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RESEARCH ARTICLE

STUDY OF ETHNOMEDICINALLY IMPORTANT PLANTS USED BY THE PAITE
TRIBE OF MANIPUR, INDIA

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ABSTRACT

The present paper is an outcome of an extensive comprehensive study in the villages where the Paite tribe of Manipur inhabited. This survey is taken up to explore the medicinal plants used by the Paite tribe in their surroundings. The Paite tribes are mostly occupied in Churachandpur district of Manipur. This paper includes the ways and the modes of using the plants in various ailments. From the survey, a total of 40 plants belonging to 31 families were recorded for different ailments. It is found that the leaves (17 plant species) are found to be the highest used plant part in curing ailments followed by roots, fruits with 7 plant species each. The plants are found to be widely used in curing urinary troubles, diabetes and animal bites followed by cold & fever with 5 plant species. The recorded plants were collected with tags and ethnobotanical notes of the plants were recorded at the spot.

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INTRODUCTION

Ethno botany is the systematic study of the botanical knowledge of a social group and its use of locally available plants in food, medicines, clothing or religious rituals. The term 'ethno botany' (Gk: Ethno=nation, botane=plant) was first introduced by Hershberger in 1895 to the study of "Plants used by primitive and aboriginal people." Ethno botany is a multidisciplinary science and a synthetic one. It deals with direct traditional and natural relationship between human societies and plants. It involves the holistic approach of the human interaction with plants without giving more emphasis to man's economic gains. Over and above, there is a mutual and total relationship, thereby giving an entire reciprocal or dynamic aspect of human interaction with plants. Hence, ethno botany has created interest among the people about saving the indigenous knowledge. Glimpses of Indian ethnobotany (Jain, 1981) is the first dealing with Indian Ethnobotany. Ethnobotany aims at the study of people's classification, management and use of plants. Today it has emerged as an interdisciplinary and a synthetic science. The study gives an endeavor which attracts people from academic disciplines. In the beginning the study is confined mainly the plants used by the traditional communities for food, medicine, shelter, superstition, myths and believes, etc. Recently, the attention of ethnobotanical research has diverted to north-eastern region of India because these areas are dominated by tribals and they are rich in traditional knowledge about the usage of plants for

various diseases. Manipur offers an immense scope for ethnobotanical studies since it is inhabited by numerous aboriginal tribes. The surrounding plants for these people form an integral part of their life. Tribal communities are mainly the forest dwellers who have accumulated a rich knowledge on the uses of various forests and forest products over the centuries. Herbal drugs and their use are being inspired by World Health Organisation (WHO). About 7,500 species of plants diverse habitats are used in local health traditions in mostly rural and tribal village of India. Due to increasing awareness of the usefulness and benefits of the Indian system of medicine, internal and external demands for our drugs of these systems are increasingly enormously.

Manipur literally known as 'A jeweled land' nestle deep within a lush green corner of North East India. It seems like an exquisite work of art executed by superb hands of nature extending from 23^o50'N to 25^o41'N and 92^o59'E to 94^o45'E. It covers an area of 22,327 sq.km. bounded by Nagaland on the north, Cachar of Assam on the west, Myanmar on the west and on the south by Mizoram and Chin state of Burma. Manipur is divided into three well-defined regions viz. the Imphal valley and the hill areas. The state of Manipur includes nine districts viz. Imphal East, Imphal West, Senapati, Tamenglong, Thoubal, Ukhrul, Bishnupur, Chandel and Churachandpur. It harbors various ethnic groups having their own distinctive cultural affinity. It is endowed with a rich biodiversity of flora and fauna but due to ongoing deforestation, jhuming, etc, there is a great destruction in plant and animal species. Paites are mainly inhabited in Churachandpur district. Since there is no account on the ethnobotanical work done for the Paite in Churachandpur district, keeping in view the present work was

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under taken to investigate the indigenous traditional knowledge performed by the Paite tribe.

RESULTS

From the present investigation, a total number of 40 plant species are recorded belonging to 31 families with 35 genera. Liliaceae family is found to be the highest recorded family.

From the present study, animal bites, diabetes and urinary troubles are found to be the most common ailments among the recorded ailments. Therefore, it is the right time to aspire the traditional knowledge found in the Paite tribe and it will be good to motivate the discovery of new drugs for the welfare of the people in the near future. Among the plant parts, leaf is found to be the highest used part following with fruits and roots.

Table 1. Ethnomedicinally important plants used by the Paite tribe

Scientific Name	Vernacular Name	Parts Used	Mode of uses
<i>Achyranthus aspera</i> L. (Amaranthaceae)	<i>Vottul</i>	Whole plant	Leaf extract is given in dog bite, also drink in irregular menstruation.
<i>Acorus calamus</i> L. (Araceae)	<i>Ok-hidak</i>	Rhizome	Rhizome extract is given for severe cough and chest congestion especially for children.
<i>Aegle marmelos</i> Correa. ex Roxb. (Rutaceae)	<i>Bilthei</i>	Leaves, fruits	Pulp of green and ripe fruits is used in chronic stomach disorders. Tender leaves are eaten raw to control diabetes.
<i>Agave americana</i> L. (Agavaceae)	<i>Saidaikung</i>	Leaf bud	Buds are crushed and made into paste and taken as remedy in cold and fever.
<i>Allium ascalonicum</i> L. (Liliaceae)	<i>Meitei-tilhou macha</i>	Bulb	Juice of bulb mixed with mustard oil is applied to body ache.
<i>Allium cepa</i> L. (Liliaceae)	<i>Phulunsan</i>	Bulb	Recommended to eat as a daily basic component of food for cancer patients.
<i>Allium sativum</i> L. (Liliaceae)	<i>Phulunngou</i>	Bulb	Crushed bulb after frying with mustard oil then mixed with kerosene is applied to chest, throat and nose to get relief from congestion. 2 or 3 cloves should eat during each meal for heart patients. If heart attack develops, 8-9 cloves should eat as raw immediately for effective results.
<i>Amaranthus spinosus</i> L. (Amaranthaceae)	<i>Bawngekloulain</i>	Root	Roots boiled with sugar candy and patient should drink the decoction twice daily to dissolve gravels in kidney.
<i>Arisaema tortuosum</i> Schott. (Araceae)	<i>Telhawng</i>	Leaves	Leaves are crushed and applied as soon as possible to the affected area to control spreading of poison during snake bite.
<i>Averrhoa carambola</i> L. (Averrhoaceae)	<i>Theihelhawt</i>	Fruits, Leaves	Boiled extract of leaves is used to drink for 3-4 times daily to dissolve gravels in kidney.
<i>Azadirachta indica</i> A. Juss. (Meliaceae)	<i>Neemkung</i>	Leaves	Decoction of leaves with honey is given to cold and fever.
<i>Benincasa hispida</i> (Thunb.) Cogn. (Cucurbitaceae)	<i>Maipuang</i>	Fruit	About 200gms of half boiled should eat during meal twice daily for diabetic patient. For urinary troubles, a hole is made in a ripe fruit and put sugar inside the hole and kept for a week and juice is given for beneficial results.
<i>Bombax ceiba</i> L. (Bombacaceae)	<i>Phuntong</i>	Flower, fruit	Crushed flower or fruit is applied to snake bite.
<i>Cajanus cajan</i> L. (Papilionaceae)	<i>Behiang</i>	Seed	Seeds are used in snake bite.
<i>Carica papaya</i> L. (Moraceae)	<i>Singtangmal</i>	Fruit, root, seed	Ripe fruit should eat daily to control diabetes. Root juice is used in snake bite.
<i>Centella asiatica</i> L. (Apiaceae)	<i>Tangheite</i>	Whole plant	Plant juice sweetened with honey is given 2-3 times a day in urinary troubles.
<i>Cinnamomum tamala</i> Nees & Ebern. (Lauraceae)	<i>Nahthaklem</i>	Leaf, bark	Leaves are grinded into powder and boiled and drink as tea with honey daily to boost insulin for diabetic patients. Bark decoction with honey is used as tea 2 times a day to dissolve stones in kidney and bladder.
<i>Cinnamomum zelaynicum</i> Blume (Lauraceae)	<i>Singgulthak</i>	Leaves, bark, root	About 15-20 gms of root or bark should eat daily to control diabetes. Boiled leaf extract is used in cough.
<i>Cissus adnata</i> Roxb. (Vitaceae)	<i>Lengpuang</i>	Leaf	Leaves are cooked with Mynah (bird) to dissolve stones in kidney.
<i>Clerodendrum colebrookianum</i> Walp. (Verbenaceae)	<i>Anphui</i>	Leaves	A handful of fresh or dried leaves is boiled and to drink to control high blood pressure.
<i>Coix lacrymajobi</i> L. (Poaceae)	<i>Sangsanelbem</i>	Grains, root	Grains and root are used in menstrual disorders.
<i>Costus speciosus</i> Sm. (Zinziberaceae)	<i>Aigebengngong</i>	Leaves, roots	Leaf paste is applied to snake bite. Leaves are eaten raw or cooked in fever. Decoction of roots is given to urinary troubles.
<i>Cuscuta reflexa</i> Roxb. (Cuscutaceae)	<i>Vansamkhau</i>	Whole plant	Decoction of the whole plant is given to chronic fever.
<i>Cyperus rotundus</i> L. (Cyperaceae)	<i>Tawnniang</i>	Whole plant	Decoction of the whole plant is given in urinary troubles.
<i>Eryngium foetidum</i> L. (Apiaceae)	<i>Pasikhawm</i>	Whole plant	Decoction of plant is given twice daily for diabetic and high blood pressure patients.
<i>Ficus hispida</i> L. (Moraceae)	<i>Theithawt</i>	Latex, bark, fruits	Decoction of bark and fruits is used in diabetic and high blood pressure patients.

<i>Glycin max</i> Merill. (Papilionaceae)	<i>Bekan</i>	Seeds	20-30 gms of boiled seeds sweetened with honey should be taken daily for diabetic patients.
<i>Mimosa pudica</i> L. (Mimosaceae)	<i>Lounuak</i>	Leaf, roots	Decoction of roots is used as tea to dissolve stones and excreted through urine.
<i>Mussaenda glabra</i> Vahl. (Rubiaceae)	<i>Vapek</i>	Leaf, root	Crushed leaves and roots are used to snake bites to the affected area as soon as possible.
<i>Ocimum canumsims</i> L. (Labiatae)	<i>Lunmui</i>	Leaf	Leaves should be eaten to control high blood pressure during each meal.
<i>Phyllanthus acidus</i> L. (Euphorbiaceae)	<i>Swaklu</i>	Fruits	Fruit should eat during each meal for diabetic patients. Boiled extract of leaves is used for high sugar level.
<i>Pinus khasya</i> Royle (Pinaceae)	<i>Taaksing</i>	Leaf, bark	Bark decoction with sugar candy is to drink for whooping cough. Boiled extract of leaves mixed with honey is to drink for 2-3 times a day to cure dysentery.
<i>Piper longum</i> L. (Piperaceae)	<i>Singmalta</i>	Roots	Roots are antidote to snake-bite.
<i>Sapindus emarginatus</i> Vahl. (Sapindaceae)	<i>Meleng</i>	Bark, seed	Juice of boiled bark mixed equally with baking soda, low iodine content salt and urine is locally on whole body if body temperature of the child is very high. Seeds are eaten to control spreading of poison if any poisonous insect or animal bites.
<i>Schima wallichii</i> Choisy (Theaceae)	<i>Khiang</i>	Bark	Decoction of bark is used worm expelling from intestine.
<i>Scutellaria discolor</i> Colebr. (Lamiaceae).	<i>Namthul</i>	Leaves	Plant is used as an antidote to snake bite.
<i>Sesbania sesban</i> (L.) Merr. (Fabaceae)	<i>Leihoihsing</i>	Leaves	Fresh juice of bark and seeds is used in diabetes.
<i>Sida acuta</i> Burmn.f. (Malvaceae)	<i>Pouding</i>	Leaves	7 leaves are plucked (without breathing while plucking only on Saturday) are eaten to promote semen for men.
<i>Solanum anguivi</i> L. (Solanaceae).	<i>Samphok</i>	Fruits	Decoction of fruits with honey is throat congestion due to fever.
<i>Tectona grandis</i> L. (Verbenaceae).	<i>Dol</i>	Flowers	Decoction of flower is given to urinary troubles.

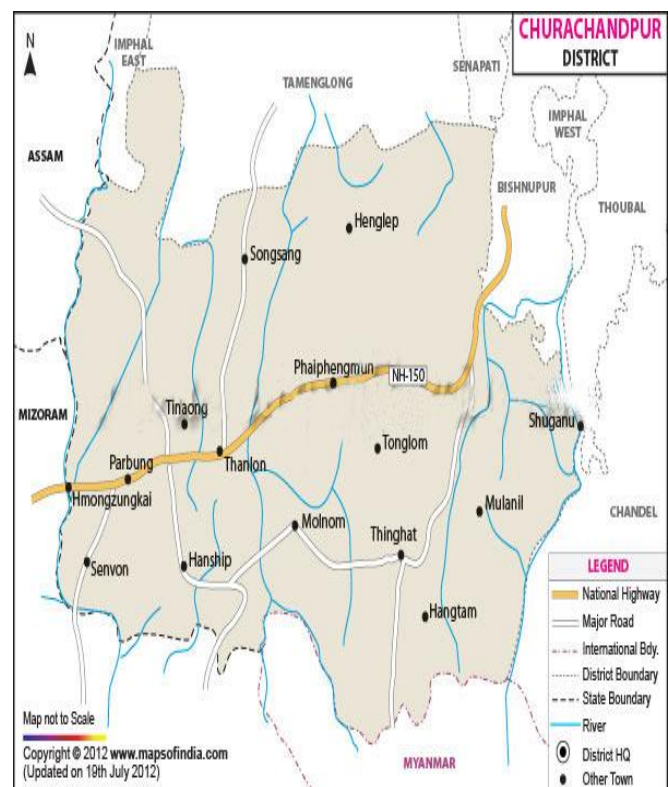
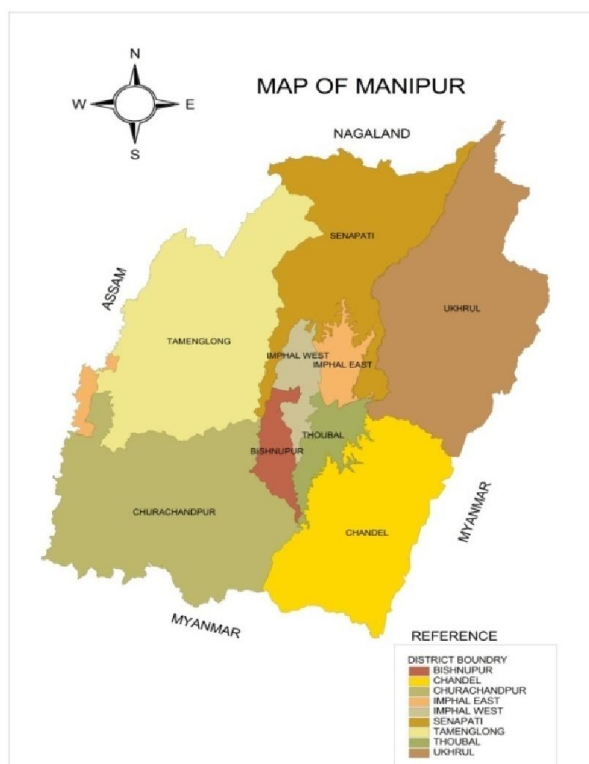


Fig.1. Map showing the study area

“O” indicates the studied areas

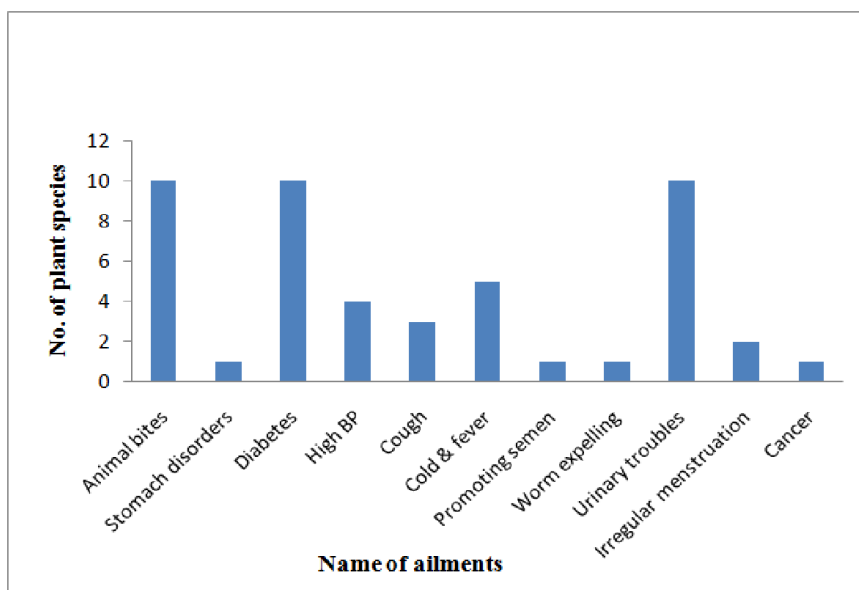


Fig.2. Graph showing the relevant plant species with the ailments

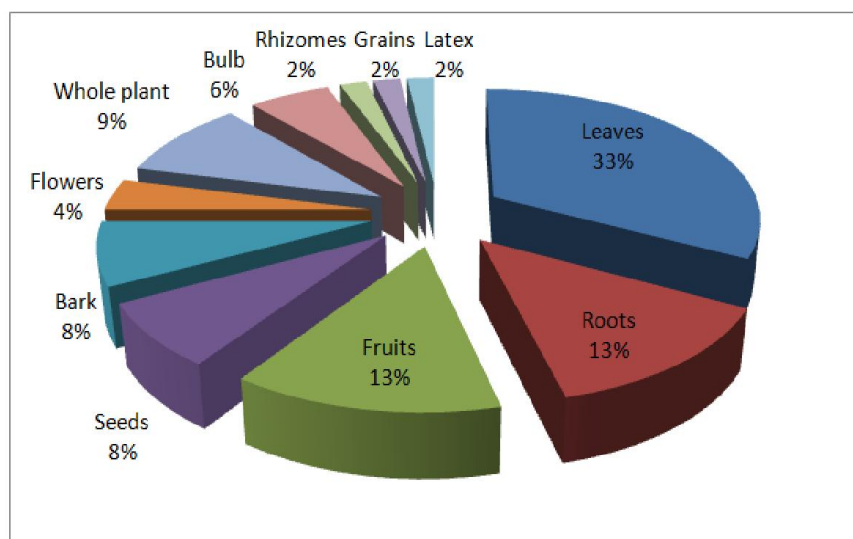


Fig.3. Pie diagram representing plant parts used by the Paite tribe

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