphorbia robecchii* [M] D-G: *Specification*: much branched, up to 45 ft, plentiful on the Mombasa-Nairobi road.

**ol-daradash** *Ochna ovata* pl. [M] D-G: *Specification*: glabrous shrub or small tree.

**ol-daráshi** pl. **íl-daráshini** [P] Found in Arusha area. No use known.

**ol-dárpoi** pl. **il-dárpo** [P] [M] *Specification*: a tall tree, resembles **olmeséro**, but smaller, thick bark. *Medicine*: bark used for stomach troubles. *Veterinary*: bark boiled in water and given to sick calves. *Food*: fruit soaked in **enáisho** (local honey)

beer). HOLLIS: *Kigelia africana*. *Material*: for rope; used as the flat **endobóle** in kindling fire (also called **olsuguroi**). D-G: *Kigelia aethiopum*, 'sausage tree'. *Food*: slices of fruit used for flavouring beer.

**en-dássim** pl. **in-dassími** [P] Found in Korogwe District; also a name of a charm, prepared and used by **il-oibónok**. *Veterinary*: sewn in a leather bag and placed in a medicated mound in the cattle kraal for curing cattle; also increases fertility.

**ol-dépe** pl. **il-dépen** D-G: **oldebbi** *Acacia gerrardii* [P] [M] *Specification*: gregarious savanna tree to 40 ft. MERKER: **ol-debe** *Acacia Merkeri* Harms and *Acacia hebeciadoides* Harms nov. sp. *Veterinary*: inflamed eyes of cattle cured with the latex. Found in Bagamoyo District. *Medicine*: roots used for stomach troubles; used also by **ilkúyatik** healers (minor healers of the Maasai).

**ol-depési** pl. **il-depés** [P] No use for Parakuyo.

**en-dérepényi** pl. **in-dérepény** [P] *Specification*: a very small tree, fruit stick to clothes.

**ol-derkési** pl. **il-derkési** [P] *Acacia* sp. [M] HOLLIS: *Medicine*: used for increasing courage. Found in Bagamoyo District. No use for Parakuyo.

**ol-diáni** pl. **il-dián** *Arundinaria alpina* [M] D-G: *Specification*: hollow-stemmed bamboo to 50 ft. [P] *Construction*: for building, found on mountains. *Material*: used for preparing 'tabakio ya kuvutia tumbako' (tobacco container).

**ol-digeldi** *Acanthus eminens* [M] D-G: *Specification*: woody herb 10 ft., on mountains, bark contains 18-20% tannin, yields a red liquid gum-like extract.

**en-dílimálo** pl. **in-dílimáloni** [P] No use known.

**ol-dimitil** *Commiphora merkeri* [M] D-G: *Specification*: small tree, found north of Lake Natron.

**ol-dipílkwa** pl. **ildipílkwani** [P] Found in Dodoma and Morogoro Regions. *Medicine*: used as a purgative, helps to clean the stomach.

**en-dirkís** pl. **in-dirkísi** [P] *Material*: for cattle sticks.

**ol-disigon** *Dalbergia cactae* [M] D-G: *Specification*: shrub, widely spread.

**en-diyái** pl. **in-díya** [P] *Specification*: not tall, drops leaves during dry season.

**ol-dodóki** pl. **íl-dodókini** [P] *Material*: is used as a brush when washing oneself. *Food*: leaves used as vegetable.

**en-dondóiyán** pl. **ín-dondóiyani** (**én-dontóyan** pl. **ín-dontóyani**) [P] No use known for Parakuyo.

**ol-dórko** pl. **il-dórkon** [P] [M] Found in Handeni District. *Material*: used for cleaning calabashes. *Fuel*: used as firewood; as **endobóle** in kindling fire. D-G: *Cordia gharaf*, *Specification*: a multistemmed tree, also *Cordia rothii* with this name. HOLLIS: *Material*: fumigating gourds; making clubs and spear shafts.

**ol-dúle** pl. **il-dúlen** *Ricinus communis* [P] [M] *Material*: preparing 'tabakio ya wazee' (tobacco container). HOLLIS: women and girls use under iron armlets and anklets'.

**en-dulélei** pl. **in-dúlélén** *Solanum campylacanthum* [M] *Medicine*: against fever. HOLLIS: roots used for curing malaria.

**en- Dundúlu** pl. **in- Dundúlúní** [P] *Construction*: used for building cattle enclosures and houses. *Forage*: fruit eaten by cattle.

**ol-dupái** pl. **ildupá** (also: **oldopai**, **olduvai**) *Sansoviera cylindrica* [P] [M] HOLLIS: *Material*: bark used for preparing rope, also for producing thin string for sewing broken calabash containers.

**ol-durdien** *Drypetes gerrardii* [M] D-G: *Specification*: tree to 50 ft. *Construction*: timber, white and heavy. *Suregada procera* D-G: *Specification*: forest timber tree to 70 ft., associated with cedar on west Mt. Kenya.

**ol-ekímojík** pl. **íl-ekímojíkini** [P] *Ritual*: a piece of o. tied on the right wrist and left ankle of a male initiate before circumcision, for females around the neck; used together with **orumurum**, pieces of the ostrich egg shell; one **orumurum** is placed on each side of **olekímojík**, worn until next shaving. *Medicine*: mixed together with **oretéti** and milk in bath-water; bathing (of women) is repeated for four days.

**ol-ekirróget** pl. **íl-okirrógeti** [P] *Forage*: leaves given to small calves particularly during dry season; women go long distances to fetch leaves. *Material*: a piece of this wood is placed in the nostrils of a calf in order to wean it from the mother. *Medicine*: leaves chewed to cure a cough. *Forage*: cattle.

**en-ekitólia** pl. **ín-ekitólíani** [P] *Medicine*: influences like a drug, makes user sensitive to shaking and shivering attacks; e.g. a child's cry may activate it; user wants to be alone and has thoughts of stealing and killing others; a counter-medicine is milk drunk in large quantities every day for a week or so; habitual use

causes even stronger symptoms; 'worse than hashis'. *Ritual*: used by some in **ol-púl**.

**ol-eléshwa** pl. **íl-eléshwan** *Tarchonanthus campheratus* [P] [M] Found in Coastal Region. *Material*: used for fragrance, cut in small pieces and put into a string and hung around the neck. HOLLIS: leaves worn in ears as scent. D-G: *Specification*: up to 20 ft., leaves smelling of camphor when crushed. *Material*: used for tobacco pipes and clubs.

**ol-emúran** pl. **íl-emúran** [P] *Medicine*: its leaves are burnt inside to keep mosquitos away.

**ol-emúrunya** pl. **íl-emúrunya** (also: **ol-aimúrunya**) [P] Found in Handeni District. *Food*: mixed in meat soup.

**en-emwáten** pl. **ín-emwáteni** [P] No use known.

**ol-epírankashi** pl. **íl-epírankáshini** [P] *Specification*: grows in some river beds, roots like potatoes. *Ritual*: used in **ol-púl** as medicine, roots peeled and put into soup, consumed while eating meat.

**ol-epuái** pl. **íl-epuáini** [P] *Forage*: goats use its fruit, not used by people.

**ol-eragai** *Syzygium guineense* [M] D-G: *Specification*: 20-35 ft. - 100 ft., a variable species.

**ol-erái** pl. **íl-erá** *Acacia a(l)bida* [P] [M] D-G: *Specification*: to 60 ft., bark and main trunk contain 29% tannin. *Medicine*: bark boiled in water and used for stomach troubles. HOLLIS: *Medicine*: against vomiting. *Material*: used as **endobóle** in kindling fire. *Forage*: the pods are a useful cattle feed.

**ol-ereroi** *Flacourtia indica* [M] D-G: *Specification*: a small forest or savanna tree. *Food*: berries edible.

**ol-érubát** pl. **íl-érubáti(ni)** [P] [M] *Specification*: very tall grass. *Forage*: good for cattle. *Acacia subalata* D-G: *Specification*: tree, 10-15 ft.

**ol-essesse** *Osyris compressa* [M] D-G: *Specification*: shrub or tree, 15 ft. *Fuel*: used as firewood in Tanzania.

**o-ete** *Acacia mellifera* [M] D-G: *Specification*: shrub or tree to 25 ft., in driest savannas.

**en-gamai** [P] *Food*: fruit eaten, sap mixed in meat soup, strengthens blood.

**geninyet** *Gardenia jovis-tonantis* [M] D-G *Specification*: savanna shrub or tree to 15 ft.

**ol-gerian** *Faurea saligna* (also called **ol-orten**) [M] D-G: *Specification*: small, on Mt. Kenya slopes. *Construction*: for furniture and panelling. *Fuel*: used for charcoal.

**ol-gerturao** *Dodonaea viscosa* [M] D-G: *Specification*: shrub or tree 6 - 25 ft, heartwood very hard.

**ol-giriáni** pl. **ol-gírian** [P] *Specification*: grass growing very tall, resembles sugar cane. *Forage*: cattle like it when it is young, later tall and hard.

**ol-girrigirri** pl. **il-gírrigírri** [P] [M] *Acacia pennata* [P] *Material*: for making bows; a stomach trouble called **oloduai** is cured by **ol-girrigirri**. HOLLIS: *Material*: used for binding shields; as meat skewers. *Acacia brevispica* D-G: *Specification*: wait-a-bit thorn, shrub or small tree to 20 ft.

**goneri** *Commiphora scheffleri* [M] D-G: *Specification*: Found in Taita District.

**ol-gorete** *Acacia spirocarpa* [M] D-G: *Specification*: gregarious, wide-spreading, to 60 ft.

**ol-goroshe** *Erythrina abyssinica* [M] D-G: *Specification*: tree to 40 ft, flowers coral-red to scarlet.

**ol-gumei** *Vangueria acutiloba* [M] D-G: *Specification*: shrub or tree to 30 ft. *Food*: fruit edible.

**ol-gúmi** pl. **il-gúm** *Vangueria linearisepola* [P] [M] D-G: *Specification*: shrub or small tree, fruits brown. *Food*: fruit eaten. *Medicine*: helps to cure people and cattle with diarrhoea. *Veterinary*: fruit and leaves used. *Forage*: curing cattle and calves, pounded and soaked in water, sifted, and given to cattle; causes diarrhoea. MERKER: **ol-gumi** *Vangueria edulis* Vahl.

**ol-gurdien** *Diospyros abyssinica* [M] D-G: *Specification*: tree to 90 ft. *Construction*: timber.

**enk-íkwa** pl. **ink-ikwáan** [P] Not a specific name, means 'thorn'.

**enk-iléilo** [P] *Medicine*: given to women after having given birth, or after eating meat, increases blood. MERKER: **en-giraro** *Erucastrum leptopetalum* Engl. *Forage*: good goat fodder. *Food*: leaves eaten by Ilkwavi. *Ritual*: used for

preparing a stick called **emangiki** (a kind of visible symbol of oath) in **ol-púl**; one who has chopped such a stick is not supposed to sleep with a woman until **emangiki** is broken.

**enk-ilény** pl. **ínk-ilényi** [P] No use known.

**enk-ínyampóro** pl. **ínk-ínyampóroni** (also known as **enk-aráni**) [P] *Medicine: il-oibónok* use as medicine, used for cursing.

**enk-ipíni** pl. **ínk-ipín** [P] *Food: fruit eaten. Forage: leaves eaten by cattle.*

**enk-irényi** pl. **ínk-irén** [P] [M] *Ritual: used in ol-púl; also used by elders; not used by women because even small quantities cause miscarriage. MERKER: ol-gireni Olinia Volkensii Gilg. Medicine: nerve-stimulating, bark soaked in water and drunk.*

**ó-íri** pl. **í-ír** *Grewia sp.* [P] [M] Found in Handeni District. *Food: leaves boiled and used as food. HOLLIS: Material: used for fumigating gourds.*

**enk-irrúng'urrúng'** pl. **ínk-irrúng'urrúng'uni** [P] No use known.

**enk-isar ng'átuny** pl. **ínk-isar ng'átunyók** [P] No use known.

**enk-itarúo** pl. **ínk-itarúoni** (also: **enk-itaru**; another name: **enk-irényi**) *Croton zambesicus* [P] [M] *Ritual: used in ol-púl. HOLLIS: Medicine: roots used for giving strength.*

**e-íti** pl. **i-ít** [P] *Construction: used for building the kraal (enk-áng') and calf pens (ol-ále ló 'lók); also as horizontal branches in closing the cattle gate. Medicine: helps to induce vomiting; interior parts taken and boiled in water, used especially after drinking fat, which causes stomach troubles. Liquid from its bark is extracted and used for curing malaria.*

**kábuyéa** pl. **kábuyéani** [P] *Medicine: used as medicine after a snake-bite; bark pounded and soaked in water. Veterinary: used in cases a cow has been bitten by a snake, bark taken and twined so that foamy latex is extracted, given to the sick animal.*

**ol-kápfungerei** *Pteleopsis myrtifolia* [P] *Fuel: firewood.*

**ol-karásha** pl. **il-karásh** [P] *Material: bark used for preparing rope to tie cattle, goats and sheep. Medicine: for stomach troubles. Veterinary: small calves eat it mixed with boiled water.*

**kedong'** *Draceana* sp. nov. [M] D-G: *Specification*: shrub 30 ft., found in Maasai Kedong escarpment.

**ol-kibejus** [M] D-G: *Stoebe kilimandscharica* or *densiflora*.

**ol-kilái** pl. **íl-kilá** *Teclea nobilis* [P] [M] *Food*: mixed in meat soup. D-G: *Specification*: forest tree, wood yellow-white, dense, finegrained, hard. *Material*: spear shafts and walking sticks. MERKER: **ol-gilai** *Teclea unifoliolata*. *Material*: used for clubs and spear shafts.

**ol-kílepóri** pl. **il-kílepórini** [P] *Material*: bark used as tying material in building houses. *Forage*: cattle, goats and sheep.

**ol-kiloi** [P] Found in Lushoto District.

**en-kilóriti** pl. **in-kilóritíní** *Acacia nilotica* [P] *Ritual*: used in **ol-púl** as medicine, roots boiled in water, exterior bark boiled in water, fruit boiled in water; all used in **ol-púl**. Often mask. **ol-kilóriti**, used as one of four ingredients in bath-water of the initiate (male and female). *Medicine*: to cure **em-bitir** (syphilis), roots or bark used, to cure from shaking (warriors); used after eating meat; also as a kind of tea, boiled in water until it becomes red; esp. roots used and cut in small pieces. *Forage*: cattle and goats eat its fruit.

**ol-kimiguni** *Canthicum schimperianum* [M] D-G: *Specification*: shrub or tree, timber hard.

**ol-kinyéi** pl. **íl-kinyén** *Euclea schimperi* [P] [M] *Medicine*: used as medicine when eating meat and drinking meat soup; at home or in **ol-púl**; increases blood and is therefore used by women after having given birth or when ill.

**ol-kioge** *Courbomia virgata* [M] HOLLIS: *Medicine*: Used by **il-oibónok** for curing.

**ol-kirián** pl. **il-kiriáni** [P] *Medicine*: helps to heal many kinds of diseases; anointment made of its leaves cures a swollen spleen. *Forage*: cattle, goats and sheep.

**e-kirikiti** *Erythrina tomentosa*, R.Br., [M] HOLLIS: *Material*: seeds are sewn into the cotton clothes of warriors in **e-unóto** ritual.

**ol-kirótie** pl. **íl-kírotíeni** [P] Found in Arusha Region.

**ol-kirúng'urúng'** pl. **íl-kirúng'urúng'uni** [P] Found in Lushoto District and Handeni District and in Tanga Region. No use known.

**ol-kisigang** *Pappea capensis* [M] D-G: *Specification*: tree to 50 ft., seed edible, wood hard.

**ol-kitaláswa** pl. **íl-kitaláswani** [P] *Ritual*: used as one of the 22 ingredients in **olóuni** in **ol-púl**, roots used, boiled in water and cooled; other important ingredients are **oltímigómi** and **olkilóriti**; its use prohibited for females, not used at home.

**ol-koijuk** *Pygsum africanum* [M] D-G: *Specification*: forest tree to 120 ft., suitable for furniture and construction.

**ol-kolólo** pl. **íl-kolóloni** (**olkokola**) [P] [M] D-G: *Rhamnus staddo* A. Rich. *Specification*: shrub or tree to 20 ft.

**ol-kóng'u** pl. **il-kóng'un** [P] *Specification*: has bad smell. *Fuel*: used as firewood. *Medicine*: bark used for stomach troubles.

**ol-kónyil** pl. **íl-konyílíní** [P] Found in Handeni District.

**ol-konyol** *Rhamnus prinoides* L'Herit [M] D-G: *Specification*: shrub or tree, less than 15 ft to 30 ft.

**ol-kórbobit** pl. **il-kórbobítini** [P] *Medicine*: mixed with meat soup and given to a mother who has delivered, helps to gain strength; used also in bigger quantities as a medicine to cause diarrhoea and against malaria. *Material*: its latex used for tattooing (cf. **olng'eriandus**), and for mending calabashes.

**ol-korósho** pl. **íl-koróshini** [P] *Food*: fruit eaten. *Material*: the liquid of the fruit used for face decorations. *Food*: fruit eaten. *Medicine*: used for healing wounds.

**ol-kúiyik** pl. **il-kúiyikíni** (also: **ol-kúyuk** pl. **il-kuyukíni**) [P] No use known.

**ol-kújit onyókie** pl. **il-kújit óonyókiok** [P] *Themeda For. kahlii* Hack. *Forage*: long grass, regarded as exceptionally good forage for cattle, goats and sheep. MERKER: **ol-godit onjugi**. *Specification*: grass growing very thick, its lower part remains fresh even during the dry season; for this reason valuable as cattle fodder.

**ol-kumbau loo 'Imurran** *Ocimum suave* [M] HOLLIS: flowers and leaves used as scent.

**léshekúye** [P] *Medicine*: roots used for curing a child who suffers from convulsions (Swah. **degedege**).



**e-luái** pl. **i-luán** *Acacia spirocarpa* Hochst. [P] Found in Bagamoyo District, no use for Parakuyo. MERKER: **ol-uai** extract of bark used for diarrhoea, humans and animals.

**e-madudui** [P] *Food*: fruit eaten by Parakuyo; black when ripe; Kwere eat also its swollen roots (like potatoes).

**ol-mádungúsi** pl. **il-mádungúsini** [P] *Specification*: grows fast and is very thorny. *Construction*: used for constructing cattle fence.

**e-magéndagénda** pl. **i-magéndagéndani** [P] *Ritual*: mixed in meat soup in **ol-púl**.

**ol-magírgiriáni** pl. **il-magírgiriánini** [M] D-G: *Lantana trifolia* *Specification*: 9 ft., widely spread *Lantana salvifolia*. [P] Found in Bagamoyo District. *Ritual*: used as one of the four ingredients in ritual bath-water of initiates (male and female). HOLLIS: *Material*: leaves and fruit used to mix with oil to make body ointment.

**ol-mágongói** pl. **il-mágongón** [P] *Specification*: a very tall tree. *Construction*: used as upright poles on both sides of the cattle gate (**enk-ishómi**). *Food*: fruit eaten. *Medicine*: bark of it boiled and given to one suffering from weak blood or diarrhoea. *Veterinary*: for cattle and calves for curing diarrhoea; bark boiled in water and given internally, mixed with water. *Forage*: leaves eaten by cattle and fruit by goats; for small sucking calves as additional food in case the mother does not produce milk enough.

**ol-májrɔ** pl. **il-májrɔn** [P] *Forage*: cattle.

**e-makándilei** (also known as **enk-okishi**) [P] No use known.

**e-mákárikára** pl. **i-mákárikáráni** [P] *Material*: used for cattle sticks. *Food*: fruit used.

**ol-makírikiriáni** pl. **il-makírikiriánini** [P] *Ritual*: used in various rituals. *Food*: fruit eaten.

**ol-makólikólo** pl. **il-makólikólóni** [P] *Fuel*: used as firewood.

**e-makwái** pl. **i-makwán** [P] No use known.

**e-máme** pl. **i-mámen** [P] Found in Handeni District. *Construction*: used for building kraal fence. MERKER: (**ol-mame**) *Forage*: small livestock.

**ol-mandaindet** [P] *Medicine*: used together with enduroto (white chalk) for curing, boiled with water and drunk for stomach troubles, sometimes used as emetic for inducing vomiting.

**ol-mándimándo** [P] No use known.

**e-mángulái** pl. **i-mángulá** (**ol-mángulai** pl. **il-mánguláni**) *Grewia villosa* [P] [M] Not found in Bagamoyo District, found in Mvomero area in Morogoro Region. *Food*: fruit eaten. *Medicine*: used as fertility medicine for women; bathing for three days in medicated water. HOLLIS: *Medicine*: roots used as medicine. Jacobs: Groton pseudopulchellus.

**e-mangúnyai** pl. **i-mángunyáni** [P] Found in Bagamoyo District. *Food*: fruit eaten.

**ol-márdei** pl. **il-márden** [P] [M] Found in Handeni District and Lushoto District. *Canthium lactescens* D-G: *Specification*: shrub or tree to 3 ft.

**ol-maroroi** [P] *Veterinary*: for stomach troubles of cattle, its leaves used, pounded in a mortar, put in water and sifted and given to a cow. *Ritual*: a table for frying meat in **ol-kiteng' lo 'lbaak** ritual is prepared from **e-sitéti**, **e-séki** and **ol-mároroi** (trees without thorns).

**ol-masámburai** pl. **il-masámbyra** *Tamarindus indica* [P] [M] *Food*: fruit eaten. *Medicine*: bark mixed in meat soup and used for stomach troubles. *Veterinary*: boiled in water and given to calves with stomach troubles, causes diarrhoea. *Forage*: leaves eaten by cattle, goats and sheep. HOLLIS: *Material*: for cattle sticks. D-G: *Specification*: fruit pulp yields cooling drink. *Medicine*: used for fever and as a laxative.

**ol-masóla** pl. **il-masólani** [P] Found in an area called Masola in Lushoto District.

**ol-masoli** *Turraea holstii* [M] D-G: *Specification*: a small tree.

**e-matági** [P] No use known.

**ol-matáindet** pl. **il-matáindéti** [P] *Specification*: grows as an epiphyte on other trees. *Medicine*: mixed with **en-duróto** (white chalk) and blood used in bath-water for curing males; helps to decrease fever and pains.

**ol-matánga** pl. **il-matángáni** [P] *Specification*: very poisonous, a drop of latex in an eye causes blindness, taking internally causes death. *Construction*: houses. *Medicine*: its dry wood made as a stick is pierced into a swollen area (men and animals).

**e-matángai** pl. **í-matángani** [P] *Food*: fruit eaten.

**e-mátangóya** pl. **i-mátángoyáni** *Maerua rigida* Oliv. [P] [M] *Specification*: a very small tree. *Food*: fruit eaten. *Veterinary*: powder of bark burnt in the fire made of **ol-óirien** in the middle of the kraal; cattle breathe the smoke and are healed. *Food*: during the rainy season its red fruit are eaten by children. MERKER: used by **il-oibónok** for preparing medicine (tied in a neck string) against cold and fever.

**ol-matása** pl. **íl-matásan** [P] Found in Bagamoyo District.

**ol-matasya** *Clausena anisata* [M] [P] D-G: *Specification*: shrub or tree to 6-10 ft., leaves strongly aromatic. HOLLIS: *Clausena inaequalis*. *Material*: leaves used as scent by warriors, tooth brush. [P] *Material*: used by Parakuyo as a 'mattress' while being in **ol-púl**.

**ol-mékeldet** *Combretum collinum* [P] *Fuel*: firewood.

**e-mém** *Indigofera sp.* [M] D-G: *Specification*: small woody herb to 6 ft. HOLLIS: **osongoyo** identified as *Indigofera sp.*

**e-memeni** [P] Found in Handeni District.

**ol-meraa** *Catha edulis* [M] D-G: *Specification*: tree, 20-80 ft., chewed leaves are a stimulant. MERKER: **ol-mata** *Thespesia Garckeana* F. Hofm. and *Dombeya reticulata* Mast. vel aff. *Medicine*: extract of bark used by warriors in forest to aid digestion after having eaten meat.

**ol-mergoit** *Croton elliotinus* [M] HOLLIS: *Medicine*: used as emetic for inducing vomiting. *Croton megalocarpus*. *Specification*: forest tree to 120 ft.

**ol-meríjo** pl. **íl-meríjóni** [P] Found in Arusha Region.

**ol-meséra** pl. **íl-meséráni** *Adansonia digitata* [P] [M] *Specification*: very tall. *Food*: fruit eaten. *Medicine*: bark used for stomach troubles. *Veterinary*: used for curing ailing cattle. HOLLIS: *Material*: rope.

**ol-meshera** [P] *Food*: fruit eaten by children and grown-ups, its latex used as chewing gum.

**e-mesúri** pl. **i-mesúrin** [P] *Construction*: used in building houses and as horizontal branches in closing the cattle gate. *Food*: fruit eaten.

**ol-midáula** pl. **íl-midáuláni** [P] *Specification*: its latex is red, especially when boiled in water, has a lot of 'blood'. *Medicine*: used for stomach troubles, used mainly by women when eating meat soup, increases strength. *Food*: fruit eaten.

**ol-misera** *Adansonia digitata* (baobab) [M] D-G: *Material*: red dye obtained from its roots (cf. **olmeshéra** and **olmeséra**).

**ol-mitégo** pl. **íl-mitégoni** [P] Found in Bagamoyo District. *Specification*: tall. *Food*: chewing gum, used exclusively by women (males not allowed); a cut is made through the bark of o. and the latex is let into a container; when boiled it becomes gum-like. *Material*: used for fumigating gourds.

**ol-mkúna** pl. **íl-mkúnáni** [P] *Food*: fruit eaten.

**e-mongóeki** pl. **í-mongóek** [P] *Food*: fruit eaten after boiling.

**ol-morijo** *Acokanthera schimperi* [M] HOLLIS: *Material*: the Dorobo obtain poison for arrow heads. D-G: *Acokanthera friesiorum*. *Specification*: evergreen. *Material*: Akamba use for arrow poison.

**ol-móro** pl. **íl-móroi** [P] *Specification*: very bitter. *Medicine*: used for stomach-ache, mixed with water and boiled; used for curing pimples (bath in medicated water); helps to kill parasites in stomach; strong medicine, only used in small quantities, may cause death if used too much; not to be used simultaneously with medicines of hospitals. *Ritual*: used in **ol-púl**; used to cure **osupetai** (gonorrhoea); mixed with sheep fat used as emetic for inducing vomiting; roots mixed with **olkilóriti** and **oltimigómi** and boiled; very strong, cleans the stomach and kills parasites, fatal if drunk too much at once.

**ol-morogi** *Dovyalis abyssinica* [M] D-G: *Specification*: tree to 30 ft., fruit apricot-coloured but very acid.

**ol-morokóet** pl. **íl-morokóetini** [P] *Material*: used for making **e-sósian**, which is used for cleaning calabashes. *Food*: fruit eaten.

**ol-móroroi dapáshi mbének** *Combretum* sp. [P] *Construction*: houses. *Forage*: cattle.

**ol-móroroi ójbor** *Combretum zeyheri* [P] *Medicine*: For stomach troubles. *Forage*: cattle; given to calves which do not receive food enough, mixed with milk.

**ol-móroroi órok** *Combretum molle* [P] *Construction*: houses. *Material*: Used for cleaning calabashes; gives good flavour and odour. *Forage*: cattle.

**ol-moshérai** pl. **il-moshéráni** [P] *Food*: fruit eaten.

**e-msúkusúki** pl. **i-msúkusúkini** [P] *Construction*: houses. *Material*: for cattle sticks.

**ol-muále** [P] No use known.

**e-muhámbarásha** [P] *Construction*: houses.

**e-mukánda** pl. **i-mukándani** [P] *Material*: for cattle sticks.

**e-mukétia** pl. **í-mukétiani** [P] *Forage*: cattle, goats and sheep.

**ol-múkongóra** *Lantana sp.* [P] [M] *Medicine*: used for preparing medicine called **esongóioi**; helps to give birth to male children; not suitable for men. HOLLIS: *Medicine*: used by **il-oibónok**. *Material*: roots used for preparing scent. D-G: **ol-makongora** *Lantana trifolia*.

**ol-mukumbála** pl. **íl-mukumbáláni** (**ol-mukambála**) *Acacia nigrescens* [P] *Specification*: very thorny. *Construction*: used for building cattle enclosures and houses. *Medicine*: bark boiled in water and used for stomach troubles.

**ol-múkutan** *Albizzia anthelminthica* [P] [M] HOLLIS: *Medicine*: purgative, against worms and nervous complaints.

**ol-múla** pl. **íl-muláni** [P] Found in Bagamoyo District.

**e-muluáti** pl. **i-muluát** [P] *Construction*: houses. *Medicine*: leaves used for rubbing itching skin. *Material*: mothers use its soft leaves for cleaning children.

**e-muncúí** pl. **i-múncu** [P] *Food*: fruit eaten.

**ol-munishui** *Acacia senegal* [P] [M] D-G: *Specification*: savanna bush or tree to 15-30 ft. *Material*: gum arabic obtained from it. (Comment: Parakuyo claim it is the same as **oiti**).

**ol-munyúshi** *Rhus vulgaris* [M] D-G: *Specification*: bush or small tree, 20 ft.

**e-múrua** pl. **i-muruáshi** [P] [M] *Forage*: grows especially on the sites of discarded kraals: cattle, goats and sheep like it very much. *Ritual*: commonly used for stuffing a calabash containing a mixture of milk and water, the contents poured or sprinkled through **emúrua** grass in numerous rituals; blessing the **enkoilálei** tree erected in front of the initiation house, also in the liquid for softening hair in ritual hair shaving, in rainmaking ritual (**osiómbe**). It is also used when a woman has her

first pregnancy (8 months): she is given a large gourd and **e-múrua** grass is hung around her neck when she goes to a permanent water source to fetch water. If one has offended an elder, the offender will be tied e. in the right hand and on the left ankle, and he is blessed by elders. Also **il-oibónok** use e. in curing.

**ol-musálala** pl. **il-musálalani** [P] [M] Found in Arusha Region. HOLLIS: *Musa ensete*. *Material*: rope. *Food*: fruit eaten; this name used also of banana. *Forage*: cattle eat its fruit.

**e-musúndu** pl. **im-usúndun** [P] *Material*: cattle sticks.

**náde-enkéju** [P] *Food*: leaves used as vegetable.

**náng'u-déyok** [P] No use known.

**e-nasongoi** [P] *Medicine*: extract sewn in womens belts; helps to give birth to male children, not used for increasing male potency; available from the tree **olmúkongóra**. Used by **il-oibónok** as a secret medicine.

**natuaina** *Ochna Merkeri* [M] HOLLIS: *Material*: used for making clubs and spear shafts.

**e-nátw(a) enk-áina** [P] Found in Arusha Region. No use known.

**e-nekípiríya** pl. **i-neekíperínyi** [P] *Material*: used for preparing ladles. *Food*: fruit eaten.

**ol-neligwe** *Grewia similis* [M] D-G: *Specification*: shrub to 6 ft.

**ol-ng'abóli** pl. **il-ng'abólo** [P] *Food*: fruit eaten.

**ol-ng'ándui** pl. **il-ng'ándu** [P] *Food*: fruit eaten.

**ol-ng'áróyi** pl. **il-ng'aróyini** [P] No use for Parakuyo.

**ol-ng'eriandus** *Rubia cordifolia* [M] HOLLIS: *Material*: used for obtaining dye for painting sword sheaths red; *Plumbago zeylanica* used for tattooing.

**ol-ng'onómi** pl. **il-ng'onóm** [P] *Material*: roots of this grass used as a scent. *Medicine*: roots used for stomach troubles; mother may chew its leaves and give the liquid to a baby. *Forage*: cattle and monkeys.

**ol-ng'óswa** pl. **il-ng'óswan** *Balanites sp.* [P] [M] *Medicine*: roots used, anointment made of its latex helps to protect people from animals when they sleep outside; for

urinating troubles (when urine is red), roots and bark boiled. *Material*: thorns used for piercing ears; for making play-boards (**en-kehei**). HOLLIS: *Material*: thorns used for piercing children's ears, latex chewed by women and used for mending gourds. D-G: *Balanites aegyptiaca*. *Specification*: savanna tree 15-35 ft., long thorny twigs. *Material*: tool handles. *Food*: dried fruit called 'desert date'; the kernel yields over 40% oil; pulp contains 40% sugar and saponin substance which forms a soapy lather with water; an emulsion made from the fruits is lethal to the snails which are intermediary hosts for bilharzia parasite; non-toxic to man and domestic animals. *Balanites glabra*. *Food*: edible fruit like gooseberry.

**ng'óto léyai** pl. **ing'óto léyan** [P] *Specification*: fruit very small and black. *Material*: for making sticks and clubs. *Food*: fruit mixed with meat soup at home (not in **ol-púl**).

**ol-ng'weng'wény** pl. **il-ng'weng'wén** *Acacia robusta* [P] *Medicine*: bark boiled or soaked in water and drunk after eating meat; helps in digesting meat; prevents fever caused by eating meat too much.

**ngaroji** *Erythrina burtii* [M] D-G: *Specification*: flat-topped tree to 50 ft., flowers flame-coloured.

**i-ngérra wáwa** [P] *Food*: fruit eaten.

**ngórrírri** [P] *Material*: leaves used for binding.

**ngóso-mótonyik** [P] *Food*: leaves used as vegetable.

**ng'óto léyai** [P] No use known.

**ol-nisereri** *Sesbania macrantha*, [M] D-G: *Specification*: shrub to 8 ft.

**ol-nyáruswa** pl. **il-nyáruswáni** [P] No use known.

**ol-obai** *Psiadia arabica* [M] D-G: *Specification*: wettish shrub to 6 ft.

**ol-oboni** *Ficus capensis* [M] D-G: *Specification*: savanna or forest tree to 30-80 ft., very variable species.

**ol-odonyanangui** *Cassine aethiopica* [M] D-G: *Specification*: tree up to 50 ft., bark latex produces brown dye.

**ol-odúa** pl. **il-odúan** [P] Found in Handeni District. *Medicine*: used for aching and swelling stomach; also for other ailments; mixed with milk fat and boiled; helps to produce diarrhoea; seeds used to cure gonorrhoea (**osupetai**).

**ol-ogóltim** [P] *Construction*: used as the ritual 'seal' in closing the cattle gate; during daytime drawn outside the gate. *Medicine*: roots used for curing malaria, very strong; induces excessive vomiting.

**ol-ogomati** *Agauria salicifolia* [M] D-G: *Specification*: bush or tree to 30 ft., used for timber, leaves toxic to stock.

**enk-ohólo** pl. **enk-ohólóni** [P] *Material*: used as **olpíron** and **entobóle** (things needed in firemaking).

**ol-óibor bének** pl. **il-óibor bének** ('that with white leaves') [P] [M] *Ritual*: leaves mixed in the bath-water of the initiate before circumcision; also in rituals of blessing cattle. HOLLIS: *Dregea rubicunda*. *Material*: used as scent in the hair.

**ol-oilálei** *Zizyphus mucronata* [P] [M] *Specification*: a tall tree. *Ritual*: used in circumcision rituals, also called **elatum**, erected in front of the circumcision house; small trees called **enk-oilálei**. *Medicine*: used for stomach pains and diarrhoea, roots and bark used. MERKER: two species, i.e. *Colubrina asiatica* Brongn. and *Zizyphus Jujuba* Lam. are called **ol-oilale**, the former used for curing birth organs after delivery, bark boiled with meat.

**ol-óile** pl. **il-oilé** (**enkoile**) *Euphorbia Schimperi* Presl. and *Euphorbia Tiruculli* [P] [M] Found in Handeni District. MERKER: heated latex of *Euphorbia Tiruculli* used for glueing axe shaft into the socket of blade.

**enk-óile** pl. **ink-óilen** [P] Found in Dodoma Region and in Morogoro Region.

**enk-oine** [P] Found in Handeni District.

**ol-óipiro le pápa** pl. **il-óipir le pápa** [P] *Medicine*: an ingredient in **oltogóm**.

**ol-óirámírámí** pl. **il-óirámírámíni** [P] Found in Arusha Region.

**ol-oireroi** 1 [M] D-G: *Maerua endlichii*. *Specification*: to 10 ft.

**ol-oirien** pl. **il-oríendo** *Olea* sp. [P] [M] *Material*: burning embers of it used for cleaning milk calabashes, gives pleasant odour to milk. *Veterinary*: burnt in the middle of the kraal together with medicines as a part of making **en-dassim**. HOLLIS: *Olea chrysophylla*. *Material*: heart wood used for fumigating gourds. *Ritual*: **e-danyáta o 'l-óirien** (splitting of **ol-oirien**) is a ritual act performed to mark the end of a certain period, e.g. the circumcision period; the end of **ol-aunóni**'s active office. D-G: *Specification*: wild olive, much-branched, spreading tree 20-50 ft., wood durable, good as firewood and as building-poles.



**ol-oirien lo 'l-áiyok** (also called **ol-tamiyoi**) [P] *Ritual*: in male circumcision rituals.

**ol-oiróroi** pl. **íl-oiróro** (**ol-oireroi**, **ol-eiroroi**; also called **ol-casérigo**) [P] [M] *Material*: put into the ears of calves to prevent sucking. *Veterinary*: leaves used for curing wounds and ears. HOLLIS: *Moerua uniflora*. *Material*: warriors use its soot to paint shields black. *Veterinary*: used for curing ulcers in cattle, pounded and mixed with water and used for washing the ulcer, kills bacteria.

**ol-oiruki** *Fagara usambarensis* [M] D-G: *Specification*: tree to 50 ft.

**ol-óisa** pl. **íl-óisáni** [P] *Specification*: a rather tall shady tree. *Fuel*: used as firewood.

**ol-oisúki** pl. **íl-oisúkin** [P] [M] *Food*: recently found that it gives good flavour to tea (like clove). *Veterinary*: given to weak cattle for strength. *Material*: its kernel parts are dried and used for cleaning milking calabashes, burning embers put inside the calabash and cleaned with hot water. HOLLIS: *Zanthoxylum sp.* *Medicine*: prophylaxis against fever. *Material*: for fumigating gourds.

**ol-oitómjai** pl. **íl-oitómja(ni)** [P] *Food*: its fruit is edible. *Medicine*: women use its leaves to cure wounds caused by spiral rings in arms and legs; used for healing swollen body parts, e.g. swelling after hurting a leg, or a boil; burning leaves placed on the swollen area.

**ol-oiyéti** pl. **íl-oiyéti(n)** [P] *Material*: used for 'pillows' in beds. *Forage*: good for cattle, goats and sheep.

**ol-okúí** pl. **íl-okúin** *Cadaba adenotricha* [P] [M] Found in Same District. D-G: *Specification*: branched bushy shrub 3-10 ft.

**ol-okorosio** *Euphorbia sp.* [M] HOLLIS: *Medicine*: purgative.

**ol-okúroi** pl. **íl-okúro** [P] [M] *Medicine*: for stomach ache, causes diarrhoea. *Ritual*: used in **ol-púl**, Jacobs: *Euphorbia polyantha*. *Medicine*: helps in stomach troubles and in cases of swelling; bark boiled in water. *Ritual*: used also in **ol-púl** mixed in meat soup. HOLLIS: *Euphorbia polyacantha*. *Medicine*: used as purgative (as **olmukutan**).

**ol-oliondo** *Olea welwitschii* [M] D-G: *Specification*: tree to 90 ft., *Construction*: poles in construction work.

**enk-ómi** pl. **ink-ómini** [P] *Material*: used for preparing cattle sticks (**e-ng'udi**, pl. **i-ng'udisin**, a thick stick; **en-jípishíp**, pl. **in-jípishípi**, a thin whip).

**enk-ómoníri** pl. **ink-ómonírini** [P] No use known.

**enk-ónerei** pl. **ink-ónerení** [P] Found in Handeni District. *Food*: used mainly by women as chewing gum.

**ol-opúitolósian** pl. **íl-opúitolósian** [P] *Material*: used for arm decorations of women.

**ol-opíro le pápa** pl. **íl-opír le pápa** [P] leaves used for sifting liquids, such as soup in **ol-púl** and various kinds of medicine.

**ol-opító** pl. **íl-opít** [P] *Medicine*: used for fever, also for other diseases, for any kind of **ol-odúa**, medicine which causes vomiting, bark and interior used, mixed with water and boiled.

**ol-opító lé 'nkáre** pl. **íl-opító lé 'nkáre** [P] *Food*: its liquid used by warriors and herdsmen to quench thirst when water is not available.

**ol-opító lé kúle** pl. **íl-opító lé kúle** [P] No use known.

**ol-opító lóo suyan** pl. **íl-opító lóo suyan** [P] *Material*: leaves used for polishing spiral-formed decorations made of brass, copper and aluminium.

**enk-opóni** pl. **ink-opón** [P] *Specification*: a tall tree, black fruit, found in Bagamoyo District. *Food*: fruit eaten. *Material*: children use the seeds as decoration.

**ol-ordóiyera** pl. **íl-ordóiyera** [P] *Medicine*: roots used for relieving pains; also **il-oibónok** use it. *Ritual*: part of the concoction called **ol-togóm** prepared for certain rituals (e.g. **ol-púl**), smeared on the skin like white chalk.

**ol-orgesalik** D-G: *Adenium obesum* [M]. No use indicated.

**ol-orget** *Cassipourea malosana* [M] D-G: *Specification*: tree to 30-60 ft. *Construction*: for building houses.

**ol-oroironi (ol-gilenyi)** *Syzygium cordatum* [M] D-G: *Specification*: compact shrub or tree to 12-25 ft.

**ol-oropil** *Justicia fischeri* [M] HOLLIS: *Material*: flowers used as scent.

**ol-orte** *Protea gagedi* [M] D-G: *Specification*: shrub or tree to 15 ft.

**ol-orubat** *Arundo madagascarensis* (?) [M] HOLLIS: *Material*: bamboo used for framework of ostrich-feather headdresses, also as **ol-kidóng'** (tobacco container).

**ol-orúdiai** pl. **íl-orúdián** [P] Found in Handeni District.

**ol-órung'óti** pl. **il-órung'ót** [P] *Medicine*: for stomach pains. *Forage*: cattle, goats and sheep.

**ol-osarie** *Trimeria bakeri* [M] D-G: *Specification*: shrub or tree to 20 ft, multistemmed.

**ol-osíkírai** pl. **il-osíkíra** [P] No use known.

**ol-oturúde** pl. **íl-oturúden** (**oloturúdiai**) [P] Found in Handeni District.

**ol-óyapásei** pl. **il-óyapáséni** [P] *Medicine*: leaves and roots used for curing stomach ache.

**ol-pálakái** pl. **il-pálaká** [P] *Construction*: grass used for thatching roofs. *Forage*: good for cattle, goats and sheep.

**ol-piro** *Hyphaene thebaica* [M] HOLLIS: *Material*: for fumigating gourds, twigs used as esosian.

**ol-pogoni** *Euphorbia candelabrum* [M] D-G: *Specification*: tree to 50 ft.

**ol-popóng'i** pl. **íl-popóng'** [P] *Specification*: very poisonous, even a drop of its latex in the eye causes blindness, a few drops taken internally is fatal.

**o-remít** pl. **í-remítin** *Loranthus sp.* [P] [M] Found in Handeni District. *Medicine*: boiled or soaked with water and given against malaria, causes vomiting. HOLLIS: *Medicine*: for spleen.

**o-retéti** pl. **í-retét** [P] *Material*: bark used in twining warriors' hair. *Medicine*: bark used for stomach troubles; aerial roots preferable for medicine (roots in earth also suitable).

**ol-reteti** *Maesa lanceolata* [M] D-G: *Specification*: shrub or tree to 30 ft.

**o-rirói** pl. **i-rirón** [P] *Food*: wood put in **olmosóri** when preparing local beer, together with honey it speeds up fermenting.

**ol-sagarami** *Piliostigma thonningii* [M] D-G: *Specification*: shrub to 20 ft., slash red-brown, bark and roots yield up to 18% of tannin; red dye obtained from roots, blue dye obtained from the pods and seeds.

**o-ságararámi** pl. **o-ságararám** *Bauhinia reticulata* [P] [M] *Ritual*: used in **olpúl**. HOLLIS: *Medicine*: influences nerves.

**o-sákartáti** pl. **i-sákartát** (**osarkatati**) [P] Found in Handeni District and Lushoto District.

**o-sánangúrrui** pl. **i-sánangúrru** [P] *Food*: fruit eaten.

**ol-segetiti** *Myrsine africana* [M] D-G: *Specification*: small evergreen shrub.

**o-séiyái** pl. **i-séiyá** [P] *Forage*: cattle, goats and sheep.

**e-séki** pl. **i-sék** D-G: (**ol-seki**) *Cordia ovalis* [P] [M] *Ritual*: used extensively in rituals, placed in various entrances in the ritual area (house entrances, kraal gates, in front of beds, in cattle gates, in practice in all places where people enter from one space to another. *Ritual*: e. are constructed in an arch formation, heads of the twigs tied together, also pieces of e. buried in the soil across the cattle gate, a black cloth hung above the entrance; a table for frying meat in **ol-kiténg' lo 'Ibáak** ritual is prepared from **e-sitéti**, **e-séki** and **e-mároroi** (trees without thorns); dug into the soil in the entrance to the **ol-púl** site. HOLLIS: *Ritual*: its leaves are used for feeding the fire of a new kraal; used for a charm by **il-oibónok**. *Food*: fruit eaten by small children; the first division of Ilmaasai and Iloikop took place at a solitary tree, **ol-seeki** (Jacobs 1965). MERKER: **os-segi** *Cordia quarensis* Gürke. *Ritual*: a piece of it burned at the **olokór lo 'Ikéretii** ritual arranged for settling a quarrel between two people; a piece of it is placed between them, and one crossing over it will be punished by God (**Enkai**); pieces of root chewed by a girl wanting abortion; a piece of it tied around an aching ankle.

**o-sekí le kop** pl. **í-sekí le kop** [P] Found in Bagamoyo District. *Ritual*: one of the four ingredients in the ritual bath of the initiate in the circumcision ritual **elatím** (others are **entóluo** 'axe', and two of the following species: **olóibor bének**, **ol-kilóriti**, **ol-ámolog** or **ol-mangírgiriáni**), ritual bath with defined ingredients considered essential for safe recovery from the circumcision operation.

**o-séne** pl. **i-séneitin** [P] *Food*: leaves used as vegetable. *Forage*: leaves eaten by cattle.

**ol-seneto** *Cassia didymobotrya* [M] D-G: *Specification*: bushy, 12 ft., in rainy areas, bark contains tannin, leaves produce a mild purge and fish poison, the roots a powerful purge.

**o-sére** pl. **i-séren** [P] *Forage*: cattle.

**e-siáiti** pl. **i-siáitíní** *Acalypha fructuosa*, Forsk. [P] [M] *Specification*: small, not taller than two metres. *Material*: for making beds (**erúat**), leaves used as a 'mattress' or 'pillow'. HOLLIS: *Material*: necklaces are made of its twigs, warriors wear them at **eunóto**. MERKER: **os-siaiti** *Acalypha psilostachyoides* Pax. *Material*: boys make arrow shafts of its branches. Other spp. **o-siaiti odo**, **o-siaiti oibor**, **o-siaiti lo 'sobugo**, **o-siaiti lo 'sobugo oibor**.

**e-silálei** pl. **i-silále** [P] *Construction*: used as upright poles on both sides of the cattle gate (**enk-ishómi**). *Material*: used for carving goat bells. *Forage*: goats like to eat e.. *Ritual*: twigs of e. placed on both sides of the bed to test whether a warrior in **olpúl** is 'cold' or not: the twig on the woman's side is supposed to wither while the one on man's side will be fresh in the morning. [P] *Ritual*: **e-silalei narok** is erected in the middle of the **o-singira** hut built as a ritual house for the **e-unóto** (promotion) ritual.

**e-simanjíroi** pl. **í-simanjíro** [P] *Material*: used for tooth-brushes; colours teeth.

**ol-simewa** (**sangangurure**) *Scutia myrtina* [M] D-G: *Specification*: spiny shrub or tree to 15-30 ft.

**o-sinánde** pl. **í-sinánde** [P] Found in Bagamoyo District. *Medicine*: used for women with difficulties in conception; mixed with sheep fat and milk, the paste smeared on face, head, shoulders and back.

**o-sínguai** pl. **i-síngua** [P] *Medicine*: for curing acute stomach troubles; for **kipindupindu** (Sw.); for diarrhoea. *Ritual*: used as medicine in **ol-púl**, after eating meat helps in stomach troubles.

**e-sinóni** pl. **i-sinón** [P] [M] Found in Handeni District, no use for Parakuyo. HOLLIS: *Lippia* sp. *Medicine*: used for vomiting. MERKER: **o-sinoni** *Lantana salvifolia* Jacq. *Material*: used for fumigating gourds.

**ol-sinoni** *Lippia javanica* [M] D-G: *Specification*: much-branched small shrub to 14 ft.

**o-sípu** pl. **i-sípun** [P] *Specification*: tree planted by other ethnic groups, no use for Parakuyo.

**e-sísinyét** pl. **i-sísinyéta** [P] *Specification*: not very big. *Material*: used in bed under the skins as a 'mattress'; also used as anointment because of its good odour.

**e-sitéti** pl. **i-sité** *Grewia bicolor* [P] [M] *Construction*: used in building houses and as horizontal branches in closing the cattle gate; also as a ritual 'seal' in closing the cattle gate (drawn outside the gate during daytime). *Material*: whips for beating children and women are made of its saplings. *Ritual*: erected in front of the circumcision (**e-múratáre**) house before rituals; **e-séki** preferred, but if not available, **e-sitéti** is used; when one is cursed by the elders or other people because of bad behaviour, rope made of its bark is taken and soaked in milk and anklets made of it are tied around the right wrist and left ankle; when a cow or calf is looked at by somebody with a 'bad eye' the following cure is attempted: rope made of **e-sitéti** is made and nine knots are tied in it, this rope is tied between two trees, the sick cow is driven under it and the rope is cut; and the cow will be cured; a table for frying meat in **ol-kiténg' lo 'l-báák** ritual is prepared from **e-sitéti**, **e-séki** and **e-mároroi** (trees without thorns); for the ritual of feasting the successful end of a voluntary sexual abstinence period, strings of e. bark are tied round the right arm and left ankle. HOLLIS: *Ficus elegans* (?) *Material*: for plaiting hair. *Euclea fructuosa*. *Medicine*: for spleen. *Material*: cattle sticks. MERKER: **os-siteti** *Food*: fruit edible. *Material*: long whips carried by old men are made of its saplings. *Medicine*: pregnant women drink tea made of its leaves as laxative. D-G: **ol-endeti** *Ficus natalensis*. *Specification*: tree or epiphyte to 40 ft., often with aerial roots. Jacobs: **Enkai** let the cattle down on a bark rope, or along **ol-piron**, made of **o-reteti**.

**o-sójói** pl. **i-sójó** [P] *Medicine*: used for curing **en-dibili** (a disease causing white spots on the face); its latex extracted by grinding with a stone, the extract smeared on the face.

**e-sókokólwe** pl. **i-sókokolwéni** [P] No use known.

**o-sókono** pl. **i-sókon** [P] [M] *Medicine*: for curing stomach troubles; for cholera (Sw. **kipindupindu**); for acute and chronic stomach troubles, clears veins. *Food*: when mixed with tea helps in decreasing weight. D-G: **ol-sogunoi**, **ol-sokoni** *Warburgia ugandensis*. *Specification*: tree to 140 ft., timber has a high oil content. *Material*: the resin used to fix tools and handles, bark and leaves hot to taste, used by Indians in curry.

**o-songóyo** pl. **í-songóyoni** (**esongoioi**) *Indigofera sp.* [P] [M] *Specification*: has good odour. *Material*: used for making fragrant decorations, latex formed into small balls (3 to 4) and tied into a string to form a necklace. HOLLIS: *Material*: plaited and hung around the neck as a scent. MERKER: *Material*: warriors make fragrant neckbands of its bark; the ready product called **olórrobil**; uses also for preparing anointment, which is used by boys and girls.

**ol-subukiai** *Ekebergia rueppeliana* [M] D-G: *Specification*: forest tree to 80 ft.

**ol-subukiau** *Dombeya goetzenii* [M] D-G: *Specification*: tree to 50 ft.

**suguno** *Ficus sycomorus* [M] D-G: *Specification*: savanna tree to 80 ft, near streams.

**o-sukúni** pl. **i-sukún** [P] Found in Bagamoyo District, *Material*: used for twining warriors' hair if **oretéti** not available; rope used also for tying calves.

**e-súkurtúti** pl. **i-súkurtút** [P] *Veterinary*: if a cow, calf or sheep refuses to feed its offspring, itching leaves of this tree are placed in its sexual organs to persuade it to feed.

**ol-tai** *Premna oligotricha* [M] HOLLIS: *Material*: for fumigating gourds. Jacobs: leaves put in ritual fire as fumigating agent.

**ol-tamíyo** pl. **il-tamíyo** (**ol-tamioi**, **ol-daméyo**) *Olea chrysophylla* [P] [M] Not found in Bagamoyo District, found in Arusha Region. HOLLIS: *Material*: used for fumigating gourds. *Veterinary*: in case a cow refuses to feed its calf, itching leaves of this tree are put into its sexual organs to persuade it to feed the calf.

**ol-tárákwái** pl. **il-tárákwáni** *Juniperus procera* [P] [M] *Medicine: Ritual*: one of the medicines in **ol-togóm**. D-G: *Specification*: evergreen timber tree to 120 ft, largest juniper in the world. HOLLIS: used by **il-oibónok**.

**ol-tárárái** pl. **il-tárárá** [P] fruit eaten.

**ol-tepesi** *Acacia seyal* [P] [M] HOLLIS: *Material*: for rope.

**en-térepényi** pl. **in-térepény** [P] A liana-like plant. No use known.

**ol-tiáni** pl. **il-tián** (also called **ol-dúle** or **tabakíyo**) [P] *Material*: used for preparing tobacco containers. *Forage*: cattle.

**ol-tím** pl. **il-tími** [P] *Material*: used as a ritual branch to close the cattle gate; only one branch is brought, closing of the gate starts with o., and other branches are added; other branches used for closing the gate are **e-íti**, **e-sitéti** and **e-mesúri**; when the gate is opened in the morning, **ol-tím** is taken away last and placed carefully outside the gate pointing to the opening; o. very important in closing the gate.

**ol-timigómi** pl. **il-timigóm** [P] [M] *Ritual*: used in **ol-púl**, cannot be seen by females when taken to the place of **ol-púl**; cannot be given even to the girls coming to **ol-púl** except in small quantities mixed with plenty of water; brings about the condition of **o-morwe** (shaking) in warriors after it has been taken for about ten

days. HOLLIS: *Pappea capensis*, *forma foliis maioribus*. *Ritual*: used for increasing courage.

**ol-típilíkwa** pl. **il-típilíkwani** [P] No use known.

**ol-tirkish** *Albizzia* sp. [M] MERKER: *Material*: for clubs and spear handles.

**ol-tóngai** pl. **il-tóngá** [P] *Food*: fruit eaten.

**ol-tulét** pl. **íl-tuléti** [P] *Material*: its fruit used as gourds.

**ol-tumároi** pl. **íl-tumáro** [P] Found in Bagamoyo District. *Material*: used for preparing sword sheaths.

**ol-túngui** pl. **il-túngu** [P] *Food*: fruit eaten.

**ol-tungwi** *Harrisonia abyssinica* [M] HOLLIS: *Medicine*: for inducing vomiting.

**enk-uhúrti** pl. **ink-uhúrtin** [P] *Food*: roots used in **ol-púl** for quenching thirst. *Forage*: leaves eaten by cattle.

**ol-upande** (**orupande**) *Commiphora* sp. [P] [M] Found in Handeni District. *Ritual*: used in **ol-púl**; people hired to fetch o. because not available in Bagamoyo District. HOLLIS: *Medicine*: used as purgative. D-G: *Commiphora zimmermannii*. *Specification*: up to 70 ft., large leaves. *Material*: Kikuyu use as hedges.

**ol-yalilingi** *Polyscias kikuyuensis* [M] D-G: *Specification*: tree to 80 ft., used for containers and boxes.

**en-yórri** pl. **in-yórritin** (**enk-onyórri**) [P] Found in Arusha Region. *Medicine*: used to increase love between in-laws, a few drops mixed in food and brought to in-laws as a present.



## REFERENCES

- Berlin, B. 1974.  
*Further Notes on Covert Categories and Folk Taxonomies: A Reply to Brown.* **American Anthropologist** 76: 327-29.
- 1976 *The Concept of Rank in Ethnobotanical Classification: Some Evidence from Aguaruna Folk Botany.* **American Ethnologist** 3,3: 381-99.
- 1981 *The Concept of Rank in Ethnobiological Classification: Some Evidence from Aguaruna Folk Botany.* In: *Language, Culture, and Cognition. Anthropological Perspectives*, Ronald W. Casson (ed.). New York: MacMillan Publishers.
- Berlin, B., Breedlove, D.E. and Raven, P.H. 1973.  
*General Principles of Classification and Nomenclature in Folk Biology.* **American Anthropologist** 75: 214-242.
- 1974 *Principles of Tzeltal Plant Classification: An Introduction to the Botanical Ethnography of a Mayan-Speaking Community in Highland Chiapas.* New York: Academic Press.
- Brown, C.H. 1974.  
*Unique Beginners and Covert Categories in Folk Biological Taxonomies.* **American Anthropologist** 76: 325-27.
- Bulmer, R. 1974.  
*Folk Biology in the New Guinea Highlands.* **Social Science Information** 13: 9-28.
- Dale, T.R. and Greenway, P.J. 1961.  
*Kenya Trees and Shrubs.* London: Hatchards and Nairobi: Buchanan's Kenya Estate Ltd.
- Harjula, R. 1980.  
*Miran and his Practice. A Study of the Ethno-medical Repertoire of a Tanzanian Herbalist.* London: Tri-Med Books.
- Heine, B. and Brenzinger, M. 1988.  
*Plant Concepts and Plant Use. An Ethnobotanical Survey of the Semi-Arid and Arid Lands of East Africa. Part IV: Plants of the Borana (Ethiopia and Kenya).* Saarbrcken: Verlag Breitenbach Publishers.
- Heine, B. and Heine, I. 1988a.  
*Plant Concepts and Plant Use. An Ethnobotanical Survey of the Semi-Arid and Arid Lands of East Africa. Part I: Plants of the Chamus (Kenya).* Saarbrcken: Verlag Breitenbach Publishers.
- 1988b *Plant Concepts and Plant Use. An Ethnobotanical Survey of the Semi-Arid and Arid Lands of East Africa. Part III: Rendille Plants (Kenya).* Saarbrcken: Verlag Breitenbach Publishers.
- Heine, B. and Knig, C. 1988.  
*Plant Concepts and Plant Use. An Ethnobotanical Survey of the Semi-Arid and Arid Lands of East Africa. Part II: Plants of the So (Uganda).* Saarbrcken: Verlag Breitenbach Publishers.

Heine, B., Heine, I. and Knig, C. 1988.

*Plant Concepts and Plant Use. An Ethnobotanical Survey of the Semi-Arid and Arid Lands of East Africa. Part V: Plants of the Samburu (Kenya).* Saarbrcken: Verlag Breitenbach Publishers.

Hollis, A.C. 1905.

*The Maasai: Their Language and Folklore.* Oxford.

Hunn, E. 1976.

*Toward a Perceptual Model of Folk Biological Classification.* **American Ethnologist** 3: 508-24.

Hurskainen, A. 1984.

*Cattle and Culture. The Structure of a Pastoral Parakuyo Society.* Helsinki: The Finnish Oriental Society.

Kay, P. 1971.

*Taxonomy and Semantic Contrast.* **Language** 47: 866-87.

Kuokka, I. 1983.

Pastoral development strategies in the Bagamoyo District, Tanzania. In: *A Multidisciplinary approach to rural development: the case of Parakuyo Pastoralists*, E. Haapa, A. Hurskainen, I. Kuokka and P. Msolla (eds.) Helsinki.

Merker, M. 1910.

*Die Masai. Ethnographische Monographie eines ostafrikanischen Semitenvolkes*, (2. Auflage). Berlin.

Randall, R.A. 1976.

*How Tall Is a Taxonomic Tree? Some Evidence from Dwarfism.* **American Ethnologist** 3: 543-53.

Slikkerveer, L.J. 1990.

*Plural Medical Systems in the Horn of Africa.* London: Kegan Paul.

Tucker, A.N. and Mpaayei, J.T. ole 1955.

*A Maasai Grammar.* London: Longmans, Green and Co Ltd.