

A study on the rhizomatous plant Sivasagar district and their ethnomedicinal importance

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SUMMARY

Sivasagar district is endowed with luxuriant vegetation and rich in biodiversity. It lies between 94°8' and 95°4' east longitude and 26°7' and 27°2' north latitude. Seven reserve forests with elevated topography receives the highest rainfall of the area. Number of Ethnic people inhabits in the transitional area of such reserve forest and they believe in natural methods of treating different diseases through various plant species. Medicinal use of rhizome bearing plants was observed among Ethnic group during the survey period (2004-2006). The present study deals with the ethnomedicinal study on the rhizome bearing plants of Sivasagar District, Assam. During our survey 22 rhizome bearing plants species having ethnomedicinal importance were collected. An efforts has been made to enumerate some of the important species known for their value.

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Northeast India is one of the mega biodiversity centers. Its ecosystem vary from tropical wet evergreen moist deciduous, sub alpine, alpine forest and grassland to numerous freshwater lakes, rivers, wet lands and swamps, topographically the region is mostly hilly and the climate varies from sub-tropical climate in the plains of Assam, Tripura and Manipur to temperate climate in parts of Meghalaya, Nagaland and Arunachal Pradesh. The region receives a high precipitation that makes the area an ideal place for the survival of a large number of plant and animal species.

The varied physiography of North-Eastern region together with rich vegetation cover and floristic diversities has made the region a "hot shpot" of the country. The region is a part of Eastern Himalayas where the original primary forest habitat comprises at least 9000 plant species, out of which 39% plant species are endemic. Medicinal plants are also an integral part of these floristic components, which are frequently used in Indian system are medicines like Homeopathy and Ayurveda. It was estimated that 43% of total Indian flora exist in this region, out of which at least 70% of the medicinal plant species

are available in forested area. At least, there are about 400 such plant species, which are utilized to cure different diseases.

The district comprises with three sub-division, Sivasagar, Nazira and Charaideo. The district is a historical place with many monuments. It was a capital of Ahom Kingdom. Number of ethnic people inhabits here viz., Tai-Ahom, Nepalis, Naga, Mishing and tea gardener. Out of total population, 30% people are tea garden communities. These tea garden communities used different types of plant species in day to day life in different aspect. The district is between 94°8' and 95°4' East longitude and 26°7' and 27°2' North latitude.

A number of rhizomatous plant is popular among the tribes specially in rural folks of Sivasagar district of Assam for curing different diseases. These are *Zinziber casumunar* (Wild zinger); *Curcuma longa* (turmeric); *Curcuma aromatica* (Wild turmeric); *Curcuma amada* (Mango Zinger); *Alpinia allughas* (Tara); *A. galanga*; *Canna edulis*; *Musa sapientum* etc., These plants are highly prized for its medicinal value though a diverse number of plant species, many still unexplored. On the other hand some of these has been over harvested from the wild to a point just short of total extinction. The effort to conserve medicinal plants in the district is very poor. Some traditional practitioners have started to conserve medicinal plants by cultivating at home gardens, though the effort is minimal. Therefore, in the present study documentation, utilization and management of ethno-

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medicinal plant will be carried out with special reference to rhizomatous plant of Sivasagar district of Assam and to conserve these plants which is going to be threatened.

A perusal of the available literature reveals that certain places of India have been explored to locate wild medicinal and food plants and enumerate their ethnobotanical utility (Kanjilal *et al.*, 1934-1939, Cotton, 1996).

Survey of rhizome bearing plants and their medicinal importance were conducted through field visit and by the use of questionnaire and personal interaction with the age old persons, traditional practitioners. Specimens were collected through searching of personal interaction and traditional dealers. Based on local uses, occurrence and availability the plants were collected through proper method to chemical analysis.

During the course of study 22 plant species of 11 families have been recorded and species are enumerated alphabetically with scientific name, common name, parts used and their present status.

– *Acorus calamus* L.

Common name - Bach

Family: Araceae

Uses: The plant is purgative to the children. The rhizome is also used as antidote for poison. It is used as tonic and purgatives medicine given to children when dyspepsia is attended with looseness bowels. Two table spoon full of the decoction of leaves with bark taken thrice a day for five days, it relieves muscular pain.

– *Alpinia allughas* (Retz.) Rose

Common name - Tora

Family: zingiberaceae

Uses: The plant is stomachic, carminative emollient and stimulant. Rhizome is used in fever, bronchitis and rheumatism. Fruits locally used to cure nail ring worm.

– *A. golanga* (L.) Willd.

Common name - Gandhatars

Family: zingiberaceae

Uses: The rhizome is an antibacterial agent and a digestive stimulant. It is indicated in the treatment of dyspepsia, vomiting, diarrhea and malaria fever. It is also applied externally on curious teeth to cure toothache.

– *Amomum aromaticum* Roxb.

Common name - Moran elachi

Family: zingiberaceae

Uses: The seed has antibacterial and stomachic properties. They are used in diarrhea, vomiting and cough. They are also prescribed as a gargle.

– *Ananas comosus* (L.) Merr.

Common name - Anarash

Family: Bromeliaceae

Uses: The unripe fruit is sour, cooling cardiotoxic, uterine tonic and are useful in induction of abortion.

– *Asparagus racemosus* Willd.

Common name - Satmul

Family: Liliaceae

Uses: The boiled root extract is applied for pain in knee joints and other paralytic affected parts.

– *Colocasia esculenta* (L.) Schott

Common name - Kachu

Family: Araceae

Uses: Whole plant is used for the treatment of atrophy, bronchitis and cough. Boiled juice of the corm is useful in healing cups.

– *Costus species* (Koenig) Sm.

Common name - Jam Lakhuti

Family: Zingiberaceae

Uses: The rhizome are better astringent, aerie, cooling, purgative anthelmintic, febrifuge and are useful in skin disease, fever, asthma, bronchitis, and anemia.

– *Curcuma amada* Roxb.

Common name - Amada

Family: Zingiberaceae

Uses: The rhizomes are better, sweet sour, aromatic, digestive, febrifuge.

– *Curcuma aromatica* Salisb.

Common name - Bonhaladhi

Family: Zingiberaceae

Uses: Rhizomes are better, carminative, appetizer and tonic used in skin disease, bronchitis, cough, and leucoderma.

– *Curcuma angustifolia* Roxb.

Common name - Katuri

Family: Zingiberaceae

Uses: Rhizome is used as substitute of *Curcuma domestica* by tribal's. Juice of rhizome is rubbed on swelling of the body and paste is used in heating fractured bones.

– *Curcuma longa* L.

Common name - Haladi

Family: Zingiberaceae

Uses: The rhizome is well known for its antigastric ulser, anti-inflammatory and cholagogic properties. It is prescribed in the therapy of gastric and duodenal ulcer, hepatitis, jaundice, menstrual problem.

– *Cyperus rotundus* L.

Common name - Kaya Bon

Family: Cyperaceae

Uses: The rhizome gives successful results in the treatment of irregular menstruation, dyspepsia diarrhea and vomiting.

– *Elettaria cardamomum* Maton.

Common name - Elach

Family: Zingiberaceae

Uses: -The seeds are aromatic, acrid sweet, coating, stimulant, digestive stomachic, diuretic, cardio tonic, and are useful in asthma, bronchitis, cardiac disorders, cardamom oil is used in several pharmaceutical preparations.

– *Hedychium coronarium* Koenig.

Common name - Champa

Family: Zingiberaceae

Uses: Rhizome are used as a carminative and stimulant. Rhizome paste is applied to bruises and sprains.

– *Homalomena aromatica* (Lour) Schott.

Common name - Gankachu

Family: Araceae

Uses: Uses against rheumatism and dyspepsia. It is also anti inflammatory used as an anodyne, stomachic against arthralgia and osteodynia for aged person.

– *Kaempferia galangal* L.

Common name - Gathion

Family : Zingiberaceae

Uses: The rhizome is recommended for dyspepsia and is very useful for the treatment of abdominal pains, headache, toothache, and cold.

– *Kampferia rofunda* L.

Common name - Bhuoi Champa

Family: Zingiberaceae

Uses: The tubers are acrid, aromatic, stomachic, anti inflammatory. They are useful in wound, ulcers blood clots,

tumors and cancerous swellings.

– *Musa paradisiacal* (L.) Colla.

Common name - Vimkol

Family: Musaceae

Uses: The roots are anthelmintic, antiscorbutic, depurative and tonic and are useful in venereal diseases scabies, leprosy, skin disease. The fruits are sweet, astringent cooling. The flowers are good for dysentery, diabetes. The stem is very specific for renal and vesicle calculi.

– *Typhonium trilobatum* Schott.

Common name - Sankachu

Family: Araceae

Uses: The rhizome is used with effect for treating vomiting asthma, headache, gastric ulcer.

– *Zingiber officinate* Rose.

Common name - Aada

Family: Zingiberaceae

Uses: The raw ginger is acrid, carminative, laxative and digestive. It is useful in dropsy, asthma, cough, diarrhea. It is also much used in several domestic preparation.

– *Zingiber zerumbet* Rose ex Sm.

Common name - Bonoria ada

Family: Zingiberaceae

Uses: To treat fish poisoning. It is used as a cough remedy and to treat the bacterial disease and diabetes. Used in peptic ulcer and related stomach problems as well as mouth infections.

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