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RESEARCH ARTICLE

AN INVESTIGATION ON ETHNO-MEDICINAL PLANTS OF BONGAON SUBDIVISION, NORTH 24 PARAGANAS DISTRICT, WEST BENGAL, INDIA

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ABSTRACT

Medicinal plants are associated with the local heritage all over the World. These plants are used as traditional medicines for human healthcare. This practice is very common among the local peoples of Bangaon Subdivision, North 24 Paraganas District of West Bengal. Ethno-botanical study as well as taxonomic documentation of medicinal plants now a days are very important tool for the protection of intellectual property right (IPR).In this field survey, information was collected from traditional practitioners of that area and documentation was made from this. It is found that 31 plants belonging to 26 families and their herbal preparation are used as potent medicine to treat various disease and disorders of common peoples.

INTRODUCTION

West Bengal as well as North 24 Paraganas District has a rich source of plant biodiversity. Medicinal plants are extremely useful for folk communities as ethno-medicine. Local people collect the medicine from their own localities when they grow medicinal plants at their own homesteads. Due to no severe side effect and very low cost the herbal medicines have become very popular throughout the world. These are become very useful especially in treating the day to day common ailments. There should be assessment of medicinal properties even of plants growing in and around the residences, roadsides, crop fields as weeds. So they can be used easily for human benevolence. Once they are put into use, such species are conserved automatically. Thus it is encouraging to find growth of human interest in medicinal plants and their sustenance both rural and urban areas, in the forests and in sophisticated laboratories. Proper identification of the species is absolutely necessary; misidentification may lead to serious health problems including death. For this involvement of Botanists are absolutely necessary. Application of appropriate taxonomic tool for identification followed up by clinical investigations and therapeutic proving of the herbal folklore plants can handover novel medicines. Medicinal plants provide raw material for use by pharmaceutical, cosmetic, and flavor industries. The widespread use of herbal remedies and healthcare preparations from commonly herbs and shrubs also appear in ancient texts such as Vedas, Quran and Bible. According to the world Health Organization, over 80% of the world's population or 4.3 billion people relies upon such traditional plant based systems of medicine to provide them with primary health care (WHO, 1983). It may be the only solution that, this type of important plants must be documented and conserved through systematic studies before it is lost forever. For this reason, several institutions, including ICFRE, TFRI, the forest Survey of India, the Botanical Survey of India, and CIMAP, has conducted vegetation surveys revealing continuing losses of the medicinal plants resource base (Tiwari, 1996).

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MATERIALS AND METHODS

The work was based mainly on ethno-botanical field work in areas mainly inhabited by Schedule Cast people communities such as Sardar, Bagdi, Namasudra and Tribes such as Munda communities. The study areas are Panchberia, Ganganandapur, Thakurnagar, Ichapur, Gaighata areas in Bongaon Subdivision, North 24 Paraganas District of West Bengal, which is situated on 23.07°N latitude and 88.82°E longitude. The plants used for medicinal purpose were recorded through personal interview during field trips. Subsequently the medicinal values of the concerned plants were ascertained using appropriate medical terms. At first, 31 plants were observed in those areas. Some specimens were dissected and some of the collected specimens were preservation and the rest worked out following standard taxonomic methods and authentic literature (Prain.1903; Bennet 1987).

Table 1. Ethno-medicinal uses of some plants of Bongaon Subdivision, North 24 Paraganas District

S.No.	Plants Name	Family	Local Name (In Bengali)	Plant parts used	Formulation and Uses
1.	*Ocimum sanctum* Linn.	Lamiaceae	Tulsi	Leaves	Juice of leaves mixed with honey and Zinger, used for cough and cold
2.	Andrographis paniculata (Burm.f.) Wall. ex Nees	Acanthaceae	Kalmegh	Leaves	(a)Juice used for treating worm. (b)Paste of Leaves dried in sunlight to make tablets, used for various stomach problems.
3.	*Justicia adhatoda* Linn. Syn.*Adhatoda vasica* Nees	Acanthaceae	Basak	Leaves	Juice is used to treat cough and cold
4.	*Coccinia indica* Wight and Arn.	Cucurbitaceae	Telakucha	Leaves	Juice used in burning sensation of hands and legs and heads
5.	*Piper longum* Linn.	Piperaceae	Pipul	Whole plant	Cooked whole plant is taken to cure dyspepsia
6.	*Ananas comosus* (L.) Merr.	Bromeliaceae	Anaros	Leaves	Juice from basal white coloured part of Leaves only used to treat worm in Children
7.	*Nyctanthes arbortristis* Linn.	Nyctanthaceae	Seuli	Leaves	Juice is taken for stomach problems and worm
8.	*Corchorus capsularis* L.	Malvaceae	Titapat	Leaves	Cooked as vegetables and take to cure dyspepsia
9.	*Azadirachta indica* A. Jussieu	Meliaceae	Neem	Leaves	Paste of Leaves used to treat various skin diseases,worm
10.	*Paedaria foetida* Linn.	Rubiaceae	Gandhovadali	Leaves	Paste of leaves taken to cure indigation,flatulence,dyspepsia,constipation
11.	*Tagetes erecta* L.	Asteraceae	Gadha	Leaves	Leaves juice obtained by crashing in hands, used to treat cut and wound
12.	*Cynodon dactylon* (L.) Pers.	Poaceae	Durba	Leaves	Juice from leaves used to treat piles
13.	*Eclipta prostrata* (L.) Linn.	Asteraceae	Kesut	Leaves	Leave paste is used for hair growth
14.	*Curcuma longa* Linn.	Zingiberaceae	Halud	Flower	Paste used to treat white spot disease of skin
15.	*Centella asiatica* (Linn.) Urban.	Umbelliferae	Thankuni	Stem and Leaves	Paste is taken to treat constipation,flutulance,and other stomach problems
16.	*Xanthium indicum* Koeing ex Roxburgh	Asteraceae	Chorkata	Leaves	Paste is used to treat inflammation
17.	*Bacopa monniera* (Linn.) Wettstein	Scrophulariaceae	Brahmi	Leaves	Juice taken as raw or as taken as cooked vegetable to increase memory power
18.	*Chenopodium album* L.	Chinopodiaceae	Betosak	Leaves	Cooked and take to cure stomach problems, blood purifier,to increase vital power
19.	*Ipomoea aquatica* Forssk	Convolvulaceae	Kalmisak	Whole plants	Cooked as vegetable and take to increase vitality after delivery,blood purifier
20.	*Colocasia esculanta* (L.) Schott.	Araceae	Kochu	Leaves and Rhizome	Cooked and take as a blood purifier
21.	*Heliotropium indicum* L.	Boraginaceae	Hatisur	Whole plant	Juice used to treat insect bite, skin related problems
22.	*Cyperus rotundus* L.	Cyperaceae	Mutha	Leaves and Roots	Juice used to cure stomach problems, inflammation
23.	*Datura metel* L.	Solanaceae	Dhutura	Whole plants	Juice is excellent pain reliever, specially fish bites, insect bites
24.	*Oxalis corniculata* L.	Oxalidaceae	Amrulsak	Leaves and Stem	Cooked and take as blood purifier
25.	*Dioscorea alata* L.	Dioscoreaceae	Bon-alu	Tubers	Cooked and take in stomach problems, piles
26.	*Aenhydra fluctuans* Lour.	Asteraceae	Helancha	Leaves and Stems	Juice is used to cure skin diseases, liver problems
27.	*Euphorbia hirta* L.	Euphorbiaceae	Dudhe	Whole plants	Juice is used to increase lactation, cough and cold
28.	*Hygrophila auriculata* (Schumach. and Thonn.) Heine.	Acanthaceae	Kulekhara	Leaves	The water after boiling with leaves used to treat lowering blood pressure, also blood purifier
29.	*Leucas aspera* Spreng.	Lamiaceae	Drone	Whole plant	Juice is applied to insect bites, and worm problems
30.	Marsilea quadrifolia L.	Marsileaceae	Sushnisak	Whole plants	Cooked and take to treat insomnia
31.	*Glinus oppositifolius* (Linn.) A. DC.	Aizoaceae	Gimasak	Whole plant except root	Cooked and take to improve taste after sickness, general weakness

After correct identification the plant species were enumerated giving their local names, information about locality, ethno-medicinal use, formulation of use etc. The local knowledgeable informants were the primary sources who were interrogated during field work and the data have been recorded (from May, 2012-October, 2014) along with their names, address and the medicinal uses recorded from them.

RESULTS AND DISCUSSION

According to this ethno-botanical findings there are one tree, twenty-six herbs, three climbers, and one shrub are used as ethno-medicine, although a vast medicinal plants in this region is yet to be found. Once these local ethno-medical preparations are scientifically evaluated and disseminated properly, people will be better informed regarding efficacious drug treatment and improved health status (Manandhar, 1987).

Conclusion

This type of field study is extremely necessary for protecting and conserving our indigenous knowledge. Participation of all areas of biological scientists is required to discover wonder drugs for human healthcare, from our mother nature.

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