

Ethnomedicinal plants of *Kabui Naga* tribe of Manipur, India

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Abstract

The *Kabui* Naga Tribe is residing in all the districts of Manipur state, India. Since time immemorial *Kabui* have an inseparable relationship with plants. The present paper throws a light on the uses of 74 medicinal plant species belonging to 43 families with 65 genera used by the *Kabui* Naga Tribe as ethno-medicinal plants for curing various primary health ailments. The ethno-medicinal uses, vernacular names, part use, mode of preparation, and distribution of the plant species were described. The voucher specimen is deposited in Manipur University herbarium.

Key words: *Kabui*, Ethnomedicine, Manipur.

INTRODUCTION

Manipur is one of the states of North-East India, which comprises a genetic treasure house of many medicinally important plants. It lies between 23°49' – 25°41' N Latitude and 92°54' – 94°45' E Longitude with an area of 22,327 Km² is one of the distinctive part of Indo-Burma Biodiversity Hotspot region (Myers *et al* 2000). Manipur is inhabited by 33 different ethnic groups and tribes. The *Kabui Naga* tribe is one of the major scheduled tribes of Manipur having a population of 82,386 (Anonymous 2001; Anonymous 2011) settled at all the 9 districts of Manipur with Tamenglong district as their homeland (Vedaja 1998). Having a long history with rich socio-cultural heritage, many unexplored rich indigenous knowledge of folk medicine remains embedded with the tribe. Basically, they speak '*Kabui*' dialect which is a sub-family of Tibeto-Burman language but for communication with different communities of the state *Manipuris* language is used.

Many tribal areas and tribal communities in the North-East India are either unexplored or under explored with regard to their floral wealth along with their ethnobotanical aspects (Rethy *et al* 2010). There is an urgent need to document all ethno-medicinal knowledge available of the different ethnic and folkloric communities before the traditional culture is completely lost (Shivanna & Rajkumar 2010). Many workers had published many papers on traditional uses of medicinal plants of different communities residing in the valley districts of Manipur but very few works on traditional knowledge of the tribal people residing in hilly districts has done includes Sinha (1986), Singh (1991), Metei & Singh (2007) and Sumitra *et al* (2009). The *Kabui Naga* tribe, regardless of having a rich traditional knowledge on folk medicine does not any written consent or coded form about the uses of medicinal plants. Traditional knowledge is generally transferred to next generation by words only, so there is big threat of being lost. Thus, the present study is an attempt to document the unexplored rich traditional knowledge of medicinal plants used for primary health care by the *Kabui Naga* tribe residing in Manipur.

METHODOLOGY

Repeated field surveys were carried out at the 8 sites (Tamenglong, Tamenglong khunjao, Nringlung-phunguang, Keimai, Noney, Keikhu-kabui, Keithelmanbi, Langthabal-khumbong) of Tamenglong, Imphal East and Imphal West districts of Manipur during 2008 – 2010. The informa-

tion regarding primary health care system has been documented by using semi structured questionnaire by directly interacting and interviewing with herbal healers (*maibas*), female herbal healers (*maibee*), knowledgeable villagers of middle aged to senior members and pastors which is further supplement with self observation and practical experiences of home remedies preparation and by visiting community vegetable market (Jain 1991; Rao & Hajra 1994). The information regarding type of plant, vernacular name, part use, mode of preparation and particulars of ailment cure along with botanical name were collected and documented. Plant materials were collected during the flowering season from various field tours and photographed at their habitat. Herbarium specimens were prepared by following the methods given by (Jain & Rao 1977). Plants were identified through the perusals of relevant literatures (Kanjilal *et al* 1934 – 1940; Deb 1961a & b; Chauhan *et al* 2000 and Singh *et al* 2004) and comparing Herbarium specimens at CAL, ASSAM and in the Herbarium of the Department of Life Sciences, Manipur University.

RESULTS AND DISCUSSION

In the present study 74 medicinal plant species under 43 families and 65 genera which are commonly used by the *Kabui Naga* people settled are recorded. Out of these 74 plants, 38 are herbaceous, 12 shrubs, 20 trees, and 4 are climbers (Figure 1). The *Kabui* people use these plants to treat various diseases which include asthma, cough, fever, diabetes, diarrhoea, dysentery, cataract, jaundice, bone fracture, muscle pain, sprain, rheumatism, headache, high blood pressure, intestinal infection and trouble, hair lotion, skin diseases and other common diseases.

The medicinally important plants were enumerated below in an alphabetical order, with their scientific name, families, local *Kabui* name, mode of application, short taxonomic description, part use, distribution and type of ailment cure. Lamiaceae has the highest number of 11 species, followed by Zingiberaceae (5 spp.), Rubiaceae (5 spp.), Asteraceae and Rutaceae with four species each. Other families have 1 to 3 species each.

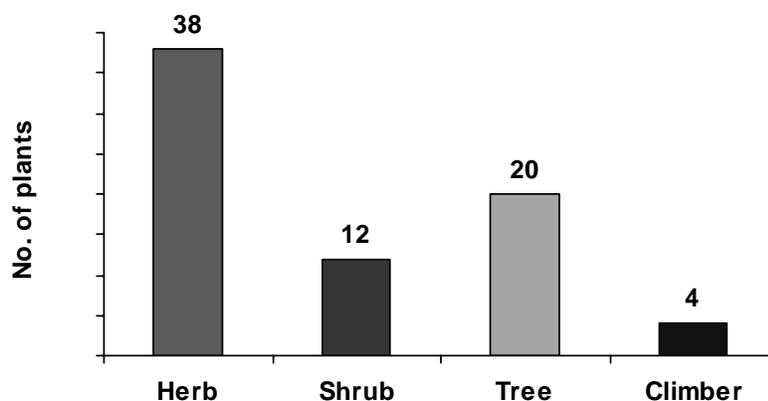


Figure 1: Habit group distribution of medicinal plants used by *Kabui* tribe of Manipur .

ENUMERATION OF PLANTS

Achyranthes aspera Linnaeus, Sp. Pl. 1: 204. 1753. [Amaranthaceae].

Exsiccatae: Khumbong, *Roma 008*; dated 20.10.2010.

Vernacular Name: *Khuchumpere*

Herb with pubescent branches; leaves opposite; flowers greenish in simple or panicle spike.

Medicinal use: About 5 ml of root extract is given once a day for ten days to pregnant women for easy delivery. A glass of root or leaves decoction is given two to three times a day to cure dysentery till motion checked up.

Justicia adhatoda Linnaeus, Sp. Pl. ed. 1, 1: 15. 1753. [Acanthaceae].

Exsiccatae: Tamenglong, *Roma 800*; dated 17.01.2010.

Vernacular Name: *Nongmakha Angouba*

Bushy shrub; leaves opposite elliptic-lanceolate with white flowers and fruits capsular.

Medicinal use: Drinking of a half glass of leaves or flowers decoction is prescribed to cure cold, cough, stomach trouble and bathing with warm decoction of leaves relieves from measles and muscle-pain.

Aegle marmelos (Linnaeus) Correa in Trans. Linn. Soc. London 5: 223. 1800. *Crataeva marmelos* Linnaeus [Rutaceae].

Exsiccatae: Chingmeirong, *Roma 794*; dated 05.07.2010.

Vernacular Name: *Heirikhagok*

Thorny trees; leaves trifoliate; flower white, fruit globose, yellowish brown.

Medicinal use: Ten ml of leaf juice is given with a half of lukewarm water, a spoon of honey and a pinch of black pepper powder twice a day for five days to cure cough and cold. A glass of mixture of fruit juice, water and one spoon of sugar is given once a day for ten days to control dysentery and stomach trouble.

Ageratum conyzoides Linnaeus, Sp. Pl. 2: 839. 1753 [Asteraceae].

Exsiccatae: Keikhu, *Roma 1201*; dated 08.03.2010.

Vernacular Name: *Khongjainapi*

Herb; leaves opposite, upper ones alternate; flowers white or bluish purple.

Medicinal use: Leaf paste is applied to cuts to stop bleeding; warmed leaves put on boils to absorb the pass and shoots are used as hair-lotion for strength and sweet smell of hair.

Allium ascalonicum Linnaeus, Fl. Palaest. 17. 1756. [Alliaceae].

Exsiccatae: Tamenglong, *Roma 1225*; dated 17.01.2010.

Vernacular Name: *Tilhou macha*

Widely cultivated, annual herb; flower greenish white; fruits capsule.

Medicinal use: A glass of bulb decoction is given twice a day to check dysentery till the motion controls. Scale leaves from bulbs are warmed and applied to boil and juice of bulb is applied bald head to check hair fall.

Allium hookeri Thwaites, Enum. Pl. Zeyl. 339. 1864. [Alliaceae].

Exsiccatae: Keikhu, *Roma 798*; dated 08.03.2010.

Vernacular Name: *Maroi napakpi*

Perennial herb; leaves slender; flowers in globose head, long peduncled, many flowered.

Medicinal use: Fresh or cooked leaves are eaten with meals to control hypertension and as blood purifier.

Allium sativum Linnaeus, Sp. Pl. 296. 1753. [Alliaceae].

Exsiccatae: Keimai, *Roma 1224*; dated 15.05.2009.

Vernacular name: *Ghanam*

Herb with linear leaves and pinkish flower; fruit small loculicidal capsule.

Medicinal use: Two to four bulbs are taken every day to control hypertension; paste of bulb is applied to boil, fracture of chicken, dog and cow.

Allium tuberosum Roxburgh, Hort. Beng. 24. 1814. [Alliaceae].

Exsiccatae: Keithelmanbi, *Roma 1254*; dated 26.03.2009.

Vernacular name: *Maroi nakupi*

Perennial herb; leaves many linear; flowers many in globose head, greenish white.

Medicinal use: Leaves are eaten as fresh or cooked with both meals to cure stone case and urinary trouble.

Alocasia macrorrhizos (Linnaeus) G. Don. Hort., Brit. ed. 3, (Sweet) 631. 1839. *Arum macrorrhizos* Linnaeus [Araceae].

Exsiccatae: Keimai, *Roma 1247*; dated 15.05.2010.

Vernacular name: *Hongoo*

Herb with long rhizoidal stem; leaves broadly ovate, cymbiform, cupidate limb; flower in spadix.

Medicinal use: Paste of petiole is applied to insect-bites and burns; paste of tender leaves is applied to joint pain.

Alpinia galanga (Linnaeus) Willdenow, Sp. Pl. 1(1): 12. 1797. *Maranta galangal* Linnaeus [Zingiberaceae].

Exsiccatae: Tamenglong, *Roma 791*; dated 24.03.2009.

Vernacular name: *Kanghoo*

Herb with long rhizoidal stem; leaves, sagittate repand, basal lobes rounded; flower in spadix.

Medicinal use: Ten ml of rhizome juice is given with a spoon of honey twice a day for ten days to cure mouth infection, stomach trouble, fever and rheumatism.

Alpinia officinarum Hance, J. Linn. Soc., Bot. 13: 6. 1873. [Zingiberaceae].

Exsiccatae: Japhou, *Roma 1255*; dated 04.03.2010.

Vernacular name: *Thangchugu*

Perennial; leaves, lanceolate, smooth and shining; flowers sessile in terminal spike.

Medicinal use: Five ml of rhizome extract with a half glass of water and two spoon of honey is given once a day for a week to cure cough, mouth ulcer and rheumatism.

Andrographis paniculata (Burman f.) Wallich *ex* Nees in Wallich, Pl. Asiat. Rar. 3: 116. 1832. *Justicia paniculata* Burman f. [Acanthaceae].

Exsiccatae: Chingmeirong, *Roma 1238*; dated 05.07.2010.

Vernacular name: *Vubati*

Annual herb; flowers small, white with purple blotches in axillary racemes; fruits capsule.

Medicinal use: Five ml of leaf extract, along with a spoon of honey given twice a day for one week to cure cough, chronic diseases, bronchitis, dysentery, jaundice stomach trouble, hypertension and intestinal worm.

Antidesma acidus Heyne *ex* Roth, Nov. Pl. Sp. Sc. 389. 1921. [Euphorbiaceae].

Exsiccatae: Keimai, *Roma 1202*; dated 15.05.2010.

Vernacular name: *Ching yensil*

Deciduous shrub; flowers dioecious, pedicelled, minute in lax terminal and lateral raceme.

Medicinal use: Taking of leaves as curry or decoction cure indigestion, dysentery and stomach trouble.

Arundo donax Linnaeus, Sp. Pl. 81. 1753. [Poaceae].

Exsiccatae: Tamenglong, *Roma 1214*; dated 17.01.2010.

Vernacular name: *Yengthou*

Perennial herb with an erect culm and creeping rhizome, gregarious near streams.

Medicinal use: A glass of leaf extract with a spoon of honey twice a day for one month to cure diabetes. Leaf paste is applied to snake-bites and cuts.

Asclepias curassavica Linnaeus, Sp. Pl. 215. 1753. [Asclepiadaceae].

Exsiccatae: Khumbong, *Roma 756*; dated 29.04.2009.

Vernacular name: *Krishna chura*

Perennial herb with milky latex; orange-red flowers in umbellate cymes; follicles in pair.

Medicinal use: Leaf paste is applied to snake-bite to take out poison and latex is used against corn.

Bidens pilosa Linnaeus, Sp. Pl. 832. 1753. [Asteraceae].

Exsiccatae: Khumbong, *Roma 773*; dated 05.09.2009.

Vernacular name: *Shampakpi*

Annual herb; flowers in heads, ray florets white, pappus of 2 – 4 rigid, yellow.

Medicinal us: Leaves are taken as fresh or cooked with meals to cure asthma.

Bixa orellana Linnaeus, Sp. Pl. 512. 1753. [Bixaceae].

Exsiccatae: Chingmeirong, *Roma 1231*; 05.07.2009.

Vernacular name: *Ureirom*

Evergreen tree; leaves alternate, ovate; flowers pinkish in terminal corymbose panicles

Medicinal used: Paste of leaves is used to treat snake-bite and skin diseases.

Bombax ceiba Linnaeus, Sp. Pl. 511. 1753. [Bombacaceae].

Exsiccatae: Khumbong; *Roma 1242*; 04.03.2009.

Vernacular name: *Tera*

Tree, large, deciduous; leaves alternate, compound; flowers red; fruits capsule, oblong-ovoid.

Medicinal used: Leaf-extract is applied to snake-bite to take out poison; half a glass of root extract is given once daily for one week to increase sexual feelings.

Cajanus cajan (Linnaeus) Huth in Helios 11: 133. 1893. *Cytisus cajan* Linnaeus [Fabaceae].

Exsiccatae: Noney; *Roma 737*; 07.02.2009.

Vernacular name: *Mairongbi*

Cultivated shrub; leaves trifoliate; flower corymbose, yellow; fruits pod.

Medicinal use: A glass of leaf decoction is given twice a day for five days to cure dysentery and measles.

Callicarpa arborea Roxburgh, Fl. Ind. 1:405. 1820. [Verbenaceae].

Exsiccatae: Keimai; *Roma 1213*; dated 15.05.2010.

Vernacular name: *Mondol*

Much branched tree; leaves opposite, ovate, acute, thickly tomentose; flower in cymes, purple.

Medicinal use: Bathing with bark decoction protects from skin diseases.

Canthium angustifolium Roxburgh, Fl. Ind. 2:169. 1824. [Rubiaceae].

Exsiccatae: Khumbong; *Roma 1262*; dated 04.03.2009.

Vernacular name: *Lam-heibi*

Scandent shrub, spiny; leaves ovate, lanceolate; flowers minute, dull-white; fruits orbicular.

Medicinal use: A glass of boiled fruit-extract is given twice daily for five days against fever and diabetes; boiled leaves are applied to cure boils.

Centella asiatica (Linnaeus) Urban in Martius, Fl. Bras. 1(1):287, t.78, f. 1. 1879. *Hydrocotyle asiatica* Linnaeus [Apiaceae].

Exsiccatae: Khumbong; *Roma 796*; 20.10.2010.

Vernacular name: *Peruk*

Prostrate herbs; flowers in umbels at nodes; fruits compressed.

Medicinal use: Whole plants are taken fresh or cooked with meals as blood purifier; one glass of boiled whole plant extract is taken twice daily for one month to cure asthma, cough, stomach trouble, intestinal trouble and to control hypertension.

Cissus discolor Blume, Bejdr. Fl. Ned. Ind. 4: 181. 1825. [Vitaceae].

Exsiccatae: Khumbong; *Roma 729*; dated 05.02.2009.

Vernacular name: *Kongouyen laba*

Climber with woody base; flowers tetramerous in umbellate cymes; fruits reddish purple to black.

Medicinal application: Leaves are taken as curry or decoction for one month to cure stomach troubles, intestinal problems and against stone formation.

Citrus medica Linnaeus, Sp. Pl. 782. 1753. [Rutaceae].

Exsiccatae: Tamenglong; *Roma 795*; dated 17.01.2010.

Vernacular name: *Tassangtha*

Shrub with stout thorns; leaves with large wing; flowers white; fruits obovate-oblong.

Medicinal use: Boiled leaves are applied on burnt areas for healing.

Clerodendrum colebrookianum Walpers var *colebrookianum* Reper, Bot. Syst. Ind. 4: 594. 1885. [Verbenaceae].

Exsiccatae: Keimai; *Roma 1211*; dated 15.05.2010.

Vernacular name: *Kuthap*

Perennial shrubs; leaves opposite decussate; flowers white; fruits drupe.

Medicinal use: fresh or cooked leaves are given with meals to control hypertension, dysentery and cough; leaf paste is used in skin diseases.

Clerodendrum indicum (Linnaeus) O. Kuntze, Revis. Gen. Pl. 2: 506. 1891. *Siphonanthus indica* Linnaeus [Verbenaceae].

Exsiccatae: Tamenglong; *Roma 779*; dated 10.10.2009.

Vernacular name: *Charoi utong*

Shrub with fluted hollow stem; leaves simple; flowers white in large panicles.

Medicinal use: Half glass of root decoction is given twice daily for five days to cure cough and one month for diabetes; leaf paste and rice water is applied to boils.

Clerodendrum serratum Sprengel, Syst. 2:758. 1825. [Verbenaceae].

Exsiccatae: Khumbong; *Roma 770*; dated 06.07.2009.

Vernacular name: *Moirangkhanum*

Shrub; leaves subsessile oblong or elliptic; flowers in; fruit drupe.

Medicinal use: Young leaves and flowers are taken as fresh or cooked to cure cough, hypertension, stomach trouble and diabetes.

Crassocephalum crepidioides (Benth) S. Moore, J. Bot. 50: 211. 1912. *Gynura crepidioides* Benth [Asteraceae].

Exsiccatae: Monsang; *Roma 706*; dated 05.01 2009.

Vernacular name: *Jandonangpu*

Tall annual herbs; leaves sessile, obovate; capitula paduncled pendulous; achenes with white pappus.

Medicinal application: Leaf paste is applied to cuts; warm leaves are applied to boils; one glass of leaf extract with a spoon of honey is given once daily for one month to cure stomach troubles; leaves are eaten as fresh or cooked with meals to control hypertension; leaves are used as hair lotion for strength of hair and to cure headache.

Cuscuta reflexa Roxburgh, Pl. Cor. 2: 3t. 1799. [Convolvulaceae].

Exsiccatae: Tamenglong; *Roma 1252*; dated 24.03..2009.

Vernacular name: *Uri-napu*

Parasitic climber with yellowish-green stem scales leaves; flowers white; fruits capsule.

Medicinal application: Bathing with warm decoction of whole plants relieve muscle and joint pain.

Cynodon dactylon (Linnaeus) Persoon, Syn. Pl. 1: 85. 1805. *Panicum dactylon* Linnaeus [Poaceae].

Exsiccatae: Kumbong; *Roma 1282*; dated 20.10.2010.

Vernacular name: *Tingthou*

Perennial grass with much branched runners; leaves linear or lanceolate; flowers greenish.

Medicinal use: Leaf paste promotes healing of cuts and wounds; half glass of leaf extract along with a spoon of honey is given to stop diarrhoea and dysentery and the same is given for one month against pile.

Dillenia indica Linnaeus, Sp. Pl. 535. 1753. [Dilleniaceae].

Exsiccatae: Tamenglong; *Roma 1206*; dated 24.03.2009.

Vernacular name: *Heigri*

Trees; leaves oblong-lanceolate, dentate; flowers white; fruits with acrescent calyx.

Medicinal use: One glass of decoction of tender shoot is given twice daily for one month to cure asthma; fruit juice is applied on body as emollient and to prevent skin diseases; pulp of fruit is used as hair washer to make hair healthy and to remove dandruff; leaves are used as fish poison.

Elsholtzia blanda Bentham, Lab. Gen. Sp. 162. 1833. [Lamiaceae].

Exsiccatae: Keithelmanbi; *Roma 1249*; dated 26.03.2009.

Vernacular name: *Kanghuman*

Annual herb; leaves elliptic lanceolate, serrate; flowers small in spike.

Medicinal use: Five to ten shoots are taken with meals for ten days to cure cough, bad breath and mouth infection.

Eryngium foetidum Linnaeus, Sp. Pl. 1: 232. 1753. [Apiaceae].

Exsiccatae: Khumbong; *Roma 710*; dated 04.03.2009.

Vernacular name: *Bang-maroi*

Perennial herbs; leaves spinous-toothed at margin; flowers white in umbel; fruits ellipsoid.

Medicinal use: Leaves are taken as fresh or cooked with meals to control hypertension and indigestion; leaf juice is applied to cure fracture, sprain and muscle pain.

Eupatorium adenophorum Sprengel, Syst. Veg.: 420. 1820. [Asteraceae].

Exsiccatae: Keisamthong; *Roma 1277*; dated 09.10.2010.

Vernacular name: *Lianglei*

Undershrubs; leaves opposite, stout petiole, serrate; capitula small, bluish.

Medicinal use: Eating of some leaves cure burning of stomach by chili; leaf-paste is applied to cuts and skin diseases.

Ficus hispida Linnaeus f., Suppl. 442. 1781. [Moraceae].

Exsiccatae: Keimai; *Roma 1203*; dated 15.05.2010.

Vernacular name: *Ashiheibong*

Trees with hollow branchlets; leaves opposite, obovate oblong.

Medicinal use: One glass of shoot and bark decoction with a spoon of honey and a pinch of black pepper is given twice daily for ten days to cure cough and one month for asthma. 10 ml of root juice with a glass of water is given for a week to check intestinal disorder; leaf juice is applied on ringworm, skin infection, boil and mouth ulcer.

Garcinia pedunculata Roxburgh, Fl. Indica 2: 625. 1832. [Clusiaceae].

Exsiccatae: Tamenglong; *Roma 793*; dated 24.03.2009.

Vernacular name: *Phuangthai*

Tree; leaves elliptic, lanceolate; flowers unisexual; fruits berry globular.

Medicinal use: Paste of boiled fruits is applied to cure fracture and muscle pain; two spoon of fruit paste with equal amount of molasses is given twice daily in indigestion and intestinal troubles.

Hedychium Greenei W.W. Smith, Rec. Bot. Surv. Ind. 4: 272. 1911. [Zingiberaceae].

Exsiccatae: Khumbong; *Roma 1288*; dated 20.10.2010.

Vernacular name: *Takhellei angangba*

Perennial herb; leaves large; flowers red in spike, petiole long; fruits capsular.

Medicinal use: One glass of rhizome decoction is given twice daily for a week to cure white vaginal discharge.

Hibiscus sabdariffa Linnaeus, Sp. Pl. 695. 1753. [Malvaceae].

Exsiccatae: Khumbong; *Roma 736*; dated 07.02.2009.

Vernacular name: *Silosougri*

Tall annual herbs; leaves suborbicular; flowers purple; fruits capsule, red.

Medicinal use: One glass of boiled leaf or fruit extract is given twice daily for five days to control intestinal problems, dysentery and indigestion.

Impatiens balsamina Linnaeus, Sp. Pl. 938. 1753. [Balsaminaceae].

Exsiccatae: Chingmeirong; *Roma 1256*; dated 05.07.2010.

Vernacular name: *Khujang*

Annual herb; leaves alternate, serrate; flowers varied colours; fruits capsule, loculicida.

Medicinal use: Paste of leaves and flowers is applied to cure rotting of nails and juice of leaves is used externally to relieve joint pain.

Leucas aspera Link, Enum. Hort. Berrot. Alt. 2: 113. 1822. [Lamiaceae].

Exsiccatae: Chingmeirong; *Roma 764*; dated 21.06.2009.

Vernacular name: *Mayanglembum*

Herb, annual; leaves sub-sessile; flowers in whorls, bracteates, white; fruits nutlets black.

Medicinal application: Shoots are taken as blood purifier and against stomach trouble; also taken by lactating mothers to improve lactation.

Mangifera indica Linnaeus, Sp. Pl. 200. 1753. [Anacardiaceae].

Exsiccatae: Tamenglong; *Roma 1205*; dated 24.03.2009.

Vernacular name: *Bathai*

Tree; leaves oblong lanceolate; flower greenish white in panicles, sessile; fruits drup.

Medicinal use: One glass of boiled bark extract is given twice daily for five days to cure dysentery and fever.

Mentha spicata Linnaeus, Sp. Pl. 2: 576. 1753 [Lamiaceae].

Exsiccatae: Keithelmanbi; *Roma 1296*; dated 26.03.2010.

Vernacular name: *Nungsitpu*

Herb; leaves simple, opposite, margins toothed; flowers bunches, in axils of leaves.

Medicinal use: Fresh or cooked leaves are taken to prevent intestinal disorder, bad breath and indigestion; about 5 ml of leaf juice with a glass of water and a spoon of honey is given once a day for five days to cure stomach trouble.

Michelia champaca Linnaeus, Sp. Pl. 536. 1753. [Magnoliaceae].

Exsiccatae: Keimai; *Roma 797*; dated 15.05.2010.

Vernacular name: *Leihao*

Tree, evergreen; leaves ovate lanceolate; flowers pale yellow; fruits in spike.

Medicinal use: Half a glass of boiled bark or leaf extract along with a spoon of honey is given twice daily for five days to cure fever and measles.

Mimosa pudica Linnaeus, Sp. Pl. 518. 1753. [Mimosaceae].

Exsiccatae: Khumbong; *Roma 1253*; dated 04.03.2009.

Vernacular name: *Jathaima*

Straggling prickly undershrub; leaves sensitive; flowers in heads, purple; pods jointed.

Medicinal use: One glass of decoction of whole plant is given thrice daily for one month to cure stone formation; boiled extract of whole plant is used for bathing to prevent skin diseases and muscle pain; mothers after delivery sit in plant decoction to prevent infection of sexual parts.

Momordica charantia Linnaeus, Sp. Pl. 2: 1009. 1753. [Cucurbitaceae].

Exsiccatae: Khumbong; *Roma 1259*; dated 04.03.2009.

Vernacular name: *Khanathai*

Climber with tendrils; leaves orbicular, 5-7 lobed; flowers pale yellow; fruits pulp.

Medicinal use: Fruits are taken three to four times in a week to control diabetes and stomach trouble.

Musa paradisiaca Linnaeus, Sp. Pl. 2: 1043. 1753. [Musaceae].

Exsiccatae: Keikhu; *Roma 1274*; dated 08.03.2010.

Vernacular name: *Ngayat*

Herb cultivated; leaves lanceolate or oblong; flowers in spadix; fruits berry or capsule.

Medicinal use: Paste of root is applied over forehead to relieve headache; ripe fruits with molasses and fruit extract of *Tamarindus indica* to cure dysentery.

Mussaenda roxburghii Hooker f. in Fl. Brit. Ind. 3: 87. 1880. [Rubiaceae].

Exsiccatae: Liwa Sarei; *Roma 1297*; dated 23.03.2010.

Vernacular name: *Hanurei*

Shrub, wild; leaves elliptic-ovate; flowers tubular-funnel-shaped, yellow in cymes; fruits berry.

Medicinal use: Paste of roots and leaves is applied on the spot of snake-bite to remove poison; one glass of boiled extract of leaves is given once daily for five days to children against intestinal worms and cough.

Nerium indicum Miller, Gard. Dict. (ed. 8) no.2, 1786. [Apocynaceae].

Exsiccatae: Keisamthong; *Roma 1269*; dated 26.03.2009.

Vernacular name: *Kabirei*

Shrub; leaves linear lanceolate, tapering at the both ends; flowers in terminal cymes, pink.

Medicinal use: Paste of roots or leaves is applied to leprosy, scabies and skin diseases; powder of dried leaves is used as stuff for treating epilepsy and root decoction is used for abortion.

Nyctanthes arbortristis Linnaeus, Sp. Pl. 6. 1753. [Oleaceae].

Exsiccatae: Khumbong; *Roma 1283*; dated 20.10.2010.

Vernacular name: *Singarei*

Tree, small; leaves opposite; flowers small, white with orange centre; fruits capsule.

Medicinal use: Decoction of leaves is used to bath for preventing scabies, measles and other skin diseases; one glass of decoction is given twice daily for one month to check stone formation.

Oroxylum indicum (Linnaeus) Ventenat, Dec. Gen. Nov. 8. 1808. *Bignonia indica* Linnaeus [Bignoniaceae].

Exsiccatae: Keimai; *Roma 758*; dated 20.05.2009.

Vernacular name: *Shamba*

Tree; leaves opposite, bipinnate; flowers purple in racemes; fruit pod, flat.

Medicinal use: Fresh or cooked fruits are taken with meals at least four times in a week for six months to control diabetes, asthma, hypertension, jaundice, pile and stomach trouble; bathing with boiled leaf-extract relieves muscles pain.

Ocimum americanum Linnaeus, Cent. Pl. 1: 15. 1755. [Lamiaceae].

Exsiccatae: Khumbong; *Roma 776*; dated 06.10.2009.

Vernacular name: *Mayanlampa*

Herb, annual; leaves opposite, ovate, acute; flowers greenish white in spike; fruits nutlets.

Medicinal use: Paste of leaves with kerosene is applied to fracture, muscle pain and sprain; paste of seeds applied to boils.

Ocimum tenuiflorum Linnaeus, Sp. Pl. 597: 1197. 1753. [Lamiaceae].

Exsiccatae: Keithelmanbi; *Roma 1207*; dated 26.03.2009.

Vernacular name: *Tulsi*

Herb, cultivated; leaves oblong; flowers greenish white in spike raceme; fruits nutlets.

Medicinal use: one spoon full of leaf and shoot juice with half glass of lukewarm water and one spoon full of honey is given twice daily for one week to cure cough and fever; leaf paste is applied to cuts and wound.

Oxalis corniculata Linnaeus, Sp. Pl. 435. 1753. [Oxalidaceae].

Exsiccatae: Keisamthong; *Roma 708*; dated 06.01.2009.

Vernacular name: *Yensil*

Herbs with much branched runners; leaves alternate, stipules adnate; flowers yellow; fruits capsular.

Medicinal use: one glass boiled extract of whole plant with a pinch of salt is given twice a day for one week to cure dysentery and stomach troubles; shoot and leaves are eaten as curry for easy digestion.

Paederia foetida Linnaeus, Mant. Pl. 1: 52. 1767. [Rubiaceae].

Exsiccatae: Tamenglong; *Roma 787*; dated 03.05.2010.

Vernacular name: *Uri-oinum*

Climber, slender; leaves opposite, ovate or lanceolate; flowers in axillary and terminal cymes.

Medicinal use: Leaf paste is applied on the fracture-area for five days continuously to repair; two to five leaves are taken two or three times in a week to cure intestinal troubles.

Phlogacanthus thyrsoiflorus (Roxburgh) Nees in Wall. Pl. As. Rar. 3: 99. 1832. *Justicia thyrsoiflora* Roxburgh [Acanthaceae].

Exsiccatae: Noney; *Roma 717*; dated 04.02.2009.

Vernacular name: *Khimpui khiangmei*

Shrubs; leaves oblanceolate or elliptic-oblong; flowers brick-colored in terminal spikes; fruits capsule.

Medicinal use: Young leaves and flowers are given as fresh or cooked with meals for two weeks to cure jaundice, cough, fever and hypertension; bathing with boiled extract relieve muscle pain.

Phyllanthus emblica Linnaeus, Sp. Pl. 982. 1753. [Euphorbiaceae].

Exsiccatae: Chingmeirong; *Roma 1241*; dated 05.07.2010.

Vernacular name: *Taraothai*

Tree, wild with feathery deciduous leaves; flower yellowish, monoecious; fruits drupe.

Medicinal use: 10 g of fruit paste with a spoonful of honey is given twice daily for one week to cure jaundice and cough; half a glass of bark decoction is given twice daily for one week to cure diarrhoea.

Plantago erosa Wallich in Roxburgh, Fl. Indica ed. Carey 1: 423. 1820. [Plantaginaceae].

Exsiccatae: Keithelmanbi; *Roma 1265*; dated 26.03.2010.

Vernacular name: *Kaipat*

Herb, wild; leaves oblong or ovate-oblong, toothed; flowers in axillary spike; fruits capsule.

Medicinal application: Leaves are given as curry for five to ten times in a month as blood purifier and prevent stomach trouble and intestinal disorder; boiled leaves are applied to boils.

Plectranthus ternifolius D. Don, Prod. Fl. Nepal. 117. 1825. [Lamiaceae].

Exsiccatae: Khumbong; *Roma 1230*; dated 20.10.2010.

Vernacular name: *Khoiju*

Tall annual; leaves usually in whorls, tomentose; flowers in panicle of spikes.

Medicinal application: Exposing body to the fume of inflorescence prevents skin diseases.

Plumeria acuminata Aiton, Hort. Kew. ed. 2, 2: 70. 1811. [Apocynaceae].

Exsiccatae: Keikhu; *Roma 1209*; dated 08.03.2010.

Vernacular name: *Khagileihao*

Tree, soft branching; leaves oblanceolate; flowers white or purple in terminal peduncled cymes.

Medicinal use: Half a glass of bark decoction is given twice a day for five days to treat diarrhoea.

Psidium guajava Linnaeus, Sp. Pl. 470. 1753. [Myrtaceae].

Exsiccatae: Chingmeirong; *Roma 1259*; dated 05.07.2010.

Vernacular name: *Pungheiton*

Cultivated tree; leaves opposite elliptic; flowers white on axillary peduncles; fruits berry.

Medicinal use: 10 ml of leaf juice with a spoonfull of honey is given thrice a day for one week to cure diarrhoea, cough, stomach trouble, and premature labour pain of women; three to five young shoots are given once a day for five days to cure dysentery.

Pyrus pashia Buchanan-Hamilton *ex* D. Don, Prod. Fl. Nepal. 236. 1825. [Rosaceae].

Exsiccatae: Tamenglong; *Roma 1291*; dated 24.03.2009.

Vernacular name: *Lam nashpati*

Tree, wild; leaves alternate serrate; flower white; fruit pyriform, small.

Medicinal use: Fruits are crushed and soaked in water overnight. A glass of supernatant is given twice a day for one month to control diabetes.

Rumex nepalensis Sprengel, Syst. Veg. 2: 159. 1825. [Polygonaceae].

Exsiccatae: Tamenglong; *Roma 1229*; dated 24.03.2009.

Vernacular name: *Torongkhongchak*

Rosette herbs; leaves oblong or elliptic-ovate; flowers small in whorls; nuts brown.

Medicinal use: Leaf paste is applied to scabies, ringworm and other skin diseases

Sapindus emarginatus Vahl, Symb. Bot. 3: 54. 1794. [Sapindaceae].

Exsiccatae: Keimai; *Roma 1208*; dated 15.05.2010.

Vernacular name: *Tajaithai*

Tree, small; leaves compound; flowers white in terminal rusty-pubescent; fruits schizocarps.

Medicinal use: Fruits are soaked in water overnight and soaked water is applied to whole body to cure fever; paste of fruit-pulp protects mouth infection and gum bleeding and also applied to boils.

Scutellaria discolor Wallich *ex* Bentham in Pl. Asiat. Rar. 1: 66. 1830. [Lamiaceae].

Exsiccatae: Keithelmanbi; *Roma 790*; dated 26.03.2009.

Vernacular name: *Yenakhath*

Herb, wild; leaves opposite, rounded, cordate; flowers in long narrow racemes.

Medicinal use: Half a glass of leaf-extract is given with a spoonfull of honey twice a day for one week to cure fever, diarrhoea, dysentery, stomach and intestinal trouble; one or two leaves are taken every day to control hypertension.

Sesamum indicum Linnaeus, Sp. Pl. 634. 1753. [Pedaliaceae].

Exsiccatae: Tamenglong; *Roma 1264*; dated 17.01.2010).

Vernacular name: *Thoiding-amuba*

Annual herbs; leaves variable; flowers white or pink in raceme; capsules oblong.

Medicinal use: Seed oil is boiled with a piece of cotton till the oil is fully absorbed to the cotton. After cooling the cotton is applied to cuts and burn; seed oil is applied on head to relieve headache.

Solanum anguivi Lamarck, Tabl. Encycl. 2: 23. 1794. [Solanaceae].

Exsiccatae: Tamenglong; *Roma 1276*; dated 24.03.2010.

Vernacular name: *Takhunathai*

Small shrubs; leaves variable; flower violet in extra-axillary cymes; berries oblong.

Medicinal use: Eight to ten fruits are crushed along with a spoonfull of honey and given twice a day for one week to cure cough, fever, stomach trouble, toothache, diarrhoea and dysentery; fruit juice is applied to skin diseases.

Solanum torvum Swartz, Prodr. Veg. Ind. Occ. 47. 1791. [Solanaceae].

Exsiccatae: Keikhu; *Roma 763*; dated 16.06.2009.

Vernacular name: *Khanga*

Herb or under shrub; leaves ovate-lanceolate; flowers white in lateral cyme; fruits berry, globose.

Medicinal use: Some fruits are taken fresh or cooked with meals to check dysentery and a month to control diabetes.

Tagetes patula Linnaeus, Sp. Pl. 887. 1753. [Asteraceae].

Exsiccatae: Khumbong; *Roma 1284*; dated 20.10.2010.

Vernacular name: *Sanarei*

Erect annual herbs, stout; leaves pinnatisect; capitula many rayed.

Medicinal use: Leaf paste is applied to cuts and boils; leaf juice is applied to scabies and bleeding piles.

Toona ciliata M.J. Roemer, Syn. Hesper. 139. 1846. *Cedrela toona* Roxb. ex Rottler [Meliaceae].

Exsiccatae: Chingmeirong; *Roma* 759; 21.05.2009.

Vernacular name: *Phang*

Trees with dense crown; leaves opposite, pinnate; flowers white in large drooping panicle; fruits capsular.

Medicinal use: Paste of leaves is used in cuts; bathing with decoction of leaves is prescribed to cure scabies and measles.

Vitex trifolia Linnaeus, Sp. Pl. 638. 1753. [Verbenaceae].

Exsiccatae: Keimai; *Roma* 1221; dated 15.05.2010.

Vernacular name: *Yeliksibi*

Shrubs, wild; leaflets three, sessile; flowers light blue

Medicinal use: Boiled extract of leaves is used to skin diseases and paste of leaves is used to cuts and wounds.

Zanthoxylum acanthopodium DC., Prodr. 1: 727. 1824. [Rutaceae].

Exsiccatae: Tamenglong; *Roma* 789; dated 24.03.2009.

Vernacular name: *Tangangnoi*

Large shrubs, aromatic; leaves imparipinnate; flowers yellowish white in panicles; seeds black, globose

Medicinal use: Half a glass of boiled extract of leaves or fruits with a spoonfull of honey is given twice daily for one month to cure stomach trouble and intestinal infection; gargle with boiled extract of fruits relieves toothache, bad breath and gum bleeding.

Zanthoxylum rhetsa (Roxburgh) DC., Prodr. 1: 728. 1824. [Rutaceae].

Exsiccatae: Noney; *Roma* 755; dated 21.04.2009.

Vernacular name: *Naoseknum*

Shrub, wild, prickly, shrub; leaves pinnate prickly; flowers white; fruits 5-angled.

Medicinal use: One glass of boiled extract of leaves is taken twice a day for one month to cure jaundice

Zehneria scabra (Linnaeus) Sonder in Harv. & Sond., Fl. Cap. 2: 486. 1862. [Cucurbitaceae].

Exsiccatae: Khumbong; *Roma* 1237; dated 20.10.2010.

Vernacular name: *Lam-thabi*

Climber, wild; leaves, ovate-cordate; flowers in peduncle, monoecious; fruits globose.

Medicinal application: Boiled extract of whole plant is given instead of water to cure jaundice till its cure.

Zingiber officinale Roscoe in Trans. Linn. Soc. 8: 348. 1807. [Zingiberaceae].

Exsiccatae: Noney; *Roma* 1210; dated 19.01.2010.

Vernacular name: *Shing*

Herb, cultivated, rhizomantous herb; leaves subsessile, linear lanceolate; flowers in spike.

Medicinal use: 5 ml of rhizome juice with a half glass of hot water and a spoonful of honey is given twice a day for five days to cure cough, fever and intestinal infection. This mixture is given for one month to cure asthma and stomach problem.

CONCLUSION

The present study focused on the need of proper scientific documentation of the plants used as folk medicine by the *Kabui* community residing in remote areas where medical facilities, health care programmes and transportation facilities are very poor. The documentation of folk-medicine

for primary health ailments is important as it successful using till date and secondly to conserve the rich traditional knowledge in written form. However, it is recommended that proper regulation, standardization of this knowledge should be provided by applying better technologies for uses. Due over exploitation and deforestation many plant species are become threatened. Now, it is high time for the concern authorities and NGO^s to come out with concert steps for conservation these plants as well as sustainable utilization of the medicinally important plants.

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