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CROSS COMMUNITY ETHNO-MEDICO BOTANY OF DIBRU-SAIKHOWA BIOSPHERE RESERVE, ASSAM

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ABSTRACT

The communication enumerates the result of ethnobotanical surveys carried out in Dibru-Saikhowa Biosphere Reserve, Assam. Information on ethno-medicinal uses and other economic and traditional uses of 121 species belonging to 107 genera and 66 families gathered from four ethnic communities viz. Mishing, Moran, Assamese and Bengali are documented.

INTRODUCTION

Assam, with her diverse ethnic communities and socio-cultural complexities, has maintained one of the oldest and most diverse traditions associated with the use of ethno-medicinal plants. The existence and dependency on numerous traditional practices provide sufficient ground to accept that folklore herbal medicare is still a living and functioning tradition in the state.

Dibru-Saikhowa Biosphere Reserve is endowed with plants having important medicinal properties very well recognized by the village and tribal people. Due to remoteness, lack of communication, transportation and modern healthcare facilities, the village folks even now cure their ailments with such plants having medicinal value.

Dibru-Saikhowa, a repository of biological diversity was declared as Biosphere Reserve on 28th July 1997. It is located in Dibrugarh and Tinsukia Districts of Assam and lies between 27°30' N to 27°45' N latitudes and 95°10' E to 95°45' E longitudes. Topographically the area is plain flood terrain on the southern bank of the river Brahmaputra intercepted by Lohit, Dibang, Dibru, Dangori and Siang rivers and various other rivulets. The reserve covers an area of 765 sq km of which 340 sq km is core zone, which is also declared as Dibru-Saikhowa National Park. The vegetation of the reserve is a representative of tropical moist deciduous type with patches of evergreen and riverine forests.

There are 41 fringe and 2 forest villages within the Biosphere Reserve with a total population of ca 30,000 (Anonymous 1998) of which more than 14% live in the forest villages. There is an admixture of several ethnic and immigrant communities in the fringe villages. They represent mainly the *Moran, Ahom, Chutia, Deuri, Sonowal,* Tea garden community, Nepali, Bihari and Bengali. But, exclusively the Mishing community inhabits the two forest villages situated in the Laika and Dodhia.

Socio-cultural complexities in and around Dibru-Saikhowa Biosphere Reserve are changed considerably after the great earthquake of 1950. A large section of the populations are shifted to other areas in Upper Assam. Remaining agriculture dependent inhabitants in the area had to change their

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livelihood and became more dependent on forest resources. The *Mishing* communities of Laika and Dadhia forest villages belong to Tibeto-Burman family of Mongoloid stock. They followed the rich cultural and social heritage of their ancestors in Arunachal and upper Assam belt. The *Moran* community is another distinguished ethnic group in upper Assam, arising out of Mongoloid stock. In Dibru-Saikhowa they are mainly distributed in Baghjan, Dighaltarung, Koliapani, Kaitia and Longpi villages. Both the communities are predominant in the districts of Tinsukia, Dibrugarh, Sibsagar, Jorhat, Golaghat in the south bank of Brahmaputra and Dhemaji and Lakhimpur districts in the north bank. Although they are not isolated from the mainstream of Assamese society, still they maintain their ethnic identities with distinct dialect, socio-cultural taboos and traditions. The *Assamese* community included in the present study belongs to *Ahom, Chutia, Deuri* and *Sonowal* groups spread in all the 41 fringe villages. Socio-cultural exchanges due to cosmopolitan nature of these villages have developed almost common tradition and ethnic knowledge on use of indigenous plants for various purposes including treatment of ailments. The *Bengali* community living in the riverbank areas of fringe villages depends mainly on fishing and belongs to Chattagram areas of present Bangladesh. They were migrated to the region during the pre- and post Independence period and settled along the riverbanks, popularly known as *Char* areas, of Assam and became an integral component in the society.

Considerable works were carried out in the field of ethno-botany of Assam over the last few decades (Arora 1981; Baruah & al. 1999; Baruah & Sarma 1984 & 1987; Bhattacharjee & Nair 1978; Bhattacharjee & al. 1980; Boissya & Majumdar 1980; Boissya & al. 1981; Boissya & al. 1983; Bora 1999; Bora & Pandey 1996; Borthakur 1976,1980, 1981a, 1981b, 1991, 1993, 1996a, 1996b; Borthakur & Goswami 1995; Borthakur & al. 1996, 1998, 1999; Brahma 1992; Brahma & Boissya 1996; Das & Saikia 2001; Dutta & Nath 1998,1999; Gogoi 1997; Gogoi & Boissya 1984; Gogoi & Borthakur 1991,1996; Gogoi & Borthakur 2001; Hajra & Baishya 1981; Handique & al. 1987; Islam 1983, 1984a, 1984b, 1986, 1996, 1997, 2000; Kalita 1997; Karnick & al. 1981; Kotoky & Das 2000; Jain & Borthakur 1980, 1986; Mahanta & Gogoi 1988; Majumdar & al. 1978; Majumdar 1980; Pandey & al. 1996; Puri 1987; Saklani & Jain 1989, 1994; Sarkar & al. 1989; Sarma & al. 2001; Sarma 1999; Singh & al. 1996). But so far no account on the subject is available from the Biosphere Reserve area.

MATERIALS AND METHODS

Altogether 8 field trips were conducted during June 2000 to August 2002 covering various remote localities including the forest and fringe villages. First hand ethno-botanical information were gathered from four dominant communities through personal contact with several herbal practitioners and village elders. Voucher specimens along with the information on uses and other relevant data were collected. The specimens were identified with the help of relevant literatures (Hooker 1872-1897; Kanjilal & al. 1934-1940) and compared with the authentic specimens at ASSAM and ARUN herbaria. Voucher specimens are deposited in the ARUN herbarium of Botanical Survey of India, Itanagar for future reference.

In the enumeration, the species are arranged alphabetically on their botanical names followed by family names in parenthesis, local names, diseases, parts used and their mode of use by the communities. The community names are given in abbreviated form (*Asm* for Assamese, *Mor* for Moran, *Mis* for Mishing and *Ben* for Bengali). Present status of the species in the area and their other economic uses are also highlighted.

ENUMERATION

1. **Acacia farnesiana** (L.) Willd. (Mimosaceae)

Local name: Tarua-kadam (*Asm, Mor*).

Diseases: Stomach pain, skin diseases & tonsillitis.

Parts used: Barks, roots & leaves.

Asm: 50 gm bark and root extract in little water is taken in empty stomach to cure stomach pain. Root and leaf paste applied externally on skin diseases.

Mor: 100 gm bark boiled in a glass of water and gurgled twice a day to cure tonsillitis.

Rarely found in forest and villages. Flowers are used as insect repellent. Wild ornamental.

2. **Achyranthes aspera** L. (Amaranthaceae)

Local name: Ubtisath (*Asm*), Brahma-justi (*Ben*).

Diseases: Child birth & jaundice.

Part used: Stems & roots.

Asm: Root paste is applied on naval portion of expected mother for easy and safe delivery.

Ben: A garland of 108 small pieces of stem is tied on head to cure Jaundice.

Less frequent both in forest & villages.

3. **Ageratum conyzoides** L. (Asteraceae)

Local name: Gendhali bon (*Asm*) Mokning (*Mis*).

Diseases: Menstruation problems and bleeding.

Part used: Tender shoots & leaves.

Asm: 3 numbers of shoot apices with 5 numbers of *Leucas aspera* leaves crushed with 3-5 black pepper fruits and extracted juice is taken for 3 days during menstruation period to cure pain.

Mis: Leaf paste applied to stop bleeding from any cut or injury.

Common aromatic herb in forest, village roadsides and cultivated lands.

4. **Alpinia nigra** (Gaertn.) Burtt (Zingiberaceae)

Local name: Tora-pat (*Asm, Ben*).

Diseases: Jaundice & constipation.

Part used: Rhizomes.

Asm: Paste of 50 gm clean rhizome mixed with cow milk and palm sugar is taken in empty stomach in the morning for 3 days in jaundice.

Ben: Boiled rhizome taken before bed to reduce constipation.

Common in marshy places in forest also found in villages. Tender shoots and rhizome are used as vegetable. Wild ornamental.

5. **Alstonia scholaris** (L.) R. Br. (Apocynaceae)

Local name: Sotiona (*Ben, Mor*).

Diseases: Fever, malaria & skin disease.

Part used: Latex & barks.

Ben: 100 gm bark extract with sugar is taken in the morning during general fever.

Mor: Bark decoction mixed with powder of black pepper is taken in the morning in empty stomach to cure malarial fever. Milky latex is used on skin diseases.

Common in the forest, also found in villages. Timber used for making Tea packing boxes.

***6. Ambroma augusta** (L.) L.f. (Sterculiaceae)

Local name: Gorokhia koi (*Asm, Mor*).

Diseases: Menstruation problems & Hair problems.

Parts used: Leaves & roots.

Asm: 50 ml of root extract is taken for 3 days during the menstruation period to cure pain and reduce excessive menstrual flow.

Mor: Leaf paste applied as hair growth promoter.

Common along village roadsides and forest. Fibre from bark is used in making ropes.

7. Amphineuron opulentum (Kaulf.) Holttum (Thelypteridaceae)

Local name: Bihlongoni (*Asm, Ben, Mor*), Rookshi (*Mis*).

Diseases: Malaria, fever, headache, body ache, snakebite, pain during menstruation, gastric, eczema and toothache.

Part used: Whole plant.

Asm: 21 cleaned roots are boiled with 11 black peppers and made its volume to 1 litre by pouring water. One glass of which is taken in empty stomach in the morning to cure malarial fever.

Mis: Tender leaves cooked with black pepper, ginger, leaves of *Houttuynia cordata* and chicken. The whole preparation is taken twice a day to cure fever.

Mis & Mor: Whole plant is used in headache, body ache and snake bite.

Ben: Roots with black pepper are boiled and juice is taken in empty stomach to cure gastric trouble. At the end of 3 days of menstruation period the preparation is taken for 3 consecutive terms to cure pain during menstruation. Leaf paste is applied on eczema. Whole plant is boiled and gurgled to cure toothache.

Common along roadside wasteland and in forest.

***8. Aristolochia tagala** Cham. (Aristolochiaceae)

Local name: Milkor (*Mor*).

Diseases: Ear infection & fever.

Parts used: Roots & leaves.

Mor: Roots are crushed in little water and 2-3 drops of extract is applied on infected ear. Leaves are crushed in little water, warmed and taken 2-3 times to cure fever.

Frequently found in village and forest.

***9. Argyreia argentea** Choisy (Convolvulaceae)

Local name: Tokori-alu (*Mor*).

Diseases: Urinary irritation & menstruation problems.

Parts used: Tubers & roots.

Mor: 50 gm of tuber paste mixed with honey is taken in the morning to cure urinary irritation. Root extract is taken in menstrual problems.

A common climber in forest and villages waste lands. Wild but ornamental.

10. Asperagus racemosus Willd. (Asperagaceae)

Local name: Satmul (*Asm*, *Mor*).

Diseases: Stomachache, general weakness, body pain & urinary trouble.

Part used: Tubers.

Asm: 50 gm boiled tuber paste diluted with fresh water is taken in empty stomach in the morning to cure stomachache.

Mor: 50 gm tuber paste mixed with one glass cow milk is taken 2-times daily to gain energy in weakness particularly of diabetic patients and to cure urinary problems.

Prickly climbers commonly grow in wet and waste lands in forest and villages. Tubers and tender shoots are used as vegetable. Roots are used in local liquor preparation and as Aphrodisiac. Wild, ornamental.

11. Azadirachta indica A. Juss. (Meliaceae)

Local name: Moha-neem (*Asm*, *Mor*).

Diseases: Stomach problems, skin diseases & epilepsy.

Parts used: Bark & leaves.

Asm: Leaf decoction is applied to cure skin diseases particularly measles.

Mor: Bark and leaf extract is taken to cure stomach problems.

Infrequently met in the forest, often planted in villages. Leaves edible and timber yeilding.

***12. Bischofia javanica** Blume (Bischofiaceae)

Local name: Urium (*Mor*).

Diseases: Urinary problems & leucorrhoea.

Part used: Barks.

Mor: 100 gm of bark is boiled in a bamboo vessel to make the volume to 1 litre and one glass of juice is taken 3-times a day in both the problems.

Dominant in the forest, found also in villages. Tender leaves are edible, wood is a valuable timber.

13. Boehmeria glomerulifera Miq. (Urticaceae)

Local name: Tun-gorn (*Mis*).

Disease: Tongue infection.

Part used: Leaves.

Mis: Odd numbers of leaves are made into paste by rubbing in between palms of two hands and applied on tongue.

More frequent in forest, also found in village edges. Fiber yielding plant. Tender leaves edible.

14. Bombax ceiba L. (Bombacaceae)

Local name: Simolu (*Asm, Ben*).

Diseases: Jaundice & stomach pain.

Parts used: Barks & roots.

Asm: 250 gm root paste with 250 gm palm sugar is diluted with 1 litre water and taken one glass 2-3 times daily in stomach pain.

Ben: 500 gm white bark is crushed, added ½ litre curd and 250 gm palm sugar and taken in the morning in empty stomach for 3 days in jaundice.

Dominant tree in forest, also planted for floss in villages. Wood used for match sticks and tea packing boxes.

15. Calotropis gigantea (L.) R. Br. (Asclepiadaceae)

Local name: Akon (*Asm, Mor*).

Diseases: Body ache & goiter.

Parts used: Leaves & latex.

Asm: Leaves coated with ghee are heated and applied on painful part of the body.

Mor: Latex is applied on enlarged portion in goiter.

Common in forest and villages. Stem yields fibre.

16. Cajanus cajan (L.) Huth (Fabaceae)

Local name: Arhar dal (*Mor, Ben*).

Diseases: Tongue and mouth sores & jaundice.

Part used: Leaves.

Mor: Tender leaf paste is applied on tongue to cure sores.

Ben: 50 gm leaf extract diluted with water is taken to cure jaundice and liver problems.

Cultivated in villages, found as an escape in forest.

17. Carica papaya L. (Caricaceae)

Local name: Amita (*Asm, Mor*).

Diseases: Ringworm & constipation.

Parts used: Latex, fruits & leaves.

Mor: Latex is applied on ringworms.

Asm: Boiled leaves are taken in constipation and indigestion.

Planted in villages, escape in forest. Green fruits used as vegetable.

18. Cassia alata L. (Caesalpiniaceae)

Local name: Khar gas (*Mis*).

Disease: Ringworm.

Part used: Leaves.

Mis: Fresh leaves are rubbed and applied on ringworm.

Less frequent both in forest and villages. Wild ornamentals in the waste land.

19. Cassia tora L. (Caesalpiniaceae)

Local name: Medelowa (*Asm*).

Diseases: Sleeplessness & Indigestion.

Part used: Tender shoots.

Asm: 4-5-tender shoots wrapped in a banana leaf, heated and paste prepared with common salt is taken 1-2 hours before bed.

Common on roadside and in forest.

20. Catharanthus roseus (L.) G. Don (Apocynaceae)

Local name: Nayantara (*Asm*).

Disease: Diabetes.

Part used: Leaves.

Asm: 3-5 leaves paste is taken twice a day to lower down high blood sugar.

Planted in villages as ornamental plant.

21. Centella asiatica (L.) Urban (Apiaceae)

Local name: Bor-manimuni (*Asm, Ben*).

Diseases: Fever, bleeding & pneumonia.

Part used: Leaves.

Ben: Leaf extract with that of *Nyctanthes arbor-tristis* is taken in fever. Leaf paste applied to stop bleeding from new cuts.

Asm: For Pneumonia (ref. *Drymaria cordata*).

Common in moist places & grass lands. Whole plant used as vegetable.

22. Cissampelos pareira L. (Menispermaceae)

Local name: Tupuki lota (*Asm*).

Disease: Fever (children).

Part used: Tender shoots.

Asm: 21 shoots are crushed with cold water and applied on fore head to reduce fever particularly of children.

Common climber in both forest & villages.

23. Clerodendrum colebrookianum Walp. (Verbenaceae)

Local name: Nephaphu (*Asm, Ben*).

Disease: High blood pressure.

Part used: Leaves.

Asm: 5-6 boiled leaves are taken as salad.

Ben: Leaf juice is taken in the morning in empty stomach.

Frequently found in forest and in village roadsides. Fruits edible and leaves are also used as green vegetable. Sometime planted as ornamental plant.

24. Clerodendrum hastatum (Roxb.) Lindl. (Verbenaceae)

Local name: Pkura pat (*Asm*).

Diseases: Ringworm.

Part used: Leaves.

Asm: Paste of 3-4 leaves is applied on infected area for 8-10 hours.

Not common, in forest and villages.

25. Clerodendrum indicum (L.) Kuntze (Verbenaceae)

Local name: Gane-sinung (*Mis*), Akalbih (*Mor*).

Diseases: Body ache & worms.

Part used: Leaves.

Mis: Boiled leaves are taken in body pain.

Mor: Leaf extract of 5-7 leaves in little water is taken in the morning for 3 days against round worms.

Frequently found in waste places, scrub forest and village edges. Tender leaves used as vegetable. Wild, ornamental.

26. Clerodendrum serratum (L.) Moon (Verbenaceae)

Local name: Pakom (*Mis*).

Disease: Dysentery.

Part used: Leaves.

Mis. Few leaves are wrapped in a banana leaf, heated on fire, paste and is taken with little common salt to cure dysentery.

Less frequent in forest and villages. Tender leaves are used as vegetable.

27. Clitoria ternatea L. (Fabaceae)

Local name: Aparajita (*Mor*).

Disease: Goiter.

Part used: Roots.

Mor: 50 gm root extract mixed with pure cow ghee is taken in the morning for 30 days to cure goiter.

Not found in forest but found in villages as ornamental plant.

28. Commelina benghalensis L. (Commelinaceae)

Local name: Kona-Simolu (*Asm, Ben*).

Disease: Eye problems.

Part used: Shoots.

Ben: Shoots are used as vegetable to increase eye sight.

Asm: Shoot extract is applied to cure eyesore.

Common in damp places both in forest and villages.

29. Costus speciosus (Koen.) Sm. (Costaceae)

Local name: Jamlakhooti (*Asm, Ben, Mor*), Pake-zigzig (*Mis*).

Diseases: Jaundice, headache & urinary trouble.

Part used: Rhizome.

Asm & Ben: Paste of 100 gm of rhizome mixed with rice washed water and palm sugar, sieved and taken one glass of it twice daily in the morning in empty stomach and in evening for three days to cure jaundice.

Mor: Rhizome extract mixed with cow milk is taken to induce and stimulate urination.

Mis: Rhizome paste is applied on the fore head to cure headache particularly of children. Rhizome paste in water is taken in the morning to cure jaundice.

More common in forest than villages. Tender leaves, flowers and rhizomes are used as vegetable. Wild but ornamental.

30. Crataeva magna (Lour.) DC. (Capparaceae)

Local name: Barun (*Mor, Asm*).

Diseases: Headache & muscle pain.

Part used: Leaves.

Mor: Boiled leaf juice is taken to cure headache.

Asm: Leaf paste is used for massaging in muscle pain.

Less frequent in forest and villages. Fruits and tender shoots are edible. Timber used for house building purpose.

31. Crinum amoenum Roxb. (Amaryllidaceae)

Local name: Bon-naharu (*Asm, Mor*).

Diseases: Gastric & goiter.

Part used: Bulbs.

Asm: Fresh bulb paste in one glass of cow milk kept in brass metal container is taken in the morning in empty stomach for 3 days to cure gastric problem. Also used as aphrodisiac.

Mor: 75 gm bulb extract with 75 gm onion juice is taken daily in the morning for one month to cure goiter.

More frequent in villages, less in forest. Wild, ornamental.

32. Cucurbita pepo L. (Cucurbitaceae)

Local name: Kumura (*Ben, Mor*).

Diseases: Urinary problems & epilepsy.

Part used: Fruits.

Ben: One glass fruit juice extract is taken 2-3 times daily to induce and stimulate urination.

Mor: For epilepsy (refer *Stemona tuberosa*).

Cultivated in villages for its edible fruits and tender twigs.

33. Cuscuta reflexa Roxb. (Cuscutaceae)

Local name: Akashi lota (*Asm, Ben, Mor, Mis*).

Diseases: Jaundice, vomiting & fracture.

Part used: Whole plant.

Asm: 20 drops of plant juice is taken in empty stomach for 3 days to cure jaundice.

Ben: Whole plant is tied around hand to stop vomiting.

Mor & Mis: A good amount of stem paste is applied in bone fracture to provide relief of pain.

A common parasitic twiner in forest & villages.

34. Cynodon dactylon (L.) Pers. (Poaceae)

Local name: Dubari bon (*Asm, Ben, Mis & Mor*).

Diseases: Menstruation problems, leucorrhoea, piles, body ache & stomach problems.

Part used: Whole plant.

Ben: Plant decoction is taken in empty stomach for 3 days to reduce pain and excessive menstrual flow. 11-21 shoots are crushed with 1 banana and curd and taken for 3 days in the morning to cure leucorrhoea.

Asm: Leaf decoction with rice paste is taken to cure menstrual pain. Shoots are taken (3 in the first day and increasing 2 in each successive day till 7th day) in the morning to cure piles.

Mis: 10-15 gm of plant extract is taken raw to reduce body ache.

Mor: Whole plant extract with little water is taken in the morning to cure stomach trouble.

A dominant grass in both forest & villages.

35. Datura metel L. (Solanaceae)

Local name: Dhatura (*Asm, Ben*).

Disease: Body pain.

Parts used: Leaves & seeds.

Asm: Oil extracted from warmed seeds is used as massage to cure bodyache.

Ben: Paste of few leaves with ginger is applied as pain killer. Seeds and roots are used in wizardry action.

Commonly found in village roadsides, less common in forest.

***36. Discidia benghalensis** Coleb. (Asclepiadaceae)

Local name: Chabun pat (*Asm*).

Disease: Ear infection.

Part used: Leaves.

Asm: Extract of 4-5 leaves is applied in the infected ear.

Common climber on various tree trunks.

37. Drymaria cordata (L.) Willd. ex Roem. & Schult. (Caryophyllaceae)

Local name: Laijabori (*Mor*).

Disease: Pneumonia.

Part used: Whole plant.

Mor: Whole plant paste with leaves paste of *Centella asiatica* is taken, twice a day to cure pneumonia.

A common herb of cultivated land and abundant in moist and waste places. Whole plant used as vegetable.

***38. Dysophylla auricularia** Blume (Lamiaceae)

Disease: Pneumonia.

Parts used: Leaves & flowers.

Mor: 200 gm of leaves and flowers are pasted with 20-25 fruits of black peppers. The paste is diluted with 500 ml water and taken thrice daily.

Common herb in forest and village waste lands.

39. Eclipta prostrata (L.) L. (Asteraceae)

Local name: Long-bon (*Mis*), Khe'n raj (*Mor*).

Diseases: Tongue sore & swelling of leg.

Part used: Whole plant.

Mis: Flower and seed paste is applied on tongue to cure sores.

Mor: 75 gm juice of the plant is taken 3 times a day for 15 days swelling foot for curing of.

Common in damp places in forest, crop field and roadsides.

40. Ehretia acuminata R. Br. (Ehretiaceae)

Local name: Pu'ja (*Asm*).

Disease: Postnatal problems.

Part used: Barks.

Asm: 100 gm bark is boiled, cooled and is taken in the morning for 3 days to cure postnatal complaint.

Common in the forest, less frequent in villages. Timber yielding plant.

41. Elephantopus scaber L. (Asteraceae)

Local name: Hastipoda (*Mis*).

Disease: Dysentery.

Part used: Roots.

Mis: Root extract in water is taken twice daily to cure dysentery.

Frequent in moist and shady areas in forest as well as in villages.

42. Emblica officinalis Gaertn. (Euphorbiaceae)

Local name: Amlokhi (*Asm, Mor*).

Diseases: Heart weak, high blood pressure, indigestion & constipation.

Part used: Fruits.

Mor: Extract of 5-fruits is mixed with 250 ml milk and taken in empty stomach in the morning to cure heart weak. 10 fruits are taken daily to reduce high blood pressure.

Asm: For indigestion and constipation (ref. *Terminalia bellirica*).

More frequent in villages, rarely found in forest. Fruits edible.

***43. Equisetum diffusum** D. Don (Equisetaceae)

Local name: Tushuktoma (*Mis*).

Disease: Bone fracture.

Part used: Whole plant.

Mis: Whole plant paste as required is applied on bone fracture.

Less frequently found in damp places in forest and in village roadsides.

44. Eryngium foetidum L. (Apiaceae)

Local name: Bormangori (*Mis*).

Disease: Fever.

Part used: Leaves.

Mis: Few leaves are boiled and taken with common salt twice daily in fever.

More frequent in villages than forest. Whole plant except inflorescence is used as spice.

45. Eupatorium odoratum L. (Asteraceae)

Local name: Jarmoni-bon (*Mis*).

Diseases: Bleeding & septic.

Part used: Leaves.

Mis: Leaf paste is applied on new cut or wound to stop bleeding and as an antiseptic agent.

A common under shrubs along village roadsides and forest margin.

46. Euphorbia nerifolia L. (Euphorbiaceae)

Local name: Hisu (*Ben*).

Diseases: Menstruation problems, cough & nail infection.

Parts used: Stems & leaves.

Ben: One inch long stem with 21-black peppers is boiled in water, thoroughly crushed and 4-tea spoon full of juice is taken in the morning to check excessive menstrual flow. Paste of inner core of stems is applied to cure nail infection. Boiled leaf extract is applied on tongue to cure cough particularly for babies.

Absent in forest, only in the fringe villages, sometime planted.

47. Ficus benghhalensis L. (Moraceae)

Local name: Bor gos (*Mor*).

Disease: Bleeding after abortion.

Part used: Barks.

Mor: 20 gm bark paste is taken to stop bleeding after abortion.

Frequently found in forest and villages. Wood used for furniture and building material. Bark yields fibre.

48. Ficus heterophylla L.f. (Moraceae)

Local name: Datun (*Asm*), Lota-dimoru (Mis).

Diseases: Asthma, skin disease & tooth problems.

Parts used: Tender leaves & stems.

Mis: Extract of 21-tender leaves mixed with few seeds of black pepper is taken twice daily to cure asthmatic problems.

Asm: 9-11- stem apices wrapped in a banana leaf are heated, crushed and applied as paste on disease area particularly in contagious skin diseases. Regular use of stem as tooth brush prevents tooth problems like cavities and pyorrhea.

More common in forest than villages. Fruits edible.

49. F. hispida L.f. (Moraceae)

Local name: Takpiag (*Mis*).

Part used: Leaves.

Mis: Few boiled leaves are taken 2-3-times a day to cure fever particularly in case of small children.

Frequently found in forest and village edges. Tender leaves and ripe fruits are edible. Bark yields fiber and wood used for making tea-packing boxes.

50. F. racemosa L. (Moraceae)

Local name: Tazik (*Mis*).

Disease: Dysentery.

Part used: Fruits.

Mis: Fruits are grinded and juice is taken 2-3 times daily.

Common in forest, less common in villages. Tender leaves are used as vegetable. Wood yielding plant.

51. F. religiosa L. (Moraceae)

Local name: Ahot (*Mor*).

Disease: Tongue & mouth sores.

Part used: Barks.

Mor: Bark extract is used to wash the infected tongue and mouth.

Dominant tree in forest, also found in villages. Tender leaves are edible.

52. Flemingia strobilifera (L.) R. Br. (Fabaceae)

Local name: Makhiloti (*Mor*).

Diseases: Scabies & ringworm.

Part used: Roots.

Mor: Main root is cut into three parts each of 3- inches long, crushed & pasted and applied on skin disease.

Absent in the forest, planted in village household. Wild ornamental.

53. Glycosmis pentaphylla (Retz.) DC. (Rutaceae)

Local name: Bonjaluk (*Ben*).

Disease: Jaundice.

Part used: Young leaves.

Ben: Ref. *Securinega virosa.*

Not common in forest and villages.

***54. Gomphostemma parviflora** Wall. ex Benth. (Lamiaceae)

Local name: Pithadola (*Mor*).

Diseases: Infertility & tooth problems.

Parts used: Leaves & roots.

Mor: 15-20 crushed leaves in a brass metal container with little water is taken in empty stomach for 3 days during menstruation periods.

Asm: Roots are chewed to cure toothache and cavities.

Common in village roadsides and wastelands, less common in forest.

55. Hibiscus mutabilis L. (Malvaceae)

Local name: Sthala padma (*Asm*).

Disease: Diabetes.

Part used: Flowers.

Asm: Paste of 3-flowers, collected early in the morning, is taken with water in empty stomach in diabetes.

Not common. Grown in gardens for ornamental purposes.

56. Hibiscus rosa-sinensis L. (Malvaceae)

Local name: Jaba (*Asm*).

Disease: Fever.

Part used: Leaves.

Asm: Leaf paste is applied on fore head for lower down the temperature.

Commonly planted for ornamental purposes. Found in forest as escape. Bark yields fibre for making ropes.

57. Houttuynia cordata Thunb. (Saururaceae)

Local name: Piplee (*Mis*), Mosundari (*Asm*).

Diseases: Dysentery & fever.

Part used: Leaves.

Asm: 8-10 leaves are wrapped in a banana leaf, heated, crushed and made into paste and taken with common salt to cure dysentery.

Mis: For fever (ref. *Amphineuron opulentum*).

Common in moist places in forest and villages, also cultivated. Leaves and Tender twigs are used as vegetable.

58. Hydrocotyle sibthorpioides Lam. (Apiaceae)

Local name: Haru-manimuni (*Ben*).

Disease: Eye problems.

Part used: Leaves.

Ben: Leaf extract 2-times daily is applied to cure eye cataract. Boiled leaves are taken for vigority and in night blindness. 2-3 drops of leaf extract are used to reduce excessive wetting of eyes.

Common in marshy areas both in forest and villages. Whole plant is edible.

59. Jatropha curcas L. (Euphorbiaceae)

Local name: Bongali era (*Asm*).

Disease: Tooth problems.

Part used: Tender shoots.

Asm: Tender shoots are used as tooth brush against tooth problems like enamel loss, cavities & toothache.

Common on village roadsides. Less common in forest.

60. Justicia adhatoda L. (Acanthaceae)

Local name: Boga tita (*Ben*).

Disease: Whooping cough.

Part used: Leaves.

Ben: Leaf decoction is taken 2-3 times daily till cure.

Not common in villages and forest, tender leaves used as vegetable.

61. Justicia gendarussa Burm.f. (Acanthaceae)

Local name: Bishjaran (*Ben*), Jatrashidhi (*Asm, Mis*).

Diseases: Muscle pain, fracture & bleeding.

Part used: Leaves.

Ben: Leaves as required with 50 gm turmeric and little common salt are made into paste and applied on muscle to give relief of pain.

Asm: Leaf paste is applied on new cuts & wounds to stop bleeding.

Mis: Leaf paste is applied for bone fracture and swelling of joints.

Grown as ornamental plant in villages particularly at the entrance of house as hedge, escape in forest.

62. Kalanchoe pinnata (Lam.) Pers. (Crassulaceae)

Local name: Dupartenga (*Asm, Mor, Mis*).

Diseases: Urinary irritation, bleeding & kidney stone.

Part used: Leaves.

Asm: Decoction of 5-7-leaves, collected before noon, is taken to remove kidney stone.

Mor: Juice of 10-leaves is taken twice daily for 3 days to cure urinary irritation.

Mis: Leaf paste is applied on wound to stop bleeding.

Frequently found in villages, sometime planted. Absent in forest.

63. Lantana camara L. (Verbenaceae)

Local name: Ram tulasi (Asm).

Disease: Stomach problems.

Part used: Fruits.

Asm: 5-7 ripe fruits are heated to make them dry and taken in stomach problems.

Common weed. Planted as hedge plant.

64. Lasia spinosa (L.) Thw. (Araceae)

Local name: Sengmara (*Mor*).

Disease: Leucorrhoea.

Part used: Tender leaves.

Mor: 5-7 tender leaves are wrapped in a banana leaf, heated, made into paste and taken in the morning in empty stomach for 3 days in leucorrhoea.

Prickly herb with underground stems growing more frequently in moist and swampy area in forest and village roadsides. Corm is used as vegetable.

65. Lawsonia inermis L. (Lythraceae)

Local name: Jetuka (*Mor*).

Diseases: High blood pressure & epilepsy.

Part used: Leaves.

Mor: Leaf extract or paste is applied on fore head in high blood pressure. For epilepsy (ref. *Stemona tuberosa*).

Found only in villages planted for its medicinal and other cultural use.

66. Leea asiatica (L.) Ridsdale (Leeaceae)

Local name: Kukura-thengia (*Asm*), Tapen (*Mis*).

Diseases: Septic & urino-genital infection.

Parts used: Barks & roots.

Asm: Bark paste as required is applied on cuts and wounds to prevent bleeding & as septic measure.

Mis: 50 gm root extract in water is taken once for 3-days to cure urino-genital problems & infection after delivery. Root extract is also applied directly on the infection.

Frequent in forest and village edges. Tender leaves are used as vegetable.

67. Leucus aspera (Willd.) Link. (Lamiaceae)

Local name: Boga drun (*Asm, Ben, Mor*), Jhuil (*Mis*).

Diseases: Bleeding after abortion, indigestion, toothache, sinusitis, menstruation problems, cough, body ache & skin diseases.

Parts used: Leaves, roots & flowers.

Mor: 25 gm of leaf extract mixed with honey is taken to stop bleeding after abortion.100 gm of leaf wrapped in banana leaf are heated and made into paste. The paste is taken before meal to cure indigestion and enhance appetite.

Asm: Roots are chewed to reduce toothache. 2-3-drops of leaf juice are applied on each nostril for 2-3-days in sinusitis. For menstruation problems (ref. *Ageratum conyzoides*).

Ben: 1-2 teaspoon full of leaf decoction is taken to cure cough. Boiled leaf paste is applied to reduce bodyache. Leaf paste with coconut oil applied on skin diseases.

Mis: 50 gm root paste with little water is taken during menstruation period in the morning to cure pain and to check excessive menstruation flow.

Common in both villages and forest. Tender leaves are used as vegetable.

68. Lindernia crustacea (L.) F.v.Muell. (Scrophulariaceae)

Local name: Gakhir bon (*Ben*).

Disease: Hypolactemia (decreasing of milk after childbirth).

Part used: Leaves.

Ben: 100-200 gm leaves are boiled with black pepper and taken with meal by the lacting mother to increase breast milk.

Frequently found in damp places and grasslands in forest and villages. Leaves edible.

69. Maesa indica (Roxb.) Wall. (Myrsinaceae)

Local name: Adam balam (*Mis*).

Diseases: Hypertension & chest ache.

Part used: Tender leaves.

Mis: Tender leaves boiled in bamboo calm are taken to reduce high blood pressure and chest pain.

Less frequent in forest and villages. Tender leaves and fruits edible.

70. Manihot esculenta Crantz. (Euphorbiaceae)

Local name: Simlu alu (*Ben, Mor*).

Diseases: Leucorrhoea & general weakness.

Part used: Tubers.

Ben: Inner part of tubers is taken raw to cure leucorrhoea.

Mor: 10-teaspoon full of tuber extract with 4-teaspoon full of honey is given to gain vitality.

Planted in villages. Boiled tubers edible.

71. Melia azedarach L. (Meliaceae)

Local name: Ghora neem (*Mis*).

Diseases: Dysentery & cough.

Part used: Leaves.

Mis: Leaf extract in little water is taken twice daily to cure dysentery. Leaves are boiled and juice is taken in cough.

Not common in forest. Planted in village for firewood and as shade tree. Timber used for house building purpose.

72. Mikania micrantha Kunth (Asteraceae)

Local name: Mikania lota, Amar lota (*Ben*).

Diseases: Malaria, liver problems & water accumulation in body.

Parts used: Tender leaves, roots & tender shoots.

Ben: Paste of young leaves & roots with leaves of *Ocimum sanctum,* ginger and black pepper is taken in empty stomach for 3-days to cure malarial fever. Juice extracted from 200gm tender shoots is diluted with water and taken in empty stomach to cure liver problems and water accumulation in body.

A dominant exotic climber in village edges and forest.

73. Mimosa pudica L. (Mimosaceae)

Local name: Lajuki-lota (*Asm, Ben*), Mehinip (*Mis*).

Diseases: Indigestion, constipation & childbirth.

Parts used: Roots & leaves.

Asm: Root extract is used as oral contraceptive. Leaf paste is applied on the naval portion for easy delivery.

Mis: Root paste is mixed with leaf extract of *Ocimum sanctum* and taken before meal as appetiser, to cure indigestion.

Ben: Roots of the plant with roots of *Ficus religiosa, Ocimum sanctum* and *Clerodendrum colebrookianum* are used in witch craft & wizardry.

Common in waste places, roadsides, cultivated land and scab forest. Fruits edible.

74. Mimusops elengi L. (Sapotaceae)

Local name: Bokul (*Mor*).

Diseases: Tongue & mouth sores.

Part used: Barks.

Mor: Bark extract in water is used to wash the infected tongue and mouth sore.

Absent in forest, planted in villages. Wood is valuable. Ripe fruits edible. Oil is obtained from the seeds.

75. Mirabilis jalapa L. (Nyctaginaceae)

Local name: Godhuli gopal (*Mor*).

Disease: Pain.

Part used: Tubers.

Mor: Tuber extract applied particularly on boils to get relief from pain.

Perennial herb with tuberous roots found only in villages, planted as ornamental plant.

76. Momordica charantia L. (Cucurbitaceae)

Local name: Tita-kerala (*Mor*).

Disease: Rheumatic pain.

Part used: Seeds.

Mor: Extract of 3-seeds is used as message against pain.

Cultivated in villages, escape in forest. Fruits and tender twigs are used as vegetable.

77. Moringa oleifera Lamk. (Moringaceae)

Local name: Sajana (*Mor, Mis*).

Diseases: Low blood pressure & snake bite.

Parts used: Tender leaves, barks & roots.

Mor: 50 gm leaf juice is taken in the morning to improve low blood pressure.

Mis: Bark and root paste is given in snakebite.

Found only in villages. Tender twigs, flowers and fruits are used as vegetable.

78. Nyctanthes arbor-tristis L. (Oleaceae)

Local name: Sewali Phul (*Asm, Ben*).

Diseases: Fever, malaria & diabetes.

Parts used: Leaves & seeds.

Ben: Leaf paste with little common salt is taken to cure fever particularly of women occurring in the evening time and malarial fever. For fever (ref. *Centella asiatica*).

Asm: Cotyledons of 3-seeds are taken daily in empty stomach to cure diabetes.

Planted as ornamental plants. Absent in forest area. Flowers are dried and taken.

79. Nymphaea alba L. (Nymphaeaceae)

Local name: Bhet-phul (*Mor*).

Disease: Polio.

Part used: Flowers.

Mor: Paste of 5-6 flowers with banana is mixed with 1-glass goat milk and taken after meal twice daily till cure.

Common in sweet water bodies in villages. Stalk, flowers and fruits are edible. Ornamental plant.

80. Ocimum sanctum L. (Lamiaceae)

Local name: Tulashi (*Mor, Mis, Ben, Asm*).

Diseases: High blood pressure, cataract, malaria, cough & cold, indigestion.

Part used: Tender shoots.

Mor: 2-teaspoon full of leaf extract with 4-teaspoon full of turmeric extract is taken 2-times daily before meal to reduce high blood pressure. Tender shoot extract is applied on eye to cure cataract.

Ben: For malarial fever (ref. *Mikania micrantha*), cough & cold (ref. *Phlogacanthus thyrsiflorus*).

Mis: For indigestion (ref. *Mimosa pudica*).

Asm: Leaf extract with ginger, honey & black pepper is taken in cough.

Found only in villages. Planted for its various uses.

81. Oldenlandia diffusa (Willd.) Roxb. (Rubiaceae)

Local name: Bon-jaluk (*Asm*).

Disease: Tuberculosis.

Part used: Whole plant.

Asm: 2-3-teaspoon full of plant extract is taken in the morning till cure.

Common in grass lands, damp places in forest and villages.

82. Oroxylum indicum (L.) Vent. (Bignoniaceae)

Local name: Bhatghila (*Asm*), Solobokong (*Mis*).

Diseases: Hemi crania & Dysentery.

Parts used: Bark & tender leaves.

Mis: Bark paste is applied on fore head to get relief from hemi crania.

Asm: Tender leaves and bark are crushed in water and juice is taken in dysentery. Bark is used in muscular pain, general weakness. Root bark in rheumatism and also as astringent.

More frequent in forest than villages. Fruits and flowers are edible. Wood used for tea packing boxes.

83. Oxalis corniculata L. (Oxalidaceae)

Local name: Tengasi (*Mor*).

Diseases: Diabetes & allergy.

Part used: Leaves.

Mor: Leaves are wrapped in banana leaf, heated and made into paste and taken with meal to cure diabetes. Leaf paste is applied on allergic eruption.

Common herb in moist places, both in forest and villages. Plant edible.

84. Paederia foetida L. (Rubiaceae)

Local name: Paduri-lota (*Asm*), Bon-kaseluk (*Mis*).

Diseases: Stomach problems & dysentery.

Parts used: Leaves & tender twigs.

Asm & Mis: Boiled leaves and tender twigs are taken in various stomach problems. Few numbers of tender twigs are wrapped in a banana leaf, heated in fire and made into paste and taken with little common salt to cure dysentery.

A common creeper in villages and forest. Leaves and tender twigs are used as vegetable.

85. Phlogacanthus thyrsiflorus (Roxb.) Nees (Acanthaceae)

Local name: Tetaphul (*Asm*), Basak (*Ben*).

Diseases: Cough & cold, worms.

Parts used: Leaves & flowers.

Asm: Leaves and flowers are boiled and taken to remove intestinal worms and to purify blood.

Ben: Leaf decoction with leaves of *Ocimum sanctum, g*inger and honey is taken 1-2 teaspoon full 2-times daily to cure cough.

Frequently found in village edges, sometimes cultivated as hedge. Not common in forest. Flowers and leaves are used as vegetable.

86. Phlogocanthus tubiflorus Nees (Acanthaceae)

Local name: Habi-tetaphul (*Ben*).

Disease: Excessive sexual desire.

Part used: Roots.

Ben: Root paste mixed with palm sugar and cooked rice are kept over night and taken in the morning to reduce sexual desire.

Common in village roadside, found also in forest.

***87. Phyllanthus urinaria** L. (Euphorbiaceae)

Local name: Bam-poni (*Asm*).

Disease: Indigestion.

Part used: Tender shoots.

Asm: Extract of 5-6 tender shoots with 5-6 *Cassia tora* shoots is taken 2-3 teaspoon full after meal.

Common herb in both villages and forest.

88. Plumbago zeylanica L. (Plumbaginaceae)

Local name: Agesi (*Mor*).

Disease: Cancerous growth on foot.

Part used: Tender shoots.

Mor: Paste of 5-11 tender shoots with equal number tender shoots of *Urena lobata* and fruits of *Musa paradisiaca* are applied on the growth.

Seen only once in Baghjan fringe village.

89. Pogostemon benghalensis (Burm.f.) Kuntze (Lamiaceae)

Local name: Hukloti (*Asm*).

Disease: Postnatal problems.

Part used: Tender shoots.

Asm: 15-tender shoots are wrapped in a banana leaf, heated under fire and made into a paste and taken in the morning for 3-days to recover postnatal infections and pain.

Common in forest and villages. Planted as hedge. Tender shoots are used as vegetable.

90. Polygonum hydropiper L. (Polygonaceae)

Local name: Nol- tenga (*Ben*).

Disease: Blood dysentery.

Part used: Leaves.

Ben: 50 gm of leaves wrapped in a banana leaf are heated and taken with common salt to stop blood dysentery.

Common in marshy areas. Tender shoots edible, also used in fish poisoning.

91. Pouzolzia zeylanica (L.) Benn. (Urticaceae)

Local name: Lalle (*Mor*).

Diseases: Eczema & ringworm.

Part used: Tender shoots.

Mor: Tender shoot paste is applied on eczema and ringworm for about 4-5 hours duration daily.

Common herb in moist places in forest and village roadsides. Tender shoots are used as vegetable.

92. Psidium guyava L. (Myrtaceae)

Local name: Madhuri (*Mor, Asm*).

Diseases: Tongue sores & stomach pain.

Part used: Tender leaves.

Mor: Paste of young leaves is applied on tongue to cure sores.

Asm: Boiled leaves are taken with little common salt to cure stomach pain and other stomach problems.

Planted in villages, found as an escape in forest. Fruits edible.

93. Punica granatum L. (Punicaceae)

Local name: Dalim (*Mor*).

Diseases: Tongue, mouth sores and worms.

Parts used: Barks & roots.

Mor: Bark extract is used to wash the infected area. Bark and root extract is heated and taken 3-times daily for 3-days against worms particularly hook-worms.

Planted in homestead, not found in forest. Seeds used as souring agent.

94. Rhamnus nepalensis (Wall.) M.A. Lawson (Rhamnaceae)

Local name: Gos birina (*Asm*).

Disease: Pneumonia.

Part used: Roots.

Asm: 100 gm root with equal amount root of *Zanthoxylum nitidum* and 31- black pepper are crushed, made into a paste and boiled with 1 litre water, cooled and taken one glass twice daily.

Common in forest, less common in villages.

95. Rhynchostylis retusa (L.) Blume (Orchidaceae)

Local name: Kopu-phul (*Ben*).

Disease: Ear infection.

Part used: Leaves.

Ben: 2-3-drops of boiled leaf extract are put in ear 2-times daily.

Most commonly found orchid species, wild as well as planted. Flowers are used by Assamese girls in "Bihu festival".

96. Ricinus communis L. (Euphorbiaceae)

Local name: Era-guti (*Ben, Mor, Mis*).

Diseases: Vomiting, allergy, rheumatic pain, post natal pain & stomach pain.

Parts used: Bark, leaves, seeds & roots.

Ben: A garland of small pieces of bark is tied on neck to stop vomiting of children.

Mor: Leaf paste is applied on allergy. Bark, root and seed extract is used as massage in rheumatism.

Mis: Paste of 5 or 7-leaves is taken to cure postnatal pain. Root paste diluted with water is taken in stomach pain.

Planted for rearing Eri silk worms, very rarely found in forest. Tender leaves edible.

97. Sapindus mukorossi Gaertn. (Sapindaceae)

Local name: Monichal (*Mor*).

Disease: Sinusitis.

Part used: Barks.

Mor: Clean barks are masticated to cure sinusitis.

Common tree in forest, also found in villages. Fruits used in cleaning purposes. Timber is used in house building.

98. Saraca asoca (Roxb.) de Wilde (Caesalpiniaceae)

Local name: Ashok (*Mor*).

Disease: Leucorrhoea.

Part used: Barks.

Mor: 25 gm bark is boiled with little water and cow milk and taken in the morning for 3-days.

Less frequent in forest, planted in village roadsides. Timber yielding plant.

***99. Sarchochlamys pulcherrima** (Roxb.) Gaud. (Urticaceae)

Local name: Not-kee (*Mis*).

Diseases: Stomach pain & dysentery.

Part used: Tender shoots.

Mis: 5-7 nos. of tender shoots are wrapped in a banana leaf, heated and taken with common salt 2-times a day to cure dysentery. Boiled tender shoots are taken in the morning to cure stomach pain.

Frequent in forest and village edges. Stem yields fibre and tender leaves are used as vegetable.

100. Scoparia dulcis L. (Scrophulariaceae)

Local name: Cheni bon (*Asm*), Diri-champair (*Mis*), Jaroni gos, Bhui-neem (*Ben*).

Diseases: Diabetes, indigestion, eye ache, hemi crania & skin diseases.

Part used: Whole plant.

Asm: 10 gm of plant paste is taken in empty stomach to cure diabetes.

Mis: Leaf paste of 50 gm leaves is taken before meals to cure indigestion. To reduce eye pain warm blow of plant paste is used.

Ben: Leaf paste is applied on fore head to cure hemi crania. Leaf paste with coconut oil is applied on skin diseases.

Common in forest and village roadsides. Tender shoots are used as vegetable.

101. Securinega virosa (Roxb. ex Willd.) Baill. (Euphorbiaceae)

Local name: Chitika bon (*Ben*).

Disease: Jaundice.

Part used: Leaves & roots.

Ben: About 100 gm leaves and 50 gm roots with 50 gm. tender leaves of *Glycosmis pentaphylla* and little black cumin are crushed to make tablets; 9-10 of them is taken in empty stomach for 3-7 days. The tablets should be taken standing on the court yard.

Dominant shrub in the forest, less frequent in villages. Planted as hedge. Mature fruits edible.

102. Sesamum indicum L. (Pedaliaceae)

Local name: Til (*Ben*).

Disease: Ring worm.

Part used: Seeds.

Ben: Seed oil is mixed with root paste of *Vitex negando* and applied on ring worm.

Cultivated in small scale, found in forest as escape.

103. Smilax perfoliata Lour. (Smilacaceae)

Local name: Tikani-barua (*Mor*).

Disease: Menstruation problems.

Part used: Tender shoots.

Mor: 3 tender shoots with 3 tender shoot of *Zanthoxylum nitidum* and 3-black pepper are crushed, added 500 ml cow milk and taken 1 glass daily during menstruation period to cure irregular menstruation. Consumption of young twigs reduces sexual desire.

A dominant climber in the forest, less frequent in villages. Tender shoots are used as vegetable.

***104. Solanum ferox** L. (Solanaceae)

Local name: Bhekuri (*Mor*).

Diseases: Cough & respiratory problems.

Parts used: Seeds & roots.

Mor: 1-2-Seed paste is applied to cure cough particularly of babies. Root paste in water is taken in respiratory problems.

Very rare. Seen only once in Baghjan village. Tender leaves and fruits are used as vegetable.

105. Solanum indicum L. (Solanaceae)

Local name: Bhekuri (*Ben*), Bankow (*Mis*).

Diseases: Diarrhoea, vomiting & worms.

Parts used: Leaves, roots, flowers & fruits.

Ben: Paste of leaves, roots & flowers is applied on forehead to cure diarrhoea and vomiting particularly in children below 18 months old.

Mis: Boiled fruits (9-11) act as vermicide.

Frequently found in village roadsides & forest. Tender leaves used as vegetable.

106. Spondias pinnata (L.f.) Kurz (Anacardiaceae)

Local name: Amora (*Mor*), Dorge (*Mis*).

Diseases: Stomach pain & nose bleeding.

Part used: Tender leaves.

Mis: Juice of tender leaves is taken in stomach pain.

Mor: Leaf paste is inhaled to stop nasal bleeding.

Frequent in villages, sometimes cultivated. Fruits and tender leaves are edible.

107. Spilanthes paniculata Wall. ex. DC. (Asteraceae)

Local name: Bon jaluk (*Asm, Ben*), Marsang (*Mis*).

Diseases: Tonsillitis, tongue infection & dysentery.

Part used: Whole plant.

Asm: Few flowers are boiled with little water and taken 2-times daily in tonsillitis.

Mis: Whole plant extract is taken in dysentery.

Mis & Ben: 7 or 9 flowers are rubbed in hand to make a paste and applied 2-3 times on tongue.

A common weed in the cultivated lands and forest. Flowers & leaves are used as vegetable.

108. Stemona tuberosa Lour. (Stemonaceae)

Local name: Ananta mul (*Mor*).

Disease: Epilepsy.

Part used: Tubers.

Mor: One tuber with barks of *Azadirachta indica*, 5-7-seeds of *Cucurbita pepo* are crushed and mixed with little honey and leaf juice of *Lawsonia inermis* and taken on Sunday morning in empty stomach against epilepsy.

A common climber in forest and villages. Tender shoots are edible.

109. Syzygium cuminii (L.) Skeels (Myrtaceae)

Local name: Kola jamu (*Asm, Mor*).

Diseases: Diabetes, dysentery, urinary irritation & night-wetting.

Parts used: Leaves, seeds & barks.

Asm: Extract of leaves, seeds & barks together is taken in empty stomach in diabetes. One year old seed extract in water is taken in dysentery.

Mor: 200 gm bark are crushed, boiled, cooled and 1-glass juice is taken 2- times a day to cure urinary irritation and stop blood in urine. Extract of seeds in water is taken 2-times a day for 3-days to cure night wetting.

Wild in forest, planted in villages. Timber yielding and fruits edible.

110. Tamarindus indica L. (Caesalpiniaceae)

Local name: Teteli (*Mor*).

Disease: Heart pain.

Part used: Fruits.

Mor: 10 gm ripe fruits pulp mixed with palm sugar are taken 2-times a day before meal for 3-days.

Not common in forest, planted in villages.

***111. Tecoma stans** (L.) Juss. ex Kunth (Bignoniaceae)

Local name: Maiki-Bhatghila (*Mor*).

Disease: Giddiness.

Part used: Leaves.

Mor: Paste of about 20 leaves is diluted with water and taken in giddiness. Paste is also applied on forehead for the same.

Not common, found only in fringe villages. Tender leaves are used as vegetable.

112. Terminalia arjuna (Roxb. ex DC.) Wight & Arn. (Combretaceae)

Local name: Arjun (*Mor, Asm*).

Diseases: Leucorrhoea, high blood pressure, heart weak, bone fracture & tonsillitis.

Part used: Barks.

Mor: 25 gm bark extract is taken for 9-days to treat leucorrhoea.120 teaspoon full bark extract are mixed with 8-glass of water and 1-glass of which is taken 2-times a day before meal to cure high blood pressure.

Asm: Paste of bark with *Allium sativum* bulb is applied on fractured bone. Bark extract in water is used as gargle in tonsillitis.

Rare in forest, less frequent in villages. Planted as avenue tree. Timber yeilding.

113. Terminalia bellirica (Gaertn.) Roxb. (Combretaceae)

Local name: Bhumura (*Asm*), Silok (*Mis*).

Diseases: Indigestion & constipation.

Part used: Fruits.

Asm & Mis: Dry fruit powder with that of *Phyllanthus emblica and Terminalia chebula* taken before meals in constipation.

Frequent in forest and villages. Planted for timber. Mature fruits edible.

114. Terminalia chebula Retz. (Combretaceae)

Local name: Hilikha (*Mor, Asm*).

Diseases: Jaundice, indigestion & constipation.

Part used: Fruits.

Mor: 5-6 fruits paste with little molasses are taken in the morning for 3-days to cure jaundice.

Mis & Asm: for indigestion and constipation (ref. *Terminalia bellirica*).

Common in forest, planted in villages for timber. Fruits edible.

115. Thunbergia grandiflora (Roxb. ex Rottl.) Roxb. (Thunbergiaceae)

Local name: Kharkhari lota (*Mor*).

Disease: Bronchitis.

Part used: Roots.

Mor: Root paste mixed with powder of black pepper is taken twice daily to cure bronchitis.

A common climber in forest and villages.

116. Tinospora cordifolia (Willd.) Miers. ex Hook.f. & Thomson (Menispermaceae)

Local name: Hoguni lota (*Ben*).

Diseases: Menstruation problems, leucorrhoea & fracture.

Part used: Stems.

Ben: 9 inches long stem cut in to 3 pieces, grinded with 21-black pepper and little common salt, diluted with 1 cup water, boiled and taken on the 3rd day of menstruation period to cure pain. Same preparation is used to stop leucorrhoea also. Stem paste is applied on bone fracture.

Common climber in forest, less common in villages.

117. Urena lobata L. (Malvaceae)

Local name: Sun-boriyal (*Asm, Mor*).

Diseases: Cancerous growth in foot & bleeding.

Parts used: Tender shoots & leaves.

Asm: Few leaves are made into a paste and applied on new cuts & wounds to stop bleeding.

Mor: For cancerous growth (ref. *Plambago zeylanica*).

Common both in forest and villages. Fiber yielding. Tender shoots are boiled with Muga silk cocoons to soften the later.

118. Vitex negundo L. (Verbenaceae)

Local name: Posotia (*Mis, Ben*).

Diseases: Fever, skin disease, body ache & ringworm.

Parts used: Leaves & roots.

Mis: Vapour of boiled leaves is put on body in fever. To cure skin diseases leaves decoction is used as wash. Boiled leaves are also taken to reduce body ache.

Ben: For ring worm (ref. *Sesamum indicum*).

Less common in forest, sometimes grown in villages for firewood. Leaves are used as insecticides. Tender leaves are edible.

119. Xanthium strumarium L. (Asteraceae)

Local name: Tangom (*Mis*).

Disease: Postnatal problems.

Part used: Tender shoots.

Mis: 9-11 tender shoots, wrapped in a banana leaf are heated over steam and made into a paste and given to the mother for 3-days to cure postnatal problems.

Common in cultivated field and scrub forest. Leaf is used for local drinks and tender shoots as vegetable.

120. Zanthoxylum nitidum (Roxb.) DC. (Rutaceae)

Local name: Tezmuri (*Ben, Mor*).

Diseases: Tonsillitis, tooth problems & menstruation problems.

Part used: Tender shoots, roots & barks.

Ben: Paste of 50 gm of root with 3-5 black pepper is boiled and taken 1-glass once for 3-days in tonsillitis. Bark paste is applied to prevent enamel loss on teeth.

Mor: For menstruation problems (ref. *Smilex perfoliata*).

Less frequent both in forest and villages. Tender shoots edible.

121. Ziziphus mauritiana Lam. (Rhamnaceae)

Local name: Bogori (*Mor*).

Disease: Vocal problems.

Part usesd: Leaves.

Mor: Leaf paste with honey and common salt is fried in ghee and taken 2-times a day against vocal problem.

Dominant in eastern part of forest, planted in villages. Fruits and tender leaves are edible.

ANALYSIS AND DISCUSSION

The study involves a total number of 121 species belonging to 107 genera and 66 families of which 119 species belonging to 105 genera and 64 families are flowering plants while 2 species belonging to 2 genera and 2 families are Pteridophytes. Euphorbiaceae and Asteraceae with 7 species each are the most dominant families having ethno medicinal values. Other 5 dominant families are Acanthaceae, Caesalpiniaceae, Lamiaceae, Moraceae and Verbenaceae. *Ficus* with 5 species is the most dominant genus followed by *Clerodendrum, Hibiscus, Phlogacanthus, Phyllanthus, Solanum* and *Terminalia.*

During the course of study, information on ethno medicine to cure 74 different ailments was collected. Ethno medicinal uses of twelve species (marked '*') are reported new in the present study while the others are widely reported earlier (Agarwal 1986; Agarwal & Ghosh 1985; Ambasta 1992; Anonymous 1946-1976; Chopra & al. 1956, 1969; Duke 1986; Dutta 1985; Kaushik & Dhiman 1999; Jain 1991; Jain & De Filipps 1991; Nayar & al. 1989; Rastogi & Mehrotra 1990-1998; Saklani & Jain 1994 and Singh & al. 1983).

On analysis, number of plants used by the four communities reveals that highest 60 plants are used by the *Moran* community followed by *Assamese* with 56 plants, *Bengali* 39 and *Mishing* community with 38 plants (Table-1).

Table 1 : Plants used by various communities

Community	Serial number of species
Moran	1,5,6,7,8,9,10,11,12,15,16,17,25,27,29,30,31,32,33,34,37,38,39,42,47, 51,52,54,62,64,65,67,70,74,75,76,77,79,80,83,88,91,92,93,96,97,98, 103,104,106,108,109,110,111,112, 114,115,117,120 & 121.
Assamese	1,2,4,5,6,7,10,11,14,15,17,19,20,21,22,23,24,28,29,30,31,33,34,35,36, 40,42,48,54,55,56,57,59,61,62,63,66,67,73,78,80,81,82,84,85,87,89,92, 94,100,107,109,112,113,114 & 117.
Bengali	2,4,5,7,14,16,21,23,28,29,32,33,34,35,46,53,58,60,67,68,70,72,73,78,80, 85,86,90,95,96,100,101,102,105,107,116,118 & 120.
Mishing	3,7,13,18,25,26,29,33,34,39,41,43,44,45,48,49,50,57,61,62,66,67,69,71,73, 77,80,82,84,96,99,100,105,106,107,113,118 & 119.

Table 2 : Disease wise use of plants by different communities

Ailments	Number of plants used by different communities			
	Moran	Assamese	Bengali	Mishing
Stomach problems	4	16	5	12
ENT problems	13	4	4	3
Fever/Malaria	4	5	6	5
Skin diseases	6	4	5	2
Pain	5	3	4	6
Menstruation problems	3	4	4	1
Respiratory problems	2	2	3	2
Jaundice	1	3	6	1
Child birth		4	1	3
Urino-genital problems	4		3	1
Cardiac disorder	6	1		1

A species has its own importance on the basis of wide usage. The analysis shows that 7 species are commonly used by all the four communities, 6 species by three, 41 species by two and rest 67 species by only one community.

The maximum number of plants used for a particular ailment can possibly show the prevalence of that disease in that area. Analysis of data reveals that the maximum number of 35 species have been reported for stomach problems followed by 22 species for ENT problems, 16 species each for common fever or malaria and Skin diseases, 15 species for various pain, 10 species for Menstruation problems, 9 species each for respiratory problems and Jaundice, 8 species each for Child birth, Urino-genital problems and cardiac disorder among all the four communities. For other ailments relatively lesser number of plants have been recorded.

A comparative account of number of plants used for most prevalent ailments by the four communities is given in table-2.

Further it is observed that out of 121 species, 31.4% are herbs followed by 25.6% trees, 23.1% shrubs, 13.2% climbers and twinners and 6.6% are under shrubs. Comparison on various parts used

for different ailments revealed that 61 times leaves are used, 25 times roots, 19 times barks, 17 times tender shoots, 9 times each fruits and whole plant, 8 times under ground parts, 7 times seeds, 6 times flowers, 4 times stems and 3 times the latex are used. Thus ethno-botanically, herbs are the important group of plants and leaves are the most useful part in the study area.

Along with the ethno-medicinal information, attempts were also made to collect information on other economic uses of the plants like wild edibles, timber and fibre yielding, ornamental, oil seeds, etc. It was observed that leaves, stem, tubers, rhizomes etc. of 42.2% plants are used as vegetable, fruits and nuts of 19.8% plants are edible, 7.44% of plants yield various fibres, 14.1% yields timber, 17.4% are wild ornamentals and 13.2% of plants are important for various other domestic purposes.

CONCLUSION

Numerous plants with medicinal and other economic potential still exist in Dibru-Saikhowa BR, which are yet to be trapped and recognized. Extensive explorations would result in many new records. But the diverse repository of medicinal plants in Dibru-Saikhowa Biosphere Reserve is under the threat of destruction due to over exploitation, recurrent flood, erosion and sedimentation. So, for proper conservation of the natural heritage appropriate management strategy has to be evolved after conducting urgent investigation on phyto-chemistry and other clinical aspects. Value addition and cultivation of medicinal plants in large scale must be initiated under the supervision of Government agencies and other NGO's. This will not only uplift the socio-economic condition of the ethnic mass and general economy of the area as a whole but also help in conservation of several species, thus realizing the aim and objectives of Biosphere Reserve programme.

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डिब्रू साइखोवा, जीव मंडल रिजर्व में परा सामुदायिक नृवनस्पातिक अध्ययन

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आलेख में डिब्रू साइखोवा जीव मंडल रिजर्व में किए गए नृवनस्पति विज्ञान सर्वेक्षण के आधार पर मिशिंग, मोरान, असमी व बंगाली समुदायों द्वारा प्रयोग में लाई जाने वाली 66 कुलों एवं 107 वंशों के अन्तर्गत 121 पादप जातियों का विवरण प्रस्तुत किया गया है।