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Certain aromatic plants of Sivasagar district and their present status

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ABSTRACT

Sivasagar district of North east India is one of the biologically hot spot areas, which comprised with seven reserve forest and more than 35 grazing land. These forest areas are still less explore systematically. Therefore an attempt has been made to study the aromatic plant species of the area and their systematic census. Aromatic plants are used in various aspects of in our day to day life especially in natural deodorant and ethno medicine. During the study 44 aromatic plants were recorded, out of which 12 referred as endangered, 10 threatened and 12 rare. Deforestation and industrial extension are major threat to the biodiversity of this area. This is the high time to conserve these aromatic medicinal plant species either *in-situ* or neither *ex-situ* condition.

Key words : Aromatic plant, Sivasagar district, Present status

INTRODUCTION

Sivasagar district one of the biologically worm area of upper Assam comprised with three subdivisions *viz.*, Sivasagar, Nazira and Charideo. It lies between 94°8' and 95°4' East longitude and 26°7' and 27°2' North latitude. There are seven reserve forests and more than 25 grazing land in the district. Due to undulating and elevated topography receives the highest rainfall of the area, average rainfall 400 mm and altitude 105 m to 130 m above sea level. Ecofriendly adaptation and geographical significance is unique feature of the district. Tea and rice cultivation is primary cultivation of the local inhabitants of the district. Hilly area of the district dominated by tribal people *viz.*, Namtula, Singlo, Abhoypur, Charaiqeo, Naginimora, Slapothar and Sapekhati etc. Number of ethnic people inhabits in these area *viz.* Tai-Ahom, Tai-Khamyang, TaiFake, Tai-Shyam Borahi, Moran, Motok, Sonowal Kachari, Mishing, Naga, Miri, including Ex-Tea garden and Indian Nepalese. These ethnic people of the area use different types of plant species in different aspect of their day-to-day life such as food, fodder, medicine, wild vegetables, fibre and domestic purposes. Aromatic plant diversity are available in this area and the people use in various aspect of their day today life. Ethnic communities have a historical continuity of resource use practices. They have a broad knowledge base of the behavior of complex ecological system in their localities. This knowledge has

accumulated through a long series of observations, transmitted from generation to generation

MATERIALS AND METHODS

The survey was conducted during the period 2005-2006. The information were collected from (112) persons 26 traditional parishioners, 11 village heads 21 women 30 elderly persons in 73 villages including 5 (Khamti and Kanyak) 2 (Monipuri) and 2 (Mising) villages. Most of the interviews (45) were more than 60 years old, belonging to the different families. Moreover, informations were collected through personal interactions, discussions, during the field trip in the different season's *viz.*, winter, spring, summer and autumn with knowledgeable and experience ethno-medicinal practitioners and local healers. The plant species were collected from the forest and rural areas during the field trips with the help of locals peoples to prepare herbarium. The interviews were registered on field note books immediately.

Additional information was collected from published literature (Hooker, 1872-1879; Kanjilal *et al.*, 1934-1940; Gogoi, 1988; Islam, 1984; Borthakur, 2003; Gogoi and Islam, 2006).

RESULTS AND DISCUSSION

Enumeration of plants with scientific name, family in

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parenthesis, local name and present status are given below.

– *Acorus calamus* (Araceae) Boch Leaves and dried rhizomes are used in epilepsy, depression and mental ailments, chronic diarrhea, dysentery, colic pain and cancer. Common in village wetland.

– *Aegle marmelous* (Rutaceae) Bel Generally ripe fruits are used in dysentery and indigestion, chronic diarrhea. Male sterility and seminal weakness. Rare.

– *Ageratum conyzoides* (Asteraceae) Gandhali-bon Commonly used in stop bleeding in fresh cut. Leaves are used in nerve weakness' as pain killer, dysentery and diarrhea. Common weeds.

– *Alpinia allughas* (Retz.) Rose (Zingiberaceae) Tora Commonly used as vegetable useful in headache, lumbago pain, rheumatic pains, sore throat. Chest pain, diabetes and weak liver. For kidney stone also used. Gradually decrease.

– *A. galanga* (Linn) Willd (Zingiberaceae) Bogi-tora Flowers, seeds and rhizomes are used for pickling as a condiment and for seasoning fish. It is also used as disinfectant and anti inflammatory agent, moreover used in hiccough obsesity and diabetes. Rare.

– *Amomum aromaticum* Roxb. (Zingiberaceae) Borelachi Commonly used in small pox. Used as stimulant and carminative. Rare.

– *Aquilria agallocha* Roxb. (Thymeleaceae) Agor/ Agoru Used in heart trouble and spleen enlargement. Especially used in cancer and tumor. Rare and endemic.

– *Callicarpa arboria* Roxb (Verbenaceae) Bonmala, Aromatic bark carminative used in treatment of skin disease, gastric complaints, fever and headache. Common.

– *Camellia caduta* Wall. (Theaceae) Sarpasugandhi, Used as ornamental plant. Young shoot used in skin disease. Rare, threatened.

– *Cannabis sativa* Linn. (Cannabinaeae) Bhang used in worm control, diarrhea gonorrhoea and local inflammation, raw juice used in control dandruff. Cultivated occasionally found.

– *Canarium resiniferum* Brace. Ex King (Burseraceae) Dhuna Generally used as a repellent against mosquitoes. Resin is used as plaster and ointment. Moreover, used in burning and skin disease. Now endangered.

– *Cinamomum camphora* (Linn) Nees and Eberm. (Lauraceae) Kapur Generally tribal peoples used in the treatment of typhoid, small pox, fever, chest pain, diarrhea, cholera, tooth ache, measles, hiccough, asthma etc., cardiac depression and nervousness; Rare

– *C. cecidodaphne* Mission. (Lauraceae) Gondsoroi Used for construction work, and to make furniture oil used as pain killer or ointment. Now endangered.

– *C. glanduliferum* Meissn. (Lauraceae) Patihunda Root bark used in dyspepsia and liver complain, aromatic leaves used as spice. Endangered.

– *C. obtusifolium* Nees. (Lauraceae) Naga-dalchini The bark is used as liver tonic. Diabetics, bloodpressure and stomach problem. Endangered

– *C. tamala* Nees and Eberm (Lauraceae) Tejpat Leaves are carminative. Significantly reduces bided sugar and help in the release more insulin. Commonly used in colic pain, diarrhea, cough, fever and urinary trouble. Cultivated and rare.

– *Citrus assamensis* Montr. (Rutaceae) Komolantenga Juice and oil used in remittent fever, dysentery and vomiting. Common cultivated

– *C. Paradisi* Macf. (Rutaceae) Gol-nembu Rich in vitamin C, used for treatment of teeth decay. Rare.

– *Clerodendron colebrookianum* Walp. (Verbenaceae) Nefafu, Leaves are used as vegetable and help in reducing blood pressure. Dysentery, abdominal pain and heart disease. Occasionally found. Wild or Cultivated.

– *Cucuma amada* Roxb. (Zingiberaceae) Amada, Rhizome used as satni and control worm. Commonly found wild or cultivated.

– *C. aromatica* Salisb. (Zingiberaceae) Bon-halodhi, Used in remedy of wounds as pain killer use in various injured. Also used as antibiotic in various disease. Rare.

– *Cymbopogon citrates* (DC) Stopf. (Poaceae) Gondhberina, Used in blood purification and control boils. Cultivated or wild occasionally found.

– *C. nudrus* D.C. (Poaceae) Citronella, Used or expelling gases curing spasms, moreover in vomiting and headache. Occasionally found.

– *Eupatorium odoratum* Linn. (Asteraceae) Bagh dhoka, Commonly used in stop bleeding in fresh cuts. Good for any stomach disease and post delivery problem. Useful in blood clotting. Common weeds.

– *Elaeocarpus ganitrus* Linn. (Elaeocarpaceae) Rudrakhya Used in heart burn and liver enlarge. Used in making mala. Become threatened.

– *Glycorrhyza glabra* Linn. (Papilionaceae) Jastamodhu Used in cough, respiratory troubles and looseness' decoction useful in urinary disease and gastric trouble or acidity. Rare and endangered. Rare to very rare.

– *Hedychium coronarium* Koenig. (Zingiberaceae) Bogi-champa, Rhizome used as carminative and stimulant and is useful in arthritis specially used in bonefracture and hiccough. Cultivated common.

– *Homalomena aromatica* Roxb. (Araceae) Gondha Kochu Used in dysentery and diarrhea. Endangered.

– *Houttonia cordata* Thumb. (Saururaceae) Mosundori, Plant used in stomach problem and dysentery.

Useful in burn, used as ointment with egg yoke occasionally found.

– *Leucas aspera* Spreng. (Lamiaceae) Doron-bon, Used in skin disease, snake bite, liver problem in cold and scabies etc. Especially used to treat sinusitis. Plant is used as vegetable also. Common weeds.

– *Litsea cubeba* Pers. (Lauraceae) Mejangkori used in intramuscular injury, loss of memory, schizophrenia, urinary trouble, insomnia etc. Young shoots carminative. Threatened plant. Endemic and endangered.

– *Michelia champaca* Linn. (Magnoliaceae) Champa phul used for production quality timber. Endangered.

– *Ocimum basilicum* Linn. (Lamiaceae) Bon-tulakhi, Used in perfume industry carminative and expactorent. The plant is useful in fever, cough worms stomach complaints and gout. Common cultivated.

– *O. gratissimum* Linn. (Lamiaceae) Ram-tulakhi, Used in cough, useful in treatment of rheumatism. Seeds are used in urinary disorders for family planning and birth control. Common cultivated.

– *O. sanctum* Linn. (Lamiaceae) Tulakhi Generally used in bacterial and viral disease and as mosquito repellent malaria and genitor urinary trouble. Commonly used in cough. Frequently found.

– *Paederia foetida* Lin. (Asclepiadaceae) Bhedai-Iota, A decoction of the plant is used as gargle in apthous ulceration of the mouth and in sore throat. Fresh roots used in hepatitis. Threatened.

– *Pandanus assamensis* St. Jhon. (Pandanaceae) Jangli keteki, Used in headache and rheumatic pain. Occasionally found.

– *P. minuta* St. John. (Pandanaceae). Johapat Leaves are edible used headache and dizziness. Occasionally found.

– *P. odoratissimus* Roxb. (Pandanaceae) Keteki, Used in pain relief. Especially in chest pain. Rare.

– *Pogostemon benghalensis* (Lamiaceae) Hukloti Used in appetite stimulation, snake bite and post delivery swelling. Occasionally found.

– *P. cablin* Benth. (Lamiaceae) Patchouli. Diuritic and carminative. Edible oil used in food products. Used as insect repellent and antibiotic. Rare and cultivated.

– *Pterospermum acerifolium* Willd. (Sterculiaceae) Konok-champa, Used in leucorrhoea, small pox, dehydration, stomach ache headache kidney problem etc. Endangered.

– *Rosa indica* Linn. (Rosaceae) Gulab, Young buds are used as pain killer, Flower buds and petals are used in eye problem. Common cultivated.

– *Zinziber officinale* Roxb. (Zingiberaceae) Ada, Commonly used in cough, fever, constipation and released

gas from stomach. In vomiting also used with salt base, antifungal and anti bacterial. Common cultivated.

Conclusion:

From the above analysis of aromatic plants and their medicinal value it is understood that different parts of the plants are used in medicine. In Case of small herbs and shrubs, the whole plant is used along with the leaves, stem, roots and flowers etc. Mode of application or administration varies viz., paste, juice, infusion, powder, decoction and in some cases used salt and sugar for changing base or taste of the medicine. We discussed here total 42 species of aromatic medicinal plant available in he area which are found cultivated and wild condition. Out of these dominant family is Zingiberaceae with 7 species, Lauracea and Lamiaceae with 6 species and Pandanaceae, Poaceae and Asteraceae followed by three species each family. 30% aromatic medicinal plants are endangered ego *C. cecidodaphne*, *Litsaea cubeba*, *Glycorrhyza glabra*, *Homalomena aromatica*, *Canarium resiniferum* and *Pterospermum acerifolium* etc. 25% threatened e.g. *Michelia champaca* and other 45% common or available in the forest as well as kitchen garden in the inhabitant of the district. During festival and in some common diseased this plant diversity is used. Especially child care and in post delivery problem, these plants ate utilized.

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