

Medicinal plants of North-Kamrup district of Assam used in primary healthcare system

N J Das^{1*}, S P Saikia², S Sarkar² & K Devi³

¹Horticulture Division, Archaeological Survey of India, No 1, Eastern Gate, Taj Mahal, Agra 282 001, Uttar Pradesh;

²Department of Botany, Rangia College, Rangia 54, Assam; ³Department of Biological Sciences, Kaliabor College, Kaliabor 37, Assam

Email: nikhiljyotidas2002@yahoo.co.in

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Medicinal value of herbaceous plants used by different ethnic groups of the North-Kamrup district of Assam, based on survey is presented. Information was collected through personal interview with local herbal practitioners. Of 31 plant medicinal species documented, 8 species were found to be used in stomach disorder, 4 in body pain, 3 species in piles, 2 species in skin disease, 2 in ulcer and remaining in dysurea, boils, nervous affection, spermatorrhoea, jaundice, toothache, hydrophobia, sinusitis, asthmatic trouble and obstetrics problem.

Key Words: Assam, Ethnomedicine, Healthcare practices, *Bodo* tribe, *Rabha* tribe, *Koch-Rajbongshi* tribe, *Santal* tribe, Asthma, Dog bite, Dysentery, Piles, Sinusitis, Ulcer

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The Northeastern region is one of the richest biodiversity areas. The state of Assam harbours a good number of medicinal and aromatic plant species. North-Kamrup district or Rangia sub-division under Kamrup district lies at North bank of the river Brahmaputra. It is situated between 26°-28' and 26°-49' N latitude and 91°-20' and 91°-48' E longitude and bounded by Bhutan in North, Brahmaputra river in South, Nalbari district in West and Darang district in the East. It experiences medium to high rainfall. The tribes inhabited in the area mostly depend on the forest for food, shelter, medicine and other basic necessities. Documentation, systematic and through investigation of plant species of the area are of paramount importance before these are lost forever. Comprehensive research for this area is required to preserve the germplasm of medicinal and aromatic plants species.

Floristic composition works in the State of Assam have been carried out by some workers, while many others have worked on medicinal uses of plants of Assam and Meghalaya, Kamrup district of Assam, among tribes of Mikir Hills, *Bodo*, *Karbi*, *Mishing* and *Rajbongshis* tribes, for family planning and birth

control, aquatic and marsh plants¹⁻¹⁵. The paper enumerates medicinal uses of the herbaceous plants of North-Kamrup district or Rangia sub-division of Kamrup district, Assam.

Methodology

During the survey (2002-2004), the herbaceous plants used in primary healthcare system of different localities of North-Kamrup district or Rangia sub-division were documented. Ecological habits of each and every species were studied. The collected specimens were identified and deposited in the herbarium of Rangia College¹⁶. The area comprises of *Bodo*, *Rabha*, *Koch-Rajbongshi*, and *Santal* tribes. Standard methodologies for gathering information on medicinal uses of the species are followed was followed¹⁷.

Enumeration

During present study, 31 ethnomedicinal claims were documented. These ethnomedicinal claims are enumerated alphabetically according to their botanical name followed family, vernacular names (A: Assamese and B: Bodo) and utilization.

*Corresponding author.

Acorus calamus L. (Araceae); Bach-A

Uses: Powdered rhizome (10-20 gm) is orally taken twice daily for two weeks in dyspepsia, flatulence, loss of appetite and dysentery by *Bodo*, *Koch-Rajbongshi* and *Rangia* tribes.

Ageratum conyzoides L. (Asteraceae); *Kataghor*-A

Uses: *Bodo*, *Rabha* and *Rangia* tribes use leaf paste to relieve toothache.

Alternanthera philoxeroides (Mart.) Griseb. (Amaranthaceae); *Panimatikaduri* - A

Uses: Young shoot and leaf juice (50-100 ml) with equal amount of warm water is given before bedtime for stomach pain regularly for a week by *Bodo*, *Santhal* and *Goreswar* tribes.

Cassia sophera L. (Caesalpiniaceae); *Dadigdiga*-A

Uses: *Bodos* and *Rangias* use root juice early in the morning for seven days to cure hydrophobia or dog bite.

Centella asiatica (L.) Urban (Apiaceae); *Manimuni*-A

Uses: Curry prepared from leaves is eaten to cure dysentery by *Bodos*, *Koch-Rajbongshis* and *Rangias*.

Cissampelos pareira L. (Menispermaceae); *Tubuki lota*-A, *Thuboi lota*-B

Uses: Stem juice is taken orally until swelling of hands and legs is reduced by *Santals*, *Bodo* and *Kumarikata* tribes.

Colocasia esculenta (L.) Schott. (Araceae) *Kola kochu* - A

Uses: Curry made from corms and runners are used as remedy for piles and tonsillitis by *Koch-Rajbongshi*, *Bodo*, *Rabha* and *Rangia* tribes.

Commelina benghalensis L. (Commelinaceae); *Kona Simalu*- A

Uses: Stem and leaves are used externally to stop bleeding by *Koch-Rajbongshi*, *Bodo*, *Rabha* and *Rangia* tribes.

Desmodium gangeticum DC. (Papilionaceae); *Bioni sabota*-A

Uses: Leaf juice (5-15 ml) is taken orally for fifteen days to reduce ulcer by *Santal* and *Dwarkuchi* tribes.

Evolvulus nummularius L. (Convolvulaceae)

Uses: *Bodos*, *Rabhas* and *Rangias* use Plant paste externally to reduce tonsillitis pain.

Enydra fluctuans Lour. (Asteraceae); *Helechi* - A

Uses: Leaf paste is used for ringworm. Leaf juice (3-5 ml) is used as antibilious and demulcent by *Santal*, *Rabha*, *Bodo* and *Bongaon* tribes.

Euryale ferox Salisb. (Nymphaeaceae) *Nikhori* -A

Uses: Dried seeds (20-30 gm) are used in spermatorrhoea, as astringent and deobstruent by *Santal*, *Koch-Rajbongshi* and *Dwarkuchi* tribes.

Houttonia cordata Thunb. (Saururaceae); *Mochondori*-A

Uses: Leaf curry is used to reduce bodyache by *Santal* and *Goreswar* tribes.

Impatiens balsamina L. (Balsaminaceae); *Domdeuka*-A

Uses: *Bodos* and *Rangias* use root juice and leaf paste to reduce muscular pain.

Leucas aspera (Willd.) Link. (Lamiaceae) *Doron*-A

Uses: Leaf juice (3-5 ml) is administered in nostrils to reduce sinusitis problem by *Koch-Rajbongshi*, *Bodo* and *Rangia* tribes.

Ludwigia adscedens (L.) Hara (Onagraceae) *Bonsoth*-A

Uses: Tender shoot juice (10-15 ml) is taken empty stomach once daily for a week to in dysentery and stomach pain by *Bodo*, *Rabha*, *Koch-Rajbongshi* and *Rangia* tribes.

Monochoria hastata (L.) Solms. (Pontederiaceae); *Borbhat meteka* -A

Uses: Young shoots are used as vegetables. Leaf juice (30-45 ml) mixed with honey (10-15 ml) is taken twice daily for a month regularly to cure boils by *Bodo*, *Koch-Rajbongshi* and *Rangia* tribes.

Monochoria vaginalis (Burm.f.) Presl. ex. Kunth. (Pontederiaceae); *Bhat meteka*-A

Uses: Rhizome (10-15 gm) is eaten regularly in empty stomach for a week to cure asthmatic trouble by *Bodo*, *Santhal* and *Dwarkuchi* tribes.

Nymphaea alba L. (Nymphaeaceae); *Bogabhet*-A

Uses: Root stock paste (30-50 gm) is applied on forehead regularly before bedtime for 15 days in



Fig. 1 *Monochoria hastata*



Fig. 2 *Monochoria vaginalis*



Fig. 3 *Ageratum conyzoides*



Fig 4 *Ludwigia adscendens*



Fig 5 *Leucas aspera*



Fig 6 *Commelina benghalensis*

insanity and headache by *Koch Rajbongshi*, *Rabha* and *Rangia* tribes.

Nymphaea esculenta Roxb. (Nymphaeaceae); *Jatishelok-A*

Uses: *Bodo*, *Rabha* and *Rangia* tribes take unripe rootstock orally in stomach disorders and flatulence.

Nymphaea pubescens Willd. (Nymphaeaceae); *Sindhei shelok-A*

Uses: Powdered rootstock (10-15 gm) is taken orally twice daily for a week in acidity and stomach pain by *Santal*, *Rabha*, *Bodo* and *Jayantipur* tribes.

Nymphaea nouchali Burm. f. (Nymphaeaceae); *Padum -A*

Uses: Powdered rootstock (5-15 gm) is recommended 2-3 times a day for 5-7 days in dyspepsia, diarrhoea and piles. *Rabhas*, *Santals* and *Rangias* use flower decoction in heart palpitation.

Nymphoides indica (L.) Kuntze. (Gentianaceae); *Tal japori -A*

Uses: Whole plant juice (20-35 ml) is taken empty stomach twice daily for a week, for curing fever and jaundice by *Rabha*, *Santal* and *Jayantipur* tribes.

Ottelia alismoides (L.) Pers. (Hydrocharitaceae); *Segun tepa -A*

Uses: Flower paste (10-12 gm) is taken orally early in the morning for curing piles by *Bodos*, *Koch Rajbangshis* and *Hajos*.

Peperomia pellucida HBK (Piperaceae)

Uses: *Bodo*, *Koch-Rajbongshi* and *Rangia* tribes use plant paste externally to reduce little pimple and white spots of the body.

Pistia stratiotes L. (Araceae); *Borponi - A*

Uses: Leaf juice (10-15 ml) mixed with equal amount of rose water and sugar is applied twice daily up to 15 days for dysurea by *Bodo*, *Rabha*, *Rangia* tribes.

Polygonum hydropiper L. (Polygonaceae); *Patharua Bihlongoni-A*

Uses: *Santals* and *Kumarikatas* use leaf paste externally to reduce pain.

Rubus moluccanus L. (Rosaceae); *Jetulipoka-A*

Uses: Leaf extract (5-10 ml) is taken orally early in the morning to reduce headache by *Koch-Rajbongshi* and *Rangia* tribes.

Sagittaria guayanensis H. B. & K. ssp. *lappula* (D. Don) Bogin. (Alismataceae)

Uses: Plant juice (30-35 ml) mixed with half the amount of honey is used regularly 3-5 times in a day to induce flow of lochia after childbirth by *Santals* and *Rangias*.

Spilentes acmella L. (Asteraceae); *Suhonibon-A*

Uses: *Santals*, *Rabhas* and *Rangias* use leaves and inflorescence to cure mouth ulcer.

Trapa natans L. var. *bispinosa* (Roxb.) Makino (Trapaceae); *Singori - A*

Uses: Nut paste (10-15 gm) is taken orally twice daily for curing diarrhoea and bilious affection by *Bodo*, *Rabha*, *Santhal* and *Rangia* tribes.

Discussion

Most of the plant species used by local people for medicinal purposes are herbs, which have vast economic importance. It is necessary to screen the chemical constituents of each and every species. It was noticed that most of the herbaceous species thrive well under diffused sunlight. Immediate attention on preservation, protection and conservation measures of rare, threatened and endangered plants and ethnomedicinal uses of the district should be given, so as to save the plants from destruction and for the benefit of local people.

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