

Full Length Research Paper

Ethnobotanical uses of some plants of two ethnoecological regions of Cameroon

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This paper presents the result of a study on the herbal drugs that are used in two ethnoecological regions of Cameroon, namely littoral and south -west and Sudano-sahelian zones. The data were collected through direct interviews with herbalists, traditional healers and customers between 2006 and 2007 and the popular medicinal plants used to cure several diseases were inventorized. An inventory of 614 plants species belonging to 84 families was prepared along with their local and Latin names. The present study also gave details about the herbal cures of different disorders, based on the information provided by local herbalists or traditional healers. In all, 68% of the plants were used in the two regions to treat more than twenty important diseases.

Key words: Herbal drugs, medicinal plants, ethnoecological zone, Cameroon.

INTRODUCTION

In recent years, the use of plants in traditional medicine has increased the interest in ethno-botanical studies throughout the world. In fact, WHO estimated that 70% of populations from many countries are using traditional or folk medicine to cure various ailments. In Cameroon, traditional medicine is still not organized. That is why its integration into the health system has not being much effective (Nkongmeneck et al., 2007). The conceptual strategy of health envisaged the organization of traditional medicine. For that, a strategic plan was worked out to provide the main trends for the development and the integration of this folk medicine in Cameroon (Anonymous, 2006). The interest in herbal medicine in this country (Cameroon) has progressed parallel to the increased interest in other developed countries. Recently, various studies (Ekole, 1994; Dikanda, 2000; Yomi, 2001; Jiofack et al., 2007; Nkongmeneck, 2007; Thornell and Sandberg, 2007) have been conducted to prevent folk

medicine from disappearing. The total consideration of this medicine and their integration in the national strategic plan of traditional medicine in this country can be noted (Anonymous, 2006).

For centuries, people have been using herbal medicine for the treatment of some daily diseases. The Sudano-sahelian and south west regions are two of the centres of the Cameroon ethnoecological region with rich plant diversity (Nkuinkeu, 1998; Mapongmetsem, 2007). Accordingly, the traditional herbal medicines are important to the life of the people. In these areas, con-tagious diseases, cardiovascular disorders and cancer were investigated (Nkuinkeu et al., 2007). The aims of this research were to focus on the kinds of medical diversity found in the two herbal regions, the frequency of usage of the plants and thus, to show the different treatment types that are applied in each region. This study is not considered to be the first survey stating the herbal drugs in Cameroon, but is focusing on these two rich zones, characterized by a several conspicuous diseases, such as malaria, male and female sexual diseases, sexually transmitted diseases (STD), typhoid, anaemia and dysentery which are the most important

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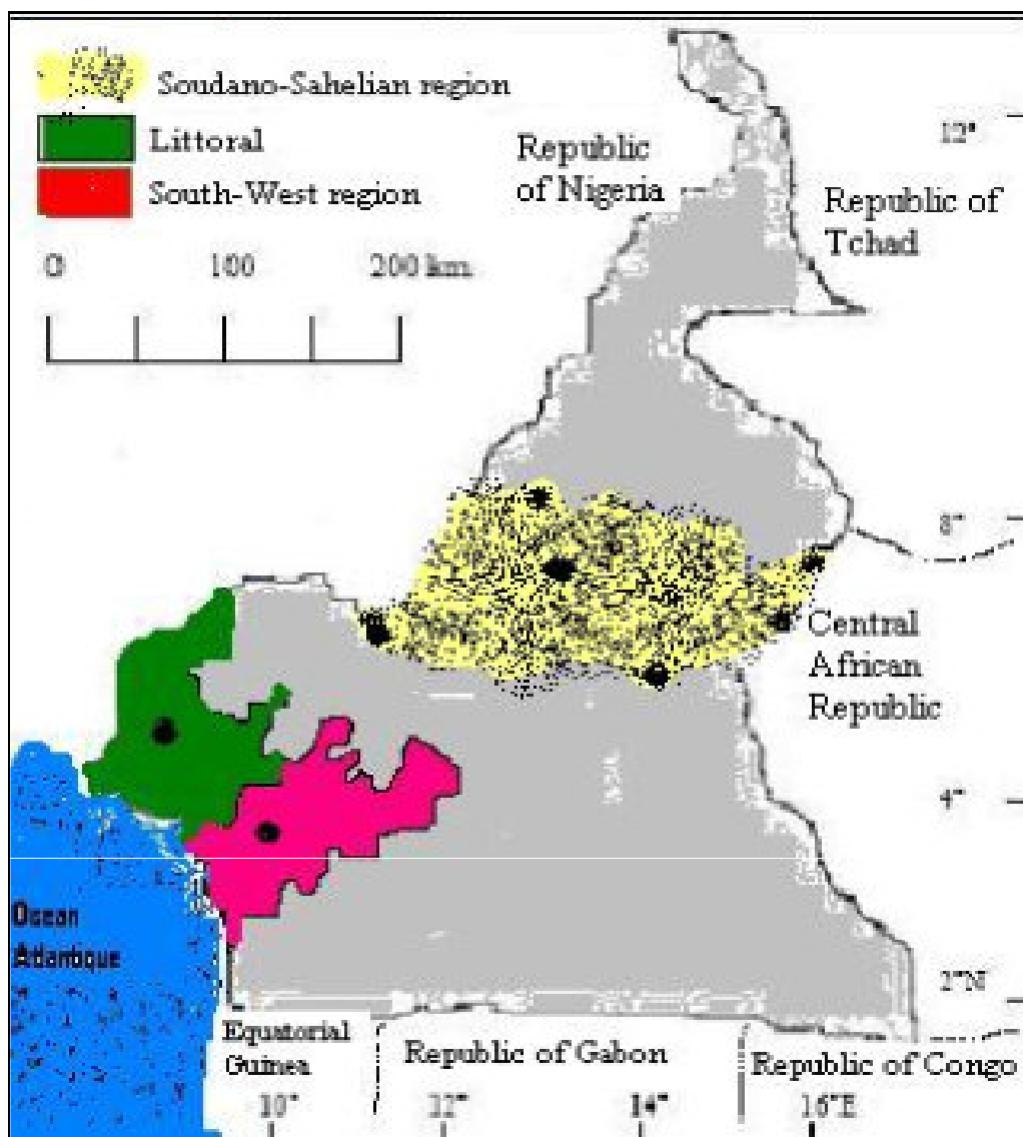


Figure 1. The research areas.

sources of mortality in these regions of Cameroon.

METHODS

The present study was carried out in two ethno-ecological regions of Cameroon, namely the littoral and south west region and the sudano-sahelian ethnoecological region (Figure 1). The littoral region is characterized by cool climate with temperature ranging between 12 - 28°C, while the sudano-sahelian region is a savannah region, characterized by hot climate with temperature varying between 25 - 38°C. More than 70 traditional healers were interviewed in the two regions. The plants listed in the appendix were collected from 10 villages and 4 herbal markets of these two regions. In the littoral region, dominant species sold in the markets were: *Azadirachta indica*, *Baillonella toxisperma*, *Dosternia mannii*, *Enantia chlorantha*, *Garcinia cola*, *Garcinia lucida*, *Newbouldia laevis*, *Pausinystalia johimbe* and *Prunus africana* (Nkuinkeu et al.,

2007), while in the sudano sahelian region, common species were *Afzelia africana*, *Carissa edulis*, *Chrysanthellum americanum*, *Crinum spp.*, *Vernonia guineense*, *Nauclea vandergouchii* and *Nauclea latifolia* (Mapongmetsem, 2007). The medicinal plants were harvested from places such as open areas, gallery forest, savannah bush, mangroves, farmlands and roadsides. The plant materials were used as dried bunches in open or pre-packed mixtures or as fresh preparations. Consumers generally boil these plants, make them into ointments or mix them with other plants depending on their intended use. The information about herbal medicine is gathered from at least two sources. The first source is the old traditional medicine or oral folklore that is passed on from one generation to the next and the second source is scientific research books or herbal books which are sold in bookstores.

During the period of survey, almost all traditional healers in the research area were supposed to be interviewed. The fresh plants and dried samples that were harvested from various localities have been cross-examined with reference books (Letouzey, 1983, 1986; Adjanohoun et al., 1996; Wilks et Issembé, 2000). The data were

collected through direct interviews with herbalists, traditional healers, old peoples and consumers. During the survey, the market herbal plants were also listed. The popular medicinal herbs used for treatments are characterized by an asterisk, to be less used (*), fair (**) and more (***) . A total number of sample plants inventoried are listed in appendix by their local and Latin names, treatment rates, pathology, the mode of preparation, parts used and by the therapeutic indication according to the world health organization (Anonymous, 2006). Voucher specimens, in duplicates were deposited in the Ecologic Museum of Cameroon and the Botany and Ecology laboratory of University of Yaoundé I.

RESULTS

The present study enabled the preparation of an inventory of 614 plants species belonging to 84 families (Table 1). The numbered plants were commonly used to treat more than 225 pathologies or therapeutics indications. Among them, 34 species were sold by herbalists and recommended by main traditional healers to cure 54 local pathologies (Table 2).

The 20 more and recurrent diseases include typhoid, male sexual diseases, malaria, gonococci, gastritis, rheumatism, gastralgia, fever, dysentery, diarrhoea, dermatitis, boils, cough, wounds, syphilis, cyst, sterility in women, sexually transmittable diseases, ovarian cyst and amoebiasis, as showed in (Table 3). 205 plants were used to cure these twenty diseases named above, thus 106 (62%) and 99 (68%) were investigated, respectively, in the sudano-sahelian and Littoral and South-West ethnoecological zones. 68% of the plants inventoried were use in both regions to treat more than twenty important diseases. Approximately 22 and 12 traditional healers, 45 and 28 old peoples and peasants, 12 and 7 sellers were interviewed, respectively, in the south west and sudano-sahelian regions. The comparison of results was based on 12 therapeutic indications and distribution pattern (Table 4 and Figure 2).

The final recommendation suggested by traditional healers is the use of 2 to 3 months long phytotherapy with *Aloe vera*, *Lippia multiflora*, *Ocimum basilicum* and *P. africana* to clean up primarily the body and prevent the collapse of immune system while using subsequent medical therapy. Ranges from 7 – 33 species listed in this study have also been documented by several other researchers in a number of other countries (Thornell and Sandberg, 2007). In addition, about 30 plants in the list were declared in the synopsis of the WHO monographs on medicinal plants of Cameroon (Nkongmeneck et al., unpublished). According to the plant of sudano-sahelian region, 92 of them are used to treat single pathology, while 24 are used in the treatment of two pathologies. Plants used thrice in the treatment were *Bridelia ferruginea* to treat arthritis, snake bite and lumbago; *Gardenia triangacantha* for (lumbago, rate and cough); *Hibiscus sabdarifa* for (amoebiasis, sexual transmitted diseases and anaemia); *Khaya senegalensis* for (rheumatism, arthritis and elephantiasis); *Piliostigma*

thonningii for (male sexual impotence, sterility in women and malaria); *Tamarindus indica* for (sterility n women, dysmenorrhoea and amoebiasis); *Vitellaria paradoxa* for (worms, ulcers and diarrhoea) and *Ximenia Americana* for (dysentery, fibroids and sleep diseases). Three of these plants are used in the treatment of four pathologies, especially *Protea eliotii*, used to treat carious teeth, haemorrhoids, sores and eyes worm diseases, *Hymenocardia acida* for threatened abortion, typhoid, fibroids and male sexual impotence, and *Crossopterix febrifuga* for sterility in women, syphilis, ovarian cyst and threatened abortion;. *Securidaca longepedunculata* is used to treat five pathologies especially, rheumatism, bronchitis, snake bite, gonococci and ovarian cyst. This last plant is widely used in this part of the country due to their several uses. Except plants used in the northern part of the country, those from the littoral and south-west ethnoecological region have their own particularity.

Therefore, 43 of them are used singly in medicine, 60 others have, respectively, two and three usefulness. Apart from these, sixteen plants were used in the treatment of four pathologies. They were *Aframomum melegueta*, *Ageratum conizoides*, *Aloe vera*, *Anthocleista vogelii*, *A. indica*, *Cassia occidentalis*, *Laportea aestuans*, *Laportea ovalifolia*, *Piper umbellatum*, *Stachytarpheta angustifolia*, *Tapinanthus globiferus*, *Taraxacum officinale*, *Uvariodendron connivens* and *Vernonia amygdalina*. Still in this region, 5 different plants were used in the treatment of six pathologies, such as *Alstonia boonei* which is used to treat malaria, worms, fracture, lactation failure, chest pains and diarrhoea; *Bryophyllum pinnatum* for antiseptics, eye and ear infections, boils, abscess, headache and cough; *Ceiba pentandra* used to treat AIDS, chest pains, purgative, heart palpitations, diabetes and gastritis; *G. kola* and *G. lucida* used to treat cough, gastritis, stimulation, gastroenteritis, speed lactation, sleeping sickness and indigestion, flatulence, stimulation, diarrhoea, gastritis and gastralgia. Concerning these five last plants, they are widely used in this part of the region and a part of the *B. pinnatum* which is ruderal, the four others are forest plants and their barks are extremely exploited and sold in and out of the country, except *G. kola* whose fruits are used in medicine because of their high flavonoids rate contents, as well as the plant bark's. These results were also reported by many researchers (Mapongmetsem, 2007; Nkuinkeu et al., 2007; Cox, 1991 and Tongo et Ekwalla, 2003).

From the list used in this study, taxa containing exotic species (*Alium cepa*, *A. indica*, *B. pinnatum*, *Caladium bicolour*, *Capsicum frutescens*, *Chromolaena odorata*, *Carica papaya*, *C. occidentalis*, *Cassia alata*, *Cymbopogon cytratus*, *Lantana camara*, *Mangifera indica*, *Ocimum gratissimum*, *Ricinus communis*, *Zingiber officinale*, *Acacia nilotica*, *Arachis hypogaea*, *H. sabdariffa*, *Psidium guajava*, *Cinnamomum verum* *T. officinale*, *Solanum melongena*, *Panax sp*, *Origanum marjorana*, *Mentha piperita*, *Valeriana officinalis*, *Corchorius olitorius*)

Table 1. Check-list of medicinal plants inventoried in the Sudano-sahelian and South-west ethnoecological regions of Cameroon (SW = South-West and Littoral; SS = Sudano-sahelian region).

| Scientific names of plants | Families | Vernacular names | Diseases | Parts used | Mode of preparation | Useful frequency | Region |
|------------------------------|-----------------|--|---|---------------------------------------|-----------------------------------|------------------|--------|
| <i>Abrus precatorius</i> | Fabaceae | Disola wombe (Douala) | Cough, catarrh | Fruit, leaves | Decoction, infusion | * | SW |
| <i>Acacia nilotica</i> | Mimosaceae | Gabde(fd) | Gonococci | roots bark | Decoction | *** | SS |
| <i>Acacia polyacantha</i> | Mimosaceae | | fibroids, gonococci | stem bark | Maceration | ** | SS |
| <i>Acalifa</i> sp. | Euphorbiaceae | | toothache, fever, dermatitis | Leaves | Decoction | ** | SW |
| <i>Acanthus montanus</i> | Acanthaceae | Pears testle: Mecholechine (Bakossi) | Abdominal pains, boils, abscess | Leaves | Decoction | *** | SW |
| <i>Acmella caurlirhiza</i> | Asteraceae | Medmekube (Bakossi) | Typhoid, boils, toothache | Fruits | Maceration | ** | SW |
| <i>Adansonia digitata</i> | Bombacaceae | Bolo (fd) | filariasis | Exocarp | Powder | *** | SS |
| <i>Aframomum limbatum</i> | Zingiberaceae | Litondo-tondo (Bakweri) | Wounds | Fruit, leaves | Plasters | ** | SW |
| <i>Aframomum melegueta</i> | Zingiberaceae | Alligator pepper; Ketchou (Bangante) Ndôñ (Bassa) Ndondo'a Mounda (Douala) | Magnifies the uses of other medicines, typhoid, infected wound, stimulant, amoebiasis | Seeds, leaves, rhizome, fruits, roots | Decoction, powder | *** | SW, SS |
| <i>Afzelia africana</i> | Caesalpiniaceae | Pectohi (fd) | Pharyngitis | seeds | Calcinations and squeeze in water | ** | SS |
| <i>Afzelia bipindensis</i> | Caesalpiniaceae | Boking (Douala); Noempa (Bassa) | Heart ache, ear ache | Bark | Decoction | *** | SW |
| <i>Agelanthus djurensis</i> | Loranthaceae | African mistle toe | Menopause, cancer, fibroids | Leaves | Decoction | ** | SW |
| <i>Ageratum conyzoides</i> | Asteraceae | King grass, libolikane (Mbo), Ewuda nyo na nyo | Headache, night poison, quick delivery, gastritis | Leaves | Decoction | *** | SW |
| <i>Albizia adianthifolia</i> | Mimosaceae | Barzain (boum) | sterility in women | Leaves, bark and roots | Decoction | *** | SS |
| <i>Albizia zygia</i> | Caesalpiniaceae | Esaka (Bakweri) | Boils, diarrhoea, fracture | Stem, leaves | Decoction | ** | SW |
| <i>Alchornea cordifolia</i> | Euphorbiaceae | Dibobonji (Douala), Mokumbukumbu (Oroko) | Toothache, ear ache, excess amniotic fluid | Stem, bark | Decoction | ** | SW |
| <i>Alchornea floribunda</i> | Euphorbiaceae | Jondi-nga (Bakweri) | Anaemia, lumbago, arthritis, hernia, oedema | Stem, leaves | Maceration | ** | SW |
| <i>Allium cepa</i> | Liliaceae | Onion | Sexual weakness, rheumatism | Rhizome | Decoction | *** | SW |

Table 1. Contd.

| | | | | | | | |
|-------------------------------------|--------------|---------------------------------|---|-------------------|-------------------------|-----|----|
| <i>Allium sativum</i> | Liliaceae | Garlic | Hypertension | Rhizome | Decoction | *** | SW |
| <i>Allophylus africanus</i> | Sapindaceae | | sores | leaves | Powder | * | SS |
| <i>Aloe Vera</i> | Liliaceae | Aloe; Achang de-chiog (Bakossi) | Malaria, wounds, dermatitis, poisoning | Leaves | Decoction | *** | SW |
| <i>Aloes</i> spp. | Liliaceae | | ovarian cyst | leaves | Maceration, Infusion | ** | SS |
| <i>Alsodeiopsis weissenborniana</i> | Icacinaceae | Isangi (Bakweri) | Venereal diseases, headache, fever | Leaves | Infusion | *** | SW |
| <i>Alstonia boonei</i> | Apocynaceae | Wokuka (Bakweri) | Malaria, fracture, worms, lactation failure, chest pains, diarrhoea | Bark, leaves | latex, Decoction | *** | SW |
| <i>Amblygonocarpus andongensis</i> | Mimosaceae | Kassi (Mboum), Yake (Fd) | Hypertension | seeds | Boiling | * | SS |
| <i>Amorphophallus</i> sp. | Araceae | Si'i (dii) | Male sexual impotence | Whole plant | Cooking young cock with | ** | SS |
| <i>Ampelocissus africana</i> | Vitaceae | | dysmenorrhoea | Roots | Decoction | ** | SS |
| <i>Annona senegalensis</i> | Annonaceae | Doukouhi (fd) | Gastritis, snake bite, male sexual impotence | Roots | Decoction | *** | SS |
| <i>Anogeissus leiocarpus</i> | Combretaceae | Cojoli (fd) | Amoebiasis | Stem bark | Powder | * | SS |
| <i>Anthocleista vogelii</i> | Loganiaceae | Ekoka ngowa (Bakweri) | Diabetes, wounds, inflammations, venereal diseases | Stem bark, leaves | Decoction | ** | SW |
| <i>Arachis hypogea</i> | Fabaceae | Birigi(fd) | cyst | seeds | Cooking | *** | SS |
| <i>Artemisia annua</i> | Asteraceae | Mugwart | Malaria, fatigue | Leaves, stem | Infusion | * | SW |
| <i>Artocarpus altilis</i> | Moraceae | Bale (Bakweri) | Malaria, typhoid, haemorrhoids | Fruits | Decoction | ** | SW |
| <i>Asparagus africana</i> | Liliaceae | | oedema | leaves | Decoction | * | SS |
| <i>Aspilia africana</i> | Asteraceae | Bwassa (Bakweri) | Fever, worms, backage | Leaves, stem | Decoction | *** | SW |
| <i>Asystasia gangetica</i> | Asteraceae | Esume choug (Bakossi) | Vomiting | Whole plant | Decoction | *** | SW |

Table 1. Contd.

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|---------------------------------|----------------|--|--|-----------------------|-----------------------|-----|----|
| <i>Azadirachta indica</i> | Meliaceae | Dogoyer ; Neem | Malaria, mosquito repellent, typhoid, intestinal worms, diabetes | Seeds, leaves, bark | Decoction | *** | SW |
| <i>Baillonella toxicisperma</i> | Sapotaceae | Njabe (Oroko) | Related to child birth, rheumatism | Fruit, bark | Decoction | *** | SW |
| <i>Balanites aegyptiaca</i> | Balanicaceae | Tanni (fd) | Goitre | ribs fruits | Decoction | ** | SS |
| <i>Begonia sp</i> | Begoniaceae | Njabe (Oroko) | Night poison | Fruit, bark | Decoction | * | SW |
| <i>Bidens sp</i> | Asteraceae | Black jack; Kodekode (Bakossi) | Periodic malaria fever | Leaves, branches | Decoction | *** | SW |
| <i>Biophytum sp</i> | Oxallidaceae | Life plant Chual (Bakossi) | cough | Fruit leaves, bark | , decoction | ** | SW |
| <i>Boswellia dalzielii</i> | Burseraceae | | Syphilis | roots bark | Decoction | * | SS |
| <i>Bridelia ferruginea</i> | Euphorbiaceae | Bouroubouhi (fd) | arthritis, snake bite, lumbago | roots | Decoction | ** | SS |
| <i>Bridelia micrantha</i> | Euphorbiaceae | Bwango (Bakweri) | Dermatitis, conjunctivitis, rheumatism | Whole plant | Powder | ** | SW |
| <i>Bryophyllum pinnatum</i> | Crassulaceae | Yoka (Oroko), Elua-lua (Bakweri) | Antiseptics, ear infections, boils, abscess, headache, cough | Leaves, and eye roots | Maceration | ** | SW |
| <i>Burkea africana</i> | Euphorbiaceae | Hyim (dii) | male sexual impotence, gonococci | roots | Chew directly | * | SS |
| <i>Caladium bicolor</i> | Araceae | Dinde la bedimo (Douala) | Vaginal inflammation | Leaves, tuber | Decoction | * | SW |
| <i>Calotropis procera</i> | Asclepiadaceae | | scabies | Roots bark | powder mixed with oil | * | SS |
| <i>Canarium schweinfurthii</i> | Burseraceae | Bush plum; Libel (Bakoko); Wotwa (Bakweri); Héhé (Bassa); Sao eyidi (Douala) | Gastritis, asthma, dermatitis | Leaves, bark, rhizome | Decoction | *** | SW |
| <i>Capsicum frutescens</i> | Solanaceae | African bird pepper | Purgative, enhancer of other herbs, blood circulation, | Fruits | Decoction | ** | SW |
| <i>Carapa procera</i> | Meliaceae | Hom (Bassa) | Rheumatism | Fruits | Decoction | ** | SW |
| <i>Carica papaya</i> | Caricaceae | Pawpaw; Pawpe (Bakossi) | Hypertension, malaria, worm expeller | Whole plant | Decoction | *** | SW |

Table 1. Contd.

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|----------------------------------|-----------------|--|--|---------------------------|-----------|-----|----|
| <i>Cassia accidentalis</i> | Caesalpiniaceae | Wonda bedimo (Douala) | Fever, typhoid, laxative, malaria | Seeds, leafy stem | Decoction | ** | SW |
| <i>Cassia alata</i> | Caesalpiniaceae | Ringworm bush Tasba (fd) | Expels worms, eyes worm diseases, fever, fast delivery, yellow fever, haemorrhoids | Leaves, roots | Decoction | *** | SW |
| <i>Ceiba pentandra</i> | Bombacaceae | Boma stick, Nbeum(Mbo); Njobwele(Bakossi); Djôm (Bassa) Bouma, Boumba (Douala) | AIDS, chest pains, purgative, heart palpitations, diabetes, gastritis | Bark, leaves, roots | Decoction | *** | SW |
| <i>Centella asiatica</i> | Apiaceae | Ehiog (Bakossi) | Vomiting, appendicitis cyst | Whole plant | Decoction | ** | SW |
| <i>Cerathoca sesamoïdes</i> | Cerathraceae | Gouboudou (fd) | | whole plant | cooking | * | SS |
| <i>Chlerodendrum scandens</i> | Verbenaceae | Musono mundene (Douala) | Convulsion | Leafy stem | Decoction | * | SW |
| <i>Chromolaena odorata</i> | Asteraceae | Acha-casarra | Fresh wounds | Leaves, sap | Plasters | ** | SW |
| <i>Chrysanthellum americanum</i> | Asteraceae | | hepatitis, renal lithiasis | aerial parts | Infusion | ** | SS |
| <i>Cinnamomum verum</i> | Lauraceae | Cinnamon | Cough | Bark | Decoction | * | SW |
| <i>Cissus spp.</i> | Vitaceae | Gadal (fd) | menstrual disorders | roots | Decoction | ** | SS |
| <i>Citrus medica</i> | Rutaceae | Lime, lamassi (Bangangte) | filarisis, kidney inflammation, rheumatism | Fruits | Decoction | *** | SW |
| <i>Clausena anisata</i> | Rutaceae | Jumba (Bakweri) | Gastroenteritis | Leaves | Decoction | ** | SW |
| <i>Cleome ciliata</i> | Capparaceae | Mbango (Douala) | Irregular menstrual cycle, breast infections, heart ache | stem Leafy stem | Decoction | *** | SW |
| <i>Coffea robusta</i> | Rubiaceae | Coffee | Change of sex at child birth | Flower | Decoction | ** | SW |
| <i>Cola nitida</i> | Sterculiaceae | Bush cola; Bobe (Bafaw); Ebeu (Bakossi); Mbanga (Bakweri) Garo (Bassa) | Stimulant, worm expeller, gastritis, rheumatism, chest pains | Seed, leaves, bark, roots | Eating | *** | SW |
| <i>Combretum sp.</i> | Combretaceae | | Male sexual impotence | roots bark | Powder | * | SS |
| <i>Commelina benghalensis</i> | Asteraceae | Keyoum (Bikom); Nkoleke (Bakossi) | Ease child birth, ring worms, typhoid, blood clotting, headache | Whole plant | Decoction | ** | SW |

Table 1. Contd

| | | | | | | | |
|-------------------------------|-----------------|---|---|------------------------|---------------------------------|--------|----|
| <i>Corchorus olitorius</i> | Tiliaceae | Hausa kene-kene | Childbirth | Leaves | Infusion | ** | SW |
| <i>Cordia</i> sp. | Boraginaceae | Kolkolahi (fd) | Gonococci, ovarian cyst | Roots bark | Decoction | * | SS |
| <i>Costus afer</i> | Zingiberaceae | Mwandando (Douala) | Conjunctivitis, cough | Leafy stem | Decoction | *** | SW |
| <i>Coula edulis</i> | Olacaceae | Kombea (Bakweri); Omöl (Bassa); Voula (Douala); Bokoumia (Bakundu) Koumoum (Bakoko) | Rheumatism, dermatitis | Fruits | Eating | ** | SW |
| <i>Crinum purpurascens</i> | Amarylidaceae | Linde-la-nganga (Bakweri) | Wounds, dysentery, piles | Tuber | Powder | * | SW |
| <i>Crinum</i> sp2. | Boraginaceae | | Male sexual impotence | whole plant | Cooking sheep meat | with * | SS |
| <i>Crossopteryx febrifuga</i> | Rubiaceae | Golombi (fd) | Sterility in women, ovarian cyst, threatened abortion, sterility in women, syphilis | Fruits, bark | Powder, maceration | *** | SS |
| <i>Crotalaria</i> sp. | Fabaceae | | Gastritis | Roots | Powder | * | SS |
| <i>Croton longiracemosus</i> | Euphorbiaceae | Bwasaso | Measles, gastritis, dermatitis | Seed and leaves | Decoction | ** | SW |
| <i>Crudia senegalensis</i> | Caesalpiniaceae | Enunmba Njou (Douala) | Ear ache, antiseptics | Leaves | Decoction | ** | SW |
| <i>Cucurbita maxima</i> | Cucurbitaceae | melon, monga (Banen) | Aphrodisiac, sexual stimulant | Leaves | Decoction | * | SW |
| <i>Curcumis</i> sp. | Cucurbitaceae | | cyst | Seeds | Cooking | * | SS |
| <i>Cussonia barteri</i> | Araliaceae | | Gonococci | Roots bark | Decoction | ** | SS |
| <i>Cymbopogon citratus</i> | Poaceae | Fever grass; Mehang metea (Bakossi) | Malaria, typhoid, cough, fever | Leaves | Decoction | *** | SW |
| <i>Cynodon dactylon</i> | Poaceae | Bahama grass; Semeshm (Bakossi), Nzezong (Bakossi) | Dizziness, hypertension, rib pains | Leaves, bark, roots | Decoction | ** | SW |
| <i>Cyperus</i> sp1. | Cyperaceae | | Ovarian cyst, sterility in women | whole plant | Decoction | * | SS |
| <i>Cyperus</i> sp2. | Cyperaceae | | Sterility in women | Roots | Cooking with groundnut paste | * | SS |
| <i>Dacryodes edulis</i> | Poaceae | African plum; Sao (Bakweri) Sas (Bakoko) Sah (Bassa) | Snake bite | Leaves | Plasters | ** | SW |
| <i>Daniellia oliveri</i> | Caesalpiniaceae | Karlahi(fd) | wounds, generalised pains | stem bark | Powder | ** | SS |
| <i>Desmodium</i> sp | Fabaceae | Clover; Pee-mbodeh (Bakossi) | Dysentery, piles | Stem, leaves | Decoction | * | SW |
| <i>Detarium microcarpum</i> | Caesalpiniaceae | Konkehi (fd) | scabies | roots bark | Powder | * | SS |

Table 1. Contd.

| | | | | | | | | |
|-----------------------------------|-----------------|-----------------------------------|--|---------------------|---------------------|-----------|----|----|
| <i>Dichrocephala integrifolia</i> | Asteraceae | Esysio-mboug (Bakossi) | Eyes diseases, conjunctivitis | worm | Stem, leaves | Decoction | ** | SW |
| <i>Dichrostachys glomerata</i> | Mimosaceae | | cyst | Seeds | Cooking | * | SS | |
| <i>Dioscorea bulbifera</i> | Dioscoreaceae | Haap (dii) | Bite, poisoning | Roots, bulbs | Decoction, Powder | * | SS | |
| <i>Diospyros sp</i> | Ebenaceae | Ebony, lamedjem (Mbo) | Madness | Roots | Decoction | *** | SW | |
| <i>Dissotis rotundiflora</i> | Melastomataceae | Ewuda wanga (Douala) | Cough, dysentery, conjunctivitis, enteritis, catarrh | Leafy stem | Decoction | *** | SW | |
| <i>Dorstenia sp</i> | Moraceae | Manpower; Eseh-emuseh (Bakossi) | Aphrodisiac, sexual stimulant | Root | Eating | ** | SW | |
| <i>Drynaria cordata</i> | Polypodiaceae | Chick weed; Echim-ekede (Bakossi) | Malaria, diabetes | Leaves, root | Decoction | *** | SW | |
| <i>Ekebergia senegalensis</i> | Meliaceae | Yongodack (dii) | ovarian cyst | bark | Maceration | * | SS | |
| <i>Elaeis guineensis</i> | Arecaceae | Oil palm | Syphilis, gonorrhoea | Young palm leaves | Decoction | ** | SW | |
| <i>Eleusine indica</i> | Poaceae | Sinsin (Douala) | wound dressing, cough, fatigue | Whole plant | Decoction | * | SW | |
| <i>Elytraria marginata</i> | Acanthaceae | Mondo ma ngule (Douala) | Wounds | leaves | Powder | * | SW | |
| <i>Emilia coccinea</i> | Asteraceae | Emilia | gastritis, ear ache, convulsion | Leaves | Decoction | *** | SW | |
| <i>Enantia chlorantha</i> | Asteraceae | Yellow kanda | Malaria | Bark | Decoction | *** | SW | |
| <i>Entada africana</i> | Mimosaceae | Faddewadou(fd) | Dysentery, sexual impotence | male Bark | Sitzbath, Decoction | ** | SS | |
| <i>Entandrophragma angolense</i> | Meliaceae | Mahogany (boa) | Diarrhoea, bellyache | bark | Decoction | ** | SW | |
| <i>Eremomastax speciosa</i> | Acanthaceae | Dibokuboku di mole (Douala) | generalised pains, dermatitis | Leaves | Decoction | *** | SW | |
| <i>Eryngium foetidum</i> | Apiaceae | Camwood | abscess, boils | Leaves | Plasters | * | SW | |
| <i>Erythrina excelsa</i> | Fabaceae | Esukusuku (Bakweri) | catarrh, arthritis | Stem, leaves | Decoction | ** | SW | |
| <i>Erythrina sygmoidea</i> | Fabaceae | | diarrhoea, male sexual impotence | Bark | Sitzbath, Decoction | ** | SS | |
| <i>Erythrococca africana</i> | Euphorbiaceae | Kinde (Bakweri) | Gastritis, dysentery | Roots, leaves seeds | Decoction | ** | SW | |
| <i>Eucalyptus Camalelulensis</i> | Myrtaceae | Eucalyptus | Cough, catarrh | Leaves | Decoction | * | SW | |
| <i>Eulophia horsfallii</i> | Orchidaceae | Akwo Ikwog (Bakossi) | Bleeding piles | Stem bark | Decoction | * | SW | |

Table 1. Contd.

| | | | | | | | |
|--|-----------------|--|--|-----------------------------------|---------------------------------|---------|----------|
| <i>Euphorbia hirta</i> | Euphorbiaceae | Ewuda manyongo (Douala) | Diarrhoea, gastritis, diabetes, dysentery Rheumatism, amoebiasis | Whole plant | Decoction | *** | SW |
| <i>Fadogia cienkowskii</i> | Rubiaceae | | male sexual impotence | Stem bark | Powder | * | SS |
| <i>Fagara xanthoxyloides</i> | Rutaceae | Poussolock (fd) | ulcers | Roots bark | Powder mixed with karity butter | ** | SS |
| <i>Ficus exasperata</i> | Moraceae | Joloso (Douala) | Heart ache, ear ache, poisoning | Leaves | Decoction | *** | SW |
| <i>Ficus platyphylla</i> <i>Gambeya africana</i> (<i>Chrysopylum delevoyi</i>) | Moraceae | Tchekehi (fd) Yellow leaf, nzoueh nfu (Bamileke) | dysmenorrhoea Malaria, constipation, typhoid | Stem bark Fruit | Decoction Infusion | * ** | SS SW |
| <i>Garcinia kola</i> | Clusiaceae | Bitter cola; Wè (Bassa); Ebongagnagne (Douala); Nya, ejane (Ejagham) | Cough, gastritis, sleeping sickness, stimulant, gastroenteritis, speed lactation | Bark, seeds, roots | Decoction | *** | SW |
| <i>Garcinia lucida</i> | Clusiaceae | Lanõ (Bassa) | Indigestion, flatulence, stimulant, diarrhoea, gastritis, gastralgia | Bark, seeds, leaves | Decoction | *** | SW |
| <i>Garcinia mannii</i> | Clusiaceae | Chewing stick | gastralgia, malaria, laxation, joint pains, cracks in foot | Fruit, leaves, bark, roots, latex | Decoction | ** | SW |
| <i>Gardenia aqualla</i> | Rubiaceae | Baou (toupouri) | Male sexual impotence | Roots bark | Powder | * | SS |
| <i>Gardenia imperialis</i> | Rubiaceae | Timbaa (dii) | Gonococci, male sexual impotence | Roots bark | Decoction | ** | SS |
| <i>Gardenia triangacantha</i> | Rubiaceae | Bao(toupouri) | Lumbago, rate, cough | Roots | Powder | ** | SS |
| <i>Gnetum africanum</i> | Gnetaceae | Eru | Widlow, ease child birth | Leaves | Decoction | ** | SW |
| <i>Gnidia kraussiana</i> | Thymelaeaceae | | sexual transmitted diseases | roots | Powder | ** | SS |
| <i>Gossypium arboreum</i> | Malvaceae | Cotton leaf | Typhoid | Leaves | Decoction | * | SW |
| <i>Guibourtia tessmannii</i> | Caesalpiniaceae | King stick | Cancer | Bark | Decoction | *** | SW |
| <i>Guiera senegalensis</i> | Thymelaeaceae | | Hypertension | roots bark | Powder | * | SS |

Table 1. Contd.

| | | | | | | | |
|-----------------------------------|-----------------|---|---|-----------------|-------------------------------|--------|-----------|
| <i>Harungana madagascariensis</i> | Hypericaceae | Wotolongo (Bakweri), Bourgal (fd) Tolongo (Douala) | Haemorrhoids, colds, dysmenorrhoea, gonococci, typhoid poisoning, diarrhoea | Bark leaves | Decoction | *** | SW, SS |
| <i>Helianthus annuus</i> | Asteraceae | Sun flower | Piles | Leaves, flowers | Decoction | * | SW |
| <i>Hibiscus rosa-sinensis</i> | Malvaceae | Hibiscus | Diarrhoea, dysentery | Leaves | Decoction | * | SW |
| <i>Hibiscus sabdariffa</i> | Malvaceae | Foléré (fd) | Amoebiasis, anaemia, sexual transmitted diseases | fruits petals | Decoction mixture | and ** | SS |
| <i>Hibiscus surattensis</i> | Malvaceae | Eyema njo (Bakweri) | Palpitation, gastralgia | Leaves, flower | Decoction | ** | SW |
| <i>Hymenocardia acida</i> | Euphorbiaceae | <i>Nde nde (gbaya)</i> Samatahi (fd), Nde nde(gbaya) | threatened abortion, typhoid, fibroids, male sexual impotence | Wood leaves | Coal Decoction | *** | SS, SW |
| <i>Hyphaene thebaica</i> | Arecaceae | Goriba(fd) | Hypertension | Fruits | Eating | * | SS |
| <i>Impatiens sp</i> | Basalminaceae | Morumerume(Oroko) | Infertility, dysmenorrhoea | Stem, Leaves | Decoction | ** | SW |
| <i>Imperata cylindrica</i> | Poaceae | To'o(dii) | gonorrhoea | Roots | Decoction | ** | SS |
| <i>Impomea sp.</i> | Convolvulaceae | Sope-ahente (Bakossi) | Colds | Leaves, | Powder | * | SW |
| <i>Isoberlinia docka</i> | Caesalpiniaceae | | food intoxication | Bark | Decoction | * | SS |
| <i>Jateorhiza macrantha</i> | Menispermaceae | Limoni (Bakweri) | Dysmenorrhoea | Stem | Decoction | * | SW |
| <i>Jatropha curcas</i> | Euphorbiaceae | Big nut | rheumatism dermatitis wounds, syphilis | Stem, sap | Maceration | *** | SW |
| <i>Kalanchoe crenata</i> | Crassulaceae | Edibe dibe (Douala) | Ear painful, Leaves Pneumonia, nose bleeding | | Juice | ** | SS, SW |
| <i>Khaya senegalensis</i> | Meliaceae | Dalehi (fd) | Rheumatism, arthritis, elephantiasis | Seeds | Oil extract | ** | SS |
| <i>Kigelia africana</i> | Bignoniaceae | Motimbilimbi (Bakweri) | Waist pain, Fruit breast infection | | Decoction | *** | SW |
| <i>Laccosperma opacum</i> | Arecaceae | Likokoko (Bakweri) | Rheumatism, cough, fracture | Vines | Decoction | * | SW |
| <i>Lactuca taraxasifolia</i> | Asteraceae | | ovarian cyst | Whole plant | Decoction | * | SS |
| <i>Lannea microcarpa</i> | Anacardiaceae | | Elephantiasis | Stem bark | Powder mixed * with Khaya oil | | SS |
| <i>Lantana camara</i> | Verbenaceae | Mbonja satan (Douala) | Earache, Leafy stem filariasis | | Decoction | ** | SW |

Table 1. Contd.

| | | | | | | | |
|-------------------------------|-----------------|--|---|-----------------------------------|------------|-----|--------|
| <i>Laportea aestuans</i> | Urticaceae | Tatue (Bakweri) | Anaemia, calcium, fibroids, dermatitis | low Leaves, stem, roots | Decoction | ** | SW |
| <i>Laportea ovalifolia</i> | Urticaceae | Tolobanji (Douala) | Poisoning, fontanelles, flatulence, tongue pains | Leafy stem | Decoction | ** | SW |
| <i>Leea guineensis</i> | Leeaceae | Lingala (Bakweri) | abdominal pains, malaria | eaves, stem, seeds, flower leaves | Decoction | ** | SW |
| <i>Leonotis spp</i> | Lamiaceae | Modewart | Dysentery, filariasis, fever | leaves | Decoction | * | SW |
| <i>Lepidium meyenii</i> | Asclepiadaceae | yarro | Rheumatism | leaves | Maceration | ** | SW |
| <i>Leptadenia hastata</i> | | | sexual transmitted diseases, dermatitis, diabetes | roots | Decoction | * | SS |
| <i>Leucaena leucocephala</i> | Caesalpiniaceae | Esum-achad (Bakossi) | Ease conception | leaves, fruits | Decoction | * | SW |
| <i>Lippia multiflora</i> | Verbenaceae | Ebanda jeka (Douala) | Fever, typhoid | leaves | Decoction | ** | SW |
| <i>Lippia rugosa</i> | Verbenaceae | Gossohi(fd) | Rheumatism, typhoid | leaves | Decoction | * | SS |
| <i>Lophira alata</i> | Ochnaceae | Ironwood; mbongossi (Douala) Hos (Bassa); Boko (Balung, Bakundu); Djomgi (Bakweri) | Stops vaginal discharge | bark | Decoction | ** | SW |
| <i>Lophira lanceolata</i> | Ochnaceae | Kofia (Gbaya) | diarrhoea, ovarian cyst | bark | Decoction | * | SS |
| <i>Macaranga occidentalis</i> | Euphorbiaceae | Ewovo (Bakweri) | Stomach wash for pregnant women | Stem, leaves | Decoction | *** | SW |
| <i>Mangifera indica</i> | Anacardiaceae | Mangoro (Douala) Mangro (fd) | Rheumatism Typhoid | bark | Decoction | *** | SW, SS |
| <i>Markhamia lutea</i> | Bignoniaceae | Igwe (Boyo) | Syphilis | leaves | Decoction | ** | SW |
| <i>Maytenus senegalensis</i> | Celastraceae | | oedema | roots | Powder | * | SS |
| <i>Melanthera scandens</i> | Asteraceae | Wakasa wakasa (Douala) | Gastralgia, appendicitis | Leafy stem | Decoction | ** | SW |
| <i>Mentha piperita</i> | Lamiaceae | Mint | Carminative (stomach upset) | leaves | Decoction | * | SW |
| <i>Microglossa sp</i> | Asteraceae | Ekeble (Bakossi) | Enema for babies, gastralgia | Leaves | Decoction | * | SW |
| <i>Milicia excelsa</i> | Moraceae | Iroko | Generalised pains, typhoid, malaria | bark | Decoction | *** | SW |
| <i>Mimosa ruidica</i> | Mimosaceae | Muko iyo musadi (Douala) | Dermatitis, sexual weakness | Leafy stem | Decoction | ** | SW |

Table 1. Contd.

| | | | | | | | |
|------------------------------|---------------|----------------------------|---|---------------------------|------------|-----|----|
| <i>Momordica balsamina</i> | Cucurbitaceae | Ndombondany (Bakweri) | Chest side rashes | pains, Leaves pain, | Decoction | ** | SW |
| <i>Morinda lucida</i> | Rubiaceae | Ewoka (Bakweri) | Stomach wounds | Stem, bark, leaves, roots | Decoction | ** | SW |
| <i>Mormodica charantia</i> | Cucurbitaceae | Nyangala nindene (Douala) | calms contraction pains at birth | Fruit, stem, child | Decoction | ** | SW |
| <i>Mormodica foetida</i> | Cucurbitaceae | Ndume (Bakossi) | threatened abortion, gastralgia | Leaves | Decoction | * | SW |
| <i>Mucuna stans</i> | Fabaceae | | Ovarian cyst | Roots | Decoction | * | SS |
| <i>Musa paradisiaca</i> | Musaceae | Banana | vomiting, gastritis | Leaves | Decoction | ** | SW |
| <i>Musanga cecropioides</i> | Cecropiaceae | Lisengi (Bakweri) | generalised pains, cough | Stem | Decoction | ** | SW |
| <i>Neoboutonia manii</i> | Euphorbiaceae | Ebwebwe(Bakweri) | Wounds, gastritis | Bark, leaves | Decoction | * | SW |
| <i>Nephrolepis biserrata</i> | Davalliaceae | Senja mengu (Douala) | lower abdominal pains | Frond | Decoction | * | SW |
| <i>Nephthytis</i> sp. | Araceae | | cyst | tubers | Maceration | * | SS |
| <i>Nicotiana tabacum</i> | Solanaceae | Tobacco, ndabah (Bamileke) | headache, dermatitis, stimulant | Leaves | Plasters | *** | SW |
| <i>Ochna afzelii</i> | Ochnaceae | | wounds | roots | Decoction | * | SS |
| <i>Ocimum basilicum</i> | Apiaceae | Cotimagine | Delayed menstruation, indigestion, mosquito bites | Leaves, flowers | Decoction | ** | SW |
| <i>Ocimum gratissimum</i> | Apiaceae | Masepu | Gastritis, frontal headache, constipation, conjunctivitis | Leaves, stem, flowers | Decoction | ** | SW |
| <i>Olax</i> sp. | Olacaceae | | ovarian cyst | whole plant | Decoction | * | SS |
| <i>Origanum majorana</i> | | Majolene | Stress, colds | Leaves | Fumigation | * | SW |
| <i>Palisota hirsuta</i> | Commelinaceae | Liembemba (Bakweri) | Conjunctivitis, gastralgia, boils | Stem | Decoction | ** | SW |
| <i>Panax</i> sp | Panaceae | Ginseng | Epilepsy, irregular menstrual cycle | Roots | Maceration | *** | SW |
| <i>Parkia biglobosa</i> | Mimosaceae | Nounouhi (fd) | Ascariasis, syphilis | Leaves | Decoction | ** | SS |
| <i>Paullinia pinnata</i> | Sapindaceae | | Rheumatism | Leaves | Decoction | *** | SS |
| <i>Pausinystalia johimbe</i> | Rubiaceae | Yohimbe | Constipation, stimulant, sexual weakness | Bark | Maceration | *** | SW |

Table 1. Contd.

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|---------------------------------|-----------------|--|--|---------------------------|----------------------------|-------------|--------|----|
| <i>Pennisetum purpureum</i> | Poaceae | Elephant grass, likoko (Bakweri), sison (Baba 1) | Epilepsy | Leaves, stem | Maceration | * | SW | |
| <i>Pennisetum</i> sp. | Poaceae | To'o (gbaya) | Syphilis | Rhizomes | Maceration | * | SS | |
| <i>Pentaclethra macrophylla</i> | Mimosaceae | | Cardio-vascular disease, gonorrhoea | Fruit | Maceration | ** | SW | |
| <i>Persea americana</i> | Lauraceae | Avocado (pear) | antihelminthic | Bark, leaves | Maceration | *** | SW | |
| <i>Phyllanthus muellerianus</i> | Euphorbiaceae | Tidui (gbaya) | Rheumatism, gonococci | leaves | Decoction | ** | SS | |
| <i>Piliostigma thonningii</i> | Caesalpiniaceae | Barkehi (fd) | male sexual impotence, sterility in women, malaria | Stem bark | Powder | ** | SS | |
| <i>Piper guineensis</i> | Piperaceae | Bush pepper; Ndong (Bakossi); Idoko (Bakweri); Lobo (Douala); Lobé (Malimba) | Cough, stimulant, enema | Whole plant | Maceration | *** | SW | |
| <i>Piper umbellatum</i> | Piperaceae | Ekongo (Oroko), Dibakuboku la wonja (Douala) | Change at child birth, piles, infection, birth pains | of sex birth, breast calm | Flower, leaves | Decoction | *** | SW |
| <i>Plectranthus decurrens</i> | Lamiaceae | Etangloh (Bakossi) | Enema for pregnant women, delivery | pregnant ease | Whole plant | Decoction | ** | SW |
| <i>Plectranthus glandulosus</i> | Lamiaceae | Esosa-maija (Bakweri) | dermatitis, venereal diseases, bellyache | Leaves, sap | Plasters | ** | SW | |
| <i>Portulaca oleracea</i> | Portulacaceae | Nyukutu nyukutu | Frontal headache, poisoning | Leafy stem | Decoction | * | SW | |
| <i>Protea eliotii</i> | Proteaceae | Levrehi (fd) | carious teeth, haemorrhoids, sores, eyes worm diseases | Bark | Decoction mouth Fumigation | in ** bath, | SS | |
| <i>Prunus africana</i> | Rosaceae | Pygeum | Malaria, gastralgia, chest pains, heart burn, madness | Bark | Decoction | *** | SW | |
| <i>Pseudarthria kotschyii</i> | Fabaceae | | scabies, sexual transmitted diseases | Roots bark | Powder | * | SS | |
| <i>Psidium guajava</i> | Myrtaceae | Guava tree | Wounds, diarrhoea Typhoid | Leaves | Plasters Decoction | *** | SW, SS | |
| <i>Psorospermum febrifugum</i> | Hypericaceae | Saiwaki (fd) | Syphilis | Roots bark | Decoction | * | SS | |
| <i>Pterocarpus erinaceus</i> | Fabaceae | | Amoebiasis | Stem bark | Decoction | ** | SS | |

Table 1. Contd.

| | | | | | | | |
|------------------------------------|-----------------|---------------------------------|--|--------------------------------------|------------|-----|----|
| <i>Pterocarpus</i> sp1. | Fabaceae | | Ovarian cyst | Roots | Maceration | * | SS |
| <i>Pycnanthus angolense</i> | Myristicaceae | Esamba (Bakweri) | Fever, toothache | Stem, bark, leaves | Decoction | ** | SW |
| <i>Pycnostachys pallisfusca</i> | Lamiaceae | | Syphilis | roots bark | Decoction | * | SS |
| <i>Rauvolfia vomitoria</i> | Apocynaceae | Abude or nhimpaah (Bakossi) | Typhoid, antihelminthic, heart ache | Leaves | Decoction | *** | SW |
| <i>Rauwolfia macrophylla</i> | Apocynaceae | Kanja (Bakweri) | heart infectious diseases | ache, Bark, roots | Decoction | ** | SW |
| <i>Ricinus communis</i> | Euphorbiaceae | Lingatuma – Bakweri (castor) | Sterility women | in Leaves, stem, roots, fruits | Decoction | ** | SW |
| <i>Rinorea dentata</i> | Violaceae | Lindu (Bakweri) | Headache, diarrhoea | Fruits ,stem | Decoction | * | SW |
| <i>Sclerocarya birrea</i> | Anacardiaceae | Edi (fd) | Dermatitis, diabetes | leaves | Decoction | * | SS |
| <i>Scoparia dulcis</i> | Scropariaceae | Jomboa (Bakweri) | Sores, stroke, measles, sexual weakness | Leaves, branchlets | Maceration | ** | SW |
| <i>Securidaca longepedonculata</i> | Polygalaceae | Alahi (fd) | Rheumatism, bronchitis, snake bite, gonococci, ovarian cyst | leaves, roots | Decoction | *** | SS |
| <i>Selaginella myosurus</i> | Selaginellaceae | Tunda (Douala) | headache | Whole plant | Maceration | * | SW |
| <i>Selaginella vogelii</i> | Selaginellaceae | Abude (Bakossi) | Kidney problems | Whole plant | Maceration | * | SW |
| <i>Senna occidentale</i> | Caesalpiniaceae | Tasba(fd) | Abscess fibroids, threatened abortion | leaves | plasters | ** | SS |
| <i>Senna sanqueana</i> | Caesalpiniaceae | | | Stem bark | Maceration | * | SS |
| <i>Setaria megaphylla</i> | Papilionaceae | Lingongi (Bakweri) | Wounds, eczema | Leaves | Powder | * | SW |
| <i>Sida javanensis</i> | Verbenaceae | Soffo | Ease delivery, Fruit, | leaves | Decoction | * | SW |
| <i>Sida rhombifolia</i> | Malvaceae | Douza (dii) | leucorrhoea | whole plant | Decoction | * | SS |
| <i>Solanecio biafrae</i> | Solanaceae | Kalavanje (Bakweri) | Rheumatism, cough | Leaves | Decoction | ** | SW |
| <i>Solanum gilo</i> | Solanaceae | Nginge nisadi (Douala) | migraine | Whole plant | Decoction | ** | SW |
| <i>Solanum incanum</i> | Solanaceae | Tangalanga (Douala) | poisoning, heart ache, lower abdominal pains | Leaves | Decoction | ** | SW |
| <i>Solanum macrocarpon</i> | Solanaceae | Anchiye | diarrhoea, fever | Leaves | Decoction | * | SW |
| <i>Solanum melongena</i> | Solanaceae | Garden eggs | Waist pain | Fruits, leaves | Decoction | * | SW |

Table 1. Contd.

| | | | | | | | |
|--|-----------------|-------------------------------|--|---------------------------|----------------------------------|---------|----------|
| <i>Solenostemon monostachyus</i> | Lamiaceae | Dimayn (Douala) | Ease child birth, frontal headache cyst | Leafy stem whole plant | Decoction powder | ** * | SW SS |
| <i>Sorghum bicolor</i> | Poaceae | | | | | | |
| <i>Spathodea campanulata</i> | Bignoniaceae | Echib (Bakossi) | Crooked problem | eye Leaves | Decoction | ** | SW |
| <i>Spilantes filicaulis</i> | Asteraceae | Eye for fowl | Poisoning, eczema, cancer Wound dressing, antihelmintic, headache | Whole plant | Decoction | *** | SW |
| <i>Stanfieldiella imperforata</i> | Commelinaceae | Esa koka (Bakweri) | Laxative, fever, cough, toothache | Leaves | Powder | ** | SW |
| <i>Stachytarpheta angustifolia</i> | Verbenaceae | Blue verbena | male | Leaves | Decoction | * | SW |
| <i>Sterospermum kuntianum</i> | Bignoniaceae | Golombi (fd) | sexual impotence, gonococci | Roots bark | Powder | * | SS |
| <i>Strychnos spinosa</i> | Loganiaceae | Moratouta (fd) | male impotence | sexual Bark | Powder | ** | SS |
| <i>Sympitium officinalis</i> | | Confrey | Diabetes, gastritis, rheumatism | Leaves | Decoction | * | SW |
| <i>Syzygium guineense</i> var. <i>macrocarpum</i> | Myrtaceae | Assora (fd), Kelu (gbaya) | male impotence | sexual Roots bark | Powder | * | SS |
| <i>Tamarindus indica</i> | Caesalpiniaceae | Djabbe (fd) | sterility women, dysmenorrhoea, amoebiasis | in Leaves, fruits | Powder | *** | SS |
| <i>Tapinanthus bangwensis</i> sur <i>Boswellia dalzielii</i> | Loranthaceae | Yotéré | snake bite | Leaves and stem | Powder mixed with oil | ** | SS |
| <i>Tapinanthus bangwensis</i> sur <i>Gardenia</i> sp. | Loranthaceae | Yotéré (fd)/ | snake bite | Leaves and stem | Powder mixed with oil | ** | SS |
| <i>Tapinanthus bangwensis</i> sur <i>Tamarindus indica</i> | Loranthaceae | Yotere (fd) /Djabbe | sexual transmitted diseases | Leaves and stem | Powder from plants mixed | 3 *** | SS |
| <i>Tapinanthus globiferus</i> | Loranthaceae | Lisua-la-kote (Bakweri) | Convulsion, diabetes, arthritis, antidote | Leaves, flower | Decoction | *** | SW |
| <i>Tapinanthus</i> sp1./sur <i>Isoberlinia docka</i> | Loranthaceae | | sterility women | in Whole plant | Maceration | * | SS |
| <i>Tapinanthus</i> sp2./sur <i>Piliostigma thonningii</i> | Loranthaceae | Yotere/barkehi (fd) | cyst | Whole plant | Powder | * | SS |
| <i>Tapinanthus</i> sp3. | Loranthaceae | Yotere | cyst | Seeds | Cooking | * | SS |
| <i>Tapinanthus</i> sp4./sur <i>Crossopteryx febrifuga</i> | Loranthaceae | Yotere (fd)/Rhimajoga (fd) | threatened abortion | Whole plant | Make nodes <i>Sida acuata</i> | with * | SS |

Table 1. Contd.

| | | | | | | | |
|---------------------------------|---------------|---|--|----------------|--------------------------|--------|----|
| <i>Taraxacum officinale</i> | Asteraceae | Dandelion | Liver disorders, kidney problems, spleen problems, diuretic | Whole plant | Decoction | *** | SW |
| <i>Telfairia occidentalis</i> | Cucurbitaceae | Okongobong | Typhoid, dermatitis | leaves | Decoction | * | SW |
| <i>Tephrosia</i> sp. | Fabaceae | | menstrual disorders | bark | Maceration | * | SS |
| <i>Terminalia avicennioides</i> | Combretaceae | Gbakoa (gbaya), Koulahi (fd) | sexual transmitted diseases | roots bark | Powder from plants mixed | 3 * | SS |
| <i>Terminalia glaucescens</i> | Combretaceae | Koulahi (fd) | haemorrhoids, diarrhoea | leaves, bark | Sitzbath, Decoction | ** | SS |
| <i>Tetrapleura tetrapteria</i> | Mimosaceae | Esekeseke (Bakweri) | stimulates lactation, convulsion, gastralgia | Fruit, stem | Decoction | *** | SW |
| <i>Thaumatococcus daniellii</i> | Marantaceae | Eteve (Bakweri) | Liver disorders, laxative | Leaves, fruits | Decoction | * | SW |
| <i>Tragia volubilis</i> | Euphorbiaceae | Itambi (Bakweri) | Urethritis, abortion enema, infertility, generalised pains, antimicrobial diseases | Stem, leaves | Decoction | *** | SW |
| <i>Treculia africana</i> | Moraceae | Bwembi (Bakweri); Bofem (Bafaw); Ofino, mfin (Ejagham) | dermatitis | Leaves, bark | Powder | * | SW |
| <i>Trichilia emetica</i> | Meliaceae | | Amoebiasis, sexual transmitted diseases | roots bark | Decoction mixture | and ** | SS |
| <i>Trichilia rubescens</i> | Meliaceae | Eevee (Bakweri) | Antiparasitic diseases, fever, gonorrhoea, enema, antiseptics | Bark, stem | Decoction | *** | SW |
| <i>Triumfetta tomentosa</i> | Tiliaceae | Evanga (Bakweri) | stomach wash after childbirth | leaves | Decoction | * | SW |
| <i>Uapaca</i> spp | Euphorbiaceae | Jososo (Bakweri) | Wounds, diarrhoea | Leaves, stem | , Powder | * | SW |
| <i>Urena lobata</i> | Malvaceae | | wounds | leaves | Powder | * | SS |
| <i>Uvariodendron connivens</i> | Annonaceae | Ekenju (Bakweri) | dermatitis, liver disorders | Fruits, seeds | Decoction | * | SW |
| <i>Uvariodendron connivens</i> | Annonaceae | Ekenju (Bakweri) | bronchial congestion, inflammation of bladder | Fruits, seeds | Decoction | * | SW |

Table 1. Contd.

| <i>Valeriana officinalis</i> | | Valerian | Nervous disorders, epilepsy, hysteria | Leaves | Decoction | ** | SW |
|-------------------------------|---------------|------------------|--|---------------|----------------------------------|------|----|
| <i>Vernonia amygdalina</i> | Asteraceae | Bitter leaf | piles, poor digestion, poisoning, diabetes | Leaves | Decoction | *** | SW |
| <i>Vernonia</i> sp. | Asteraceae | | ovarian cyst | Roots | Infusion | * | SS |
| <i>Vernonia stellullifera</i> | Asteraceae | Efanja (Bakweri) | stops miscarriage, dysentery, tetams | Whole plant | Decoction | ** | SW |
| <i>Vigna unguiculata</i> | Fabaceae | | cyst | seeds | Cooking | * | SS |
| <i>Vitellaria paradoxa</i> | Sapotaceae | Karehi (fd) | worms, ulcers, diarrhoea | bark | Decoction | ** | SS |
| <i>Voacanga africana</i> | Apocynaceae | Voacanga | Treats madness, gonorrhoea | Leaves, seeds | Decoction | *** | SW |
| <i>Voanzou subterana</i> | Fabaceae | | threatened abortion | whole plant | Make nodes of <i>Sida acuata</i> | * | SS |
| <i>Waltheria americana</i> | Olacaceae | Kapapi (fd) | wounds, gonococci | Roots | Decoction powder | of * | SS |
| <i>Ximenia americana</i> | Olacaceae | Mii (gbaya) | Dysentery, fibroids, sleep diseases | Roots | Infusion | *** | SS |
| <i>Zea mays</i> | Fabaceae | Maize | Worm expeller, bladder problems | Seed, silk | Decoction | ** | SW |
| <i>Zingiber officinale</i> | Zingiberaceae | Ginger | rheumatism | Roots | Decoction | *** | SW |
| <i>Ziziphus mucronata</i> | Rhamnaceae | Djaabe (fd) | Bilharziosis | Roots bark | Decoction | * | SS |

represent about 5-10% of the total inventories. These include forest species (21%), sahelian and savannah species (8.42%), some widespread, widely cultivated plants (60%) and several species like *A. conizoides* and *Commelina bengallensis* which are unknown in origin (Letouzey, 1986).

Various herbs could be used to cure the same disease under one common name. Hence to reach the exact and right herb type and to prevent any misunderstanding or misuse of the herbal plants, herbalists and medicinal healers need to know the original Latin names of these herbs and ask accordingly before any purchase. It's clear that the non similarity of climate and environmental conditions (especially in the sudano-sahelian region) can change the biological properties of some plants, as well as the ecosystem or ecology of the plant. This is why a plant such as *A. melongeta* used in the South-west to magnify the use of other medicines, to treat typhoid and infected wounds, is used in the sudano-sahelian region to treat amoebiasis. The same remark is made of *A. indica*

as it being used in the south-west to treat typhoid, intestinal worm and child birth. The leaves are used in the sahelian region to treat diabetes. Another change of properties could be found with *Euphorbia hirta*, *Harungana madagascariensis*, *Jatropha curcas*, *Kalanchoe crenata* and *Psidium guajava*. Table 3 shows clearly that in these two regions, the plants were used mainly for pathologies of the digestive, respiratory, male and female sexual, nervous, musculo-skeletal, skin system disorders, child diseases, eyes and ear pains, snake bite and sexually transmitted diseases.

Conclusion

In conclusion, the comparison of the treatments between these regions, showed a decreased incidence of gastralgia, fever, boils and cough in the sudano-sahelian region and increased incidence of the male sexual diseases, gonococci, sexually transmitted diseases,

Table 2. Plants sold in herbal markets according to the ethnoecological region.

| Plants | SS | SW | Total |
|----------------------------------|----|----|-------|
| <i>Aframomum flavum</i> | - | 1 | 1 |
| <i>Aframomum melegueta</i> | - | 4 | 4 |
| <i>Afzelia africana</i> | 1 | - | 1 |
| <i>Ageratum conyzoides</i> | - | 4 | 4 |
| <i>Alchornea cordifolia</i> | 2 | - | 2 |
| <i>Aloe vera</i> | - | 4 | 4 |
| <i>Azadirachta indica</i> | - | 4 | 4 |
| <i>Baillonella toxisperma</i> | - | 2 | 2 |
| <i>Bersama abyssinica</i> | - | 1 | 1 |
| <i>Carica papaya</i> | - | 3 | 3 |
| <i>Carissa edulis</i> | 1 | - | 1 |
| <i>Cassia alata</i> | - | 5 | 5 |
| <i>Centella asiatica</i> | 2 | - | 2 |
| <i>Chrysanthellum americanum</i> | 3 | - | 3 |
| <i>Crinum spp.</i> | 2 | - | 2 |
| <i>Dosternia mannii</i> | - | 2 | 2 |
| <i>Enantia chorantha</i> | - | 1 | 1 |
| <i>Eremomastax speciosa</i> | - | 2 | 2 |
| <i>Garcinia cola</i> | - | 6 | 6 |
| <i>Garcinia lucida</i> | - | 6 | 6 |
| <i>Lippia multiflora</i> | - | 2 | 2 |
| <i>Nauclea latifolia</i> | 2 | - | 2 |
| <i>Nauclea vandergouchtii</i> | 1 | - | 1 |
| <i>Newbouldia laevis</i> | - | 1 | 1 |
| <i>Ocimum basilicum</i> | - | 3 | 3 |
| <i>Pachypodanthium staudtii</i> | - | 1 | 1 |
| <i>Panax sp</i> | - | 2 | 2 |
| <i>Pausinystalia johimbe</i> | - | 3 | 3 |
| <i>Prunus africana</i> | - | 5 | 5 |
| <i>Pseudospondia microcarp</i> | - | 1 | 1 |
| <i>Pycnanthus angolense</i> | - | 2 | 2 |
| <i>Solanum melongena</i> | - | 1 | 1 |
| <i>Vernonia amygdalina</i> | - | 4 | 4 |
| <i>Vernonia guineense</i> | 1 | - | 1 |

ovarian cyst, amoebiasis, rheumatism and typhoids (Table 3). Contrary to the south-west region, there is an increased incidence of skin problems (dermatitis), cough and malaria that are related to a humid climate and other different environmental conditions due to the proximity of the forest, which can improve the development of pathogens. The percentage of male sexual disorders, gonococci, sexually transmitted diseases and sterility in women of the northern part of the country implies that the increase may also be related to the population with less educational development, ancestral tradition, poverty and social reasons.

The problems of digestive diseases are also recurrent in the two regions. The higher number of plants (126)

used to treat this pathology can be related to the fact that These cities received immigrants from the less developed cities and that they have rather poor hygienic conditions with regard to food and water. The world health report indicated that this problem appeared in less developed countries of the world.

Following the listed results, the fact that the causes of mortality were mostly malaria and related sexual disorders with a low rate of cancer, hypertension and diabetes which are in the list of clinical world diseases was concluded. This fact led to the thought that the herbal/cheap cures for these numbered diseases might have been deliberately exchanged with the chemical/expensive ones, or just carelessly overlooked.

Table 3. Ethnobotanical uses focusing in the treatment of major diseases in the survey areas.

| Diseases | SS E | (%) | LSW E | (%) | Number of plants used | (%) |
|----------------------|------|-----|-------|-----|-----------------------|-----|
| Amoebiasis | 8 | 5 | - | - | 8 | 5 |
| Boils | - | - | 7 | 2 | 7 | 2 |
| Cough | 1 | 1 | 9 | 2 | 10 | 3 |
| Cyst | 9 | 5 | - | - | 9 | 5 |
| Dermatitis | - | - | 15 | 4 | 15 | 4 |
| Diarrhoea | 4 | 2 | 9 | 2 | 13 | 2 |
| Dysentery | 2 | 1 | 5 | 1 | 7 | 1 |
| Fever | - | - | 8 | 2 | 8 | 2 |
| Gastralgia | - | - | 9 | 2 | 9 | 2 |
| Gastritis | 2 | 1 | 12 | 3 | 14 | 1 |
| Gonococci | 11 | 6 | - | - | 11 | 6 |
| Malaria | 1 | 1 | 6 | 1 | 7 | 1 |
| Male sexual diseases | 15 | 9 | - | - | 15 | 3 |
| Ovarian cyst | 12 | 7 | - | - | 12 | 7 |
| Rheumatism | 6 | 3 | 7 | 2 | 13 | 3 |
| STD | 7 | 4 | - | - | 7 | 4 |
| Sterility in women | 8 | 5 | - | - | 8 | 5 |
| Syphilis | 7 | 4 | - | - | 7 | 4 |
| Thyphoids | 8 | 5 | 9 | 2 | 17 | 5 |
| Wounds | 5 | 3 | 3 | 1 | 8 | 3 |

SSE = Soudano-sahelian ethnoecological region; LSWE = Littoral and South-West ethnoecological regions.

Table 4. Comparison of the two ethnoecological regions of Cameroon.

| Therapeutic indications | SSE (%) | LSWE (%) | Total |
|-----------------------------|---------|----------|-------|
| Child diseases | - | 15(3) | 15 |
| Digestive diseases | 35(10) | 91 (21) | 126 |
| Eyes worm pains | - | 2 (-) | 2 |
| Female sexual diseases | 46(26) | 29(6) | 75 |
| Male sexual diseases | 15 (9) | 11(2) | 26 |
| Musculo-skeletal diseases | 8(5) | 26(6) | 34 |
| Nervous diseases | - | 20(4) | 20 |
| Others diseases | 26(15) | 178 (41) | 204 |
| Respiratory diseases | - | 24(5) | 24 |
| Skin and cutaneous diseases | 12 (7) | 47 (11) | 59 |
| Snake bite | 6(3) | 1 (-) | 7 |
| STD | 26(15) | 6 (1) | 32 |

SSE = Sudano-sahelian ethnoecological region; LSWE = Littoral and South-West ethnoecological regions.

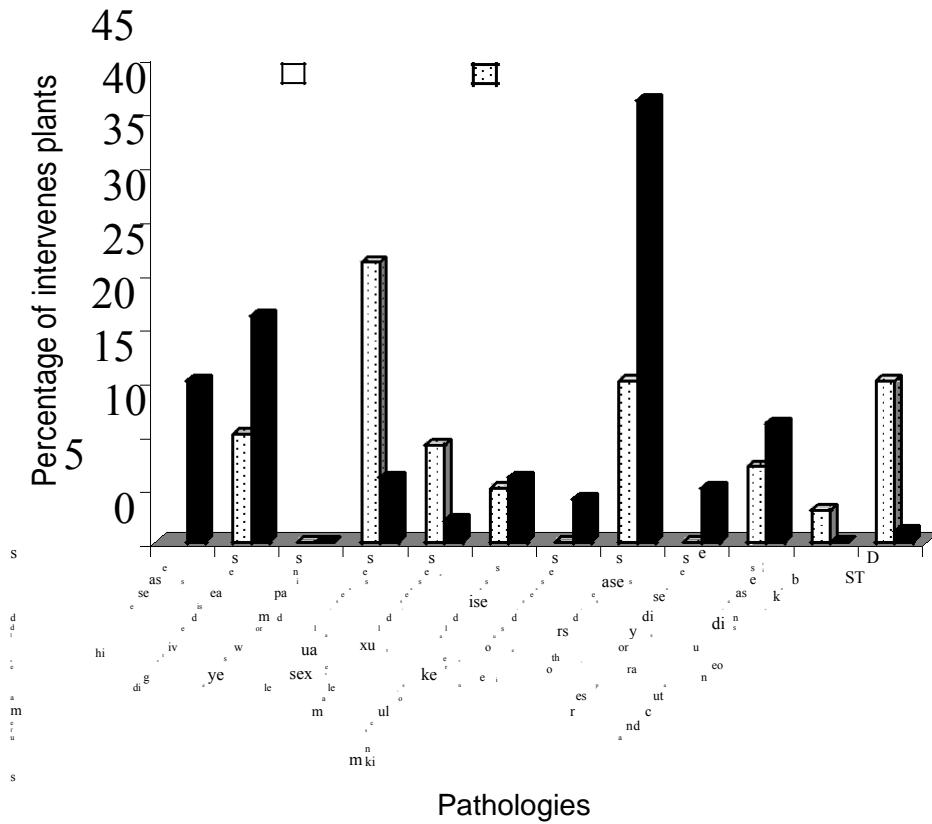


Figure 2. Distribution patterns of plants number and pathologies according to the Ethnoecological region.

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