

LESS KNOWN MEDICINAL USES OF PLANTS AMONG THE TRIBES OF KARBI-ANGLONG (MIKIR HILLS), ASSAM

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ABSTRACT

The paper deals with firsthand information on medicinal uses of 43 species of plants gathered among the tribes inhabiting Karbi-Anglong district of Assam State in eastern India. Scientific name, local name, short description and uses are given for each species. All uses mentioned in the paper appear to be new information, not recorded in earlier published literature.

Karbi-Anglong is a district in south-eastern part of the State of Assam and lies approximately between $24^{\circ}54'-26^{\circ}41'$ N and $92^{\circ}8'-93^{\circ}53'$ E. The district was formerly known as Mikir Hills; the latter name was based on the chief tribe viz. the Mikirs inhabiting the district.

The district is largely mountainous. About 55% of the population is tribal. The area is almost botanically unexplored. A scrutiny of the entire material in the Central National Herbarium at Calcutta showed that only about 200 specimens from Mikir Hills are represented here. All collections of Kanjilal and others housed in the herbarium at Shillong, total less than one thousand specimens.

It is now well-known that the uses for which the tribals employ the plants of the area, sometimes gave clue to valuable new information (Schultes 1960; Jain 1967, 1972). With this view the author undertook a study of the plants used by the tribals of the Karbi-Anglong district.

Six different tribal habitats have been intensively studied. During field work plants have been collected along with detailed information about their uses by the local people. The plants have been identified and preserved as voucher specimens for future reference.

A scrutiny of the information and comparison of the data with important earlier published literature (Dastur 1957; Chopra *et al.* 1956, 1969; Wealth of India 1948-'76; Jain 1968) showed that a number of uses reported by the tribals of Karbi-Anglong district do not seem to be recorded in literature.

The following paper gives a brief account of plants. For each species the botanical name, its family, local name, short botanical description, medicinal uses including methods of administration and the locality of the information are given. Detailed descriptions are avoided as they are available in well-known floras, such as Kanjilal (1934-'40). All collections are by author and the specimens are deposited in ASSAM, Shillong.

The information is based on the reports obtained from informers of the area. Precaution was taken to confirm information about same plant from different informers. It is hoped that the information will prompt plant-chemists and pharmacologists to study and evaluate the constituents in these plants.

Abbreviations used in the content reads as follows: Loc.—locality; Mik.—Mikir Language; Nag.—Nagamese.

Aristolochia saccata Wall. (Aristolochiaceae)
Mik.: 'Rikangbatelong'.

A stout woody climber. Leaves lanceolate, silky pubescent beneath. Flowers pitcher-like with narrowly reflexed, purple, papillose border.

Useful in stomach pain. Fresh underground part washed and made into a paste. It is mixed with water (50 gm paste in 100 cc water) for each dose.

Loc.: Nihanglakso ; 69698.

Baccaurea sapida (Roxb.) Muell.-Arg. (Euphorbiaceae)

Mik.: 'Tampaiuk'.

Small tree ± 6 m. Bark grey with lenticels. Leaves elliptic-lanceolate. Fruit globose, yellow.

Bark useful in constipation. Adults chew it as such. In case of children about 100 cc of sap given in early morning.

Loc.: Kalioni ; 69188.

Bidens biternata (Lour.) Merr. & Sherff. (Asteraceae)

Mik.: 'Bap-nak-he'.

Erect shrub ± 1 m. Leaves variable, simple or compound, glabrous. Heads white or yellow, heterogamous.

Bruised leaves applied on forehead in head-ache.

Loc.: Langlakso ; 69634.

Blumea balsamifera (L.) DC. (Asteraceae)

Nag.: 'Janiya'.

An arborescent shrub ± 6 m with smell of camphor. Branches and leaves silky woolly. Heads reddish in spreading or pyramidal panicles.

When babies suffer from disorder of bowels due to their defective mother's milk, one spoonful of sap of the young leaf mixed with water given once a day. Also, the sap applied on the body of the baby to protect from evil spirit.

Loc.: Kalioni ; 69185.

B. lanceolaria (Roxb) Druce. (Asteraceae)

Mik.: 'Hanmoichu'.

Shrub ± 2 m. Leaves oblanceolate, acuminate with many nerves and recurved margins. Heads clustered on tomentose panicles.

Leaves of *Blumea sessiliflora* Decaisne., *Blumea balsamifera* (L.) DC., *Mikania cordata* (Burm. f.) R. L. Robinson and this plant taken in equal parts and boiled in water. This decoction is used for bathing to cure body pain.

Loc.: Nihanglakso ; 69580.

Brucea mollis Wall. ex Kurz. (Simarouba-ceae)

Mik.: 'Koinine'

A shrub ± 2.5 m with large pinnate leaves and containing a bitter principle. Fruits 4 or less, one-seeded drupes from each flower, brown when ripe.

Useful in malaria. Powder of dry seeds (50 gm) mixed with water (50 cc) given thrice a day. It also acts as stomachic.

Loc.: Langlakso ; 69654.

Buettneria pilosa Roxb. (Sterculiaceae)

Mik.: 'Champhat'.

Large woody climber. Leaves membranous, serrate, more or less papillose above. Capsule with thin barbed bristles.

Paste of the leaf applied on the sores of cattle.

Loc.: Langlakso ; 69655.

Cajanus cajan (L.) Millsp. (Fabaceae)

Mik.: 'Rahban, Thaka'.

An erect shrub ± 2 m with grey silky branches and trifoliate leaves. Flowers in terminal and axillary corymbs ; vexillum red ; keels and wings yellow.

Paste of the leaf or flowers applied in sores of mouth or tongue.

Loc.: Kalioni ; 69396.

Callicarpa arborea Roxb. ex C. B. Cl. (Verbenaceae)

Mik.: 'Arhi'.

Medium size tree ± 10 m. Bark corky, grey or darkish, rough with shallow fissures. Leaves coriaceous, stellate-tomentose beneath. Fruit purple, ultimately black.

Paste of bark or leaf applied on sting of scorpion.

Loc.: Kalioni ; 69148.

Clausena excavata Burm. f. (Rutaceae)

Mik.: 'Thongkuk'.

Shrub ± 4 m. Leaves upto 30 leaflets with aromatic smell. Flowers white in pyramidal panicles.

The sap of leaf rubbed on all kinds of muscular pains.

Loc.: Samelangshu; 69472.

Clerodendrum colebrookianum Walp. (Verbenaceae)

Nag.: 'Hinchang'.

Shrub ± 3 m with disaggreable smell. Leaves ovate, acute, entire, membranous. Flowers white in compound cyme.

Young leaf used as vegetable, said to be useful as anthelmintic.

Loc.: Kalioni; 69501.

Coffea bengalensis Heyne ex Roem. et Schult. (Rubiaceae)

Mik.: 'Mirherai'.

Small herb ± 1 m with glabrous, ovate-acuminate, membranous leaf. Flowers white, fragrant.

A bath in infusion of leaves is useful for 2-3 week old young babies suffering from fever. About 100 cc of infusion of the leaves is mixed with about 5 lit. warm water. The bath is to be given for three consecutive days.

Loc.: Nihanglakso; 69436.

Dalhousiea bracteata Grah. ex Benth. (Fabaceae)

Mik.: 'Longyorgthu'

Subscandent shrub with 1-foliate, shining, glabrous leaves. Flowers white in sparse lax sub-sessile axillary corymbs, terminal on branchlets with large persistent bracts.

Paste of the leaf applied on cuts.

Loc.: Nihanglakso; 69560.

Dracaena petiolata Hk. f. (Liliaceae)

Mik.: 'Longla'

Shrub ± 1.5 m with elliptic, caudate-acuminate leaf suddenly narrowed into a slender petiole. Fruit pisciform, yellow when ripe.

Useful in stomach pain and vomiting; two spoonfuls of the root sap given thrice a day.

Loc.: Nihanglakso; 69590.

Eranthemum platiferum Nees (Acanthaceae)

Mik.: 'Longlamak'.

Shrub ± 1 m with elliptic leaves acuminate at both ends. Flowers pale purple in racemes, often fascicled.

A paste of the roots of this plant and leaves of *Naravelia zeylanica* DC. in equal parts by weight applied on bone fracture. The treatment is renewed each day till bones heal.

Loc.: Nihanglakso; 69573.

Elatostema lineolatum Wt. (Urticaceae)

Nag.: 'Himbu'.

Small undershrub ± 75 cm with elliptic-ovate, entire, acuminate leaves and minute white flowers.

Paste of leaf applied on cuts caused by rocks, stones or iron pieces.

Loc.: Kalioni; 69187.

E. platyphyllum Wedd. (Urticaceae)

Mik.: 'Tangnap'.

Small undershrub ± 50 cm with oblique, elliptic-lanceolate, serrulate leaves and minute white flowers.

Paste of leaf or bark applied on cuts caused by rocks.

Loc.: Kalioni; 69380.

Euphorbia antiquorum L. (Euphorbiaceae)

Mik.: 'Hijuarong'.

Cactus-like shrub ± 2 m. Involucres 3-nate forming short peduncled cyme in sinuses.

Latex applied on burns.

Loc.: Kalioni; 69142.

Forrestia hookeri Hassk. (Commelinaceae)

Mik.: 'Chahalubor'; Nag.: 'Chagukadua-khuan'.

Shrub ± 1 m with petioled, oblanceolate leaves. Flowers' heads small. Capsule beaked.

Paste of roots applied on cuts.

Loc.: Kalioni; 69379.

Hedyotis scandens Roxb. ex D. Don (Rubiaceae)

Mik.: 'Haniktu'.

Herbaceous climber with green branches and opposite, sub-coriaceous, glabrous leaves. Flowers white in cymes.

A paste of the leaf is warmed and applied on boils in early stage.

Loc.: Tarapung; 69568.

Hyptianthera stricta Wt. & Arn. (Rubiaceae)

Mik.: 'Mirherai'.

An aromatic tall shrub ± 6 m with squarish stem and narrowly elliptic, glabrous, shining leaves. Flowers white in axillary cymes.

One or two spoonful of infusion or dry crushed leaves mixed with hot water and given once a day to expectant mother.

Loc.: Tarapung; 69431.

Homalomena aromatica Schott. (Araceae)

Mik.: 'Okhihatachang'.

Robust herb with creeping, aromatic rootstock and cordate, acuminate leaves. Spathe obscure, green.

Useful in influenza; the aroma of the rhizome is inhaled. The rhizome otherwise has an itching effect.

Loc.: Kalioni; 69128.

Houttuynia cordata Thunb. (Piperaceae)

Nag.: 'Hakongpi'.

Aromatic herb with creeping rootstock. Leaves broadly cordate. Spike white, dense, elongating in fruit.

Naga people believed that after returning from jungle they sometimes suffer from muscular pain due to evil spirits. About 200 cc sap of the raw leaf is given thrice a day.

Loc.: Kalioni; 69184.

Hoya globulosa Hk. f. (Asclepiadaceae)

Mik.: 'Mithanadai'; Nag.: 'Thaihom'

Epiphytic herb with white latex and elliptic, coriaceous leaves. Flowers cream-coloured.

Leaf ash repeatedly applied on dog-bite, till the wound is healed.

Loc.: Kalioni; 69381.

Ixora acuminata Roxb. (Rubiaceae)

Mik.: 'Longlapranpitheka'; Nag.: 'Tudana'.

Woody shrub ± 1 m with ribbed branches. Leaves coriaceous, elliptic, glabrous with oval sessile floral leaves. Flowers in cymes.

Underground parts are made into paste and applied on wounds.

Loc.: Kalioni; 69391.

Root decoction is a galactagogue; one or two spoonfulls prescribed twice a day.

Loc.: Tarapung; 69561.

Justicia gendarussa Burm. f. (Acanthaceae)

Mik.: 'Trachamai'.

Small shrub ± 1.5 m with green, smooth stem and lanceolate, sub-coriaceous leaves. Flowers white with purple spots inside interrupted spikes.

Paste of the leaf applied on bone fracture in cattle. Also used for relief to human beings in pain caused by displacement of nerves.

Loc.: Kalioni; 69143.

Merremia umbellata (L.) Hall. f. (Convolvulaceae)

Mik.: 'Torlongchok'.

Twiner with somewhat angular stem and oblong, lanceolate, pubescent leaves. Flowers white in axillary, sub-umbellate cymes.

Leaves mixed with equal parts of leaves of *Mikania cordata* (Burm. f.) R. L. Robinson, made into a paste and applied on cuts.

Loc.: Langlakso; 69623.

Mikania cordata (Burm. f.) R. L. Robinson (Asteraceae)

Nag.: 'Ranusinga'.

Herbaceous climber with slender branches and compound, white heads.

Useful in stomach pain and dysentery; about 150 cc leaf-sap given thrice a day.

Loc.: Kalioni; 69153.

Millettia caudata Baker (Fabaceae)

Mik.: 'Longlatanap'.

Large shrub ± 6 m with leaves upto 10 caudate leaflets. Flowers in axillary racemes.

Leaves of this plant and *Ixora acuminata* Roxb. and roots of *Staurotheca grandiflora* Benth. mixed in equal parts by weight and applied as paste on snake-bite.

Loc.: Tarapung; 69438.

Morinda angustifolia Roxb. (Rubiaceae)

Mik.: 'Konthu'.

Shrub ± 6 m with membranous, lanceolate leaves and white, fragrant flowers in umbellate globose heads.

Useful on sores of feet; feet are dipped in hot decoction of leaf until it cools. The process is repeated three or four times.

Loc.: Kalioni; 69190.

Musa ve'utina Wendl. & Drude. (Musaceae)

Nag.: 'Khoyancham'.

A stoloniferous shrub ± 2.5 m. Inflorescence erect, fruit bright pink, hairy.

In dysentery, about 100 cc of raw sap of the pseudostem given thrice a day. Also useful for stopping bleeding.

Loc.: Kalioni; 69455.

Natsiatum herpeticum Buch.-Ham. ex R. Br. (Icaciaceae)

Mik.: 'Hanpalu'.

Climber with distant membranous leaves. Flowers minute, unisexual, many in extra-axillary pendulous racemes.

Paste of leaf applied on cuts.

Loc.: Kalioni; 69544.

Oxalac acuminata Wall. ex Benth. (Oxalacaceae)

Mik.: 'Hankangyang'; Nag.: 'Him-mashing'.

Shrub ± 3 m with elliptic, acuminate leaves. Flowers greenish yellow in few-flowered racemes; peduncled-efflexed.

Young leaf is used as vegetable; it acts as cathartic.

Loc.: Kalioni; 69375.

Ophiorhiza ochroleuca Hk. f. (Rubiaceae)

Mik.: 'Longlamihik'

Glabrous herb ± 50 cm with elliptic-

lanceolate leaves and terminal or axillary dichotomous cyme.

In head-ache, about 5 cc sap of the leaf given thrice a day.

Loc.: Tarapung; 69565.

Piper attenuatum Buch.-Ham. ex Miq. (Piperaceae)

Mik.: 'Aibithi'; Nag.: 'Insipane'.

Woody climber with leaves upto 7 nerves. Fruiting spike ± 10 cm.

In common colds, about 25 cc sap of the root is given thrice a day.

Loc.: Kalioni; 69370.

P. diffusum Vahl (Piperaceae)

Mik.: 'Okang'.

Spreading herb with scandent branches, rooting at nodes and sub-coriaceous, 5-nerved leaves. Fruiting spike ± 8 cm.

In indigestion, half spoonful of sap of the root given twice a day until cured.

Loc.: Tarapung; 69570.

P. griffithi DC. (Piperaceae)

Nag.: 'Cachapani'

Adventitious root climber. Leaves coriaceous with cordate base, 3-5 nerves at base, 3 higher up. Fruiting spike ± 20 cm.

In constipation, about 200 cc of sap of the leaf given twice a day; the dose continued till cured.

Loc.: Kalioni; 69180.

Pogostemon villosus Benth. (Lamiaceae)

Mik.: 'Hanbila'.

Villous herb ± 75 cm with ovate, acuminate leaves and panicle spikes.

In stomach pain, about 200 cc of decoction of leaf given thrice a day. Sometimes decoction mixed with mustard oil and rubbed on body.

Loc.: Kalioni; 69103.

Saprosma ternatum (Wall. ex Roxb.) Hk. f. (Rubiaceae)

Mik.: 'Thabai'; 'Thabaibanghi'.

Shrub ± 3 m with angled branchlets and grey bark with vertical fissures. Leaves with foetid smell. Flowers white in trichotomous cymes,

In indigestion, about 250 cc sap of the bark mixed with little common salt and piper given thrice a day.

Loc.: Kalioni; 69176.

Solanum myriacanthum Dun. (Solanaceae).

Mik.: 'Charha'

Branched, prickly under-shrub \pm 40 cm with white flowers and golden yellow berries.

Fruit is useful in tooth-ache. Ripe and unripe fruits boiled and cut into two halves and the halves kept over decayed teeth for half an hour. Alternatively, fruits are crushed and boiled in a pot covered with banana leaf; a small hole made in the leaf and through this hole a hollow bamboo fitted and the vapour is allowed to go foment the mouth and teeth.

Loc.: Kalioni; 69193.

Stercospermum personatum (Hassk.) Chatt. (Bignoniaceae)

Mik.: 'Inhet'

Deciduous tree \pm 20 m with yellowish grey bark. Flowers yellowish in terminal lax panicle. Capsule \pm 20 cm, spirally twisted.

Useful in condition of stomach pain with vomiting but without stool discharge; 2-3 spoonful of raw sap of the bark given thrice a day.

Loc.: Tarapung; 69567.

Thunbergia grandiflora Roxb. (Acanthaceae)

Mik.: 'Nungnung'; Nag.: 'Thanghadu-rangnu'.

Woody climber with angularly toothed, scaberulous leaves and white flower in dense racemes.

Paste of leaf applied on cuts.

Loc.: Kalioni; 69374.

Turpinia nepalensis Wall. ex Wt. et Arn. (Sapindaceae).

Mik.: 'Thebongkok'.

Medium size tree \pm 7 m with leaves upto 9 leaflets. Panicles terminal or axillary; fruit globose green.

Paste of the leaf and seeds applied on muscular pain.

Loc.: Langlakso; 69624.

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