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Ethno Medicinal Exploration of Wetland Plants of Champaran (E)

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Abstract

East champaran, a district of north Bihar is one of the less floristically studied regions of Himalayan Tarai region. It consists of various wetlands in different forms having medicinal flora mainly consisting of dicot angiosperms. This paper mainly deals with wetland medicinal plant diversity of this district and their traditional medicinal uses. Field observation and literature studied indicates that the wetlands of the district has a number of plant species of medicinal importance .Botanical name ,local name, family and medicinal uses of species are provided in this paper.

Keywords: Wetlands, Diversity, Floristically, Traditional, Ethno medicine, Tarai region.

Introduction

Wetlands are vital ecosystem which provides livelihoods for millions of people who live within around them.

Man depends on wetlands for most of his needs from time immemorial. Most of the human civilizations arose around the wetland system. Even today man depends on the wetlands for multiple purposes including medicine[1]. Medicinal plant diversity is a valuable raw material for pharmaceutical industry. There is hectic search for lesser known and less exploited potential source of drugs. Although a number of ethno medicinal terrestrial taxa have been explored from indo-Nepal Himalayan Tarai region of east and west Champaran[2-9] but ethno medicinal exploration of wetlands of Champaran(East) is remain unexplored.

E.Champaran is located between 26°15'to27°01′N latitude and 84°28′E to 85°18′E longitude having total area of 4155Sq.Km.The district E.Champaran is drained by Gandak, Burigandak, Sikrahana and its tributes .The total wetland area in this district is 12477 ha. The major wetland types are ox- bow lakes (2481 ha.), natural water logged area (1481ha.). And lakes/ponds (5116ha.)Singularly dominated the open water. Aquatic vegetation was found to be 1410 ha. In post- monsoon has shown a decrease to 274 ha in pre-monsoon.

Methodology

Wetland medicinal plants were collected through survey based filled observations. To collect the plant samples several filled trips to different parts of the districts were conducted from April 2013 to April 2014. Traditional medicine practioners and locals were interviewed to know the medicinal importance of these plants. The data collected is based on first hand information. The collected plants were processed, dried and herbarium were prepared which later on identified with the help of floras, herbaria as well as in consultation with experts.

Results and Discussion

Present studies revealed the occurrence of total 30 species under 27 genera and 19 families which are medicinally important the enumeration embodies alphabetically arranged list of species priding correct botanical name of species followed by local names, part use and uses. Plant part uses in different problem like skin problem including wounds eczema, stomach problems, gastro-intestinal problem, diarrhoea, dysentery, bone fracture, blood presser and use as a tonic in different forms such as juice, extracts, paste etc. on the other hand, water is the prime requisite for the visitation of the wetland and any alteration in the availability of water affects there presence as well as distribution. However due to anthropogenic activities, these wetlands are disappearing at an alarming rate and most of the area of the wetland has been converted to agriculture fields and residential colonies. Therefore, there is an urgent need of the time to conduct a detail survey of the wetlands of this region.

Conclusion

From this minor study 30 species of wetland plants belonging to 19 families were recorded to be used by the traditional medicine practitioners and locals of the district east Camparan. These medicinal plant remedies comparatively have certain advantages as these are easily accessible and affordable to rural community. The data reported in this survey could assists in identifying plant species which could be considered for the developing drugs and formulations for many diseases and medicinal complications like dysentery, stomachic, fiver, cardiac and nerve problems, skin disease, bone fracture, wound etc. for the people living in remote and backward areas.

Table-1
Name and medicinal uses of wetland plants

S. no.	Name and family	Local Name	P arts used	Uses
1.	*Acorus calamus* Acoraceae	Bach	Dried Rhizome	Leaf extract is used in dysentery and Stomach ache.
2.	*Alisma plantago* Alismaceae	Jalkol	Tuber	Leaf and shoot extract is used in digestion as well as stomachs ache.
3	*Alocasia macrorrhiza* Araceae	Arve	Rhizome	Rhizome paste is used in wound healing
4	*Ammania accifera* Lythraceae	Dadmari	Leaves	Leaf extract is used .in fever curing
5	*Bacopa monnieri* L.Pennell. Scrophulariaceae	Brahmni	Whole plant	Heart disease curing
6	*Bolbostylis barbata* Cyperaceae	piazi	Root	Used in dysentery
7	*Centella asiatica* L. Apiaceae	Brahmni buti	Whole plant	Used in dysentery Healing of wounds
8	Cerotophyllum demersum L. Ceratophyllaceae	Sivara	Leaf shoot	Leaf juice is used in Vomiting and is also Used as cooling agent
9	*Comellina bengalensis* Commelinaceae	Kanchara	Leaf shoot	Stem and leaf paste is used in bone fracture
10	*Cyperus rotundusL.* Cyperaceae	Motha	Rhizome	Tuber paste is used as appetiser
11	*Cyperus aromaticus* Ridl. *Cyperaceae*	Galmotha	Rhizome	Tubers are used in skin diseases.
12	*Cleome viscose Capparidace*	Hulhul	Seeds	Seed powder is Used as worm killer.
13	*Echhornia crassipes* Pontederiaceae	Water hyacinth	Whole plant	Extract is used in treatment of skin disease.in Horses.
14	*Eclipta prostrate* Asteraceae	Bangraia	Leaf shoot	Used in blackening of hair, leaf juice mixed with coconut milk is used incurring of white spot.
15	*Grangia moderspatana Asteraceae*	Mastaru	Leaves	Leaf extract is used as anti spasmodic.
16	*Heliotropicum indicum Boraginaceae*	Hathi sunda	Leaves	Leaf extract is used in insect bites.
17	*Imperata cylindrical Poaceae*	Dabh	Roots	Used in fever curing
18	*Ipomoea aquatic* Convolvulaceae	karmi	Whole plant	Leaf extract is use in Preventing bleeding
19	*Lindernia crustae L.F. muell (Scrophualriaceae)*	Kasidoria	Whole plant	Used in dysentery and worm infection
20	*Lindernia Cordifolia colsm. Merry. (scrophualriaceae)*	……..	Leaves	Used in Gonorrhoea.
21	*Ludwigia adsendens Onagraceae*	Pankhatura	leaves	Leaf juice is used in dysentery.
22	*Monochoria hastate Pontederaceae*	Bilpat	Whole plant	Plant extract is used in stomach ache.
23	*Nelumbo nucifera Gaertn. (Nelumbonaceae)*	Kamal	Seeds, Fruits, Leaves.	Seeds are used raw by children, fruits in heart diseases.
24	*Nelumbo nauchali. Burm. Syn .N. Lotus L. (Nymphyaceae)*	Bag bhat	Fruits, seeds	Flowers are eaten fried; seeds are also eaten raw by children.
25	*Oenanthe javanica Apiaceae*	Pantaroi	Whole plant	Plant extract is used in fever.
26	*Oxalis viridis L Oxalidaceae*	Bortanghas	Whole plant	Plant extract is used in stomache disorder.
27	*Poligonum glabrum* Poligonaceae	Pani mirch	Root and leaves	Leaf extract is used in pneumonia.
28	*Pistia stratiotes Araceae*	Borpuni	Whole plant	Plant extract is used in Asthma .
29	Rumex nepalensis Spreng. Poligonaceae	Tar bawra	Leaves	Leaf extract is used in whopping cough and root is curing muscular pain, swelling and healing of wounds.
30	Xanthium strumarium L. Asteraceae	Chota Datura	Seed and fruits	Seed oil is used in curing ear pain.

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