IJCRT.ORG ISSN : 2320-2882

INTERNATIONAL JOURNAL OF CREATIVE RESEARCH THOUGHTS (IJCRT)

An International Open Access, Peer-reviewed, Refereed Journal

ETHNOBOTANICAL STUDY OF SOME medicinal plants OF Nalanda DISTRICT, BIHAR , INDIA

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Abstract

The present paper deals with the “Ethnobotanical study of some medicinal plants of nalanda district, Bihar , India”. during-2018-19 To document the medicinal and other utility of plants. The present paper deals with traditional uses of 06 plants species belonging to 04 genera and 04 families along with correct botanical identification, local names, past used and mode of administration in respect to different applications. The documented ethnomedicinal plants are mostly used to cure sexual disorder, asthma, skin disease, wounds, anaemia, headache, diabetes etc are listed.

Keywords: Ethnobotanical Study, Medicinal Plants

INTRODUCTION

Nalanda district is one of the thirty-eight districts of Bihar state, India, and Biharsharif town is the administrative headquarters of this district. This district is 68 km from Patna, the capital of Bihar and 70 km from gaya. Ethno botany deals with total direct relationship between man and plants. Many currently widely used plants owe the origin of their use to ethno botanical knowledge. The search for new sources of drugs, food, and other life support species has compelled man to back again at nature. It has been considered necessary and useful to seek clues from people living closer to nature. There has been resurgence of interest in direct relationship between man and plants all over the world during the last 50 years. The flora of India is rich. The total number of species of higher and lower plants is estimated to be about 45000(higher plants 15000). The man who live around the forest region, the forest provides complimentary source of food, medicines

and other materials. They are also engaged in seasonal collection of minor forest products like gums, regins, spices, medicinal plants etc. However, the shrinkage of forest areas and degradation of resources due to increasing population and over exploitation by the civilized world have threatened their very existence.

METHODOLOGY STUDY AREA:-

Nalanda and its adjoining area viz, Biharsharif town,Shilaw, Giryak, Pawapuri and Rajgrih.The most important trees of this area are Khair, Bahera, Kendu, Arjun, Mahua, Plash are the common flora across the forest of Bihar. An ethnobotanical survey for using different respects by peoples ofJahanabad was carried out during 2017-19. The information on plants used as traditional medicines, food, clothes, sacred views was gathered on semi structured interviews with local people, vaidyas, ojhas, nuts, involved in traditional herbal medicine practices. The medicinal property of plants was confirmed by similar uses from at least 20 in formants. Plants specimens collected from the field with help of regional and local floras.

(1) Terminalia arjuna (Arjun) Combretaceae Other Names: Kahua, Kakubha, Kahu, Indradru Terminalia arjuna commonly known as Arjun, large evergreen with a spreading crown and dropping branches tree. The tree is about 60-80feet height. Flower in panicle spikes. Fruits ovoid or ovoid –oblong 2.5-5.0cm,nearly glabrous with 5-7 hard winged angles. The name arjuna for the tree occur in the Rigveda and Athrwaveda and means “white” or “bright”, probably denoting its creamy-white flowers or the shining quality of its bark. Its Sanskrit name is Kakubha which means, beauty or fascination. It also mean “several flowers held together in a cluster. Arjuna promotes effective cardiac performance by regulating blood pressure and cholesterol level properly. In case of liver cirrhosis, it possesses diuretic and a general tonic outcome. It provides a significant cardiac protection in heart attack. Terminalia arjuna maintains normal urine flow and helps in suppressing painful micturation. The leaves and flowers have sacred value. The astrologers associate the plant with constellation swati whose presiding deity is vayu.

(2) Acacia catcheu (Kattha) Fabaceae(Mimosaceae) It is moderate sized deciduous trees It has rough bark which is dark grey brown in colors. It grows up to the height of 15 meters. The leaves are 8-10 an long. It has short carved stipulate spines and rough grayish brown bark. The flowers are pale yellow in color. They start appearing in January to march and remain in the tree for long. The young parts are dark brown to purple in Color. The tree has tough texture from outside. Khair tree is very useful in the dental problems. It gives relief in dry cough It also given the anemia leprosy, Bronchitis, pruritus, diarrhea, polyuria. Its wood contains catechin, catechutanic acid and tannin. It is used externally for ulcers. Boils and eruption of the Skin. The juice of the fresh bark is given in haemoptysis. It is used to treat painful throat and cough. The pale yellow mucilaginous

gum exudes from the tree yield one of the best substitutes for true gum Arabica. Its wood is even a food for bees. The wood extracts are used for tannin and dying khaki

(3) *Terminalia bellirica* (Bahera) COMBRETACEAE

POPULAR NAME:- Bibhitaki, Bahera, Baheda, Bedd Nut.

USED PARTS:- FRUIT

Bahera is a large deciduous tree found throughout Bihar & India in areas up to an altitude of 1000 metres. The tree takes a height of 30 metres and the bark is brownish grey in colour. The alternate, broadly elliptic leaves are clustered towards the end of the branches. They are 10 to 12 cm in length and 7 to 14 cm in breadth. The simple, solitary flowers are in auxiliary spikes, with offensive odour they blossom in the month of may. The fruits are ovoid grey drups and the kernels are sweet, but narcotic. Bahera is a rejuvenative and laxative. It proves beneficial for hairs, throat and eyes. Bahera fruit paste is applied swollen and painful Parts. Fruit pieces are baked and chewed for cough, cold, hoarseness of voice and asthma. Bahera fruits is powdered and used to dress wounds to arrest the bleeding. Bahera helps in loss of appetite, flatulence. Thirst, piles and mumps. It helps in lowering cholesterol and blood pressure. The fruit produce tannins and dyes used for leather tanning. Dyeing of clothes matting and ink.

(4) *Ficus racemosa* (Gular) Moraceae. Gular is very large conspicuous and attractive tree growing to 40 meter tall on occasion. It is deciduous but even when leafless, the tree can be easily recognized by the arrangements of branches which grow out from the trunk in regular whorls. It has horizontally spreading branches in whorls. This horizontally branching system in whorls, large size and the buttress at the base are the first seen characteristics to distinguish the species in the forest. The mature system bark is 0.5-1cm thick, pale-ashy to externally and brownish internally. The external surface is rough with transverse cracks and conical black prickles. It is used to make match stick and light plywood. The gum from older bark is used for book binding. The tender twig was used as a toothbrush to cure mumps. Root powder mixed with sucrose and milk was taken to avoid impotency. Seeds and roots were used in the treatment of serious skin diseases like leprosy. The resins were also taken orally to treat worms and diarrhoea. Root juice was consumed to treat abdominal pain and gonorrhoea. Paste of bark used externally for cattle wounds.

(5) *Alangium salvifolium* (Ankol) Cornaceae(Alangiaceae) : Ankol is a small tree with more or less spines cent branches. Leaves 7.6- 15.0cm long, narrowly oblong or vate-lanceolate, glabrous flowers few in axillary fascicles. Fruit small nearly globular, purplish-red when ripe, crowened by persistent calyx-limb. Flowering season February to June.

Used parts : Root bark, leaves, flowers, seed. Each part of Ankol tree has several medicinal values. For examples, seeds are aphrodisiac and provide strength to the body. Athletes use Ankol seeds to increase physical endurance and stamina for exercise. Ankol seed oil is beneficial in itching, eczema, and other skin diseases due to its antipruritic characteristic. The root bark is useful in fever and piles. It is also used in leprosy, syphilitic and other skin diseases. Leaves are useful as poultice in rheumatic pains. Fruits are useful in inflammation burning of the body, spermatorrhoea, gleets, acute fever and lumbago.

Ankol has also the side effect. Excess use of Ankol may produce headache, eyes becomes yellow and stomach becomes weak, burning sensation in abdomen and swollen appears. Shankhpushpi (Convulvulus pluricaulis) is antidote of Ankol toxicity.

(6) *Acacia nilotica* (Babool) Fabaceae (Mimosaceae). It is found throughout the drier regions of Bihar as well as India. It is moderate sized tree up to 10m in height with dark brown or black longitudinally fissured rough bark and reddish brown heart wood, branch lets, slender, leaves bipinnately compound, flowers golden yellow in globose heads, fruits stalked, compressed moniliform pods with constrictions between seeds. Seeds 8-12 per pod. The gum exudes from cuts in the bark in the form of rounded or ovoid tears. Flowering periods from August to September and fruits comes in January to march.

Useful Parts : Pods, Bark, Flower, Gum, Leaves, Root, Tender twig. It is widely used in fevers. It helps in clotting of blood in case of excessive bleeding and haemorrhages. It also helps in relieving from dandruff. It helps in proper digestive activities taking place in the body and prevents diarrhoea and dysentery. It also helps in curbing any kind of infection happening in the body. It has good results in diabetes. It is also helpful in urine related disorders and reproductive and genital related problems. The tender twig of this plant used as a tooth brush. It make a good protective hedge due to presence of its thorns. The wood is very durable in water seasoned and its uses in making handles of tool. Cattles eat the mature pods as fodder.

REFERENCES

1. Dwedi S. Terminalia arjuna Wight & Arn. A useful drug for cardiovascular disorders. J Ethnopharm. 2007; 114: 114-129.

2. Goel R and borthakur S K (2001) Notes on herbal recipes of bodo tribal in Kammap district of Assam ethnobotany 13,15-23.

3. Kalita D , Dutta M and Islam N F (2005) Few plants and animals based flok medicinal from Dibrugrah District Assm India J traditional knowledge 4(1) ,81 -85.

4. Malviya S. Ravat S, Kharia A, Verma M. (2011) Medicinal attribute of Acacia nilotica Linn. – A Comprehensive review on ethnopharmacological claims. Int J Pharm Life Sci. 2(6):830-837

5. P.P.Hembrom, Adivasi Aushadhi(Homeopathy) (1994) Parts I-VII Vill. Satiya Distt. Pakur, Bihar Phariya Seva Smiti.

6. R.K. Arora, (1995) "Ethnobotanical studies on plant genetic resources- national efforts and concern" Ethnobotany 7:125-136,

7. Rajiv K. Sinha (1996) Ethnobotany, Ina Shree Publishers, Jaipur.

8. P.C. Trivedi and N.K. Sharma (2004) Ethnomedicinal Plants,Pointer Publishers, Jaipur.

9. S.K. Jain (1981) Glimpses of Indian Ethnobotany ,Oxford and IBH Publishing Co.,New Delhi.

10. Saraswathi MN, Karthikeyan M, Kannan M, Rajasekar S. Terminalia belerica. Roxb.- A phytopharmacological Review. Int J Res Pharm Biomed

11. Shankar D & Majumdar B. (1998) Beyond the Biodiversity convention: The challenges facing the biocultural heritage of India's medicinal plants, In:Medicinal plants for forest conservation and health care, Title11,163.