

ETHNO-MEDICINAL STUDIES ON INDIGENOUS WETLEND PLANTS OF MAU DISTRICT OF UTTAR PRADESH INDIA

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Abstracts:

The paper deals with wetland medicinal plant diversity of Mau district Uttar Pradesh. In this region, varies wetlands like Pakri- Pewa Tal, Narya Tal, Ratoi Tal and varies small water bodies. Field observation and other literature studies have indicated that Mau district has 45 medicinally important species belonging to 36 genera and 23 families of angiosperms. Some important medicinal plants are *Bacopa monnieri*, *Centella asiatica*, *Cyperus rotundus*, *Eclipta prostrata*, *Ipomoea aquatica* and *Vetiveria zizanioides* etc. Botanical names, local name, family, and medicinal uses of species are provided in this paper.

Introduction:

Mau district is situated in the south-eastern part of the state. The district is surrounded by Ghazipur district on the south, Ballia district in the east and Azamgarh district in the west and north side surrounded by Gorakhpur. Their geographical positions are 25° 56' north latitude, and 83° 33' east longitude. The area has many natural water resources including river Ghaghra, Tamsa River Pakri- Pewa Tal in Ghosi tahsil is 9.6 km long and 3.2 km broad while Narya Tal in Mohamdabad tahsil spread in 2023 ha. Ratoi Tal in Ghosi Tehsil in 2040 ha.

The whole area is gifted with a large number of plants including plants in Tal, ponds, swamps, marshes, water reservoir, and water logging area etc. The area falls with in the region of the monsoon climate and is very rich in wetlands. These wetlands are sources of important aquatic and semi- aquatic medicinal plants. More than 45 wetland plants for various herbal remedies from swamps, marshes and other wetlands of the district. The frequency of plant parts medicinally used are- whole plants, bark, fruits, leaf, juice, root etc. The plant parts used by people for different applications include infusion or decoction, chewing, pounding or extraction,

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paste, and some parts are rubbed or boiled. Several methods of application of medicine are observed which are orally administered, locally applied.

Wetland of India was explored by Biswas & Calder (1937), Subramanyam (1962), Cook (1996) and Fassett (2000). An account of Uttar Pradesh was given by Sen (1959) Sahai & Sinha A.B. (1968) Srivastava et.al. (1987), Malaya & Singh (2004), and Saini (2010). The study area has been surveyed and a brief account of wetland vegetation is enumerated with their diversity

Material and Method:

Several field trips were conducted during 2009-2011, with a view to collect information on wetland medicinal plant diversity. All information presented in this communication is based on personal observations in field and interviews with knowledgeable men and women. As far as possible the medicinal sample and their voucher plant specimens were collected in the guidance of Traditional medical practitioners. The collected plant specimens have been processed and pressed in the field and identified in the Herbarium, Birbal Sahni Institute of Palaeobotany, Lucknow, with the help of available literature.

Results and Discussion:

Present studies revealed the occurrence of 113 species under 70 genera and 41 families of angiosperms in the wetlands of Mau district. Out of these, 45 species under 36 genera and 23 families are medicinally important. The enumeration embodies alphabetically arranged list of plant species priding correct botanical names of species followed by local name part use and uses. Plant part uses in different problems like skin problems including wounds, eczema, stomach problems gastro-intestinal, diarrhea, dysentery, fracture of bone, spermatorrhoea, blood dysentery, and use as a tonic in different forms such as juice, extract, paste, etc. On the other hand water is the prime requisite of the vegetation of the wetland and any alteration in the availability of water affects their presence as well as distribution. But due to anthropogenic activities these wetlands are disappearing at a very fast rate. Most of the area of the wetland has been converted to agriculture fields and residential colonies an urgent need of the time is to conduct a detailed survey of the wetlands of this region

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Table: Medicinal Plants of Mau Wetland

S. N.	Botanical name	Local Name	Part use	Uses
1	<i>Acorus calamus</i> L. (Acoraceae)	Bach	Dried rhizome	Used in the treatment of cough, asthma of the children mostly.
2	<i>Ageratum conyzoides</i> L. (Asteraceae)		Leaf, root,	Leaf and shoot used as antiseptic on cuts and wounds and healing to check bleeding
3	<i>Alisma plantago</i> L. L.(Alismataceae)		Rhizome Tuber	Used as stomachic and as a digestive.
4	<i>Alocasia macrorrhiza</i> (L.) G.Don L G. Don syn. (Araceae)	Arve	Rhizome	Paste of rhizome is applied on abscesses to expel pus.
5	<i>Alternanthera sessilis</i> L. R. Br. Ex. DC (Amaranthaceae)		Shoot. Leaf	Tender shoot and leaf boiled or roasted and given in dysentery, used as stomachic and as a digestive.
6	<i>Ammannia accifera</i> L. (Lythraceae)	Dadmari	Leaves	Leaves acrid, rubifacient, used in fever,
7	<i>Bacopa monnieri</i> L. Pennell.(Scrophulariaceae)	Brahmi	Whole plant	Used as cardiac and nerve tonic,
8	<i>Bulbostylis barbata</i> (Rottb.) C.B. Clarke (Cyperaceae.)	Piazi, Masa	Root	Given for dysentery
9	<i>Centella asiatica</i> L. (Apiaceae)	Brahmi-buti	Whole plant	Used in chronic dysentery, poultice is applied on carbuncle, cuts, as antiseptic in wounds
10	<i>Ceratophyllum demersum</i> L. (Ceratophyllaceae)	Sivara	Leaf Shoots	Leaf juice is used to stop vomiting, as cooling agent
11	<i>Cleome viscosa</i> L. (Capparidaceae)	Hulhul	Seeds	Seed powder is used in the treatment of round worms
12	<i>Colocasia esculenta</i> L. (Araceae)	Arve	Leaf, Stalk Rhizome	Curry preparation with leaf stalks grayfish and black pepper or chilli is given to women after child birth which is a treatment for anemia.
13	<i>Commelina benghalensis</i> L. (Commelinaceae)	Kanchara	Leaf, Shoot	Paste is made from stem and leaves and used in bone fracture,

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14	<i>Commelina diffusa</i> Burm (Commelinaceae)	Kanchara	Leaf, Shoot, Latex	To stop bleeding of wounds/cuts, used as fodder.
15	<i>Cyperus aromaticus</i> (Ridl.) Matf. & Kük. (Cyperaceae)	Galmotha	Rhizomes	Tubers are medically used in skin disease.
16	<i>Cyperus rotundus</i> L (Cyperaceae)	Motha	Rhizomes	Tubers paste is used as appetizer.
17	<i>Eclipta postrata</i> L (Asteraceae)	Bangraiya	Leaf Shoot	Leaf juice mixed with coconut oil is applied to cure white spots due to burning. It is good for blackening and strengthening of the hair and for strengthening
18	<i>Echinochloa crus-galli</i> (L.) Beauv. (Poaceae)	Sanwa	Leaves	Used in diseases for spleen
19	<i>Grangea moderaspata</i> (L.)Poir. (Asteraceae)	Mustaru	Leaves	Use as anti-spasmodic.
20	<i>Heliotropium indicum</i> L. (Boraginaceae)	Hathi sunda	Leaves	Useful in skin infection, insect-bites, rheumatic pains.
21	<i>Hydroea zeyanica</i> (L.) Vahl (Hydrophylaceae)	Langali	Leaves	Used for cleaning wounds.
22	<i>Hygrophila auriculata</i> Schumach. (Hydrophylaceae)	-----	Leaves	Leaves antiseptic, used for leaning wounds.
23	<i>Hygroryza aristata</i> (Poaceae)	Jangalidal	Grains	Grains used in biliousness
24	<i>Imperata cylindrica</i> (L.) P. Beauv. (Poaceae)	Dabh, Siru	Roots	Use as emollient, haemostatic and ant febrile
25	<i>Ipomoea aquatica</i> Forsk (Convolvulaceae)	Karmi	Leaf, whole plant, root	About 30 to 50 ml of leaf extract is orally taken to control bleeding during child birth.
26	<i>Kyllinga brevifolius</i> Rottb. (Cyperaceae)	-----	Leaves	Leaves taken internally in diarrhea.
27	<i>Lindernia crustae</i> (L.) F. Muell. (Scrophulariaceae)	Kasidoria	Whole plant	Used in dysentery, & ringworm.
28	<i>Lindernia Cordifolia</i> (Colsm.) Merr. (Scrophulariaceae)		Leaves	Used for gonorrhoea

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29	<i>Lindernia crustacea</i> (L.) F.Muell. (Scrophulariaceae)		Whole plant	Used in dysentery and ringworm infections.
30	<i>Ludwigia adscendens</i> L Hara. syn. (Onagraceae)	Pani-khutura	Leaves	Paste of leaves applied locally on fresh cuts as antiseptic, juice is useful in dysentery.
31	<i>Ludwigia octavalvis</i> (Jacq.) P.H. Raven (Onagraceae)	Panijalokia	Leaf Shoots	Leaf juice is used in intestinal worm, used in dysentery and fever
32	<i>Monocharia hastata</i> L (Pontederiaceae)	Bilpat	Whole plant	Juice of <i>Vitex negundo</i> and rhizome of <i>Curcuma longa</i> in equal amount used as stomachic.
33	<i>Monocharia vaginalis</i> (Burm.f.) C.Presl ex Kunth Burm. (Pontederiaceae)	Bilpat	Whole plant	Leaf juice is used in hopping cough and milde fever.
34	<i>Nelumbo nucifera</i> . Gaertn (Nelumbonaceae)	Kamal	Seeds Fruits Leaf	Seeds are used as raw, flowers and leaves are used in religious aspect and in rituals. Flowers are eaten raw especially by the children. Fruits are used for cardiac treatment.
35	<i>Nelumbo nouchali</i> . Burm. syn. <i>N. lotus</i> L (Nymphyaceae)	Baga Bhet Red water lily	Fruits Seeds	Ripe fruits are eaten raw (seeds) especially by the young boys and girls, flowers are eaten fried.
36	<i>Nymphoides indica</i> L (Menyanthaceae)	Batubhet	Fruits, stem	Ripe fruits are taken raw specially by the children
37	<i>Oenanthe javanica</i> (BL) DC (Apiaceae)	Pan tarori	Shoot, whole plant	Plant extract is used in mild fever.
38	<i>Pistia stratiotes</i> L. (Aracea)	Bor puni	Whole plant	Juice is used in asthma and cough.
39	<i>Polygon barbatum u</i> L. (Polygonaceae)	Pani-mirch	Leaf, Shoot	Juice prescribed for tubercular swellings and in acidity.
40	<i>Polygonum glabrum</i> Willd. (Polygonaceae)	Pani-mirch	Root, leaf	Crushed leaves are taken in pneumonia.
41	<i>Polygonum hydropiper</i> L (Polygonaceae)	Pani-mirch	Shoot, root, stem, whole plant	Five tender shoots ground with 10 cloves of <i>Allium sativum</i> , 5 dried flower buds of <i>Syzygium aromaticum</i> mixed with 25 ml water and given in chest pain.

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42	<i>Rumex nepalensis</i> Spreng. (Polygonaceae)	Tar bowra	Leaf Root.	Leaf juice is used in hopping cough, Roots in wounds and muscle swelling.
43	<i>Trapa natans</i> L syn. Roxb. (Trapaceae)	Singhra	Fruits	Raw fruits are used raw in the treatment of diarrhea and dyspepsia.
44	<i>Xanthium strumarium</i> L. (Asteraceae)	Chota dhatura,	Seeds Fruits	Oil from seeds is used to cure pain.
45	<i>Vetiveria zizanoides</i> (L.) Nash. (Poaceae)	Khas	Root	Root uses as diaphoretic, refrigerant, febrifuge.

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